MINISTRY OF ENERGY



SECTOR MEDIUM TERM DEVELOPMENT PLAN 2018-2022

AUGUST, 2018

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LIST OF ABBREVIATIONS

AFD	African Development Bank
AFLS	Automatic Frequency Load Shedding
AG	Attorney General's Department
AMR	Automatic Meter Reading System
AOGC	Accelerated Oil and Gas Capacity Programme
APR	Annual Performance Report
BATV	BOST American Tank and Vessel
BDCs	Bulk Distribution Companies
BGS	Bui Generating Station
BOST	Bulk Oil Storage and Transportation Company
ВОТ	Build-Operate-Transfer
BPA	Bui Power Authority
BPT	BOST Petroleum Terminal
BRV	Bulk Road Vehicle
BSP	Bulk Supply Point
CBOD	Ghana Chamber of Bulk Oil Distributors
CDM	Clean Development Mechanism
CDU	Crude Distillation Unit
СМА	Construction Management Agreement
CMS	Customer Management Systems
СР	Coordinated Programme of Economic and Social Development Policies
CRM	Cylinder Recirculation Model

CSR	Corporate Social Responsibility
CSTC	Civil Service Training Centre
СТВ	Coastal Transmission Backbone
CTRC	Central Tender Review Committee
CWSA	Community Water & Sanitation Agency
DIMP	Downstream Infrastructure Master Plan
DNRP	Distribution Network Rehabilitation Phase
DWTCP	Deep Water Tano Cape Three Points
E & P	Exploration and Production
E.I	Executive Instrument
EC	Energy Commission
ECG	Electricity Company of Ghana
EDS	Eastern Distribution System
EGIS	Enterprise Geographic Information System
EIA	Environmental Impact Assessment
ЕМОР	Electicity Market Oversight Panel
EPA	Environmental Protection Agency
EPC	Enclave Power Company Ltd
ESMS	Environmental and Social Management System
FDI	Foreign Direct Investment
FEED	Front End Engineering Design
FPE	First Power Energy
FPSO	Floating Production, Storage and Offloading
FREP	Forestry Resources Enhancement Program

G&A	General Adminstration		
GAEC	Ghana Atomic Energy Commission		
GCMC	Ghana Cylinder Manufacturing Company		
GDP	Gross Domestic Product		
GEDAP	Ghana Energy Development and Access Project		
GIMPA	Ghana Institute of Management and Public Administration		
GIP	Gas Infrastructure Project		
GIPC	Ghana Investment Promotion Centre		
GJFFD	Greater Jubilee Full Field Development		
GMP	Gas Master Plan		
GNGC	Ghana National Gas Company Limited		
GNPC	Ghana National Petroleum Corporation		
GoG	Government of Ghana		
GOGIG	Ghana Oil and Gas for Inclusive Growth		
GPP	Gas Processing Plant		
GRA	Ghana Revenue Authority		
GRIDCO	Ghana Grid Company		
GSA	Gas Sale Agreement		
GSA	Ghana Standards Authority		
GSE	Ghana Stock Exchange		
GSGDA	Ghana Shared Growth and Development Agenda		
HRMD	Human Resource Management and Development		
HSSE	Health, Safety, Security and Environment		
HVDS	High Voltage Distribution System		

IAEA	International Atomic Energy Agency		
IAP	Integrated Aluminium Project		
ІСТ	Information and Communications Technology		
IGF	Internally Generated Funds		
IPP	Independent Power Producers		
IPSMP	Integrated Power Sector Master Plan		
ITLOS	International Tribunal for the Law of the Sea		
JHS	Junior High School		
JICA	Japan International Cooperation Agency		
JV	Joint Venture		
KHRC	Kintampo Health Research Centre		
KIA	Kotoka International Airport		
KNUST	Kwame Nkrumah University of Science and Technology		
KNUST KTI	Kwame Nkrumah University of Science and Technology Kikam Technical Institute		
KTI	Kikam Technical Institute		
KTI KTPP	Kikam Technical Institute Kpone Thermal Power Project		
KTI KTPP kV	Kikam Technical Institute Kpone Thermal Power Project Kilovolts		
KTI KTPP kV kWh	Kikam Technical Institute Kpone Thermal Power Project Kilovolts Kilowatt hour		
KTI KTPP kV kWh L. I	Kikam Technical Institute Kpone Thermal Power Project Kilovolts Kilowatt hour Legislative Instrument		
KTI KTPP kV kWh L. I LED	Kikam Technical Institute Kpone Thermal Power Project Kilovolts Kilowatt hour Legislative Instrument Light Emitting Diode		
KTI KTPP kV kWh L. I LED LME	Kikam Technical Institute Kpone Thermal Power Project Kilovolts Kilowatt hour Legislative Instrument Light Emitting Diode London Metal Exchange		
KTI KTPP kV kWh L. I LED LME LPG	Kikam Technical Institute Kpone Thermal Power Project Kilovolts Kilowatt hour Legislative Instrument Light Emitting Diode London Metal Exchange		
KTI KTPP kV kWh L. I LED LME LPG	Kikam Technical Institute Kpone Thermal Power Project Kilovolts Kilowatt hour Legislative Instrument Light Emitting Diode London Metal Exchange Liquefied Petroleum Gas Monitoring and Evaluation		

MELR	Ministry of Employment and Labour Relations		
MESTI	Ministry of Environment, Science, Technology and Innovation		
MiDA	Millennium Development Authority		
MoEn	Ministry of Energy		
MOF	Ministry of Finance		
MOTI	Ministry of Trade and Industry		
MTA	Mahogany, Teak and Akasa		
MTDP	Medium Term Development Plan		
MVA	Mega Volt Amp		
MW	Mega Watts		
NAG	Non Associated Gas		
NDA	Non Disclosure Agreement		
NDPC	National Development Planning Commission		
NEDCO	Northern Electricity Distribution Company		
NEDPIC	National Energy Data Processing and Information Centre		
NERP	National Emergency Response Plan		
NES	National Electrification Scheme		
NGTU	Natural Gas Transmission Utility		
NITS	National Interconnected Transmission Systems		
NMTDPF	National Medium Term Development Policy Framework		
NPA	National Petroleum Authority		
NPSIP	Network Protection System Improvement and Rehabilitation		
ОСТР	Offshore Cape Three Points		
OGCBP	Oil and Gas Capacity Building Project		

OHCS	Office of the Head of Civil Service		
OMCs	Oil Marketing Companies		
PA	Petroleum Agreement		
PC	Petroleum Commission		
PDITP	Petroleum Downstream Infrastructure Tariff Policy		
PDM	Primary Distribution Margin		
PE	Perfect Energy		
PNDCL	Provisional National Defense Council Law		
PoD	Plan of Development		
PPAs	Power Purchase Agreements		
PPBME	Policy Planning, Budgeting, Monitoring and Evaluation		
PPMS	Petroleum Products Marking Scheme		
PPSSP	Petroleum Products Strategic Stock Policy		
РРТР	Petroleum Products Trade Policy		
PRAAD	Public Records and Archives Administration Department		
PSP	Petroleum Service Providers		
PURC	Public Utility Regulatory Commission		
RE	Renewable Energy		
RLPGPP	Rural Liquefied Petroleum Gas Promotion Programme		
ROW	Right of Way		
RSIM	Research, Statistics and Information Management		
SBU	Stategic Business Unit		
SCADA	Supervisory Control and Data Acquisition		
SDGs	Sustainable Development Goals		

SHA	Shareholders Agreement
SHEP	Self-Help Electrification Project
SIPL	Sravanthi Infratech Private Limited
SME's	Small and Medium Sized Enterprises
SMTDP	Sector Medium Term Development Plan
SNEP	Strategic National Energy Plan
SREP	Substations Reliability Enhancement Project
SSI	Sustainability and Social Inclusion Policy
ТАРР	Tema-Akosombo Petroleum Pipeline
TBD	To be determined
TEN	Tweneboa, Enyera and Ntomme
TICO	Takoradi International Company
TOR	Tema Oil Refinery
TRP	Turret Remediation Project
TSC	Trasmission Service Charge
TTI	Takoradi Technical Institute
TTIP	Transatlantic Trade and Investment Partnership
UHC	Universal Health Coverage
UNFCCC	United Nations Framework Convention on Climate Change
UPPF	Unified Petroleum Price Fund
USD	US Dollars
VALCO	Volta Aluminium Company Ltd
VBP	Voltaian Basin Project
VRA	Volta River Authority

VRA-RTF	VRA Ressetlement Trust Fund	
WAGP	West African Gas Pipeline	
WAPP	West African Power Pool	
WB	World Bank	
WCTP	West Cape Three Points	
WRWL	Western Rod and Wire Ltd	
WWTU	Waste Water Treatment Unit	

EXECUTIVE SUMMARY

The Ministry of Energy is the Government of Ghana's Ministry responsible for energy policy formulation, implementation, monitoring and evaluation as well as supervision and coordination of activities of Energy Sector Agencies. The Ministry of Energy has undergone restructuring and name changes over the years. The Ministry's name was changed from Ministry of Energy to Ministry of Energy and Petroleum in 2012; split into Ministries of Petroleum and Power in November 2014 and on February 27, 2017, by Executive Instrument, (E.I. 28), the Ministries of Petroleum and Power were merged to create the current Ministry of Energy.

The under-listed are the Sixteen (16) Agencies under the Ministry;

- 1. Volta River Authority (VRA)
- 2. Bui Power Authority (BPA)
- **3.** Ghana Grid Company (**GRIDCo**)
- 4. Electricity Company of Ghana (ECG)
- 5. Northern Electricity Distribution Company (NEDCo)
- **6.** Volta Aluminium Company Ltd (VALCo)
- 7. Bulk Oil Storage and Transportation Company (BOST)
- 8. Ghana Oil Company Ltd (GOIL)
- 9. Ghana National Petroleum Corporation (GNPC)
- 10. Ghana National Gas Company Limited (GNGC)
- 11. Tema Oil Refinery (TOR)
- **12.** Energy Commission (EC)
- 13. National Petroleum Authority (NPA)
- **14.**Petroleum Commission (**PC**)
- **15.** Ghana Cylinder Manufacturing Company (**GCMC**)
- 16.VRA Resettlement Trust Fund

Vision:

Our vision is to become an energy economy with reliable supply of high quality energy services for the Ghanaian economy and for export.

Mission:

The Mission of the Ministry is to develop and sustain an efficient and financially viable Energy Sector that provides secure, safe and reliable supply of energy to meet Ghana's developmental needs in a competitive manner.

FUNCTIONS OF THE MINISTRY:

The core functions of the Ministry are to;

- Translate Government's energy development agenda and policy directions contained in
- The national energy policy into strategies and programmes;
- Ensure the reliable supply of affordable energy services to meet national demand and for export;
- Increase access to modern energy forms, especially in the rural areas;
- Ensure availability and security of future energy supplies; and
- Strengthen the capacity of energy Sector institutions in the planning and coordination of the Sector

THE PROCESS OF DEVELOPMENT OF THE SECTOR MEDIUM TERM DEVELOPMENT PLAN

This Sector Medium Term Development Plan (SMTDP) 2018-2021 was prepared based on the President's **Coordinated Programme of Economic and Social Development Policies** which is being operationalized by the National Medium Term Development Policy Framework, (NMTDPF 2018-2021), "Agenda for Jobs": Creating Prosperity and Equal Opportunity for All.

As per the guidelines issued by the National Development Planning Commission (NDPC), the Ministry of Energy constituted a Sector Medium Plan committee to undertake the underlisted activities.

- i. Ensure that gender equality/equity indicators and other cross cutting issues, such as HIV & AIDS, environment, vulnerability and exclusion are considered.
- ii. Collaborate with NDPC to determine the core national indicators.
- iii. Submit to the Commission for consideration, approval and certification, the draft MTDP including M&E.
- iv. Coordinate, monitor and evaluate the efficiency and effectiveness of the performance of the sector.
- v. Periodically visit key projects sites and report on development progress at all levels.
- vi. Demand and collate M&E data from the regions and districts for production of the sector APR_{S.}
- vii. Submit a monitoring and evaluation reports to the Commission in a prescribed form and at the appropriate interval.
- viii. Forward Sector APRs to NDPC and facilitate its dissemination to all stakeholders.

ix. Facilitate evaluation of their MTDPs and make recommendations for the review of policies and strategies.

The approach to the development of this SMTDP has been both technical and consultative through technical committees and workshop with Chief Executive Officers/ Managing Directors of the Energy Sector.

The Ministry invited a representative from all the sixteen Sector agencies to take part in the Sector Medium Term Development Plan (SMTDP) for the period 2018 to 2021. Facilitators were invited from the National Development Planning Commission (NDPC) to assist in the process of preparing this plan.

As part of the process the Ministry and its Agencies reviewed the performance under GSGDA II, 2014-2017 and identified all development issues that have implication for this current policy framework "Agenda for Jobs": Creating Prosperity and Equal Opportunity for All. The Ministry and its Agencies adopted all the development issues and their corresponding policy objectives and strategies from the current policy framework.

ORGANIZATION OF THE SECTOR MEDIUM TERM DEVELOPMENT PLAN

Chapter One covers the analysis of the performance of the Sector during the period 2014 – 2017 under the appropriate thematic areas of the GSGDA II, 2014 –2017. It highlights the vision, mission and functions, implementation of planned programmes and activities, the challenges encountered and the lessons learnt which have implications for ensuing planning cycle, 2018 –2021.

Chapter Two highlights development priorities that need to be embarked on over the 2018 - 2021 period. These priorities are based on the performance review and situational analysis of the issues in relation to MTDPF 2018 –2021

Chapter Three offers information on adoption of issues, policy objectives and strategies that will enable the Sector realise its vision and mission in relation to its functions

Chapter Four offers detailed information on the various programmes and activities identified for execution during the medium term 2018 to 2021. These identified activities are linked to their appropriate programme and sub-programme and the adopted national objectives.

Chapter Five looks at the Sector's Annual Actions Plans with budget details and implementation Strategies.

Chapter Six provides information on the Monitoring and Evaluation arrangements for implementing the SMTDP.

CHAPTER ONE

PROFILE/CURRENT SITUATION/BASELINE AND PERFORMANCE REVIEW

PROFILE OF THE MINISTRY AND ITS AGENCIES

The Ministry of Energy was established by Executive Instrument, (E.I. 28) and is responsible for energy policy formulation, implementation, monitoring and evaluation as well as supervision and coordination of activities of Energy Sector Agencies. The Ministry has undergone restructuring and name changes over the years. The Ministry's name was changed from Ministry of Energy to Ministry of Energy and Petroleum in 2012; split into Ministries of Petroleum and Power in November 2014 and on February 27, 2017, the Ministries of Petroleum and Power were merged to create the current Ministry of Energy. The Ministry has oversight responsibility of sixteen sector agencies; Power Sub-Sector, Petroleum Sub-Sector and Renewable and Alternative Energy.

Vision

To become an energy economy with reliable supply of high quality energy services for the Ghanaian economy and for export.

Mission

To develop and sustain an efficient and financially viable Energy Sector that provides secure, safe and reliable supply of energy to meet Ghana's developmental needs in a competitive manner.

FUNCTIONS OF THE MINISTRY:

The core functions of the Ministry are to;

- Translate Government's energy development agenda and policy directions contained in
- The national energy policy into strategies and programmes;
- Ensure the reliable supply of affordable energy services to meet national demand and for export;
- Increase access to modern energy forms, especially in the rural areas;
- Ensure availability and security of future energy supplies; and

• Strengthen the capacity of energy Sector institutions in the planning and coordination of the Sector

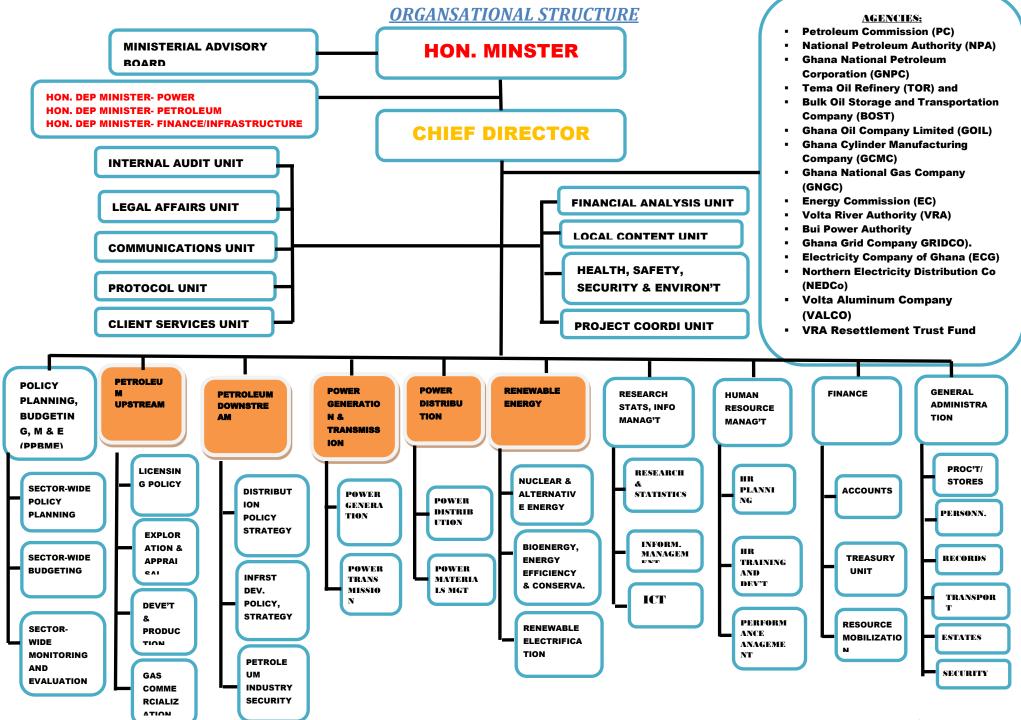
DIRECTORATES

The Ministry has all the Civil Service four-line Directorates in place, namely; General Administration (G&A), Policy Planning, Budgeting, Monitoring and Evaluation (PPBME), Human Resource Management and Development (HRMD), and Research, Statistics and Information Management.

There are four technical Directorates, namely; Power, Renewable and Alternative Energy, Petroleum and Legal at the Ministry. In addition, there is a multi-donor funded project, the Ghana Energy Development & Access Project (GEDAP) being managed by the Ministry.

HUMAN RESOURCE

The Ministry of Energy primarily consists of both administrative and technical staff of various classes. Both categories of staff are Civil Servants, with the technical staff consisting mainly of engineers. The staff strength of the Ministry as at May, 2018 is **One Hundred and Twenty-six (126)**. *The staff details and other HR related information is attached as Appendix1*



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ENERGY SECTOR AGENCIES

The Ministry has oversight responsibilities of 16 energy sector agencies with responsibilities as presented in the Table 1 below:

NO.	SECTOR AGENCIES	ESTABLISHMENT	RESPONSIBILITIES
1	Volta River Authority (VRA)	Established under Volta River Development Act, 1965 (Act 46) as amended	Power generation
2	Bui Power Authority (BPA)	Established under Bui Power Authority Act, 2007 (Act 740)	Power generation
3	Ghana Grid Company (GRIDCo)	Energy Commission Act 1997 (Act 541) and Volta River Development (Amendment) Act 2005, Act 692	Energy Transmission
4	Electricity Company of Ghana (ECG)	Established under Companies Code 1963 (Act 179)	
5	Northern Electricity Distribution Company (NEDCo)	Established under Companies Code 1963 (Act 179) Registered in 1997 as a subsidiary of VRA	Brong Ahafo, Northern, Upper East, Upper West and the
6	Ghana National Petroleum Corporation (GNPC)	Established under Ghana National Petroleum Corporation Act, 1983 (PNDCL 64)	Petroleum exploration, development, production and disposal
7	Bulk Oil Storage and Transportation Company (BOST)	Established under Companies Code 1963 (Act 179)	BulkpetroleumproductsstorageandtransportationandholderofnationalstrategicstockofPetroleumProducts
8	Tema Oil Refinery (TOR)	Established under Companies Code 1963 (Act 179)	Crude Oil Refinery
9	Ghana Cylinder Manufacturing Company (GCMC)	Established under Companies Code 1963 (Act 179)	Manufacturing of cylinders for LPG and cook stoves

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 Table 1: ENERGY SECTOR AGENCIES

SUMMARY OF HARMONIZED ISSUES

The Sector has also provided below a detailed table on the issues and challenges faced during the period of implementation. These issues have been harmonized to represent the Energy Sector at large referred to as the Harmonised Issues. Below as Table 2 is a detailed summary of the harmonized issues for the Energy Sector.

AGENCIES	AGENCIES ISSUES	HARMONISED ISSUES
Ministry of Energy	 Inadequate technical and administrative staff Inadequate capacity building Inadequate office space Inadequate budgetary allocation and untimely release of funds 	 Loss of dependable generational capacity due to non- functioning T3 Plant Non-cost reflective power tariff Inadequate Gas
Volta River Authority (VRA)	 Loss of dependable generational capacity due to non- functioning T3 Plant Non cost reflective power tariff Inadequate operational funds Inadequate Gas supply from WAGP Loss of market share to IPPs Over-aged operational vehicles 	 supply from WAGP Loss of market share to IPPs Indebtedness among Sector Agencies High transmission losses Lack of redundancy
Bui Power Authority (BPA)	• Delay and irregular payments for Power Generation	in the National Interconnected
Ghana Grid Company (GRIDCo)	 High transmission losses Lack of redundancy in the National Interconnected Transmission Systems (NITS) Vulnerable radial and single circuit lines Fragile transmission network and aged equipments Encroachment on transmission line Right of Way Underpayment by major customers Reduction in demand for power due to embedded generation High and regulated tariff regime 	 Interconnected Transmission Systems (NITS) Non-replacement of over-aged vehicles Vulnerable radial and single circuit lines Fragile transmission network and over- aged equipments Encroachment on transmission line Right of Way Underpayment by major customers
	Ministry of Energy Ministry of Energy Volta River Authority (VRA) Bui Power Authority (BPA) Ghana Grid	Ministry of EnergyInadequate administrative staff Inadequate capacity building Inadequate office space Inadequate budgetary allocation and untimely release of fundsVolta Authority (VRA)Loss of dependable generational capacity due to non- functioning T3 Plant Non cost reflective power tariff Inadequate operational funds Inadequate Gas supply from WAGP Loss of market share to IPPs Over-aged operational vehiclesBui Authority (BPA)Delay and irregular payments for Power GenerationGhana Company (GRIDCo)High transmission losses Lack of redundancy in the National Interconnected Systems (NITS) Vulnerable radial and single circuit lines Fragile transmission network and aged equipments Encroachment on transmission line Right of Way Underpayment by major customers Reduction in demand for power due to embedded generation

5	Electricity Company of Ghana (ECG)	 High capacity charges by IPPs Inadequate operational funds Illegal connections 	Reduction in grid power demand due to embedded generation
6	Northern Electricity Distribution Company (NEDCo)	 Inadequate Staff Inadequate office accommodation for area offices, district offices and Head Office Inadequate vehicles for field work Inadequate tools and equipments Over-ageing network Manual business processes Perennial MDAs and sensitive customers indebtedness Rampant power theft Large residential lifeline customers Bush fires 	 High and Regulated tariff regime (GRIDC0) Inadequate tools and equipment High capacity charges by IPPs Illegal power connections Inadequate Staff Inadequate office accommodation Inadequate vehicles
7	Ghana National Petroleum Corporation (GNPC)	 Institutional overlap of mandate of sector agencies Nonpayment of raw gas supply by GNGC Oil and Gas Production losses due to technical challenges with the FPSO Inadequate institutional capacity Inadequate office space Inadequate collaboration among sector agencies along the petroleum value chain Maritime boundary dispute 	 for field work Lack of automation Overlapping institutional mandates Oil and Gas production losses due to technical challenges with the FPSO Inadequate collaboration among sector
8	Bulk Oil Storage and Transportation Company (BOST)	 High debt portfolio Lack of funding for the strategic reserves Defective transmission infrastructure Low automation Encroachment and insecurity of assets Inadequate storage facility 	 agencies along the petroleum value chain Maritime boundary dispute Inadequate operational funds for projects and engagement of technical expertise
9	Tema Oil Refinery (TOR)	 Inadequate refinery capacity Unavailability of crude oil Inconsistent maintenance of the Plants Increased plant downtime 	 Inadequate port facilities for the discharge of

10	Ghana Cylinder Manufacturing Company (GCMC) Energy Commission	 Inadequate operational funds Inability to meet new finished products standards Inadequate cylinder production capacity Inadequate funding Limited numbers of skilled industrial personnel Prevalence of substandard, fake and expired products Inefficient use of energy Unreliable power supply Weak regulatory enforcement Low contribution of renewable energy in the power generation mix Poor attitudes towards energy utilization Limited awareness of energy conservation measures Use of inefficient, old and obsolete equipment Low adoption of energy efficiency technology 	 Petroleum Products Inadequate LPG pipeline capacity for discharge of LPG Conflicts between Host and Resettlement Communities Unavailable site plans and title deeds Inadequate refinery capacity Unavailability of crude oil Inconsistent maintenance of the Plant Inability to meet new finished product standards Increased Plant downtime Inadequate storage
12	National Petroleum Authority (NPA)	 Inadequate funding for the LPG Policy implementation Inadequate port facilities for discharge of Petroleum Products Inadequate capacity to regulate the Mid-stream Sub-sector Inadequate LPG pipeline (6") for discharge of LPG 	 facility Dumping of Petroleum Products Inadequate cylinder production capacity Limited numbers of
13	Petroleum Commission (PC)	 Inadequate funding for engagement of Technical Expertise for operations Institutional overlap of mandates among sector agencies 	 skilled industrial personnel Prevalence of substandard, fake and expired products
14	Ghana National Gas Company (GNGC)	 Non-payment of Lean Gas supply to VRA Institutional Overlap of mandates among sector agencies Lean Gas pricing 	 Inefficient use of energy Unreliable power supply

15	Ghana Oil Company Limited (GOIL)	 Inadequate collaboration among sector agencies along the petroleum value chain Indebtedness among Sector Agencies 	 Weak regulatory enforcement Low contribution of renewable energy in the power generation
16	Volta Aluminium Company (VALCO)	 Continued operation of only one Cell Line due to the national energy challenge, posed a serious threat to the survival of the Smelter. Repeated Power supply interruptions to the Smelter due to Automatic Frequency Load Shedding (AFLS). Securing JV Partnership with a potential investor Securing financial support for the upgrade of the existing cell technology Pulling out of Potential JV Partners from Projects because of the diminishing interest from their key financiers and partners. 	 power generation mix Poor attitudes towards energy utilization Limited awareness of energy conservation measures Use of inefficient, old and obsolete equipment Low adoption of energy efficiency technology Continued operation of only one Cell Line due to
17	VRA Resettlement Trust Fund	 Inadequate funding (Grants) Conflicts between the Host and the Resettlement communities Unavailable site plans and title deeds Untimely payment of Grants by VRA 	 blie cell Line due to the national energy challenge, posed a serious threat to the survival of the Smelter. Repeated Power supply interruptions to the Smelter due to Automatic Frequency Load Shedding (AFLS). Securing JV Partnership with a potential investor Securing financial support for the upgrade of the existing cell technology Pulling out of Potential JV

	Partners from
	Projects because of
	the diminishing
	interest from their
	key financiers and
	partners.

Table 2: SUMMARY OF THE HARMONISED ISSUES OF THE ENERGY SECTOR

MINISTRY OF ENERGY STAFF - AGE DISTRIBUTION

Table 3 shows the current age distribution of Staff of the Ministry of Energy. The table below indicated the number of staff between the ages of 25-30 years to 56-60 years as well as the percentage of same in relation to the Staff strength at the Ministry. The Male to Female Ratio of Staff of the Ministry can also be identified below.

C /N	AGE GROUP (NUMBER OF STAFF		TOTAL		
S/N	YEARS)	MALE	FEMALE	IUIAL	PERCENTAGE (%)	
1	25-30	6	8	14	11.11%	
2	31-35	11	2	13	10.32%	
3	36-40	16	9	25	19.84%	
4	41-45	17	8	25	19.84%	
5	46-50	16	3	19	15.08%	
6	51-55	11	5	16	12.70%	
7	56-60	11	3	14	11.11%	
8	TOTAL	88	38	126	100.00%	

Table 3: AGE DISTRIBUTION OF STAFF AT THE MOEN

MINISTRY OF ENERGY- INFRASTRUCTURE AND FACILIITIES

Information on the analysis of infrastructure and facilities of the sector are detailed below. The analysis depicts inadequate infrastructure and facilities of the sector. This is inimical to overall performance of the sector.

The Ministry of Energy (MoEn) is located within the Ministerial enclave, adjacent to the head office of the Environmental Protection Agency. The Ministry is housed within a 3-storey main office block and 1-storey building annex to the main office block. The Materials Management Unit of the Ministry, located at Kpone near Tema, operates in metal containers. The Ministry also has a Guest House located in Kumasi.

Considering the Ministry's large numerical strength, the available office accommodation is woefully inadequate. To ensure that a more conducive working environment is provided for staff of the Ministry and its stakeholders for enhanced service delivery, the Ministry considers it important to subject the existing ministerial office blocks to periodic maintenance. In addition, an architectural design is being drawn to enable the Ministry put up a new office building by the year 2020. Table 4-7 below throws more light on the state and condition of Ministry of Energy's Infrastructure, Vehicles, facilities and equipments.

NO.	DESCRIPTION	CONDITION		N	REMARKS
	OF BUILDING	GOOD	FAIR	POOR	
	MINISTRY OF E	NERGY H	EADQUA	ATERS - A	ACCRA
1	3-Storey Building		х		The office accommodation is inadequate. A number of offices are fitted with old louvre blades that would be replaced in 2018. Some electrical cables have been damaged by rodents, therefore, plans are underway to re-wire and re-paint the building in 2018. A number of fittings in the washrooms and kitchens are defective. Plans are underway to
2	1-Storey Building (ANNEX)		х		rehabilitate the washrooms this year. The offices are generally small. The large offices are fitted with inadequate number of air conditioners. As a result, many of the offices are poorly ventilated.
	MATERIALS MA	NAGEME		T IN TEN	ΙΑ
					The offices are located in containers.

MOEN'S BUILDINGS

3	Offices are located in metal containers		x	The washrooms are in a deplorable state. The Unit needs to be relocated to a building.
	GUEST HOUSE-	KUMASI		
4	1-Storey		x	The building is in dilapidated state and urgently requires rehabilitation. Equipment such as furniture, air conditioners and other machinery are obsolete, unserviceable and in a state of disrepair and should be replaced. The building is in dilapidated state and urgently requires rehabilitation. Equipment such as furniture, air conditioners and other machinery are obsolete, unserviceable and in a state of disrepair and should be replaced.

TABLE 4: MINISTRY OF ENERGY BUILDINGS

STATE OF MOEN'S EQUIPMENT AND FURNITURE

S/ N	EQUIPMENT	NUMBER REQUIRED	NUMBER AVAILABLE	VARIANCE	STATE
1	Refrigerators	65	63	2	They are in good condition
2	Air conditioners	97	97	NIL	30 are in good condition. 67 are weak.
3	Television Sets	38	35	3	34 are in a good condition. 1 is faulty.
4	Ceiling Fans	93	92	1	77 are in good condition. 15 are faulty.
5	Generators	2	1	1	The gen set is capable of powering only, the main building. An additional gen set is required for the Annex Block.
	FURNITURE AND FITTINGS				
1	Office Desks	150	150	NIL	They are in good state
2	Workstations	13	13	NIL	They are in good state

3	Swivel Chairs	285	202	83	78 are in good state.
					5 have broken
					Down.

TABLE 5: STATE OF EQUIPMENTS AND FURNITURE

CURRENT STATUS OF ICT EQUIPMENT

S/N	EQUIPMENT	NUMBER REQUIRED	NUMBER AVAILABLE	VARIANCE	STATE
1	Desktop Computer	150	138	12	120 in good condition , 18 faulty
2	Laptop Computer	60	56	4	All functioning
3	Projectors	6	4	2	All functioning
4	Printers	100	80	20	68 in good condition, 12 faulty
5	Photocopier	20	15	5	All functioning

TABLE 6: CURRENT STATE OF ICT EQUIPMENT

STATE OF TRANSPORT RESOURCES IN THE MOEN HEADQUARTERS

LOGISTIC	EXPECTED	EXISTING	VARIANCE	REMARKS
Vehicles :				1 Pick-up and 3
Motorbike	2	1	1	Motorbikes are
4x4 Station Wagon	3	37	-	broken down.
4x4 pick-ups	5	30	-	_
Haulage Trucks & Crane	0	9	-	-
Bus (15-33 seater)	1	5	-	_
Saloon Car	5	6	-	-
Total	16	88		-

TABLE 7: STATE OF TRANSPORT RESOURCES

INFRASTRUCTURE AND FACILITIES OF SECTOR AGENCIES

BUI POWER AUTHORITY

Infrastructure Facilities and Gaps identified

Table 1 below provides the details of BPA's infrastructure as of April 2018. The existing BGS Site Office and Warehouse 2 located in Bui where provided during the construction phase of the Bui Hydroelectric Project. These facilities are inadequate to support BPA's current and future operations. BPA intends to construct an office complex and a new warehouse to cater for the present and future operational needs.

Table 1: List of BPA's Infrastructure as of April, 2018

	Infrastructure	Location	Condition	Gaps Identified
1	400MW Bui Generating Statio	nBui	Good	
2	4MW Turbinette	Bui	Good	
3	RCC Gravity Dam	Bui	Good	
4	Saddle Dam 1	Bui	Good	
5	Saddle Dam 2	Bui	Good	
6	240km 161 voltage class	ss Bui-Sawla	Good	
	transmission lines	Bui-Sunyani		
		Bui-Kintampo		
		Bui-Techiman		
7	161 voltage class switchyard	Bui	Good	
8	BPA Estates	Bui	Good	
9	BPA Heights (Headquarter building)	rsAccra	Good	
10	BGS Site Office	Bui	Temporary Proje	ctRequires new
			office.	structures
11	Warehouse 1	Tema	Good	
12	Warehouse 2	Bui	Poor	Requires Upgrade

VEHICLES

BPA's Transport Fleet consisted of 56 Vehicles, 14 Specialised Vehicles (buses, trucks, forklift, ambulance, grader, backhoe, aerial bucket and self-loading truck) and 5 motorcycle as of April, 2018.

BPA has completed switchyard expansion works at the BGS to accommodate 250MWp of solar PV. In this regard BPA will spearhead the development of a 1000 acres of solar

farms across the northern part of the country. In addition, BPA will be conducting studies on the Western Rivers to assess their respective hydropower potentials.

The aforementioned activities will require some additional vehicles to augment the current fleet.

Item	Property Name & Location	Description	Condition
1.	Petroleum House, Community 1, Tema	8 - Storey Office facility	Fair state
2.	GNPC Club House, Community 3, Tema	2 Storey building with 2 squash courts and a Tennis Court.	Good state
3.	Executive Residence No. 8, Community 3, Tema	2 Storey residential property	Good state
4.	GNPC Nursery Block, Community 3, Tema	Single Storey	Good state
5.	Enpro Warehouse, Community 9 , Tema	3 Storey warehouse	Undergoing refurbishment
6.	H/No 32 A , El-wak Cantonments, Accra	2 Storey Residential property	Good state
7.	Unacourt , North Ridge, Accra	Residential Block of Flats (6 flats) and outhouses (6 No)	Good State
8.	H/No A2 & A3- Redco ,Madina, Accra	2 Storey 2 units Residential	Poor state
9.	Plot 83, Spintex	Formerly GNPC Laboratory & Data Centre. Single Storey	Undergoind redevelopment
10.	H/No 6 Gray Hill - Regimanuel Gray Estates, Spintex	Single Storey Residential	Under refurbishment

GHANA NATIONAL PETROLEUM CORPORATION

11.	Guest H/No 4 Violet Road - Regimanuel Gray Estates , Spintex	Single Storey Residential	Good state
12.	Guest H/No 12 Violet Road - Regimanuel Gray Estates , Spintex	Single Storey Residential	Good state
13.	Guest H/No. 21 Passler Link - Regimanuel Gray Estates , Spintex	Single Storey Residential	Under refurbishment
14.	PFI , South Legon (Motorway Extn)	2.11 acreCommercial Plot (No.29)	Walled vaccant site
15.	Chapel Hill Residential Units, Takoradi	6 blocks of residential units.	Approx. 80% Complete
16.	Link Hill Guest House , Sekondi	2 Storey Residential property	Good state
17.	Anaji Guest House - AF 12 , Takoradi	Single Storey 2 units Residential	Good state
18.	Beach Road Guest House , Takoardi	Guest house/ Office Complex	Under Construction
19.	GNPC Training Centre (GTC) , Airport Residential Area	2 Storey	Good State
20.	Industrial Parcel of land, Tema	6.7 Acre industrial plot	Walled vacant site

TABLE 8: GNPC PROPERTY NAME AND LOCATION

VEHICLES

Given the geographical dispersion of the Corporation's activities, GNPC owns a 103 vehicles across its locations in Accra, Takoradi and Tamale to support its activities. As shown in the table below, the majority of these vehicles are in good condition (84%), however there are 13 vehicles in fair condition and 3 in poor condition.

HeadOffice - Accra	No.	Good	Fair	Poor
Cross Country	22	19	3	
Pickup	10	7	3	

Sedan	50	43	6	1
Mini Bus	2	1		1
Coaster Bus	3	2		1
Outstation-Takoradi				
Cross Country	3	2	1	
Sedan	2	2		
Pickup	3	3		
Outstation-Tamale				
Cross Country	4	4		
Pickup	4	4		
Total	103	87	13	3

TABLE 9: GNPC STATUS OF VEHICLES

NORTHERN ELECTRICITY DISTRIBUTION COMPANY

Duilding	Quant	Perma	Rented	Co	onditior	1	Remarks
Building	ity	nent	Rented	Good	Fair	Poor	Remarks
Head Office							
NORRIP Block	1	**1	**				Building being shared with UN agencies
							Needs rehabilitation
Services Block	1						
Engineering	2						
Estate & Procurement							
		Α	rea Offices				
Sunyani Main Building	1	**	**				Building shared with GRIDCo Needs
							rehabilitation

^{**1} It does not belong to NEDCo however due to special agreement NEDCo is not renting

Sunyani Commercial	1					Needs
Building	-	•			•	rehabilitation
						Building
						shared with
Techiman	1	**	**			GRIDCo
	-			•		Needs
						rehabilitation
Tamale	1					Needs
	1	v			v	rehabilitation
Bolgantanga	1					Ok for now
Wa	1					Ok for now
		0	outstations			
Buipe	1					About 70%
Walewale	1					are rented.
Hwidiem	1					About 12%
Berekum, Salega,	15				. [are
Dormaa, Ketekrachi	15				V	containers.
						About 18%
Rented	40					are
						permanent

 TABLE 10: NEDCO'S INFRASTRUCTURE UPDATES

VEHICLES

Currently, NEDCo's operations cover about 64% of the geographical area of Ghana, which is sparsely populated. NEDCo therefore requires robust and strong vehicles to attend to faults and customers. The nature of the roads most especially in the areas where the service centres are located requires that NEDCo uses specialised pick-ups for its daily assignments which are procured at relatively higher costs. However, the vehicles currently available are woefully inadequate to serve customers. NEDCo sometimes resorts to hiring of vehicles to undertake its official assignments. Also, most of the vehicles in use, especially at the service centres are very old resulting in frequent breakdowns and high maintenance costs. This often leads to long response times to service delivery and delays in projects supervision.

Ideally, each of the service centres (district offices) require two good pick-up vehicles for its operations, however, due to the non-availability of the vehicles, at times; two service centres (district offices) are made to share one vehicle. This is frustrating and hinders productivity.

VEHICLES

Anco	Existing	Expected	Com	Co	ondition	l	Domarks
Area	No.	No.	Gap	Good	Fair	Poor	Remarks
		_		K-UPS			
Head Office	15	30	15	11	0	4	
Northern Area	15	28	13	8	0	7	
Outstations - 16	11	32	21	6	0	5	16 outstations, each requiring at least 2 pick- ups. However, only 11 outstations have 1 pick- up each.
Sunyani Area	19	28	9	12	0	7	
Outstations - 13	10	26	16	6	0	4	13 outstations, each requiring at least 2 pick- ups. However, only 10 outstations have 1 pick- up each.
Techiman Area	15	28	13	9	0	6	
Outstations - 11	10	22	12	6	0	4	11 outstations, each requiring at least 2 pick- ups. However, only 10 outstations have 1 pick- up each
Bolgatanga Area	14	28	14	10	0	5	
Outstations - 11	8	16	8	5	0	3	11 outstations, each requiring at least 2 pick- ups. However, only 8 outstations have 1 pick- up each.
Wa Area	14	28	14	6	0	8	
Outstations - 11	6	22	16	4	0	2	11 outstations, each requiring at least 2 pick- ups. However, only 6 outstations have 1 pick- up each.
Total	137	288	151	83		54	
				DING TRU	СКЅ		1
Head Office	0	2	2				
Northern Area	1	2	1	1			
Sunyani Area	1	2	1	1			
Techiman Area	1	2	1			1	
Bolgantanga Area	1	2	1	1			

Wa Area	1	2	1			1					
Total	5	12	7								
Cable Fault Locator (Van)											
Head Office	0	2	2				Procurement outstanding				
Total 0 2 2											
Total											

 TABLE 11: NEDCO'S STATUS OF VEHICLES

CHAPTER TWO

2014 - 2017 PERFORMANCE REVIEW

OVERVIEW OF THE GHANA POWER SECTOR

POWER GENERATION

Ghana's power supply sources are from hydroelectricity, thermal fuelled by crude oil, natural gas and diesel, solar and also imports from La Cote D'Ivoire. Ghana also exports power to Togo, Benin and Burkina Faso. Ongoing grid expansions would allow further exports to other neighbouring countries in the sub region.

Ghana has a vibrant power generation terrain with players from both the public and private sectors. Reforms in the Power Sector in the 1980's gradually removed barriers and created a level playing field for the participation of independent power producers in an area which hitherto had only public sector participants.

The total installed capacity for existing plants in Ghana is 4,132MW consisting of Hydro 38%, Thermal 61% and Solar less than 1%

% MIX	Power Plant	Туре	Fuel	Installed capacity (MW)	Dependable Capacity (MW)
(installed)	Akosombo GS	Hydro	Water	1020	900
	Kpong GS	Hydro	Water	160	148
Hydro: 35%	TAPCo	Thermal/CC	LCO/NG	330	300
	TICo	Thermal/SC	LCO/NG	330	320
Thermal: 64%	MRP	Thermal/SC	NG	40	35
	TT1PP	Thermal/SC	LCO/NG	110	100
Solar: <1%	TT2PP	Thermal/SC	DFO/NG	87.5	76
	SAP	Thermal/CC	NG	560	520
	CENIT	Thermal/SC	LCO/NG	110	100
% Annual	T3	Thermal/CC	LCO/NG	132	0
and the second	Navrongo	Solar	Solar	2.5	0
Increase	Bui	Hydro	Water	400	360
(installed)	Karpower	Thermal/CC	HFO/NG	225 + 225 = 450	450
9%	Trojan Power I + II	Thermal	DFO/NG	65	44
l. D	BXC Company	Solar	Solar	20	0
Peak Demand	Ameri	Thermal	NG	250	240
(Projected.)	KTPP Ph1	Thermal	NG/DFO	200	100
206MW	AKSA	Thermal	HFO/NG	250	230
2,386MW	Total			4,517	3,923

Werview of Power Generation (Existing Plants) 2017

TRANSMISSION

Transmission of power is the responsibility of the Ghana Grid Company (GRIDCo) which was established in 2006, in accordance with the Energy Commission Act, 1997 (Act 541) and the Volta River Development (Amendment) Act,2005 (Act 692) which provide for the establishment and exclusive operation of the National Interconnected Transmission System by an independent public utility and the separation of transmission functions of the Volta River Authority (VRA) from its other activities within the framework of the Power Sector Reforms.

Government through the Ministry of Energy is embarking on major projects aimed at addressing transmission challenges through progressive replacement of over aged and obsolete equipment and reinforcement of others including the construction of 161Kv and 330Kv Transmission lines, construction of new substations across the country, expansion of some existing substations and installation of capacity banks.

DISTRIBUTION

Electricity distribution in Ghana is carried out by three main distribution utilities, two stateowned and one private sector operated.

The Electricity Company of Ghana (ECG), the largest distribution company, is a limited liability company wholly owned by the government of Ghana. ECG is currently responsible for distribution and supply of electricity in six political/administrative regions in southern Ghana namely, Ashanti, Central, Eastern, Greater Accra, Volta and Western Region.

Prior to reforms in Ghana's power sector in 1980's, ECG was responsible for the distribution of power in the whole of the country. In 1987, the Northern Electricity Department (NED) of the VRA was charged with the distribution of electricity to Berong-Ahafo, Northern, Upper East and Upper West regions of Ghana and started with an initial load of about 10MW with customer population of about 12,000. The Network has grown extensively over the years mainly as a result of the various electrification programs of government. NEDCo has since 2012 been established as a subsidiary of VRA.

Enclave Power Company Ltd (EPC) is the only privately-owned electricity distribution company operating in the Tema Free Zones Enclave in the Greater Accra Region. EPC has about 50 industrial customer based. There is effort to expand private participation in distribution and enhance supply reliability through the implementation of the compact II with the Millennium Challenge Corporation (MCC) of the United States of America.

ACCESS TO ELECTRICITY

1 **1 4 3** 3 4

The National Electrification Scheme (NES) was instituted in 1989 with the policy objective of ensuring that all parts of the country are provided with reliable electricity supply by 2020. At the commencement of the NES in 1990, accessibility to electricity supply was estimated at about 20%. Ghana has since achieved an enviable record of having the highest electricity access rate in Sub-Saharan Africa. The national average access rate is currently at 83.24% and to attain universal access by 2020.

🙀 Overview of National Electricity Access Rate -2017							
	Region	Access Rate (%)	Population	Population with Access	Population without Access		
<u>2015</u>	ASHANTI	91.45	5,216,023	4,770,053	445,970		
80.51%	BRONG AHAFO	80.18	2,585,669	2,073,189	512,480		
	CENTRAL	88.84	2,097,288	1,863,231	234,057		
	EASTERN	81.29	2,991,222	2,431,564	559,658		
2016	GREATER ACCRA	96.83	4,769,188	4,618,005	151,183		
	NORTHERN	62.73	2,607,327	1,635,576	971,751		
83.24%	UPPER EAST	60.62	1,113,487	674,996	438,491		
	UPPER WEST	73.57	761,894	560,525	201,369		
	VOLTA	82.73	2,695,779	2,230,218	465,561		
2017	WESTERN	85.9	2,547,798	2,188,558	359,240		
<u>2017</u>							
84.15%	TOTAL		27,385,675	23,045,916	4,339,759		
	NATIONAL AVERAGE	Populati	84.15%				

RENEWABLE ENERGY

Ghana is well endowed with renewable energy resources which are yet to be fully exploited. These include biomass, hydropower potentials, wind potentials along the coast and high solar irradiation. Renewable energy currently contributes 1% to the energy mix. The aim is to achieve 10% renewable in the mix by 2020.

The Renewable Energy Act (Act 832), passed in 2011, seeks to create the enabling environment for attracting private sector investment in the renewable energy sector to ensure the achievement of the 10% policy target. A renewable energy master plan is currently under development.

Various strategies, programs and projects are being pursued towards achievement of the policy target. These include:

- a) Planned and structured deployment of utility scale renewable energy projects to be sourced through competitive bidding. As a first round, Government has successfully launched a competitive tender for procurement of a 20MW solar plant for supply of electricity to the Electricity Company of Ghana under an independent power producer arrangement. The Bui Power Authority has also concluded a 50MW solar plan tender process.
- b) Mainstreaming renewable energy mini-grids into the National Electrification Scheme (NES) to provide clean and sustainable electricity in mainly island and lakeside communities.
- c) Studies to update existing data on small hydro potentials.
- d) A number of sustainable energy and productive use of energy initiatives with special focus on small- scale irrigation in agriculture and food processing are also being pursued.

The National roadmap to integrate nuclear power into Ghana's energy mix has been developed and accepted by the International Atomic Energy Agency (IAEA). Basic data on plant sites have been completed, awaiting field data acquisition and feasibility studies.

OVERVIEW OF THE GHANA PETROLEUM SECTOR

The petroleum industry is typically categorized into three segments; Upstream, Midstream and Downstream. For the purposes of regulation in Ghana, the industry is divided into Upstream and downstream subsectors which cover activities from the exploration and production of petroleum through refining, storage, transportation, to the marketing of petroleum products.

PETROLEUM UPSTREAM SUB SECTOR

Upstream activities include pre-licensing, licensing, exploration and appraisal, field development and production, disposal and decommissioning. Ghana has four sedimentary basins that are considered to have high prospects for the discovery of oil and gas.

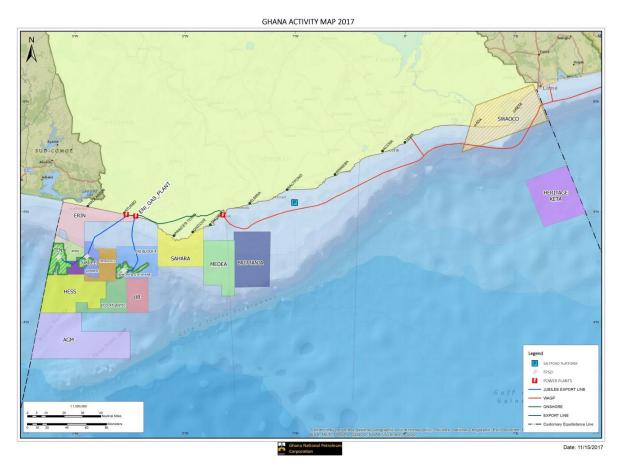
They are Western (Tano- Cape Three Points) Basin, Central (Saltpond) Basin, Eastern (Accra –Keta) Basin which are all offshore and are fairly well explored and the Voltaian Basin which is onshore and has seen little exploration.

In 2007, the jubilee Field became Ghana's first major commercial discovery. In less than a decade of First Oil from the Jubilee Field, significant strides have been made in the Upstream Subsector with twenty-five (25) discoveries made since 2007. Ghana currently has three offshore producing fields, Jubilee, Tweneboa, Enyera and Ntomme (TEN) and Sankofa and

Gye Nyame Field. However, first Gas from the Sankofa Gye Nyame Field is scheduled to come on stream in the second quarter of 2018.

The Ministry of Energy has worked closely with relevant stakeholders over the years to create an enabling legal and regulatory regime aimed at ensuring transparent, accountable and prudent management of Ghana's petroleum resources. Critical Legislation in place include: the GNPC Law 1983(PNDCL64), Income Tax Act 2015 (Act 896), Petroleum Revenue Management Act, 2011 (Act 815) as amended, Petroleum Commission Act 2011(Act 821), Local Content and Local Participation Regulations 2013, (Ll 2204), Petroleum (Exploration and Production) Act, 2016 (Act 919), Petroleum (Exploration and Production) (Measurement) Regulations,2016 (Ll 2246) and Petroleum Commission (Fee and Charges) Regulations, 2015 (Ll2221).

OFFSHORE ACTIVITY MAP



GAS COMMERCIALIZATION AND GAS INFRASTRUCTURE PROJECTS

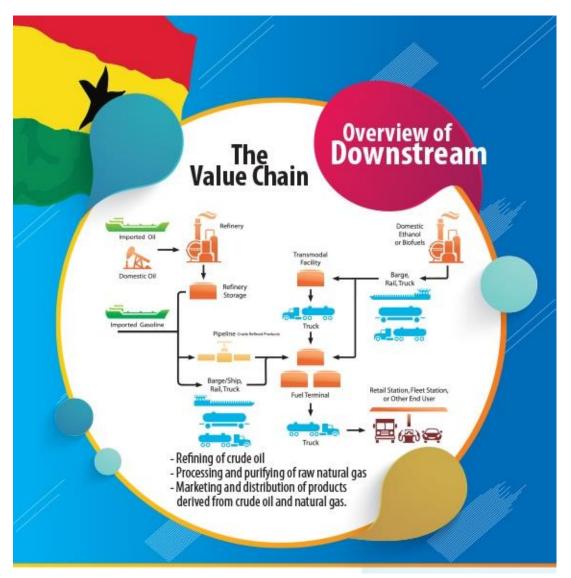
The significant indigenous associated and non-associated gas reserves discovered recently from Ghana's fields has created greater prospects for diversifying the economy through the utilization of the gas resource endowments to generate power to support the country's

industrializing efforts, as well as develop new industries including commercial scale fertilizer production and a petro-chemical industry with strong job creation implications. However inadequate infrastructure, gas monetization constraints and required expertise remain major challenges to the development of a vibrant and sustainable indigenous gas industry.

The First Phase of the Gas Infrastructure Project (GIP) consisting of and Offshore Pipeline, Onshore Pipeline and a Gas Processing Plant (GPP) with a capacity of 150mmscfd has been completed.

A Gas Master Plan (GMP) has been developed to provide broad guidance on the prioritization and utilization of gas in power and non-power sectors, gas infrastructure development planning and gas pricing. It is expected that the Gas Master Plan will provide the enabling environment for increased investment in Ghana's gas sector.

PETROLEUM DOWNSTREAM SUB SECTOR



The Petroleum Downstream subsector in Ghana is permanently predominantly characterized by the importation of crude oil and finished products, refining, storage, Transportation (road, rail, lake and ocean), marketing and sale of petroleum products.

The downstream market has been deregulated. As a result, set targets for the Deregulation Policy have been achieved as follows:

- Removal of restrictions on the establishment and operation of Petroleum infrastructural facilities;
- Removal of restrictions on the importation of crude oil and finished petroleum products; and
- Petroleum Product Price Liberalization.

The Downstream Sub sector, being a vibrant industry, continues to develop, expand and operate based on best international practices. The ministry will consolidate the gains made in price deregulation by commencing deregulation of transportation and ensure profitability and efficiency in the Downstream.

The importation, supply and distribution of petroleum products have more room for efficiency. As Ghana positions itself to be a petroleum hub in the sub region, increased investment in various forms of infrastructure will be acquired and encouraged to enable the country significantly improve efficiency in providing petroleum products across the sub region. Regulations will also be put in place to create the enabling environment for market forces to compete and create the sub regional hub for petroleum products

SUMMARY OF 2014-2017 PERFORMANCE UNDER GSGDA II (2014-2017)

The Medium term Strategies under GSGDA II (2014-2017) for the development of the Energy, Oil & Gas industry were aimed at achieving the following Objectives;

Petroleum

- 1. Create an enabling environment for sustained exploration, development and production of Ghana's oil and gas endowment.
- 2. Ensure accelerated and integrated development of the oil and gas industry
- 3. Accelerate exploration and development of petroleum resources
- 4. Maximize local content and participation in all aspects of the petroleum industry value chain
- 5. Ensure adequate availability of petroleum products in the Ghanaian market
- 6. Ensure the development of the needed institutional and human resource capacity for the petroleum sector
- 7. Ensure transparency in the management of petroleum resources
- 8. Ensure security for oil and gas installations and operations in the upstream, midstream and downstream
- 9. Mainstream gender into the petroleum sector

Power

- 1. Provide adequate, reliable and affordable energy to meet the national needs and for export
- 2. Increase the proportion of renewable energy (solar, biomass, wind, small and mini-hydro and waste-to-energy) in the national energy supply mix. Promote the conversion of waste to energy
- 3. Explore the options for nuclear, geo-thermal and tidal waves energy
- 4. Ensure efficient utilisation of energy
- 5. Ensure that energy is produced and utilised in an environmentally –sound manner
- 6. Mainstream gender into decision-making in the energy sector
- 7. Build transparent and effective regulatory environment
- 8. Encourage public and private sector investments in the energy sector
- 9. Build adequate local human resource capacity for effective management of the energy sector

PETROLEUM SECTOR

Restructuring of Tema Oil Refinery

As part of a restructuring exercise aimed at achieving efficiency in the operations at the Tema Oil Refinery (TOR), Government in 2015 directed the Managing Director of the Bulk Oil Storage and Transportation Company (BOST) to also take charge of TOR as the Acting Managing Director. His appointment saw a turnaround in the fortunes of the company, which resumed production in March 2016.

Petroleum Agreements

During the period under review, ELEVEN (11) Petroleum Agreements were ratified by Parliament as shown in the table below:

No	NAME OF OPERATOR	BLOCK	DATE OF	EXPLORATION
			AWARD	PERIOD (YRS)
1.	Camac Energy (Now Erin	Expanded Shallow Water	27-03-2014	6
	Energy)	Tano		
2.	Amni Int. Petroleum	Central Tano	27-03-2014	6
3.	Sahara Energy Fields	Shallow Water Cape Three	18-07-2014	4 3⁄4
		Points		
4.	Eco Atlantic Oil & Gas Gh	Deep-water Cape Three	18-07-2014	6 ¹ / ₂
		Points West Offshore Block		
5.	UB Resources	Offshore Cape Three Points	18-07-2014	7
6.	Heritage E&P Gh	1.0ffshore Southwest Tano		6
		2. East Keta	17-07-2014	
7.	Brittania U	South West Saltpond Block	17/07/2014	7
8.	Swiss Africa	Onshore/Offshore Keta	11-03-2016	6
		Block		

Table 1.1 Petroleum Agreements Awarded From 2014 to 2017

9.	Eni	Cape Three Points Block 4	11-03-2016	6
10.	Springfield	West Cape Three Points	11-03-2016	51/2
		Block 2		

TEN Project

The TEN Field officially became Ghana's second largest producing field following the achievement of first oil on 17th of August, 2016 from the En02-P well. The maiden crude oil lifting from the field occurred on the 13th of October 2016. The field comprises the Tweneboa, Enyenra and Ntomme (TEN) discoveries and has estimated recoverable reserves of 245 million barrels of oil and 365 Bcf of gas.

The development concept for TEN will tie the four discoveries into an integrated field development program. Development concept involves drilling of wells, construction of an FPSO and production via subsea infrastructure (flow lines, risers, and manifolds, Christmas trees, umbilicals etc). Production is gathered through the subsea manifolds and conveyed by subsea flowlines to the FPSO. Associated & Non-associated gas export evacuated via subsea pipelines to an onshore Gas plant for power generation.

Continuous development on the TEN field was delayed by the landmark maritime boundary dispute with neighbouring Ivory Coast as the entire TEN field fell entirely within the erstwhile disputed region. The interim ITLOS ruling had prevented further drilling activities in the disputed area, however production from already completed wells have ramped up gradually. Production from the field increased from 38,810 barrels of oil in 2016 to over 55,000 barrels of oil in 2017, still below FPSO capacity of 80,000 barrels of oil per day.

With the favourable ruling from the ITLOS, the TEN partners re-commenced a multi-year incremental drilling programme in 2017. This will see production from the field increase and sustained at near facility capacity.

Sankofa – Gye Nyame Project

The Sankofa – Gye Nyame is Ghana's third major producing asset, after Jubilee and TEN. The Sankofa – Gye Nyame is an integrated oil and gas field made up of several discoveries located within the Offshore Cape Three Points (OCTP) contract area and which are estimated to hold 116 mmbbls of oil and 1,110 Bcf of gas.

The project has two phases with oil producers being drilled prior to the development of nonassociated gas. The fields will be produced via sub-sea systems located on the sea bed connected by flowlines and risers to a Floating Production, Storage and Offloading (FPSO) vessel. The Non Associated Gas (NAG) will be processed and transported via a dedicated pipeline of 63 km to the gas Onshore Receiving Facilities located in Sanzule and will be compressed and injected into the Western Corridor Gas Pipeline for transportation to industrial customers in Ghana.

First Oil was achieved on 20th May 2017. This milestone was achieved three months ahead of schedule and within budget, in two and half months after the Plan of Development (PoD) was approved by the Minister. The field produced a total of 5.12 million barrels of oil in 2017 with an average daily oil production of 22,741 barrels.

The Sankofa Gas Project aims to develop offshore natural gas with an estimated supply of up to 180 mmscfd over 13 years of plateau period, to fuel up to 1,000MW of domestic power generation. First gas from the field is expected in the second quarter of 2018. GNPC as the national gas aggregator is ensuring the readiness of necessary infrastructure and financing arrangements for the delivery and commercialization of the gas from the OCTP field.

Deep Water Tano Cape Three Points (DWTCP)

The Deepwater Tano/Cape Three Points block resource base is made up of seven (7) discoveries for which appraisal commenced in 2014. Three (3) appraisal wells were drilled in that year and all successfully encountered hydrocarbons.

The focus of activities in the Deepwater Tano/Cape Three Points block has been on predevelopment activities. This stage of activities was extended pending the determination of the maritime boundary dispute by ITLOS. While this affected the operator's appraisal programme, GNPC has sought to leverage the additional time to work closely with the Operator to optimize planned activities on the block.

Following the ruling by ITLOS in favour of Ghana, the project can now move into the predevelopment phase with a view to achieving first oil production by 2022. At present, the project partners are working towards the submission of a Plan of Development to the Minister of Energy for approval.

The Corporation holds both carried, participation and commercial stakes in this block.

Voltaian Basin Project (VBP)

The Voltaian Basin is a huge inland sedimentary basin constituting almost 40% of Ghana's land mass – an area of approximately 103,600 square kilometres. Although it is the largest sedimentary basin in Ghana, it is the least explored with little or no exploration database.

The Voltaian Basin Project is a flagship project operated by GNPC through which the Corporation will exert significant impact on the Ghanaian petroleum industry. The vision of the project is to make the Voltaian Basin a choice provider of petroleum resources to meet the growing demand In 2017, the Corporation refocused its Accelerated Growth Strategy to place added focus on the Voltaian Basin Project. The strategic adjustments repositioned the Voltaian Basin Project as the main strategic vehicle for achieving operatorship.

The flagship Voltaian Basin Project is well aligned to serving GNPC's Accelerated growth strategy through building operational capabilities and obtaining future cash flows to support the Corporation's activities.

Following the signing of the seismic acquisition and processing contract in 2017, the VBP has advanced into the data acquisition and processing phase. The project will acquire and process seismic, geochemical and satellite data to identify potential areas of hydrocarbon presence in the basin.

In 2018, GNPC plans to complete an additional 26% of work required to find hydrocarbon reserves in the onshore basin. In the medium to long-term, the Corporation will continue to dedicate considerable resources to ensuring the accelerated execution of its flagship project and main operatorship vehicle.

Jubilee Project

Ghana's first commercial oil discovery and the largest producing asset to date. Field development was fast-tracked over a three-year period to achieve first oil production in the fourth quarter of 2010.

Phase 1

- Drilling and completion campaign completed
- All subsea infrastructure installed, commissioned and hooked up to FPSO
- First oil achieved on 28th November, 2010

Phase 1A

- Completed Phase 1A subsea infrastructure expansion
- Drilling campaign concluded
- Hooked up of subsea infrastructure to FPSO Atta Mills

Greater Jubilee Full Field Development

- Plan of development approved by Minister for Energy
- GJFFD is planned for expansion of Jubilee and integrated development of WCTP discoveries i.e. Mahogany, Teak

The latest planned phase of the project involves incorporating the surrounding Mahogany, Teak and Akasa (MTA) discoveries into the overall Jubilee development activity. These discoveries otherwise have been declared sub-commercial if developed on a stand-alone basis and will help maintain Jubilee production levels over a longer period of time.

Until 2015, the Jubilee field saw a steady increase in annual production quantities, with the Jubilee Partners managing operational and technical challenges through effective collaboration. The greater Jubilee Full Field Development (GJFFD) Plan gas sale agreement (GSA) negotiations have commenced following the GJFFD PoD approval.

A Greater Jubilee Full Field Plan of Development was suspended as the Partners implemented an interim spread mooring project to resolve the damage. The implementation of this solution was ongoing as at the end of the year achieving an overall project progress of 47.4%.

GNPC will continue to work effectively with its partners to install a permanent solution to the turret bearing damage on the FPSO.

Following the approval of the Greater Jubilee Full Field Plan of Development, the Contractor party will commence the execution of the Plan by developing and integrating allied discoveries from Teak and Mahogany fields.

Gas Master Plan

A Gas Master Plan (GMP) to provide broad guidance on the prioritization and utilization of gas in power and non-power sectors, gas infrastructure development planning and gas pricing policy was approved by Cabinet in 2016.

Gas Infrastructure Project

The First Phase of the Gas Infrastructure Project (GIP) consisting of an Offshore Pipeline, Onshore Pipeline and a Gas Processing Plant (GPP) with a capacity of 150mmscfd was completed in November 2014. Commercial operation of the plant commenced on April 1, 2015 and was officially commissioned by His Excellency, the President, on September 16, 2015.

Passage of Petroleum (Exploration and Production) Act 2016, Act 919

Extensive consultations with key stakeholders for the review of the Petroleum (Exploration & Production) Bill culminated in the passage by Parliament into law of the Petroleum (Exploration & Production) Act 2016, Act 919 on August 4, 2016.

Petroleum Fees and Charges Regulations

To enable the Petroleum Commission wean itself off government subvention and generate much needed funds, the Petroleum Commission (Fees and Charges) Regulations, 2015 (L. I. 2221) was passed on 3rd December 2015.

Rural LPG Promotion Programme

As part of government's efforts to curb deforestation and also to promote healthier cooking options in semi-urban and rural areas, the erstwhile Ministry of Energy and the National Petroleum Authority initiated the "**Rural LPG Promotion Programme**" with the objective of encouraging the switch from usage of charcoal and wood fuel as source of cooking fuel to LPG usage.

The Ministry has distributed 145, 500 cylinders, cook stoves and related accessories under this programme from inception to end 2017 **(From GSGDA 1 through to GSGDA 11).**

Liberalization of Petroleum Product Prices

To address the issue of government's indebtedness to the Bulk Distribution Companies (BDCs) resulting from Under Recoveries, Forex Loss and periodic shortages in the market, Cabinet approved the Petroleum Price Liberalization Policy in June, 2015. The Policy which became operational in July 2015 resulted in sustained reduction in petroleum product prices due to intense competition among the Oil Marketing Companies (OMCs).

Development of National LPG Promotion Policy

The Ministry developed a draft policy on LPG which seeks to consolidate activities in the LPG value chain with the view to reducing HSSE risks exposure among others.

The National LPG Promotion Policy was approved by Cabinet in 2017.

Reduction of Sulphur Content in Diesel and Petrol

The Ministry facilitated a review of the national Standards for diesel and petrol from 3000ppm and 1500ppm respectively to 50ppm in line with Euro specifications, and also in line with international and sub-regional commitments.

The new Standards have been gazetted and implementation of 50ppm started in August 2017.

REVISION OF ZONALIZATION POLICY

In line with the policy objective of ensuring adequate availability of petroleum products in the Ghanaian market the Zonalization Policy was reviewed to ensure efficient distribution of Petroleum products nationwide. The Zonalization Policy is designed to ensure effective nationwide availability of petroleum products at uniform prices.

OIL AND GAS CAPACITY BUILDING PROJECT (ended on December, 2017)

Under Oil and Gas Capacity Building Project (OGCBP) the following projects were executed during the period under review;

2015

- Supply of various laboratory equipments for KNUST, Regional Maritime University, Takoradi Technical Institute, Kikam Technical Institute and EPA office at Sekondi
- Renovation of Data Centre and ICT equipment for the Petroleum Commission and
- Office Block extension for the Ministry of Petroleum.

2016

- Procurement of laboratory equipment for Takoradi Technical Institute (TTI) and Kikam Technical Institute (KTI).
- Commissioning of the Mechanical Laboratory at Kikam Technical institute

Local Content in Petroleum Upstream

The year 2016 witnessed aggressive implementation of the Petroleum Local Content and Local Participation Regulations, 2013 L.I. 2204. This included stakeholder engagements, well focused capacity development programmes for indigenous Ghanaian companies and the development of templates, reporting procedures, and general guidelines for effective monitoring of local content activities.

Since the passage of the L.I. 2204, the industry has seen an increase in capital investments, local sourcing and subcontracting.

POWER SUB SECTOR

In fulfilment of the Ministry's mandate to ensure the provision of secure, safe, and reliable supply of power to meet Ghana's developmental needs, the Ministry oversaw the implementation of the following power projects in the Power Sector. (2014-2017)

Power Generation and transmission

Expansion in generation capacity

In the year under reference, significant progress was made towards the expansion in power generation capacity to address the power supply challenges. The following projects were completed:

- 110MW TICO Expansion Project at Aboadze
- 225MW Karpower Project at Tema
- 25MW Trojan Project at Tema

VRA TT2PP (38 MW) expansion project

The Volta River Authority (VRA) expanded the existing Siemens plant (49.5MW) by the addition of 38MW. The project was completed by end first quarter, 2016.

Execution of 2x225MW karPowership Project

The objective of the project was to increase power generation capacity by 5,000MW by 2020

The existing 225MW Karpowership was replaced by a 450MW Karpowership in 2016. This replacement resulted in an addition of 225MW capacity.

TRANSMISSION IMPROVEMENT PROJECT

Pursuant to Government's policy to create a non-congested transmission system, the Substations Reliability Enhancement Project (SREP) was commenced to improve operational reliability, security and control among others.

- The Sunyani Mim 161kV line Upgrade was completed in February 2014
- The Kumasi 2nd Bulk Supply Point (BSP) has been completed.
- Wa and Tumu sub-stations were completed in 2015
- The Prestea-Bogosu 161kV line was completed in 2015
- Kpando-Kadjebi 161kV Transmission Line (completed) :

The purpose of this project was to construct 70km of 161kV transmission line to be initially operated at 69kV from Kpandu to Kedjebi.

Distribution Improvement Project

(i) Electricity Company of Ghana (2015)

The following summarizes the achievements of the Electricity Company in 2015.

- One hundred and twenty (120) Medium/Low Voltage System Improvement Projects were completed.
- Seven new primary substations, two bulk supply points, upgrade works at twelve existing primary substation, 50cct-km 33kV overhead network and 20km 33kV Underground cable were complete.
- Completed the electrification and servicing of customers of Prestea Township,
- Completed the reconstruction of networks in three major markets in Accra and Kumasi.
- Completed the Secondary Automation Project Phases 3 & 4 projects.
- Construction of a 2 x 20MVA 33/11kV primary substation at Dansoman in Accra was completed and in circuit.
- The Construction of 161/33kV Bulk Supply Point at Tema (Smetlter II) was completed. Technical commissioning occurred on 27th July, 2016.
- The Replacement of obsolete 33kV switchgear at Station 'H' in Accra was completed.
- Reconstructed networks in major markets in Tema (C2 Central) and Takoradi (Central)

These achievements have led to improvements in the quality of network, system reliability, operational flexibility in the networks, customer-end voltages among others. They have also impacted positively on revenue collection and loss reduction efforts.

(ii) Northern Electricity Distribution Company (NEDCo)

Highlights

NO.	PROJECTS/PROGRAMMES	POLICY OBJECTIVE	TARGET YEAR	YEAR COMPLETED OR ACHIEVED	REMARKS
1	Distribution Network Rehabilitation Phase I (DNRP I)	Improve quality and reliable power supply	2014	2015	Project delayed due to financial constraints
2	Construction of Buipe Substation	Increase capacity and	2014	2015	Project delayed due

		access to electricity			to financial constraints
3	Construction of JICA Sponsored substations Nyankpala and Kotokrom	Increase capacity and access to electricity	2015	2015	Project completed on schedule due to availability of funding
4	Network Protection System Improvement & Rehabilitation Phase I (NPSIP I) – Techiman and Sunyani Areas	Improve quality and reliable power supply	2015	2017	Project delayed due to financial constraints About 5% works still outstanding
5	Network Protection System Improvement & Rehabilitation Phase II (NPSIP II) – Wa, Bolgatanga and Tamale Areas	Improve quality and reliable power supply	2015	Project still on-going	Project delayed due to financial constraints About 70% of works still outstanding
6	Supply of 45,000N0. prepaid meters (Phase 1)	Improve revenue collection and reduce commercial losses	2014	2014	Project completed on schedule due to availability of funding
7	Supply of 90,000N0. prepaid meters (Phase 2)	Improve revenue collection and reduce commercial losses	2015	2015	Project completed on schedule due to availability of funding
8	eGIS Mapping of Network Assets and Customers in Tamale and Sunyani.	Improve Asset Management	2015	2015	Project completed on schedule due to availability of funding
9	Supply of 25,000N0. prepaid meters (Phase 3)	Improve revenue collection and reduce commercial losses	2016	2016	Project completed on schedule due to availability of funding

		Improve			Project
	Supply of 125,000N0. prepaid	revenue			completed on
10	meters (Phase 4)	collection and	2017	2017	schedule due
10	meters (riase 4)	reduce	2017	2017	to availability
		commercial			of funding
		losses			
		Improve			Project
	Supply of 20,000N0. credit meters	revenue			completed on
11	(Phase 5)	collection and	2017	2015	schedule due
11	(r liase 5)	reduce	2017	2017	to availability
		commercial			of funding
		losses			

Renewable energy

Highlights as at end 2017:

POLICY INITIATIVE	RATIONAL	TARGETS	TIMELINE START	COMPLETION	STATUS AS @ END 2017
Renewable	Diversify	Increase	2014	2020	2.1% of RE in the
and	the	renewable			national electricity
alternative	national	energy			mix as at end 2017
energy	energy mix	penetration			
		by 10%			
		Replace	2013	2030	140,000 of solar
		kerosene			lanterns distributed
		lanterns with			in off grid
		solar lanterns			comminutes as at end
					2017
		Include	2008	2027	1. Ghana nuclear
		nuclear			power
		energy into			programme
		the national			organization
		energy mix			established

		2.	Nuclear	
			regulator	ry
			authority	7
			establish	ed
		3.	Mous	and
			agreeme	nt on
			cooperat	ion
			signed	with
			developi	ng
			partners	

Energy Commission

Power Sector Regulation (2015)

The Energy Commission led the process of undertaking a competitive Tender for the procurement of an Independent Power Producer (IPP) to build a 20MW solar plant for supply of electricity to the Electricity Company of Ghana.

Energy Efficiency

- The Energy Commission led an initiative to enable MDAs and MMDAs tackle energy use within their offices to ensure that wastage of electricity can be limited.
- More than 8,000 inefficient old refrigerators replaced with new and efficient ones under the refrigerator rebate scheme.
- Launched the energy efficiency awareness campaign in Accra.
- Organised a nationwide awareness creation and training on energy efficiency and energy management for MDAs and MMDAs.
- Developed Energy Efficiency Standards for LPG cook stoves.
- Facilitated the development of Energy Efficiency Standards and regulations for commercial buildings with National Standards Authority

Enforcement and Inspection

- Developed draft inspection guidelines for natural gas pipelines
- Reviewed inspection reports on repaired/replaced pipe segment on the construction of the 70km 20inch pipeline from Essima to Prestea to ensure compliance with regulations.
- Seized and destroyed 3,525 used refrigerating appliances and air-conditioners from the Takoradi and Tema ports

- Inspected 886 containers of household refrigerating appliance at Tema port of which 40 were found to be non-compliant.
- Inspected 196 containers of air-conditioners at Tema port of which 40 were found to be non-compliant
- Enforced the re-export of 15 containers of substandard refrigerating appliances and 4 containers of substandard air-conditioners out of the country.
- Conducted inspection visits to the sites of new applicants; 10 solar and 4 charcoal exporters to ensure compliance with the licensing framework.
- Conducted 6 compliance monitoring visits on charcoal export production sites for renewals.
- Facilitated the prosecution of illegal charcoal exporters in the law courts.
- Audited 6 worst performing districts of ECG (based on ECG's weekly operational reports).
- Conducted inspections on frequency and duration of electricity outages in Bortianor and Dansoman districts in the Accra West district.

GEDAP 1 &2 - 2016

• Mini/micro-grid Electrification – Installation works of four (4) renewable energybased mini-grid systems were completed by the Consortium, led by Trama Tecno Ambiental of Spain. Testing and commissioning activities jointly undertaken with VRA, ECG and NEDCo, have been completed.

GEDAP 1 -Implementation of Pilot Strategic Business Unit (SBU) for ECG-Ashanti-Strategic Business Unit (SBU). As at 1st January, 2016, the following activities had been undertaken;

- Diagnostic Studies completed;
- Strategic Business Plan completed and approved by ECG Board;
- SBU Director appointed;

By the third quarter,

- ECG completed assignment of all Managers and Officers in Ashanti East and West to their new SBU roles.
- Procurement of critical requirements (e.g. operational tools, software analysis tools, office equipment, vehicles) in progress

By the end 2016,

Commercial & Technical Capacity Upgrade.

The objective was to improve revenue management cycle, service quality and customer service. As at 1st January, 2016, Construction has been completed for all four

(4) District Offices and seven (7) Customer Service Centers; Progress of works for remaining eight (8) Customer Service Centres have also been concluded.

2. Construction of Second Bulk Supply at Kumasi and 2 No. primary substations in Ashanti.

The object was to increase capacity and reliability of supply systems in Ashanti Region. As at 1st January, 2016,

- VRA side All works have been completed, commissioned, provisionally taken over by GRIDCo, and partially loaded since July 18, 2014;
- ECG side All works have been completed, commissioned, and partially loaded since July 18, 2014
- Construction of Fawode and Achiase primary stations in Ashanti Region have also been completed.
- 3. Supply and Installation Customer Management System (CMS) under GEDAP 2 As at 1st January, 2016, the following activities had been undertaken;
 - Completed supply and installation of CMS, and training of frontline staff
 - Completed change management Workshops for CMS;
 - Completed end-user training for ECG districts
 - CMS Energy Balance Module deployed

No	2014 PROJECT	STAGE OF COMPLETION AS AT DECEMBER, 2014	REMARKS
1	Construction of Clinic at Tongor-	Completed and	Yet to be furnished with
2	Kaira	inspected	hospital equipment
2	Rehabilitation of Existing 6-Unit Classroom Block (VRA D/A Primary School) at Aveme Danyigba	Completed and inspected	Handed over to community
3	Rehabilitation of Existing 6- Unit Classroom Block and Kindergarten (D/A JHS and D/A KG) at Tapa Amanfrom	Completed and inspected	Handed over to community
4	Construction of 5- Unit Nurse's Accommodation at Asukawkaw.	Completed and inspected	Handed over to community
5	Construction of 6-Unit Teacher's Accommodation at Pai- Katanga	Completed and inspected	Handed over to community
6	Construction of 6- Unit Teacher's Accommodation at Gulubi	Completed and inspected	Handed over to community
7	Construction of 3-Unit Classroom Block, Office and Store (Model School) at Yeji	Completed and inspected	Handed over to community
8	Construction of 3 –Unit Classroom Block, Office and Store (Resettlements R. C JHS) at Prang	Completed and inspected	Handed over to community
9	Rehabilitation of Existing 2No. 3- Unit classroom Block at Kajaji	Completed and inspected	Handed over to community
10	Construction of 3-Unit Classroom Block, Office and Store (Resettlement D/A JHS) at Fesi	Completed and inspected	Handed over to community
11	Rehabilitation of Existing 2No. 6- Unit Classroom Blocks (R.C primary and D/A Primary at Kete Krachi	Completed and inspected	Handed over to community

SUMMARY OF ACHIEVEMENTS (VRA RESETTLEMENT TRUST FUND)

NO	2015 PROJECTS	RESETTLEM ENT TOWNSHIP	STAGE OF COMPLETION AS AT DECEMBER, 2015	REMARKS
1	1. Provision of burglar- proof protection at to winders/doors of staff common room and a store for new 3-unit classroom block	Fesi	Completed and inspected	Handed over to community
2	2. Provision of Block work support for kitchen sinks for new 6- unit Teachers' Quarters	Pai Kantanga	Completed and inspected	Handed over to community
3	3. Provision of burglar- proof protection at to winders/doors of staff common room and a store for new 3-unit classroom block	Yeji	Completed and inspected	Handed over to community
4	4. Provision of burglar- proof protection at to winders/doors of staff common room and a store for new 3-unit classroom block	Prang Resettlement	Completed and inspected	Handed over to community
5	Construction of culvert over a drain in front of newly constructed clinic	Tongor Kaira	Completed and inspected	Handed over to community
6	Provision of Block work support for kitchen sinks for new 6- unit Nurses' Quarters	Asukawkaw	Completed and inspected	Handed over to community
7	Rehabilitation of 2 No. 20-seater Vault Chamber Latrine	Grubi	Completed and inspected	Handed over to community
8	Drilling of borehole	Kpandai	Completed and inspected	Handed over to community
9	9. Extension of electricity to two (2) 6- unit Classroom blocks at Kete Krachi	Kete Krachi	Completed and inspected	Handed over to community

10	10. Extension of electricity to a 3-unit Classroom Block	Fesi	Completed and inspected	Handed over to community
11	Service connection of electricity to Primary and JHS School Blocks	Tapa Amanfrom	Completed and inspected	Handed over to community
12	Extension of electricity to 6-unit Primary School Block at Aveme Danyigba Resettlement	Aveme Danyigba	Completed and inspected	Handed over to community
13	New service connection of electricity to Nurses' Quarters	Asukawkaw	Completed and inspected	Handed over to community
2016	6 PROJECTS			
1	Extension of Staff Common Room and Wiring of 3-unit Classroom Block	Labum	Completed and inspected	Handed over to community
2	Provision of Furniture and Hospital Equipment to completed clinic	Tongor Kaira	Equipment and furniture supplied	Clinic is yet to start operating
3	Connection of electricity to nurses' quarters	Botoku	Completed and inspected	Handed over to community
2017	7 Infrastructural Project	cts		
Moni	itoring and supervision o	of remaining GE'	ΓFund projects	

TEMA OIL REFINERY

	PROGRAMMES/PROJE	POLICY OBJECTIVE	Start date	YEAR	REMARKS
NO. 1	CTS Installation of TG 5 and SCADA System	To increase power generation for plant operations to ensure operational reliability.	2014	COMPLETED 2017	55% completed. Project delayed due to financial difficulties Remaining 45% will be execduted in 2018 -2020
2	General Shutdown and Maintenance	To increase operational Reliability	2014	2017	Project Completed
3	Replacement of Damaged Crude Heater	Increase Refining Capacity	2017	2017	Contract signed for commencement in 2018.
4	Procurement & Installation of 120Tons/hr (NET) Steam Boiler	To increase steam generation capacity for plant operations and ensure operational reliability	2016	2017	Fabrication started and PMI test was carried out for commencement in 2018
5	Retubing of Boiler #6	To increase steam generation capacity for plant operations and ensure operational reliability	2016	2017	Work was 60% complete. Remaining 40% will be executed in 2018
6	New Electrical Sub- Station and Offices for MOP Staff	Ensure reliable power supply to loading gantry pumps	2014	2017	50% complete.Remaining 50%will be executed in2018
7	MOP Electrical sub- station facilities	Ensure reliable power supply to loading gantry pumps	2014	2017	Tendering process completed and contract yet to be awarded.
8	Repair of storage tanks/maintenance	To improve storage capacity to 95% utilization	2014	2017	Project completed
9	Relocation of safety block	To have the safety block located outside the plant to enhance fire prevention.	2014	2017	87% competed. Work stalled due to financial difficulty.
10	Firefighting training grounds	To train staff and other industry players in west Africa to generate revenue	2014	2017	60% completed. Project stalled due

					to financial difficulties.
11	Expansion of CDU from 45,000 to 60,000 bpsd	To increase petroleum products to both local and foreign markets	2016	2017	7% completed. Project suspended due to financial difficulty (PMC done 48%)

Final Determination of Ghana-Cote d'Ivoire Maritime Boundary Dispute

- The Ghana-Cote d'Ivoire maritime boundary dispute judgment at the International Tribunal for the Law of the Sea (ITLOS) 23rd September 2017.
- None of Ghana's active upstream petroleum projects was negatively impacted by the ruling.
- Companies previously affected by the provisional measures have resumed normal operations under their respective Petroleum Agreements

POWER DIRECTORATE

Period		NFRASTRUCTURE	AND HUMAN SETTLI RSAL ACCESS TO ELE Baseline (2014)		L6 Achievement	Remarks
2015 2016 2017	Extension of electricity to un-electrified communities	Number of communities connected to the national grid	8,400 communities connected since 1990	1,500 1,500 1212	536 1,212 587	 Lack of full complement of materials at stores. Inadequate funds for field supervision activities. Delays associated with shortage and procurement of materials and payments to contractors (turnkey
Policy 2015	Objectives: Univ Extension of electricity to	ersal Access for Percentage of	all By 2020 76%	85%	80.51%	and installation only) Delays associated with shortage and procurement of materials and
2016 2017	un-electrified communities	population with access to electricity		85% 85%	83.24% 84.15%	payments to contractors (turnkey and installation only)

Period	THEMATIC AREA: INFRASTRUCTURE AND HUMAN SETTLEMENT POLICY OBJECTIVES: INCREASE POWER GENERATION CAPACITY TO 5,000MW BY 2016											
	POLICY OBJECT Programme	IVES: INCREASE POV INDICATOR	Baseline (2014)	APACITY TO 5,000MW BY 2016 MTDP Target	Achievement	Remarks						
2015	Operationali zation of TICO expansion project	Quantum of MW added to the installed Generation Capacity	Commissionin g of Plant	Completion and commissioning of Combined Cycle Plant	Achieved Commercial Operation Date (COD) in October 2015 for the Combined Cycle	due to leakage in Seawater cooling ducts of						
2016	-			Commercial operation of 330MW plant	Commercial operation of 330MW plant	Once thorough Sea Cooling						
2017				Commercial operation of 330MW plant	Commercial operation of 330MW plant	facility						
2015	Operationali zation of Karpower Project	Quantum of MW added to the installed Generation Capacity	Bank Guarantee (BG) documents finalized	Addition of 2x225 MW Emergency Power to installed capacity	1st 225MW Powership in Tema commissioned and in COD Dec. Negotiations ongoing for the 2nd Powership	Delays in confirming Bank Guarantee						
2016				Commercial operation of 2x225 MW plant	Commercial operation of 1st 225 MW plant							
2017				Commercial operation of 2x225 MW plant	Commissioning of the 450MW power ship to replace existing 225MW in Tema							

	INSTITUTION: MOEN,	POWER											
Detal	THEMATIC AREA: INFRASTRUCTURE AND HUMAN SETTLEMENT												
Period	POLICY OBJECTIVES: INCREASE POWER GENERATION CAPACITY TO 5,000MW BY 2016												
	Programme	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks							
2015	Addition of 250MW	Quantum of MW added to the	Negotiation of Contract	Addition of 250 MW Emergency Power to installed capacity	Site preparation and Civil works completed. Installation of 5 out of 10 gas turbines	i)Suspension of work by civil works contractor due to delayed payment ii)Delay in receiving							
2016	Emergency Power to Grid by Ameri Energy Project	installed Generation Capacity		Achievement of COD	completed Commercial operation date achieved in February 2016.	parliamentary approval on the agreed tax waivers for the project							
2017				Project in operation	Project in operation								

	Institution: MoEn, Power														
	Thematic Area: Infr	Thematic Area: Infrastructure and Human Settlement													
Period	Policy Objectives: Develop a non-congested electricity transmission network by 2015														
	Programme	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks									
2015	Completion of 161kV Tumu- Han-Wa	Kilometers of transmission line with substations	Transmission Line: 80%	Complete project	Overall progress of works - 90%	Payment of additional compensati									
2016	transmission project	constructed	Substations: Wa - 100% Tumu - 100% Sawla - 84% Sunyani - 73% Bolgatanga - 50%	Complete project to improve supply security and reliability	100% project completion, Commissioning and Testing	on due to upgrade of Bolgatanga -Navrongo right-of- way from 34.5kV to 161kV									
Policy Obje	ctives: Improve elec	tricity distribution	network and reduc	e system losses	•	l									
2015	Reduction of distribution system losses	Percentage reduction in system losses	System losses 24.13%	Achieve 21% System losses	System losses 22.71%										
2016				Achieve 20% System losses	System losses 23.88%										
2017				Achieve 20% System losses	System losses 24.25%										

PETROLEUM UPSTREAM DIRECTORATE

		-	LEUM UPSTREA		Γ Ε							
Period	THEMATIC AREA: OIL AND GAS DEVELOPMENT POLICY OBJECTIVES: ENSURE ACCELERATED AND INTEGRATED DEVELOPMENT OF THE OIL AND GAS INDUSTRY											
	Programme	Sub- Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks					
2014 2015 2016 2017	- Petroleum Development	Upstream Hydrocarbon resource development and management	No. of Petroleum Agreement (PA)s ratified by Parliament	8 PAs in operation	10 N/A N/A N/A	8 new PAs ratified: 1.Brittania-U Ghana - South West Saltpond Block 2.Sahara Energy Fields - Offshore Shallow Cape Three Points Block 3.UB Resources - Offshore Cape Three Points South block 4.Amni International Petroleum Development Ltd - Central Tano block 5.Erin Energy Corporation - Expanded Shallow Water Tano block 6.Heritage - East Keta block 7.Heritage - Offshore South Wes Tano block 8.Eco Atlantic - Deepwater Cape Three Points West offshore block N/A Three (3) new PAs ratified: 1.Spingfield – Block 2 2.ENI/Vitol – Block 4 Swiss Africa Petroleum Company – Onshore/Offshore Keta Delta ExxonMobil PA laid before Parliament	Moratorium was placed on the award of licenses in 2015 Competitive bidding rounds to be implemente d in place of Open Door policy					

Period	THEMATIC AREA: OIL AND GAS DEVELOPMENT POLICY OBJECTIVES: ENSURE ACCELERATED AND INTEGRATED DEVELOPMENT OF THE OIL AND GAS INDUSTRY											
	Programme	Sub- Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks					
2014					60% of FPSO construction & sub-sea works completed	55% of work on FPSO and sub-sea infrastructure completed						
2015			Percentage completion	Plan of Development (PoD)	ConstructionofFPSOcompletedAchieve overall developmentproject progress of 90%	Construction of FPSO completed and FPSO ready to sail						
2016	Petroleum Development	Upstream Optimization of oil and gas exploitation	of developme nt works	approved for the TEN field	FPSO sets sail and arrives in Ghana Completion of sub-sea infrastructure and tie-in to FPSO	FPSO arrived in Ghana and tied-in with sub-sea infrastructure First oil achieved						
2017					First oil Production ramp up	Oil production ramped up to approx. 56, 000 b/d						

THEMATIC AREA: OIL AND GAS DEVELOPMENT

Period POLICY OBJECTIVES: ENSURE ACCELERATED AND INTEGRATED DEVELOPMENT OF THE OIL AND GAS INDUSTRY

	Programme	Sub- Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks
2014			Percentage completing of field developmen t works	Appraisal reports of Sankofa Gye-Nyame submitted	PoD submitted to the Ministry for review PoD approved by the Minister	PoD submitted	
2015	-				Long lead items and FPSO contracts awarded	PoD approved by the Minster	
2016	Petroleum Development	Upstream Optimization of oil and gas exploitation			FPSOretrofittingcompleted and ready to setsail.80%ofsub-seainfrastructureworkcompleted	70 % of phase 1 development works completed	
2017					FPSO arrives in Ghana and tied-in with sub-sea infrastructure First Oil	FPSO arrived in Ghana First oil achieved Development works for gas production on-going.	

	INSTITUTION: MO			RECTORATE								
Period	THEMATIC AREA: OIL AND GAS DEVELOPMENT POLICY OBJECTIVES: ENSURE ACCELERATED AND INTEGRATED DEVELOPMENT OF THE OIL AND GAS INDUSTRY											
	Programme	Sub- Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks					
2014			Country's total average daily oil & gas	Production from Jubilee field	Oil: 102,000 b/d	Oil: 101,922.44 b/d	Shortfall of oil and gas production in					
2015	-	<u>Upstream</u>	production	on-going	Gas export: 6 mmscfd Oil: 102,000 b/d	Gas export: 5.2 mmscfd Oil: 102,497.70b/d	2016 & 2017					
	Detectory	Optimizati			Gas export: 70 mmscfd	Gas export: 63.mmscfd	attributed to Turret Bearing					
2016	Petroleum Development	on of oil and gas			Oil: 122,000 b/d	Oil: 122,661 b/d	_					
		exploitatio			Gas export: 80 mmscfd	Gas export: 70 mmscfd						
2017		n			0il: 184,000 b/d	Oil: 160,707.02 b/d	-					
					Gas export: 113.3 mmscfd	Gas export: 214.42 mmscfd						

Period	-	OIL AND GAS D ES: Create an	EVELOPMENT enabling enviro	onment for su	stainable activities in the Up accelerated economic develo		oil and gas sector
	Programme	Sub- Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks
2014			Implemented Gas Master Plan	ECA consultancy procured to develop Gas Master Plan	Collate energy sector data for further analysis Present Final Draft Report to stakeholders	Draft final of Gas Master Plan submitted by ECA	
2015	Petroleum	<u>Upstream</u>			Finalization of the Gas Master Plan	Gas Master Plan finalised and submitted to Chief Director	
2016	Development	Gas commerci alization			Obtain Cabinet approval for the Gas Master Plan	Cabinet approval obtained	
2017					Implementation of the Gas Master Plan	Implementation committees established	

Period	INSTITUTION: MO THEMATIC AREA: POLICY OBJECTIV infrastructure	OIL AND GAS D	EVELOPMENT		utilization for accelerated eco	nomic development Provisi	on of adequate gas
	Programme	Sub- Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks
2014 2015	Petroleum Development	Gas commerci alization	Progress of work	Drafting of Concept paper on TTIP commenced	Finalize concept paper Obtain cabinet approval	Concept paper on project submitted to Minister Cabinet approves TTIP	CMA between Eni and WAPCo delayed
2016	-			commenced	Develop detail engineering design (FEED)	Detailed engineering designed developed	
2017					Execution of gas agreements	CMA signed between GNGC and Eni GTA Term Sheet signed between GNPC and WAPCo	

PETROLEUM DOWNSTREAM DIRECTORATE

INSTITUTION: MOEN, PETROLEUM DOWNSTREAM

THEMATIC AREA: OIL AND GAS DEVELOPMENT

POLICY OBJECTIVES: ENSURE ADEQUATE AVAILABILITY OF PETROLEUM PRODUCTS IN THE GHANAIAN MARKET

Period		1	1	1			1
	Programme	Sub-Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks
2014	Petroleum Development	Downstream Rural LPG	Cylinders and stoves distributed under the Rural	Reconnaissanc e exercise in Garu-Tempane District and	Procure and distribute 50,000 LPG Cylinders	13,000 cylinders distributed in four (4) districts in 2014	Political interference in selection of districts and
2015		Promotion Programme	LPG Promotion Programme	1500 pieces of 6kg LPG cylinders distributed	Distribute remaining 37,000 cylinders (from 2014) Procure 50,000 cylinders for 2015/2016 distribution	29,500 cylinders distributed in fourteen (14) districts in 2015	beneficiaries Delays in delivering targeted production of Cylinders and Cook
2016					Remaining 22,000cylinders (from 2015) for eleven (11) districts distributed. Additional 100,000 cylinders and cook stoves for 2016 procured and distributed.	29,690 LPG cylinders, cook stoves and related accessories distributed in 22 districts at the end of 2016	stoves by Manufacturers
2017					72,310 LPG cylinders and cook stoves (remaining from 2016) distributed in 36 districts	73,210 LPG cylinders, cook stoves and related accessories distributed in at the end of 2017	

INSTITUTION: MOEN, PETROLEUM DOWNSTREAM	INSTITUTION: MO	EN, PETROLEUM	DOWNSTREAM
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THEMATIC AREA: OIL AND GAS DEVELOPMENT

Period POLICY OBJECTIVES: ENSURE ADEQUATE AVAILABILITY OF PETROLEUM PRODUCTS IN THE GHANAIAN MARKET

	Programme	Sub- Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks
2015	Petroleum Development	Downstream Monitoring the Implementati on of National LPG Promotion Policy	Cylinders and stoves distributed under the Rural LPG Promotion Programme	Monitoring and Evaluation conducted in Garu- Temapne in 2013	Monitoring and Evaluation (M&E) of previous distribution Reconnaissance survey for 50districts completed for the distribution of 100,000 cylinders and cook stoves.	Monitoring of Project by the Kintampo Health research underway in Busunya in the Nkoranza North district Study on the impact of program on life of beneficiaries conducted with the Kintampo Health Research Center in 1 district (Nkoranza North)	Lack of robust M&E plan Need for review of RLPGPP and introduction of new strategies in view of new LPG Promotion Policy and Cylinder Recirculation Implementation

	INSTITUTION: M	IOEN, PETROLEUM	I DOWNSTREAM	1			
	THEMATIC ARE	A: OIL AND GAS DI	EVELOPMENT				
Period	POLICY OBJECT	IVES: ENSURE ADE	QUATE AVAILA	BILITY OF PETROL	EUM PRODUCTS IN TH	IE GHANAIAN MARKET	
	Programme	Sub-Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks
2014	Petroleum Development	Downstream	National LPG Promotion Policy	Study visit to Cote d'Ivoire to learn from their LPG	Draft new National LPG Promotion Policy	Draft National LPG Promotion Policy developed	Pushback from LPG distributors on new policy
2015		Development of National LPG Promotion Policy		distribution model	Organize Forum for LPG industry players Revise Draft Policy	Stakeholder Forum on draft policy for LPG Industry organized. Comments received from stakeholders and collated following circulation of the Draft National LPG Policy.	Organize meetings and stakeholder
2016					National LPG Promotion Policy revised Regulations and guidelines developed	Draft National LPG Promotion Policy revised Committee constituted to oversee the implementation of the Cylinder Recirculation Model (CRM)	forum to further engage industry players
2017					National LPG Policy finalized and submitted to Cabinet Draft Implementation Plan prepared	National LPG Promotion Policy approved by Cabinet for implementation Draft Implementation Plan developed	

	INSTITUTION: MOEN, PETROLEUM DOWNSTREAM FHEMATIC AREA: OIL AND GAS DEVELOPMENT POLICY OBJECTIVES: ENSURE ADEQUATE AVAILABILITY OF PETROLEUM PRODUCTS IN THE GHANAIAN MARKET								
	Programme	Sub- Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks		
2015	Petroleum Development	Downstream	Revised Zonalization Policy	Complaints received from Petroleum Service Providers on	Review Zonalization and Deregulation policies	Zonalization and Deregulation Policies implemented	Non-adherence to Zonalization Guidelines		
2016		Revision of Zonalization		challenges with the	Zonalization policy duly enforced	Zonalization and Deregulation Policies monitored			
2017		Policy		Zonalization Policy	Continuous monitoring of Zonalization Policy	Issues on operation of Zonalization Policy gathered			

INSTITUTION: MOEN, PETROLEUM DOWNSTREAM

THEMATIC AREA: OIL AND GAS DEVELOPMENT

Period POLICY OBJECTIVES: ENSURE ADEQUATE AVAILABILITY OF PETROLEUM PRODUCTS IN THE GHANAIAN MARKET

	Programme	Sub-Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks
2015	Petroleum Development	Downstream	Revised Deregulation Policy	NPA Act and History on Deregulation in Ghana	Develop Policy on Petroleum Prices Liberalization	Policy on Petroleum Prices Liberalization developed and in implementation	
2016		Development of Petroleum Price Liberalization policy	Achieve Full Deregulation		Monitor Implementation progress of Petroleum Prices Liberalization	Petroleum Prices Liberalization policy implementation monitored	

	INSTITUTION: MOEN, PETROLEUM DOWNSTREAM
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THEMATIC AREA: OIL AND GAS DEVELOPMENT

Period POLICY OBJECTIVES: ENSURE ADEQUATE AVAILABILITY OF PETROLEUM PRODUCTS IN THE GHANAIAN MARKET

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	Programme	Sub- Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks
2015	Petroleum Development	Downstream	Monitoring reports submitted	TOR & Sage Petroleum identified as prospective investors	Construction of 12" Pipeline for LPG from Tema Jetty to Tema Oil Refinery facilitated	Financing Agreement with Fuel trade and TOR for 12" pipeline prepared	Organize a meeting with developers to obtain firm timelines on project
2016					Monitor and report on progress of construction of 12' Pipeline from Tema Jetty to Tema Oil Refinery	Financing Agreement with Sage and TOR for 12" pipeline revised	
2017					Monitor and report on progress of construction of 12' Pipeline from Tema Jetty to Tema Oil Refinery	Meetings held with developers of 12" pipeline	

	THEMATIC AREA: OIL AND GAS DEVELOPMENT POLICY OBJECTIVES: ENSURE ADEQUATE AVAILABILITY OF PETROLEUM PRODUCTS IN THE GHANAIAN MARKET										
	Programme	Sub- Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks				
2015 2016	Petroleum Development	Downstream Monitoring of UPPF and PDM	Monitoring and Performance Review Reports on UPPF and PDM	Annual Reports of Unified Petroleum Price Fund (UPPF) and Primary Distribution Margin (PDM)	Review Performance of UPPF and PDM in 2014 Review Performance of UPPF and PDM in 2015	Accounts and Annual Reports of UPPF/PDM for 2014 reviewed Accounts and Annual Reports of UPPF/PDM for 2015 reviewed	Late submission of UPPF and PDM Reports				
2017					Review Performance of UPPF and PDM in 2016	Accounts and Annual Reports of UPPF/PDM for 2016 reviewed					

INSTITUTION: MOEN, PETROLEUM DOWNSTREAM

		INSTITUTION: MOEN, PETROLEUM DOWNSTREAM THEMATIC AREA: OIL AND GAS DEVELOPMENT										
Period	POLICY OBJECTIVES: ENSURE ADEQUATE AVAILABILITY OF PETROLEUM PRODUCTS IN THE GHANAIAN MARKET											
	Programme	Sub- Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks					
2015	Petroleum Development	Downstream Petroleum	An updated database for petroleum products stocks	Information on stock levels received from storage	Develop database for petroleum products stock information	Database for petroleum products stock information developed						
2016		Products Strategic Stocks Policy	Stocks	depots	Update Product Stocks database updated	Database updated						
2017					Update Product Stocks database updated	Database updated						
2017	Petroleum Development	Downstream Development of National Fuel Quality Policy	National Fuel Quality Policy	Report of Committee that worked on reducing Sulphur content in fuels	Develop draft National Fuel Quality Policy	Draft National Fuel Quality Policy developed	Submit Policy to Cabinet and develop a National Fuel Quality Monitoring Program Concept Paper					

Period	Institution: MoEn Thematic Area: (Policy Objective	Dil & Gas Devel	•	onmental impacts of oi	l and gas indust	rv	
	Programme	Sub- Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks
2014	Petroleum Development: HSSE Policy	Health, Safety, Security and Environment (HSSE)	Completed HSSE Policy Document	Increased energy sector infrastructure, eg FPSO, Pipelines, Thermal Plants, e.t.c with increased likelihood of incidents in the sector	HSSE Policy Document developed	Proposal for the development of the policy approved by Chief Director	Timely release of funds delay the submission of the policy
2015					Policy submit Policy Document to cabinet for approval	Final draft policy options Report Submit to stakeholders for comments	Delays in receiving comments from stakeholder lead to
2016					Policy submitted to Cabinet for approval	Policy reviewed to include Agencies' comments and submitted to management	delays in finalising the policy The inclusion of the policy in the broader
2017					Policy submitted to Cabinet for approval	Policy reviewed to include wider stakeholder comments and national stakeholder forum organized	energy policy has delayed the submission to Cabinet

HEALTH SAFETY SECURITY & ENVIRNMENT (HSSE) DIRECTORATE

		Institution: MoEn, HSSE Thematic Area: Oil & Gas Development											
Period	Policy Objective (s): Minimize j	otential envir	onmental impac	ts of oil and gas industry								
	Programme	Sub- Programme		Baseline (2014)	MTDP Target	Achievement	Remarks						
2015	Petroleum Development: HSSE Awareness Platform	Health, Safety, Security and Environment	An effective platform to discuss HSSE issues	Register of security risks to oil and gas installations; Incident reports on TOR, helicopter crash (pending), risks assessment of BRVs and Retail outlets	An effective platform for discussions on HSSE issues developed Quarterly dialogue sessions undertaken Toolbox bulletins developed Test emergency response by undertaking drills on the security response plans for a selected installation Meet with statutory institutions on the siting of retail outlet. Resolve issues of fees and charges by downstream operators	Meetings held with Association of Oil Marketing Companies (AOMCs) to discuss issues of fees and charges Meeting with relevant statutory institutions organised to review issues of siting of filling stations	Fees and charges handed over to Downstream unit PSCC is yet to receive funding to complete the security matrix before the drills can be undertaken						

Period		Thematic Area: Oil & Gas Development Policy Objective (s): Minimize potential environmental impacts of oil and gas industry									
	Programme	Sub- Programme		Baseline (2013)	MTDP Target	Achievement	Remarks				
2015	Petroleum Development: National Fuel Consumption Efficiency Policy	Health, Safety, Security and Environme nt	Submission of Draft National Fuel Economy Policy to cabinet.	Concept paper on fuel efficiency drafted	Submission of Draft National Fuel Economy Policy to cabinet.	strategy policy developed	programme was abandoned due to the presence of other similar but more effective programmes being pursued by the EPA and MoT				

	Institution: MoEn,	HSSE									
Period	Thematic Area: Oil & Gas Development Policy Objective (s): Minimize potential environmental impacts of oil and gas industry										
	Programme	Sub- Programme		Baseline (2013)	MTDP Target	Achievement	Remarks				
2017	Petroleum Development: SSI POLICY	Health, Safety, Security and Environme nt	Finalised SSI policy	Draft CSR policy for the petroleum sector	Draft Policy revised to include stakeholder inputs	Draft policy to include social inclusion concepts and principles revised. Comments from agencies on zero draft policy received	Availability and timely release of funds to undertake stakeholder consultation Obtaining adequate material on social inclusion since it is a				
2017	Petroleum Development: Smart Energy Action Plan	Health, Safety, Security and Environme nt	Biannual reports from agencies on emission reduction strategies	Draft proposal on the need for a smart energy action plan	Meeting to identify mechanisms for the reduction of GHG emissions	mechanisms and measures to reduce GHG emissions Proposed to sector agencies	new concept Funding constraints Delay in obtaining inputs from stakeholders				

PETROLEUM COMMISSION (PC)

INSTITUTION: PETROLEUM COMMISSION

THEMATIC AREA: OIL AND GAS DEVELOPMENT

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d POLICY OBJECTIVES: CREATE AN ENABLING ENVIRONMENT FOR SUSTAINED EXPLORATION, DEVELOPMENT AND PRODUCTION OF GHANA'S OIL AND GAS ENDOWMENT

	Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks
2014	Regulatory Development	First draft HSE, DM Regulations, E&P Bill, GPR	Developme nt of HSE Regulations commenced	 ✓ Passage of E&P Bill, Petroleum Measurement Regulations ✓ Complete HSE, DM Regulations and submit 	 ✓ HSE Regulations passed, LI 2258 ✓ PDM Regulations passed, LI 2257 ✓ Petroleum Measurement Regulations passed, LI 2246 ✓ E&P Bill passed into law in August 	Delays in passage mainly due to Parliamentar
2015				to Parliament by end of Q2 2017 ✓ General Petroleum	2016, Act 919 ✓ GPR submitted to AGs	y calendar
2016 2017				Regulations submitted to Parliament by end of Q4 2017		
2014	Implementati	-E&P	Developme	✓ Commence	✓ E&P implementation plan completed	
2015	on of Legislation	implementation Plan	nt of E&P Law	implementation of E&P Act 919	 Industry and relevant agencies made aware of the Petroleum Measurement 	
2016	8	-PM implementation Plan	ongoing	✓ Commence implementation of Petroleum Measurement	Regulations and Guidelines. ✓ Implementation of sections of Act 919 commenced	
2017		-Petroleum Register		Regulations ✓ Finalise work of General Petroleum Regulations	 ✓ Implementation of Petroleum Measurement regulations commenced ✓ Work on Competitive Tendering 	
		Competitive Tendering Guidelines		 ✓ Complete Petroleum Register and Competitive Tendering Guidelines 	 Procedure for blocks being developed as part of the GPR ✓ Establishment of a Petroleum Register ongoing 	

	Institution: pet	roleum commiss	on					
	Thematic Area	Oil and Gas Devel	opment					
Period	Policy Objectiv	es: Create an enabl	ing environment for	r sustaine	ed exploration, development	and pro	luction of Ghana's oil and gas endowment	t
	Programme	INDICATOR	Baseline (2013)		MTDP Target		Achievement	Remarks
2014	Compliance programme (review of applications and issuance	New PC application forms No. of	PC application forms developed	✓ ✓	Reduction in processing registration applications from 15 to 12 working days 100% of registration	✓ ✓ ✓	Applications currently processed in 12 working days Issued 273 initial registration permits and 244 renewal permits Permit processing reduced to 14	
2015	of permits)	applications processed		~	applications thoroughly processed Effectively process all	~	working days Sixty six (66) Security Clearance Applications processed	
2016	-				security clearance and explosive applications	~	Inspected the operations of 25 Companies in the Western Region	
2017				~	Undertake 4 inspection campaigns	~	Monitored pipeline activities (Tie- in of the TEN gas export pipeline to the Jubilee- Atuabo subsea gas export pipeline)	
Themat	ic Area: Maximi	se local content a	nd participation in	n all asp	ects of the petroleum valu	e chain		
2014	Petroleum Data	No. of petroleum data	Commenced petroleum data	~	Fully operational Data Center furnished with all	✓ ✓	All legacy processed data transcribed Transcribed data on about 1,000 IBM	
2015	Management	transcribed from GNPC	transcription in mid-2013		transcribed petroleum data	~	3592 tapes received All infrastructure required for a	
2016				~	Petroleum data transcription completed		functional Data Center installed and commissioned	
2017					in the last quarter of 2017	✓ ✓	Data transcription at National Data Repository commenced All data center equipment serviced	

Period											
	Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement						
2014 2015 2016	Local Content Development	The following guidelines developed: JV, Financial Services,	LI 2204 passed into law	 ✓ Guidelines on Financial Services, Procurement, Research & Development, and Technology Transfer developed. 	 ✓ Insurance Protocol developed ✓ Financial Services Guidelines – Framework Paper developed and shared with the Bank of Ghana for review. ✓ JV Guidelines developed ✓ Upstream Procurement Guidelines and Research & Development 						
2017		Local Content Fund		 ✓ Robust and transparent monitoring system ✓ Percentage of investment by Ghanaians improved (Total Value of Service) 	 ✓ Local Content Fund Guidelines developed ✓ Local Content Fund Cedi and Dollar accounts opened with the Bank of Ghana ✓ Total value of service USD\$1.3BN (approx) to indigenous Ghanaian companies 						
2014 2015	Localisation	No. of interns attached to oil companies	LI 2204 passed into law	and gas companies ✓ Demand and supply study and skills mapping	 ✓ Guidelines on succession plan developed ✓ 141 Vacancies have been secured from upstream companies for GUSIP placement. ✓ 24 of the placements have been done 						
2016		No. of Ghanaians employed in oil and gas sector No. of work permit applications processed		 completed ✓ No of Ghanaians employed in the industry increased to 10,000 ✓ Commence implementation of AOGC programme 	 ✓ (TVET) concept paper developed ✓ Launched the Accelerated Oil and Gas Capacity Development Programme ✓ Seven (7) institutions selected to be considered for the first phase of the TVET Program ✓ Draft policy on succession planning developed with respect to localization of jobs ✓ 1733 Work Permit Applications processed ✓ 11,320 Ghanaians employed in the oil and gas industry (Top Management 1132, Middle Management 2264, others 7924) 						

	Institution: po	etroleum commission				
Period	Thematic Are	a: Oil and Gas Developme	ent			
renou	Policy Objecti	ives: Ensure accelerated	l and integrated developmen	t of the oil and gas industry		
	Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remark s
2014	Promotion of Ghana's	No of promotional activities undertaken	Commenced the development of offshore	 ✓ Visibility of Ghana at NAPE, OTC, AAPG, SEG, 	 Promoted Ghana's hydrocarbon potential at 3 international fora (NAPE, AAPG, 	
2015	hydrocarbo n potential	No of IOCs attracted	acreage maps	AOW, CWC, and OWA ✓ Attract 2 companies to	AOW,OTC) and 1 domestic conference (CWC)	
2016			Team constituted for promotional programmes	invest in the upstream sector	 ✓ Activity maps developed at the end of each quarter 	
2017						
2014 2015	Monitoring and Evaluation	Reports on TRP Reports on reservoir	Continued monitoring upstream petroleum projects	 ✓ Effectively monitored Jubilee, TEN, and OCTP projects 	 ✓ Monitored operations from the FPSO KNK on Turret Remediation Project (TRP) ✓ Jubilee: Update on reservoir through TCM 	
2013	of upstream petroleum	surveillance		✓ Effectively monitored	✓ 13 wells drilled and completed on the OCTP phase 1 project	
2017	operations	Reporting on drilling operation Reports on production operations		upstream project costs	 ✓ Monitored commission of TEN and OCTP first oil ✓ Monitored production of Jubilee, TEN and OCTP 	
2014	Community Relations	Establishment of Community Relations	1. Revised CORSIP to include onshore activities	✓ CORSIP approved by the Minister for Energy	 ✓ Reviewed Draft CORSIP ✓ Reviewed Draft CSR guidelines and 	
2015	and Social Investment	Department	2.Final draft of CSR and community stakeholder	 ✓ Annual meeting held with Western Regional 	Community Stakeholder Engagement guidelines	
2016	Programme s	First meeting held with Western	engagement guidelines 3. No. of stakeholder	House of Chiefs ✓ Hold 4 stakeholder	 ✓ Annual programme held with Western Region House of Chiefs from 2014 to 2017 	
2017		Regional House of Chiefs	engagements held	engagements in the six coastal districts in the Western Region	 ✓ Annual programme held with stakeholders in the six coastal districts in the Western Region from 2014 to 2017 	

NATIONAL PETROLEUM AUTHORITY THEMATIC AREA: OIL & GAS DEVELOPMENT Period POLICY OBJECTIVES: ENSURE ACCELERATED AND INTEGRATED DEVELOPMENT OF THE OIL AND GAS INDUSTRY **Projects**/ Baseline (2013) **MTDP Target INDICATOR** Achievement Programme Activities Remarks 2014 Records of all Achieve Full Cost Recovery (FCR) Engage Government FCR policy implemented Pricing Policy Every Pricing Window only in the PBU effective PSP PBUs based government on intervention in petroleum January 16, February 1, on the pricing pricing of products formula petroleum and April 1, 2014. pricing to products Achieve Full Cost Recovery (FCR) Price liberalisation was Products such as 2015 achieve full cost Pricing Policy Every Pricing Window implemented on 1st July, premix and RFO still recovery 2015 for all products have some subsidies. except RFO, Premix fuel Deregulation of Petroleum and all Foreign products. transportation of Products petroleum products Pricing and Include a Forward Rate in the PBU to 2014 Number of PBU Bank of forex Pseudo rate Risk Engage stakeholders with forward address forex loss by guaranteeing implemented in the PBU rate Management price certainty and product and forex including the rate MoP, MoF, MoT availability within a referenced period and the Forex of 3/6 months. Loss Technical Include a Forward Rate in the PBU to Forward FX rate was 2015 Committee to address forex loss by guaranteeing applied in the PBU until include forward price certainty and product and forex the price deregulation rate in the PBU availability within a referenced period policy of 3/6 months.

THEMATIC AREA: OIL & GAS DEVELOPMENT

	Programme	Projects/ Activities	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks
2016	Petroleum Products Pricing and Risk Management	Monitoring of petroleum product prices at the retail outlet	Number of monitoring activities	Price liberalisation was implemented on 1st July, 2015 for all products except RFO, Premix fuel and all Foreign products.	Increase petroleum products price monitoring	20 Price Surveillance Task Force were assigned to 20 different zones across 5 regions (Upper East, Upper West, Northern, Volta and Western region). They stated work on 16th May 2016.	Products such as premix and RFO still have some subsidies. Deregulation of transportation of petroleum products
		Carry out a study to examine the impact of deregulation policy	Number of engagements with PSPs		Improve price deregulation policy	A study was carried out to understand the impact of the policy on PSPs and consumers	

Period	THEMATIC ARE	ROLEUM AUTHORITY A: OIL & GAS DEVELOPM IVES: ENSURE ACCELERA Projects/ Activities		GRATED DEVELOPN Baseline (2013)	MENT OF THE OIL AND GAS INDUST	RY Achievement	Remarks
2014 2015	Inspections, Monitoring and Licensing	Raise the bar of performance of all PSPs	Number of PSPs facilities inspected	New requirements for PSPs developed	Raise the bar on performance for all PSPs by January 2014 Raise the bar on performance for all PSPs by January 2015	New requirements for BDCs,OTCs and OMCs licence implemented New requirements for BDCs,OTCs and OMCs licence implemented	
2014 2015	_	Carry out inspections of all PSPs facilities	Number of PSPs facilities inspected	Over 80% of stations inspected in 2013 were standards compliant	 100% inspection of PSP facilities by December 2014 100% inspection of PSP facilities by December 2015 	100% inspection of PSP facilities carried out 100% inspection of PSP facilities carried out	

Period	POLICY OBJECTIVES: ENSURE ACCELERATED AND INTEGRATED DEVELOPMENT OF THE OIL AND GAS INDUSTRY Programme Projects/ Activities INDICATOR Baseline (2013) MTDP Target Achievement										
2014		Public Launch of the petroleum Products Marking Scheme	Volumes of petroleum products		Achieve 100% marker penetration nationwide	PPMS was publicly launched on 10th March 2014					
	Petroleum Products marking	(PPMS) by March 2014 Development and Application of Administrative	marked Number of Administrat ive	Reports of adulteration of products	Develop Administration sanctions for PPMS by June 2014	Administrative Sanctions developed but yet					
	Scheme	Sanctions for the PPMS	sanctions put in place		Enforcement of PPMS LI 2187 by December 2014	to implement NPA sanctions were applied pending gazetting of PPMS sanctions					

THEMATIC AREA: OIL & GAS DEVELOPMENT

	Programme	Projects/ Activities	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks
2014		To independently confirm the distances travelled and the volume of petroleum products delivered by BRVs.	Number of tracking devices installed	Distance charts	Installation of volume sensors and tracking devices on 1000 BRVs that operate in the industry	1000 BRVs were installed with the Tracking devices and volumetric sensors.	
2015	Bulk Road Vehicle	DITV3.			Installation of volume sensors and tracking devices on 1000 BRVs that operate in the industry	1000 BRVs were installed with the Tracking devices and volumetric sensors.	
2016	- Tracking	To install tracking devises and volumetric sensors	Number of tracking devices installed	Phase 1 completed (2015)	Completion of 2nd Phase of installations	1,000 White product BRVs and 234 LPG BRVs have been installed with Tracking Devices	
		To finalise LI for BRV tracking	BRV tracking LI	Draft LI currently at AG's dept.	Implementation of legislative Instrument (regulations)	Review of legal Instrument done with AG's dept. and MoEn.	

THEMATIC AREA: OIL & GAS DEVELOPMENT

	Programme	Projects/ Activities	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks
2014	Primary Distribution Margin (PDM)	Review of all distribution Margins	Revised PDM in the PBU	PDM, UPPF AND Marketers margin were GHp 6.5/ltr,	Review of PDM, UPPF, and Marketers margin by December 2014	Effective April 1 2014, PDM was reviewed upwards by 63%	
2015				GHp 9/ltr and GHP 12.82/ ltr	Improve Primary Distribution Margin	PDM management committee was set up.	
2014	Zonalization Policy	Implement zonalization policy for distribution of petroleum products	Report of PPM technical committee	No restrictions on lifting's of petroleum products from the depots	The PDM technical committee to liaise with BOST to ensure that Zonalisation is restored.	PDM management committee approved product distribution to meet zonal consumption	
2015					The PDM technical committee to liaise with BOST to ensure that Zonalisation is restored.	PDM management committee approved product distribution to meet zonal consumption	

Period		EA: OIL & GAS DEVE FIVES: ENSURE ACCI		TEGRATED DEVELO	PMENT OF THE OIL AND GAS INDUSTRY		
	Programme	Projects/ Activities	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks
2015		Increase LPG compensation margin	Revised LPG margin the PBU	The LPG Compensation margin as at Jan 2015 was Ghp1.00/Kg	Review of LPG distribution margin to support LPG promotion activities by Q1 2015	NPA Board approved an increase in LPG distribution margin from Ghp1/kg to Ghp5/kg effective 16th January	
	LPG Activities	Construction of 10 inch pipeline	10 inch LPG pipeline developed	6 inch LPG pipeline	Collaborate with Fueltrade, TOR, and MoP in the construction of a 10" LPG pipeline at the Tema jetty By December 2015	Drafting of the responsibilities of various parties (Fueltrade and Government) on going	
2016		Develop National LPG Policy	National LPG Policy developed	Study visit to Cote d'Ivoire to learn from their LPG distribution model	Collaborate with the MoP to finalize National LPG promotion policy	National LPG Promotion Policy finalized in 2016	
		Construction of 12 inch pipeline	12 inch LPG pipeline developed	6 inch LPG pipeline	Collaborate with Fueltrade, Sage, TOR, and MoP in the construction of a 12" LPG pipeline at the Tema jetty By December 2016	Negotiation with the contractor and Financier was not concluded in 2016	

THEMATIC AREA: OIL & GAS DEVELOPMENT

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	Programme	Projects/ Activities	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks	
2017	– LPG Activities	Develop National LPG Policy	National LPG Policy developed	Draft LPG promotion policy	Finalize and submit National LPG Policy for Cabinet approval	National LPG Promotion Policy approved by Cabinet in October 2017		
		Construction of 12 inch pipeline	12 inch LPG pipeline developed	6 inch LPG pipeline	Collaborate with Fueltrade, Sage, TOR, and MoP in the construction of a 12" LPG pipeline at the Tema jetty By December 2016	Negotiation with the contractor and Financier is on going		

Period	THEMATIC AREA: OIL & GAS DEVELOPMENT POLICY OBJECTIVES: ENSURE ACCELERATED AND INTEGRATED DEVELOPMENT OF THE OIL AND GAS INDUSTRY											
	Programme	Projects/ Activities	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks					
2015		Ensure efficient supply of petroleum products	Number of BDCs honouring their laycans	laycan program for 2014	Improvement of the procedure for the laycan program (including BEB and co-loading)	Quarter Laycan programme for all the quarters developed						
	Supply and Stock Management		Number of approvals granted by NPA		Ensure the NPA is the final authority for discharge of petroleum products after reviewing all necessary documents (quality & quantity certificates, ETAs etc)	Discussions held with relevant stakeholders						
2016		Ensure efficient supply of petroleum products	Number of BDCs honouring their laycans	laycan program for 2014	Improvement of the procedure for the laycan program (including BEB and co-loading)	Quarter Laycan programme for all the quarters developed						
			Number of approvals granted by NPA		Ensure the NPA is the final authority for discharge of petroleum products after reviewing all necessary documents (quality & quantity certificates, ETAs etc)	Ongoing discussions with relevant stakeholders						

	NATIONAL PETI	ROLEUM AUTHORITY					
	THEMATIC ARE	A: OIL & GAS DEVELOPM	1ENT				
Period	POLICY OBJECT	IVES: ENSURE ACCELERA	TED AND INTEG	RATED DEVELOPM	ENT OF THE OIL AND GAS INDUSTRY		
	Programme	Projects/ Activities	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks
2015		Implementation of strategic stock prograamme	Number of laycans granted	laycan program for 2014	Collaborate with GNPC and BOST to implement National Strategic Stocks programme	All strategic stocks laycans were approved	
2015		Collaborate with		Committee	Collaborate with GSA to develop bitumen specification	Held discussions with GSA to develop Bitumen specifications for Ghana	
2016	Supply and Stock Management	GSA to develop bitumen specifications	Specifications of bitumen developed	formed by GSA to develop bitumen specifications	Collaborate with GSA to develop Bitumen specifications for Ghana	A committee formed by GSA to develop the bitumen specifications	
2017					Collaborate with GSA to develop Bitumen specifications for Ghana	National Bitumen specifications developed by GSA	
		Engage stakeholders to ensure that NPA give final clearance for discharge of petroleum	Number of approvals granted by NPA	laycan program for 2016	Ensure the NPA is the final authority for discharge of petroleum products after reviewing all necessary documents (quality & quantity certificates, ETAs etc)	NPA started given final clearance of discharge of petroleum products in 2017	

THEMATIC AREA: OIL & GAS DEVELOPMENT

	Programme	Projects/ Activities	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks
2015 2016 2017	Atuabo LPG Issues	To recalibrate all LPG measuring instruments	Number of LPG refilling plants calibrated	Previous recalibration exercises	NPA to liaise with GSA to recalibrate all Measuring Instruments at LPG retail outlets by June 2015 NPA to liaise with GSA to recalibrate all Measuring Instruments at LPG retail outlets by June 2016 NPA to liaise with GSA to recalibrate all Measuring Instruments at LPG retail outlets by June 2017	Recalibration of all LPG measuring instruments on going Recalibration of all LPG measuring instruments on going Recalibration of all LPG measuring instrument completed in 2017	
2015		Installation of odourise at quantum terminal	installed odourise	Previous odourised terminals	Ensure Quantum Terminals installs an odourise by May 2015	The odourizer (which involves adding Sulphur to the LPG) was installed.	

		ROLEUM AUTHORITY	D									
Period	Thematic Area: OIL & GAS DEVELOPMENT Policy Objectives: ENSURE ACCELERATED AND INTEGRATED DEVELOPMENT OF THE OIL AND GAS INDUSTRY											
	Programme	Projects/ Activities	INDICATOR	Baseline (2015)	MTDP Target	Achievement	Remarks					
2016	Petroleum Products Regulations	Review and consolidate all petroleum products regulations	Number of reviews undertaken	Committee commenced work in 2015	Review of Petroleum Regulations according to section 80 of the NPA Act, Act 691 Review of Petroleum Regulations according to	Phase 1 which consists of regulations for licensing, quality, fees and charges has been completed Draft NPA regulation ready						
					section 80 of the NPA Act, Act 691							

	NATIONAL PETE	ROLEUM AUTHORITY					
Period	Thematic Area:	OIL & GAS DEVELOPMEN	Т				
	Policy Objective	s: ENSURE ACCELERATEI	O AND INTEGRA	TED DEVELOPMEN	T OF THE OIL AND GAS INDUST	RY	
	Programme	Projects/ Activities	INDICATOR	Baseline (2016)	MTDP Target	Achievement	Remarks
	Low Sulphur Fuel	Reduce sulphur content in diesel and petrol from 3000ppm and 1000ppm to 50ppm	Quantity of petroleum products imported with 50ppm sulphur content	3000ppm for diesel and 1000ppm for petrol	Reduction of Sulphur in imported diesel and petrol to 50ppm	Sulphur content in diesel and petrol imported into the country was reduced to 50ppm August 2017	Capacity of the refinery to meet the low sulphur content in diesel and petrol
2017	Local Content Unit	To set up a local content unit	Local content unit established.	Downstream local content policy developed	Approval of downstream local content Policy	The local content policy yet to be approved by Cabinet.	Local content unit yet to be established.
	Midstream Gas Unit	To commence regulation of petroleum midstream	Number of NPA staff trained	50 staff trained in 2016	Commencement of capacity building of NPA staff	Capacity building of NPA staff on going	Lack of Capacity building to regulate mid- stream industry
	Capacity building for the regulator	Develop the capacity of NPA staff	Number of NPA staff trained		Capacity building for the regulator and other relevant stakeholders	Capacity building of NPA staff on going	

VRA RESETTLEMENT TRUST FUND

Period	THEMATIC AREA: INFRASTRUCTURE AND HUMAN SETTLEMENT POLICY OBJECTIVES: IMPROVE ACCESS TO EDUCATION AND QUALITY HEALTH-CARE									
	PROJECTS	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks				
2014	Implementation of 2013/2014 Projects: Construction of new projects Rehabilitation of existing projects	Eleven (11) completed projects at the end of the year	Projects requests submitted to the Board for approval	Completed projects handed over to townships by Q4, 2014	 Rehabilitation of 6-unit Classroom Block and Kindergarten at Tapa Amanfrom Construction of 3-unit classroom block, office and store at Yeji Resettlement Construction of 3-unit classroom block, office and store at Prang Construction of 6-unit Teachers Quarters at Gulubi Rehabilitation of 3no. 3-unit classroom block and Rehabilitation of 6-unit classroom block at Kajaji Rehabilitation of 2 no. 6-unit Primary School at Kete Krachi (i) Construction of Clinic for Tongor Kaira (ii) Partner contribution for provision of safe drinking water for Tongor Kaira 					

POLICY OBJECTIVES: IMPROVE ACCESS TO EDUCATION AND QUALITY HEALTH-CARE										
PROJECTS	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks					
				8. Rehab of 6-unit classroom block at Aveme Danyigba						
				9. Construction of 3-unit classroom block, office and store at Fesi Resettlement						
				10. Construction of 5-unit nurses' quarters at Asukawkaw						
				11. Construction of 6- unit Teachers' Quarters at Kantanga						

Period	THEMATIC AREA: INFRASTRUCTURE AND HUMAN SETTLEMENT POLICY OBJECTIVES: IMPROVE ACCESS TO EDUCATION AND HEALTH-CARE										
	PROJECTS	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks					
2015	Implementation of 2014/2015 Projects: Construction of new projects Rehabilitation of existing projects	Thirteen (13) projects completed and handed over to the communities	Projects requests collated and prioritized	Completed projects handed over to townships by Q4, 2015	 Provision of burglar-proof protection at to winders/doors of staff common room and a store for new 3-unit classroom block at Fesi Resettlement Provision of Block work support for kitchen sinks for new 6-unit Teachers' Quarters at Pai Kantanga Provision of burglar-proof protection at to winders/doors of staff common room and a store for new 3-unit classroom block at Yeji Resettlement Provision of burglar-proof protection at to winders/doors of staff common room and a store for new 3-unit classroom block at Yeji Resettlement Provision of burglar-proof protection at to winders/doors of staff common room and a store for new 3-unit classroom block at Prang Resettlement Construction of culvert over a drain in front of newly constructed clinic at Tongor-Kaira Resettlement Provision of Block work support for kitchen sinks for new 6-unit Nurses' Quarters at Asukawkaw Resettlement 	Inadequat e funds to undertake more projects					

Derite 4	THEMATIC AREA: INFRASTRUCTURE AND HUMAN SETTLEMENT											
Period	POLICY OBJECTIVES: IMPROVE ACCESS TO EDUCATION AND HEALTH-CARE											
	PROJECTS	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks						
					 7. Rehabilitation of 2 No. 20-seater Vault Chamber Latrine at Grubi Resettlement 8. Drilling of borehole at Kpandai 							
2015					9. Extension of electricity to two (2) 6-unitClassroom blocks at Kete Krachi							
					10. Extension of electricity to a 3-unit Classroom Block at Fesi Resettlement							
					11. Service connection of electricity to Primary and JHS School Blocks at Tapa Amanfrom Resettlement							
					12. Extension of electricity to 6-unit Primary School Block at Aveme Danyigba Resettlement							
					13. New service connection of electricity to Nurses' Quarters at Asukawkaw							

Period	INSTITUTION: VRA RESETTLEMENT TRUST FUND THEMATIC AREA: INFRASTRUCTURE AND HUMAN SETTLEMENT POLICY OBJECTIVES: IMPROVE ACCESS TO EDUCATION AND HEALTH-CARE									
	PROJECTS	INDICATOR	Baseline (2015)	MTDP Target	Achievement	Remarks				
2016	Implementation of 2015/2016 Projects:Construction of new projectsRehabilitation of existing projects	Three (3) projects completed	Project requests submitted to the Board for approval	Completed projects handed over to townships by Q4, 2016	 Extension of Staff Common Room and Wiring of 3-unit Classroom Block at Labum Resettlement Provision of Furniture and Hospital equipment to Clinic at Tongor Kaira Resettlement Wiring of Health Centre at Botoku Resettlement. 	Inadequate funds to undertake more projects due to delay of grant from VRA				

Period	Thematic Area: Infrastructure and Human Settlement Policy Objectives: Improve access to education and health-care					
	PROJECTS	INDICATOR	Baseline (2016)	MTDP Target	Achievement	Remarks
2017	Implementation of 2016/2017 Projects:Construction of new projectsRehabilitation of 	Eleven (11) projects completed for the communities	Project requests collated and prioritized to be approved for execution	Completed projects handed over to townships by Q4 2017	Completion of GETFund- assisted projects: 1. 2-unit Kindergarten Block with ancillary facilities at Tokoroano Resettlement 2. 2-unit Kindergarten Block with ancillary facilities at Kete Krachi Resettlement	New projects of the Trust were not executed because the Board of the Trustees had not been inaugurated by then to approve projects.

VOLTA ALUMINIUM COMPANY (VALCO)

Period		ENSURE AND SUSTAINING M /E (S): KEEP VALCO OPERAT		STABILITY		
	PROJECTS	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks
2014	Sustain VALCO's Operations and allocation of power for additional line	 Maintain one (1) Cell Line operations (i.e. production of 40,000 MT per annum) Secure additional 75 MW at globally competitive tariff to operate 40% of Smelter Supply local Downstream Aluminium Industries: Aluworks and Western Rod Wire Ltd (WRWL), and export balance Continue preparations for 2nd Cell Line start-up 	40,200 MT Production Capacity per annum (i.e. 20% of total capacity which is operating One (1) Cell Line)	 Maintain one Line operations and supply local downstream aluminium Industries: Aluworks and Western Rod Wire Ltd (WRWL) and export the balance. Secure additional 75 MW at globally competitive tariff 	 Cumulative production of 38,169.43 MT of aluminium by end of Q4 Cumulative Metal Supplies: Aluworks: 7404.38 MT WRWL: 2,465.97 MT Export: 28,212.00 MT High level discussions among key stakeholders on- going. 	 Over the review period (i.e. 2013 - 2017), VALCO, continued operation of only one Cell Line due to the national energy challenge posed a serious threat to the survival of the Smelter and thus the Integrated Aluminium Project (IAP). In 2015, repeated power supply interruptions to the Plant due to Automatic Frequency Load Shedding (AFLS) operations resulted in huge revenue losses and threatened a total shutdown of the only operating line on several occasions. From 2014 to 2015, low levels of water in the hydro reservoirs and the power crisis befalling the

	INSTITUTION: VALC	NSTITUTION: VALCO									
	THEMATIC AREA: ENSURE AND SUSTAINING MACRO ECONOMIC STABILITY POLICY OBJECTIVE (S): KEEP VALCO OPERATIONAL										
Period											
	PROJECTS	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks					
				to operate 40% of Smelter		 country negatively affected production levels. GRIDCo provided tremendous support and continues to do same any time AFLS occurs. The situation has improved significantly. 					
2015					1. Cumulative production of 33,820 MT of aluminum by end of Q4 Cumulative Metal Supplies: Aluworks: 5,634 MT •WRWL: 2,342 MT Export: 25,204 MT						

	INSTITUTION: VALCO	1									
	THEMATIC AREA: EN	SURE AND SUSTAINING	G MACRO ECONOMIC S	TABILITY							
Period	POLICY OBJECTIVE (S): KEEP VALCO OPERATIONAL										
	PROJECTS	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks					
					2. High level discussions among key stakeholders on- going.						
2016					1. Cumulative production of 37,322.59 MT of aluminum by end of Q4						
					Cumulative Metal Supplies: Aluworks: 5,280.83 MT WRWL: 2,833.11 MT Export: 30,006.42 MT						
					2. High level discussions among key stakeholders on- going.						
2017					1. Cumulative production of 37,819.17 MT of aluminum by end of Q4						
					Cumulative Metal Supplies: Aluworks: 5,249.14 MT						

Period	NSTITUTION: VALCO THEMATIC AREA: ENSURE AND SUSTAINING MACRO ECONOMIC STABILITY POLICY OBJECTIVE (S): KEEP VALCO OPERATIONAL									
	PROJECTS	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks				
					WRWL: 2,643.04 MT Export: 30,569.05 MT 2. A Stakeholder Committee was set up bype the Government of Ghana (GoG) to recommend best approach to supplying VALCO with an additional 75 MW.					
					Government committed to supplying VALCO with an additional 75 MW for its operations and was read in the 2018 National Budget.					

	INSTITUTION: VALCO)				
	THEMATIC AREA:	ENHANCING COMPI	ETITIVENESS OF O	GHANA'S PRIVATE SECT	TOR	
Period	POLICY OBJECTIV	E (S): ENCOURAGE P	UBLIC AND PRIVA	ATE SECTOR INVESTME	ENTS IN THE POWER SEC	TOR
	PROJECTS	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks
2015	Integrated Aluminium Project (IAP) - Downstream Aluminium Industry	 JV Partnership with Western Rod & Wire Ltd (WRWL) – a Ghanaian Aluminium Wire Rod manufacturer JV Partnership with International Aluminium Profiles manufacturer(s) 	Technical and Financial Due Diligence on Western Rod and Wire industry toward JV partnership to usher Valco into the Downstream Aluminium Business.	Identify Potential Aluminium Downstream Joint Venture partnership locally and Internationally •Engage the services of a consultant to undertake a Feasibility Study for the VALCO- WRWL JV •Complete a Feasibility Study on SiderAlloys (Downstream JV Company) and related Markets. •Approve Financial Model for the VALCO- SiderAlloy Project	 Non-disclosure Agreement (NDA) signed with WRWL to develop a roadmap for the project Commenced discussions with SiderAlloys (a Swiss downstream aluminum company) towards the establishment of a Rod Mill Final report of the Feasibility Study for the VALCO-WRWL JV submitted by Consultant. Preliminary Due Diligence on SiderAlloys completed and Project Financial Model being reviewed towards approval. 	 In 2017, VALCO-WRWL JV Partnership discontinued as WRWL failed to produce 700 MT of Aluminium metal per month after several trial runs. Adding value to VALCO's products in the downstream sector will greatly minimise the negative impact of falling global aluminium prices In 2016, the parent company of Sider Alloys acquired a Smelter in Europe to be the feedstock for their downstream Plants situated in close proximity to the Smelter. Thus, the Project was discontinued.

Period	INSTITUTION: VALCO THEMATIC AREA: ENHANCING COMPETITIVENESS OF GHANA'S PRIVATE SECTOR POLICY OBJECTIVE (S): ENCOURAGE PUBLIC AND PRIVATE SECTOR INVESTMENTS IN THE POWER SECTOR										
	PROJECTS	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks					
2017				 VALCO-WRWL JV: Production of 1,000 MT of Aluminum wire rods per month at WRWL Identify a JV Partner and sign MoU and commence Feasibility Studies toward the establishment of an Extrusion Plant 	 Completed trial runs for the production of 700 MT/month at the WRWL facility. MoU and NDA signed with Perfect Energy (PE) to co-develop 2-Phased 10,000 MTPA Aluminum Extrusion Plant to produce profiles for both local and export markets. Exchanged Critical Information with Perfect 						

Period		nhancing Competitiven s): Encourage public an		vate Sector vestments in the Power Sector		
	PROJECTS	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks
2015	Secure Semi- Captive Power Plant to enable VALCO operate at Full Business Potential long term	 Completion of Bankable Feasibility Study Execution of Power Purchase Agreements (PPAs) Incorporation of JV Company with First Power Energy (FPE) Completion of Front End Engineering Design (FEED) 	In discussion with FirstPower Energy (FPE) to develop a Power Plant. Project land for Power Plant secured at Tema.	 Sign LOI with FirstPower Energy for collaboration on the project. Bankable Project Feasibility Study in progress. Develop and review Term Sheet for JV arrangement. Complete Bankable Feasibility Study. Secure Fuel Supply Agreements (FSA) with fuel supplier. Finalize Power Purchase Agreements (PPA) with Off-takers. Finalize Shareholders Agreement (SHA) with Partner. Incorporate JV Company with VALCO and First Power Energy (FPE) Commence civil and other critical works. 	 The LOI was signed with FPE towards the development of the Power Project Project Definition Study completed by FPE. Feasibility Study was in progress Draft PPA and SHA submitted to VALCO and is currently being reviewed. Project Feasibility Study is currently in progress. 	Continued to work with Ministry of Power and other stakeholders for continued support during execution of the Project

Period	Thematic Area: Enhancing Competitiveness of Ghana's Private Sector Policy Objective (s): Encourage public and private sector investments in the Power Sector										
	PROJECTS	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks					
2017				 Completion of Bankable Feasibility Study. Execution of Power Purchase Agreements (PPAs). Incorporation of JV Company with First Power Energy (FPE). 	• Completed Project Pre- Feasibility Study.						
				●Completion of Front End Engineering Design (FEED) for Power Plant.							

	Institution: VALCO											
Period			iveness of Ghana's									
I erioù	Policy Objective (s): Encourage public and private sector investments in the Power Sector											
	PROJECTS	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks						
2015	Development of a Gas-fired Plant 450 MW Gas fired combined Cycle Power Plant.	450 MW Combined Cycle Gas fired Power plant dismantled and shipped from India to Ghana.	Collaboration procedures with Sravanthi Infratech Private Limited (SIPL) to co-develop and operate a 450 MW Gas-fired Thermal Power Plant at Alabokazo as Joint Venture (JV) Partners	To relocate a 450 MW Power Plant in two phases of 225 MW each from India to Ghana	Bankable Project Feasibility Study was about 30% complete.	Potential JV Partner, SIPL, indicates their decision to pull out as they no longer had the full backing of their key financiers and partners.						

Period	Institution: VALCO Thematic Area: Enhancing Competitiveness of Ghana's Private Sector Policy Objective (s): Encourage public and private sector investments in the Power Sector										
	PROJECTS	INDICATOR	Baseline (2016)	MTDP Target	Achievement	Remarks					
2017	Revamp the VALCO Smelter to fully anchor Ghana's Integrated Aluminium Industry	 Stop-gap Cell Technology to sustain VALCO's operations in the short-to-medium term selected. For the long term, continue collaboration with DUBAL on Cell Technology Upgrade from P69 Smelter Technology to the D18+ Smelter Technology. 	 Preliminar y discussions commenced with other technology providers to identify more options and select the best option Business Proposal received from DUBAI ALUMINIUM (DUBAL) for collaboration on Cell Technology upgrade 	 Select the Best Technology to upgrade the Smelter's current P69 Technology in the short to medium term Secure funding Commence Engineering and Purchases for Phase 1 of DUBAL (Cell Lines 3, 4 & 5) 	 Towards the short-to- medium term measure, business Proposal from METSOL Ltd - an international company which specializes in technical solutions for the aluminium industry - received and approved for the Pilot Phase to commence (Phase 1) Towards the long term goal, a desktop Pre- feasibility Study was conducted for DUBAL's cell technology upgrade 	DUBAL cell technology upgrade is a long term fix while METSOL cell technology upgrade is a short term stop gap to aid sustenance of VALCO's operations.					

NORTHERN ELECTRICITY DISTRIBUTION COMPANY (NEDCO)

Distribution Network Rehabilitation Phase I (DNRP I)

This project was initiated in order to improve power supply quality, increase customer access and improve service delivery and satisfaction. The contract was awarded and project commenced in 2013.

Construction of Buipe Substation

To increase the network capacity and enable new communities to be connected and also improve the quality of power supply to Buipe Township and Savanna Cement Factory, the construction of the Buipe substation was undertaken. The project commenced in 2013 after the contract was awarded.

Construction of Nyankpala and Kototrom Substations under JICA Funding

The Government of Ghana represented by the Ministry of Energy and Ministry of Finance secured a Grant from the Government of Japan to undertake projects aimed at improving the power distribution system. These projects involved the construction of two (2) 7.5MVA, 34.5/11.5kV primary substations and their associated distribution lines in Sunyani and Tamale. The contract was awarded and commenced in 2013.

Network Protection System Improvement & Rehabilitation Phase I (NPSIP I)

This project was undertaken to ensure that reliable power is supplied to communities in Techiman and Sunyani Areas. The project commenced in 2013 after the contract was awarded.

eGIS Mapping of Network Assets and Customers in Sunyani and Tamale

This project, funded by VRA is to enable NEDCo automate its business processes to improve its operational efficiency. The project which covered Sunyani and Tamale Areas involved the geographical mapping of the distribution network assets and Customer Indexing, Data processing, Data verification and Software Acceptance Testing. The contract was awarded and the project started in 2013.

Network Protection System Improvement & Rehabilitation Phase II (NPSIP II)

This project was undertaken to ensure that reliable power is supplied to communities in Bolgatanga, Tamale and Wa Areas. The project preparatory works commenced in 2013.

Supply of 45,000No. Prepaid Meters (Phase I)

The Commercial losses in NEDCo are predominantly due to persistent power theft, meter tampering, meter bypassing, illegal connections, wrong meter readings, billing inaccuracies, delay in bill payments, non-payment of bills and malfunctioning of meters. These result in higher losses, low revenue collection, and weak financial standing of NEDCo. In the quest to resolve these issues, 45,000 additional prepaid meters were procured and installed by the end of 2014.

Supply of 90,000No. Prepaid meters (Phase 2)

Also as part of the continual effort to reduce the loses and improve the revenue base of the company, additional 90,000 prepaid meters were procured and installed by the end of 2015.

	Institution: NORTHERN ELECTRICITY DEVELOPMENT COMPANY (NEDCo) Thematic Area: Infrastructure and Human Settlement											
Period	Policy Objectives: Ensure Adequate, reliable and affordable energy supply to meet the needs of households and industries as well as for export											
	Programme	Sub- Programme /Projects	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks					
2014	Improve quality of supply, increase customer access	Distributio n Network Rehabilitat ion Phase I	Distribution network 100% rehabilitated	Completed Tender documents and	Complete project and handover to NEDCo	60% of project completed	Project fully implemented in 2015. Project delayed due to funding constraints and					
2015	and improve customer service delivery and satisfaction	(DNRP 1)	as per Contract	per Contract awarded to Contractor		Project completed and handed over to NEDCo	consequential delays in payments to Contractors					
2014	Increase capacity to connect new communities 2.	Constructi on of 34.kV	Construct a switching station at	Contract awarded and	Complete civil works and delivery of materials and equipment	70% of project completed						
2015	Improve quality of supply to Buipe township and Savanna Cement Factory	Buipe Switching Station	Buipe	Contractor mobilized to site	Complete electro- mechanical works and handover project to NEDCo for operation	Project 100% completed and handed over to NEDCo	Project fully implemented, but it delayed due to funding constraints and consequential delays in payments to Contractors					

	Institution: NEDCo	1												
	Thematic Area: Infr	Thematic Area: Infrastructure and Human Settlement												
Period	Policy Objectives: Ensure Adequate, reliable and affordable energy supply to meet the needs of households and industries as well as for export													
	Programme	Sub- Programme	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks							
2014	Increase capacity to connect new communities 2.	Construction of 34.5/11.5kV	Construct two primary	Grant Agreement between Ghana and Japan signed	Complete civil works and deliver materials and equipment	50% of project completed								
2015	Improve quality of supply to Buipe township and Savanna Cement Factory	Substations Nyankpala and Kotokrom under JICA Funding	substations, one in Kotokrom & another in Nyankpala	Grant Agreement between Ghana and Japan signed	Complete electro- mechanical works and handover project to NEDCo for operation	Project 100 % completed and handed over to NEDCo	Project completed							
2014	Improve quality and reliability of supply and improve	Network Protection System Improvemen	Rehabilitate and improve distribution network	Contract awarded	Complete supply of protection equipment and commence installation works	40% of project completed	About 5% of works still outstanding. Delays in							
2015	customer service delivery and satisfaction	t & Rehabilitatio n Phase I (NPSIP 1) – Techiman			Complete installation, testing and commissioning of the protection equipment and hand over to NEDCo for operation	60% of project completed	completion of project attributed to funding constraints and delays in payments							
2016		and Sunyani Areas				95% of project completed and handed over to NEDCo	to contractors							
2017						Project substantially completed and handed over to NEDCo								

	Institution: NED	Со					
	Thematic Area:	Infrastructure	and Human	Settlemer	nt		
Period	Policy Objectives	Ensure Adeq for export	-	le and affo	rdable energy supply to	meet the needs of households and indu	stries as well as
	Programme	Sub- Programme	Indicator	Baseline (2013)	MTDP Target	Achievement	Remarks
2014	Improve Asset Management	eGIS Mapping of Network	Network assets eGIS data 100%	Contract awarded	Complete GIS data mapping in Tamale Operational Area	GIS data mapping in Tamale Area 80% completed	
2015		Assets and Customers in Tamale and Sunyani	mapped		Complete GIS data mapping in Sunyani Operational Area. Commence Customer Indexing in Tamale and Sunyani Areas	GIS data mapping in Tamale 100% completed, GIS data mapping in Sunyani completed per the Contract. Customer Indexing in Tamale Area, 100% completed Customer Indexing in Sunyani Area completed per the Contract IT systems supplied, successfully installed and integrated eGIS system handed over to NEDCo	Project fully implemented Project completed ahead of schedule
2016					Complete Customer Indexing in Tamale and Sunyani Areas Complete installation of IT systems and hand over	Project completed ahead of schedule	

	Institution: NED	Со											
	Thematic Area: I	Thematic Area: Infrastructure and Human Settlement											
Period	Policy Objectives: Ensure Adequate, reliable and affordable energy supply to meet the needs of households and industries as well as for export												
	Programme	Sub- Programme	Indicator	Baseline (2013)	MTDP Target	Achievement	Remarks						
					integrated eGIS system to NEDCo								
2017					Project substantially completed and handed over to NEDCo	Project completed ahead of schedule							
					Contractor provided for O&M support								

	Institution: NEDCo	0					
	Thematic Area: Inf	frastructure a	nd Human Sett	lement			
Period	Policy Objectives: E	Ensure Adequ as for expor		d affordable e	energy supply to meet th	e needs of households	and industries as well
	Programme	Sub- Programme	Indicator	Baseline (2013)	MTDP Target	Achievement	Remarks
2014	Improve quality and reliability of supply and customer service	Network Protection System Improveme	Distribution network rehabilitated and improved	Tendering process completed	Complete supply of protection equipment and commence installation works	-	Delays in start (2014, 2015) and completion of project attributed to funding constraints and
2015	delivery and satisfaction	nt & Rehabilitati on Phase II (NPSIP 2) – Bolgatanga, Tamale and	as per Contract	Contractor Selected and contract awarded	Complete installation, testing and commissioning of the protection equipment and hand over to NEDCo for	-	delays in payments to contractors
2016		Wa Areas			operation Complete supply of protection equipment and commence installation works	About 20% of materials supplied	Project ongoing
2017					Complete installation, testing and commissioning of the protection equipment and handed over to NEDCo for operation	About 50% of materials supplied	

Thematic Area: Infrastructure and Human Settlement

Perio d Policy Objectives: Ensure Adequate, reliable and affordable energy supply to meet the needs of households and industries as well as for export

	· · · ·						1
	Programme	Sub-Programme	Indicator	Baseline (2013)	MTDP Target	Achievement	Remarks
2014		Supply of 45,000No. prepaid meters (Phase 1) – 2014	45,000No. prepaid meters supplied by end of 2014		Deliver all 45,000No. prepaid meters	All 45,000No. pre-paid meters delivered	Project fully implemented
2015	Improve revenue collection and	Supply of 90,000No. prepaid meters (Phase 2) – 2015	90,000No. prepaid meters supplied by end of 2015		Deliver all 90,000No. prepaid meters	All 90,000No. prepaid meters delivered	Project fully implemented
2016	reduce commercial losses.	Supply of 25,000No. prepaid meters (Phase 3) – 2016	25,000No. prepaid meters supplied by end of 2016	Contractor Selected and contract awarded	Deliver all 25,000No. prepaid meters	All 25,000No. pre-paid meters delivered	Project fully implemented
2017		Supply of 125,000No. prepaid meters (Phase 4) – 2017	125,000No. prepaid meters supplied by end of 2017		Deliver all 125,000No. prepaid meters	87,000No. pre-paid meters delivered	Project ongoing. Outstanding 38,000 meters to be delivered in January 2018
2017	Improve revenue collection and reduce commercial losses.	Supply of 20,000No. credit meters (Phase 4) – 2017	20,000No. credit meters supplied by end of 2017		Deliver all 20,000No. credit meters	All 20,000No. credit meters delivered	Project fully implemented

BUI POWER AUTHORY (BPA)

Summary of Projects (2014-2017)

- i. The 4MW Turbinette Project becomes part of the Bui Hydroelectric Project deliverables following a change in scope which lead to the replacement of the bottom outlet with a 4MW plant. The rationale behind the change was to ensure the full utilization of the volume of water to be discharged during the off peak hours when the Bui Generating Station is not in operations for the purposes of ecological flow. The project was successfully completed in 2015.
- ii. The River Training Project was undertaken to improve the generation efficiency of the Bui Generating Station by reducing the tail water elevation during operations. As of 2014, the tail water elevation when one unit was in operation was 103.50m. This resulted in a significant loss of about 33.24GWh of energy annually. The project sought to reduce the tail water elevation from between 0.8 1m when one unit is in operations in order to increase the net head during operations. The project was successfully completed in December 2015 with an increase in net head of 1.1m.
- iii. The Switchyard expansion project was aimed at making available the necessary provision to facilitate the injection of utility-scale solar PV energy into the NITS at the BGS. The project also sought to address the issue of low contribution of renewable energy in the national energy mix. The project commenced in Quarter 4 of 2016 and was successfully completed in Quarter 3 of 2017. The BGS currently has the capacity to inject up to 250MWp of Solar PV into the NITS at the BGS Switchyard.
- iv. Solar Development Project (50MWp) was divided into two phases. The first phase which had to do with undertaking studies and competitive tendering was successfully completed in 2016. The second phase which had to do with the project development of a 50MWp Hydro-Solar-

Hybrid did not materialize. The main contributing factor behind the stalemate had to do with the Projects' in ability to secure a Power Purchase Agreement from the Electricity Company of Ghana. Several appeals to ECG through the Ministry of Energy proved futile. The project will progress once the PPA hurdle is breached.

v. 30kW Tsatsadu Project is a demonstrational project designated to demonstrate capability and also kickoff the development of small hydro power in the country. Feasibility studies and designs works which commenced in quarter 1 of 2017 were successfully completed in quarter 4 of 2017. Construction could not commence in 2017 due to long lead-time associated with the procurement process. Construction and installation works are expected to be completed in quarter 4 of 2018.

BUI POWER AUTHORY (BUI)

Period	Thematic Area	Institution: Bui Power Authority Thematic Area: Infrastructure & Human Settlements Policy Objectives: Provide adequate, reliable and affordable energy to meet the national needs and for export (GSGDA II, 5.1)										
	Programme	Indicator	Projects	Baseline (2013)	MTDP Target	Achievement	Remarks					
2014	Power Generation, Transmission and Distribution	1. % completion of Civil works 2. % of M&E installation	4MW Turbinette	Intake stuctures for 4MW Turbinette completed to 100%	1.Complete Civil works to 100% 2.Complete Electromechanical works to 100% + commissioning of plant	Civil works - 70% Electromechanical works - 15%	Target was not achieved due to delays associated with bad weather conditions.					
2015	Power Generation and Transmission	s 3. Tested & Commissio ned	4MW Turbinette	Civil works - 70% Electromechani cal works - 15%	 1.Complete Civil works to 100% 2.Complete Electromechanical works to 90% + commissioning of plant 	Civil works completed Electromechanical works completed + plant commissioned.	Target achieved Addition of 4MW plant capacity					
2013			River Training	(2014) Tailrace water elevation when 1 unit is in operation was 103.50	Increase net head by lowering the tailrace water elevation by 0.8 - 1m	Tailrace water elevation reduced by 1.1m	Fully implemented(33.24GWh of energy per year was harnessedpost completion of works)					

Period	Thematic Area:	Institution: BUI POWER AUTHORITY Thematic Area: Infrastructure & Human Settlements Policy Objectives: Increase the proportion of renewable energy (solar and mini-hydro) in the national energy mix (GSGDA II, 5.2)										
	Programme/ Sub- Programme	INDICATO R	Projects	Baseline (2015)	MTDP Target	Achievement	Remarks					
2016	Renewable		BGS Switchyard Expansion to accommodate 250MW solar PV	Ministerial approval For	Complete expansion works by May 2017	65% completed	ONGOING					
	Energy Development Renewable Energy	% completi on project	Solar PV development (50MWp)	projects	1. Complete studies for hydro-solar complementarity. 2. Complete competitive tendering of solar project.	studies for hydro-solar complementarity Completed competitive tendering of solar project Completed	Target achieved					
2017			BGS Switchyard Expansion to accommodate 250MW solar PV	65% completed	Complete expansion works by May 2017	Completed, tested, commissioned and handed over in July 2017	Fully implemente d					

	Institution: BUI POV Thematic Area: Infr						
Period	Policy Objectives: Ir	ncrease the prop	ortion of renewal	ole energy (solar and mini-hy	dro) in the national energy	mix (GSGDA II, 5.2)	
	Programme/ Sub-Programme	INDICATOR	Projects	Baseline (2015)	MTDP Target	Achievement	Remarks
2017	Renewable Energy Development Renewable Energy	% completion of project	Solar PV development (50MWp)	1. Studies for hydro- solar complementarity completed. 2. Competitive tendering of solar project completed and developer selected.	Complete developmental arrangements and advance solar installation works to a minimum of 60% for both projects.	Provisional License obtained.	Works could not progress due to challenges in securing a PPA for the project.
			30kW Tsatsadu Mini-hydro project	Transfer of Ownership & Operator to BPA (Dec. 21, 2016)	Commence construction	 30kW micro unit was retrieved and reconditioned. Site assessment completed. Topographical surveys completed. Design of structures completed. Environmental Permit renewed. Community engagement and stakeholder meetings were done. BOQ preparation was 50% completed 	Project could not commence as due to long lead time of the procurement process.

BULK OIL STORAGE DISTRIBUTION (BOST)

PROJECTS DESCRIPTION

BOST Petroleum Terminal (BPT) Project, Pumpuni

The project seeks to develop a new petroleum products and LPG terminal at Pumpuni (BPT), 25km west of Takoradi, in Ghana. The Project will consist of BOST Pumpuni Terminal for initial storage of150, 000m3 of white oil products & 20,000m3 of LPG, pipelines and associated Pumping Stations to facilitate transmission of these products between Pumpuni/Takoradi (AGO, PMS, LPG) and Atuabo/Pumpuni (LPG), as well as the development of the new Oil Jetty at Takoradi port which will facilitate import and export of the products stored at Pumpuni.

BOST Depots Upgrade Project

As part of the evolution of a proper operating structure, the BOST depot upgrade project is planned as a full integration of systems, hardware and controls through depot automations, equipment upgrades and safety enhancements to deliver efficiency to depot operations, improve the standard of its operations and maintenance of the BOST facilities. The project's principal deliverable is the increase in current flow rates to 2400l/min from the current 900-1100l/min.

Buipe and Bolga BRV Parking lot:

1. BOST plans to construct a new 150 BRVs capacity concrete paved parking lot, refurbish the existing 50 capacity parking lot with other ancillaries in Buipe.

2. A new 200No. Capacity concrete paver parking lot with other ancillaries to accommodate the growing number of vehicles which patronise the depot at Bolga.

Depot Maintenance

This involves the decommissioning, cleaning, repair, inspection & re-commissioning of defective petroleum storage tanks at various BOST depots.

Re-instatement of Tema-Akosombo Petroleum Pipeline (TAPP)

The aim is to restore the existing decommissioned petroleum product pipeline linking the APD depot through Mami Water depot to Akosombo depot. The essence is to ensure improved efficiency, safety and cost effectiveness in the distribution of petroleum products.

BOST American Tank and Vessel (BATV) Project

This project involves the construction of a 12" petroleum pipeline from APD depot to Akosombo depot to aid cost effective inter-depot product transmission.

Eastern Distribution System (EDS)

A high level engineering concept study to evaluate the indicative viability of expanding BOST's existing EDS assets to meet the market demand of the Sahelian region. The aim is to use comparatively more efficient pipelines and barges to transport petroleum product and LPG to the middle and northern parts of the Country

Rehabilitation of Barges (BOST 1&2)

BOST intends to use part of its internally generated funds to repair two (2) of its petroleum barges and convert one (1) from diesel to gasoline.

BOST Head-Office Complex

The design consists of two seven storey buildings with shared parking of 200 parking spaces on three levels. The facility, located in the Gulf house area occupies a total floor space of 9000m2 and is designed to accommodate all BOST staff in one building while the other building is intended to be rented out

APD Depot Administrative Block

The projects seek to build an admistrative block comprising of five pre-fabricated structures namely:

- 1. Single Storey,
- 2. Double Storey
- 3. Recreational building,
- 4. Eight-Man office and
- 5. Driver's Lounge.

20,000MT capacity LPG storage facility:

The purpose of this project is to provide a total of 20,000MT of LPG storage tanks and associated facilities at Tema. This facility will provide strategic reserve storage for LPG and ensure fuel security.

Natural Gas Interconnected Transmission System

This project seeks to design and build a network of natural gas transition pipelines across the country

Tema Gas Distribution Network (FEED)

This project seeks to develop a gas distribution pipeline network in the Tema industrial enclave

Period	BOST (2014-2017) Thematic Area: ENERGY, OIL & GAS DEVELOPMENT Policy Objectives: Ensure adequate availability of petroleum products in the Ghanaian market										
	Programme	Projects	INDICATOR	Baseline (2013)	Indicators MTDP Target	Achievement	Remarks/ challenges				
2014	Increase the strategic storage capacity to reach the targeted 12 weeks of national consumption	BOST Petroleum Terminal (BPT) Project, Pumpuni	1. 20,000 m3 LPG storage tanks constructed 2. 60,000 m3 capacity gas oil	completion of initial feasibility studies and environment al Impact Assessment	 Re-scope project to include jetty facilities Undertake full financial and technical feasibility studies. 	Commenced re- scoping	1.Reviewing of terms with project partners 2.Challenge s with				
2015			storage tanks constructed 3. 90,000 m3 capacity gasoline storage tanks and	rage tanks (EIA) structed 90,000 m3 acity gasoline	 Raise Capital for project. Commence Front End Engineering Design (FEED) for all facilities. 	Completed re-scoping and commenced technical and financial feasibility studies	additional land acquisition 3.Unfavorab le GPHA				
2016			ancillaries built 4. New Jetty at Takoradi harbor built		Raise Capital for project. Complete Jetty FEED. Complete Jetty Detailed Engineering. Sign jetty concession agreement.	 Started activities to raise capital for project Completed technical and financial feasibility studies Commenced FEED 	jetty concession agreement 4. Engineering challenges				

	Thematic Area: ENERGY, OIL & GAS DEVELOPMENT Policy Objectives: Ensure adequate availability of petroleum products in the Ghanaian market												
					Indicators								
	Programme	Projects	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks/ challenges						
					Begin Jetty topside construction.	for jetty and storage tanks	with variet of petroleum						
					Complete BPT Facility FEED.	Project on hold	products specificatio						
					Complete acquisition of Atuabo initial station, New Takoradi Offtaker station.		ns in W/R 5.						
2017					Acquire pipeline ROW, EPA permit, NPA permit, fire permit and district assembly permit.		Unwillingn ss of Ghana Gas (GNGC to share						
					Finalized project estimates.		pipeline right of wa						
					Prepare tender documents.		with BOST.						
					Finalize Financial model.								
					Complete the procurement of procure and construct vendor.								

Period	Thematic Area: ENERGY, OIL & GAS DEVELOPMENT Policy Objectives: Ensure adequate availability of petroleum products in the Ghanaian market											
	Programme	Projects	INDICATOR		Indicators		Remarks/					
		,		Baseline (2015)	MTDP Target	Achievement	challenges					
2016	Increase BOST operational efficiency	BOST Depots Upgrade Project.	1. New loading and receiving equipment at all BOST depots	Thorough assessment of all six (6No.) BOST facilities	Initiate and complete thorough assessment of BOST facilities (6No. Depots) across Ghana	Completed assessment of BOST facilities	Inadequate funds					
2017	and to effectively implement the zonalization policy		installed. 2. Improved product loading	was conducted to identify areas which required modification.	Source for Contractor/ Vendor and award contract and commence works.	1. Procured contractor, and awarded contract2.Commenced procurement of equipment for works.	Project was suspended to conduct Value for Money					
	poncy		flow rate from approximately 900 litres/ min to approximately 2400 litres/min		Commence works in all six (6No.) depots (APD, Mami Water, Akosombo, Kumasi, Buipe, Bolga).	 Completed procurement of parts of equipment and materials Procurement of sub-contractors Completed system design and documentation 	Audit					
					Deliver full scope of project. Phase 1 shall provide for the completion of APD to reflect the Honeywell contractual solution in full.							
					Kumasi, Bolga, Buipe, Akosombo and Mami Water will be upgraded to accommodate pipeline increase to 4							

Peri od	Thematic Area: ENERGY, OIL & GAS DEVELOPMENT Policy Objectives: Ensure adequate availability of petroleum products in the Ghanaian market											
u					Indicators							
	Programme	Projects	ects INDICATOR	Baseline (2015)	MTDP Target	Achievement	Remarks/ challenges					
2016	Increase BOST operational efficiency and to effectively implement the	Buipe and Bolga BRV Parking lot	Buipe: 1. Existing BRV parking lot rehabilitated 2. 150 BRV parking lot completed	Geological assessment of proposed lands were conducted.	 Scope Works for both locations Commence procurement process Conduct geotechnical survey on both the lands 	 Defined scope works for both locations Performed a high level cost estimate Carried out geotechnical survey on the land at Bolgatanga 	 Lack of Funds Difficulties with land acquisition Project was 					
2017	zonalization policy		 3. Rest-room facility Building completed. Bolga: 1. 200 BRV parking lot completed 		Buipe: 1) Construct concrete paver parking lot for 200No BRV trucks of capacity 50,000 litres. New ancillary items made up of drivers' lounge and 5No toilet/bath for the new 200 capacity parking lot. 2) Gravelling, levelling and compaction of the existing tanker parking lot for 50No BRV trucks of capacity 50,000 litres.		was suspended due to lack of funds.					

BOST (2014-2017)

Thematic Area: ENERGY, OIL & GAS DEVELOPMENT

Peri Policy Objectives: Ensure adequate availability of petroleum products in the Ghanaian market

			INDICATOR				
l	Programme	Projects		Baseline (2015)	MTDP Target	Achievement	Remarks/ challenges
			2. Rest-room and other ancillaries building completed		 3) Refurbish existing 3No. temporary washroom for the existing 50 capacity parking lot. 4) Scarifying, grading, compacting and asphalting of up to 400m of existing road in front of the depot Complete with a drainage system 		
					Bolga: 1) Construct 200No. Capacity BRV parking lot b) Construct ancillary items to include mosque, washroom/toilet c) Construct road directly from the car park to join the Accra-Tamale highway."		

	BOST (2014-2017) Thematic Area: ENERGY, OIL & GAS DEVELOPMENT Policy Objectives: : Ensure security for oil and gas installations and operations in the upstream, midstream, and downstream									
Period										
			INDICATOR							
	Programme	Projects		Baseline (2013)	MTDP Target	Achievement	Remarks/ challenges			
2014 2015	Increase BOST operational efficiency and to effectively implement the zonalization policy	Depot Maintenanc e	Repaired and re- commissione d tanks	Manageme nt had agreed on the need to assess the integrity all storage tanks	 Identification of tanks that required major maintenance works. Commence procurement process for vendors. Decommission, clean out and re-commission all tanks due for cleaning. 	 Assessed and Identified tanks that required major maintenance works. Commenced procurement process for vendors to clean tanks. Completed procurement of vendors for tank cleaning Decommissioned, cleaned out and re-commissioned all tanks due for cleaning. 	Project was suspended in 2017 due to lack of funds.			
2016			Commence and complete repair works on defective tanks	Commenced procurement of contractor for major repair works						
2017					Commence and complete repair works on defective tanks					

Period	Thematic Area: ENERGY, OIL & GAS DEVELOPMENT Policy Objectives: Ensure security for oil and gas installations and operations in the upstream, midstream, and downstream								
	Programme	Projects	INDICATOR	Baseline (2013)	Indicator MTDP Target	rs Achievement	Remarks/ challenges		
2016 2017	Increase and maintain transmissio n infrastructu re to improve depot to depot transfer of products	Re- instateme nt of Tema- Akosombo Petroleum Pipeline (TAPP)	Restored recommission ed pipeline	Pipeline decommissi oned to give way for repair works on Adomi Bridge	 Scope Works Complete procurement process Award Contract Commence and complete works Re-commission Pipeline for Operations Conduct Hydrostatic test to ensure no section of the pipeline is leaking. Complete clearing of right of way and cathodic protection. Commission pipeline of operation. 	 Defined scope of works Procured contractor and awarded contract Commenced pipeline restoration works 	Encroachm ent of pipeline right of way Project was suspended in 2017 to carry out Value for Money Audit.		

Period	Thematic Area: ENERGY, OIL & GAS DEVELOPMENT Policy Objectives: Ensure adequate availability of petroleum products in the Ghanaian market									
			INDICATOR							
	Programme	Projects		Baseline (2013)	MTDP Target	Achievement	Remarks/ challenges			
2014 2015 - 2017	Increase and maintain transmissio n infrastructu re to improve depot to depot transfer of products	BOST American Tank and Vessel (BATV) Project	Installed 12" multiproduct petroleum pipeline from APD to Akosombo	Pipelines procured; awaiting shipment from Houston, TX to Tema. There was dispute between the parties involved (BOST and AT&V company)	 Settle dispute and Complete the shipment of pipes Review initial design Commence the construction of pipeline Complete the shipment of pipes Review initial design Commence the construction of pipeline 	Settled dispute and renegotiated cost of project No progress	1. Dispute between parties. 2. Lack of funds			

Period	Thematic Area: ENERGY, OIL & GAS DEVELOPMENT Policy Objectives: Ensure adequate availability of petroleum products in the Ghanaian market									
		Projects INI	INDICATOR Baseline (2015)		Remarks/ challenges					
	Programme			MTDP Target	Achievement					
2015	Increase and maintain transmissio n infrastructu re to improve depot to depot transfer of products	in Distributio n System ructu Proce co Pr of rts Rehabilitati Barges (BOST 1&2) Proce Reconstructu Proce Pr	Concept and Scoping	cept and were bing contracted	1. Scope works 2. Procure Consultant and award contract	 Defined scope of works Procured Consultant and awarded contract 	Project completed but recommenda			
2016			project.	Complete conceptual and scoping studies	Completed conceptual and scoping studies	tions are yet to be implemente d.				
2016			The barges had been decommissio ned after	 Define scope of Works Procure contractor and award contract 	 Defined scope of Works Prepared cost estimate Procurement process 	Project suspended due to lack of funds				
			oned barges	rges collision in 2012	Commence and complete rehabilitation works					

Period	Thematic Area: ENERGY, OIL & GAS DEVELOPMENT Policy Objectives: Ensure the development of the needed institutional and human resource capacity for the petroleum secto							
	Programme	Projects	INDICATOR	Baseline (2015)	Indicator MTDP Target	Achievement	Remarks/ challenges	
2016 2017	Develop building infrastructu re to accommoda te increasing staff strength and to improve services rendered.	BOST Head- Office Complex	Two (2No.) seven-storey buildings completed	Contract was awarded	1. Design and engineering of buildings2. Procurement of Contractor and contract award3. commence on-site mobilisation"1. Commence all structural works2. Commence all mechanical, electrical and instrumentation, fire suppression systems and IT infrastructure works1. Complete all structural works2. Complete all mechanical, electrical and instrumentation, fire suppression systems and IT infrastructure works1. Complete all mechanical, electrical and instrumentation, fire suppression systems and IT infrastructure works3. Testing of all installed equipment	 Completed design and engineering of buildings Completed procurement of Contractor and conract award commenced on-site mobilisation Commenced all structural works Commenced all mechanical, electrical and instrumentation, fire suppression systems and IT infrastructure works 	Disagreeme nt between parties on cost of project. Project was suspended in 2017 to make provision for value for money Audit	

Period			& GAS DEVELOP development of t		titutional and human resour	ce capacity for the petroleum secto	r
					Indicator	rs	Remarks/ challenges
	Programme	nme Projects IND	INDICATOR	INDICATOR Baseline (2015)	MTDP Target	Achievement	
2016 2017	Develop building infrastructu re to accommoda te increasing staff strength and to improve services rendered.	APD Depot Administr ation Block	 One (1 No.) Single Storey, One (1 No.)Double Storey A Recreational building, An Eight- Man office 		 Commence and complete all structural works Commence and complete all mechanical, electrical and instrumentation. Testing of all installed equipment and taking-over of facility Complete Project Complete installation of all buildings Taking over 	Contractor Mobilized to site. 1. Completed structural works 2. Tested Installed equipment. 3. Signed substantial completion certificate	Project completed
			and 5. A Driver's Lounge.	n			

Period	Thematic Area: ENERGY, OIL & GAS DEVELOPMENT Policy Objectives: Ensure adequate availability of petroleum products in the Ghanaian market										
	Programme	Projects	INDICATOR		Indicators						
		indication indication	Baseline (2016)	MTDP Target	Achievement						
2017	Provide Strategic Reserves for LPG to cater for 4 week of national consumption.	20,000MT capacity LPG storage facility	12000 metric ton LPG storage tank supporting loading facilities completed	Concept conceived	Commence procurement of FEED contractor	Done initial tendering (Expression of Interest) to pre-qualify potential FEED contractors	Project Ongoing				

		BOST (2014-2017) Thematic Area: ENERGY, OIL & GAS DEVELOPMENT										
Period	Policy Objectives Programme	s: Ensure acce Projects	elerated and inte	egrated develop Baseline (2013)	oment of the oil and gas industry Indicators MTDP Target	Achievement	Remarks/ challenges					
2014	Natural Gas Interconnecte d Transmission System: This project seeks to design and build a network of natural gas	Natural Gas Interconn ected Transmiss ion System	 20" gas pipeline from Aboadze to tema completed 2. Prestea to Buipe in the 	BOST had secured a Natural gas transmissio n utility (NGTU) license from the Energy Commission	 Complete scoping study Develop a complete gas asset management plan Develop appropriate human resource for gas business 	 Completed scoping study Developed a complete gas asset management plan. recruited competent workforce for gas business 	Project was transferred to Ghana National Gas Company (GNGC) as a result of directive from Ministry of Energy					
2015 2016	transmition pipelines across the country		Northern region of Ghana Design documents	Commission	Commence and Complete international competitive tendering process 1. Commence and complete the FEED for pipeline (Aboadze to Tema, and	Completed tendering process and awarded FEED contract 1. Completed market studies						
					Prestea to Buipe) 2. Commence and complete market studies	2. Completed FEED for the Aboadze to Tema Gas Pipeline						

	BOST (2014-201 Thematic Area:	-	& GAS DEVELOP	PMENT				
Period	Policy Objective	es: Ensure acco	elerated and inte	egrated develop	oment of the oil and gas industry			
					Indicators			
	Programme	Projects	INDICATOR	Baseline (2015)	MTDP Target	Achievement	_ challenges	
2016	Provide alternative fuel to industries	Tema Gas Distributi on Network (FEED)	 Financial and technical feasibility studies report. Above Ground Installation (AGI) completed 	Concept conceived. Commenced conceptual and feasibility study.	Completed conceptual and feasibility study.	Conceptual and feasibility study completed.	Project suspended for review of shareholders agreement.	
2017			3. Installed gas distribution pipeline from AGI to individual industrial		 Commence and complete the FEED. Commence capital raise Apply for gas distribution licence. 	1. Commenced capital raising activities 2.submitted application for gas distribution license	-	
			facilities					

GHANA GRID COMPANY (GRIDCO)

Period	Thematic Area: INFRAS	STRUCTURE AN	ID HUMAN SETTLEM	ENT		
r er rou	Policy Objectives:					
	Programme/Projects	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks
2015	Tumu-Wa - Han 161kV Transmission Project	Percentage completion	Sawla and Wa substations completed energized on October 26, 2014.	 Settling compensation and completing Bolga Navrongo sector. Pre-commissioning test and final inspection of the Bolgatanga substation and Bolga- Navrongo 161kV line respectively. Completion of 161kV Tumu-Wa - Han Transmission Project 	 Compensation payment for the Bolga Navrongo sector in progress. Refund of Taxes and Demurrage paid by the Contractor Bolgatanga-Navrongo section: Construction of tower foundations completed. Tower erection 98% complete. Pre-commissioning test and the final inspection underway. 161kV Tumu-Han-Wa Transmission line and Tumu substation completed, energized on February 3, 2015. Bolgatanga Substation: Construction of 161kV equipment foundations stood at 98% complete. Pre-commissioning test and the final inspection underway. Sunyani substation: Reinforcement of the existing transformer T1 pad has been completed. 	Funding for payment of compensation delayed the project

	Institution: GHANA	GRID COMPANY				
	Thematic Area: INF	RASTRUCTURE A	ND HUMAN SETTLEMENT			
Period	Policy Objectives:					
	Programme/Project s	t INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks
2015	Kpando-Kadjebi Transmission line	Percentage completion	Kadjebi SubstationSite clearing – 100%Embankment – 1%Transmission LineWorksLine Route Survey –100%Detailed line Design –90%Tower Pegging – 92.9%Property ImpactAssessment – 100%Evaluation of affectedProperty – 100%	80% Completion of Kpando-Kadjebi Project.	1. Kadjebi Substation: Civil works on embankment was 100% complete. Excavation and casting of equipment foundations was 90%. Blockwork on the control building was 30% complete, and erection of steel support structures including gantries was 80% complete during the period under review.2. Excavation and casting of equipment foundations was 30% at Kpando. At Kpando, the base concrete for power transformer was also completed during the period.	
					TransmissionLineWorks:Transmission line and Tower spotting was 100% completed. Foundation works of 12No. Towers were completed on the Transmission Line. Bush clearing was 12% and tower foundations on the161kVTransmission line was 3%.	

Period	Thematic Area: INFRAS	TRUCTURE AND	HUMAN SETTLEMEN	Т		
	Policy Objectives:					
	Programme/Projects	INDICATOR	Baseline (2016)	MTDP Target	Achievement	Remarks
2016	Kpando-Kadjebi Transmission line	Percentage Completion	KadjebiSubstationSite clearing -100%Embankment -1%TransmissionLine WorksLine Route Survey- 100%Detailed lineDesign - 90%Tower Pegging -92.9%	80% Completion of Kpando-Kadjebi Project.	1. Stringing in progress. (Averagely 20% strung for conductors, shield wire and OPGW).2. 158No. (80%) of towers erected and casting of equipment foundation was 99% completed at both Kpando and Kadjebi Substations.3. Construction of Control Building 75% completed in Kadjebi Substation.4. Erection of support structures and	8 towers have been left unpegged awaiting bush clearing activity
			Property Impact Assessment – 100% Evaluation of		gantries 99% completed at both Kpando and Kadjebi Substations.	
			affected Property – 100%		5. Continued with the construction of grounding grid and is 90% complete as well as final levelling of embankment	

Period	Institution: GHANA GRID COMPANY Thematic Area: INFRASTRUCTURE AND HUMAN SETTLEMENT Policy Objectives:									
	Programme/Projects	INDICATOR	Baseline (2016)	MTDP Target	Achievement	Remarks				
2017	Kpando-Kadjebi Transmission line and substation	Percentage completion	 Kpando substation works 66% complete. Kadjebi substation works 63% complete. Kpandu-Kadjebi transmission line works (bush clearing, access road construction and tower foundation works) 89% complete. 	 1. 100% completion of Kpando and Kadjebi substation works 100% complete. 2. 100% completion of Kadjebi transmission line works. 	 Transmission line works is 99% complete. Kpando and Kadjebi Substation works were also 99% complete respectively. Rectification of defects are on- going. 	Delay in the payment of compensation affected the successful completion of the project.				

	Institution: GHANA GR	ID COMPANY									
Perio	Thematic Area: INFRA	STRUCTURE AN	D HUMAN SETTLEM	ENT							
d	Policy Objectives:	Policy Objectives:									
	Programme/Projects	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks					
2015	3. 330kV WAPP Coastal Transmission Backbone Project – Phase 2 (CTB-2)	Percentage completion	Construction of 330kV Volta – Tornu (Togo Border) Transmission Line.	Project Completed since December, 2014.	 Rectification of defects on the OPGW installed in some sections of the line has been completed. The completed Line Section was successfully energized in November, 2015 to confirm final acceptance of the works and take over by GRIDCo. 	 The line is yet to be energised due to the delay in completion of the approach line and 330 kV Davie Substation in Togo. Outstanding compensation payments due to cash flow constraints within VRA and GRIDCo. 					
2015	330 kV Kumasi - Bolgatanga Transmission Project a. Construction of 520 km 330 kV transmission line from Kumasi to Bolgatanga and associated Substations in Kumasi, Kintampo, Tamale and Bolgatanga	Percentage completion	Preparation of bidding documents to be issued to Prequalified applicants	Contract award and signatory by December 2015.	 Evaluation of Bids received from pre- qualified bidders on September 18, 2015 was completed and the Evaluation Reports for the Transmission Line and Substation Components completed and submitted to AFD for their review and No-objection. AFD granted No-objection. Substations Component: AFD reviewed the Evaluation report for the 330 kV Substations and accepted it in principle. No Objection granted to proceed contract award after review of the Final Evaluation Report submitted. 						

Perio		stitution: GHANA GRID COMPANY nematic Area: INFRASTRUCTURE AND HUMAN SETTLEMENT blicy Objectives:										
	Programme/Projects	INDICATOR	Baseline (2014)	MTDP Target	Achievement 3. Pre-contract award meeting with, KEC International Ltd, India, selected contractor	Remarks						
					on November 23, 2015. The contractor commenced preliminary surveys in order to expedite the project completion. Contract is expected to be signed in January, 2016.							

	Institution: GHANA GRID	COMPANY				
Period	Thematic Area: INFRAST	TRUCTURE AND	HUMAN SETTLEMENT			
	Policy Objectives:					
	Programme/Projects	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks
2015	330 kV KumasiBolgatangaTransmission Projectb. Project ManagementEngineeringandConstructionSupervisionConsultancyServicesContract	Provision of Consultancy Services	Participated in the preparation of bidding documents to be issued to Prequalified applicants	Assist GRIDCo in the award of contract by December 2015.	 The Consultant assisted in the bidding process and evaluation of bids for the Project. The consultant submitted the final Property Impact Assessment Report and was revising the draft Resettlement Action Plan (RAP) for the Project to incorporate GRIDCo and AFD comments Reviewing existing 330 kV line drawings for adoption on the Kumasi – Bolgatanga Line. 	
	330 kV Kumasi - Bolgatanga Transmission Project c. Supply of one (1) 330/161 kV Spare Auto transformer (AUT) for Tema	Delivery of Autotransfor mer	Technical design report for the Transformer approved	Finalize Transformer Design and conduct Factory Acceptance Tests.	 Arrangements for payment of compensation payment to PAPs was in progress. The Contractor has completed Geotechnical Investigation and Site Survey. Review of the submittals was in progress. Liaoning-Efacec Electrical Equipment Co. Ltd (LEEEC) of China has commenced manufacturing of the Autotransformers and Reactor. 	Contract is on schedule and as per INCOTERMS, shipment from China is expected by March, 2016

						nstitution: GHANA GRID COMPANY 'hematic Area: INFRASTRUCTURE AND HUMAN SETTLEMENT										
Period		Policy Objectives:														
		INDICATOR	Baseline (2015)	MTDP Target	Achievement	Remarks										
2016	330 kV Kumasi - Bolgatanga Transmission Project a. Construction of 555 km 330 kV transmission line from Kumasi to Bolgatanga	Percentage completio n	No objection from AFD to award Contract	50% completion by December, 2016.	 The Contract has been awarded to KEC International Ltd, India for the following Lots: Lot 1: Construction of 330kV Kumasi – Kintampo Transmission Line. Lot 2: Construction of 330kV Kintampo – Tamale Transmission Line. Lot 3: Construction of 330kV Tamale – Bolgatanga Transmission Line Factory Acceptance Tests were completed except for Hardware Fittings and Accessories and 161kV Towers for line diversion works. 	 Delay by AFD for the approval of the RAP for the Project affected the advance payment. The RAP was accepted by AFD and the respective payment is expected to follow. 										
	330 kV Kumasi - Bolgatanga Transmission Project b. Construction of 330 kV Kintampo Substation and Extension of 330 kV Kumasi II Substation	Percentage completio n	 No objection from AFD to award Contract. Preparation for Pre-Award Meeting. 	50% completion by December, 2016.	 The Contractor cleared the site and undertook works to divert an existing 34.5kV Line traversing the 330kV Kintampo substation site Review of electrical and civil Contractor's designs and approbation documentation continued. Embankment design and earthwork calculation was approved during the period. The Factory Acceptance Tests and Type Tests for the ACSR Conductors have been undertaken. Arrangements to commence the substation embankment was in progress. 	 3. New Reactive Power Compensation studies requires the installation of Shunt Reactors supplemented with Neutral Earthling Reactor (NER) hence the scope of works at the 										

	Institution: GHANA GR	ID COMPANY									
Period	Thematic Area: INFRA	Thematic Area: INFRASTRUCTURE AND HUMAN SETTLEMENT									
	Policy Objectives:	olicy Objectives:									
	Programme/Projects	INDICATOR	Baseline (2015)	MTDP Target	Achievement	Remarks					
	330 kV Kumasi - Bolgatanga Transmission Project c. Construction of 330 kV Tamale II Substation and Extension of 161 kV Tamale I Substation	Percentage completio n	 No objection from AFD to award Contract. Preparation for Pre-Award Meeting. 	50% completion by December, 2016.	 Kick off meeting held. The site was handed over to the Contractor on August 28, 2016. The Contractor was yet to commence any Contract activities due to delays in achieving Contract Effectiveness. 	substation would need to be revised to cover the changes which might delay project implementation and may require additional funds.					
	d. Construction of 330 kV Bolgatanga II Substation and Extension of 161 kV Bolgatanga I Substation	Percentage completio n	No objection from AFD to award Contract. Preparation for Pre- Award Meeting.	50% completion by December, 2016.	 1. The Contractor has been granted access to the site. The Contractor completed its site installations. 2. Commenced designs for 300/161/34.5kV component of the Bolgatanga II Substation Layout, Earthwork drawings. 						
	330 kV Kumasi - Bolgatanga Transmission Project e. Project Management Engineering and Construction	Percentage completio n	Participating in the preparation of bidding documents to be issued to Prequalified applicants	Assist GRIDCo in the Construction Supervision.	 1. The Project Consultant, PB Power UK, reviewed various submissions from Contractors, existing 330 kV line design parameters and drawings for adoption on the Kumasi – Bolgatanga Line and participated in various FATs for equipment to be supplied on the 330kV transmission line Contract. 2. The Consultant also submitted the revised draft Resettlement Action Plan (RAP) which was 						

d	Thematic Area: INFRASTRUCTURE AND HUMAN SETTLEMENT								
	Policy Objectives:								
	Programme/Projects	INDICATOR	Baseline (2015)	MTDP Target	Achievement	Remarks			
	Supervision Consultancy Services Contract				 forwarded to AFD for review and approval, the review of equipment designs as well as preliminary contractual submissions from Contractors. 3. Started with the review of draft Reactive Compensation Studies report for the 330kV Aboadze- Bolgatanga Transmission Line. 				
	330 kV Kumasi - Bolgatanga Transmission Project f. Supply of two (2) 330/161 kV Spare Auto transformer (AUT)	Delivery of Auto transform er	Approval of procedure for Factory Acceptance Test.	Delivery of Autotransforme r to site.	 1. Factory Acceptance Test of the 1st Autotransformer has been completed successfully after rectification of the minor defect identified during the previous test. 2. The Autotransformers were delivered to the 330kV Volta and Aboadze Substations. Installation of one (1) autotransformer at 330kV Aboadze Substation on going. 				

Period	Institution: GHANA GRID COMPANY Thematic Area: INFRASTRUCTURE AND HUMAN SETTLEMENT Policy Objectives:								
	Programme/Projects	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks			
2017	330 kV Kumasi - Bolgatanga Transmission line Project	Percentage Completion	Design reviews for Substations and construction of tower foundations in progress.	Approximately 80% completion.	60% completion of the line construction works, 65% completion of boundary works, 80% completion of foundation works, 65% completion of installation works. Overall works completion 70%.	Delay in the payment of compensatio n affected the successful completion of the project.			

	Institution: GHANA GRID COMPANY Thematic Area: INFRASTRUCTURE AND HUMAN SETTLEMENT Policy Objectives:										
Period											
	Programme/Projects	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks					
2015	225 kV Bolgatanga - Ouagadougou Interconnection Project a. Construction of 17 km 225 kV transmission line from Bolgatanga to Ghana- Burkina Border (Ghana section)	Percentage Completion	1.BiddingDocumentsforTransmissionLineandSupplyofAutotransformerhad been issued.2.FinalizationofBiddingDocumentforSubstationcomponentwasinprogressSin	Award of Contract and Commencement of Works	 The joint Bid Clarification and Contract Pre- Award Meeting have been held between Eiffage /Energo Invest JV, the Winning Contractor and GRIDCo/SONABEL. The Contract was signed between GRIDCo and Eiffage/Energo Invest JV. Arrangements and processes for ROW acquisition including undertaking of compensation payment to PAPs is in progress. The Conformed Contract Document was submitted to the World Bank and the AFD on October 17, 2015. The Contractor submitted relevant Contractual Guarantees on October 26, 2015. The forex component of the Advance Payment was paid to the Contract on November 19, 2015 to make the Contract effective. 						

Period	Policy Objectives:										
		INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks					
2015	<u>225 kV Bolgatanga -</u>	Percentage	Finalization of	Award of	1. Bid Evaluation Reports completed and						
	<u>Ouagadougou</u>	Completion	Bidding Document	Contract and	submitted to the World Bank. No objection from						
	Interconnection	1	in progress.	Commencement	World Bank received and contract has been						
	<u>Project</u>			of Works	negotiated and signed.						
	b. Construction of a										
	330/225 kV Substation				2. Pre-contract award meeting was held with						
	at Bolgatanga.				Sieyuan-SEPD on August 11, 2015 and contract						
					subsequently awarded and signed in August, 2015.						
					3. The forex component of the advance was paid to						
					the contractor on November, 2015 to fulfil the						
					contract effectiveness conditions						
					4. The kick off meeting with the contractor was						
					held on December 12, 2015 and the site was						
					formally handed over after a joint –site inspection						
					on December, 12, 2015						

	Institution: GHANA GRII	Institution: GHANA GRID COMPANY										
Period	Thematic Area: INFRAS	TRUCTURE ANI	D HUMAN SETTLEMEN	T								
	Policy Objectives:	Policy Objectives:										
	Programme/Projects	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks						
2015	225 kV Bolgatanga - Ouagadougou Interconnection Project c. Supply of 330/225 kV Auto transformers and 225 kV Reactor	Delivery of Auto transformers	Bidding process	Award of Contract.	 Pre-contract meeting with the Contractor Liaoning-Efacec Electrical Equipment Co. Limited was held in May 2015. Contract awarded and Contract Agreement signed between GRIDCo and Liaoning-Efacec Electrical Equipment Co. Ltd (LEEEC) in June 2015. Advance payment was made to the supplier (LEEEC) in September 2015 prior to the submission of Preliminary design and documentation on the Autotransformers and the reactor. Liaoning-Efacec Electrical Equipment Co. Ltd (LEEEC) of China submitted the design drawings and a design review meeting was held in China from November 16 – 19, 2015. The reviewed Design documentations were approved in principle at the meeting. An independent Consultant, approved by GRIDCo, was agreed on to review the Short Circuit Withstand capabilities of the accepted Transformer design. 	The Contract was delayed due to the upgrade of the Bolgatanga II Substation from 225/161 kV to 330/225 kV and hence the need to update the bidding documents.						

	Institution: GHANA GRID	COMPANY				
	Thematic Area: INFRAS	FRUCTURE ANI	D HUMAN SETTLEMEN	Т		
Period	Policy Objectives:					
	Programme/Projects	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks
2015	225 kV Bolgatanga - Ouagadougou Interconnection Project d. Project Management Engineering and Construction Supervision Consultancy Services Contract for the Interconnection	Provision of Consultancy Services	AECOM, Canada, the Joint Consultant for GRIDCo and SONABEL provides Project Management Services.	To have the final Property Impact Report.	 The Bidding process including evaluation for the 225/330 kV Switchyard at Bolgatanga II Substation as well as the Bolgatanga – Ouagadougou Transmission Line and supply of Auto - transformers has been completed. The consultant is arranging to come to site for Project Construction Supervision Services. The Consultant is reviewing the Transformer Design report for 225/330 kV Bolgatanga II Substation The Consultant participated in the Kick off meeting held with the Contractor for the 330/225 kV Switchyard at Bolgatanga II Substation in Ghana as well as the design review meeting for the Autotransformers and Reactor held in China. AECOM submitted a proposal including detailed cost breakdown for the additional scope of work for the Amendment of the Consultancy Contract. An Amendment for extension of the Contract completion date was submitted to AECOM for signature. 	

Period	Thematic Area: INFRA Policy Objectives:	STRUCTURE AN	D HUMAN SETTLEN	MENT				
	Programme/Projects INDICATOR Baseline (2014) MTDP Target Achievement							
2015	225 kV Bolgatanga - Ouagadougou Interconnection Project e. Supply of one (1) 330/161 kV Spare Auto transformer for Aboadze	Delivery of Auto Transformer	Technical design report for the Transformer approved	Finalize Transformer Design and conduct Factory Acceptance Tests.	 The Final Transformer Design including the installation of the optical fibres censors was approved on April 9, 2015 for manufacture of the Transformers. Manufacturing of the Transformers is in progress. The Contract executed by Shenzhen Farad Electric Corporation is similar to the one funded by AFD indicated in item 4c. The Factory Acceptance Test for the Autotransformer (2nd one) is planned to be undertaken at the end of February, 2016 and delivered by 3rd quarter of 2016. 	Contract is on schedule and as per INCOTERMS, shipment from China is expected by March, 2016		
	225 kV Bolgatanga- OuagadougouInterconnectionProjectf. Feasibility Study -161 kV AtebubuTamale TransmissionLine Project	Feasibility Study Report	Award of Contract completed and arrangement to make the payment for Advance was in progress.	Submission of draft feasibility report	 The consultant submitted an Inception which has been reviewed and submitted back to them. The Consultant, FICHTNER of Germany, commenced the study on Project Definition Report on February 18, 2015. They submitted a draft Project Definition Report and review Report to confirm the selected option for detailed study is in progress. The Study is expected to be completed by June 2016. Kick off meeting was held on March 26, 2015. AECOM, the Consultant submitted the draft inception and the project definition report. A joint co-ordinating meeting between GRIDCo and ESIA consultant WSP of Canada was held to discuss issues to facilitate the proposed line route. 	Confirmation of the selected option for detailed feasibility study caused the delay		

Period	Institution: GHANA GRID COMPANY Thematic Area: INFRASTRUCTURE AND HUMAN SETTLEMENT										
	Policy Objectives:										
	Programme/Pro jects	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks					
2015	225 kV Bolgatanga - Ouagadougou Interconnectio n Project g. ESIA - 161 kV Atebubu Tamale Transmission Line Project	Percentag e Completio n	Contract Award Process was in progress.	Submission of draft ESIA Report	 Consultant and order to commence work issued to the Consultant on March 26, 2015. 2. The consultant, WSP of Canada submitted the inception report on May 5, 2015 and the initial consultation meeting with institutional Stakeholders towards the preparation of its scoping report has been held. The review was completed and comments on the draft inception report was forwarded to the consultant on June 22, 2015. 						
					3. Fitchner forwarded kMZ files of the line route on May 25, 2015 and the drawings were forwarded to ESIA consultant WSP of Canada for their perusal and preparation towards						

Doriod											
	Programme/Pro jects	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks					
					commencement of the ESIA activities. The consultant FICHTNER of Germany submitted a draft ESIA report for reviewed.						

Period	Policy Objectives:									
	Programme/Pro jects	INDICATOR	Baseline (2014)	MTDP Target	Achievement	Remarks				
2015	225 kV Bolgatanga - Ouagadougou Interconnectio n Project h. Capacity and Skills Development Programme	Capacity building program developed	Shortlisted Firms and draft Request for Proposal (RFP) submitted to the World Bank for review and comments.	Award of Contract and Commencement of Services	 1. Revision of the Draft Request for Proposals (RFP) using the Lump Sum Contract Template as recommended by the World Bank for final Bank clearance to invite shortlisted firms is underway. 2. The World Bank has agreed in principle for the Shortlisted firms to be invited for the programme but selection process has delayed due to the shortfall in the WB Credit amount as a result of the value of the SDR against the US Dollar. 3. Finalization of the Draft Request for Proposals (RFP) using a typical Framework Agreement Template as recommended by the World Bank for final Bank clearance to invite shortlisted firms is therefore in progress. 	Delay in selection process due to the shortfall in the value of the SDR against the US Dollar in the WB Credit amount.				

Institution: GHANA GRID COMPANY

	Institution: GHANA GRII	O COMPANY									
Period	Thematic Area: INFRAS	TRUCTURE AND HUM	IAN SETTLEMENT								
	Policy Objectives:										
	Programme/Projects	INDICATOR	Baseline (2015)	MTDP Target	Achievement	Remarks					
2016	225 kV Bolgatanga - Ouagadougou Interconnection Project a. Construction of 17 km 225 kV transmission line from Bolgatanga to Ghana- Burkina Border (Ghana section)	Percentage Completion	Contract was effective and preparations for Kick-off Meeting in progress.	50% Completion by December 2016.	 Factory Acceptance tests of towers, conductors were undertaken. Compensation payment were made to all Project Affected Persons. The Contractor commenced with the Line Route clearing and soil investigations in Ghana. 	Coordination issues related to liaising with SONABEL and multiple Funding Agencies requirements on various procurement issues delayed the project.					
	225 kV Bolgatanga - Ouagadougou Interconnection Project b. Construction of a 330/225 kV Substation at Bolgatanga.	Percentage Completion	Site survey works commenced.	50% Completion by December, 2016	The substation embankment for the entire 330/225/161kV substation site was completed and construction of foundations expected to commence shortly.	The Project delayed due to required coordination between Project Consultants for the 330/161kV and 330/225kV Bolgatanga II substation works which are now located on the same site.					
	225 kV Bolgatanga - Ouagadougou Interconnection Project	Delivery of Auto Transformer	Independent Consultant review of Autotransformer Designs in progress.	Delivery of Autotransformer to Site.	The FAT for the Autotransformers and Reactor were successfully undertaken	Upgrade of the Bolgatanga II Substation from 225/161 kV to 330/225 kV delayed the					

Thematic Area: INFRA	STRUCTURE AND HUN	IAN SETTLEMENT			
Policy Objectives:					
Programme/Projects	INDICATOR	Baseline (2015)	MTDP Target	Achievement	Remarks
c. Supply of 330/225 kV Auto transformers and 225 kV Reactor				and the equipment shipped to Ghana.	contract. Hence the nee to update the bidding documents.
225 kV Bolgatanga - Ouagadougou Interconnection Project d. Project Management Engineering and Construction Supervision Consultancy Services Contract for the Interconnection	Start Consultancy Services		Commence the Line and Substation works.	 1. The Consultant continued to review various submissions from the Substation and Transmission Line Contractors. 2. The Consultant's Resident Manager for Ghana mobilized to site and participated in various FAT for equipment to be supplied on the Projects. 	
225 kV Bolgatanga - Ouagadougou Interconnection Project e. Supply of two (2) 330/161 kV Spare Auto	Delivery of Auto Transformer	Approval of procedure for Factory Acceptance Test.	Delivery of Autotransformer to site.	1. The Autotransformers were delivered to site in 330kV Volta and Aboadze Substations following Factory Acceptance Test of the Autotransformers after retest upon rectification of the manufacturing defect	

od	Thematic Area: INFRAS	TRUCTURE AND HUN	MAN SETTLEMENT			
	Policy Objectives:					
	Programme/Projects	INDICATOR	Baseline (2015)	MTDP Target	Achievement	Remarks
	transformer for Aboadze				identified during the initial test.	
					2. Started works for the installation of one (1) autotransformer at 330kV Aboadze Substation.	
	225 kV Bolgatanga - Ouagadougou Interconnection Project	Feasibility Report	Review of Project Definition Report in progress.	Submission of feasibility report and draft bidding documents	1. The Consultant made a presentation to GRIDCo Stakeholders on its findings during the Project Definition.	Confirmation of the selected option for detailed feasibility study caused the delay.
	f. Feasibility Study - 161 kV Atebubu Tamale Transmission Line Project.				2. GRIDCo commented on the draft. GRIDCo issued Project Definition Report to the Consultant.	
	225 kV Bolgatanga - Ouagadougou Interconnection Project	Percentage Completion	Contract Award on hold pending finalization of line route for study by	Award of Contract and Commencement of Services	1. The Consultant, WSP of Canada, has submitted the Inception Report and the initial consultation meetings with Institutional Stakeholders towards the preparation of its	An additional study to confirm the appropriate line is being underway the Consultant before resumption of the

od	Policy Objectives:								
	Programme/Projects	INDICATOR	Baseline (2015)	MTDP Target	Achievement				
						Remarks			
	g. ESIA - 161 kV Atebubu Tamale Transmission Line		Engineering Consultant		Scoping Report have been held.	detailed study in Augu 2016.			
	Project				2. An amendment was issued to extend the Contract expiry date due to delay in confirming				
					the selected option for detailed study since the initial proposed 161 kV Atebubu-				
					Tamale Transmission Line was not viable from the Feasibility Study.				
	225 kV Bolgatanga -	Capacity building	Shortlisted Firms and	Award of	1. Prepared the Request for	Delay in selection pro			
	<u>Ouagadougou</u>	program	draft Request for	Contract and	Proposal based on the Lump	due to the shortfall in			
	Interconnection Project	developed	Proposal (RFP) submitted to the World Bank for	Commencement of Services	Sum Sample Contract for Consultancy.	value of the SDR again the US Dollar in the W Credit amount			
	h. Capacity and Skills Development Programme		review and comments.		2. World Bank was yet to respond on the draft Request for Proposal issued.				

	Institution: GHANA GR	Institution: GHANA GRID COMPANY								
Period	Thematic Area: INFRASTRUCTURE AND HUMAN SETTLEMENT									
	Policy Objectives:									
	Programme/Projects	INDICATOR	Baseline (2016)	MTDP Target	Achievement	Remarks				
2017	225 kV Bolgatanga - Ouagadougou Interconnection Project	Percentage completion	Substantial completion of substation embankment works and clearing of transmission line route.	Completion of 330/225kV Bolgatanga II Substation and 225kV Bolgatanga Ghana Border Transmission Line.	 Transmission Line: 90% of foundations complete and 88.9% percent of towers erected. Substations: All key equipment shipped and delivered to site, Civil works and equipment support structures completed. Equipment installation in progress (about 30% complete). 	Delay in the payment of compensati on affected the successful completion of the project.				
2015	Accra 3BSP - Phase 2 (Expansion of Accra East) - installation of two (2) No. 50/66 MVA transformers and associated Balance of Plant	Percentage completion	Project 100% completed. Pre- commissioning tests in progress.	Energization of two new Power Transformer at site and break-in of one Volta – Achimota transmission line.	Energized two new 50/66 MVA Power Transformer successfully and transformers were on port. Issued a change order to the contractor for the supply of 2 No. 20MWA Capacitor Bank and medical (Health & Safety) equipment for the GRIDCo Clinic in February, 2016.					

	Institution: GHAN	Institution: GHANA GRID COMPANY									
	Thematic Area: II	Thematic Area: INFRASTRUCTURE AND HUMAN SETTLEMENT									
Period	Policy Objectives:										
	Programme/Pro jects	INDICATOR	Baseline (2015)	MTDP Target	Achievement	Remarks					
2016	Prestea- Aboadze 330 kV Line	Percentage completion	 Design Review 80% complete. Detail survey in progress. Foundation construction in progress. 	60% completion by December, 2016.	 Reviewed the design and continued with the payment of compensation. Construction of tower foundations and towers continued. (8No of towers (T10-T12, T58-T60, and T65 & T66) were erected.) 50% completion of project. 						
2017		Complete Design Review	Design review ongoing. 89/170 Tower Foundation completed and 79/170 Tower erection ongoing.	100% Design review. Completion of Tower Foundation Tower erection works.	 Completed preliminary Line route selection and Environmental Impact Assessment. Tower pegging and soil investigation is on-going (99% completion level) Tower foundation 89% complete, Tower erection works 83% complete, 46% stringing of conductors complete Overall progress for the work at the end of the quarter is 82%. 	Delay in the payment of compensati on affected the successful completion of the project.					

	Institution: GHANA GRID COMPANY Thematic Area: INFRASTRUCTURE AND HUMAN SETTLEMENT Policy Objectives:									
Period										
	Programme/Pro jects	INDICATOR	Baseline (2015)	MTDP Target	Achievement	Remarks				
2016	Achimota - Mallam upgrade	Percentage completion	1. Bids have been called, received and evaluated.	50% completion by	AFD gave its no objection to the issuance of Prequalification documents to prequalify applicants to					
			2. The central tender review board has given its concurrent for the contract to be awarded to the least bidder.	December, 2016.	bid for the execution of works. The Prequalification documents were issued on June 20, 2016.					
			3. The Bid Clarification and Pre-Contract Award Meeting between GRIDCo and the preferred Contractor Skipper Electricals Ltd, has been held.							

	Institution: GHANA GRID COMPANY										
	Thematic Area: II	Thematic Area: INFRASTRUCTURE AND HUMAN SETTLEMENT									
Period	Policy Objectives:										
	Programme/Pro jects	INDICATOR	Baseline (2015)	MTDP Target	Achievement	Remarks					
2016				50% completio n by December, 2016.	 Kick off meeting held and site mobilisation process in progress to commence the expansion work. Second tranche of advance payment towards the commencement of work was made. 						
2017	Aboadze 330kV Substation Expansion	Payment of Advance	Sixth tranche of Advance Payment certified for payment.	Conclude advance payments.	 Completed the certification of the advance certificate for payment. 8th trench of advance payment was certified. Earthworks, construction and embankment is 35% complete. Construction of equipment foundation is ongoing and at 20% completion level. 						

Period	Institution: GHANA GRID COMPANY Thematic Area: INFRASTRUCTURE AND HUMAN SETTLEMENT Policy Objectives:							
	Programme/Projects	INDICATOR	Baseline (2016)	MTDP Target	Achievement	Remarks		
2017	Volta - Achimota - Mallam 161kV Line Upgrade	Percentage completion	Re-issue of Bidding Document to interested firms.	75% completion of works.	 20% completion comprising design reviews, material orders, tower spotting Line route survey and geotechnical investigation is 100% complete. 	Actual construction work yet to start		
					Overall completion is about 25%.			

VOLTA RIVER AUTHORITY (VRA)

	INSTITUTION: VRA									
	THEMATIC AREA: INFRASTRUCTURE AND HUMAN SETTLEMENT POLICY OBJECTIVES: INCREASE THE PROPORTION OF RENEWABLE ENERGY (SOLAR, BIOMASS, WIND, SMALL AND MINI-HYDRO AND WASTE-TO-ENERGY) IN THE NATIONAL ENERGY SUPPLY MIX. PROMOTE THE CONVERSION OF WASTE TO ENERGY									
Period										
	PROJECTS	INDICATOR	BASELINE (2014)	MTDP TARGET	ACHIEVEMENT	REMARKS				
2014			Completion of	UpdateofFeasibilityStudy &CompletionofPrequalificationEvaluationEvaluationReport	Feasibility study completed & sale of Prequalification Document following approval by KfW					
2015	– 12MW Solar Power Project	Completed 12mw power plant	initial feasibility study and commencement	Undertake Network studies	Completed Network study					
2016			of Engagement of Financiers	Complete update of tender document	Updated Tender Document					
2017				Award of Contract and Obtain works permit from MMDAs						

	INSTITUTION: V	RA							
Period	THEMATIC AREA	A: INFRASTRUCTU	JRE AND HUMAN SETTLEMENT						
	POLICY OBJECTIVES: INCREASE THE PROPORTION OF RENEWABLE ENERGY (SOLAR, BIOMASS, WIND, SMALL AND MINI-HYDRO A ENERGY) IN THE NATIONAL ENERGY SUPPLY MIX. PROMOTE THE CONVERSION OF WASTE TO ENERGY								
	PROJECTS	INDICATOR	BASELINE (2014)	MTDP TARGET	ACHIEVEMENT	REMARKS			
2014				To complete Project by Sept, 2014 & Also Complete project for raw water connection to site	Achieved 85% overall completion. Project for the connection of raw water to site completed.	Project delayed due to delays in payment and the Contractor was granted Extension to April, 2015.			
2015	KponeCompleteAchieved 26% overall projectThermalRetrofit ofcompletion and Awaiting CTRBPower ProjectKpone powerapproval to award contract for(KTPP)projectraw water supply to site	To complete project by the extended date of April, 2015	Achieved 95% overall completion.	Project delayed due to further delays in payment and the Contractor was granted Extension June, 2016					
2016	(KTPP)	project	raw water supply to site	To complete project by the extended date of June, 2016	Achieved 97% overall completion. Electromechanical works substantially completed and the two (2) gas turbines declared commercially available in June 2016.				
2017				To achieve 40% progress on outstanding works (mainly civil works such as roads and buildings)	Achieved 100% overall project				

Period	THEMATIC AREA: INFRASTRUCTURE AND HUMAN SETTLEMENT POLICY OBJECTIVES: INCREASE THE PROPORTION OF RENEWABLE ENERGY (SOLAR, BIOMASS, WIND, SMALL AND MINI-HYDRO AND WASTE-TO- ENERGY) IN THE NATIONAL ENERGY SUPPLY MIX. PROMOTE THE CONVERSION OF WASTE TO ENERGY									
	PROJECTS	INDICATOR	BASELINE (2014)	MTDP TARGET	ACHIEVEMENT	REMARKS				
2014 2015 2016	Pwalugu Hydro Development Project (Feasibiltiy Study)	Completed feasibility study	Completion of Inception and Draft Prefeasibility Update Reports	Approval of Feasibility Studies Complete Final Feasibility Report Complete detailed design	Completed 60% of Geotechnical investigation works by Taivani Dam -completed 40% Submitted Draft Feasibility report Submitted Final feasibility study. however, the funding agency put a hold on the detailed design phase for VRA to undertake additional studies					
2017				Update the technical feasibility report to incorporate the scenario where the dam height is reduced to 160m or below.	Completed negotiation with consultant, contract amendment was signed and the study commenced.					

Period	THEMATIC AREA: INFRASTRUCTURE AND HUMAN SETTLEMENT POLICY OBJECTIVES: INCREASE THE PROPORTION OF RENEWABLE ENERGY (SOLAR, BIOMASS, WIND, SMALL AND MINI-HYDRO AND WASTE-TO-ENERGY IN THE NATIONAL ENERGY SUPPLY MIX. PROMOTE THE CONVERSION OF WASTE TO ENERGY									
	PROJECTS	INDICATOR	BASELINE (2014)	MTDP TARGET	ACHIEVEMENT	REMARKS				
2014 2015	Pwalugu Hydro	Completed ESIA	Completion of	Notice-to-Proceed with Environmental and Social Impact Assessment Study (Pwalugu) Undertake Stakeholder meeting/public consultation for Pwalugu Project on the ESIA report	The Environmental Protection Agency (EPA) approved the final scoping report. The consultant was given a formal approval to commence the phase 2 studies (i.e. ESIA Study) Submitted the Draft ESIA Study report					
2016	Development Project (ESIA)	project	Inception and Draft Scoping Reports	Commence Environmental Management Plan and Resettlement action after EPA approves the ESIA report	ESIA report was sent to EPA for review but the review was later suspended to enable VRA undertake additional studies					
2017				Update ESIA Report for Reservoir FSL at 160m or below	The ESIA report update could not be realized because the Technical studies started at the end of the year					

TEMA OIL REFINERY COMPANY LTD (TOR)

Period	Thematic Area: Oil and Gas Development Policy Objectives: Ensure adequate availability of petroleum products in the Ghanaian market								
	Programme	Projects	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks		
2014	Increase power generation for plant operations to ensure operational reliability	Installation of 6.5 MW Steam Turbine Generator & Installation of SCADA system	Complete installation and commissioning	Contract signed for the installation.	Continue with installation of SCADA system and Generator	55% of project completed	Project is on hold due to financial difficulties.		
2016	Increase operational Reliability	General shutdown maintenance	Reliability and operability of the two plants	Plants due for turnaround maintenance	Complete maintenance By end of 1ST quarter, 2018.	90% of maintenance works Completed	Start up immediately after 100% completion of works.		
2017	Increase Refining Capacity	Replacement of Damaged Crude Heater	Installed new crude heater	Plans in place to replace the damaged crude heater	Install a new crude heater	Contract awarded. Manufacture of heater is in progress	The damaged crude heater was decommissioned and fabrication of new crude heater has started.		
2017	Increase petroleum products to both local and foreign markets	Expansion of CDU from 45,000 to 60,000 bpsd	Bottlenecked CDU from 45,000 to 60,000 bpsd	Feasibilities studies completed	Increase refining capacity from 45,000 to 60,000 bpsd	FEED almost completed	Complete detailed engineering and issue purchase orders for long lead items		

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	Institution: TOR	Institution: TOR Thematic Area: Oil and Gas Development								
	Thematic Area: Oil and									
Period	Policy Objectives: Ensu	re adequate av	ailability of pet	roleum produ	cts in the Ghanaian Marke	t				
					Indicators					
	Programme	Projects	INDICATOR	Baseline (2016)	MTDP Target	Achievement	Remarks			
2017	Increase steam generation capacity for plant operations and ensure operational reliability	Procurement & Installation of 120Tons/hr (NET) Steam Boiler	Install a 120 Tons/hr (NET) steam boiler at the refinery	Plans to procure new boiler	Increase steam and power production	50% of project completed	Work in progress.			
2017	Increase steam generation capacity for plant operations and ensure operational reliability	Retubing of Boiler #6	To refurbish boiler #6	Plans to improve steam production	Increase output of boiler	60% completed.	Work in progress.			
2016	Ensure reliable power supply to loading gantry pumps	Electrical Sub- Station and Offices for MOP Staff	New offices for MOP personnel and building to house the electrical facilities	40% of work completed.	Increase steam generation capacity	50% completed	Work is slowed due to financial difficulties.			
		MOP Electrical sub-station facilities	replaced existing obsolete electrical facility	Tender process completed	Replace obsolete electrical facilities	5% completed				

	Institution: TOR								
	Thematic Area: Oil and Gas Development								
Period	Policy Objectives: En	nsure adequa	te availability of	petroleum pro	oducts in the Ghanaian mar	ket			
					Indicators				
	Programme	Projects	Indicator	Baseline (2016)	MTDP Target	Achievement	Remarks		
2017	To improve storage capacity to 95% utilization	Repair of storage tanks/mai ntenance	Increased storage capacity	Repair works had started on the tanks	Complete repair works on 6 no. tanks	Work completed	Tank handed over and in-use.		
2014	To have the safety block relocated outside the plant to enhance fire prevention.	Relocation of safety block	New safety block built	Contracts awarded	To get a new safety block appropriately located in the refinery	87% completed	Work stalled due to financial difficulties.		
	To train staff and other industry players in the West Africa sub- region	Build Firefightin g training grounds	firefighting training grounds 100% complete		To have a fire fighting training grounds	60% completed			

GHANA NATIONAL GAS COMPANY (GNGC)

Period	Institution: Gha Thematic Area: Policy Objective endowment Programme	Oil and Gas I	-	ment for susta Baseline (2013)	ined exploration, dev MTDP Target	elopment and production of Ghana's oil and Achievement	l gas Remarks
2014			Completion of GPP and pipeline	Construction	Completion of the GPP and Pipeline	Completed Commissioning Construction of 59KM Offshore Pipeline Completed Completed Atuabo Gas Processing Plant Completed 111km Onshore Atuabo- Aboadze Pipeline	The commissio ning was successful leading to commercia l operations
2015	Petroleum Development	GPP and Pipelines	Consistent supply of gas and LPG	Supply moved from commission gas	Commence Commercial Operations	Raw Gas Received – 23,696 MMScf Lean Gas Sent to VRA – 22,600 MMScf (75,33.33 MW) LPG Produced – 165,218 (M3). Translate into 32% of domestic consumption Condensate Produced – 31,986	Production is dependent on supply
2016			Consistent supply of gas and LPG. Expansion of infrastructure	Supply 32% of domestic consumption	Connecting the Low Volume Offtakers	Completion of Completed the NGL's Export System-FEED Completion of Low Volume Offtake Interconnection-Wankang	It enabled the flow of TEN gas Production is

	Institution: Ghana Gas Thematic Area: Oil and Gas Development Policy Objectives: Create an enabling environment for sustained exploration, development and production of Ghana's oil and gas endowment									
Period										
	Programme	Projects	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks			
						Near completion of Anokyi Loading Gantry	dependen on supply			
						Raw Gas Received – 21,580 MMScf	The			
						Lean Gas Sent to VRA – 20,154 MMScf (67,180 MW)	upstream turbulenc had impac on gas			
						LPG Produced – 149,140 (M3). Translate into 29% of domestic consumption	productio The			
						Condensate Produced – 23387(M3)	completio of the			
						Completed Low Volume Offtake - Interconnection-Wankang	interconn tion with low volum			
						Completed Low Volume Offtake – Interconnection-Twyford	customers promoted			
						Started Anokyi Loading Gantry	instructio al			
						Started 75Km Esiama-Prestea Onshore Line	developm nt			
						Completed NGL's Export System-FEED				

	Institution: Gha	na Gas									
	Thematic Area:	Thematic Area: Oil and Gas Development									
Period	Policy Objectives: 1. Create an enabling environment for sustained exploration, development and production of Ghana's oil and gas endowment										
	Programme	Projects	INDICATOR	Baseline (2013)	MTDP Target	Achievement	Remarks				
2017	Petroleum Development	GPP and Pipelines	Consistent supply of gas and LPG. Expansion of infrastructure	Supply 32% of domestic consumption	Complete 75Km Esiama-Prestea Onshore Line and the Anokyi Loading Gantry	Raw Gas Received - 30,832 MMScfLean Gas Sent to VRA - 27,118 MMScf(90,393.33 MW)LPG Produced - 210,455 (M3) Translateinto 41% of domestic consumptionCondensate Produced - 36,658 (M3)Completed Offshore InterconnectionWorks for TENCompleted Anokyi Loading GantryLow Volume Offtake Interconnection-TwyfordCompleted 75Km Esiama-Prestea OnshoreLineCompleted GPP Overhead Compressor	Production is dependent on supply				

ANALYSIS OF CROSS CUTTING ISSUES

H Biodiversity, Climate Change, Green Economy and Environment

The energy industry has the potential to adversely impact on climate change, biodiversity and the environment at large. Adverse environmental impacts from emissions to air and spills have been a recurring theme in some jurisdiction.

Based on the Ministry's mandate of developing energy sector related policies, a draft Health, Safety, Security and Environment policy has been developed and will be presented to Cabinet this year. The Policy seeks to ensure that energy sector activities pose as little harm to the environment, people, property and national reputation as reasonably practicable. The policy will lead to the development of standards that will ensure that energy sector institutions consider the environment in their day to day dealings.

The Ministry has developed a smart energy action plan which also seeks to record all climate change related interventions in the sector. Based on the action plan, information will be collated from all energy sector agencies for the drafting of bi-annual reports.

<u>BPA</u>

The table below presents the analysis of the effects of BPA's activities on biodiversity,

	Risk	Mitigation/Opportunities
Biodiversity	post inundation.	U I
	of proposed land for the 250MWp solar project.	 A total of 411 acres of plantation was cultivated as of December 31, 2017.
Climate Change	Possible increase in biomass (increase greenhouse gas emissions) from the reservoir.	to reduce biomass
Green economy & Environment	CO ₂ emissions from power generation.	Development of a 250MWp of Solar and other hydro dams to further reduce emissions associated with power generation.

climate change, green economy and environment in general.

Natural and Man-Made Disasters

Flooding, fire outbreak and other natural and mad-made disasters poses serious risk to energy supply in the country, loss of human lives and property.

Unexpected interruptions have often been as a result of bad weather conditions and subsequently major blackouts have occurred as a result of natural and manmade disasters. The challenge therefore is to reduce the impact of disasters on energy supply and to carryout recovery actions.

Mad-made disasters in the energy industry are investigated and in some instances, such investigates are chaired by the Ministry. The recommendations from the investigated are institutionalized to prevent recurrence, hence make systems more resilient.

<u>BPA</u>

The Bui Generating Station (BGS) is not located within an earthquake zone however, it is susceptible to other natural and man-made disasters such as bush fire and flooding as a result of excessive inflows. These sources of disasters if not properly monitored could have a detrimental effect on existing and future installations located downstream of the dam.

Installations have been put in place at the upstream gauge stations to monitor the inflows into the Bui reservoir in order to ensure effect management of the operations and also prevent flooding within its control.

Fire boundaries have been created to secure BPA's facilities. BPA is also procuring a fire tender for the purpose of firefighting within the Bui enclave. In addition to the aforementioned, a Fire Task Force was constituted as part of the measures to control the bush fires within BPA Operational areas. The Task Force comprises of representatives from BPA, Ghana National Fire Service (Banda District), National Military Detachment, Traditional Authorities and Casual Labourers.

SECURITY – HSSE

Security of energy sector installations in some jurisdictions have been a hindrance to the sustenance of the sector. These range from piracy to kidnappings and in some situation intrusions by fisher folks to offshore installations.

Consequently, the Ministry of Energy is working with the Ministry of Defence to purchase two Offshore Patrol Vessels and ten Fast Patrol Vessels. The Fast Patrol Vessels will provide constant security to offshore installations whiles the Offshore Patrol Vessels provide backup for offshore firefighting, oil spill containment and search, and rescue operations.

<u>BPA</u>

The upstream section of the BPA acquired land is plagued with galamsey activities. This activity if not curbed will in the long term have a detrimental effect on the operations of the BGS and future installations within the acquired land. The remoteness of BGS also subjects it

to armed robbery attacks. An installation of a permanent Military base within the Bui Enclave will help ward off galamsey and armed robbery activities.

HIV AND AIDs

It is a well-established fact that large capital projects with its related influx of workers during the construction and operational phases have an impact on the prevalence of HIV and AIDs cases.

Consequently, all energy sector projects are subjected to Environmental Impact Assessment (EIA) as required by the Environmental Assessment Regulations of the EPA. As a requirement of the EIA, the proponent (contractor) is required to assess the possible impact of the project on the environment and the people living in that environment. If HIV is one of such impacts, the proponents has to put in measures to prevent or significantly reduce the impact.

The Ministry of Energy participates in the technical committee review of such EIAs pertaining to projects in the sector.

CHAPTER TWO

DEVELOPMENT ISSUES UNDER GSGDA II AND NMTDPF, 2018-2021

These consist of development issues of the Energy Sector identified under GSGDA 11 (2014 -2017) which are still being addressed will be rolled over to the NMTDPF (2018 - 2021). The development issues captured under the thematic areas in the NMTDPF are as summarized below:

- 4 Loss of dependable generational capacity due to non-functioning T3 Plant
- ✤ Non-cost reflective power tariff
- Inadequate Gas supply from WAGP
- Loss of market share to IPPs
- Indebtedness among Sector Agencies
- ♣ High transmission losses
- Lack of redundancy in the National Interconnected Transmission Systems (NITS)
- Non-replacement of over-aged vehicles
- Vulnerable radial and single circuit lines
- Fragile transmission network and over-aged equipment
- Encroachment on transmission line Right of Way
- Underpayment by major customers
- **4** Reduction in grid power demand due to embedded generation
- High and Regulated tariff regime (GRIDCO)
- Inadequate tools and equipment
- ✤ High capacity charges by IPPs
- Illegal power connections
- Inadequate Staff
- ✤ Inadequate office accommodation
- 🖊 Inadequate vehicles for field work
- Lack of automation
- Overlapping institutional mandates
- 4 Oil and Gas production losses due to technical challenges with the FPSO
- ↓ Inadequate collaboration among sector agencies along the petroleum value chain
- 4 Maritime boundary dispute
- **4** Inadequate operational funds for projects and engagement of technical expertise
- ↓ Inadequate port facilities for the discharge of Petroleum Products
- Inadequate LPG pipeline capacity for discharge of LPG
- Conflicts between Host and Resettlement Communities
- 4 Unavailable site plans and title deeds
- Inadequate refinery capacity
- Inconsistent maintenance of the Plant
- Inability to meet new finished product standards
- Increased Plant downtime

- Inadequate storage facility
- Dumping of Petroleum Products
- Inadequate cylinder production capacity
- Poor attitudes towards energy utilization
- Continued operation of only one Cell Line due to the national energy challenge, posed a serious threat to the survival of the Smelter.
- Repeated Power supply interruptions to the Smelter due to Automatic Frequency Load Shedding (AFLS).
- **4** Securing JV Partnership with a potential investor
- **4** Securing financial support for the upgrade of the existing cell technology
- Pulling out of Potential JV Partners from Projects because of the diminishing interest from their key financiers and partners.

SUMMARY OF ISSUES OF GSGDA II

The table below indicates the issues from the GSGDA II 2014 - 2017 under the appropriate thematic area.

Thematic areas of GSGDA II	Identified issues
Ensuring and Sustaining Macro-Economic Stability	 Continued operation of only one Cell Line due to the national energy challenge, posed a serious threat to the survival of the Smelter. Repeated Power supply interruptions to the Smelter due to Automatic Frequency Load Shedding (AFLS).
Enhancing Competitiveness of Ghana's Private Sector	 Securing JV Partnership with a potential investor Securing financial support for the upgrade of the existing cell technology Pulling out of Potential JV Partners from Projects because of the diminishing interest from their key financiers and partners
Oil and Gas Development	 Inadequate Gas supply from WAGP Oil and Gas Production losses due to technical challenges with the FPSO Maritime boundary dispute Inadequate port facilities for the discharge of Petroleum Products Inadequate LPG pipeline capacity for discharge of LPG Inadequate refinery capacity Unavailability of crude oil Inconsistent maintenance of the Plant Inability to meet new finished product standards Increased Plant downtime Inadequate storage facility

Infrastructure and Human Settlement Development	 Inadequate cylinder production capacity Loss of dependable generational capacity due to non- functioning T3 Plant Non-cost reflective power tariff High transmission losses Lack of redundancy in the National Interconnected Transmission Systems (NITS) Vulnerable radial and single circuit lines Fragile transmission network and over-aged equipments Encroachment on transmission line Right of Way Inadequate tools and equipment
Human Development, Productivity and Employment	Loss of market share to IPPs
Transparent Responsive and Accountable Governance	 Indebtedness among Sector Agencies Non-replacement of over-aged vehicles Underpayment by major customers High and Regulated tariff regime (GRIDCO) High capacity charges by IPPs Illegal power connections Inadequate Staff Inadequate office accommodation Inadequate vehicles for field work Lack of automation Overlapping institutional mandates Inadequate collaboration among sector agencies along the petroleum value chain Inadequate operational funds for projects and engagement of technical expertise Conflicts between Host and Resettlement Communities Unavailable site plans and title deeds Dumping of Petroleum Products

HARMONISATION OF IDENTIFIED DEVELOPMENT ISSUES OF GSGDA II WITH AGENDA FOR JOBS, 2018-2021

The table below shows the Harmonization of identified development issues of GSGDA II with Agenda for Jobs 2018-2021

GSGDA II, 2014-	-2017	AGENDA FOR J	OBS, 2018-2021
THEMATIC AREAS	ISSUES	THEMATIC AREAS	ISSUES
Ensuring and Sustaining Macro- Economic Stability	 Continued operation of only one Cell Line due to the national energy challenge, posed a serious threat to the survival of the Smelter. Repeated Power supply interruptions to the Smelter due to Automatic Frequency Load Shedding (AFLS). 	Economic Development	 Distressed but viable industries Limited local participation in economic development Limited numbers of skilled industrial personnel Prevalence of substandard, fake and expired products
Enhancing Competitivenes s of Ghana's Private Sector	 Securing JV Partnership with a potential investor Securing financial support for the upgrade of the existing cell technology Pulling out of Potential JV Partners from Projects because of the diminishing interest from their key financiers and partners 	Social Development	 Provide mechanized boreholes and small-town water systems Improve water production and distribution systems
Oil and Gas Development	 Inadequate Gas supply from WAGP Oil and Gas Production losses due to technical challenges with the FPSO Maritime boundary dispute 	Environment, Infrastructure and Human Development	 Low contribution of RE in the power generation mix Weak regulatory and institutional framework for attracting private

GSGDA II, 2014	-2017	AGENDA FOR JOBS, 2018-2021			
THEMATIC AREAS	ISSUES	THEMATIC AREAS	ISSUES		
	 Inadequate port facilities for the discharge of Petroleum Products Inadequate LPG pipeline capacity for discharge of LPG Inadequate refinery capacity Unavailability of crude oil Inconsistent maintenance of the Plant Inability to meet new finished product standards Increased Plant downtime Inadequate storage facility Inadequate cylinder production capacity 		 sector investment in petroleum industry Poor coordination among state agencies Inadequate local content and local participation especially in the upstream oil and gas industry Inadequate local technical and financial capacity for the development of the industry Limited capacities of local financial institutions to support Ghanaian investments in oil and gas industry development Inadequate educational and institutional capacity to support local expertise and skills development in the oil and gas industry Inadequate midstream infrastructure to link upstream and downstream operations The potential of oil and gas industry to develop as an enclave (Resource curse) Over-reliance of the economy on primary products with very little value addition 		

GSGDA II, 201	4-2017	AGENDA FOR JOBS, 2018-2021			
THEMATIC AREAS	ISSUES	THEMATIC AREAS	ISSUES		
			• Major land use challenges in the oil belts especially Western Region		
			• Inefficient energy use		
			• Inadequate and unreliable electricity supply		
			• Improper disposal of solid and liquid waste		
			• Inefficiencies in the management of utilities		
			High transmission and distribution losses		
			• Inadequate and obsolete electricity grid network		
			• Difficulty in the extension of grid electricity remote rural and isolated communities		
			• High cost of electricity generation		
			• Over-dependence on hydro generation sources		
			• Inadequate infrastructure to support the delivery of energy services		
			• Low involvement of private capital in the power sector		
			• Low contribution of renewable energy in the power generation mix		

GSGDA II, 2014	4-2017	AGENDA FOR	AGENDA FOR JOBS, 2018-2021		
THEMATIC AREAS	ISSUES	THEMATIC AREAS	ISSUES		
			Inadequate financial resources for operational activities		
			• Inadequate capital investment in the utility sector		
			 High debt overhang of public utility companies 		
			 Limited awareness of energy conservation measures 		
			• Use of inefficient, old and obsolete equipment		
			 Low adoption of energy efficient technology 		
			• Poor and inadequate maintenance of infrastructure		
			• Inadequate infrastructure and facilities		
			• High cost of aviation fuel		
			• Inadequate financing of energy conservation and efficiency projects		
			• Inadequate capacity to manage environmental impacts		
			 Inadequate capacity to manage waste and disaster in the industry 		
			 High rate of rural urban migration 		

GSGDA II, 2014-2017		AGENDA FOR J	OBS, 2018-2021
THEMATIC AREAS	ISSUES	THEMATIC AREAS	ISSUES
			 Poor attitudes towards energy utilization
Accelerated Agricultural Modernization and sustainable Natural Resource Management		Governance, Corruption and Public Accountability	
Infrastructure and Human Settlements	 Loss of dependable generational capacity due to non-functioning T3 Plant Non-cost reflective power tariff High transmission losses Lack of redundancy in the National Interconnected Transmission Systems (NITS) Vulnerable radial and single circuit lines Fragile transmission network and overaged equipments Encroachment on transmission line Right of Way Inadequate tools and equipment 	Ghana's role in International Affairs	
Human Development, Productivity and Employment	• Loss of market share to IPPs		
Transparent Responsive and	Indebtedness among Sector Agencies		

)BS, 2018-2021
	THEMATIC AREAS	ISSUES
Accountable GovernanceNon-replacement of over-aged vehiclesUnderpayment major customersby 		

APPLICATION OF POTENTIALS, OPPORTUNITIES, CONSTRAINTS AND CHALLENGES (POCC) ANALYSIS

The Sector adopted these issues relating to its mandate. The adopted issues were subjected to a POCC Analysis and the findings are presented in the Table below. The adopted issues have been harmonized and categorised into two: adopted issues for the Power Sub-Sector and the adopted issues for the Petroleum Sub-Sector.

The Ministry is of the view that the potentials and opportunities associated with resolving these issues outweighs the constraints and threats hence the adoption of the subsequent issues.

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
Prevalence of substandard, fake and expired products	 Ongoing enforcement of regulations on standards and labelling of refrigerating appliances, air- conditioners and CFL lamps; and enforcement of the ban on the importation of used fridges, air- conditioners and incandescent filament lamps. 	 The use of modern technology to develop a Smartphone Application (App) to assist consumers to identify and select refrigerating appliances that have been approved for import into the Ghanaian market. Collaboration among institutions like the Ghana Standard Authority (GSA) to test samples of imported refrigerating appliances to ensure that they meet the minimum approved energy efficiency standards specified in the 	 Inadequate regular training programmes. Limited number of Inspectors and regional offices to support the enforcement of regulations on standards and labelling of refrigerating appliances, air- conditioners and CFL lamps; and the enforcement of the ban on the importation of used fridges, air- conditioners and incandescent filament lamps. 	 The limited co-operation by key stakeholders, especially the importers and dealers in unapproved, and used and inefficient refrigerating appliances. The continual patronage, by a section of the general public, of used and inefficient refrigerating appliances and air- conditioners imported into the country.

4 POWER SUB SECTOR

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
		energy efficiency regulations.		
		• A destruction facility has been set up at Afienya to destroy, in an environmentall y sustainable manner, all banned and confiscated refrigerating appliances imported into the country for sale.		
the country ar	e safe for the Ghana	at energy products a aian market. The Sec e risk factors on such Increasing co- operation by the utilities and service providers in the Electricity Supply, Renewable Energy, and the Natural Gas Industries.	tor shall also inten	sify its public

are adhered to.

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
Low contribution of renewable energy in the power generation mix	 Over 100 companies have been licenced to provide renewable energy services (importation, installation and maintenance of renewable energy systems/comp onents). Institutionalisa tion of an annual Renewable Energy Fair. Completion of a 2.5MW solar power plant Ministerial approval to hybridize the BGDS with solar Ongoing Western Rivers development projects 	 Generating electricity from renewable energy systems is becoming more cost competitive than grid/utilities electricity The continuous efficiency of renewable energy technologies and increased availability and scalability of the technology. Increased public awareness about the potential of renewable energy. Strong public support for the renewable energy. Reduced dependence on Natural Gas and light crude to fuel renewable plants 	 Limited number of staff. Insufficient incentives for renewable energy businesses. Lack of clear and consistent renewable energy policies. 	 Limited access to finance and long term capital by entrepreneurs Lack of consumer financing options for renewable energy systems. Taxes and import duties on renewable energy components (except solar panels). Influx of substandard solar energy components into the country Weak/outmo ded electricity grid, without the needed technology to handle large scale intermittent generation of renewable energy electricity. Lack of funds to embark large scale promotion of renewable energy technologies and purchase of solar power plant parts.

ADOPTED	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
Sector is well p generation mix	 laced to address the undertaking public ecentry entrepreneur gy industry. A National Energy Data Processing and Information 	easing the contribution issue of low contribut ducation of the potenti s, and enforcement s Operational Electricity Market Oversight Panel	tion of renewable en al of RE, promoted in	 Lack of clear and consistent energy
	Centre (NEDPIC) Database to support national energy planning. • A Strategic National Energy Plan, SNEP (2010– 2030); an updated National Energy Statistics; and an Annual and Medium–term Energy Outlooks to guide future power supply policy decisions.	 (EMOP). Donor support to increase the technical efficiencies, and economic viability of the power sector. 	 budgetary allocation for nationwide collection of primary data for planning purposes. Lack of state of the art models or technologies to help with effective planning. Inadequate training programmes for staff. 	policies and strategies.
	or adopts more strate	lity of power supply sh gic and innovative way	0	
High transmission and distribution losses	 Overlay of the transmission network with 330 kV lines Ensure efficient load distribution by citing plants closer to load centres 	 Surcharge customers for poor load factor Increase investment in capacitor banks and Static Var Compensators (SVC's) 	• Delay in implementing the poor factor surcharge	 Poor load factor Siting of IPP's without recourse to the transmission network operator

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
	• Skilled Human Resource			
	ore efficient transmis	ss the issue of high transitions and substantial substantia		
Inadequate and obsolete electricity grid network	• Large and extensive distribution asset (network)	 Overlay of the transmission network with 330 kV lines Use of smart modern technology such as drones to improve maintenance/sur veillance activities Condition based monitoring to improve network assets Potential for RE due to the availability of RE resources Rehabilitation and reinforcement of the distribution network Potential market for electricity supply to border towns of neighbouring countries 	 Issues with cash flow Inadequate Resources Obsolete and inaccurate billing system Inability to collect 100% revenue from post paid customers Ageing distribution network 	 Bad road networks Encroachment on the Right of Way Indebtedness by MDAs and critical /sensitive customers Delay in the payment of transmission Service charge (TSC) by major customers such as ECG, VALCO
CONCLUSION:	Upgraded distribu	tion and transmissio	n infrasturucture.	1

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES	
High debt overhang of public utility companies	internal financial recovery plan	• Leverage on the energy sector financial restructuring and recovery plan, thus; Cash Water fall system	the financially recovery.	• Indebtedness among sector agencies	
	CONCLUSION : The Sector will initiate and introduce more economical strategies to minimize liabilities				
Low adoption of energy efficiency technology	• Partnering private power investors in adopting viable energy efficient technology	• Take advantage of the enabling investment environment that government has created partner with private investors.	• Low staff expertise in running these new energy efficient technologies	 Inadequate implementation of policies to create a favorable legislative and business environment attractive to domestic and foreign investors 	
the adoptiono	f energy efficient t	tinue to partner with echnologies. Also the promote the use of e • Potential market	he Sector will ens energy efficiency t	ure an enabling	
Financial Resources for Operational Activities	Human Resources Prosecute illegal connection customers Recover unaccounted units (kWh) from identified illegal connection customers Engagement of third parties for cash collection Payment of MDA bills	for industrial customers from 1D1F and 1V1D policies • Deployment of smart meters to improve cash collection and revenue inflow • Deployment of AMR boundary meters to monitor energy consumption and reduce	Staff for meter installationsInadequate monitoring of installed meters	 production does not match tariff Low level of industrial customers in NEDCo area Low income levels of customers in NEDCo area Increasing theft of power and electrical accessories (cables, transformer oil and tower members) Nonpayment of bills by MDAs 	

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
		and improve efficiency		
	-	mobilization throug rove utility staff sup		
Inadequate Infrastructur e to Support the Delivery of Energy Services	 Provision of enhanced and modernized ICT infrastructure for efficient delivery of services Availability of land for Thermal Power plant Capability of supplying enough power to meet all of VALCO's Power needs 	 state of the art ICT systems on the market Availability of third parties for the deployment of ICT systems in NEDCo Capability to 	 Inadequate resources (Human and Financial) to support the deployment of the ICT systems Lack of internally generated funds to secure shares in JV Partnership Lack of requisite expertise in VALCO 	 Difficulty in sourcing financial resources from external sources to implement the ICT projects due to the high cost of capital Possibility of partners pulling out prematurely Finding suitable partners
projects. Build	 capacity of staff Partners for financia Availability of skilled manpower Experinced in the distribution of electricity 	 n rate to generate fin ICT. Continue end support to implem High coverage in the electricity distribution market Leverage on maintaining its market share in the ever-growing energy market 	ngagements with ent infrastructure • Poor revenue	Government and

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
			owed to our creditors	
strategies inclu	uding the renegotia expensive PPAs and	ek reduce the high c ation of electricity p l gas prices and en	ricing with the IPP	s to Ghana Cedis,
Distressed but viable industries	Dedicated and experienced workforce Good manufacturing and	 Support of Government of Ghana (GoG) Value-added Products market outlook is good 	• High age profile of employees – about 50% of employees above 50 years	• Inadequate power supply from the grid to operate at full business potential
	management practices		• Limiting effect of P69 Cell Technology	• Low metal price on the London Metal Exchange (LME)
sustainable po	wer supply to opera	ween the Sector and ate at full business po rough deliberate pol	otential and impro	
• Limited local participation in economic development	 Fairly good exposure to the Integrated Aluminium Business Capacity to supply primary aluminium metal to downstream companies 	 Downstream linkages to local downstream industries Capability to explore Joint Venture (JV) Partnerships with foreign partners 	 Lack of internally generated funds to secure shares in JV Partnership Lack of requisite expertise in VALCO 	 Possibility of partners pulling out prematurely Finding suitable partners
		tering multiple bunching multiple bunching		• •
Use of inefficient, old and obsolete equipment Inadequate financing for energy	 Dedicated and experienced workforce Safety and health as a priority institutionalized 	 Upgrading to a state-of-the-art technology moving forward Upgrading the skill level of the workforce 	 Aging Plant and Machinery Retaining Skilled manpower who can work on equipment 	 History of frequent plant shutdowns Prolonged low operating levels

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
conservation and efficiency projects	•Good manufacturing and management practices			
	The Sector will	enter into strategi obsolete equipment		ich will provide
Inadequate financial resources for operational activities	 The company can borrow based on its balance sheet Assured of 	Revenue mobilisation through utility court	• Inability to disconnect sensitive customers	• Inability to implement the Atomatic Tariff Adjustment by PURC
Inadequate capital investment in the utility sector	• Assured of government sovereign guarantee	• Expansion of prepaid metering coverage	• Customers unwillingness to pay bills promptly	• Delay in the payment of GoG debt.
High debt overhang of public utility companies	Continuo to ongogo	PUPC to operational	ico tho Authomatic	Tariff Adjustment
	Continue to engage	PURC to operational	1	l ariff Adjustment
Limited awareness of energy conservation measures	PR divisions centralised in Head Office.	 Effective and efficienct social media platfall Increase the rate of customer education in all districts on energy usage. 	• Lack of marketing and PR officers at the districts level	• Overaged electrical appliances being used by customers.
CONCLUSION	Carry out frequent	customer education	on energy convers	ation
Poor quality of drinking water (water and environ sanitation – focus area)	• Competent technical staff Stable management team	 Support from Government agencies in water and sanitation Support from other stakeholders 	• Inadequate funds	• Low Water table in most communities Ability to pay for services affects sustainability of project

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
	Leverage more st	akeholder support fo	or the provision o	Poor maintenance culture Lack of replacement parts for outmoded pumps f quality drinking
	esettlement townsh		Ĩ	1 9 0
Poor quality of healthcare services (health and health services	• Competent technical staff Stable management team	• Co-operation of Town de com Full co-operation of district health directorate	• Untimely release of grant Inadequate funds	 Unwillingness of health personnel to accept postings to remote townships Inadequate accommodation in townships
				Bad road network to townships
	Management wou	ld work hard to ensi	ure timely release	• Lack of maintenance culture
	0	f health services in th	5	of futius and start
High prevalence of open defecation	• Competent technical staff Stable management team	• Co-operation of Town de com Donor support	• Untimely release of grant Inadequate funds	• Inability of community to prioritize sanitation issues inadequate water supply system
				• Lack of maintenance culture
	Donor support to the issue of open d	ogether with commu efecation	nity education wi	culture

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
Poor quality of education at all levels (education and training)	• Competent technical staff Stable management team	• Full support of Ghana Education Service Partnership with GETFund	• Inadequate funding Untimely release of funds	 Lack of maintenance culture Community peaceful coexistence Teachers refusing to accept posting to remote townships Poor road network Lack of accommodation for teachers
		d partnership will en ettlement townships		ent better quality
Limited numbers of skilled industrial personnel	 Determined, dedicated, motivated, and qualified staff at the Energy Commission's Electrical Wiring Secretariat. 	• Positive public opinion of the Commission's implementation of the Electrical Wiring Regulations; and the stronger co- operation of all stakeholders in the implementation of the regulations.	• Lack of funds to put staff on regular training activities or programmes to help them improve upon their knowledge and skills.	 The limited co-operation by key stakeholders The engagement of unqualified personnel to undertake illegal power connection and wiring activities Unconcerned posture of the public in reporting such illegalities in the sector
operation and i		tinue to find innovat of skilled industrial pe nomic development.	-	

4 PETROLEUM SUB-SECTOR

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
Inadequate local technical and financial capacity for the development of the industry	 Expert knowledge of the E & P commercial environment in Ghana. Existing relationship with Government institutions and local businesses Familiarity with local environment and economy Relationship s with academic and training institutions 	 Execution of Voltaian Basin project provides vehicle to build GNPC capacity and spread opportunities to local companies. Movement into operatorship will unlock potential to develop superior upstream competences over time and increase control of value chain contracting processes Development of local labour pool through collaboration with academic and training institutions. Technology and knowledge transfer from GNPC to local 	 Limited institutional capacity Lack of operating capability and institutional strength restricts control of contracting processes Limited availability of local financing 	 Labour market dominated by foreign expertise Better- resourced competitors likely to seize opportunities in emerging sectors in which we currently lack competitive technical capacity Heightened public and government expectation regarding industry job creation, social benefits and national development potential
Conclusion: Eff.	activaly as the ast	business	rojact to build area	ating conchility
and better contr with sister insti	ol contracting and tutions Effective	the Voltaian Basin P l technology transfer execution of local co elopment capabilities	processes. Promo pontent strategy an	te collaboration
The potential of oil and gas industry to develop as an enclave	• Existing relationship with Government institutions	 Growing gas industry unlocks new growth areas including both power and non- power usages 	 Limited data on demand Limited access to demand 	 Heightened public and government expectation regarding industry job

ADOPTED	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
ISSUES				
(Resource	and local		centres	creation,
curse)	businesses	 Gas to power 	(infrastructure)	social benefits
				and national
	 Familiarity 		 Lack of funds 	development
	with local	• Gas liquids		potential
	environment			
	and economy	• Ammonia		
	•			
		feedstock for both p		
	ver generation, a	mmonia for fertilize	er production and	gas liquids for
various uses.			D	
Inadequate	• Experienced	• Political and	• Poor	• Deregulatio
midstream	Staff	Government	maintenance	n of
infrastructure		support	culture	downstream
-	• Strong stable			sector i.e.
upstream and	revenue		• Poor public	competition
downstream	stream	 BOST Margin 	image	inherent in
operations				BDC market
		• New product		6
	 Multiple 	business (LPG)	• Underutilizati	• Currency
	revenue		on of assets	(GHS)
	streams/sourc	• Growth in	XA7 1 1 1	depreciation
	es	existing market	• Weak balance	. Change in
			sheet and high	• Change in
	Committed	• Incremental gas	debt portfolio	government
	management	from Greater	I	policy i.e. unclear
	. Or an analysis	Jubilee and	• Inadequate	legislation in
	• Ownership	HESS/Aker	funding	government
	and operatorship of	Parablish and	• Loss of	gas policy
		• Establishment		gas poncy
	gas infrastructure	of Energy Sector reforms like the	competent staff	• Community
	minastructure	waterfall		agitation
	Availiable	wateridli		agradion
	capacity on the	• Provision of		• Non
	existing	Natural Gas		payment of
	onshore and	Transmission		Lean Gas
	offshore	Utility License		supply
	pipeline and			
	building of			• Lack of
	compressor			liquidity in the
				downstream
	• Effective			market
	community			
i	community	1	1	1

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
	engagement strategy			
		ilitate development	of infrastructure	to fill gaps in
infrastructural r Poor and inadequate maintenance of infrastructure	 Experienced Staff 	 Political and Government support Zonalization BOST Margin New product business (LPG) Growth in existing market 	 Poor maintenance culture Poor public image Underutilizati on of assets Weak balance sheet and high debt portfolio 	 Deregulatio of downstream sector i.e. competition inherent in BDC market Currency (GHS) depreciation Change in government policy i.e. unclear legislation in government gas policy
		ate on core function	s as a strategic sto	ock and put in a
	 Staff Strong stable revenue stream Multiple 	 Political and Government support Zonalization BOST Margin Growth in existing market 	 Poor maintenance culture Poor public image Underutilizati on of assets Weak balance sheet and high debt portfolio 	• Deregulation of downstream sector i.e. competition inherent in BDC market • Currency (GHS) depreciation
	and board		• Obsolete technology	• Change in government policy i.e. unclear

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES		
				legislation in government gas policy		
staff BOST is ab support from sha	CONCLUSION Considering the commitment of BOST Management the experience of its staff BOST is able to put up adequate aviation fuel infrastructure. However, financial support from shareholders or permission to partner private sector is required.					
Use of inefficient, old and obsolete equipment	refinery personnel to	• Government support to finance capital projects	• Lack of fund to complete projects.	• Poor maintenance culture		
	undertake projects. • Ability to use	• Strategic partners to undertake turn- key projects	• Plant reliability issues	 Regulatory regimes that limit operability of 		
	Internally Generate funds to undertake capital projects			equipmentPoaching of		
CONCLUSION: Id		ancial support and in	vestments for TOR	experienced staff so its technical		
		p the obsolete equipm				
Inadequate Financial Resources for Operational Activities	 Biggest refinery in the country Adequate storage tank 	• Strategic partners to build a new refinery of over than100,000 bpsd	 Weak balance sheet Lack of working capital 	• Macroecono mic instability affecting products prices, exchange		
	Spare land for expansion	• Large and fast growing market (access to landlocked countries)	• Inadequate financial planning and reporting systems	rates and interest rates • Reduction in risk appetite of financial		
		• Government to Government agreements for	• Weak IT support	institutions and high financing cost.		
		the supply feedstock.	• High level of consumption losses	Regulatory issues		
		• Store third party products for fees		• Competition and price wars from external refineries		

Abot 12DConclusion <th< th=""><th>ADOPTED</th><th>POTENTIALS</th><th>OPPORTUNITIES</th><th>CONSTRAINTS</th><th>CHALLENGES</th></th<>	ADOPTED	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES	
shareholders and appropriate regulatory environment to become financially stable.Over-reliance of the economy on primary products with very little value addition• Technically effinery personnel • Biggest refinery in the country• Spring board for the building of petrochemical enclave in Ghana.• Inadequate support from government• Unavailabilit y of Ghana's share of oil allocation for processing.• Biggest refinery in the country• Oil production refinery in the country• Oil production in Ghana offers access oil TOR the produced in opportunity of attracting foreign direct investments (FDIS)• Inability to access oil • Poaching of experienced staffCONCLUSION: TOR could provide the needed value addition and also become a key player in the development of the oil and gas enclave in Ghana anaage environmental impacts• High safety and environmental inty for the safety standards of health, safety, security and environmental impactices• Lack of funds to ther companies projects aimed national disaster management refinery stakeholders• Lack of funds to ther companies to the romania the environmental industrial enclave training and awareness among all the refinery stakeholders• Large market within Ghana & West Africa.• Large market within the new vigin West working capital.• Inadequate to enable the company. • Inadequate working capital.• High dependence on wood fuels.• Large market within Ghana & West Africa.• Large market within the new vigin West Africa LPG cylinder recin		I OI EN HALS	OIT ONTONITIES	CONSTRAINTS	CHALLENGES	
shareholders and appropriate regulatory environment to become financially stable.Over-reliance of the economy on primary products with very little value addition• Technically effinery personnel • Biggest refinery in the country• Spring board for the building of petrochemical enclave in Ghana.• Inadequate support from government• Unavailabilit y of Ghana's share of oil allocation for processing.• Biggest refinery in the country• Oil production refinery in the country• Oil production in Ghana offers access oil TOR the produced in opportunity of attracting foreign direct investments (FDIS)• Inability to access oil • Poaching of experienced staffCONCLUSION: TOR could provide the needed value addition and also become a key player in the development of the oil and gas enclave in Ghana anaage environmental impacts• High safety and environmental inty for the safety standards of health, safety, security and environmental impactices• Lack of funds to ther companies projects aimed national disaster management refinery stakeholders• Lack of funds to ther companies to the romania the environmental industrial enclave training and awareness among all the refinery stakeholders• Large market within Ghana & West Africa.• Large market within the new vigin West working capital.• Inadequate to enable the company. • Inadequate working capital.• High dependence on wood fuels.• Large market within Ghana & West Africa.• Large market within the new vigin West Africa LPG cylinder recin		FOR needs worki	ng capital, foreign d	direct investments	s, support from	
Over-reliance of the economy on primation• Technically qualified qualified personnel• Spring board for the building of personnel• Inadequate financial support form Government• Unavailability y of Ghana's share of oil allocation for processing.addition• Biggest refinery in the country• Oil production in Ghana offers opportunity on attracting foreign direct investments (FPDs)• Inability to in Ghana offers opportunity on opportunity on attracting foreign direct investments• Inability to opportunity on Ghana• Resource curseCOCCLUSION:• Oil production in Ghana offers opportunity on the addirect investments• Lack of funds to complete industrial enclave environmental industrial enclave outfit.• Lack of funds to complete industrial enclave environmental industrial enclave outfit.• Lack of funds to complete industrial enclave environmental industrial enclave environmental environmental industrial enclave environmental<						
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products with very little value additionpersonnelenclave in Ghana.Government oportunity of in Ghana offers access oilallocation for processing. • Resource curseaddition• Biggest refinery in the country• Oil production in Ghana offers attracting foreign direct investments (FDIs)• Inability to access oil• Resource curseCONCLUSION: TOR could provide the reapacity to manage environmental impacts• High safety, other companies outfit.• Lack of funds to complete issues in the refinery stakeholders• Lack of funds to complete issues in the refinery• Lack of funds to complete at improving safety and industrial enclave environmental industrial enclave outfit.• Lack of funds to complete issues in the refinery safety and at improving safety and awareness among all the refinery stakeholders• Migh safety, outfit.• Lack of funds to complete issues in the refinery safety and environmental industrial enclave outfit.• Nefarious activities of communities around the refinery stakeholders• Nefarious activities of environment.CONCLUSION: Government should wood fuels.• Large market within Ghana & West Africa.• Large market within the new cylinder recirculation module.• Inadequate company. of the company. • Obsolete machinery.• Inadequate working capital.CONCLUSION: Engage strategic investors for State Comparise to play role in the Cylinder replacing obsolete• Potential large & virgin West Africa LPG cylinder and stove market. <td>of the economy</td> <td>qualified</td> <td>the building of</td> <td>financial</td> <td>y of Ghana's</td>	of the economy	qualified	the building of	financial	y of Ghana's	
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					y	

ADOPTED	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
ISSUES				
Inadequate	 To create a 	 To create a 	 Willingness of 	• High cost of
educational	world class	critical mass of	technical staff	pursuing
and	workforce that	technically	to mentor	technical courses beyond
institutional	can successfully	competent and	subordinates.	the first degree
capacity to	manage all	experienced staff		level.
support local	aspects of	within the West		
expertise and	cylinder &	African market.		
skills	stoves design			
development	and			
in the oil and	manufacturing.			
gas industry.				
CONCLUSION: C	reate more oppoi	rtunities for training	and capacity build	ing and make
deliberate effort	s to have on the jo	ob and other higher e	ducational trainin	g courses for all
categories of sta	ff	1		r
Weak	• Robust legal	• Leverage of	 Inadequate 	 Regulatory
regulatory and	regime	experience of	financial	capture
institutional	-	other	support	Resource
framework for	• Engageme	regulatory		curse
attracting	nt of	agencies	• Conflict of	• Human
private sector	technical	_	sector	resource
investment in	expertise	• Opportunity to	institutional	deficiency
petroleum	• Requisite	build capacity to	roles	• Fronting
industry	funding to	become	• Absence of	Political
	support	formidable	some relevant	interference
	regulatory	regulator	regulations to	Corruption
	institutions		monitor the	 Poaching
			sector	- I buching
• CONCLUSION:	Ensure fairness	, transparency and	regulatory predict	tability prudent
		nework put in place		
	eum operations in	1 1		
	 Develop 	• Opportunity to	Inadequate	Macroecono
local content	•	build capacity for	financial	mic instability
and local		1 0	support	ince miscability
participation	content	Ghanaian	Support	• High
	• Engagement of	companies	• Absence of	interest rate
the upstream		companies	some relevant	regime
oil and gas	expertise in	• Opportunity to	regulations to	regime
industry	local content	develop local	monitor the	
muustry	Iocal content	content	local content	• Low support
				• Low support
		guidelines		from the
		. Indigonous		financial
		Indigenous Changing		sector
		Ghanaian		
		companies to be		• Fronting
		highly		
		competitive		

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES		
100010		• Job opportunities for Ghanaians		• Heightened expectations of the public		
Participation) R	CONCLUSION: The effective implementation of the Petroleum (Local Content and Local Participation) Regulations L.I.2204 will promote value addition and enhance the competitiveness of indigenous Ghanaian companies to participate in upstream petroleum business					
Major land use challenges in the oil belts especially Western Region Inadequate capacity to manage waste and disaster in the Industry	L	 Opportunity to build capacity for indigenous Ghanaian companies to manage petroleum waste Opportunity to develop expertise in environmental protection 	 Inadequate financial support Absence of relevant regulations upstream safety 	• Social agitation in exploration and production activities		
		o monitor and ensure Health Safety and Er				
High cost of		• Large market in	• Inadequate	Nonpayment		
electricity	NGTU License	the east (Tema	logistics	of Lean Gas		
	• Available	Enclave)	 Inadequate 	supply		
	capacity on the	 Increasing 	funding	• Lack of		
	existing	market in the west	• Inability to	liquidity in		
	pipeline	(Takoradi -	collect total	the		
	• Efficient work	Aboadze	invoiced	downstream		
	force leading to	• The coming on	amount from	market		
	efficient	stream of OCTP	customers			
	operations	Gas				
		• WAGP				
		Interconnection				
		and Commercial				
		Agreements				
		(Phrase one)				

ADOPTED ISSUES	POTENTIALS	OPPORTUNITIES	CONSTRAINTS	CHALLENGES
CONCLUSION: Ensure indigenous gas is delivered at a reasonable price that will reduce				
cost of production and consequently cost of electricity				

CHAPTER THREE

ADOPTED DEVELOPMENT ISSUES, THEMATIC GOALS, OBJECTIVES AND STRATEGIES FROM NMTDPF, 2018- 2021

Chapter Three focuses on the adopted development issues of the sector and highlights its linkage to the Policy objectives and strategies to be adopted that will enable the Ministry achieve its vision and mission and to also contribute to achievement of goals and objectives set in the NMTDF 2018 – 2021.

In all, the sector adopted twenty-five (25) Policy Objectives.

ADOPTED DEVELOPMENT ISSUES	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES
High cost of electricity generation	Ensure availability of, clean, affordable	Restructure and strengthen the management of hydro plants and create a separate thermal market (SDG Target 9.1)
Unreliable power supply Low involvement of private capital in power	and accessible energy	Promote the use of gas as the primary fuel for power generation (SDG Target 7.1)
sector Low contribution of RE		Secure long-term reliable gas supplies for the operation of thermal power plants (SDG Target 7.1)
in the power generation mix High cost of electricity		Facilitate participation of independent power producers (IPPs) and other private sector institutions in the generation and distribution of
generation Over-dependence on		power (SDG Target 17.17) Increase proportion of renewable energy in
hydro generation sources Inadequate		national energy supply mix (SDG Targets 7.2, 7.3, 7.a)
infrastructure to support delivery of energy services		Increase proportion of renewable energy in national energy supply mix (SDG Targets 7.2, 7.3, 7.a)
Low involvement of capital in the power sector Inadequate		Promote net metering technology to encourage end-user to invest in renewables (SDG Target 7.a)
Infrastructure to Support		

ADOPTED DEVELOPMENT ISSUES	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES
the Delivery of Energy Services		Promote net availability of renewable energy such as mini-hydro, solar, biomass, wind, tidal (SDG Target 7.2. 7.a)
High dependence on wood fuels.		 Facilitate the building of solar parks in the northern part of the country to deploy utility-scale PV systems (SDG Targets 7.a,7.b) Formulate policies to reduce emission of greenhouse gases and its negative impact (SDG Target 13.2) Provide incentives for the aggressive development of natural gas potential (SDG Target 7.1)

DEVELOPMENT ISSUES POL	OPTED ICY ECTIVES	ADOPTED STRATEGIES
Inadequate and obsolete Ensu electricity grid network tran	are efficient smission and ribution	Support and intensify sub-regional power interconnectivity under West African Power Pool (WAPP) involving Burkina Faso, Mali, Niger, Togo, Benin, and Cote D'Ivoire (SDG Targets 7.a, 7.b) Prioritize expansion of power generation in relation to least-cost environmentally friendly technologies in line with Clean Development Mechanism (CDM) of the UN Framework Convention on Climate Change (UNFCCC) (SDG Targets 7.1, 7.a, 7.b) Revise self-help-electricity project and use means-testing approaches to enable the poor to connect to the national grid Expand the distribution and transmission networks (SDG Targets 7.3, 7.a, 7.b) Develop and implement a 10-year Power Sector Master Plan (SDG Targets 7.3, 7.a, 7.b) Modernize transmission and distribution networks to significantly reduce operational inefficiencies in energy supply and distribution (SDG Targets 7.3, 7.a, 7.b) Expand the distribution and transmission networks (SDG Target 7.b)

ADOPTED DEVELOPMENT ISSUES	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES
High cost of electricity Inadequate and unreliable electricity supply	Ensure energy availability and reliability	Ensure the necessary investment to upgrade, renew, and expand the power transmission and distribution network (SDG Targets 7.a, 7.b) Re-align the electricity tariff structure in support of industrial development (SDG Target 7.1,9.1,9.2) Identify and boost the long-term generation of base load power at the lowest possible cost configuration (SDG Target 7.b) Tackle the corporate governance deficiencies in the energy sector that contribute to inefficiency, waste, and poor services (SDG Targets 16.6,16.7)
Inadequate financial resources for operational activities Inadequate capital investment in the utility sector High debt overhang of public utility companies	Improve financial capacity and sustainability of utility companies	Implement an energy sector financial restructuring and recovery plan, incorporating, a liquidity management mechanism (Cash Waterfall Mechanism) (SDG Target 7.a) Conduct a technical audit on all power sector infrastructure (SDG Target 9.1) Institute mechanism to ensure that all new capacities are acquired through open and competitive tender process (SDG Targets 16.5, 16.6)

ADOPTED DEVELOPMENT ISSUES	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES
Weak regulatory and institutional framework for attracting private sector investment in petroleum industry Poor coordination among state institutions Inadequate local technical and financial capacity for the development of the industry	Promote petroleum exploration	 Promote Ghana as an attractive destination for investment, technology, and a hub for petroleum operations in West Africa sub-region (SDG Targets 7.a, 8.9) Accelerate development of regulations for Petroleum Exploration and Production Act, Act 919, 2016, (SDG Target 9.b) Institute competitive bidding process in the award of petroleum blocks for exploration and production. (SDG Targets 16.5,17.17) Accelerate the reconnaissance exploration programme in the Voltaire basin with the objective of delineating areas that merit detailed exploration (SDG Target 9.b) Improve infrastructure, governance, legislative and investment conditions in the petroleum sector (SDG Targets 7.a, 7.b) Ensure better collaboration and coordination among the petroleum sector institutions (SDG Target 16.6)

ADOPTED DEVELOPMENT ISSUES	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES
Inadequate local content and local participation especially in the upstream oil and gas industry Inadequate local content and local participation especially in the upstream oil and gas industry Limited capacities of local financial institutions to support Ghanaian investments in oil and gas industry development Inadequate educational and institutional capacity to support local expertise and skills development in the oil and gas industry	Promote development and use of indigenous capabilities for exploitation of petroleum resources	Develop local capability in all aspects of the oil and gas value chain (SDG Target 8.3) Strengthen implementation of the Petroleum (Local Content and Local Participation) Regulations, 2013 LI 2204 especially, the Financial Services Guidelines (SDG Targets 8.3, 10.5, 16.6) Expand capital and risk capacity of financial system to support energy-driven based industries (SDG Targets 8.10, 10.b, 17.3,17.16) Promote education and skills enhancement initiatives to manage the Petroleum Sector (SDG Target 16.6)

ADOPTED DEVELOPMENT ISSUES	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES
Inadequate midstream infrastructure to link upstream and downstream operations The potential of oil and gas industry to develop as an enclave (Resource curse) Over-reliance of the economy on primary products with very little value addition	Leverage oil and gas industry as a catalyst for national economic development	Mobilise public and private sector investment to expand national crude oil refining capacity, trading, storage and transportation to neighbouring countries and land-locked nations in the sub-region (SDG Targets 17.3, 17.17) Encourage the use of gas as transportation fuel within the public transportation system (SDG Target 9.1) Mobilise domestic capital to invest in petroleum products storage capacity and operations (SDG Targets 7.a, 8.10, 17.3, 17.17) Facilitate universal access to adequate, reliable and cost effective petroleum products such as Liquefied Petroleum Gas (LPG), (SDG Target 7.1) Promote the use of gas in strategic industries such as urea, methanol and aluminium (SDG Target 9.4)

ADOPTED DEVELOPMENT ISSUES	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES
		Extend petroleum bulk transportation and distribution infrastructure nation-wide (SDG Target 7.b)
		Facilitate universal access to adequate, reliable and cost effective petroleum products such as Liquefied Petroleum Gas (LPG), (SDG Target 7.1)
		Diversify the economy with emphasis on the processing of crude oil and natural gas. (SDG Targets 8.1, 8.2)
		Promote value addition in the oil and gas industry (SDG Target 8.2)
		Build new growth poles in the economy especially in the Western region using oil and gas industry (SDG Target 8.2)
Major land use challenges in the oil belts especially Western Region	Minimize potential environmental impacts of oil and gas industry	Ensure compliance with applicable laws and international standards for environment, health and safety in the oil and gas sector including the policy on zero gas flaring (SDG Targets 11.6, 12.4, 12.6)
Inadequate capacity to manage environmental impacts		Ensure that oil activities are not carried out at the expense of fishing and other lawful economic activities (SDG Targets 14.1,14.2,
Inadequate capacity to manage environmental impacts		14.a, 14.c)
Inadequate capacity to manage waste and disaster		
in the industry		
Inefficient energy use	Reduce greenhouse gases	Accelerate programmes to significantly reduce environmental risks and ecological scarcity, focusing on energy, agriculture, forestry and waste sectors (SDG Target 3.d)

ADOPTED DEVELOPMENT ISSUES	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES
Improper disposal of solid and liquid waste	Reduce environmental pollution	Promote science and technology in waste recycling and waste-to energy technologies (SDG Targets 6.a, 7.1, 12.5)
		Promote the use of environmentally friendly methods and products (SDG Targets 9.4, 12.4, 17.7) Promote cleaner production and consumption technology and practices (SDG Targets 9.4, 12.1, 12.a)
Low contribution of renewable energy in the power generation mix	Ensure efficient utilization of energy	Promote availability of renewable energy (mini hydro, solar, biomass, wind, tidal) (SDG Targets 7.2, 7.a)
Limited awareness of energy conservation measures		Promote demand side management to reduce significantly the operational inefficiencies in energy supply and distribution, and the inefficient use of electricity by households and
Use of inefficient, old and obsolete equipment		industry and thus conserve energy (SDG Targets 7.3, 7.a)
Low adoption of energy efficiency technology Inadequate financing for		Promote the use and design of energy efficient technologies in public and private buildings (SDG Targets 7.3, 7.a)
energy conservation and efficiency projects		12.4.4 Implement energy use efficiency policy and programmes (SDG Targets 7.3, 7.a, 17.14)
Poor attitudes towards energy utilisation		Accelerate replacement of kerosene lanterns with solar lanterns (SDG Targets 7.2, 7.a)
Poor quality of drinking water	Improve access to safe and reliable	Provide mechanised boreholes and small-town water systems (SDG Target 6.1)
	water supply services for all	Improve water production and distribution systems (SDG Targets 6.4, 6.5)
Poor quality of healthcare services (health and health services)	Ensure affordable, equitable, easily accessible and Universal Health Coverage (UHC)	Expand and equip health facilities (SDG Target 3.8)

ADOPTED DEVELOPMENT ISSUES	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES
High prevalence of open defecation	Enhance access to improved and reliable environmental sanitation services	Develop and implement strategies to end open defecation (SDG Target 6.2)
Poor quality of education at all levels(education and training)	Enhance inclusive and equitable access to, and participation in quality education at all levels	Expand infrastructure and facilities at all levels (SDG Target 4.a)
Distressed but viable industries Limited local participation in economic development	Pursue flagship industrial development initiatives	Implement strategic anchor industrial initiatives (SDG Targets 9.2, 9.3,9.4, 9.b, 9.c)
Poor and inadequate maintenance of infrastructure	Promote proper maintenance culture	Institute a robust maintenance scheme for rail, roads, ports, harbors and other critical infrastructure. (SDG Targets 9.a,11.2) Establish timely and effective preventive maintenance plan for all public infrastructure (SDG Target 9.a)
Inadequate infrastructure and facilities High cost of aviation fuel	Make Ghana the aviation hub for West African sub region	Provide efficient aviation support services (SDG Targets 11.2,16.6)
High rate of rural-urban migration	Enhance quality of life in rural areas	Provide basic infrastructure such as potable water, sanitation, electricity, road networks, schools, health facilities, low cost housing. (SDG Targets 1.b, 6.1,6.2, 11.1, 11.a)
High rate of rural-urban migration	Enhance quality of life in rural areas	Provide basic infrastructure such as potable water, sanitation, electricity, road networks, schools, health facilities, low cost housing. (SDG Targets 1.b, 6.1,6.2, 11.1, 11.a)
Inefficient Public Service delivery Inefficient Public Service Delivery	Build an effective and efficient government machinery	Improve leadership capability and delivery in the public service (SDG Targets 16.6, 16.a)

ADOPTED DEVELOPMENT ISSUES	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES
Poor record keeping Little enforcement of and compliance with		Improve documentation within the public sector (SDG Targets 16.6, 16.10, 16.a)
rules and regulations of the PSC by public Sector institutions		Improve accountability in the public service. (SDG Targets 16.6, 16.a)
Limited modernization and use of technology in public		Modernise public service institutions for efficiency and productivity (SDG Targets 16.6, 16.a)
Inefficient Public Sector delivery service		Implement comprehensive HR payroll system and database (SDG Target 16.5, 16.6)
Lack of linkage between human resource planning and pay administration in the public service		
Inadequate social protection in the labour market	Promote the creation of descent jobs	Strengthen the linkages among social protection and employment services (SDG Targets 4.4, 8.3)
Limited numbers of skilled industrial personnel	Ensure improved skills development for industry	Establish apprenticeship and skills development centres to train skilled labour force for specific industrial sectors (SDG Target 4.4)
Prevalence of substandard, fake and expired products	Ensure consumer protection	Strengthen the operations of institutions responsible for enforcing standards and preventing the sale and distribution of sub- standard and harmful goods (SDG Target 16.6)
Inadequate financial resources	Enhance capacity for policy formulation and	Strengthen the capacity of public institutions to undertake policy analysis, development planning, monitoring and evaluation, macro-
Inconsistencies in the format and content of policies formulated	coordination	economic modelling and forecasting (SDG Target 17.9)
Ineffective M&E of implementation of development policies		Strengthen the relationship between the national development planning system and budgeting processes (SDG Target 17.14)
and plans		Strengthen the implementation of development plans (SDG Targets 16.6, 17.9)

ADOPTED DEVELOPMENT ISSUES	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES
		Develop and implement a long-term national development policy framework (SDG Target 1.b)
		Promote coordination, harmonization and ownership of the development process (SDG Target 17.14)

CHAPTER FOUR

DEVELOPMENT PROGRAMMES AND SUB-PROGRAMMES OF THE MDA

As part of government efforts to link planning to budget, the Ministry of Finance and NDPC are working together with MDAs to ensure that all MDAs adopt program-based budgeting.

The essence is to shift from Budgeting by Department (activity based) to Programme Based Budgeting thus enabling a more strategic focus on a smaller number of key outcomes.

DEVELOPMENT PROGRAMMES AND SUB-PROGRAMMES

MINISTRY/ AGENCY	ADOPTED POLICY	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
MINISTRY OF EN	OBJECTIVES				
HUMAN	Build an	Modornico public comico	Managamant	Human	Staff Performance
_		Modernise public service	Management		
RESOURCE	effective and	institutions for efficiency	and	Resource	Appraisal
MANAGEMENT	efficient	and productivity (SDG	Administration		
AND DEVELOP-	government	Targets 16.6, 16.a)			
MENT	machinery				
DIRECTORATE	, ,				
		Improve leadership	Management	Human	Orientation and
		capability and delivery in	and	Resource	Induction Programme
		the public service	Administration		
		(SDG Targets 16.6, 16.a)			

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		Implement comprehensive HR payroll system and database (SDG Target 16.5, 16.6)	Management and Administration	Human Resource	Staff Upgrading and promotions
	Promote the creation of descent jobs	Strengthen the linkages among social protection and employment services (SDG Targets 4.4, 8.3)	Management and Administration	Human Resource	Staff welfare and health checks
GENERAL ADMINISTRA- TION	Build an effective and efficient government machinery	Improve leadership capability and delivery in the public service (SDG Targets 16.6, 16.a)	Management and Administration	General Administratio n and Finance	Management Meetings Ministerial Advisory Board Meetings
		Improve documentation within the public sector (SDG Targets 16.6, 16.10, 16.a)	Management and Administration	General Administratio n and Finance	Automation and Records Management

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		Improve accountability in the public service. (SDG Targets 16.6, 16.a)	Management and Administration	General Administration and Finance	AuditCommitteeMeetingsProcurementandStore Management
		Modernise public service institutions for efficiency and productivity (SDG Targets 16.6, 16.a)	Management and Administration	General Administration and Finance	Physical Environment Management Transport Management
RESEARCH, STATISTICS AND INFORMATION MANAGEMENT	Ensure efficient utilization of energy	Accelerate replacement of kerosene lanterns with solar lanterns (SDG Targets 7.2, 7.a)	Management and Administration	Research, Statistics Information and Public Relations	Monitoring of the implementation of Solar Lantern Distribution Programme
		Promote the use and design of energy efficient technologies in public and private buildings (SDG Targets 7.3, 7.a)	Management and Administration	Research, Statistics Information and Public Relations	IT Securities Policies, Procedures and Guidelines IT Strategies (Phase I to IV)
	Leverage oil and gas industry as a catalyst for national	Facilitate universal access to adequate, reliable and cost effective petroleum	Management and Administration	Research, Statistics Information and Public Relations	Monitoring of the Implementation of the Rural LPG Promotion Programme

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
	economic development	products such as Liquefied Petroleum Gas (LPG), (SDG Target 7.1)			
	Ensure availability of clean, affordable and accessible energy	Increase proportion of renewable energy in national energy supply mix (SDG Targets 7.2, 7.3, 7.a)	Management and Administration	Research, Statistics Information and Public Relations	Impact Assessment on Mini Grid Electrification installations
POLICY PLANNING, BUDGETING, MONITORING AND EVALUATION	Enhance capacity for policy formulation and coordination	Strengthen the capacity of public institutions to undertake policy analysis, development planning, monitoring and evaluation, macro-econometric modelling and forecasting (SDG Target 17.9)	Management and Administration	Policy Planning, Budgeting, Monitoring and Evaluation	Training and Capacity Building Programme
		Strengthen the relationship between the national development planning system and budgeting processes (SDG Target 17.14) Strengthen the implementation of	Management and Administration	Policy Planning, Budgeting, Monitoring and Evaluation	Ministry Budget Preparation (2019- 2022) in line with objectives of NMTDP Preparation of Annual Reports, Quarterly Reports, Work Plans

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
	00,0011110	development plans (SDG Targets 16.6, 17.9) Develop and implement a long-term national development policy framework (SDG Target 1.b) Promote coordination, harmonization and ownership of the development process			and Mid-Year Performance Reviews Effective Monitoring and Evaluation of Programme and Projects Coordinate with Sector Agencies to facilitate collation of data on Energy Sector to the National
		(SDG Target 17.14)			Development Planning Commission (NDPC)
POWER DIRECTORATE	Ensure availability of, clean, affordable and accessible energy	Restructure and strengthen the management of hydro plants and create a separate thermal market (SDG Target 9.1)	P01802 Power Generation, Transmission and Distribution	SP 01802001 Power Generation and Transmission	Power Sector Reforms

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		Facilitate participation of independent power producers (IPPs) and other private sector institutions in the generation and distribution of power (SDG Target 17.17)	P01802 Power Generation, Transmission and Distribution	SP 01802001 Power Generation and Transmission	Increase Private Sector participation in Power Sector through IPPs
	Ensure efficient transmission and distribution system	1.2.3 Support and intensify sub-regional power interconnectivity under West African Power Pool (WAPP) involving Burkina Faso, Mali, Niger, Togo, Benin, and Cote D'Ivoire (SDG Targets 7.a, 7.b)	P01802 Power Generation, Transmission and Distribution	SP 01802002 Power Distribution	Become the net exporter of Power
		Prioritize expansion of power generation in relation to least-cost environmentally friendly technologies in line with Clean Development Mechanism (CDM) of the UN Framework Convention on Climate Change (UNFCCC) (SDG Targets 7.1, 7.a, 7.b)	P01802 Power Generation, Transmission and Distribution	SP 01802002 Power Distribution	Development and implementation of the Integrated Power Sector Master Plan (IPSMP)

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		Revise self-help- electricity project and use means-testing approaches to enable the	P01802 Power Generation, Transmission	SP 01802002 Power Distribution	
		poor to connect to the national grid	and Distribution		Implementation of the
		Expand the distribution and transmission networks (SDG Target 7.b)	P01802 Power Generation, Transmission and	SP 01802002 Power Distribution	National Electrification Scheme
	Improve	Implement an energy	Distribution P01802	SP 01802002	Cash Waterfall
	financial capacity and sustainability of utility	sector financial restructuring and recovery plan, incorporating, a liquidity	Power Generation, Transmission and	Power Distribution	Mechanism
	companies	management mechanism (Cash Waterfall Mechanism) (SDG Target 7.a)	Distribution		
RENEWABLE	Ensure availability of, clean, affordable and accessible	Increase proportion of renewable energy in national energy supply mix (SDG Targets 7.2, 7.3, 7.a)	P01804 Renewable Energy Development	SP 01804001 Renewable Energy	Renewable Energy Policy and Strategy Program
	energy	Facilitate the building of solar parks in the northern part of the	P01804 Renewable	SP 01804001 Renewable Energy	Integration of Renewable Energy in

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		country to deploy utility- scale solar photovoltaic systems (SDG Targets 7.a, 7.b)	Energy Development		the National Electricity Grid
		Develop, implement and maintain a safe, secure and sustainable nuclear power programme (SDG Targets 7.3, 7.a)	P01804 Renewable Energy Development	SP 01804002 Alternative Energy	Nuclear Energy Planning Programme
	Ensure efficient transmission and distribution system	Expand the provision of mini-grids to lake-side and islands communities to improve the livelihood of the communities (SDG Targets 7.a, 7.b)	P01804 Renewable Energy Development	SP 01804002 Alternative Energy	Mini Grid and Off Grid Renewable Electrification Programme
PETROLEUM UPSTREAM	Promote petroleum exploration	Promote Ghana as an attractive destination for investment, technology, and a hub for petroleum operations in West Africa sub-region (SDG Targets 7.a, 8.9)	P01803 Petroleum Development	SP 01803001 Upstream	Promotion of Ghana's hydrocarbon potential
		Improveinfrastructure,governance,legislativeandinvestmentconditionsin	P01803 Petroleum Development	SP 01803001 Upstream	-Coordination and monitoring of the WAGP Integrated

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		petroleum sector (SDG			Interconnection
		Targets 7.a, 7.b)			Project
					-Development of Gas
					Act
					-Development of Energy Policy and Strategy
		Accelerate development	P01803	SP 01803001	Development of the
		of regulations for	Petroleum	Upstream	General Petroleum
		Petroleum Exploration	Development		Regulations.
		and Production Act, Act			
		919, 2016, (SDG Target			
		9.b)			
		Accelerate the	P01803	SP 01803001	Voltaian Basin Project
		reconnaissance	Petroleum Development	Upstream	
		exploration programme in the Voltaire basin with	Development		
		the objective of			
		delineating areas that			
		merit detailed			
		exploration (SDG Target			
		9.b)			
		Institute competitive	P01803	SP 01803001	Coordination of the
		bidding process in the	Petroleum	Upstream	maiden of the maiden
		award of petroleum blocks for exploration and	Development		Bid Round for the
					Award of Exploration
					License

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
	Leverage oil	production. (SDG Targets 16.5, 17.17) Ensure better collaboration and coordination among the petroleum sector institutions (SDG Target 16.6) Promote the use of gas in	P01803 Petroleum Development P01803	SP 01803001 Upstream SP 01803001	Harmonization of roles of gas sector institutions Development of
	and gas industry as a catalyst for national economic development	strategic industries such as urea, methanol and aluminum (SDG Target 9.4)	Petroleum Development	Upstream	Secondary Gas Market for Tema Industrial Area
PETROLEUM DOWNSTREAM	Promote petroleum exploration	Improve infrastructure, governance, legislative and investment conditions in the petroleum sector (SDG Targets 7.a, 7.b)	P01803 Petroleum Development	SP 01803002 Downstream	Development of Downstream Infrastructure Master Plan (DIMP)
		Promote Ghana as an attractive destination for investment, technology, and a hub for petroleum operations in West Africa sub-region (SDG Targets 7.a, 8.9)	P01803 Petroleum Development	SP 01803002 Downstream	Petroleum Hub Implementation

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		Ensurebettercollaborationandcoordination among thepetroleumsectorinstitutions(SDG Target16.6)	P01803 Petroleum Development	SP 01803002 Downstream	Monitoring of activities of Downstream Agencies/Companies
	Promote development and use of indigenous capabilities for exploitation of petroleum resources	Develop local capability in all aspects of the oil and gas value chain (SDG Target 8.3)	P01803 Petroleum Development	SP 01803002 Downstream	Training and Capacity Building for operation of Downstream Infrastructure
	Promote petroleum exploration	Strengthen implementation of the Petroleum (Local Content and Local Participation) Regulations, 2013 LI 2204 especially, the Financial Services Guidelines (SDG Targets 8.3, 10.5, 16.6)	P01803 Petroleum Development	SP 01803002 Downstream	Monitoring of implementation of Petroleum Downstream Ghanaian content and Ghanaian participation Policy
		Expand capital and risk capacity of financial system to support energy-driven based industries (SDG Targets 8.10, 10.b, 17.3,17.16)	P01803 Petroleum Development	SP 01803002 Downstream	Development of Petroleum Downstream Financing Policy

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
	Leverage oil and gas industry as a catalyst for national economic development	Mobilize public and private sector investment to expand national crude oil refining capacity, trading, storage and transportation to neighbouring countries and land-locked nations in the sub-region (SDG Targets 17.3, 17.17)	Petroleum Development	SP 01803002 Downstream	Monitoring of Petroleum Downstream Infrastructure Development
		Encourage the use of gas as transportation fuel within the public transportation system (SDG Target 9.1)	P01803 Petroleum Development	SP 01803002 Downstream	Development of Fuel Use Policy
		Mobilise domestic capital to invest in petroleum products storage capacity and operations (SDG Targets 7.a, 8.10, 17.3, 17.17)	P01803 Petroleum Development	SP 01803002 Downstream	Development of Petroleum Products Strategic Stocks Policy
		Facilitate universal access to adequate, reliable and cost	P01803 Petroleum Development	SP 01803002 Downstream	MonitorImplementationofNationalLPGPromotion Policy

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
HSSE	Minimize potential environmental impacts of oil and gas industry	effective petroleum products such as Liquefied Petroleum Gas (LPG), (SDG Target 7.1) Ensure compliance with applicable laws and international standards for environment, health and safety in the oil and gas sector including the policy on zero gas flaring (SDG Targets 11.6, 12.4,	Petroleum Development	Health, Security, Safety and Environment	Rural LPG Promotion Programme Development of National Fuel Quality Policy Promotion of opportunites in Ghana's Petroleum Downstream Development of a Health Safety Security and Environment Policy for the Energy sector
		 12.6) Intensify community education on coexistence of oil and gas with fishing industries (SDG Targets 12.8, 14.a) Ensure that oil activities are not carried out at the 	Petroleum Development	Health, Security, Safety and Environment	Sustainability and Social inclusion policy

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		expense of fishing and other lawful economic activities (SDG target 14.1, 14.2)	Petroleum Development	Health, Security, Safety and Environment	
	Reduce greenhouse gases	Enhance climate change resilience	Petroleum Development	Health, Security, Safety and Environment	National Climate Change -Smart Energy Action Plan
		Accelerate programmes to significantly reduce environmental risks and ecological scarcity, focusing on energy, agriculture, forestry and waste sectors (SDG Target 3.d)	Petroleum Development	Health, Security, Safety and Environment	
SECTOR AGENCIE	S	sectors (bbd ranget sia)			
ENERGY COMMISSION	Ensure improved skills development for industry	Establish apprenticeship and skills development centres to train skilled labour force for specific industrial sectors (SDG Target 4.4)	Energy Sector Regulation	Power Sector Regulation	Electrical Wiring Regulations Implementation Regulations and Certification Scheme for Benewable Energy
					for Renewable Energy Installers Development

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
	Ensure consumer protection	Strengthen the operations of institutions responsible for enforcing standards and preventing the sale and distribution of sub-standard and harmful goods (SDG Target 16.6)	Energy Sector Regulation	Power Sector Regulation	Electrical Wiring accessories and cable development Developmenbt of Standards and Labelling Scheme for the Improved Cookstove Market Energy Efficiency Regulations Enforcement Establishment of energy efficient appliance database and development of an Application for Refridgerating, air- conditioning and lighting appliances regulations
	Ensure availability of clean, affordable and accessible energy	Facilitate participation of independent power producers (IPPs) and other private sector institutions in the generation and distribution of power	Energy Sector Regulation	 Strategic Planning and Policy. Natural Gas and Power Sector 	Strategic National Energy Pla (2016- 2030) Electricity, Renewable Energy and Natural Gas Licensing

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		(SDG Target 17.17)		Regulation	
				S	Review and update Electricity
					Distribution Code
					Assessment of
					indigenous energy resources for
					development in Ghana
					*
					Regulations for facilities handling
					Liquefied Natural Gas
					(LNG)
					Manning Out
					Mapping Out Renewable Energy
					Grid Integration
					Project (MOREGRIP)
					Operationalisation of
					the Electricity Market
					Oversight Panel
					(EMOP)
					Natural Gas Licensing
	Ensure	Develop regulations for	Energy Sector	Power Sector	Review National
	availability of energy	the Renewable Energy Law to incentivise	Regulation	Regulation	Electricity Grid Code to include Renewable
	infrastructure	investments in			Energy Sub-Codes
		renewable technologies			

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
	Ensure availability of clean, affordable and accessible energy	(SDG Targets 7.a, 17.17) Promote availability of renewable energy (mini hydro, solar, biomass, wind, tidal) (SDG Targets 7.2, 7.a)	Renewable Energy and Energy Efficiency Development	Renewable Energy Promotion	Renewable Energy Licensing Development of Regulations and Certification Scheme for Renewable Energy Installers
	Ensure efficient utilisation of energy	Promote demand side management to reduce significantly the operational inefficiencies in energy supply and distribution, and the inefficient use of electricity by households and industry and thus conserve energy (SDG Targets 7.3, 7.a)	Renewable Energy and Energy Efficiency Development.	Promotion of Energy Efficiency and Conservation	Energy Efficiency and Conservation Campaign and Awareness Creation Energy Efficiency Building code and Labelling for Commercial/Public Buildings Energy Efficiency and Demand Side Management Project (MiDA) Energy efficiency retooling in MDAs

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
					Enforcement of Energy Efficiency Regulations
GHANA GRID COMPANY	Ensure energy availability and reliability Ensure efficient transmission	Ensure the necessary investment to upgrade, renew, and expand the power transmission and distribution network (SDG Targets 7.a, 7.b) Modernize transmission and distribution networks to	P01802 Power Generation, Transmission and Distribution P01802 Power Generation, Transmission and Distribution P01802 Power Generation,	P01802001 Power Generation, Transmission P01802001 Power Generation, Transmission P01802001 Power Generation,	Upgrade the Volta - Achimota - Mallam 161kV Line Expand the Prestea- Dunkwa 330Kv Construction of the Kumasi 1 – Kumasi II Bulk Supply Point (K2BSP) Buipe-Salaga Transmission Project Provide a temporary connection to Accra Bulk Supply Point
	and distribution system	significantly reduce operational inefficiencies in energy supply and distribution (SDG Targets 7.3, 7.a, 7.b) Support and intensify sub-regional power interconnectivity	Transmission and Distribution P01802 Power Generation, Transmission	Transmission P01802001 Power Generation, Transmission	Upgrade the SCADA Phase I to Phase II Construction of Aboadze – Prestea 330kV Transmission Line Expansion of

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
VOLTA RIVER AUTHORITY	Ensure availability of, clean, affordable and accessible energy Ensure efficient utilization of energy	under West African Power Pool (WAPP) involving Burkina Faso, Mali, Niger, Togo, Benin, and Cote D'Ivoire (SDG Targets 7.a,7. b) Prioritize expansion of power generation in relation to least-cost environmentally friendly technologies in line with Clean Development Mechanism (CDM) of the UN Framework Convention on Climate Change (UNFCCC) (SDG Targets 7.1, 7.a, 7.b)	and Distribution P01802 Power Generation, Transmission and Distribution	P01802001 Power Generation, Transmission	Aboadze 330kV Substation Construction of 225KV Bolgatanga- Ouagadougou Interconnection Construction 330 kV Kumasi -Bolgatanga Transmission Line Project Construction of 330 kV Kumasi, Tamale and -Bolgatanga Substation Development and implementation of the Integrated Power Sector Master Plan (IPSMP)
		Restructure and strengthen the	P01804	01804001	VRA restructuring:

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		management of hydro plants and create a separate thermal market (SDG Target 9.1)	Renewable Energy Development	Renewable Energy	Merger of VRA Hydro operations with Bui Power Authority (BPA) 2. Separation of VRA Thermal Operation from Hydro operation
		Increase proportion of renewable energy in national energy supply mix (SDG Targets 7.2, 7.3, 7.a)	P01804 Renewable Energy Development	01804001 Renewable Energy	Complete 10 hydro pre-feasibility studies
		Promote the use of gas as the primary fuel for power generation (SDG Target 7.1)	P01802 Power Generation, Transmission and Distribution	P01802001 Power Generation, Transmission	Relocation of the 450MW Karpowership from Tema to Sekondi to utilize from Sankofa Fields
		Promote availability of renewable energy (mini hydro, solar, biomass, wind, tidal) (SDG Targets 7.2, 7.a)	P01804 Renewable Energy Development	01804001 Renewable Energy	-20mw Biotherm solar project devt -50MW Eleqtra wind project devt Solar lanterns promotion
	Ensure efficient	Expand the distribution and transmission	P01802	P01802002	Asset Management Project

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
NORTHERN ELECTRICITY DISTRIBUTION COMPANY	transmission and distribution system	networks (SDG Target 7.b)	Power Generation, Transmission and Distribution	Power Distribution	Customer Densification Project Network Reinforcement and Technical Loss Reduction Project
	Improve financial capacity and sustainability of utility companies	Conduct a technical audit on all power sector infrastructure (SDG Target 9.1)	P01802 Power Generation, Transmission and Distribution	P01802002 Power Distribution	Revenue Mobilization Project Customer Information Systems Project Commercial Loss Reduction Project
ELECTRICITY COMPANY OF GHANA	Ensure efficient transmission and distribution system	Modernize transmission and distribution networks to significantly reduce operational inefficiencies in energy supply and distribution (SDG Targets 7.3, 7.a, 7.b)	P01802 Power Generation, Transmission and Distribution	P01802002 Power Distribution	Revenue Mobilisation and Commercial Loss Reduction Project
	Ensure energy availability and reliability	Ensure the necessary investment to upgrade, renew, and expand the	P01802 Power Generation,	P01802002 Power Distribution	Network Reinforcement and

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		power transmission and			Technical loss
		distribution network	and		reduction projects
		(SDG Targets 7.a, 7.b)	Distribution		
	Improve	Implement an energy	P01802	P01802002	Modernization of ECG
	financial	sector financial	Power	Power	Business Process
	capacity and	restructuring and	Generation,	Distribution	Projects
	sustainability	recovery plan,	Transmission		
	of utility	incorporating a liquidity	and		
	companies	management mechanism	Distribution		
		(cash waterfall mechanism) SDG Target			
		7.a)			
		7.aj			
		Conduct a technical audit	P01802	P01802002	
		on all power sector	Power	Power	
		infrastructure (SDG	Generation,	Distribution	
		Target 9.1)	Transmission		
			and		
			Distribution		
	Ensure	Promote demand side	P01802	P01802002	
	efficient	management to reduce	Power	Power	
	utilitisation of	significantly the	Generation,	Distribution	
	energy	operational inefficiencies	Transmission		
		in energy supply and	and		
		distribution, and the	Distribution		
		inefficient use of			
		electricity by households			
		and industry and thus			
		conserve energy (SDG			
		Targets 7.3, 7.a)			

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
BUI POWER AUTHORITY	Ensure availability of clean, affordable and accessible energy	Increase proportion of renewable energy in the national energy supply mix (SDG Targets 7.2, 7.3, 7.a)	P01804 Renewable Energy Development	01804001 Renewable Energy	50 MWp HSH - 3SIL 50 MWp HSH - PowerChina/Sinohydr o 20-50 MWp HSH - Eni Ghana 10 MWp HSH - BPA (Phase 1 of 100MWp) Northern Regions Solar PV developments
		Facilitate the building of solar parks in the northern part of the country to deploy utility- scale PV systems (SDG Targets 7.a,7.b)	P01804 Renewable Energy Development	01804001 Renewable Energy	30 kW Tsatsadu Mini Hydro power Western Rivers
VRA- RESSETLEMENT TRUST FUND	Improve access to safe and reliable water supply services for all	Providemechanisedboreholesandsmall-town water systems(SDG Target 6.1)Improvewaterproductionand	P01801 Management and Administration P01801 Management and Administration	P01801001 General Administratio n and Finance P01801001 General Administratio n and Finance	Water Infrastructure Development

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		distribution systems (SDG Targets 6.4, 6.5)			
	Ensure affordable, equitable, easily accessible and Universal Health Coverage (UHC)	Expand and equip health facilities (SDG Target 3.8)	P01801 Management and Administration	P01801001 General Administratio n and Finance	Development of infrastructure relating to health
	Enhance access to improved and reliable environmental sanitation services	Develop and implement strategies to end open defecation (SDG Target 6.2)	P01801 Management and Administration	P01801001 General Administratio n and Finance	Development of environmental sanitation services
	Enhance inclusive and equitable access to, and participation in quality education at all levels	Expand infrastructure and facilities at all levels (SDG Target 4.a)	P01801 Management and Administration	P01801001 General Administratio n and Finance	Development of water and sanitation facilities Community Education Projects
VOLTA ALUMINIUM COMPANY	Pursue flagship industrial development initiatives	Implementstrategicanchorindustrialinitiatives(SDGTargets9.2, 9.3,9.4, 9.b, 9.c)			Expansion of VALCO's Operations Three (3) Cell Lines operations

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
					Joint Venture (JV) Partnership
	Ensure efficient utilisation of energy	Promote demand side management to reduce significantly the operational inefficiencies in energy supply and distribution, and the inefficient use of electricity by households and industry and thus conserve energy (SDG Targets 7.3, 7.a)			Cell Technology Upgrade
	Ensure availability of, Clean, Affordable and Accessible Energy	Facilitate participation of			Secure Semi-Captive Power Plant
GHANA NATIONAL PETROLEUM CORPORATION	Ensure availability of, clean, affordable and	Promote the use of gas as the primary fuel for power generation (SDG Target 7.1)	P01803 Petroleum Development	P01803001 Upstream	Greater Jubilee Field Development Plan Sankofa/Gye Nyame

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
	accessible energy	Secure long-term reliable gas supplies for the operation of thermal power plants (SDG Target 7.1)	P01803 Petroleum Development	P01803001 Upstream	Tema LNG Takoradi LNG WAPCO Interconnection TEN Field Deepwater Tano Block
	Promote petroleum exploration	Accelerate the reconnaissance exploration programme in the Voltaire basin with the objective of delineating areas that merit detailed exploration (SDG Target 9.b)	P01803 Petroleum Development	P01803001 Upstream	Voltaian Basin Project
	Leverage oil and gas industry as a catalyst for national	Promote the use of gas in strategic industries such as urea, methanol and aluminium (SDG Target 9.4)	P01803 Petroleum Development	P01803001 Upstream	Ammonia Fertilizer Project

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
	economic development				
	Minimize potential environmental impacts of oil and gas industry	Ensure compliance with applicable laws and international standards for environment, health and safety in the oil and gas sector including the policy on zero gas flaring (SDG Targets 11.6, 12.4, 12.6)	P01803 Petroleum Development	P01803001 Upstream	Saltpond Decommissioning Project
	Promote development and use of indigenous capabilities for exploitation of petroleum resources	Develop local capability in all aspects of the oil and gas value chain (SDG Target 8.3)	P01803 Petroleum Development	P01803001 Upstream	Research and Technology Centre
BULK OIL STORAGE AND TRANSPORTATI ON	Leverage oil and gas industry as a catalyst for national	Promote the use of gas in strategic industries such as urea, methanol and aluminium (SDG Target 9.4)	P01803 Petroleum Development	P01803002 Downstream	Tema Gas Distribution Network

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
	economic development	Mobilize domestic capital to invest in petroleum product storage capacity and operations (SDG Targets 7.a, 8.10, 17.3,17.17)	P01803 Petroleum Development	P01803002 Downstream	BOST Pumpuni Terminal Project (BPT)
		Extend petroleum bulk transportation and distribution infrastructure nation- wide (SDG Target 7.b)	P01803 Petroleum Development	P01803002 Downstream	Increase BOST Strategic Stocks Increase BOST operational efficiency and effect zonalization policy
		Facilitate universal access to adequate, reliable and cost effective petroleum products such as Liquefied Petroleum Gas (LPG), (SDG Target 7.1)	P01803 Petroleum Development	P01803002 Downstream	12,000 MT Capacity LPG Terminal, Tema HFQ Tanks in Tema
	Promote proper maintenance culture	Institute a robust maintenance scheme for rail, roads, ports, harbors and other critical infrastructure. (SDG Targets 9.a,11.2)	P01803 Petroleum Development	P01803002 Downstream	BRV parking lot at Buipe and Bolgatanga Depots Depot Maintenance Program
		Establish timely and effective preventive	P01803 Petroleum Development	P01803002 Downstream	Reinstatement of Tema-Akosombo

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		maintenance plan for all public infrastructure (SDG Target 9.a)			Petroleum Product Pipeline (TAPP)
					Rehabilitation of barges
	Make Ghana the aviation hub for West African sub region	Provide efficient aviation support services (SDG Targets 11.2,16.6)	P01803 Petroleum Development	P01803002 Downstream	ATK Depot at KIA
TEMA OIL REFINERY	Ensure efficient utilization of energy	Implement energy use efficiency policy and programmes (SDG Targets 7.3, 7.a, 17.14)	P01803 Petroleum Development	P01803002 Downstream	6.5 MW Steam Turbine Generator & SCADA system 120T/hr (Net) Steam Boiler
	Leverage oil and gas industry as a catalyst for national economic development	Mobilise public and private sector investment to expand national crude oil refining capacity, trading, storage and transportation to neighbouring countries and land-locked nations in the sub-region (SDG Targets 17.3, 17.17	P01803 Petroleum Development	P01803002 Downstream	Direct Fired Crude Oil Heater CDU revamping from 45,000 to 60,000 BPSD 100,000 – 150,000BPSD greenfield refinery

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		Mobilise domestic capital to invest in petroleum products storage capacity and operations (SDG Targets 7.a, 8.10, 17.3,17.17)	P01803 Petroleum Development	P01803002 Downstream	7,000m3 premix and 15,000m3 Gasoil tanks 40,000m3 each Gasoline and Atmosphere Residue (AR) & Two (2) LPG Spherical Tanks Tank Gauging System Automation Mass Flow Meters for Oil and Gas Mass Flow Meters for BDCs lines Linear Programming Model (LP Model)
		Facilitate universal access to adequate, reliable and cost effective petroleum products such as Liquefied Petroleum Gas (LPG), (SDG Target 7.1)	P01803 Petroleum Development	P01803002 Downstream	Loading Gantry Automation

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
	Minimize potential environmental impacts of oil and gas industry	Ensure compliance with applicable laws and international standards for environment, health and safety in the oil and gas sector including the policy on zero gas flaring (SDG Targets 11.6, 12.4, 12.6)	P01803 Petroleum Development	P01803002 Downstream	Emergency Telephone and Fire Protection Systems Fire Fighting training Grounds Electrical Sub-Station and MOP staff offices Waste Water Treatment Unit (WWTU)
GHANA CYLINDER MANUFACTURI NG COMPANY	Ensure availability of clean, affordable and accessible energy	Restructure and strengthen the management of hydro plants and create a thermal market. (SDG Target 9.1)	P01803 Petroleum Development	P01803002 Downstream	Workplace Culture Strengthening Project Installation of an 800,000 Cylinder Production Line Stove Production line and Workflow redesign Project GCMC Export Project
	Promote development and use of	Develop local capability in all aspects of oil and	P01803 Petroleum Development	P01803002 Downstream	GCMC Industrial and & Institutional Collaboration Project

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
	indigenous capabilities for exploitation of petroleum	gas value chain. (SDG Target 8.3)			
	resources	Promote education and skills enhancement initiatives to manage the Petroleum Sector (SDG Target 16.6)	P01803 Petroleum Development	P01803002 Downstream	Staff Training and Capacity Building Project
	Leverage oil and gas industry as a catalyst for national development.	Facilitate universal access to adequate, reliable and cost effective petroleum products. (SDG Target 7.1	P01803 Petroleum Development	P01803002 Downstream	GCMC Capitalisation Project
		Mobilize domestic capital to invest in Petroleum Products, storage capacity and operations (SDG Targets 7.a, 8.10, 17.17).	P01803 Petroleum Development	P01803002 Downstream	
NATIONAL PETROLEUM AUTHORITY	Leverage oil and gas industry as a catalyst for national economic development	Diversify the economy with emphasis on the processing of Crude oil and natural gas. (SDG Targets 8.1, 8.2)	P01803 Petroleum Development	P01803002 Downstream	Development of Mid- Stream Gas and LNG activities

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		Mobilize public and private sector investment to expand national crude oil refining capacity, trading, storage and transportation to neighboring countries and land-locked nations in the sub-region (SDG Targets 17.3, 17.17)	P01803 Petroleum Development	P01803002 Downstream	NPA Act and Downstream Regulations Promote sub-regional collaboration for effective supply of products and provision of sub- regional interconnection infrastructure
		Mobilize domestic capital to invest in petroleum products storage capacity and operations (SDG Targets 7.a, 8.10, 17.3, 17.17)	P01803 Petroleum Development	P01803002 Downstream	Pricing and Price Risk Management Petroleum Hub Development
		Extend petroleum bulk transportation and distribution infrastructure nation- wide (SDG Target 7.b)	P01803 Petroleum Development	P01803002 Downstream	Bulk Road Vehicle (BRV) Tanker Park Project

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
		Facilitate universal access to adequate, reliable and cost effective petroleum products such as Liquefied Petroleum Gas (LPG), (SDG Target 7.1)	P01803 Petroleum Development	P01803002 Downstream	National LPG Promotion Policy
PETROLEUM COMMISSION	Promote petroleum exploration	Promote Ghana as an attractive destination for investment, technology, and a hub for petroleum operations in West Africa sub-region (SDG Targets 7.a, 8.9)	P01803 Petroleum Development	P01803001 Upstream	Promotion of Ghana's petroleum resources globally Upstream Petroleum Monitoring and Evaluation Programme Petroleum Data Management
		Accelerate development of regulations for Petroleum Exploration and Production Act, Act 919, 2016, (SDG Target 9.b)	P01803 Petroleum Development	P01803001 Upstream	Regulatory Development in the upstream sector
	Promote development and use of	Develop local capability in all aspects of the oil and	P01803 Petroleum Development	P01803001 Upstream	Local Content and Local Participation Development

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
GHANA NATIONAL GAS COMPANY	indigenous capabilities for exploitation of petroleum resources Ensure energy availability and reliability	gas value chain (SDG Target 8.3) Re-align the electricity tariff structure in support of industrial development (SDG Targets 7.1, 9.1, 9.2)	P01803 Petroleum Development	P01803002 Downstream	WAGP Interconnection and Commercial Agreements (Phrase one) Gas Processing Plant – Train 2 FEED Compressor Station at Atuabo 280 km onshore pipeline from Takoradi to Tema 145 km Pipeline from Prestea to Kumasi 9 km Pipeline from TRMS to Karpower
					Barge

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
					Tema and Takoradi LNG project
	Leverage oil and gas industry as a catalyst for national economic development	Encourage the use of gas as transportation fuel within the public transportation system (SDG Target 9.1)	P01803 Petroleum Development	P01803002 Downstream	Gas Management System
GHANA OIL CO. LTD	Reduce environmental pollution	Promote the use of environmentally friendly methods and products (SDG Targets 9.4, 12.4, 17.7)	P01803 Petroleum Development	P01803002 Downstream	
	Ensure efficient utilisation of energy	Promote the use and design of energy efficient technologies in public and private buildings (SDG Targets 7.3, 7.a)			
	Leverage oil and gas industry as a catalyst for national economic development	Encourage the use of gas as transportation fuel within the public transportation system (SDG Target 9.1) Facilitate universal access to adequate, reliable and cost effective petroleum products such			

MINISTRY/ AGENCY	ADOPTED POLICY OBJECTIVES	ADOPTED STRATEGIES	PROGRAMME	SUB- PROGRAMME	PROJECTS
	Minimize potential environmental impacts of oil and gas industry	as Liquefied Petroleum Gas (LPG), (SDG Target 7.1) Ensure that oil activities are not carried out at the expense of fishing and other lawful economic activities (SDG Targets 14.1,14.2, 14.a, 14.c)			
	Enhance quality of life in rural areas	Provide basic infrastructure such as potable water, sanitation, electricity, road networks, schools, health facilities, low cost housing. (SDG Targets 1.b, 6.1,6.2, 11.1, 11.a)			

SECTOR'S PROGRAMME OF ACTION

The Second part of this chapter captures the broad sector development programmes and sub-programmes for the period 2018-2021.

It indicates the time frame and the budget required for the implementation of planned programmes and projects contained in the composite programme of action. Furthermore, it addresses the indicative financial plan paying critical attention to prioritization of the programmes and sub-programmes and their implementation strategies. The Programme of Action (PoA) covers both the Sector including the Ministry of Energy (Directorates and Units) and its Sector Agencies.

***** DIRECTORATE: HUMAN RESOURCE MANGEMENT AND DEVELOPMENT

Adopted Strategies	Programme	Sub- programme	Projects	Outcome Indicator		Time	frame		Tota	al Indica Budget		-	menting encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collab orating
Adopted Policy O	bjectives: Enh	ance capacity	for policy for	mulation and	coordin	ation	I			<u> </u>			<u> </u>
Strengthen the capacity of public institutions to undertake policy analysis, development planning, monitoring and evaluation, macro-economic modelling and forecasting (SDG Target 17.9)	Manageme nt and Administrat ion	Human Resource	Training and Capacity Building	Improved manpower skills	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 165,0 00.00			HRM /D	ALL DIREC TORAT ES

✤ DIRECTORATE: HUMAN RESOURCE MANGEMENT AND DEVELOPMENT

Adopted Strategies	Programme	Sub- programme	Projects	Outcome Indicator		Time	frame			ıl Indic Budge		-	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Policy O	bjectives: Build a	n effective and	efficient gover	rnment mach	inery					I			
Modernise public service institutions for efficiency and productivity (SDG Targets 16.6, 16.a)	Management and Administration	Human Resource	Staff Performance Appraisal	Improved efficiency and productivi ty in the public service	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 7,20.0 0			HRM /D	ALL DIRECT ORATES
Implement comprehensive HR payroll system and database (SDG Target 16.5, 16.6)			Staff upgrading and promotions	Motivation and retention of staff	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 175,0 00.00			Minis try of Ener gy	Civil Service Council Office of the Civil Service (OHCS)

✤ DIRECTORATE: HUMAN RESOURCE MANGEMENT AND DEVELOPMENT

Adopted Strategies	Programme	Sub- programme	Projects	Outcome Indicator		Time	frame		Tota	al Indio Budge		-	nenting torates
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Policy O	bjectives: Build a	n effective and e	efficient gover	nment machine	ery								
Improve Leadership capability and delivery in the public service (SDG Targets 16.6, 16.6a)	Management and Administration	Human Resource	Orientatio n induction programm e	Effective delivery in the public service	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 115,0 00.00			Ministry of Energy	All Director ates
Adopted Policy	Objectives: Prop	mote the creatio	on of descent j	obs									
Strengthen the linkages among social protection and employment services (SDG Targets 4.4, 8.3)	Management and Administration	Human Resource	Staff welfare and health checks	A healthy workforce in the public service	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 72,00 0.00			Ministry of Energy	Selected qualified Health Services provider

***** DIRECTORATE: POLICY PLANNING, BUDGETING, MONITORING AND EVALUATION

Adopted Strategies	Programme	Sub- programme	Projects	Outcome Indicator		Time	frame			l Indic Budge		-	lementing ectorates
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collaboratin g
Adopted Objecti	ves: Enhance capa	city for policy for	rmulation and co	ordination						1			I
Strengthen the implementatio n of development plans	Management and Administration	Policy Planning, Budgeting, Monitoring & Evaluation	Preparation of Annual Performance Reports	Improved performanc e of the sector	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	N/A			PPME	All Directorates/ Agencies
			Preparation of Composite Annual Work Programme For 2018	Transparen cy in the activities of Directorate s and Agencies.	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH⊄18 6,400			PPME	All Directorates
			Preparation Of Quarterly Performance Reports	Progress of projects implement ed fully tracked	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	N/A			PPME	All Directorates

***** DIRECTORATE: POLICY PLANNING, BUDGETING, MONITORING AND EVALUATION

Adopted Strategies	Programme	Sub- program me	Projects	Outcome Indicator		Time	frame			l Indic Budge		-	ementing ctorates
		me			2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collaborat ng
Adopted Objecti	ves: Enhance capa	city for policy	formulation and	l coordination		<u> </u>						I	<u> </u>
Strengthen the relationship between the national development planning system and budgeting process	Management and Administration	Policy Planning, Budgeting, Monitorin g & Evaluation	Preparation Of 2019-2022 Budget	Improved Linkage between MoEn's Priority projects and Ministry of Finance's budgetary provisions	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH⊄65 ,490			PPME	All Directorate s/ Agencies
Strengthen the implementatio n of development plans			Mid-Year Performance Review	Improved performance of the sector	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ18 6,400			PPME	F&A

***** DIRECTORATE: POLICY PLANNING, BUDGETING, MONITORING AND EVALUATION

Adopted Strategies	Program me	Sub- progra mme	Projects	Outcome Indicator		Time f	rame		Total I Bi	ndica idget		-	ementing ectorates
		mme			2018	2019	202 0	2021	GoG	IG F	Donor	Lead	Collaborati ng
Adopted Objective	es: Enhance ca	pacity for p	olicy formulation and	coordination					I	I	I		1
Develop a long term national development policy framework	Manageme	Policy Planning , Budgeti ng, Monitori	Monitoring of Programmes And Projects	Improved performance of the sector	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ57,4 00			PPME	RE Directorate Petroleum & Power Dir
	nt and Administr ation	ng and Evaluati on	Preparation of the Sectors Medium Term Development Plan	Medium-term Development Plan	$\sqrt{}$				146,000			MoEn	All 16 Sector Agencies
Strengthen the capacity of public institutions to undertake policy analysis, development planning, monitoring and evaluation, macroeconomet ric modelling and forecasting			Training And Capacity Building of PPME staff	Enhanced skills and abilities of PPME Staff Improved Service delivery within the PPME directorate.	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢592, 692			HRM	PPME

Adopted Strategies	Programme	Sub-programme	Projec ts/	Outcome Indicator		Time f	frame		Tot	al Indica Budget		-	menting encies
			Activit ies		2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collab orating
Adopted Policy	Objectives: Ens	sure availability of, cl	ean, afford	lable and accessib	le energy		I						
Restructure and strengthen the management of hydro plants and create a separate thermal market	Transmissio n and	Power Generation and Transmission	Power sector reform s	Increased efficiency in the operation of Hydro and thermal power generation	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		TBD			MoEn	VRA, BPA
Promote the use of gas as the primary fuel for power generation			Increa se Private Sector partici pation in Power Sector throug h IPPs	Increased proportion of the gas fired thermal plants in the generation mix	$\sqrt{}$	$\sqrt{}$			TBD			MoEn	GNGC, ECG, GRIDCo , GNPC KGCL

Adopted Strategies	Programm e	Sub- program me	Projects/ Activities	Outcome Indicator	Time frame				Tota	al Indi Budge	cative et	Implementing Agencies	
		me			2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collab orating
Adopted Policy Obj	j ectives: Ensur	e availability	of, clean, affordal	ble and acces	sible ene	ergy							
Facilitate participation of independent power producers (IPPs) and other private sector institutions in the generation and distribution of power	Power Generation, Transmissi on and Distribution	Power Generatio n and Transmis ssion	Increase Private Sector participation in Power Sector through IPPs	Increased installed generatio n capacity with the addition of 3 IPP plants	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	TBD			MoEn	ECG, IPPs

Adopted Strategies	Program me	Sub- programm	Projects/ Activities	Outcome Indicator		Time	frame		Total	Indicativ	ve Budget	_	nenting ncies
		e			20 18	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collab orating
Adopted Policy O	bjectives: Er	l Isure efficient t	ransmission and	distribution syste	m								
Support and intensify sub- regional power interconnectivity under West African Power Pool (WAPP) involving Burkina Faso, Mali, Niger, Togo, Benin, and Cote D'Ivoire	Power Genera- tion, Transmis sion and Distribu- ion	Power Generation and Transmis- sion	Become the net exporter of Power	Increased amount of energy exported to CEB, CIE and SONABEL	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	TBD			MoEn	VRA, BPA, ECG, NEDCo, GRIDCo
Prioritise expansion of power generation in relation to least- cost environmentally friendly technologies			Open and competitive bidding for power capacity procurement	New/additiona l power capacities competitively procured	$\sqrt{}$	$\sqrt{}$	$\sqrt{\sqrt{1}}$		TBD			MoEn	ECG, NEDCo

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Total Iı	ndicativ	ve Budget	Implem Agen	-
					2018	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collab orating
Adopted Policy	D bjectives: Ensu	ure efficient tran	l Ismission and d	l listribution sys	tem								
Expand the distribution and transmission networks	Power Generation, Transmis- sion and Distribution	Power Distribution	Implementa tion of the National Electrificati on Scheme (HUNAN Constructio n Projects)	Increased electricity access rate	$\sqrt{}$				GH ¢13.8 millio n		GH¢78.2 million	MoEn	ECG, NEDCo
Revise self- help-electricity project and use means-testing approaches to enable the poor to connect to the national grid			Implementa tion of the National Electrificati on Scheme (CWE Projects)	Increased electricity access rate	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH ¢14.5 5milli on		GH Ø82.45 million		

Adopted Strategies	Programme	Sub- programm	Projects/ Activities	Outcome Indicator		Time	frame		Total I	ndicativ	ve Budget	Implen Ager	ienting icies
		e			2018	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collab orating
Adopted Policy (Dbjectives: Ensu	ire efficient tra	nsmission and d	listribution sys	tem								
Expand the distribution and transmission networks	Power Generation, Transmis- sion and Distribution	Power Distribution	Implementat ion of the National Electrificatio n Scheme (Outstanding SHEP 4 Projects)	Increased electricity access rate		$\sqrt{}$			GH ¢1,54 5,859. 36			MoEn	ECG, NEDCo
			Implementat ion of the National Electrificatio n Scheme (5 Projects in three Northern Regions)	Increased electricity access rate	$\sqrt{}$				GH ¢298, 984,2 25.95			MoEn	NEDCo

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Total I	ndicati	ve Budget	-	nenting ncies
					2018	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collab orating
Adopted Policy	Objectives: Ens	sure efficient tra	nsmission and di	stribution sys	tem								
Revise self- help-electricity project and use means-testing approaches to enable the poor to connect to the national grid	Power Generation, Transmis- sion and Distribution	Power Distribution	Implementati on of the National Electrification Scheme (Procurement)	Increased electricity access rate	$\sqrt{}$	$\sqrt{}$			US\$1,8 91.18 1			MoEn	ECG, NEDCo
Expand the distribution and transmission networks			Implementati on of the National Electrification Scheme (India EXIM Bank)		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				GH ¢11millio n	MoEn MOF	VRA, BPA, ECG, NEDCo

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Total I	ndicativ	ve Budget	-	nenting ncies
					2018	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collab orating
Adopted Policy	Objectives: Imp	prove financial c	apacity and sust	ainability of ut	ility com	panies				1		I	
Implement an energy sector financial restructuring and recovery plan, incorporating, a liquidity management mechanism (Cash Waterfall Mechanism)	Power Generation, Transmis- sion and Distribution	Power Distribution	Implementat ion of the Cash Waterfall mechanism	Minimized utility indebtedne ss due to equitable distribution of energy sector revenues	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					MoEn	ECG, NEDCo

✤ DIRECTORATE: RENEWABLE ENERGY

Adopted Strategies	Programme	Sub- programm	Projects/ Activities	Outcome Indicator		Time f	frame		Total I	ndicati	ve Budget	-	nenting ncies
		е	Activities	Indicator	2018	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collab orating
Adopted Policy () bjectives: Ensu	re availability o	f, clean, afforda	ble and access	ible enei	gy							
Increase proportion of renewable energy in national energy supply mix	Renewable Energy Development	Renewable Energy	Renewable Energy Policy and Strategy Program	Increased proportion of renewable energy in national energy supply mix	$\sqrt{}$	$\sqrt{}$		me				MoEn	EC, AG,
Adopted Policy (bjectives: Impr	ove financial ca	pacity and sust	ainability of ut	ility com	panies						•	•
Institute mechanism to ensure that all new capacities are acquired through open and competitive tender	Renewable Energy Development	Renewable Energy	Program for Integration of Renewable Energy in the national electricity Grid.	Increased proportion of renewable energy in national energy supply mix	$\sqrt{}$	$\sqrt{}$	√√	$\sqrt{}$				MoEn	EC, BPA, VRA, ECG, NEDCo

✤ DIRECTORATE: RENEWABLE ENERGY

Adopted Strategies	Programme	Sub- programm	Projects/ Activities	Outcome Indicator		Time	frame		Total I	Indicativ	ve Budget	-	nenting ncies
		e			2018	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collab orating
Adopted Policy O	bjectives:				I	I	I						
Increase proportion of renewable energy in national energy supply mix	Renewable Energy Developmen t	Renewable Energy	Mini-grid and Off-grid Renewable Electrificati on Program	Increased proportion of renewable energy in national energy supply mix	$\sqrt{}$	$\sqrt{}$		$\sqrt{}$				MoEn	EC, VRA
Develop, implement and maintain a safe, secure and sustainable nuclear power programme.		Alternative Energy	Nuclear Energy Planning Program	Increased proportion of renewable energy in national energy supply mix	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				MoEn	AG, GAEC

Adopted Strategies	Programme	Sub- programm	Projects/ Activities	Outcome Indicator		Time	frame		T	otal Ind Budg		Impleme Agence	0
		e			2018	2019	2020	2021	Go G	IGF	Donor	Lead	Collab orating
Adopted Policy	v Objectives: Pr	omote petrolei	um exploration	n									
Improve infrastructure , governance, legislative and investment conditions in the petroleum sector	Petroleum Developmen t	Petroleum Upstream	Coordinati on and monitorin g of the WAGP Integrated Interconne ction Project	Increased access to natural gas to displace liquid fuels for power production	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD 138m OCTP Sankofa project partners	WAPCo, ENI, GNPC, GNGC, MoEn	World Bank
			Developm ent of Gas Act	Enhanced transparency and investor confidence in the management of the gas industry		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH ¢20 0,0 00		GHS 250,000	MoEn	PC, GNPC, AG, GNGC, NPA

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Total	ndicati	ve Budget	-	ementing encies
					201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collabora ting
Adopted Policy	Objectives: Pro	omote petroleun	n exploration										
Improve infrastructure, governance, legislative and investment conditions in the petroleum sector	Petroleum Developmen t	Petroleum Upstream	Developmen t of Energy Policy and Strategy	Developed National Energy Policy		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH ¢300, 000		GH⊄200, 000	MoEn	GNPC, EC, PC, NPA, GNPC, GNGC, VRA, BOST, GRIDCo, ECG, GCMC, GOIL,
Promote Ghana as an attractive destination for investment, technology, and a hub for petroleum operations in West Africa sub-region			Promotion of Ghana's hydrocarbon potential	Increased investments in the petroleum sector	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH ¢200, 000			MoEn	PC, GNPC, GIPC

Adopted Strategies	Programme	Sub- program	Projects/ Activities	Outcome Indicator		Time	frame		Tot	al Indic Budge		-	ementing encies
		me			201 8	2019	2020	2021	GoG	IGF	Donor	Lead	Collabora ting
Adopted Policy	Objectives: Prop	mote petroleu	m exploration										
Accelerate development of regulations for Petroleum Exploration and Production Act, Act 919, 2016,	Petroleum Development	Petroleum Upstream	Developmen t of the General Petroleum Regulations.	Enhanced transparenc y and predictabilit y in the managemen t of the petroleum resources	$\sqrt{\sqrt{1}}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH ¢300, 000			MoEn	GNPC, PC, AG
Institute competitive bidding process in the award of petroleum blocks for exploration and production.			Coordination of the maiden Bid Round for the Award of Exploration License	Improved competitive ness and transparenc y in the award of blocks	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH ¢500, 000			MoEn	GNPC, PC, EPA, MoF, BoG, GRA

Adopted Strategies	Programme	Sub- program	Projects/ Activities	Outcome Indicator		Tim	e frame		To	otal Indi Budge		-	ementing encies
		me			20 18	201 9	2020	2021	GoG	IGF	Donor	Lead	Collabora ting
Adopted Policy	Objectives: Pror	note petroleu	m exploration										
Ensure better collaboration and coordination among the petroleum sector institutions	Petroleum Development	Petroleum Upstream	Development of the General Petroleum Regulations.	Enhanced transparenc y and predictabilit y in the management of the petroleum resources	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH ¢300, 000			MoEn	GNPC, PC, AG
Accelerate the reconnaissance exploration programme in the Voltaian basin with the objective of delineating areas that merit detailed exploration			Voltaian Basin Project	Increased production of oil and gas in the country				$\sqrt{}$				GNPC	MoEn, PC, EPA

Adopted MDA G Thematic Area:	Environment,	Infrastructure	and Human Set	tlements	nt buil			t	Total	u di soti-		T 1	
Adopted Strategies	Programme	Sub- programm	Projects/ Activities	Outcome Indicator		lime	frame		Total I	naicativ	ve Budget	-	ementing encies
		e			201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collabora ting
Adopted Policy	Objectives: Lev	erage oil and	gas industry as	a catalyst for na	ational	econor	nic dev	velopm	ent		1		1
Promote the use of gas in strategic industries such as urea, methanol and aluminum	Petroleum Developmen t	Petroleum Upstream	Development of Secondary Gas Market for Tema Industrial Area	Increased economic activities through gas fired industrial operations	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH ¢300, 000			MoEn	GNPC, PC, AG

Adopted Strategies	Program me	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Total Indi	cative	Budget	-	lementing gencies
			neuvities	multutor	201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collaborati ng
Adopted Policy O	bjectives: Pr	omote petroleu	m exploration										I
Improve infrastructure, governance, legislative and investment conditions in the petroleum sector	Petroleu m Develop ment	Petroleum Downstream	Developme nt of Downstrea m Infrastructu re Master Plan	Developed Downstream Infrastructure Master Plan	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	Gh¢ 350,000.0 0			MOEN	NPA, BOST, GNGC, TOR, GCMC, Stakeholder Institutions
Promote Ghana as an attractive destination for investment, technology, and a hub for petroleum operations in West Africa sub- region			Petroleum Hub Implementa tion	Developed Petroleum Hub Master Plan Roadmap	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	\$5Billion				

Adopted Strategies	Program me	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Total Indi	cative	Budget	-	menting ncies
					201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collabo rating
Adopted Policy O	bjectives: Pr	omote petroleur	n exploration			I							
Ensure better collaboration and coordination among the petroleum sector institutions	Petroleu m Develop ment	Petroleum Downstream	Monitoring of Activities of Downstream Agencies/Co mpanies	Developed Report on activities of Downstream Agencies	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢150,0 00			MOEN	NPA, BOST, GNGC, TOR, GCMC, Stakehol der Instituti ons
Adopted Policy O		-			apabili	ities fo	r explo	itation	-	n reso	ources		-1
Develop local capability in all aspects of the oil and gas value chain	m	Petroleum Downstream	Training and Capacity building for operation of Downstream Infrastructure	Developed Plan for training and capacity building for operation of Downstream Infrastructur		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH⊄2,000 ,000			MOEN	NPA, BOST, GNGC, TOR, GCMC, Stakehol der Instituti

Adopted Strategies	Program me	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Total Indi	cative	Budget	-	nenting ncies
					201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collabo rating
Adopted Policy O	bjectives: Pr	omote petroleur	m exploration										
Strengthen implementation of the Petroleum (Local Content and Local Participation) Regulations, 2013 LI 2204 especially, the Financial Services Guidelines	Petroleu m Develop ment	Petroleum Downstream	Monitoring of Implementati on of Petroleum Downstream Ghanaian Content and Ghanaian Participation Policy	Prepared monitoring Reports on Implementat ion of Petroleum Downstream Ghanaian Content and Ghanaian Participation Policy	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ50,00 0			MOEN	NPA, BOST, GNGC, TOR, GCMC, Stakehol der Instituti ons
Expand capital and risk capacity of financial system to support energy- driven based industries (SDG Targets			Development of Petroleum Downstream Financing Policy	Developed Petroleum Downstream Financing Policy	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH⊄300,0 00				

Adopted Strategies	Program me	Sub- programm	Projects/ Activities	Outcome Indicator		Time	frame		Total Indi	cative	Budget	-	nenting ncies
		e			201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collabo rating
Adopted Policy O	bjectives: Pr	omote petroleu	m exploration						I			I	
Mobilise public and private sector investment to expand national crude oil refining capacity, trading, storage and transportation to neighbouring countries and land-locked nations in the sub-region		Petroleum Downstream	Monitoring of Petroleum Downstream Infrastructur e Developmen t	Monitoring Report on Petroleum Downstream Infrastructure Development	$\sqrt{}$	$\sqrt{}$			Gh¢250,0 00			MOEN	NPA, BOST, GNGC, TOR, GCMC, Stakeho der Instituti ons

Adopted Strategies	Program me	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Total Indi	cative	Budget	-	lementing gencies
					201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collaborati ng
Adopted Policy O	bjectives: Pr	omote petroleu	m exploration		1		1	1				1	
	Petroleu m Develop ment	Petroleum Downstream	Development of Petroleum Products Trade Policy	Developed Petroleum Products Trade Policy	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		Gh¢3,000 ,000			MOEN	NPA, BOST, GNGC, TOR, GCMC, Stakeholder Institutions
Adopted Policy O	bjectives: Le	verage oil and g	as industry as a c	catalyst for natio	nal eco	nomic c	levelop	ment					
Encourage the use of gas as transportation fuel within the public transportation	Petroleu m Develop ment	Petroleum Downstream	Development of Fuel Use Policy	Developed Fuel Use Policy		$\sqrt{}$	$\sqrt{}$		Gh¢300,0 00			MOEN	NPA, BOST GNGC, TOR GCMC, Stakeholder Institutions

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Total Indi	cative	Budget	-	lementing gencies
					201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collaborati ng
Adopted Policy Ob	jectives: Levera	ge oil and gas ir	dustry as a cat	l alyst for natio	nal eco	nomic d	evelop	ment					
Mobilise domestic capital to invest in petroleum products storage capacity and operations	Petroleum Developmen t	Petroleum Downstream	Developme nt of Petroleum Products Strategic Stocks Policy	Developed Petroleum Products Strategic Stocks Policy	$\sqrt{}$	$\sqrt{}$			Gh¢3,000 ,000			MOEN	NPA, BOST GNGC, TOR GCMC, Stakeholder Institutions
Facilitate universal access to adequate, reliable and cost effective petroleum products such as Liquefied Petroleum Gas (LPG)			Monitor Implementa tion of National LPG Promotion Policy	Prepared monitorin g Report on Implement ation of National LPG Promotion Policy	$\sqrt{}$	$\sqrt{\sqrt{1}}$			Gh¢250,0 00				
			Rural LPG Promotion Programme		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH ¢10millio n				

-	C		environment and e and Human Set		ent built	enviro	nment						
Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame			l Indic Budge		-	lementing gencies
					2018	201 9	2020	2021	GoG	IGF	Donor	Lead	Collaborati ng
Adopted Polic	y Objectives: Le	everage oil and g	as industry as a c	atalyst for natio	nal econ	omic de	evelopm	ent					
Facilitate universal access to adequate, reliable and cost effective	Petroleum Development	Petroleum Downstream	LPG Promotion Programme for Government Institutions	Efficient and safe distribution of LPG	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH ¢5mill ion			MOE N	NPA, BOST, GNGC, TOR, GCMC, Stakeholder Institutions
petroleum products such as Liquefied Petroleum			Development of National Fuel Quality Policy	Developed National Fuel Quality Policy	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	Gh¢20 0,000			-	
Gas (LPG)			Promotion of opportunities in Ghana's Petroleum Downstream	Increased contribution of petroleum downstream sector to Ghana's GDP	$\sqrt{}$				GHØ50 0,000				

* UNIT: HEALTH, SAFETY, SECURITY AND ENVIRONMENT

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcom e		Time	frame		Total Ind	licative	e Budget	-	lementing gencies
Adopted Policy O				Indicato r	201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collaborat ing
Ensure compliance with applicable laws and international standards for environment, health and safety in the oil and gas sector including the policy on zero gas flaring	Petroleum Development	Health, Safety, Security and Environment	Developme nt of a Health Safety Security and Environme nt Policy for the Energy sector	Reduced incidents per staff strength in the sector				$\sqrt{}$	GHØ 320,000		GHØ 800,00 0 GOGIG	MoEN	Ghana Oil and Gas for Inclusive Growth (GOGIG), MESTI, MELR, EPA FID, GNPC, GNGC, PC, NPA, BOST, TOR, AOMCS, TOA, GCMC, CBOD, VRA ECG, GOIL, GRiDCo, NEDCo

♦ UNIT: HEALTH, SAFETY, SECURITY AND ENVIRONMENT

Adopted MDA Go Thematic Area: E	-				lient bu	ıilt env	ironme	ent					
Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Tota	al Indic Budge		-	lementing gencies
					201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collaborat ing
Adopted Policy O	bjectives: Minin	nize potential er	l ivironmental ii	npacts of oil a	and gas	indust	ry						
Intensify community education on coexistence of oil and gas with fishing industries Ensure that oil activities are not carried out at the expense of fishing and other lawful economic activities	Petroleum Development	Health, Safety, Security and Environment	Sustainabili ty and social inclusion policy	Enhanced social investme nt and impact mitigation through adequate stakehold er engageme nt and reporting							GHØ 800,00 0 GOGIG	MoEN	GNPC, GNGC, PC, NPA, BOST, TOR, TOA, GCMC, CBOD, VRA, ECG, GRiDCo, NEDCo, GOIL

♦ UNIT: HEALTH, SAFETY, SECURITY AND ENVIRONMENT

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Tota	al Indic Budge		-	ementing gencies
					201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collaborat ing
Adopted Policy 0	bjectives: Minin	nize potential en	vironmental i	mpacts of oil a	and gas	indust	ry	1	1	1	L	l	I
Support Environmental Protection Agency (EPA) and the Petroleum Commission to ensure application of environmentally friendly exploration and production technologies	Petroleum Development	Health, Safety, Security and Environment	National Climate Change - Smart Energy Action Plan	Improved greenhou se gas emissions reduction strategy					GH⊄ 200,0 00			MoEn	MESTI, EPA, GNPC, GNGC, PC, NPA, BOST, TOR, GCMC, VRA, ECG, GRiDCo, GOIL, NEDCo

Adopted Strategies	Programmes	Sub- programmes	Projects/ Activities	Outcome Indicator		Time	frame		Total Indic	cative B	udget	-	nenting ncies
			Activities	mulcator	2018	2019	2020	2021	GRIDCo Loan (USD)	IGF	Donor	Lead	Collab orating
Adopted Po	licy Objective: E	nsure energy av	ailability and rel	liability					I I			I	
Ensure the necessary investment to upgrade, renew, and	Power Generation, Transmission and Distribution	Power Generation, Transmission	Upgrade the Volta - Achimota - Mallam 161kV Line	Reduced transmission losses	$\sqrt{}$				15M (AMANDI)			GRIDCo	
expand the power transmissio n and distributio			Expand the Prestea- Dunkwa 330kV	Improved system reliability	$\sqrt{}$				22M (AMANDI)			GRIDCo	
n network			Construction of the Kumasi 1 – Kumasi II Bulk Supply Point (K2BSP)	Improved system reliability		$\sqrt{}$	$\sqrt{}$		10M (NEWMONT)			GRIDCo	
			Buipe-Salaga Transmission Project	Improved transmission reliability		$\sqrt{}$	$\sqrt{}$		30M (JICA)			GRIDCo	

Adopted Strategies	Programmes	Sub- programmes	Projects/ Activities	Outcome		Time	frame		Total Indi	cative Bud	lget	Impleme Agencies	-
					2018	2019	2020	2021	GRIDCo Loan (USD)	IGF	Donor	Lead	Collab orating
Adopted Policy	Objective: Ensu	re efficient trans	mission and dist	ribution system		•		1			1	1	1
Modernize transmission and distribution networks to significantly reduce operational	Power Generation, Transmission and Distribution	Power Generation, Transmission	Provide a temporary connection to Accra Bulk Supply Point	Improved reliability in the transmission network Reduced losses	$\sqrt{}$	V			4.70M (Sunon Asogli)			GRIDCo	
inefficiencies in energy supply and distribution			Upgrade the SCADA Phase I to Phase II	Enhanced efficiency of the System	$\sqrt{}$	$\sqrt{}$				2.30M		GRIDCo	

Adopted Strategies	Programmes	Sub- programme	Projects/ Activities	Outcome		Time	frame		Total Indicat	tive Bud	lget	Impleme Agencies	0
		S	Acuvities		2018	2019	2020	2021	GRIDCo Loan (USD)	IGF	Donor	Lead	Collab orating
Adopted Policy	Objective: Ensu	ıre efficient tran	smission and distr	ibution system	1			1					
Support and intensify sub- regional power interconnectiv ity under West African	Power Generation, Transmission and Distribution	Power Generation, Transmissio n	Construction of 225KV Bolgatanga- Ouagadougou Interconnectio n	Increased system capacity for export	$\sqrt{}$				36.3M (AFD/WB)			GRIDCo	
Power Pool (WAPP) involving Burkina Faso,			Construction 330 kV Kumasi -Bolgatanga Transmission Line Project	Increased system capacity for export	$\sqrt{}$				148.5 (AMANDI)			GRIDCo	
			Construction of 330 kV Kumasi, Tamale and - Bolgatanga Substation	Increased system capacity for export	$\sqrt{}$							GRIDCo	

Adopted Strategies	Programmes	Sub- programme s	Projects/ Activities	Outcome		Time	frame		Total Ind	licative Budg	get	Implem Agencies	-
		3			2018	2019	2020	2021	GRIDCo Loan (USD)	IGF	Donor	Lead	Collab orating
Adopted Polic	y Objective: Ensu	re efficient tran	smission and distr	ibution system	n			I	I	1	I		
Support and intensify sub- regional power interconnectiv ity under West African Power Pool (WAPP) involving Burkina Faso,	Power Generation, Transmission and Distribution	Power Generation, Transmissio n	Construction of Aboadze – Prestea 330kV Transmission Line Expansion of Aboadze 330kV Substation	Improved system reliability						61.7M (AMANDI)			GRIDCo

✤ VOLTA RIVER AUTHORITY

Adopted Strategies	Programmes	Sub- programme s	Projects/ Activities	Outcome		Time	frame		Total I	ndicative	Budget	Implen Agenci	nenting es
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Policy	y Objective: Ensu	ıre availability o	f, clean, affordable	and accessible	e energy								
Promote availability of renewable energy (mini hydro, solar, biomass,	Renewable Energy Development	Renewable Energy	Wind Power Project-1 (75MW) - VESTAS	Increased proportion of renewable energy in the	$\sqrt{}$	$\sqrt{}$					GH¢4.69M	VRA	VESTAS
wind, tidal)			Wind Power Project-2 (75MW): Elsewedy	national energy mix	$\sqrt{}$	$\sqrt{}$					GH¢9.39 M	VRA	Elsewed
Increase proportion of renewable energy in national energy supply mix			12 MW Solar Power Project		$\sqrt{}$	$\sqrt{}$					GH¢31.54 M	VRA	KFW

✤ VOLTA RIVER AUTHORITY

Adopted Strategies	Programmes	Sub- programme s	Projects/ Activities	Outcome	Time f (Kindl	frame y Tick of	r Shade))	Total	Indicativ	e Budget	Impler Agenci	nenting es
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Policy	y Objective: Ensu	l ıre availability o	f, clean, affordable	and accessible	energy								
Promote availability of renewable energy (mini hydro, solar, biomass, wind, tidal)	Renewable Energy Development	Renewable Energy	Kpone Thermal Power Plant	Increased proportion of renewable energy in the national energy mix							€23.47 Million	VRA	KFW
Restructure and strengthen the management of hydro plants and create a separate thermal market	Power Generation, Transmission and Distribution	Power Generation, Transmissio n	Kpong Generating Station Retrofit Project		$\sqrt{}$	$\sqrt{}$					GH¢39.85 million		AFD

✤ VOLTA RIVER AUTHORITY

Adopted Strategies	Programmes	Sub- programme s	Projects/ Activities	Outcome		Time	frame		Total I	ndicative Bu	dget	Implen Agenci	nenting es
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Policy	Objective: Ensu	ıre availability o	f, clean, affordable	and accessibl	e energy	1				1			
Restructure and strengthen the management of hydro plants and graate a	Power Generation, Transmission and Distribution	Power Generation, Transmissio n	Rehabilitation Of Kpong Dam (East And West Dykes And Spillway Project	Increased efficiency of the Power Plant	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				GH¢26.4 7 Million	VRA	KFW
create a separate thermal market			Pwalugu Hydro Development (Feasibility)	Increased generation	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				GHØ3.29 million (AFD)	VRA	AFD
			Takoradi 4 Thermal Power Project		$\sqrt{}$					GH¢4.69 million		VRA	

* NORTHERN ELECTRICITY DISTRIBUTION COMPANY

Adopted Strategie S	Programme s	Sub- programm e	Projects/ Activities	Outcome Indicators		Time	frame		Tot	al Indicativ	ve Budget		plementing Agencies
					20 18	2019	2020	20 21	GoG	IGF	Donor '000	Lead	Collaborating
Adopted P	olicy Objective	Ensure efficie	nt transmissic	on and distribu	tion sy	/stem					-		•
Expand the distributi on and transmiss ion network	Power Generation, Transmissio n and Distribu-tion	Power Distribution	Asset Managem ent Project	Improved asset manageme nt and service delivery	$\sqrt{}$						US\$1,400	SECO	NEDCO
			Customer Densificati on Project	Increased access to power supply	$\sqrt{}$	$\sqrt{}$					US\$8,750	SECO MCC	NEDCO

♦ NORTHERN ELECTRICITY DISTRIBUTION COMPANY

Adopted Strategies	Programm e	Sub- programme	Projects / Activities	Outcome Indicator		Tim	e frame		To	tal Indica Budget	tive	-	nenting ncies
					2018	2019	2020	2021	GoG	IGF	Dono r	Lead	Collab oratin g
Adopted Po	olicy Objective	: Ensure efficien	t transmission and	l distribution sy	stem					1		I	<u>I</u>
Expand the distributio n and transmissi on network	Power Generation, Transmissio n and Distribution	Power Distribution	Network Reinforcement and Technical loss reduction project	Improved quality and reliable power supply Reduced technical losses	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢10, 800 US\$27, 222.22	US\$4 0,976	MCC VRA	NEDCO

* NORTHERN ELECTRICITY DISTRIBUTION COMPANY

Adopted Strategies	Programm e	Sub- programm e	Projects/ Activities	Outcome Indicator		Time f	rame		Total	Indicative l	Budget	_	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabo rating
Adopted Polic	y Objective: In	nprove financia	l capacity and s	ustainability of utili	ty compa	nies				1			<u> </u>
Improve financial capacity and sustainability	Power Generation, Transmissi on and	Power Distribution	Revenue mobilization project	Improved collection efficiency	$\sqrt{}$					US\$19,00 9.78		NED CO	
sustainability	Distributio n		Customer Information System Project	Improved data collection and customer service delivery		$\sqrt{}$					US\$5,6 67	MCC	NEDCO
			Commercial loss reduction	Reduced commercial losses			$\sqrt{}$				US\$9,2 94	МСС	

Adopted Strategies	Programm e	Sub- programm	Projects/ Activities	Outcome Indicator		Time	frame		Total In	dicative	Budget	-	ementing encies
		e			2018	2019	2020	2021	GoG	IGF	Dono r	Lead	Collabor ating
Adopted Poli	icy Objective:	Ensure energy	availability an	d reliability								I	
Ensure the necessary investment to upgrade, renew, and expand the power transmissio n and distribution	Power Generation, Transmissi on and Distribution	Power distribution	Conversio n of old Koforidua and Swedru substation s into indoor substation s	Improved electricity reliability		$\sqrt{}$	$\sqrt{}$		GHØ 16,208 ,973.2 0			ECG	
network		Power distribution	Reconstru ction of the Daboase and Awaso substation s into indoor substation s	Improved electricity system reliability	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GHØ 21,967 ,025.7 0			ECG	

Adopted Strategies	Programme	Sub- programm e	Projects/ Activities	Outcome Indicator		Time	e frame		Total	Indicati (US'00	ve Budget 0)	-	ementing encies
					201 8	201 9	202 0	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Po	icy Objective:	Ensure energy	availability and reli	iability			1	1	1	1	1	1	1
Ensure the necessary investment to upgrade, renew, and expand the power transmissio n and distribution network	Power Generation, Transmissi on and Distribution	Power distribution	Network reinforcement and technical loss reduction projects	Improved power supply	$\sqrt{}$					GH¢9, 404.3 0	USD1,03 3,486.40	ECG	MIDA WORLD BANK AfDB

Adopted Strategies	Programme	Sub- programm e	Projects/ Activities	Outcome Indicator		Time f	Trame		Tota		ative Budget 000)	-	menting encies
					2018	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collab orating
Adopted Policy	Objective: Ens	sure efficient tr	ansmission and	l distribution	system								
Modernize transmission and distribution networks to significantly reduce operational inefficiencies in energy supply and distribution Expand the distribution and transmission network	Power Generation, Transmissio n and Distribution	Power distribution	Revenue mobilizatio n and commercial loss reduction project	Improved revenue collection	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD823,834. 40	ECG	MIDA WORLE BANK AfDB

Adopted Strategies	Programme	Sub- programm e	Projects/ Activities	Outcome Indicator		Time	frame		Tota	l Indica (US'(tive Budget)00)	_	menting encies
					201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collab orating
Adopted Policy	Objective: Imp	prove financial	capacity and sus	stainability of	utility o	compan	ies					1	
Implement an energy sector financial restructuring and recovery	Power Generation, Transmissio n and Distribution	Power Distribution	Modernisati on of ECG Business Process Projects	Enhanced automated processes	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD127,746 .16	ECG	MIDA WORLD BANK AfDB
plan, incorporating a liquidity management mechanisms				Improved delivery services									

✤ BUI POWER AUTHORITY

Adopted Strategies	Programme	Sub- programm	Projects/ Activities	Outcome Indicator		Time	frame		Tot	tal Indicativ	e Budget	_	lementing gencies
		e			201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lea d	Collabora ting
Adopted Policy	y Objective: Ens	sure availability	y of clean, afford	lable and acces	ssible e	nergy	1						
Increase proportion of renewable energy in the national energy supply mix	Renewable Energy Developmen t	Renewable Energy	250MW Hydro- Solar- Hybrid	Increased 250MWp capacity of solar energy to the national supply mix.	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				USD270 M (Est)	BPA	GRIDCO/E C/ DEVELOP ERS
Facilitate the building of solar parks in the northern part of the country to deploy utility- scale solar photovoltaic systems			3 Northern Regions Solar PV developme nts		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD39.6 M (Est)		BPA	LC/GRIDC O/EC/DE VELOPER S

✤ BUI POWER AUTHORITY

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Tota	ll Indicativ	ve Budget	-	olementing Agencies
					2018	2019	2020	2021	GoG	IGF	Donor	Lea d	Collaborati ng
Adopted Po	licy Objective: E	Ensure availabilit	ty of clean, affo	rdable and acc	cessible	energy	1	1		I			
Increase proportion of renewable energy in the national energy supply mix	Renewable Energy Development	Renewable Energy	30 kW Tsatsadu Mini Hydro power	Increased addition of 30kw of renewable energy to the national supply mix.	$\sqrt{}$					USD 215,00 0.00	USD 135,000.0 0	BPA	EC/ MoEn/ ECG/ CATHOLIC CHURCH/ ALAVANYO TRADITION AL COUNCIL/ ICSHP
			Western Rivers		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD 56,136. 36**		BPA	WRC/HSD

✤ VRA RESETTLEMENT TRUST FUND

Adopted Strategie s	Programme	Sub- program me	Projects/ Activities	Outcome Indicator		Time	frame		Total Ind	licative	Budget	-	menting encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collab orating
Adopted Po	licy Objective:	Improve acces	ss to safe and r	eliable water s	supply se	ervices fo	or all	I				I	<u>I</u>
Expand infrastruct ure and facilities at all levels	Management and Administra- tion	General Administra tion and Finance	Developme nt of water and sanitation facilities	Improved access to water and sanitation services	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢76,0 00			VRA- RTF	CWSA
Adopted Po	licy Objective:	Ensure afford	able, equitable	, easily access	ible and	Universa	l Health	Coverage	e (UHC)				
Expand and equip health facilities	Management and Administra- tion	General Administra tion and Finance	Developme nt of infrastruct ure relating to health	Enhanced access to health care facilities	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ1,33 3,039			VRA- RTF	Ghana Health Service

✤ VRA- RESETTLEMENT TRUST FUND

Adopted MDA Goals: Safeguard the natural environment and ensure resilient built environment

Thematic Area: Social Development

Adopted Strategies	Program me	Sub- programm e	Projects/ Activities	Outcome Indicator		Time	frame			Indica Budget		-	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabo rating
Adopted Poli	cy Objective:	Enhance access	s to improved a	nd reliable enviro	nmental	sanitatio	n services					I	
Develop and implement strategies to end open defecation	Manageme nt and Administra tion	General Administrat ion and Finance	Developme nt of environmen tal sanitation services	Reduced instances of epidemics Drastic reduction in open defecation	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ190 ,257			VRA- RTF	Ghana Health Service
Adopted Poli	cy Objective:	Enhance inclus	ive and equitab	ole access to, and p	participa	tion in qu	ality educ	ation at a	ll levels				
Expand infrastructu re and facilities at all levels	Manageme nt and Administra tion	General Administrat ion and Finance	Community Education Projects	Increased enrollment and available quality education	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 7,777,3 15			VRA- RTF	

✤ VOLTA ALUMINIUM COMPANY

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Tota	l Indicative	Budget	-	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Pol	icy Objective: P	ursue flagship ii	ndustrial devel	opment initia	tives								
Implement strategic anchor industrial initiatives			Expansion of VALCO's Operations- 3 Cell lines operations	Improved profit margin	$\sqrt{}$		$\sqrt{}$	$\sqrt{}$		\$5 million per start- up per Cell Line		VALC O	MoEn
Implement strategic anchor industrial initiatives			Joint Venture (JV) Partnership s in the production of Aluminium Profiles and Light Emitting Diode (LED) Fixtures	Anchored Ghana's integrated aluminum projects	$\sqrt{}$	$\sqrt{}$				US\$ 22.5 million + investme nt from Koreans (TBD)		VALC O	PE Korean Investors MoEn

✤ VOLTA ALUMINIUM COMPANY

Adopted MDA	Goals: Safegua	rd the natura	l environment a	and ensure re	esilient b	ouilt env	ironmei	nt					
Thematic Area	: Environmen	t, Infrastructu	re and Human	Settlements									
Adopted Strategies	Programm e	Sub- programm e	Projects/ Activities	Outcome Indicator		Time	frame		Total	Indicativ	e Budget	_	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Policy	y Objective: En	isure efficient u	itilization of ene	rgy				I					
Promote			Cell	Improved						US\$502		VALC	MoEn
demand side			Technology	profit						.670mil		0	-
management			Upgrade	margin						lion		-	
to reduce			opgrade		$\sqrt{}$	$\sqrt{}$							
significantly					VV	٧V							
the													
operational													
inefficiencies													
in energy													
supply and													
distribution,													
and the													
inefficient use													
of electricity													
by households													
and industry													
and thus													
conserve													
energy													

✤ VOLTA ALUMINIUM COMPANY

Adopted Strategies	Programm e	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Tota	l Indicative	Budget	-	nenting ncies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collab orating
Adopted Poli	cy Objective:	Ensure availabili	ty of, Clean, Affe	ordable and A	ccessible	e Energy					I		
Facilitate			Secure							US\$1.2bil		VALCO	FPE
participatio			semi-							lion			
n of			captive										
independen			Power Plant		$\sqrt{}$	$\sqrt{}$							
t power			to enable		••								
producers			VALCO										
(IPPs) and			operate at										
other			Full										
private			Business										
sector			Potential										
institutions			long term										
in the													
generation													
and													
distribution													
of power													

Adopted Strategies	Programme	Sub- programm e	Projects/ Activities	Outcome Indicator		Time	frame		Tota	al Indicative	Budget	-	nenting ncies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collab orating
Adopted Polic	cy Objective: En	nsure availabilit	ty of, Clean, Affe	ordable and A	ccessible	e Energy			I			I	
Secure long- term reliable gas supplies for the operation of thermal power plants	Petroleum Developm ent	Petroleum Upstream	Greater Jubilee Field – Execution of Greater Jubilee Full Field Developme nt Plan	Increased oil and gas production	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		US\$1,718. 63		GNPC	
Promote the use of gas as the primary fuel for power generation	Petroleum Developm ent	Petroleum Upstream	Tweneboa -Enyenra- Ntomme (TEN) Field –	Increased oil and gas production	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		US\$1,781. 15		GNPC	

Adopted Strategies	Programme	Sub- programm e	Projects/ Activities	Outcome Indicator		Time	frame		Tota	ll Indicative	Budget	Implen Ager	nenting ncies
					201 8	2019	2020	2021	GoG	IGF	Donor	Lead	Collab orating
Adopted Po	licy Objective: E	nsure availabil	ity of, Clean, Affo	rdable and Ac	cessible	e Energy	1	1		<u> </u>		1	<u>I</u>
Secure long-term reliable gas supplies	Petroleum Development	Petroleum Upstream	Sankofa/Gye Nyame Field (OCTP)	Increased oil and gas production						US\$1,057. 21		GNPC	
for the operation of thermal power plants Promote			Deepwater Tano /Cape Three Points Block		$\sqrt{}$	√√ Not availa	√√ Not availa	√√ Not availa	Not avail	US\$300.8		GNPC	
the use of gas as the primary fuel for power generation						ble	ble	ble	able				

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Tota	ll Indicative	Budget	Implen Agen	-
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collab orating
Adopted Po	licy Objective:	Ensure availabil	ity of, Clean, Affo	rdable and A	ccessible	e Energy	1	1	I	<u> </u>	<u> </u>	<u> </u>	1
Secure long-term reliable gas supplies for the operation of thermal power plants Promote the use of	Petroleum Developmen t	Petroleum Upstream	Tema LNG Takoradi LNG	Increased gas supply (Bcf)	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		TBD TBD		GNPC GNPC	
gas as the primary fuel for power generation			WAPCO interconnecti on –		$\sqrt{}$							GNPC	

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Tota	l Indicative	Budget	Implen Ager	nenting ncies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collab orating
Adopted Po	licy Objective:	Promote petrole	eum exploration	1	<u> </u>	<u> </u>	<u> </u>	1	1	<u> </u>		1	<u> </u>
Accelerate the reconnaiss ance exploratio n programm e in the Voltaian basin with the objective of delineating areas that merit detailed exploratio	Petroleum Developmen t	Petroleum Upstream	Voltaian Basin Project	Increased oil and gas productio n	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		US\$158.5 9		GNPC	

-	-	uard the natura ent, Infrastruct				t built ei	ivironm	ent					
Adopted Strategies	Program me	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Tota	al Indicative	Budget	Implen Ager	nenting ncies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collab orating
Adopted Polic	y Objective:	Leverage oil and	l gas industry as	s a catalyst for	national	econom	ic develo	opment	1	I		1	
Promote the use of gas in strategic industries such as urea, methanol and aluminium	Petroleum Developm ent	Petroleum Upstream	Ammonia fertilizer project	Establishm ent of Petroleum System – potential increased oil and gas production	$\sqrt{}$	Not availa ble	Not availa ble	Not availa ble	TBD	TBD	TBD	GNPC	
Minimize potential environment al impacts of oil and gas industry			Saltpond Decommissi oning project		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			US\$10		GNPC	

Adopted Strategies	Program me	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Tota	Indicat	tive Budget	-	menting encies
					2018	2019	2020	2021	GoG	IGF	OTHERS	Lead	Collabo rating
Adopted Poli	cy Objective:	Leverage oil and g	as industry as a c	atalyst for natio	nal econ	omic dev	velopme	nt					
Mobilise domestic capital to invest in petroleum products storage capacity and operations.	Petroleum Developme nt	Petroleum Downstream	Acquisition of additional storage facilities in Takoradi and Tema: Gas Oil by 49,677m ³ Gasoline - 17,000m ³ Crude Oil - 155,000 m ³	Improved security and reliability of gas oil supply in the Western region		$\sqrt{}$	$\sqrt{}$				USD 162,310,0 00	BOST	VRA
			Development of new tanks in Tema, Kumasi, Bolga and Akosombo depots	Improved security and reliability of gas oil supply in the Western region		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD 212,500,0 00	BOST	

Adopted Strategies	Program me	Sub- programme	Projects/ Activities	Outcome Indicator	Time f	frame			Total	Indica	tive Budget	Implen Agenci	nenting es
					2018	2019	2020	2021	GoG	IGF	OTHERS	Lead	Collabo rating
Adopted Poli	cy Objective:	Leverage oil and	gas industry as a	catalyst for natio	onal ecor	nomic de	velopme	nt					
Mobilise domestic capital to invest in petroleum products storage capacity and operations	Petroleum Developme nt	Petroleum Downstream	BOST Petroleum Terminal (BPT) Project, Pumpuni: White product- 150,000m3 ,LPG- 20,000m3	Improved security and reliability of supply of white products and LPG	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD 400,000,00 0	BOST	

Adopted Strategies	Program me	Sub- programme	Projects/ Activities	Outcome Indicator	Time f	frame			Total	Indica	tive Budget	Implen Agenci	nenting es
					2018	2019	2020	2021	GoG	IGF	OTHERS	Lead	Collabo rating
Adopted Poli	icy Objective:	Leverage oil and	gas industry as a	catalyst for natio	onal ecor	nomic de	velopme	nt					
Extend petroleum bulk transportati on and distribution infrastructu re nation- wide	Petroleum Developme nt	Petroleum Downstream	Developmen t of additional Barges for transportati on of white products from Akosombo to Debre/ Buipe	Improved petroleum product transportati on efficiency and cost savings.		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD 36,000,00 0	BOST	
			Construction of additional pusher boats	Improved petroleum product transportati on efficiency and cost savings		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD 15,000,000	BOST	

Adopted Strategies	Program me	Sub- programme	Projects/ Activities	Outcome Indicator	Time f	rame			Total	Indica	tive Budget	Implen Agenci	nenting es
					2018	2019	2020	2021	GoG	IGF	OTHERS	Lead	Collabo rating
Adopted Poli Extend petroleum bulk transportati on and distribution infrastructu	Petroleum Developme nt	Leverage oil and Petroleum Downstream	d gas industry as a BATV 12'' Multi-product Petroleum Pipeline)	catalyst for national Improved petroleum product transportati on efficiency and cost savings.	onal ecor	omic de	velopme	nt			USD 20,000,000	BOST	
re nation- wide			BOST Depot Upgrade	Improved petroleum product transportati on efficiency and cost savings.	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				USD 17,100,000	BOST	

Adopted Strategies	Program me	Sub- programme	Projects/ Activities	Outcome Indicator	Time f	rame			Total	Indica	tive Budget	Implen Agenci	nenting es
					2018	2019	2020	2021	GoG	IGF	DONOR	Lead	Collabo rating
Extend petroleum bulk transportati on and distribution infrastructu	Petroleum Developme nt	Petroleum Downstream	d gas industry as a o Debre-Buipe Petroleum Pipeline	Improved petroleum product transportati on efficiency and cost savings.	√√	√√	√√	nt			USD 10,000,000	BOST	
re nation- wide			BRV parking lot at Buipe and Bolgatanga Depots	Improved petroleum product transportati on efficiency	$\sqrt{}$	$\sqrt{}$					GHS 20,000,000	BOST	NPA

Adopted Strategies	Program me	Sub- programme	Projects/ Activities	Outcome Indicator	Time f	rame			Total	Indica	tive Budget	Implen Agencie	nenting es
					2018	2019	2020	2021	GoG	IGF	DONOR	Lead	Collabo rating
Adopted Poli	cy Objective:	Leverage oil and	l gas industry as a	catalyst for natio	onal econ	omic de	velopme	nt	1	1		1	1
Establish timely and effective preventive maintenanc e plan for all public infrastructu	Petroleum Developme nt	Petroleum Downstream	Re- instatement of Tema- Akosombo Petroleum Pipeline (TAPP)	Improved security and efficiency of installed petroleum transmission infrastructure	$\sqrt{}$	$\sqrt{}$					USD 1,855,000	BOST	
re			Rehabilitation of) Barges (BOST 1&2	Improved security and efficiency of installed petroleum transmission infrastructure	$\sqrt{}$	$\sqrt{}$							

Adopted Strategies	Programme	Sub- program me	Projects/ Activities	Outcome Indicator	Time f	rame			Total	Indica	tive Budget	Implen Agenci	nenting es
					2018	2019	2020	2021	GoG	IGF	DONOR	Lead	Collabo rating
Adopted Polic	cy Objective: En	nsure the deve	l elopment of the nee	ded institutiona	l and hu	man reso	ource cap	acity for	the pet	troleun	n sector	<u> </u>	
Facilitate universal access to adequate, reliable and cost effective	Petroleum Developme nt	Petroleum Downstrea m	12,000 MT Capacity LPG Terminal, Tema Construction of	Improve security and reliability of LPG supply Improve	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD 24,000,000	BOST	
petroleum products such as Liquefied Petroleum Gas			HFO tanks in Tema; 15,000m ³	security and reliability of HFO supply				$\sqrt{}$			USD 7,500,000		
			Natural Gas Liquids(NGL) in Western Region and Tema	Improve security and reliability of NGL supply			$\sqrt{}$	$\sqrt{}$			USD 10,000,000	BOST	
			20,000m3										

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator	Time f	rame			Total	Indicat	tive Budget	Implen Agenci	nenting es
					2018	2019	2020	2021	GoG	IGF	DONOR	Lead	Collabo rating
Adopted Pol	icy Objective: En	nsure the develo	pment of the nee	ded institutiona	l and hu	man reso	ource cap	bacity for	the pet	roleum	sector		
Provide efficient	Petroleum Developme	Petroleum Downstream	ATK Depot storage facilities in	Improved security and reliability of								BOST	

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Total (US\$'00	Indicative I 10)	Budget		ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabo rating
	· ·		tilization of ener	gy		I				•			I
Implement energy use efficiency policy and programme s	Petroleum Developmen t	Petroleum Downstream	6.5 MW Steam Turbine Generator & SCADA system	Increased plant reliability	$\sqrt{}$	$\sqrt{}$				US\$42,4 26		TOR	N/A
			New 120T/hr (Net) Steam Boiler	Increased plant reliability	$\sqrt{}$								

Adopted Strategies	Programme	Sub- programme	Proje Activi	-	Outcome Indicator		Time	frame		Total	Indicative (US\$'000)	C	-	ementing encies
						2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabo rating
Adopted Pol	icy Objective: L	everage oil and	gas indust	try as a	catalyst for na	ational eo	conomic	develop	ment		I		I	I
Mobilize public and private sector investment to expand national crude oil refining capacity, trading, storage and transportati on to neighbourin g countries and land- locked nations in the sub- region	Petroleum Developmen t	Petroleum Downstream	Direct Crude Heater	Fired Oil	Restored processing capacity to 45,000bps d	$\sqrt{}$	$\sqrt{}$							

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Total (US\$'00	Indicative 1 00)	Budget	-	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabo rating
Adopted Policy	Objective: Lever	age oil and gas	industry as a	catalyst for	national	econon	nic deve	lopmen	t	<u> </u>	<u> </u>	1	1
Facilitate universal access to adequate, reliable and cost effective petroleum products such as Liquefied Petroleum Gas (LPG)	Petroleum Development	Petroleum Downstream	Loading Gantry automation	Reduced loading time per Bulk Road Vehicle (BRV).	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		US\$3,99		TOR	Build- Operate and Transfe (BOT)
Mobilise domestic capital to invest in petroleum products storage capacity and operations			7,000m3 premix and 15,000m3 Gasoil tanks	Increased storage capacity	$\sqrt{}$	$\sqrt{}$				4,536		TOR	Build- Operate and Transfe (BOT)

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Total	Indicative (US\$'000	U	-	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabo rating
Adopted Policy ()bjective: Lever	age oil and gas	industry as a c	atalyst for na	itional e	conomic	develo	pment					
Mobilise public and private sector investment to expand national crude oil refining capacity, trading, storage and transportation to neighbouring countries and land-locked nations in the sub-region)	Petroleum Development	Petroleum Downstream	Crude Distillation Unit (CDU) revamping from 45,000 to 60,000 BPSD	Increased processing capacity	$\sqrt{}$	$\sqrt{}$						TOR	Build- Operate and Transfer (BOT)

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame			ndicative (US\$'000)	-	-	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabo rating
Adopted Policy (Dbjective: Levei	age oil and gas	industry as a	catalyst for	national	l econon	nic deve	lopment					
Mobilise public and private sector investment to expand national crude oil refining capacity, trading, storage and	Petroleum Development	Petroleum Downstream	100,000- 150,000BPS D greenfield refinery	Increased processin g capacity		V		$\sqrt{}$				TOR	Build- Operate and Transfer (BOT)
transportation to neighbouring countries and land-locked nations in the sub-region													

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Total l	Indicative (US\$'000)	-	-	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabo rating
Adopted Policy	Objective: Leve	rage oil and gas	industry as a	catalyst for	national	econon	nic deve	lopment		1	1	1	1
Mobilise domestic capital to invest in petroleum products storage capacity and operations	Petroleum Developmen t	Petroleum Downstrea m	40,000m3 each Gasoline and Atmosphe ric Residue (AR) & Two (2) LPG Spherical Tanks.	Increased finished products storage capacity		$\sqrt{}$						TOR	Build- Operate and Tranfer (BOT)

Adopted Strategies	Programme	Sub- Programme	Projects/ Activities	Outcome Indicator		Time f	frame		Total	Indicative (US\$'000	U	-	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabo rating
Adopted Policy	Objective: Lever	age oil and gas i	ndustry as a o	catalyst for n	ational o	economic	c develoj	pment	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Ensure compliance with applicable laws and international standards for environment, health and safety in the oil	Petroleum Development	Petroleum Downstream	Emergenc y Telephone & Fire Protection Systems Fire Fighting	Improved Health Safety Environme nt (HSE)		√√ 						TOR	Build- Operate and Tranfer (BOT)
and gas sector including the policy on zero			training grounds Electrical							US\$16,6 00			
gas flaring			Sub- Station and MOP staff offices.			$\sqrt{}$							

Adopted Strategies	Programme	Sub- Programme	Projects/ Activities	Outcome Indicator		Time	frame		Total	Indicative (US\$'000	-	-	menting encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabo rating
Adopted Policy	y Objective: Leve	rage oil and gas	industry as a	catalyst for n	ational	economi	c develo	pment			1	1	
			Waste Water Treatment Unit (WWTU)	Improved Health Safety Environme nt (HSE)		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
Mobilise domestic capital to invest in petroleum products	Petroleum Development	Petroleum Downstream	Tank Gauging System Automation	Reduced products losses		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Adopted Strategies	Programme	Sub- Programme	Projects/ Activities	Outcome Indicator		Time	frame		Total	Indicative (US\$'000	U	-	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabo rating
Adopted Policy	Objective: Leve	rage oil and gas ir	ndustry as a cat	alyst for natio	onal econ	iomic dev	elopmen	t	1	1	1		
Mobilise domestic capital to	Petroleum Developmen t	Petroleum Downstream	Mass Flow Meters for Oil & Gas			$\sqrt{}$	$\sqrt{}$						
invest in petroleum products storage			Mas Flow Meters for BDCs lines										
capacity and operations						$\sqrt{}$	$\sqrt{}$						
Institute mechanism to ensure that all new capacities are acquired			Linear Programmi ng Model (LP Model)							US\$5,00 0			
through open and competitive tender process						$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Adopt ed Strateg	Programm e	Sub- Programme	Projects	Outcome Indicator		Time	frame		Total I	ndicative	Budget	-	ementing encies
ies					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabo ating
Adopted	Policy Object	t ive: Ensure avail	ability of clean, afford	lable and accessi	ble energ	y.				I			
Restruc ture and strengt hen the manag ement	Petroleum Developm ent	Petroleum Downstream	Workplace culture strengthening project	Increased efficiency in staff output	$\sqrt{}$					GH⊄60 ,000		GCMC	
ement of hydro plants and create a therma			800,000 Cylinder Production Line installation Project	Increased access to LPG cylinders and stoves on the local market	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 26,00 0,000			GCMC	MoEn, MoF, MoLNR
market			Stove Production line and workflow redesign project.	Increased access to LPG stoves	$\sqrt{}$				GH¢ 60,00 0			GCMC	

Adopted Strategies	Program me	Sub- Programme	Projects	Outcome Indicator		Time	frame		Total	Indicative	Budget	-	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabo ating
Adopted Policy O	bjective: Ensu	re availability of	clean, afforda	ble and accessil	ble energ	gy.	1	1	L		1		<u> </u>
			GCMC Export Project	Export of cylinders and stoves to the West African Market		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 30,0 00,0 00			GCMC	MoEN MoF MoLNR MoTI
dopted Policy O	bjective: Prom	ote developmer		digenous capat	oilities fo	r exploita	tion of p	etroleum	resourd	ces	1		
Develop local capability in all aspects of oil and gas value chain.	Petroleum Developme nt	Petroleum Downstrea m	GCMC Industrial & Institutional Collaboratio n Project	Increased number of technical students for attachment & National Service	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢ 400,000		GCMC	MoEn, NPA, GNPC

Adopted Strategies	Program me	Sub- Programme	Projects	Outcome Indicator		Time	frame		Total	Indicative	Budget	-	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Policy Ob	ojective: Prom	ote development	t and use of in	digenous capal	oilities fo	r exploita	ition of p	etroleum	n resour	ces			
Promote education and skills enhancement initiatives to manage the Petroleum Sector	Petroleum Developme nt	Petroleum Downstream	Staff Training and capacity building project	Better trained and certified Staff	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢ 600,000		GCMC	MoEn, NPA, GNPC
Adopted Policy	Objective: Le	verage oil and ga	s industry as a	a catalyst for na	ational de	evelopme	nt	1	I	I		•	1
Facilitate universal access to adequate, reliable and cost effective petroleum products.	Petroleum Developme nt	Petroleum Downstream	GCMC capitalizat ion Project	Increased production capacity of LPG cylinders & Production lines	$\sqrt{}$					GH¢ 100,000			MoEn, MoF, MoTI

Adopted Strategies	Program me	Sub- Programme	Projects	Outcome Indicator		Time f	frame		Total	Indicative	Budget	-	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Policy O	bjective: Lever	rage oil and gas ii	ndustry as a ca	atalyst for natio	onal deve	lopment							
Mobilize	Petroleum Developme	Petroleum Downstream	Strategic Partnership	Increased working						GHØ100, 000			

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		То	tal Indicative B	udget	-	ementing encies
					201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collabor ating
Adopted Poli	cy Objective: Le	everage oil and gas	industry as a cata	lyst for nationa	al econo	omic de	velopm	ent	1	I	I.	1	I
Diversify the economy with emphasis on the processing of crude and natural gas	Petroleum Developme nt	Petroleum Downstream	Development of Mid-stream Gas and Liquefied Natural Gas (LNG) projects	Developed mid-stream industry	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			GH¢3,262,48		NPA	MoEn, EG
Mobilise domestic capital to invest in petroleum products storage capacity and operations			Petroleum and Price Risk Management	Full cost recovery of all downstrea m investment	$\sqrt{}$	$\sqrt{}$				GH¢200,000		NPA	MoEn PSPs

Adopted Strategies	Programm e	Sub- programme	Projects/ Activities	Outcome Indicator	(Kin	Time Idly Tic	frame k or Sh	ade)	То	tal Indicative B	udget	-	ementing gencies
					201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collabor ating
Adopted Policy	y Objective: Lo	everage oil and ga	as industry as a c	atalyst for natio	nal eco	nomic d	levelop	ment	I	1	1 1		l
Extend petroleum bulk transportatio n and distribution infrastructure nation-wide	Petroleum Developme nt	Petroleum Downstream	Bulk Road Vehicle (BRV) Tanker Park project	Efficient distribution of petroleum products	$\sqrt{}$	$\sqrt{}$				GH⊄36,000,0 00		NPA	MoEn, TDU, TOU
Facilitate universal access to adequate, reliable and cost effective petroleum products such as LPG			Implementat ion of Cylinder Recirculatio n Model (CRM)	Efficient and safe distribution of LPG	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH⊄76,294,0 00	GH¢76,2 94,000	NPA	MoEn, PSPs

Adopted Strategies	Programm e	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Tot	al Indicative	Budget	-	ementing encies
			Acuvities	mulcator	2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Poli	cy Objective:	Leverage oil and g	as industry as a o	catalyst for na	tional ec	onomic c	levelopn	nent					
Mobilize	Petroleum	Petroleum	Revision of	Improved						GH¢1,800,		NPA	MoEn,
public and	Developme	Downstream	NPA Act and	regulatory		, ,				000			
private	nt		Downstream	framewor	$\sqrt{}$	$\sqrt{}$							AG
sector			Regulations	k for									
nvestment				downstrea									
o expand				m									
national													
crude oil													
refining													
capacity,													
trading,													
storage and													
ransportati													
on to 1eighbourin													
g countries													
and land-													
locked													
nations													

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		То	tal Indicative	Budget	-	ementing gencies
					201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collabor ating
Adopted Po	licy Objective: I	Leverage oil and ga	as industry as a d	L catalyst for natio	nal eco	nomic o	levelop	ment					
Extend petroleum bulk transporta tion and distributio n infrastruct ure nation- wide	Petroleum Development	Petroleum Downstream	Marking of Petroleum products	Improved quality of petroleum products	$\sqrt{}$		$\sqrt{}$			GH⊄200M		NPA	PSPs
Facilitate universal access to adequate, reliable and cost effective petroleum products such as LPG			Inspections and Monitoring of all petroleum products facilities	Increased compliance of Petroleum Service Provider	$\sqrt{}$		$\sqrt{}$			GH¢3M		NPA	PSPs

✤ PETROLEUM COMMISSION

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		То	tal Indicative B	udget	-	ementing encies
					201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collabor ating
Adopted Policy	y Objective: Pro	omote developm	lent and use of ir	ndigenous capab	ilities f	or explo	oitation	of petro	oleum r	esources	1	<u> </u>	<u> </u>
Extend petroleum bulk transportatio n and distribution infrastructure nation-wide	Petroleum Developmen t	Petroleum Upstream	Local Content and Local Participation Developmen t	Increased in- country spend	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢6,000,00 0			
Accelerate development of regulations for Petroleum Exploration and Production Act, Act 919, 2016,			Regulatory Developmen t in the upstream sector	Regulatory Developmen t in the upstream sector	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢4,000,00 0			

✤ PETROLEUM COMMISSION

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		То	tal Indicative B	udget	-	ementing jencies
					201 8	201 9	202 0	202 1	GoG	IGF	Donor	Lead	Collabor ating
Adopted Polic	c y Objective: Pro	omote developm	ent and use of ir	ndigenous capab	oilities f	or expl	oitation	of petr	oleum r	esources			I
Promote Ghana as an attractive destination for investment, tacknology	Petroleum Development	Petroleum Upstream	Promotion of Ghana's petroleum resources globally	Vibrant upstream industry in Ghana	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH⊄5,000,00 0			
technology, and a hub for petroleum operations in West Africa sub-region			Upstream Petroleum Monitoring and Evaluation Programme	Improved conduct of upstream petroleum operations in Ghana	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢4,000,00 0			
			Petroleum Data Management	Attraction of competent oil and gas companies in Ghana	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢6,000,00 0			

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Tota	l Indica	tive Budget	_	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Polic	y Objective: En	sure energy ava	ailability and re	liability	I				1 1		1		
Re-align the electricity tariff structure in support of industrial development	Petroleum Developmen t	Petroleum Downstream	WAGP Interconnecti on and Commercial Agreements (Phrase one)	Reliabilit y of Gas supply to the East	$\sqrt{}$						US \$ 35 M	GNGC	ENI
uevelopment			Gas Processing Plant – Train 2 FEED	Increased gas supply		$\sqrt{}$	$\sqrt{}$				US\$6M	GNGC	
			Compressor Station at Atuabo	Increased pipeline capacity	$\sqrt{}$	$\sqrt{}$					US \$ 60 M	GNGC	

Adopted MDA	Goals: Safegua		environment and e and Human Se		ilient bı	uilt envi	ronmen	t					
Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Tota	l Indicat	ive Budget	-	plementing Agencies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collaboratin g
			ailability and re					1	,				
Re-align the electricity tariff structure in support of industrial	Petroleum Developmen t	Petroleum Downstream	75km Esiama – Prestea Leteral Pipeline	to improve power productio n	$\sqrt{}$						US \$ 70 M	GNGC	SINOPE
development			280 km onshore pipeline from Takoradi to Tema	improved security and reliable gas supply		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			US \$ 400 - 500	GNGC	BOOT Partner
			145 km Pipeline from Prestea to Kumasi	Availabili ty of gas in the middle belt	$\sqrt{}$	$\sqrt{}$					US\$ 250	GNGC	BOOT Partner

Adopted Strategies	Programme	Sub- programme	Projects/	Outcome		Time	frame		Tota	l Indica	tive Budget	-	ementing gencies
-			Activities	Indicator	2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Polic	y Objective: En	sure energy ava	ailability and	reliability					11				
Re-align the electricity tariff structure in support of industrial development	Petroleum Developmen t	Petroleum Downstream	LNG/Associ ated Pipelines and receiving facilities (10-15 km) 52km pipeline from Atuabo to the West (border)	Improved supply of regasified LNG from FSRU to the RMS in Tema Availability of gas to Jomoro Enclave for Power, Petrochemi cals & Agrochemic	$\sqrt{}$	$\sqrt{}$	√√				US\$ 15- 20M US\$ 80 M	GNGC	Partner
			9 km Pipeline from TRMS to Karpower Barge	als Availability of gas to Karpower barge – 450 MW	$\sqrt{}$						US\$25 M	GNGC	

Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Tota	l Indicat	ive Budget	_	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Polic	y Objective: En	sure energy av	ailability and	reliability									
Re-align the electricity tariff structure in	Petroleum Developmen t	Petroleum Downstream	Pigging of Offshore & Onshore Pipelines	Improved efficiency of pipeline	$\sqrt{}$						\$1.0 M	GNGC	
support of industrial development			Integrated Security System	Improved Security for offshore and onshore facilities	$\sqrt{}$						\$ 9M	GNGC	
			Gas Managemen t System	Improved efficiency of gas allocation	$\sqrt{}$						US\$ 2.5M	GNGC	
			Pentanes offltake	increased Gas commercial	$\sqrt{}$						\$ 5M	GNGC	

Adopted MDA	Goals: Safeguar a: Environment	rd the natural e	environment ar		lient bu	ilt envir	onment						
Adopted Strategies	Programme	Sub- programme	Projects/ Activities	Outcome Indicator		Time	frame		Tota	l Indicat	ive Budget	-	ementing encies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Polic	y Objective: En	sure energy ava	ailability and r	eliability					1 1				
Re-align the electricity tariff structure in support of industrial	Petroleum Developmen t	Petroleum Downstream	Operations Office Complex Atuabo, Ellembelle	Availability of state-of- the art office complex for operations	$\sqrt{}$						US\$ 25M	GNGC	SINOPEC
development			Residential Complex at Site Jomoro	Availability of Residential complex for operations staff 250 units		$\sqrt{}$	$\sqrt{}$				US\$ 15M	GNGC	
			Headquarter s Accra	Availability of Office for Managemen t and Support staff in Accra	$\sqrt{}$						US\$ 15M	GNGC	

-	Goals: Safeguar 1: Environment, Programme				ilient bu		ronment frame	t	Tota	l Indicat	ive Budget	-	ementing gencies
					2018	2019	2020	2021	GoG	IGF	Donor	Lead	Collabor ating
Adopted Polic	y Objective: Ens	ure energy ava	ilability and r	eliability									
Re-align the electricity tariff	Petroleum Development	Petroleum Downstream	Fertilizer Plant	Diversified use of gas		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			US\$ 300 - 900	GNGC	Partners
structure in support of industrial development			TEMA LNG	Increased supply source in the East;		$\sqrt{}$					\$xxx/MMB tu	GNGC	Partners
			TAKORADI LNG	Increased supply source in the West		$\sqrt{}$	$\sqrt{}$				\$xxx/MMB tu	GNGC	Partners

CHAPTER FIVE

SECTOR ANNUAL ACTION PLAN (2018, 2019, 2020 & 2021)

The Sector intends to achieve its goal through the implementation of specific planned activities. These activities are annualized with corresponding budgets and time frame for implementation. There is also a detailed indication of the specific activities that will be undertaken in each of the four quarters of the year (Q1-Q4). The sector also identified sources of funding for each of the activities. It is hoped that this Annual Action Plans (AAP) will be implemented diligently so as to achieve the ultimate goal of the sector and the nation which is Building of an industrialized, inclusive and resilient economy.

SECTOR GOAL:

The specific sector goal is to *Safeguard the natural environment and ensure resilient built environment*. The matrices below show the Programmes and sub-programmes and the activities, operations and projects intended to be implemented from 2018-2021 and their corresponding indicative budgets and funding sources.

***** DIRECTORATE: 2018 WORK PLAN HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT

Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	e Budg	get	Implement Directorat	0
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Training and	Collate training needs of staff	Ministry of	Collated training	Number of staff given	$\sqrt{}$				GH¢			Ministry of Energy	Civil Service
Capacity Building Organise	Nominate staff for training	Energy Civil Service	needs of staff of staff by end of	local and foreign training	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	35,000.0 0				Training Centre (CSTC)
local and foreign training		Training Centre	2017 year										GIMPA
for staff		GIMPA											
Adopted F	Policy Objectives: Build	d an effectiv	e and efficient	t government i	machine	ery							
Staff Performa nce Appraisal	Distribute Performance Appraisal Forms to staff	Ministry of Energy	Distribute appraisal forms to staff through	Evaluated Staff Appraisal forms and prepared	$\sqrt{}$				GH¢ 1,500.00			Office of the Civil Service (OHCS)	Ministry Energy
	Collate completed appraisal forms		supervisor	composite report	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Prepare reports for various stages (Planning, Mid-year review, End of year)				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

***** DIRECTORATE: 2018 WORK PLAN HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicativ	e Budg	get	Implement Directorat	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Staff upgrading and promotions	Compile and Submit list of eligible staff for promotion to the OHCS	Office of the Head of the Civil Service (OHCS)	Compile list of forty-two (42) eligible staff for	Number of Staff Interviewe d and Promoted	$\sqrt{}$				GH¢ 35,000.0 0			Office of the Civil Service (OHCS)	Civil Service Council Ministry of Energy
	Seek authorization to promote staff from OHCS		promotion			$\sqrt{}$							Lifetgy
	Conduct Interviews						$\sqrt{}$	$\sqrt{}$	_				
Orientation /induction programme	Compile list of new entrants	Office of the Head of the Civil Service	Collate list of newly recruited and posted		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 2,500.00			Ministry of Energy	Office of the Civil Service
	Organise Induction training for new entrants	(OHCS)	staff for orientatio n		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					(OHCS)

***** DIRECTORATE: 2018 WORK PLAN HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicative	e Budg	get	Implement Directorate	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Staff welfare and health checks	Liaise with selected Health institutions to conduct Health talks and medical screening	Ministry of Energy	Organize three (3) health screening and talk	Number of health screening Organised	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 18,000.0 0			Ministry of Energy	All Directorat es Selected qualified Health Services

***** DIRECTORATE: 2019 WORK PLAN HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	e Bud	get	Implemen Directorat	•
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Training and	Collate training needs of staff	Ministry of Energy	Collated training	Number of staff given	$\sqrt{}$				GH¢			Ministry of Energy	Civil Service
Capacity Building	Nominate staff for training	Civil Service	needs of staff by end of	local and foreign training	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	40,000.0 0				Training Centre (CSTC)
Organise local and foreign		Training Centre	2018										GIMPA
training for staff		GIMPA											
Adopted I	Policy Objectives: Bui	ild an effectiv	e and efficient	t government i	machine	ery							
Staff Performa nce Appraisal	Distribute Performance Appraisal Forms to staff	Ministry of Energy	Distribute appraisal forms to staff through	Evaluated Staff Appraisal forms and prepared	$\sqrt{}$				GH¢ 1,700.00			Office of the Civil Service (OHCS)	Ministry of Energy
	Collate completed appraisal forms		supervisor	composite report	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Prepare reports for various stages (Planning, Mid- year review, End of year)				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

***** DIRECTORATE: 2019 WORK PLAN HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indicativ	e Budg	get	Implement Directorate	•
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Staff upgrading and promotions	Compile and Submit list of eligible staff for promotion to the OHCS	Office of the Head of the Civil Service (OHCS)	Compile list of Thirty-five (35) eligible staff for	Number of Staff Interviewed and Promoted	$\sqrt{}$				GH¢ 30,000.0 0			Office of the Civil Service (OHCS)	Civil Service Council Ministry o Energy
	Seek authorization to promote staff from OHCS		promotion			$\sqrt{}$							
	Conduct Interviews						$\sqrt{}$	$\sqrt{}$					
Orientation /induction programme	Compile list of new entrants	Office of the Head of the Civil	Collate list of newly recruited and posted		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 3,000.00			Ministry of Energy	Office of the Civil Service
	Organise Induction training for new entrants	Service (OHCS)	staff for orientatio n		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					(OHCS)

***** DIRECTORATE: 2019 WORK PLAN HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	terly tir	ne sche	edule	Indicativ	e Budg	get	Implement Directorate	•
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Adopted Pol	icy Objectives: Pr	romote the cre	eation of desc	ent jobs									
Staff welfare and health checks	Liaise with selected Health institutions to conduct Health	Ministry of Energy	Organize three (3) health screening	Number of health screening Organised	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 18,000.0 0			Ministry of Energy	All Directorat es
	talks and medical screening		and talk	5									Selected qualified Health Services provider

***** DIRECTORATE: 2020 WORK PLAN HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	e Buda	get	Implemen Directorat	•
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Training and	Collate training needs of staff	Ministry of Energy	Collated training	Number of staff given	$\sqrt{}$				GH¢			Ministry of Energy	Civil Service
Capacity Building	Nominate staff for training	Civil Service	needs of staff by end of	local and foreign training	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	45,000.0 0				Training Centre (CSTC)
Organise local and foreign		Training Centre	2019										GIMPA
training for staff		GIMPA											
Adopted I	Policy Objectives: Bui	ild an effectiv	e and efficient	t government i	machine	ery							
Staff Performa nce Appraisal	Distribute Performance Appraisal Forms to staff	Ministry of Energy	Distribute appraisal forms to staff through	Evaluated Staff Appraisal forms and prepared	$\sqrt{}$				GH¢ 2,000.00			Office of the Civil Service (OHCS)	Ministry of Energy
	Collate completed appraisal forms		supervisor	composite report	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Prepare reports for various stages (Planning, Mid- year review, End of year)				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

***** DIRECTORATE: 2020 WORK PLAN HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicative	e Budg	get	Implement Directorat	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Staff upgrading and promotions	Compile and Submit list of eligible staff for promotion to the OHCS	Office of the Head of the Civil Service (OHCS)	Compile list of Forty (40) eligible staff for promotion	Number of Staff Interviewe d and Promoted	$\sqrt{}$				GH¢ 40,000.0 0			Office of the Civil Service (OHCS)	Civil Service Council Ministry o Energy
	Seek authorization to promote staff from OHCS		promotion			$\sqrt{}$							Linergy
	Conduct Interviews						$\sqrt{}$	$\sqrt{}$					
Orientation /induction programme	Compile list of new entrants	Office of the Head of the Civil Service	Collate list of newly recruited and posted		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 3,000.00			Ministry of Energy	Office of the Civil Service
	Organise Induction training for new entrants	(OHCS)	staff for orientatio n		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					(OHCS)

***** DIRECTORATE: 2020 WORK PLAN HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	e Budg	get	Implemen Directorat	0
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Adopted Pol	icy Objectives: P	romote the c	reation of de	escent jobs									
Staff welfare and health checks	Liaise with selected Health institutions to conduct Health	Ministry of Energy	Organize three (3) health screening	Number of health screening Organised	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 18,000.0 0			Ministry of Energy	All Directorat es
	talks and medical screening		and talk										Selected qualified Health Services provider

***** DIRECTORATE: 2021 WORK PLAN HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	e Bud	get	Implement Directorat	•
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Training and	Collate training needs of staff	Ministry of Energy	Collated training	Number of staff given	$\sqrt{}$				GH¢			Ministry of Energy	Civil Service
Capacity Building	Nominate staff for training	Civil Service	needs of staff by end of 2019	local and foreign training	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	35,000.0 0				Training Centre (CSTC)
Organise local and foreign		Training Centre	2019										GIMPA
training for staff		GIMPA											
Adopted I	Policy Objectives: Bui	ild an effectiv	e and efficient	t government i	machine	ery							
Staff Performa nce Appraisal	Distribute Performance Appraisal Forms to staff	Ministry of Energy	Distribute appraisal forms to staff through	Evaluated Staff Appraisal forms and prepared	$\sqrt{}$				GH¢ 1,500.00			Office of the Civil Service (OHCS)	Ministry of Energy
	Collate completed appraisal forms		supervisor	composite report	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Prepare reports for various stages (Planning, Mid- year review, End of year)				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

***** DIRECTORATE: 2021 WORK PLAN HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	terly tir	ne sche	edule	Indicative	e Budg	get	Implement Directorate	•
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Staff upgrading and promotions	Compile and Submit list of eligible staff for promotion to the OHCS	Office of the Head of the Civil Service (OHCS)	Compile list of Forty (40) eligible staff for promotion	Number of Staff Interviewe d and Promoted	$\sqrt{}$				GH¢ 40,000.0 0			Office of the Civil Service (OHCS)	Civil Service Council Ministry o Energy
	Seek authorization to promote staff from OHCS		promotion			$\sqrt{}$							Linergy
	Conduct Interviews						$\sqrt{}$	$\sqrt{}$	-				
Orientation /induction programme	Compile list of new entrants	Office of the Head of the Civil Service	Collate list of newly recruited and posted		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 2,500.00			Ministry of Energy	Office of the Civil Service
	Organise Induction training for new entrants	(OHCS)	staff for orientatio n		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					(OHCS)

***** DIRECTORATE: 2021 WORK PLAN HUMAN RESOURCE MANAGEMENT AND DEVELOPMENT

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicativ	e Budg	get	Implement Directorat	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Adopted Pol	icy Objectives: P	romote the c	reation of de	escent jobs					·			-	
Staff welfare and health checks	Liaise with selected Health institutions to conduct Health	Ministry of Energy	Organize three (3) health screening	Number of health screening Organised	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 18,000.0 0			Ministry of Energy	All Directora es
	talks and medical screening		and talk										Selected qualified Health Services provider

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	e Bud	get	Impleme Directora	0
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Management Meetings	Hold 3 Management meetings every quarter	MoEn	Managem ent in place	12 managemen t meetings held	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ25, 000.00	Nil	Nil	Gen Admin	Nil
Ministerial Advisory Board Meetings	Hold 1 Ministerial Advisory Board Meeting per quarter	MoEn	Ministeri al Advisory Board in Place	4 Minis- terial Advi- sory Board Meetings held		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 120,000 .00	Nil	Nil	Gen Admin	Nil
Records Management	Migrate paper records onto electronic records system	MoEn	Manual records system in place	E-records system opera-tional	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH⊄	Nil	Nil	Gen	Records
	Transfer old files to PRAAD		Old files have been identified	Old files transferred to PRAAD		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	50,000. 00		R	Admin	Unit
Audit Committee	Hold 4 Audit Committee meetings	MoEn	Audit Committe e in place	4 meetings of Audit Committee held	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH⊄ 50,000. 00	Nil	Nil	Gen Admin	Nil
Procurement and Store Management	Prepare 2018 procurement plan		Require- ments for 2018	2018 Procuremen t Plan									

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	ve Bud	get	Implemen Directorat	0
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Procureme nt and		MoEn	identified	Prepared and submitted to Entity Tender Committee								Gen	Procurem
Store Manageme nt	Hold 4 meetings of Entity Tender Committee		Entity Tender Committe e in place	4 meetings of Entity Tender Committee held		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ 50,000. 00	Nil	Nil	Admin	ent and supply Chain Unit
	Reconcile physical stock quantities with stock books		Physical stock identified for procurem ent planning	reconciled									
	Procure goods, works and services		2018 procurem ent plan yet to be approved	2018 procuremen t plan yet to be approved	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ 1,085,9 19,800. 00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	e Bud	get	Implemer Directora	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Physical Environment Management	Prepare Maintenance Schedule	MoEn	Mainten ance Schedule not prepared	Maintenance Schedule prepared	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 50,000. 00	Nil	Nil	Gen Admin	Estate Unit
management	Maintain facilities and equipment		Facilities and equipme nt not properly maintain ed	Facilities and equipment properly maintained									
	Secure working environment		Working environ ment not properly secured	Working environment properly secured									
	Prepare and update assets register		Assets register in place	Assets register prepared and updated									
	Tidy offices and washrooms		Offices and washroom s not tidy	Offices and washrooms cleaned on daily basis									

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	terly tii	ne sche	edule	Indicativ	e Bud	get	Implemen Directorat	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Maintain official vehicles	MoEn	Maintenan ce Schedule in place	Vehicles maintained	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ 571,200 .00				
Transport Management	Provide fuel & lubricants for Official assignments		Formula to determin e cost of fuel and lubricant s in place	Fuel and lubricants provided for official assignments					GH¢ 846,600. 00	Nil	Nil	Gen Admin	Transport Manage- ment Unit
	Provide accessories for official vehicles		List of accesso- ries needed available	Accessories provided for all official vehicles					GH¢ 476,000. 00				
	Print and distribute Transport Policy document		Transpor t Policy documen t approved	Transport Policy distributed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 100,000. 00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	e Bud	get	Impleme Directora	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Transport		MoEn	by Senior Managem et and being printed		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		Nil	Nil	Gen Admin	Nil
Management	Medical screening for Transport personnel		Medical Check-up Forms obtained	Transport personnel medical screened	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ 20,000. 00				
	Training for Transport personnel		Road Traffic Regula- tions, 2012 (L.I 2180) as a reference documen t obtained	Transport staff trained		$\sqrt{}$		$\sqrt{}$	GH⊄ 29, 600.00				
	Uniforms for drivers		Fabric selected by drivers	Uniforms provided for drivers	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ 20, 000.00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	e Bud	get	Impleme Directora	0
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Management Meetings	Hold 3 Management meetings per quarter	MoEn	Managem ent in place	12 managemen t meetings held	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ 27,500. 00	Nil	Nil	Gen Admin	Nil
Ministerial Advisory Board Meetings	Hold 1 Ministerial Advisory Board Meeting in a quarter		Ministeri al Advisory Board in Place	4 Minis- terial Advi- sory Board Meetings held	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 137,000 .00				
Records Management	Migrate paper records onto electronic records system	MoEn	Manual records system in place	E-records system opera-tional	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 140,000 .00				Records
	Transfer old files to PRAAD	-	Old files have been identified	Old files transferred to PRAAD	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
Audit Committee	Hold 4 Audit Committee meetings		Audit Committe e in place	4 meetings of Audit Committee held	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ 55,000. 00				Nil

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly edule	time		Indicative 1	Budge	et	Implen Directo	0
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Procurement and Store Management	Prepare 2019 procurement plan	MoEn	Require-ments for 2019 identified	2019 Procurement plan prepared and submitted to Entity Tender Committee for approval	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 55,000.00	Nil	Nil	Gen Admin	Procure- ment and Supply
	Hold meetings of Entity Tender Committee		Entity Tender Committee in place	4 meetings of Entity Tender Committee held	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					Unit Chain
	Reconcile physical stock quantities with stock books		Physical stock identified for procurement planning	Physical stock quantities reconciled with stock books	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Procure goods, works and services		2019 Procurement Plan is yet to be approved	Goods, works and services procured	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ 1,194,511, 780.00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tiı	ne sche	edule	Indicativ	ve Bud	get	Implemer Directora	•
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Physical Environment Management	Prepare Maintenance Schedule Maintain facilities and equipment	MoEn	Mainte- nance Schedule not prepared Facilities and equipme nt not properly	Mainte- nance Schedule prepared Facilities and equipment properly maintained				$\sqrt{}$	GHØ55, 000.00	Nil	Nil	Gen Admin	Estate Uni
	Prepare and update assets register Tidy offices and washrooms		maintain ed Assets register in place Offices and washroo ms not tidy	Assets register prepared and updated Offices and washrooms cleaned on daily basis	-								

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	e Bud	get	Implemer Directora	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Transport Management	Maintain official vehicles		Mainte- nance Schedule in place	Vehicles maintained	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 628,320 .00	Nil	Nil	Gen Admin	
U	Provide fuel & lubricants for official assignments	MoEn	Formula to determin e cost of fuel and lubricant s in place	Fuel and lubricants provided for official assignment s	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ 931,260 .00				Transport Manageme nt Unit
	Provide accessories for official vehicles		List of accessori es needed available	Accessories provided for all official vehicles	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 523,600 .00				
	Medical screening for Transport personnel		Medical check-up forms obtained	Transport personnel medical screened					GH¢ 22,000. 00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	ve Bud	get	Implemer Directora	•
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Training for Transport personnel	MoEn	Road Traffic Regula- tions, 2012 (L.I 2180) as a reference documen t obtained	Transport personnel trained	$\sqrt{}$	VV			GHØ 32,560. 00	Nil	Nil	Gen Admin	Transport Manageme nt Unit
	Uniforms for drivers		Fabric and color selected by drivers	Uniforms provided for drivers					GHØ 22,000. 00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	terly tir	ne sche	edule	Indicativ	e Bud	get	Implemen Directora	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Management Meetings	Hold 3 Management meetings per quarter	MoEn	Managem ent in place	12 managemen t meetings held	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ 30,250. 00	Nil	Nil	Gen Admin	Nil
Ministerial Advisory Board Meetings	Hold 1 Ministerial Advisory Board Meetings		Ministeri al Advisory Board in Place	4 Minis- terial Advi- sory Board Meetings held	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 145,200 .00				
Records Management	Migrate paper records onto electronic records system		Manual records system in place	E-records system opera-tional	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 154,000				Records
	Transfer old files to PRAAD		Old files have been identified	Old files transferred to PRAAD			$\sqrt{}$	$\sqrt{}$.00				
Audit Committee	Hold Audit Committee meetings		Audit Committe e in place	4 meetings of Audit Committee meeting held	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					Nil

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicativ	ve Bud	get	Implemer Directora	•
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Prepare and implement 2020 procurement plan	Prepare 2020 Procurement Plan		Require- ments for 2020 identified	2018 Procuremen t Plan prepared and submitted to Entity Tender Co- mmittee for approval					GH¢ 60,500. 00	Nil	Nil	Gen Admin	Procurem ent and Supply
	4 Hold meetings of Entity Tender Committee Reconcile physical stock quantities with stock books	MoEn	Entity Tender Committe e in place Physical stock identified for procurem ent planning	4 meetings of Entity Tender Committee held Physical stock quantities reconciled with stock books		$\sqrt{}$		$\sqrt{}$		Nil	Nil	Gen Admin	Chain Uni

Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	Quar	rterly ti	me sch	edule	Indicativ	ve Bud	get	Implemen Directora	•
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Prepare and implement 2020 procurement plan	Procure goods, works and services	MoEn	2020 procuremen t plan yet to be approved	Goods, works and services procured	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ 1,313,9 62,958. 00	Nil	Nil	Gen Admin	Procurem ent and Supply Chain Unit
	Prepare Maintenance Schedule	MoEn	Mainte- nance Schedule not prepared	Mainte- nance Schedule prepared	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢				Estate Unit
Management of the physical environment	Maintain facilities and equipment		Facilities and equipment not properly maintained	Facilities and equipment properly maintained	-				60,500. 00				
	Secure working environment		Working environmen t not properly secured	Working environment properly secured									
	Prepare and update assets register		Assets register in place	Assets register prepared and updated									

Projects	Activities (Operations)	Location	Baseline	Output indicator s	Quar	terly tiı	ne sche	edule	Indicativ	e Bud	get	Implemen Directora	-
				3	1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Tidy offices and washrooms	MoEn	Offices and washroom s not tidy	Offices and washroom s cleaned on daily bases	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		Nil	Nil	Gen Admin	Estate Unit
Transport management	Maintain official vehicles		Maintenan ce scheduled in place	Vehicles maintaine d	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 691,152 .00				
	Provide fuel lubricants or official assignment	MoEn	Formula to determine cost of fuel and lubricants in place	Fuel and lubricants provided for official assignmen ts					GH¢ 1,024,3 86.00				Transport manageme nt unit
	Provide accessories for official vehicles		List of accesso- ries needed available	Accesso- ries provided for official vehicles					GHØ 575,960 .00				

Projects	Activities (Operations)	Location	Baseline	Output indicator	Quar	terly tii	ne sche	edule	Indicativ	ve Bud	get	Implemer Directora	•
				S	1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Medical screening for Transport personnel		Medical check-up forms obtained	Transpor t personne l medical screened	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	VV	GH¢ 24,200. 00	Nil	Nil	Gen Admin	Transport manageme nt unit
Transport Management	Training for Transport personnel	MoEn	Road Traffic Regula- tions, 2012 (L.I 2180) as a reference document obtained	Transport personnel trained			$\sqrt{}$	$\sqrt{}$	GH⊄ 35,816. 00				
	Uniforms for drivers		Fabric and color selected by drivers	Uniforms provided for drivers	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 24,200. 00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	e Bud	get	Implemer Directora	•
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Management Meetings	Hold 3 Management meetings per quarter		Manageme nt in place	12 management meetings held	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 33,275. 00	Nil	Nil	Gen Admin	Nil
Ministerial Advisory Board Meetings	Hold 1 Ministerial Advisory Board Meetings per quarter	MoEn	Ministerial Advisory Board in Place	4 Ministerial Advisory Board Meetings held	V	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 159,720 .00	Nil	Nil	Gen Admin	Nil
Records Management	Migrate paper records onto electronic records system		Manual records system in place	E-records system operational	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 170,000 .00				
	Transfer old files to PRAAD		Old files have been identified	Old files transferred to PRAAD									Records unit
Audit Committee meetings	Hold 4 Audit Committee meetings		Audit Committee in place	4 meetings of Audit Committee held	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					Nil

	Activities (Operations)	Location	Baseline	Output indicator	Quar	terly tir	ne sche	edule	Indicativ	e Bud	get	Implemer Directora	
				S	1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Prepare and implement 2021` procurement plan	Prepare 2020 procurement plan	MoEn	Requireme nts for 2018 identified	2020 Procurem ent Plan prepared and submitted to Entity Tender Committe e for approval	$\sqrt{}$				GH¢	Nil	Nil	Gen Admin	Procurem ent and Supply Chain uni
	Hold meetings of Entity Tender Committee Reconcile physical stock quantities with stock		Entity Tender Committee in place Physical stock identified for	4 meetings of Entity Tender Committe e held Physical stock quantities reconciled			$\sqrt{}$		66,550. 00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly (dule	time		Indicativ	e Bud	get	Implemer Directora	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Procure goods, works and services	MoEn	2020 procureme nt plan yet to be approved	Goods, works and services procured	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 1,445,35 9,253.00	Nil	Nil	Gen Admin	Procurem ent and Supply Chain Unit
Management of the physical environment	Prepare Maintenance Schedule	MoEn	Maintenanc e Schedule not prepared	Maintenanc e Schedule prepared						Nil	Nil	Gen Admin	
	Maintain facilities and equipment		Facilities and equipment not properly maintained	Facilities and equipment properly maintained	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ 66,550				Estate uni
	Secure working environment		Working environmen t not properly secured	Working environmen t properly secured									
	Prepare and update assets register		Assets register in place	Assets register prepared and updated									

Projects	Activities (Operations)	Locatio n	Baseline	Output indicators		rterly edule	time		Indicativ	e Bud	get	Implemer Directora	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Management of the physical environment	Tidy offices and washrooms	MoEn	Offices and washrooms not tidy	Offices and washrooms cleaned on daily basis	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 66,550. 00	Nil	Nil	Gen Admin	Estate Unit
	Maintain official vehicles		Maintenance Schedule in place	Vehicles maintained					GHØ 760,267 .20				
Transport Management	Provide fuel & lubricants for official assignments		Formula to determine cost of fuel and lubricants in place	Fuel and lubricants provided for official assignments	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 1,126,2 46.60				Transport Manageme nt Unit
	Provide accessories for official vehicles	-	List of acce- ssories needed available	Accessories provided for official vehicles					GH¢ 633,556 .00				
	Medical screening for Transport personnel		Medical Check-up Forms obtained	Transport personnel medical screened					GHØ 26,620. 00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Qua	rterly t	ime scł	nedule	Indicativ	e Bud	get	Implemer Directora	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Transport Management	Training for Transport personnel	MoEn	Road Traffic Regulation s, 2012 (L.I 2180) as a reference document obtained	Transport staff trained	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH¢ 39,397.6	Nil	Nil	Gen Admin	Transport Manageme nt Unit
	Uniforms for drivers		Fabric and color selected by drivers	Uniforms provided for drivers					GH¢ 26,620.0 0				

***** DIRECTORATE: RESEARCH, STATISTICS AND INFORMATION MANAGEMENT - 2018 WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	rterly dule		time	Indicative	Budge	et	Impleme Director	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Monitori ng on the impleme ntation of Solar Lantern Distribut ion	collection in the	Northern Region	2016 Report on the distributio n of solar lanterns in 10 regions	Report on monitoring in Two (2) Regions (Northern and Ashanti) submitted by December, 2018	$\sqrt{}$				GHØ20,00 0				
(Conduct impact analysis on the usage of solar lanterns	Field data collection in the Two (2) Districts of the Ashanti Region on solar lantern distribution completed	Ashanti Region				$\sqrt{}$							
in four Districts)	Analysis of field data report from Northern and Ashanti Region on solar lantern distribution completed						$\sqrt{}$						

DIRECTORATE: RESEARCH, STATISTICS AND INFORMATION MANAGEMENT - 2018 WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly ti	me sch	edule	Indica	tive Budg	get	Impleme Director	0
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Conduct impact analysis on the usage of solar lanterns in four Districts	Final report on solar lantern distribution in Northern and Ashanti Regions completed and submit to Management	Northern and Ashanti Region	2016 Report on the distribution of solar lanterns in 10 regions										
Adopted Poli	cy Objectives: Le	everage oil a	nd gas industry	as a catalyst for	nationa	al econo	omic de	evelopm	nent (Do	wnstream	ı)	1	
Conduct impact analysis on the utilization of LPG Cylinders in two Districts of the Ashanti	Preparation and design of Field data collection in the Ashanti Region on Rural LPG promotion programme-	Ashanti Region	The Kintampo Health Research Centre (KHRC) report on Rural LPG Promotion	Report on monitoring exercise in Ashanti Region submitted by December, 2018	$\sqrt{}$								

OIRECTORATE: RESEARCH, STATISTICS AND INFORMATION MANAGEMENT - 2018 WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tin	ie sche	dule	Indicative	Budge	et	Impleme Director	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Monitoring of Rural LPG Promotion Programme (Conduct impact analysis on the utilization of LPG Cylinders in two Districts of the Ashanti Region)	FielddatacollectionintwoDistrictsof the AshantiRegiononRuralLPGprogrammecompletedFielddatacollectionintwoDistrictsof the AshantiRegiononRuralLPGprogramme	Ashanti Region Ashanti Region	The Kintampo Health Research Centre (KHRC) report on Rural LPG Promotion	Report on monitorin g exercise in Ashanti Region submitted by December, 2018				$\sqrt{}$	GH¢20,00 0				

OIRECTORATE: RESEARCH, STATISTICS AND INFORMATION MANAGEMENT - 2018 WORK PLAN

Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	Quai	terly ti	me sch	edule	Indicati	ve Bud	get	Implemen Directora	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Impact Assessment on Mini Grid Electrificati on Installations (Conduct impact analysis on installation of Mini Grid)	Preparation and design of Field data collection in the Pediatorkope Island in the Ada East Districts on mini grid installation programme	kope Island in the Ada		Report on the installation of mini grids electrificatio n in Pediatorkope (Ada East District) and Atigagome (Sene East District) submitted	$\sqrt{}$				GH⊄ 15000				
	FielddatacollectioninthePediatorkopeIslandinIslandintheAdaEast DistrictFielddatacollectioninAtigagomeAtigagomeIslandinintheSeneEastDistrictDistrictEast					$\sqrt{}$	$\sqrt{}$						

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***** DIRECTORATE: RESEARCH, STATISTICS AND INFORMATION MANAGEMENT - 2018 WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicat ors	Quar	terly tir	ne sche	edule	Indicativ	e Bud	get	Implemen Directorat	-
				015	1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Conduct impact analysis on installation of Mini Grid	Report on monitoring prepared and submitted							$\sqrt{}$					
Adopted Po	licy Objectives: Ensure e	efficient utili	ization of end	ergy				•					
Implement ation of IT security, policies, procedures and guidelines	Maintenance of PCs, Printers, UPS and Scanners. Regular Backups of data Renewal of Anti-virus. Update and	MOEN	I.T Policy document			$\sqrt{}$			GH¢			_	
guidennes	Configuration of Active Directory						$\sqrt{}$		30,000			-	
	Website Inventory of ICT							$\sqrt{}$	-			-	
	equipment PCs, Printer, UPS and Scanners Full Data Backup Maintenance of PCs, Printers and Scanners												

***** DIRECTORATE: RESEARCH, STATISTICS AND INFORMATION MANAGEMENT - 2018 WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indicat	ive Bud	get	Implemen Directorat	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Implementati	Cooperate	MOEN	The Phase I		$\sqrt{}$								
on of IT	email		Ministry's										
security,	application		I.T strategy										
policies,	upgraded and												
procedures	join all PCs to												
and	the domain												
guidelines	Configuration					$\sqrt{}$							
	and update of												
	print												
	management												
	systems.								_				
	Setup and						$\sqrt{}$						
	configuration												
	of secondary												
	domain												
	controllers								_				
	Configuration							$\sqrt{}$					
	and												
	installation of												
	Alternate												
	Internet												
	Connectivity												

Projects	Activities (Operations)	Location	Baselin e	Output indicators	Quai	rterly ti	me sch	edule	Indicativ	ve Bud	get	Implemen Directora	0
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Monitoring of the mplementa tion of Solar Lantern Distribution Programme	Preparation and design of Field data collection in the Western Region on solar lantern distribution completed	Western Region	2017 Report on the distribu tion of solar lanterns in 10	Data Collection in Western Region	$\sqrt{}$				GHØ25, 000				
Conduct mpact nalysis on he usage of olar anterns in our Districts)	Field data collection in the Two (2) Districts of the Brong Ahafo Region on solar lantern distribution Completed	Brong- Ahafo Region	regions	Report of impact analysis in the Western and Brong Ahafo		$\sqrt{}$							
//50/1015/	Analysis of field data report from Western and Brong Ahafo Regions on solar lantern distribution completed	Western and Brong Ahafo Regions		Region submitted by December, 2019			$\sqrt{}$						

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicativ	ve Bud	get	Impleme Directora	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Final report							$\sqrt{}$					
	on solar												
	lantern												
	distribution												
	in Western												
	and Brong												
	Ahafo Regions completed and submit to												
	Management												
Adopted Poli	cy Objectives: Le	everage oil a	nd gas indust	ry as a catalyst	for nat	ional ec	onomic	develo	pment				
Monitoring of	Preparation	Brong	The		$\sqrt{}$				GHØ25,				
the	and design of	Ahafo	Kintampo						000				
implementati	Field data	Region	Health										
on of Rural	collection in	_	Research										
LPG	the Brong		Centre										
Promotion	Ahafo Region		(KHRC)										
Programme	on Rural LPG		report on										
	promotion		Rural LPG										
	programme-		Promotion										

Projects	Activities (Operations)	Locati on	Baseline	Output indicators	Quart	terly tir	ne sche	edule	Indicat	ive Bud	get	Implemer Directora	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
(Conduct impact analysis on the utilization of LPG Cylinders in two Districts of the Brong Ahafo Region)	Field data collection in two Districts of the Brong Ahafo Region on Rural LPG Programme completed Field data collection in two Districts of the B.A Region on Rural LPG programme completed		The Kintampo Health Research Centre (KHRC) report on Rural LPG Promotion						_				
Adopted Poli	cy Objectives: Ens	ure availa	bility of clean,	affordable and	l access	ible ene	rgy					·	
Impact assessment on Mini Grid Electrificatio n installation	Field data collection on mini grid electrification in the Kudorkope (Krachi East					$\sqrt{}$							

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	terly tir	ne sche	edule	Indicativ	ve Bud	get	Impleme Directora	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Conduct Impact analysis on Installation of Mini Grid	Preparation and design of Field data collection on mini grid electrification programme	Kudorkop e (Krachi East District) and Aglakope (Krachi West District)	Report on the installati on of mini grids electrifica		$\sqrt{}$				GH⊄20, 000				
	Field data collection on mini grid electrification Final monitoring exercise report on mini grid electrification	Aglakope (Krachi West District) Kudorkope (Krachi East District) and Aglakope (Krachi West District)	 tion in Kudorko pe (Krachi East District) and Aglakope (Krachi West District) 					$\sqrt{}$					

Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicativ	ve Bud	get	Implemer Directora	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Impleme ntation of IT security policies, procedur	Maintenance of PCs, Printers, UPS and Scanners Regular Backups of data	Ministry of Energy	I.T Policy document						GH¢ 35,000				
es and guideline S	Renewal of Anti- virus. Update and configuration of Active Directory					$\sqrt{}$							
	Update of Ministry Website						$\sqrt{}$						
	Inventory of ICT equipment PCs, Printer, UPS and Scanners							$\sqrt{}$					
	Full Data Backup												
	Maintenance of PCs, Printers and Scanners												

Projects	Activities (Operations)	Locati on	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicativ	ve Bud	get	Implemer Directora	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Configura tion and update of software	Configuration and update of Firewall. Update of Virtual Private Network Security		The Phase II Ministry's		$\sqrt{}$				GHØ 35,000.				
applicatio n systems Training of staff on	Configuration and installation of Close Circuit Television (CCTV		I.T strategy			$\sqrt{}$			00				
the usage of share folders	Setup and configuration of Physical and Environmental Security						$\sqrt{}$		-				
	Configuration and installation of System and Database Security(Monitorin							$\sqrt{}$					
	g, Compliance and Enforcement)												

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicat	ive Bud	get	Impleme Directora	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Monitoring on the implementatio n of solar lantern distribution (Conduct impact analysis on the usage of solar lanterns in four Districts)	Complete Preparation and design of Field data collection on solar lantern distribution Complete Field data collection on solar lantern distribution	Upper East Region Two (2) Districts of the Upper West Region	2018 Report on the distributi on of solar lanterns in 10 regions	Field data collection on solar lantern distributio n completed Field data collection on solar lantern distributio n completed		$\sqrt{}$							

Adopted Po	olicy Objectives: E	nsure efficie	nt utilization	of energy								
Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	me sche	edule	Indicati	ve Bud	get	Imp Dire
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lea
	Complete			Analysis of			$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	ve Bud	get	Implemer Directora	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Complete			Analysis of			$\sqrt{}$						
	analysis of		2018	field data									
Conduct	field data		Report on	report from					GHØ30,				
impact	report from		the	Upper East					000				
analysis on	Upper East on		distributio	and Upper								RSIM	
the usage of	solar lantern		n of solar	West									
solar lanterns	distribution		lanterns in	Regions on									
in four			10 regions	solar									
Districts				lantern									
				distribution									
				Completed									
	Complete			Final report				$\sqrt{}$					
	final report			prepared									
	on solar			and									
	lantern			submitted									
	distribution			to									
	in Upper East			Managemen									
	and Upper			t									
	West Regions												
	and submit to												
	Management												

✤ DIRECTORATE: RESEARCH, STATISTICS AND INFORMATION MANAGEMENT - 2	2020 WORK PLAN
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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicativ	ve Bud	get	Implemer Directora	0
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab
Monitoring on the implement ation of the Rural LPG Promotion Programm e	Preparation and design of Field data collection in the Upper West Region on Rural LPG promotion programme-	Upper West Region	The Kintampo Health Research Centre (KHRC) report on Rural LPG	Data collected and Analysed Report	$\sqrt{}$				GHØ30, 000				
Conduct impact analysis on the utilization	Field data collection in two Districts of the Upper West Region on Rural LPG Programme completed		Promotion	submitted by December, 2020 to Management on the implementat		$\sqrt{}$							
of LPG Cylinders in two Districts of the Upper West Region	Field data collection in two Districts of the Upper West Region on Rural LPG programme completed			ion of the Rural LPG Promotion Programme				$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicativ	e Bud	get	Implemer Directora	•
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Impact Assessment on Mini Grid Electrificatio n installations Conduct impact analysis on installation of Mini Grid	Preparation and design of Field data collection in the Kete Krachi Preparation and design of Field data collection in the Kete Krachi Report on monitoring prepared and submitted	Kete Krachi	Report on the installation of mini grids electrificati on in Kete krachi (Volta Region)	Report on monitoring exercise in Volta Region prepared and submitted				√√	GH⊄250 00				

Projects	Activities (Operations)	Locati on	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicativ	e Bud	get	Implemen Directorat	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Regular	Maintenance of PCs, Printers,	Ministr y of	I.T Policy document	Report on implementa	$\sqrt{}$			$\sqrt{}$					
Backup and	UPS and	Energy		tion of four									
Recovery of Data	Scanners.			(4) I.T					QUICLO				
Data	Regular			Security					GHØ40,				
	Backups of data Renewal of	-		System Policies		$\sqrt{}$			000				
Renewal of	Anti-virus.			deployed by		vv							
Corporate	Update and			October 30									
Antivirus	configuration of												
Maintenance	Active Directory												
of PCs,	Update of						$\sqrt{}$						
Printers, UPS	Ministry												
and scanners	Website	-							_				
	Inventory of ICT							$\sqrt{}$					
Inventory of ICT	equipment. PCs,												
Equipment	Printer, UPS and Scanners												
lyaipinent	Full Data												
Updating of	Backup.												
and	Maintenance of												
configuration	PCs, Printers												
of Active Directory	and Scanners												

* [DIRECTORATE:	RESEARCH, STATISTICS AND INFORMATION MANAGEMENT -	2020 WORK PLAN
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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicativ	ve Bud	get	Implemen Directorat	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Configuration	Ministry		Phase III of									
	and	of	The Phase	IT Strategy	$\sqrt{}$								
	Installation of	Energy	III	implemente									
Configuration	Document.		Ministry's	d by									
and update of	Management		I.T	December									
software	System		strategy	31, 2020					GHØ				
application	Configuration								40,000.				
systems	and								00				
	Installation of					$\sqrt{}$							
	Network.		Training										
	Monitoring		of staff on										
	System		Windows						_				
	Setup and		10 and										
	configuration		Microsoft				, ,						
	of secondary		Office 16				$\sqrt{}$						
	domain												
	controllers.	-							-				
	Configuration												
	and							, ,					
	installation of							$\sqrt{}$					
	Help												
	Desk System									1			

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indicative	Budg	et	Implement Directorat	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Monitoring on the implementa tion of Solar Lantern Distribution Programme	Field data collection in the Two (2) Districts of Volta Region on solar lantern distribution	Two(2) Districts of Volta Region	2017 Report on the distributio n of solar lanterns in 10 regions	Final Report on monitorin g in Two Regions (Volta Region	$\sqrt{}$								
Conduct impact analysis on the usage of solar lanterns in four Districts	Completed Field data collection in the Two (2) Districts of the Eastern Region on solar lantern distribution completed	Two (2) Districts of the Eastern Region		and Eastern Region) submitted by December, 2021		$\sqrt{}$			GHØ35,0 00				
	Analysis of field data report from Volta and Eastern Regions on solar lantern distribution completed						$\sqrt{}$						

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	terly tin	ne sche	edule	Indicativ	e Bud	get	Implemen Directora	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	submit final and Re report on Eastern the solar lantern Regions dis distribution n o in Volta and lan Eastern 10 Regions	2017 Report on the distributio n of solar lanterns in 10 regions					$\sqrt{}$						
Adopted Polic	y Objectives: Le	everage oil a	nd gas as a ca	talyst for natio	nal ecor	nomic d	evelopr	nent (D	ownstream)			
Conduct impact analysis on the utilization of LPG Cylinders in two Districts of the Eastern Region	Field data collection in two(2) Districts of the Volta Region on Rural LPG promotion programme-	The Volta Region	The Kintampo Health Research Centre (KHRC) report on Rural LPG Promotion		$\sqrt{}$				GHØ35, 000				

CIRECTORATE: RESEARCH, STATISTICS AND INFORMATION MANAGEMENT - 2021 WORK PLAN

Project s	Activities (Operations)	Location	Baselin e	Output indicators	Quar	terly ti	me sch	edule	Indicati	ve Bud	get	Implemen Directora	•
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Conduct impact analysis on the	complete field data collection in two Districts of the Eastern Region on Rural LPG Programme	Eastern Region	The Kintamp o Health Researc	Field data collection in two Districts of the Eastern Region on		$\sqrt{}$			35000				
utilizati on of LPG			h Centre (KHRC) report	Rural LPG Programme completed									
Cylinder s in two Districts of the Eastern Region	complete analysis of field data report from Volta and Eastern Regions on Rural LPG Programme	Volta and Eastern	on Rural LPG Promoti on	Analysis of field data completed			$\sqrt{}$						
	Final report on Rural LPG Programme in Upper East and Upper West Regions completed and submit to Management			Final report completed and submitted to Management				$\sqrt{}$					

Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicativ	e Bud	get	Impleme Directora	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Preparation and	Pediato		Report on									
Impact	design of Field	rkope (monitoring									
Assessment	data collection	Ada	Report on	in Two									
on Mini Grid	in the	East	the	islands									
Electrificatio	Pediatorkope	District	installatio	namely									
n	Island in the Ada	and	n of mini	Pediatorkop	$\sqrt{}$								
	East	Atigago	grids	e (Ada East									
	Districts on mini	me	electrificat	District and									
	grid installation	(Sene	ion in	Atigagome									
	programme	East	Pediatork	(Sene East									
Conduct	field data	District	ope (Ada	District)									
impact	collection in the)	East						GHØ45,				
analysis on	Pediatorkope		District)						000				
installation	Island in the Ada		and			$\sqrt{}$							
of Mini Grid	East District		Atigagome										
	Field data		(Sene East]				
	collection in		District)										
	Atigagome						$\sqrt{}$						
	Island in the												
	Sene East												
	District							1					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicativ	e Bud	get	Impleme Directora	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Report on												
	monitoring prepared and							$\sqrt{}$					
	submitted												
-	i cy Objectives: E		nt utilisation of	of energy	1	1	T	Г	T	1	1		-1
Implementat ion of IT Security	Maintenance of PCs, Printers, UPS	Ministry of Energy	I.T Policy document	Report on implementa									
policies, procedures and	and Scanners Regular Backups of			tion of four (4) IT Security	$\sqrt{}$								
guidelines	data			System									
0	Renewal of Anti-virus			Policies deployed by October 30									
	Update and configuration of Active Directory					$\sqrt{}$			GHØ45, 000				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicat	ive Bud	get	Implemen Directorat	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Update of												
Implementa	Ministry												
tion of IT Security	Website						$\sqrt{}$						
policies,	Inventory of	-											
procedures	ICT equipment												
and	PCs, Printer,												
guidelines	UPS and												
	Scanners.												
	Full Data							$\sqrt{}$					
	Backup												
	Maintenance of												
	PCs, Printers												
	and Scanners												
Implementa		Ministry		Phase IV of	$\sqrt{}$								
tion of	Cooperate	of Energy	The Phase	Strategy									
Phase IV IT	email		III	implemente									
Security	application		Ministry's	d by									
policies,	upgraded and		I.T	December,									
procedures	join all PCs to		strategy	2021									
and	the domain												
guidelines										1			

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tin	ne sche	edule	Indicativ	e Bud	get	Implemen Directorat	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Configuration and update of print management systems.					$\sqrt{}$							
Implementati on of Phase IV IT Security policies,	Setup and configuration of secondary domain controllers						$\sqrt{}$		GHØ45, 000				
procedures and guidelines	Configuration and installation of Alternate Internet Connectivity												
	Training of staff				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

DIRECTORATE: POLICY PLANNING, BUDGETING, MONITORING AND EVALUATION	- 2018 WORK PLAN
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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tir	ne sche	edule	Indicat	ive Bud	get	Impleme Directora	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Collate inputs from Directorates and Agencies				$\sqrt{}$							PPBME	All Directorates
	Review Inputs received	-			$\sqrt{}$								
	Submit draft to the Chief Director	Head quarters	Inputs for draft APR collated in Dec. 2017	2017 Annual	$\sqrt{}$	N/A	N/A		N/A				
	Incorporate comments from CD			Performance Report Submitted to OHCS	$\sqrt{}$								
	Submit report to OHCS				$\sqrt{}$								
	Commence information gathering on 2018 Annual Report							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tir	ne sche	edule	Indicativ	ve Bud	get	Implem Directo	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Facilitation of the Annual Work Programme Retreat	Organize offsite retreat with sector Agencies and Directorates Monitoring of Work Programme	Head quarters	Programm es and Projects earmarked for 2018 identified in Budget statement for 2018. Format and templates for submission sent out to all Directorate s and Sector Agencies in January.	Annual Work Programm e Report	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH⊄42, 000			PPME	FINANCE DIRECTORAT

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicat	tive Bud	get	Implem Directo	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Preparatio n of the Quarterly Performan ce Reports	Prepare and issue calendar for submission of Quarterly Reports	Head Quarters	Program mes and Projects earmarke d for 2018	Quarterly Reports (Q1,Q2,Q3 and Q4) reports	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	N/A			PPME	All Directorates
·	Collate inputs from Directorates and Agencies.	nd identified in Budget statement for 2018	submitted to OHCS	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						
	Review inputs submitted		for 2018		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Submit draft to Chief Director	-			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	_				
	for review Incorporate CDs comment in draft report	3		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	_					
	Finalize and submit report to OHCS by Mid week of the next ensuing month				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indicativ	ve Bud	get	Implem	enting Directorate
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Preparation of the Annual 2019-2022 Yearly Budget	Send out circular for inputs by directorates and agencies.	Ministry of Energy Head	2019 Budget Statement	2019 -2022 Budget Prepared and submitted to Parliament	$\sqrt{}$								
Duuget	Organize Budget Committee meetings	Office	Indicative Budget ceilings			$\sqrt{}$							
	Attend Budget preparation Workshops organized by MoF		given in the 2019 Budget			$\sqrt{}$			GHØ 13,490			PPME	All Directorates
	Finalise inputs into the 2019 Budget						$\sqrt{}$		-				
	Participate in MOF Budget Hearing.							$\sqrt{}$					
	Finalise Presentation to Select Committee on Mines and							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indicative E	Budget		Implem	enting Directorate
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Facilitation and Coordination of the Mid Year Performance Review	Collate reports from all Directorates for their performance under Q1 Collate Draft Reports for Q2 Organize Mid- Year Performance Retreat by 13 th July, 2018 Submit Mid- Year	Ministry of Energy Head Office	Preparati on of Annual Work Program me for 2018 by Directorat es and Agencies	Mid-Year Performanc e review Report			$\sqrt{}$	N/A	GH¢42,000 + Sector Agencies			PPME	F&A Finance Directorate
	Performance Report by August, 20, 2018						$\sqrt{}$						

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indicative	Budget		Implen	nenting Directorate
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Monitoring and Evaluation of Projects	Collate data and information on planned Projects/ Programmes	Ministry of Energy Head offfice	Framewor k for monitorin g developed	Reports from projects and programmes monitored	$\sqrt{}$				GH¢ 12,000			PPME	Power Directorate Petroleum Directorate Renewable Energy Directorate
	Liaise with projects units on planned projects				$\sqrt{}$								Research, Statistics and Information Management
 	Undertake joint monitoring with project units of Directorates and Agencies	Selected project site to be determine d				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Prepare monitoring reports					$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	-				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicative E	Budget		Implen	nenting Directorate
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Training and Capacity	Identify Courses for PPME staff		Needs assessmen t of staff	Training Reports of Staff	$\sqrt{}$				GHØ132,69 2			HRM	PPME
Building	Identify and collate list of Staff from the Directorate for relevant training programmes.					$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

THEMATIC AREA: GOVERNANCE, CORRUPTION AND PUBLIC ACCOUNTABILITY ADOPTED OBJECTIVE (S): ENHANCE CAPACITY FOR POLICY FORMULATION AND COORDINATION Adopted Programme **Key Activities** Loca **Baseline** Output **Quarterly time schedule Indicative Budget** Implementing strategy / tion indicat Agencies sub ors Donor Collab. 1st 2nd 3rd 4th GoG IGF Lead programme $\sqrt{\sqrt{}}$ MANAGEMEN HO President's Prepare 146, MoEn All 16 Constitute d Sector T AND committee to Coordinate 600 Sector develop the d Medium ADMINISTRAT Agencies SMTDP for the Programme Term ION Ministry of of Develop POLICY Economic Energy ment PLANNING, and Social Plan $\sqrt{\sqrt{}}$ Preparatory Developme BUDGETING, meetings for the nt Policies MONITOROIN draft plan (2017-G & 2024) **EVALUATION** Coordinate with Launched NDPC on the on 11th Development of April, 2018 the SMTDP $\sqrt{\sqrt{}}$ Review of the Draft Document Stakeholder Consultations on the Draft SMTDP

✤	DIRECTORATE:	POLICY PLANNING,	BUDGETING,	MONITORING AN	D EVALUATION-	2019 WORK PLAN
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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tir	ne sche	edule	Indicat	ive Bud	get	Impleme Directora	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Collate inputs from Directorates and Agencies				$\sqrt{}$							PPBME	All Directorates
	Review Inputs received	-			$\sqrt{}$								
	Submit draft to the Chief Director Incorporate	-	Inputs for	2018 Annual	$\sqrt{}$	N/A	N/A		N/A				
		Head quarters	draft APR collated in Dec. 2018	Performance Report Submitted to OHCS	$\sqrt{}$								
					$\sqrt{}$								
								$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tir	ne sche	edule	Indicativ	ve Bud	get	Implem Directo	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Facilitation of the Annual Work Programme Retreat	Organize offsite retreat with sector Agencies and Directorates Monitoring of Work Programme	Head quarters	Programm es and Projects earmarked for 2019 identified in Budget statement for 2019. Format and templates for submission sent out to all Directorate s and Sector Agencies in January.	Annual Work Programm e Report	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	√√	GH¢46, 200			PPME	FINANCE DIRECTORATI

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne scho	edule	Indicat	tive Bud	get	Implem Directo	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Preparatio n of the Quarterly Performan ce Reports	Prepare and issue calendar for submission of Quarterly Reports	Head Quarters	Program mes and Projects earmarke d for 2019	Quarterly Reports (Q1,Q2,Q3 and Q4) reports	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	N/A			PPME	All Directorates
	Collate inputs from Directorates and Agencies.		identified s	submitted to OHCS	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Review inputs submitted	-			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Submit draft to Chief Director	-			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	_				
	for review Incorporate CDs comment in draft report				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	_				
	Finalize and submit report to OHCS by Mid week of the next				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

(Operations)			Output indicators	Quai	terly tir	ne sche	uule	Indicativ	ve buu	get	Implen	enting Directorate
				1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Send out circular for inputs by directorates and agencies.	Ministry of Energy	2020 Budget Statement	2020 -2022 Budget Prepared and submitted to Parliament	$\sqrt{}$								
Organize Budget Committee meetings	Office	Indicative Budget ceilings			$\sqrt{}$			_				
Attend Budget preparation Workshops organized by MoF		given in the 2020 Budget			$\sqrt{}$			GH¢ 15,000			PPME	All Directorates
Finalise inputs into the 2020 Budget						$\sqrt{}$						
Participate in MOF Budget Hearing.							$\sqrt{}$					
Finalise Presentation to Select Committee on							$\sqrt{}$					
	circular for inputs by directorates and agencies. Organize Budget Committee meetings Attend Budget preparation Workshops organized by MoF Finalise inputs into the 2020 Budget Participate in MOF Budget Hearing. Finalise Presentation to Select	circular for inputs by directorates and agencies. Organize Budget Committee meetings Attend Budget preparation Workshops organized by MoF Finalise inputs into the 2020 Budget Participate in MOF Budget Hearing. Finalise Presentation to Select Committee on Mines and	circular for inputs by directorates and agencies.of EnergyBudget StatementOrganize Budget Committee meetingsHead OfficeIndicative Budget ceilings given in the 2020 BudgetAttend Budget preparation Workshops organized by MoFHead OfficeIndicative Budget ceilings given in the 2020 BudgetFinalise inputs into the 2020 BudgetHearing.Indicative BudgetFinalise inputs into the 2020 BudgetIndicative BudgetFinalise inputs into the 2020 BudgetIndicative BudgetFinalise inputs into the 2020 BudgetIndicative BudgetFinalise inputs into the 2020 BudgetIndicative BudgetFinalise inputs into the 2020 BudgetIndicative BudgetFinalise Presentation to Select Committee on Mines andIndicative Budget	circular for inputs by directorates and agencies.of EnergyBudget StatementBudget Prepared and submitted to ParliamentOrganize Budget Committee meetingsHead OfficeIndicative Budget ceilings given in the 2020 BudgetIndicative Budget submitted to ParliamentAttend Budget preparation Workshops organized by MoFHead OfficeIndicative Budget submitted to ParliamentFinalise inputs into the 2020 Budget Hearing.Indicative Budget submitted the 2020 BudgetIndicative Budget submitted the 2020 BudgetFinalise inputs into the 2020 Budget Hearing.Indicative Budget submitted the 2020 BudgetIndicative Budget submitted the 2020 BudgetFinalise Presentation to Select Committee on Mines andIndicative submitted the and submitted submitted the and submitted	circular for inputs by directorates and agencies.of EnergyBudget StatementBudget Prepared and submitted to Parliament√√Organize Budget Committee meetingsHead OfficeIndicative Budget ceilings given in the 2020 BudgetIndicative BudgetIndicative ParliamentAttend Budget preparation Workshops organized by MoFIndicative BudgetIndicative BudgetFinalise inputs into the 2020 Budget Participate in MOF Budget Hearing.Indicative BudgetIndicative BudgetFinalise Presentation to Select Committee on Mines andIndicative BudgetIndicative Budget	circular for inputs by directorates and agencies.of EnergyBudget StatementBudget Prepared and submitted to Parliament√√Organize Budget Committee meetingsHead OfficeIndicative Budget ceilings given in the 2020 BudgetIndicative and submitted to Parliament√√Attend Budget preparation Workshops organized by MoFIndicative BudgetIndicative and adgetIndicative and adgetIndicative adgetFinalise inputs into the 2020 Budget Hearing.Indicative BudgetIndicative adgetIndicative adgetFinalise inputs into the 2020 Budget Hearing.Indicative adgetIndicative adgetIndicative adgetFinalise Presentation to Select Committee on Mines andIndicative addetIndicative adgetIndicative adgetFinalise Presentation to Select Committee on Mines andIndicative addetIndicative addetIndicative adget	circular for inputs by directorates and agencies.of Energy of EnergyBudget StatementBudget Prepared and submitted to ParliamentJ√√Image to<	circular for inputs by directorates and agencies.of Energy of EnergyBudget StatementBudget Prepared and submitted to Parliament $\sqrt{}$ Image to the second statementOrganize Budget Committee meetingsHead OfficeIndicative Budget ceilings given in the 2020 BudgetIndicative Budget ceilings given in the 2020 BudgetImage to the second statement $\sqrt{}$ Image to the second statementFinalise inputs into the 2020 Budget Participate in MOF Budget Hearing.Image to the second statement $\sqrt{}$ Image to the second statementFinalise Presentation to Select Committee on Mines andImage to the second statementImage to the second statement $\sqrt{}$	circular for inputs by directorates and agencies.of Energy of EnergyBudget StatementBudget Prepared and submitted to Parliament√√Image StatementGHC (1/2)Organize Budget Committee meetingsHead OfficeIndicative Budget ceilings given in the 2020 BudgetIndicative Budget given in the 2020 BudgetIndicative Budget (1/2)Image StatementImage StatementImage StatementImage StatementImage StatementFinalise inputs into the 2020 BudgetImage StatementImage StatementImage StatementImage StatementImage StatementFinalise Presentation to Select Committee on Mines andImage StatementImage StatementImage StatementImage StatementFinalise Presentation to Select Committee on Mines andImage StatementImage StatementImage StatementImage StatementImage Statement StatementImage Statement StatementImage Statement <td< td=""><td>circular for inputs by directorates and agencies.of Energy of EnergyBudget StatementBudget Prepared and submitted to Parliament√√III<!--</td--><td>circular for inputs by directorates and agencies.Budget StatementBudget Prepared and submitted to ParliamentJ√√IIOrganize Budget Committee meetingsHead OfficeIndicative Budget cellings given in the 2020 BudgetIndicative Budget even in the 2020 BudgetIndicative Budget cellings given in the 2020 BudgetIndicative Budget even in the 2020 BudgetIndicative BudgetIndicative Budget cellings given in the 2020 BudgetIndicative BudgetIndicative BudgetFinalise inputs into the 2020 BudgetIndicative BudgetIIIIIFinalise inputs into the 2020 BudgetIIIIIIIFinalise representation to Select Committee on Mines andIIIIIIIIIFinalise Presentation to Select Committee on Mines andIII<tdi< td=""><td>circular for inputs by directorates and agencies.Budget StatementBudget Prepared and submitted to Parliament$\sqrt{}$III<thi< th="">III<thi< th="">II<</thi<></thi<></td></tdi<></td></td></td<>	circular for inputs by directorates and agencies.of Energy of EnergyBudget StatementBudget Prepared and submitted to Parliament√√III </td <td>circular for inputs by directorates and agencies.Budget StatementBudget Prepared and submitted to ParliamentJ√√IIOrganize Budget Committee meetingsHead OfficeIndicative Budget cellings given in the 2020 BudgetIndicative Budget even in the 2020 BudgetIndicative Budget cellings given in the 2020 BudgetIndicative Budget even in the 2020 BudgetIndicative BudgetIndicative Budget cellings given in the 2020 BudgetIndicative 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Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	me sche	edule	Indicative F	Budget		Implen	nenting Directorate
				1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Collate reports from all Directorates for their performance under Q1 Collate Draft Reports for Q2 Organize Mid- Year Performance Retreat by 13 th July, 2019 Submit Mid- Year Performance	Ministry of Energy Head Office	Preparati on of Annual Work Program me for 2019 by Directorat es and Agencies	Mid-Year Performanc e review Report	√√		√√	N/A	GH¢46,200 + Sector Agencies			PPME	F&A Finance Directorate
	(Operations) Collate reports from all Directorates for their performance under Q1 Collate Draft Reports for Q2 Organize Mid- Year Performance Retreat by 13 th July, 2019 Submit Mid- Year	(Operations)Image: style iteration st	(Operations)Image: second	(Operations)Image: second	(Operations)Image: Addition of their of	(Operations)Image: Figure 1indicatorsImage: Figure 1Collate reports from all Directorates for their performance under Q1Ministry of Energy of EnergyPreparati on of Annual Work Program me for 2019 by Directorat es and AgenciesMid-Year Performanc e review ReportIst2ndCollate reports for their performance Under Q1Ministry of Energy OfficePreparati on of Annual Program me for 2019 by Directorat es and AgenciesMid-Year PerformanceImage: Figure 1Organize Mid- Year Performance Retreat by 13th July, 2019Image: Figure 1Image: Figure 1Submit Mid- Year PerformanceImage: Figure 1Image: Figure 1Image: Figure 1Submit Mid- Ye	(Operations)Image: Probability of Energy from all Directorates for their performance under Q1Ministry of Energy of Energy of Energy of Energy and the second	(Operations)Image: Addition of the sector of th	(Operations)Image: August of the sector of the	(Operations)indicators <td>(Operations)Image: Additional symbolsindicatorsindicatorsindicatorsindicatorsIst2nd3rd4thGoGIGFDonor/ OthersCollate reports from all Directorates for their performance under Q1Ministry of Energy Head OfficePreparati on of Annual Work Program me for 2019 by Directorate es and AgenciesMid-Year Performance e review V/VImage: Additional symbols V/VImage: Additional symbols V/VImage: Additional symbols Performance Image: Additional symbolsGHQ46,200 + Sector AgenciesImage: Additional symbols Performance Image: Additional symbolsMid-Year PerformanceImage: Additional symbols V/VImage: Additional symbolsImage: Additional symbols PerformanceImage: Additional symbolsImage: Additional symbolsCollate Draft Performance Retreat by 13th July, 2019Mid-Year PerformanceImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsSubmit Mid- Year PerformanceImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsSubmit Mid- Year PerformanceImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsSubmit Mid- Year Performance</td> <td>(Operations)Image: Additional symbolsindicatorsindicatorsImage: Additional symbolsImage: Additional symbols<th< td=""></th<></td>	(Operations)Image: Additional symbolsindicatorsindicatorsindicatorsindicatorsIst2nd3rd4thGoGIGFDonor/ OthersCollate reports from all Directorates for their performance under Q1Ministry of Energy Head OfficePreparati on of Annual Work Program me for 2019 by Directorate es and AgenciesMid-Year Performance e review V/VImage: Additional symbols V/VImage: Additional symbols V/VImage: Additional symbols Performance Image: Additional symbolsGHQ46,200 + Sector AgenciesImage: Additional symbols Performance Image: Additional symbolsMid-Year PerformanceImage: Additional symbols V/VImage: Additional symbolsImage: Additional symbols PerformanceImage: Additional symbolsImage: Additional symbolsCollate Draft Performance Retreat by 13th July, 2019Mid-Year PerformanceImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsSubmit Mid- Year PerformanceImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsSubmit Mid- Year PerformanceImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsSubmit Mid- Year Performance	(Operations)Image: Additional symbolsindicatorsindicatorsImage: Additional symbolsImage: Additional symbols <th< td=""></th<>

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quarterly time schedule				Indicative Budget			Implementing Directorate	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Monitoring and Evaluation of Projects	Collate data and information on planned Projects/ Programmes	Ministry of Energy Head offfice	Framework for monitoring developed	Reports from projects and programm es monitored	$\sqrt{}$				GH⊄ 132,000			PPME	Power Directorate Petroleum Directorate Renewable Energy Directorate
	Liaise with projects units on planned projects				$\sqrt{}$								Research, Statistics and Information Management
	Undertake joint monitoring with project units of Directorates and Agencies	Selected project site to be determined	-			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Prepare monitoring reports					$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quarterly time schedule				Indicative Budget			Implementing Directorate	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Training and Capacity	Identify Courses for PPME staff		Needs assessmen t of staff	Training Reports of Staff	$\sqrt{}$				GH¢140,00 0			HRM	PPME
Building	Identify and collate list of Staff from the Directorate for relevant training programmes.					$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tir	ne sche	edule	Indicative Budget			Implementing Directorate	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
	Collate inputs from Directorates and Agencies				$\sqrt{}$							PPBME	All Directorates
	Review Inputs received	Head quarters	Inputs for draft APR collated in Dec. 2019	2019 Annual Performance Report Submitted to OHCS	$\sqrt{}$	-							
	Submit draft to the Chief Director				$\sqrt{}$	N/A	N/A		N/A				
	Incorporate comments from CD				$\sqrt{}$								
	Submit report to OHCS				$\sqrt{}$								
	Commence information gathering on 2020 Annual Report					$\sqrt{}$							

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quarterly time schedule				Indicative Budget			Implementing Directorate	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Facilitation of the Annual Work Programme Retreat	Organize offsite retreat with sector Agencies and Directorates Monitoring of Work Programme	Head quarters	Programm es and Projects earmarked for 2020 identified in Budget statement for 2020. Format and templates for submission sent out to all Directorate s and Sector Agencies in January.	Annual Work Programm e Report	$\sqrt{}$	$\sqrt{}$			GHØ48, 200			PPME	FINANCE DIRECTORATI

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicat	tive Bud	get	Implem Directo	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Preparation of the Quarterly Performanc e Reports	Prepare and issue calendar for submission of Quarterly Reports	Head Quarters	Program mes and Projects earmarke d for 2020	Quarterly Reports (Q1,Q2,Q3 and Q4) reports	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	N/A			PPME	All Directorates
	Collate inputs from Directorates and Agencies.		identified in Budget statement for 2020	submitted to OHCS	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Review inputs submitted				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	-				
	Submit draft to Chief Director for review	-			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	_				
	Incorporate CDs comment	-			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	-				
	in draft report Finalize and submit report to OHCS by Mid week of the next ensuing month				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicativ	ve Bud	get	Implen	enting Directorate
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Preparation of the Annual 2019-2022 Yearly Budget	Send out circular for inputs by directorates and agencies.	Ministry of Energy Head	2020 Budget Statement	2021 -2022 Budget Prepared and submitted to Parliament	$\sqrt{}$								
Duuget	Organize Budget Committee meetings	Office	Indicative Budget ceilings			$\sqrt{}$							
	Attend Budget preparation Workshops organized by MoF		given in the 2020 Budget			$\sqrt{}$			GHØ 17,000			PPME	All Directorates
	Finalise inputs into the 2020 Budget						$\sqrt{}$						
	Participate in MOF Budget Hearing.							$\sqrt{}$					
	Finalise Presentation to Select Committee on Mines and							$\sqrt{}$					

Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	me sche	edule	Indicative F	Budget		Implen	enting Directorate
				1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Collate reports from all Directorates for their performance under Q1 Collate Draft Reports for Q2 Organize Mid- Year Performance Retreat by 13 th July, 2020	Ministry of Energy Head Office	Preparati on of Annual Work Program me for 2020 by Directorat es and Agencies	Mid-Year Performanc e review Report			√√	N/A	GH¢48,200 + Sector Agencies			PPME	F&A Finance Directorate
	(Operations) Collate reports from all Directorates for their performance under Q1 Collate Draft Reports for Q2 Organize Mid- Year Performance Retreat by 13 th July, 2020	(Operations)Image: select	(Operations)Image: second	(Operations)Image: Section of the section	(Operations)Image: Addition of their of	(Operations)Image: Addition of the section of the secti	(Operations)Image: Probability of Energy of EnergyPreparati on of AnnualMid-Year Performanc e reviewIst2nd3rdCollate reports from all Directorates for their performance under Q1Ministry of EnergyPreparati on of Annual Work Program me for 2020 by Directorat es and AgenciesMid-Year Performanc e reviewImage: Problem of Performanc on of ereviewImage: Problem of Performanc on of ereviewImage: Performanc ereviewImage: Performanc on of ereviewImage: Performanc ereviewImage: Performa	(Operations)Image: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsCollate reports from all Directorates for their performance under Q1Ministry of Energy of Energy Head OfficePreparati on of Annual Program me for 2020 by Directorate e additional symbolsMid-Year Performance e review ReportsImage: Additional symbolsImage: Additional symbolsCollate Draft Reports for Q2Head OfficeProgram Program me for 2020 by Directorat e s and AgenciesMid-Year Performance e sindImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsSubmit Mid- Year PerformanceSubmit Mid- Year PerformanceImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsSubmit Mid- Year PerformanceImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsSubmit Mid- Year PerformanceImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsSubmit Mid- Year PerformanceImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsSubmit Mid- Year PerformanceImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsImage: Additional symbolsSubmit Mid- Year PerformanceImage: Additional symbols <td< td=""><td>(Operations)Image: Additional and the sector of the sector of</td><td>(Operations)Image: August and AgenciesindicatorsindicatorsImage: August and AgenciesImage: August and August and August and AgenciesImage: August and August and August and AgenciesImage: August and AgenciesImage: August and August a</td><td>(Operations)Image: series of the series of the</td><td>(Operations)Image: constraint of the sector of</td></td<>	(Operations)Image: Additional and the sector of	(Operations)Image: August and AgenciesindicatorsindicatorsImage: August and AgenciesImage: August and August and August and AgenciesImage: August and August and August and AgenciesImage: August and AgenciesImage: August and August a	(Operations)Image: series of the	(Operations)Image: constraint of the sector of

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indicative	Budget		Implen	nenting Directorate
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Monitoring and Evaluation of Projects	Collate data and information on planned Projects/ Programmes	Ministry of Energy Head offfice	Framewor k for monitorin g developed	Reports from projects and programmes monitored	$\sqrt{}$				GH¢ 15,000			PPME	Power Directorate Petroleum Directorate Renewable Energy Directorate
	Liaise with projects units on planned projects				$\sqrt{}$								Research, Statistics and Information Management
	Undertake joint monitoring with project units of Directorates and Agencies	Selected project site to be determine d				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Prepare monitoring reports					$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	-				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicative B	ludget		Implen	nenting Directorate
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Training and Capacity	Identify Courses for PPME staff		Needs assessmen t of staff	Training Reports of Staff	$\sqrt{}$				GHØ150,00 0			HRM	РРМЕ
Building	Identify and collate list of Staff from the Directorate for relevant training programmes.					$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tir	ne sche	edule	Indicat	ive Bud	get	Impleme Director	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Preparation of the Annual Performance Reports	Collate inputs from Directorates and Agencies				$\sqrt{}$							PPBME	All Directorate:
	Review Inputs received				$\sqrt{}$								
	Submit draft to the Chief Director	-	Inputs for	2021 Annual	$\sqrt{}$	N/A	N/A		N/A				
	Incorporate comments from CD	Head quarters	draft APR collated in Dec. 2020	Performance Report Submitted to OHCS	$\sqrt{}$								
	Submit report to OHCS				$\sqrt{}$								
	Commence information gathering on 2021 Annual Report							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tir	ne sche	edule	Indicativ	ve Bud	get	Implem Directo	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Facilitation of the Annual Work Programme Retreat	Organize offsite retreat with sector Agencies and Directorates Monitoring of Work Programme	Head quarters	Programm es and Projects earmarked for 2021 identified in Budget statement for 2021. Format and templates for submission sent out to all Directorate s and Sector Agencies in January.	Annual Work Programm e Report	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH⊄50, 000			PPME	FINANCE DIRECTORATI

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne scho	edule	Indicat	tive Bud	get	Implem Directo	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Preparatio n of the Quarterly Performan ce Reports	Prepare and issue calendar for submission of Quarterly Reports	Head Quarters	Program mes and Projects earmarke d for 2021	Quarterly Reports (Q1,Q2,Q3 and Q4) reports	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	N/A			PPME	All Directorates
-	Collate inputs from Directorates and Agencies.		identified in Budget statement for 2021	submitted to OHCS	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Review inputs submitted				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Submit draft to Chief Director				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	-				
	for review Incorporate CDs comment in draft report				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	_				
	Finalize and submit report to OHCS by Mid week of the next ensuing month				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

		Baseline	Output indicators	Quar	terly th	ne sche	aule	Indicativ	e Bud	get	Impien	enting Directorate
				1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Send out circular for inputs by directorates and agencies.	Ministry of Energy	2022 Budget Statement	2022 Budget Prepared and submitted to Parliament	$\sqrt{}$								
Organize Budget Committee meetings	Office	Indicative Budget ceilings			$\sqrt{}$							
Attend Budget preparation Workshops organized by MoF		given in the 2021 Budget			$\sqrt{}$			GHØ 20,000			PPME	All Directorates
Finalise inputs into the 2021 Budget						$\sqrt{}$		-				
Participate in MOF Budget Hearing.							$\sqrt{}$					
Finalise Presentation to Select Committee on							$\sqrt{}$					
	circular for inputs by directorates and agencies. Organize Budget Committee meetings Attend Budget preparation Workshops organized by MoF Finalise inputs into the 2021 Budget Participate in MOF Budget Hearing. Finalise Presentation to Select	circular for inputs by directorates and agencies. Organize Budget Committee meetings Attend Budget preparation Workshops organized by MoF Finalise inputs into the 2021 Budget Participate in MOF Budget Hearing. Finalise Presentation to Select Committee on Mines and	circular for inputs by directorates and agencies.of EnergyBudget StatementOrganize Budget Committee meetingsHead OfficeIndicative Budget ceilings given in the 2021 BudgetAttend Budget preparation Workshops organized by MoFIndicative BudgetFinalise inputs into the 2021 Budget Hearing.Indicative Budget into the 2021 BudgetFinalise inputs into the 2021 Budget Hearing.Indicative Budget into the 2021 BudgetFinalise off Presentation to Select Committee on Mines andIndicative Budget into the into	circular for inputs by directorates and agencies.of Energy of EnergyBudget StatementBudget Prepared and submitted to ParliamentOrganize Budget Committee meetingsHead OfficeIndicative Budget ceilings given in the 2021 BudgetIndicative Budget det ceilingsIndicative ParliamentFinalise inputs into the 2021 Budget Participate in MOF Budget Hearing.Indicative BudgetIndicative BudgetFinalise Presentation to Select Committee on Mines andIndicative BudgetIndicative Budget	circular for inputs by directorates and agencies.of EnergyBudget StatementBudget Prepared and submitted to ParliamentOrganize Budget Committee meetingsHead OfficeIndicative Budget ceilings given in the 2021 BudgetIndicative BudgetAttend Budget preparation Workshops 	circular for inputs by directorates and agencies.of EnergyBudget StatementBudget Prepared and submitted to Parliament√√Organize Budget Committee meetingsHead OfficeIndicative Budget ceilings given in the 2021 BudgetIndicative Budget√√Attend Budget preparation Workshops organized by MoFIndicative Budget√√Finalise inputs into the 2021 Budget Participate in MOF Budget Hearing.Indicative BudgetIndicative BudgetFinalise Presentation to Select Committee on Mines andIndicative BudgetIndicative Budget	circular for inputs by directorates and agencies.of Energy of EnergyBudget StatementBudget Prepared and submitted to ParliamentJ√√Image to to to y√√Attend Budget preparation Workshops organized by MoFHead OfficeIndicative Budget ceilings given in the 2021 BudgetIndicative Budget ceilings given in the 2021 BudgetIndicative and the 2021 BudgetFinalise inputs into the 2021 Budget Hearing.Image to ParliamentImage to y√√Image to y√√Finalise inputs into the 2021 Budget Presentation to Select Committee on Mines andImage to parliamentImage to parliamentImage to parliamentFinalise Presentation to SelectImage to parliamentImage to parliamentImage to parliamentFinalise Presentation to SelectImage to parliamentImage to parliamentImage to parliamentFinalise Presentation to Selec	circular for inputs by directorates and agencies.of Energy of EnergyBudget StatementBudget Prepared and submitted to Parliament $\sqrt{}$ Image to the second statementOrganize Budget Committee meetingsHead OfficeIndicative Budget ceilings given in the 2021 BudgetIndicative Budget ceilings given in the 2021 BudgetImage to the second statement $\sqrt{}$ Image to the second statementFinalise inputs into the 2021 Budget Participate in MOF Budget Hearing.Image to the second statement $\sqrt{}$ Image to the second statementFinalise Presentation to Select Committee on Mines andImage to the second statementImage to the second statement $\sqrt{}$	circular for inputs by directorates and agencies.of Energy of EnergyBudget StatementBudget Prepared and submitted to ParliamentJIIOrganize Budget Committee meetingsHead OfficeIndicative Budget ceilings given in the 2021 BudgetIndicative Budget given in the 2021 BudgetIndicative Prepared and submitted to ParliamentIII <td>circular for inputs by directorates and agencies.of Energy of EnergyBudget StatementBudget Prepared and submitted to Parliament√√III<!--</td--><td>circular for inputs by directorates and agencies.Budget StatementBudget Prepared and submitted to ParliamentV√IIMead OfficeHead OfficeIndicative Budget ceilings given in the 2021 BudgetIndicative BudgetIndicative BudgetIndicative BudgetIIIAttend Budget preparation Workshops organized by MoFIndicative BudgetIndicative BudgetIIIIFinalise inputs into the 2021 BudgetIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII</td><td>circular for inputs by directorates and agencies. Budget Statement Budget Prepared and submitted to Parliament V I I Organize Budget Committee meetings Head Office Indicative Budget ceilings given in the 2021 Budget Indicative Budget Indicat</td></td>	circular for inputs by directorates and agencies.of Energy of EnergyBudget StatementBudget Prepared and submitted to Parliament√√III </td <td>circular for inputs by directorates and agencies.Budget StatementBudget Prepared and submitted to ParliamentV√IIMead OfficeHead OfficeIndicative Budget ceilings given in the 2021 BudgetIndicative BudgetIndicative BudgetIndicative BudgetIIIAttend Budget preparation Workshops organized by MoFIndicative BudgetIndicative BudgetIIIIFinalise inputs into the 2021 BudgetIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII</td> <td>circular for inputs by directorates and agencies. Budget Statement Budget Prepared and submitted to Parliament V I I Organize Budget Committee meetings Head Office Indicative Budget ceilings given in the 2021 Budget Indicative Budget Indicat</td>	circular for inputs by directorates and agencies.Budget StatementBudget Prepared and submitted to ParliamentV√IIMead OfficeHead OfficeIndicative Budget ceilings given in the 2021 BudgetIndicative BudgetIndicative BudgetIndicative BudgetIIIAttend Budget preparation Workshops organized by MoFIndicative BudgetIndicative BudgetIIIIFinalise inputs into the 2021 BudgetIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	circular for inputs by directorates and agencies. Budget Statement Budget Prepared and submitted to Parliament V I I Organize Budget Committee meetings Head Office Indicative Budget ceilings given in the 2021 Budget Indicative Budget Indicat

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indicative E	Budget		Implem	enting Directorate
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Facilitation and Coordination of the Mid Year Performance Review	Collate reports from all Directorates for their performance under Q1 Collate Draft Reports for Q2 Organize Mid- Year Performance Retreat by 13 th July, 2021 Submit Mid- Year Performance	Ministry of Energy Head Office	Preparati on of Annual Work Program me for 2019 by Directorat es and Agencies	Mid-Year Performanc e review Report	√√		√√	N/A	GH¢50,000 + Sector Agencies			PPME	F&A Finance Directorate
	Report by August, 20, 2021						$\sqrt{}$						

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tin	ne sche	dule	Indicative	Budget		Implen	enting Directorate
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Monitoring and Evaluation of Projects	Collate data and information on planned Projects/ Programmes	Ministry of Energy Head offfice	Framework for monitoring developed	Reports from projects and programm es monitored	$\sqrt{}$				GH¢ 17,000			PPME	Power Directorate Petroleum Directorate Renewable Energy Directorate
	Liaise with projects units on planned projects				$\sqrt{}$								Research, Statistics and Information Management
	Undertake joint monitoring with project units of Directorates and Agencies	Selected project site to be determined				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Prepare monitoring reports					$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	-				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indicative B	ludget		Implen	nenting Directorate
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Training and Capacity	Identify Courses for PPME staff		Needs assessmen t of staff	Training Reports of Staff	$\sqrt{}$				GH¢170,00 0			HRM	РРМЕ
Building	Identify and collate list of Staff from the Directorate for relevant training programmes.					$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemer Agencies	iting
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
Conductio n of the maiden	G&G Committee established	Headquart ers	Blueprint Committe e	Completion of preparatory	$\sqrt{}$				GH¢ 500,0 00			MoEn	PC, GNPC, AG, GRA, EPA, MoF
Bid Round for the Award of Exploratio n License	Bidding preparation completed and promotion initiated		establish ed to develop road map	works		$\sqrt{}$			-				
	Sedimentary promotion exercise conducted and bids invited						$\sqrt{}$		-				
	Pre- qualification completed							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indic	ative Bu	dget	Impler Agenci	nenting les
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab
Coordinati on and monitoring of	2 Gas wells drilled and tested ORF at 60% completed	Headquar ters	Project explorati on infrastruc	Progress of work	$\sqrt{}$							OCTP Partn ers	MoEn, PC
activities towards Sankofa	First Gas production achieved	•	ture 90% complete as end			$\sqrt{}$							
First Gas production	ORF 100% completed		Nov 2017 (vs. 85%										
	Performance monitoring conducted – production target of 171 mmscfd of gas		target) Onshore Receiving				$\sqrt{}$						
	Performance monitoring conducted – production target of 171 mmscfd of gas		Facility (ORF) at 50% completio n					$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar schee	terly t dule	ime		Indic	ative Bu	ıdget	Impler Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab
Coordinati on and monitoring of the WAGP Integrated Interconne ction Project	Construction commenced Term Sheet of GTA signed between GNPC and WAPCo Original scope of work to be amended to 50% completion of works GTA signed between GNPC and WAPCo CMA signed between WAPCo and Eni Ghana Tie-In Agreement signed between GNGC and WAPCo 80% completion of works Construction works completed	Headquarters	EPIC contract awarded Term Sheet for GTA signed between WAPCo and GNPC Constructio n Managemen t Agreement (CMA) signed between GNGC and ENI	Progress of work and Agreements signed		√√					USD 138m OCTP Partners	Eni Ghana	PC, GNPC, GNGC, WAPC O, NPA, MoEn

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indic	ative Bu	dget	Impler Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab
Implement ation of Gas Master Plan (GMP)	Committee's progress reports submitted Cabinet Memo on Institutional reforms submitted to Cabinet Gas Pricing Policy revised Terms of Reference for the development of Gas Act finalized	Headquarters	GMP Implementati on Committee established Technical, Financial, Legal and Institutional Alignment sub- committees established	Progress of work of committee			$\sqrt{}$	√√	GH⊄ 400, 000			MoEn	GNPC, GNGC, NPA, PC, EC, BOST

-	blicy Objectives: Promote	-	-	1					T			1	
Projects	Activities (Operations)	Location	Baseline	Output indicators	Quai sche	rterly t dule	ime		Indic	ative Bu	lget	Impler Agenci	nenting les
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab
Developme nt of a National Energy Policy	Draft Policy circulated among various stakeholders for comments Nationwide roadshow in Tamale, Kumasi, Takoradi and Accra conducted Comments incorporate to produce final Energy Policy	Headquar ters	Draft Energy Policy develope d	Progress of work		$\sqrt{}$	$\sqrt{}$		GHØ 200, 000		GH¢ 300,000 GOGIG	MoEn	PC, GNPC, GNGC, NPA, EC, VRA, GRIDC o,
	Energy Policy submitted to Cabinet	 						$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implement Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
Coordinati	N/A	Headquart	Favorabl	Progress of							HESS and	HESS	PC, GNPC,
on of the preparatio n and submissio n of Hess	Kick-off meeting held with all partners	ers	e ITLOS ruling allowing works to resume	work		$\sqrt{}$					Partners		MoEn
PDO.	Drafting of PoD commenced		on western basin				$\sqrt{}$						
	PoD submitted to the Minister		Dasin					$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quai sche	terly t dule	ime		Indic	ative Bu	dget	Impler Agenci	nenting ies
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab
Coordinate the Turret Remediati on Project (TRP)	Shutdown of FPSO executed to pave way for bearing stabilization works 2 nd shutdown for stabilization works of Turret bearing to be completed Commence work on	Headquar ters	Permane nt Spread Mooring adopted	Progress of work		$\sqrt{}$					Jubilee Partners	TGL	PC, GNPC, MoEn
	FPSO rotation and Permanent Spread Mooring (PSM) FPSO rotated and permanently spread moored							$\sqrt{}$					

Adopted Po Projects	olicy Objectives	Promote pet	roleum explo Baseline	oration Output	Quar	terly tir	ne sche	dule	Indica	tive B	udget	Implement	ing
	(Operations)			indicators								Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
Conductio	Evaluation of	Headquart	Pre-	Progress of	$\sqrt{}$				GH¢			MoEn	PC, GNPC,
n of the	bids	ers	qualificat	work					150,0				EPA, AG,
maiden of	completed	-	ion						00				MoF
the maiden	Negotiation		complete			$\sqrt{}$							
Bid Round	with		d										
for the	successful												
Award of	applicant												
Exploratio	commenced	-											
n License	Petroleum						$\sqrt{}$						
	Agreement												
	laid before												
	Parliament												
	for												
	ratification												

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indica	tive B	udget	Implemen Agencies	nting
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
Developm ent of an Implemen tation Strategy	Stakeholder engagement across the country undertaken	Headquar ters	Draft Implement ation Strategy developed	Progress of work	$\sqrt{}$							MoEn	PC, GNGC, GNPC, EC, NPA,
to the	Comments	1	1			$\sqrt{}$			1				
National	incorporated												
Energy	into draft												
Policy	strategy	4						-	_				
	Final Strategy						$\sqrt{}$						
	approved	-						$\sqrt{}$	-				
	Strategy document							٧V					
	published												
Developm	Consultant	Headquar	TOR for	Progress of	$\sqrt{}$				GH¢		GH¢	MoEn	PC, GNGC,
ent of Gas	procured to	ters	consultant	work					150,0		250,000		GNPC, AG
Act	develop Act		developed						00		GOGIG		
	First draft of					$\sqrt{}$							
	Gas Act												
	produced	4							-				
	Final draft of						$\sqrt{}$						
	Gas Act produced												
	Gas Act laid	1						$\sqrt{}$	1				
	before							v v					
	Parliament												

Projects	Activities (Operations)	Location	Baseli ne	Output indicators	Quar	terly ti	me sch	edule	Indica	tive B	udget	Implement Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
Developme nt of Secondary	Desk studies completed to develop roadmap	Headquart ers	Conce ptual discus		$\sqrt{}$				GHØ 350,0 00			MoEn	EC, NPA, PC, GNPC, GNGC
Gas Market for Tema Industrial	Consultant procured to lead survey	-	sions initiate d			$\sqrt{}$							
Area	Consultation with stakeholders finalized	-					$\sqrt{}$						
	Market study report submitted to Ministry	-						$\sqrt{}$					
Coordinati on of the	Review of PoD finalized	Headquart ers	submit	Progress of work	$\sqrt{}$						HESS and Partners	HESS	PC, GNPC, MoEn
preparatio n and	PoD approved by Minister	-	ted to Minist			$\sqrt{}$							
submissio n of Hess PDO.	Kick-off meeting held to pave way for procuring LLIs		er				$\sqrt{}$						
	Contracts awarded for LLI and FPSO							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	me sch	iedule	Indica	ative	Budget	Impleme Agencies	-
					1st	2nd	3rd	4th	GoG	IG F	Donors & others	Lead	Collab
National LPG Promotion Policy - NLPGPP	Stakeholder consultation meetings held on Implementation Plan Review of New LPG Pricing Formula Review of New LPG License Framework Review of Monthly and Quarterly Implementation Reports	Headoffic e, Ministry of Energy	National LPG Promotion Policy approved by Cabinet for implementati on Draft Implementati on Plan developed Committee constituted to oversee the implementati on of the Cylinder Recirculation Model (CRM)	National LPG Promotion Policy Implementati on Plan Reports on Implementati on of Policy					GH¢ 55,5 00.0 0				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	terly ti	me sch	ledule	Indica	ative	Budget	Implemen Agencies	ıting
					1st	2nd	3rd	4th	GoG	IG F	Donors & others	Lead	Collab
	Review of Draft					$\sqrt{}$							
	Nationwide												
	Sensitization												
	Programme												
	(Communication												
	Strategy)												
	developed												
	Review of New												
	LPG Guidelines												
	and Codes of												
	practice												
	Review of Draft												
	Regulations												
	developed												
	Review of												
	Monthly and												
	Quarterly												
	Implementation												
	Reports												

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	terly ti	me sch	nedule	Indica	ative B	udget	Implement Agencies	ıting
					1st	2nd	3rd	4th	GoG	IGF	Donors & others	Lead	Collab
	Meetings with						$\sqrt{}$						
	Parliamentary												
	Sub-Committee												
	for Energy and												
	Mines/Subsidiar												
	y Legislation												
	held												
	Review of												
	Monthly and												
	Quarterly												
	Implementation												
	Reports Review of Risk					+		$\sqrt{}$	-				
	Mitigation Plan							vv					
	developed												
	Review of												
	Monthly and												
	Quarterly												
	Implementation												
	Reports												

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Impleme Agencies	•
					1st	2nd	3rd	4th	GoG	IGF	Donors or others	Lead	Collab.
National Fuel Quality Policy	Off-Site Committee meetings to revise draft Policy organized Revised Draft Policy submitted Stakeholder consultation forum organized Draft Policy finalized and submitted to Cabinet Implementati on Plan developed	Headoffice , Ministry of Energy	Committe e on Fuel Quality Policy formed Existing Documen ts gathered from various stakehold ers and reviewed Draft National Fuel Quality Policy develope d	National Fuel Quality Policy (finalized) National Fuel Quality Policy Implementa tion Plan National Fuel Quality Monitoring Plan		$\sqrt{}$			GH⊄ 42,60 0.00				

National Fuel Quality Standards revised (if necessary) Monitoring Plan developedNational Fuel Quality Standards revised (if necessary) Monitoring Plan developedImplementati on plan rolled out Monitoring of Implementati on undertaken Review of DraftImplementati on on undertaken Review of DraftImplementati on outImplementati on on undertaken Review of DraftImplementati on outImplementati on outImplementati on outImplementati on outImplementati on outImplementati on outImplementati on outImplementati on outImplementati on outImplementati on outImplementati on outImplementati on outImplementati on outImplementati on outImplementati on outImplementati on outImplementati on outImplementati on outImplementati out </th <th>Projects</th> <th>Activities (Operations)</th> <th>Location</th> <th>Baseline</th> <th>Output indicators</th> <th>Quar</th> <th>terly tir</th> <th>ne sche</th> <th>edule</th> <th>Indica</th> <th>ative B</th> <th>udget</th> <th>Implemen Agencies</th> <th>ting</th>	Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	ative B	udget	Implemen Agencies	ting
Quality Standards revised (if necessary) Monitoring Plan developed Implementati on Plan rolled out Monitoring of Implementati on undertaken Review of Draft						1st	2nd	3rd	4th	GoG	IGF		Lead	Collab.
Standards revised (if necessary) Monitoring Plan developed Implementati on Plan rolled out Monitoring of Implementati on undertaken Review of Draft		National Fuel						$\sqrt{}$						
revised (if necessary) Monitoring Plan developed Implementati on Plan rolled out Monitoring of Implementati on undertaken Review of Draft		Quality												
necessary) Monitoring Plan Implementati developed Implementati on Plan rolled Implementati out Implementati Monitoring of Implementati Implementati Implementati out Implementati On Implementati Implementati Implementati On Implementati Implementati Implementati On Implementati Implementati Implementati On Implementati Implementati Implementati														
Monitoring Plan developed Implementati Implementati √√ on Plan rolled √√ out √√ Monitoring of Implementati on undertaken Review of Draft		-												
Plan developed \checkmark Implementati on Plan rolled out Monitoring of Implementati on undertaken Review of Draft \checkmark														
developedImplementati on Plan rolled outMonitoring of Implementati on undertaken Review of Draft		_												
Implementati √√ on Plan rolled √√ out Monitoring of Implementati														
on Plan rolled out intervention intervention intervention Monitoring of intervention intervention intervention intervention on intervention intervention intervention intervention intervention on intervention intervention intervention intervention intervention undertaken intervention intervention intervention intervention intervention Draft intervention intervention intervention intervention intervention		*	-							_				
out Monitoring of Implementati on undertaken Review of DraftImplementation <td></td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>$\sqrt{}$</td> <td></td> <td></td> <td></td> <td></td> <td></td>		-							$\sqrt{}$					
Monitoring of Implementati Implementati Implementati on Implementati undertaken Implementati Review of Implementati Draft Implementati														
Implementati on on undertaken Review of on Draft on														
on undertaken Review of Draft														
undertaken Review of Draft		-												
Review of Draft														
Draft														
Degulations		Regulations												

Projects	Activities (Operations)	Locat ion	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donors or others	Lead	Collab.
Petroleum Products Strategic Stock Policy - PPSSP	Concept Paper developed Committee to develop PPSSP constituted Draft Policy developed	Head office, Minis try of Energ y	Draft Structure for the Petroleum Products Strategic Stocks Policy developed Committee set to redefine the	Petroleu m Products Strategic Stocks Policy Role of BOST redefined Strategic					GHØ5 2,600 .00				
	Stakeholder consultative meetings and forum held Study trips to model countries conducted		role of BOST Desktop research on countries that have implemented such policy Documents	Stocks Levy reactivated		$\sqrt{}$							
	Policy submitted to Cabinet for approval Drafting of PPSSP Regulations started		gathered for development of Concept Paper										

Projects	Activities (Operations)	Locat ion	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Donors or others	Lead	Collab.
	Review of PPSSP Regulations PPSSP finalized							$\sqrt{}$					
Petroleum Products Trade Policy	Committee to develop Policy constituted Draft Policy developed Meeting with stakeholders held		EMT Directives on illicit petroleum products trade Revised Import/Export Guidelines Documents gathered for development of Concept Paper	National Petroleum Products Trade Policy Petroleum Products Trade Regulations	$\sqrt{}$				GH¢4 2,600 .00				

Projects	Activities (Operations)	Locat ion	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	ative B	udget	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Donors or others	Lead	Collab.
	Meetings with Deputy Minister (for views of EMT) Policy finalized and submitted to Cabinet Visits to neighbouring countries with Trade Agreements (if needed)					$\sqrt{}$							
	Review of draft						$\sqrt{}$						
	Regulations Review of draft Regulations							$\sqrt{}$					

Projects	Activities (Operations)	Locat ion	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	ative B	udget	Implement Agencies	nting
					1st	2nd	3rd	4th	GoG	IGF	Donors or others	Lead	Collab.
PETROLEU M DOWNSTR EAM FINANCIN G POLICY - PDFP	"Working Team for Petroleum Downstream Financing Policy formed 6 meetings to begin drafting of policy Engage stakeholders	Head office, Minis try of Energ y	Issues regarding financing for petroleum downstream identified Initial discussions with stakeholders on financing challenges Desktop studies on policies in other countries	Petroleum Downstrea m Financing Policy Implementa tion Plan	$\sqrt{}$								

Projects	Activities (Operations)	Locat ion	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Donors or others	Lead	Collab.
	Organize Forum to solicit input of stakeholder Revise draft policy 6 Committee meetings held Submit Final Draft of policy to Cabinet Monitor development of Regulations and Implementati on						√√	√√	-				

***** DIRECTORATE: PETROLEUM DOWNSTREAM - 2018 WORK PLAN

Adopted Policy Objectives: Promote petroleum exploration

Projects	Activities (Operations)	Location	Baselin e	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive Bu	dget	Impleme Agencies	nting
					1st	2nd	3rd	4th	GoG	IGF	Donors or others	Lead	Collab.
Monitoring The Implement ation Of Downstrea m Policies	Annual PDM and UPPF Monitoring report for 2017 submitted Review of the Deregulation and Zonalization Policies Report on the review of implementation of the Policy on Premix Fuel	Headoffi ce, Ministry of Energy	"Zonali zation Policy revised Policy on Petrole um Prices Liberali zation develop ed and in implem entatio n	"Monitoring report on Zonalization Policy submitted Monitoring report on Deregulation Policy submitted Report on Review of Petroleum Product Pricing Policy Report on Review of Policy on Premix Fuel Monitoring Reports of PDM and UPPF for 2017 submitted					GH¢ 33,20 0.00				

Projects	Activities (Operations)	Locatio n	Baseline	Output indicato	Quar	terly ti	ne sche	edule	Indica	ative B	udget	Implemen Agencies	nting
				rs	1st	2nd	3rd	4th	GoG	IGF	Donors or others	Lead	Collab.
	Stakeholder forum on Deregulation and Zonalization Policies review organized Recommendations of PDM review submitted to the Minister Quarter 1 PDM and UPPF Monitoring report submitted Report on the review of implementation of the Policy on Premix Fuel submitted to					$\sqrt{}$							

Recommendations		rs								Agencies	
Recommendations			1st	2nd	3rd	4th	GoG	IGF	Donors or others	Lead	Collab.
Recommendations					$\sqrt{}$						
of Deregulation											
and Zonalization											
Policies review											
submitted to the											
Minister											
Quarter 2 PDM											
and UPPF											
Monitoring report											
submitted	_						_				
Deregulation and						$\sqrt{}$					
Zonalization											
Policies review											
completed											
Quarter 3 PDM											
and UPPF								1			
Monitoring report submitted								1			

Projects	Activities (Operations)	Locatio n	Baseline	Output indicato	Quar	terly tii	ne sche	edule	Indica	tive B	udget	Impleme Agencies	
				rs	1st	2nd	3rd	4th	GoG	IGF	Donors or others	Lead	Collab.
PETROLEU M DOWNSTR EAM INFRASTR	Committee to develop Policy constituted Draft Policy developed	Headoffi ce, Ministry of Energy	Desktop research on countries that have	Petroleu m Downstr eam Infrastru	$\sqrt{}$				GH¢ 52,60 0.00				
UCTURE TARIFF POLICY - PDITP	Stakeholder consultation meeting and forum held		implemen ted such policy Documen	cture Tariff Policy Tariff		$\sqrt{}$							
	Policy submitted to Cabinet for approval Review of PDITP Regulations started		ts gathered for developm ent of Concept	Setting Regulatio ns									
	Review of PDITP Regulations		Paper					$\sqrt{}$					

Projects	Activities (Operations)	Locatio n	Baseline	Output indicato	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	iting
				rs	1st	2nd	3rd	4th	GoG	IGF	Donors or others	Lead	Collab.
Downstream Infrastructur e Master Plan (DIMP)	Draft Concept Paper (and Terms of Reference) developed Committee constituted	Headoffi ce, Ministry of Energy	Draft Downstre am Infrastruc ture Paper develope	Downstr eam Infrastru cture Master Plan	$\sqrt{}$				GH¢ 31,40 0.00				
	Committee meetings held to draft Plan		d by NPA			$\sqrt{}$							
	Draft Master Plan developed Stakeholder consultations undertaken						$\sqrt{}$						
	Stakeholder Forum organized Master Plan finalized							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	ative B	udget	Implement Agencies	•
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
Developme nt Of Downstrea	Meetings with investors and stakeholders	Headoffice , Ministry of Energy	Meetings held with develope	Reports on 12" Pipeline and New	$\sqrt{}$								
m Infrastruct ure	Meetings with investors and stakeholders		rs of 12" pipeline	Offshore Mooring Facility		$\sqrt{}$							
	Meetings with investors and stakeholders Monitor progress of development						$\sqrt{}$		-				
	Meetings with investors and stakeholders Monitor progress of development							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	ative B	udget	Implement Agencies	nting
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
Petroleum Hub Master Plan Implement ation	Study trips to Malaysia, Singapore and Netherlands undertaken Master Plan finalized and submitted	Head office, Ministry of Energy	Draft Petroleu m Infrastru cture Master Plan for the Develop	Downstrea m Infrastructu re Master plan Implementa tion Timeline Implementa	$\sqrt{}$								
	Stakeholder engagements Revise Master Plan with inputs from stakeholders Commissioni ng of Preparatory Studies		ment of Ghana as a Petroleu m Hub develope d	tion Report		$\sqrt{}$							

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
	Establishment of Petroleum Hub Development Authority or Development Company Begin Promotional activities						$\sqrt{}$						
	undertaken Site identification, pre-feasibility and various assessment studies Promotional activities undertaken							$\sqrt{}$	-				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indicative	Budge	et	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
Rural LPG Promotion Program	Remaining 25,000 pieces of 6 kg cylinders from 2017 distribution schedule distributed RLPGPP Schedule, Distribution Matrix and Budget for 2018 revised Implementati on Team reconstituted to focus on RLPGPP activities	Headoffice , Ministry of Energy	145,500 LPG cylinders, cook stoves and related accessori es distribute d in at the end of 2017 Procure ment of 25,000 LPG cylinders and related accessori es underwa	100,000 LPG cylinders and cook stoves distributed					GH⊄16,34 7,500.00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
	Monitoring												
	and												
	Evaluation												
	exercises												
	conducted in												
	2 districts												
	Reconnaissan												
	ce Survey												
	conducted in												
	12 districts												
	Distribution												
	of 25,000 LPG					$\sqrt{}$							
	cylinders and												
	cook stoves in												
	12 districts												
	completed												
	1												
	Implementati												
	on Team												
	meeting held												

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	nting
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
RURAL LPG PROMOTI ON PROGRAM	Remaining 25,000 pieces of 6 kg cylinders from 2017 distribution schedule distributed RLPGPP Schedule, Distribution Matrix and Budget for 2018 revised Implementati on Team reconstituted to focus on RLPGPP activities	Headoffice , Ministry of Energy	145,500 LPG cylinders, cook stoves and related accessori es distribute d in at the end of 2017 Procure ment of 25,000 LPG cylinders and related accessori es underwa	100,000 LPG cylinders and cook stoves distributed	$\sqrt{}$				GHØ 16,34 7,500 .00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tin	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
	Monitoring and Evaluation exercises conducted in 2 districts												
	Reconnaissanc e Survey conducted in 12 districts Distribution of 25,000 LPG cylinders and cook stoves in 12 districts completed					$\sqrt{}$							
	1 Implementatio n Team meeting held												

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
	Monitoring												
	and												
	Evaluation												
	exercises												
	conducted in												
	3 districts												
	Reconnaissan												
	ce Survey												
	conducted in												
	12 districts						$\sqrt{}$						
	Distribution												
	of 25,000 LPG												
	cylinders and												
	cook stoves in												
	12 districts												
	completed									1			
	1												
	Implementati									1			
	on Team									1			
	meeting held									1			

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
	Monitoring												
	and												
	Evaluation												
	exercises												
	conducted in												
	3 districts												
	Reconnaissan												
	ce Survey												
	conducted in							$\sqrt{}$					
	10 districts												
	Distribution												
	of 25,000 LPG												
	cylinders and												
	cook stoves in												
	10 districts												
	completed												
	1												
	Implementati												
	on Team												
	meeting held												

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
Monitoring Of Activities Of Downstrea m Agencies/C ompanies	Introductory letters and introductory meetings with downstream sector agencies/comp anies done First quarter meetings with sector agencies/comp anies held	Headoffi ce, Ministry of Energy Headoffi ce, Ministry of Energy	Staff assigned to serve as liaison officers to each of the downstre am agencies and companie s	agencies/co mpanies The Ministry's supervisory	$\sqrt{}$				GH¢ 55,50 0.00				
	Second quarter meetings with sector agencies/comp anies held First quarter monitoring and progress report submitted to Chief Director Visit to facilities and project sites conducted			downstrea m industry strengthene d		$\sqrt{}$							

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab
	Third quarter meetings with sector												
	agencies/comp anies held												
	Second quarter monitoring and						$\sqrt{}$						
	progress report submitted to												
	Chief Director Visit to facilities												
	and project sites conducted												
	Fourth quarter meetings with												
	sector agencies/comp												
	anies held Third quarter												
	monitoring and							$\sqrt{}$					
	progress report submitted to												
	Chief Director Visit to facilities												
	and project sites conducted												

Projects	Activities (Operations)	Locati on	Baselin e	Output indicato rs	Quar	terly tin	ne sche	dule	Indica	tive B	udget	Implement Agencies	ting
				15	1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
TRAINING AND CAPACITY BUILDING	Training needs assessment conducted Short courses for staff identified 2 members of staff participate in Argus Africa LPG Conference 3 staff attached to downstream agencies or companies a month each. 3 staff attend short courses	Headof fice, Minist ry of Energy	Six (6) staff receive d short course training s on various areas	Staff capacity Develope d All 10 staff of the directora te capacity build	$\sqrt{}$								
	Participation in two (2) workshops and seminars. 3 members of staff trained (Short Courses) 3 staff attached to downstream agencies or companies a month each					$\sqrt{}$							

Projects	Activities (Operations)	Locati on	Baselin e	Output indicato rs	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
				15	1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
	3 members of staff trained (Short Courses)2 members of staff participate in LPG Summit3 staff attached to downstream agencies or companies a month each3 members of staff trained (Short Courses)2 members of staff participate in Global LPG Conference 3 staff attached to						√√	<u></u> √√				Leau	
	downstream agencies or companies a month each												

Projects	Activities (Operations)	Loca tion	Baseline	Output indicato	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implement Agencies	nting
				rs	1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
NATIONAL LPG PROMOTI ON POLICY - NLPGPP	Stakeholder consultation meetings held on Implementatio n Plan Review of New LPG Pricing Formula Review of New LPG License Framework Review of Monthly and Quarterly Implementatio n Reports	Head offic e, Mini stry of Ener gy	National LPG Promotion Policy approved by Cabinet for implementation Draft Implementation Plan developed Committee constituted to oversee the implementation of the Cylinder Recirculation Model (CRM)	National LPG Promotio n Policy Impleme ntation Plan Reports on Impleme ntation of Policy	$\sqrt{}$				GHØ 55,50 0.00				

Projects	Activities (Operations)	Loca tion	Baseline	Output indicato rs	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	nting
				15	1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
	Review of Draft												
	Nationwide												
	Sensitization												
	Programme												
	(Communicatio												
	n Strategy)												
	developed												
	Review of New												
	LPG Guidelines												
	and Codes of					, ,							
	practice					$\sqrt{}$							
	Review of Draft												
	Regulations												
	developed												
	Review of												
	Monthly and												
	Quarterly												
	Implementatio												
	n Reports												

Projects	Activities (Operations)	Loca tion	Baseline	Output indicato	Quar	terly tir	ne sche	dule	Indica	tive B	udget	Impleme Agencies	-
				rs	1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
	Meetings with												
	Parliamentary												
	Sub-Committee												
	for Energy and												
	Mines/Subsidia												
	ry Legislation						$\sqrt{}$						
	held												
	Review of												
	Monthly and												
	Quarterly												
	Implementatio												
	n Reports	_							_				
	Review of Risk												
	Mitigation Plan												
	developed							, ,					
	Review of							$\sqrt{}$					
	Monthly and												
	Quarterly												
	Implementatio												
	n Reports												

Projects	Activities (Operations)	Loca tion	Baseline	Output indicato	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	iting
				rs	1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
NATIONA	Off-Site	Head	Committee on	National									
L FUEL	Committee	offic	Fuel Quality	Fuel									
QUALITY	meetings to	е,	Policy formed	Quality									
POLICY	revise draft	Mini	Existing	Policy	$\sqrt{}$								
	Policy organized	stry	Documents	(finalized									
	Revised Draft	of	gathered from)									
	Policy submitted	Ener	various	National									
	Stakeholder	gy	stakeholders	Fuel									
	consultation		and reviewed	Quality									
	forum organized		Draft National	Policy									
	Draft Policy		Fuel Quality	Impleme									
	finalized and		Policy	ntation		$\sqrt{}$							
	submitted to		developed	Plan					GHØ				
	Cabinet			National					42,60				
	Implementation			Fuel					0.00				
	Plan developed			Quality					_				
	National Fuel			Monitori									
	Quality			ng Plan									
	Standards						$\sqrt{}$						
	revised (if												
	necessary)												
	Monitoring Plan												
	developed												1

Projects	Activities (Operations)	Loca tion	Baseline	Output indicato rs	Quar	terly tii	ne sche	edule	Indica	itive B	udget	Implement Agencies	nting
				15	1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab
	Implementatio n Plan rolled out Monitoring of							$\sqrt{}$					
	Implementatio n undertaken Review of Draft							vv					
	Review of Draft Regulations												

Projects	Activities (Operations)	Loca tion	Baseline	Output indicato rs	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	nting
				15	1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
Petroleum	Concept Paper	Head	Draft Structure	Petrol									
Products	developed	offic	for the	eum									
Strategic	Committee to	е,	Petroleum	Products	$\sqrt{}$								
Stock	develop PPSSP	Mini	Products	Strategic									
Policy -	constituted	stry	Strategic Stocks	Stocks									
PPSSP	Draft Policy	of	Policy	Policy									
	developed	Ener	developed	Role of									
	Stakeholder	gy	Committee set	BOST									
	consultative		to redefine the	redefine									
	meetings and		role of BOST	d									
	forum held		Desktop	Strategic					GHØ				
	Study trips to		research on	Stocks		$\sqrt{}$			52,60				
	model countries		countries that	Levy					0.00				
	conducted		have	reactivat									
	Policy submitted		implemented	ed									
	to Cabinet for		such policy										
	approval		Documents										
	Drafting of		gathered for				$\sqrt{}$						
	PPSSP		development of										
	Regulations		Concept Paper										
	started	-							4				
	Review of PPSSP												
	Regulations							$\sqrt{}$					
	PPSSP finalized												

Projects	Activities (Operations)	Location	Baseline	Output indicato rs	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Impleme Agencies	•
				15	1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab
Petroleum Products Trade Policy	Committee to develop Policy constituted Draft Policy developed Meeting with stakeholders held	Headoffice , Ministry of Energy	EMT Directives on illicit petroleum products trade Revised Import/Ex	National Petroleu m Products Trade Policy Petroleu m	$\sqrt{}$								
	Meetings with Deputy Minister (for views of EMT) Policy finalized and submitted to Cabinet Visits to neighboring countries with Trade Agreements (if needed) Review of draft Regulations Review of draft		port Guidelines Document s gathered for developme nt of Concept Paper	Products Trade Regulatio ns		$\sqrt{}$	$\sqrt{}$		GH¢ 55,50 0.00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
Petroleum	Working Team	Headoffi	Issues	Petroleum									
Downstre	for Petroleum	ce,	regarding	Downstrea									
am	Downstream	Ministry	financing	m Financing									
Financing	Financing Policy	of	for	Policy									
Policy -	formed	Energy	petroleu	Implementa									
PDFP	6 meetings to		m	tion Plan	$\sqrt{}$								
	begin drafting of		downstre										
	policy		am										
	Engage		identified										
	stakeholders	-	Initial										
	Organize Forum		discussio										
	to solicit input		ns with						GH¢4				
	of stakeholder		stakehold						2,600				
	Revise draft		ers on						.00				
	policy		financing			$\sqrt{}$							
	6 Committee		challenge										
	meetings held	-	S										
	Submit Final		Desktop				, ,						
	Draft of policy to		studies				$\sqrt{}$						
	Cabinet	4	on 						_				
	Monitor		policies					, ,					
	development of		in other					$\sqrt{}$					
	Regulations and		countries										
	Implementation						1		1				

Projects	Activities (Operations)	Location	Baseli ne	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
Monitoring The Implement ation Of Downstrea m Policies	Annual PDM and UPPF Monitoring report for 2017 submitted Review of the Deregulation and Zonalization Policies Report on the review of implementation of the Policy on Premix Fuel	Headoffic e, Ministry of Energy	Zonali zation Policy revise d Policy on Petrole um Prices Liberal ization develo ped and in imple mentat ion	n Policy submitted Report on Review of Petroleum Product Pricing Policy					GH¢ 33,20 0.00				

Projects	Activities (Operations)	Location	Baseli ne	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemer Agencies	iting
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
	Stakeholder												
	forum on												
	Deregulation and												
	Zonalization												
	Policies review												
	organized												
	Recommendation												
	s of PDM review												
	submitted to the												
	Minister												
	Quarter 1 PDM					$\sqrt{}$							
	and UPPF												
	Monitoring												
	report submitted												
	Report on the												
	review of												
	implementation												
	of the Policy on												
	Premix Fuel												
	submitted to												
	Minister						1						

Projects	Activities (Operations)	Location	Baseli ne	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
	Recommendation												
	s of Deregulation												
	and Zonalization												
	Policies review												
	submitted to the						$\sqrt{}$						
	Minister												
	Quarter 2 PDM												
	and UPPF												
	Monitoring												
	report submitted								_				
	Deregulation and												
	Zonalization												
	Policies review												
	completed							$\sqrt{}$					
	Quarter 3 PDM												
	and UPPF												
	Monitoring												
	report submitted					1		1					

Projects	Activities (Operations)	Location	Basel ine	Output indicators	Quar	terly tii	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
Petroleum Downstrea m Infrastruct ure Tariff	Committee to develop Policy constituted Draft Policy developed	Headoffice , Ministry of Energy	Deskt op resea rch on	Petroleum Downstrea m Infrastructu re Tariff	$\sqrt{}$								
Policy - PDITP	Stakeholder consultation meeting and forum held		count ries that have	Policy Tariff Setting Regulations		$\sqrt{}$							
	Policy submitted to Cabinet for approval Review of PDITP Regulations started		imple mente d such policy Docu				$\sqrt{}$		GH¢ 52,60 0.00				
	Review of PDITP Regulations		ments gathe red for devel opme nt of					$\sqrt{}$					
			nt of Conce pt Paper										

Projects	Activities (Operations)	Location	Baseli ne	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
Downstrea	Draft Concept	Headoffic	Draft	Downstrea	$\sqrt{}$								
m	Paper (and	е,	Downs	m									
Infrastruct	Terms of	Ministry	tream	Infrastructu									
ure Master	Reference)	of Energy	Infrast	re Master									
Plan	developed		ructur	Plan									
(DIMP)	Committee		e										
	constituted	-	Paper						_				
	Committee		develo			$\sqrt{}$							
	meetings held to		ped by						CUI				
	draft Plan	-	NPA				11		GH¢ 31,40				
	Draft Master Plan						$\sqrt{}$		0.00				
	developed Stakeholder								0.00				
	consultations												
	undertaken												
	Stakeholder	-						$\sqrt{}$	1				
	Forum organized							v v					
	Master Plan												
	finalized												

Projects	Activities (Operations)	Location	Baseli ne	Output indicators	Quar	terly tir	ne sche	edule	Indica	ative B	udget	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
Developme	Meetings with	Headoffice,	Meetin	Reports on	$\sqrt{}$								
nt Of	investors and	Ministry of	gs held	12" Pipeline									
Downstrea	stakeholders	Energy	with	and New									
m	Meetings with		develo	Offshore		$\sqrt{}$							
Infrastruct	investors and		pers of	Mooring									
ure	stakeholders		12"	Facility									
	Meetings with		pipelin				$\sqrt{}$						
	investors and		е										
	stakeholders												
	Monitor												
	progress of												
	development												
	Meetings with							$\sqrt{}$					
	investors and												
	stakeholders												
	Monitor												
	progress of												
	development												

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	ative B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donors and others	Lead	Collab.
Petroleum Hub Master Plan Implement ation	Study trips to Malaysia, Singapore and Netherlands undertaken Master Plan finalized and submitted	Headoffice , Ministry of Energy	Draft Petroleu m Infrastru cture Master Plan for the Develop	Downstrea m Infrastructu re Master plan Implementa tion Timeline Implementa	$\sqrt{}$								
	Stakeholder engagements Revise Master Plan with inputs from stakeholders Commissioni ng of Preparatory Studies		ment of Ghana as a Petroleu m Hub develope d	tion Report		$\sqrt{}$							

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donors and others	Lead	Collab.
	Establishment												
	of Petroleum												
	Hub												
	Development									1			
	Authority or						$\sqrt{}$			1			
	Development												
	Company												
	Begin												
	Promotional												
	activities												
	undertaken	-							_				
	Site												
	identification,												
	pre-feasibility												
	and various									1			
	assessment							$\sqrt{}$		1			
	studies									1			
	Promotional									1			
	activities												
	undertaken												

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donors and others	Lead	Collab.
Rural LPG Promotio n Program	Remaining 25,000 pieces of 6 kg cylinders from 2017 distribution schedule distributed RLPGPP Schedule, Distribution Matrix and Budget for 2018 revised Implementati on Team reconstituted to focus on RLPGPP activities	Headoffice, Ministry of Energy	145,500 LPG cylinders, cook stoves and related accessori es distribute d in at the end of 2017 Procure ment of 25,000 LPG cylinders and related accessori es underwa y	100,000 LPG cylinders and cook stoves distributed	$\sqrt{}$				GH¢ 16,34 7,500 .00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donors and others	Lead	Collab.
	Monitoring and Evaluation												
	exercises												
	conducted in 2 districts												
	Reconnaissan ce Survey												
	conducted in 12 districts												
	Distribution					$\sqrt{}$							
	of 25,000 LPG cylinders and												
	cook stoves in												
	12 districts completed												
	1												
	Implementati on Team												
	meeting held												

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donors and others	Lead	Collab.
	Monitoring												
	and												
	Evaluation												
	exercises												
	conducted in												
	3 districts												
	Reconnaissan												
	ce Survey												
	conducted in												
	12 districts						$\sqrt{}$						
	Distribution												
	of 25,000 LPG												
	cylinders and												
	cook stoves in												
	12 districts												
	completed												
	1									1			
	Implementati												
	on Team									1			
	meeting held									1			

OOWNSTREAM 2019 Annual Work Plan

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donors and others	Lead	Collab.
	Monitoring												
	and												
	Evaluation												
	exercises												
	conducted in												
	3 districts												
	Reconnaissan												
	ce Survey												
	conducted in												
	10 districts												
	Distribution												
	of 25,000 LPG							$\sqrt{}$					
	cylinders and												
	cook stoves in												
	10 districts												
	completed												
	1												
	Implementati												
	on Team												
	meeting held												

Projects	Activities (Operations)	Locati on	Baselin e	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemer Agencies	nting
					1st	2nd	3rd	4th	GoG	IGF	Donors and others	Lead	Collab.
Monitoring of Activities of Downstrea m Agencies/ Companies	Introductory letters and introductory meetings with downstream sector agencies/companie s done First quarter meetings with sector agencies/companie s held Second quarter meetings with sector agencies/companie s held First quarter monitoring and progress report submitted to Chief Director Visit to facilities and project sites	Headof fice, Minist ry of Energy	Staff assigne d to serve as liaison officers to each of the downst ream agencie s and compan ies	Quarterly progress reports on downstrea m activities of sector agencies/co mpanies The Ministry's supervisory role over the downstrea m industry strengthene d					GH¢ 55,50 0.00				

Projects	Activities (Operations)	Location	Baseline	Output indicato rs	Quar	rterly t	ime scł	nedule	Indica	tive B	udget	Implemen Agencies	ting
				15	1st	2nd	3rd	4th	GoG	IGF	Donors and others	Lead	Collab.
	Third quarter												
	meetings with sector												
	agencies/companies												
	held												
	Second quarter												
	monitoring and						$\sqrt{}$						
	progress report												
	submitted to Chief												
	Director												
	Visit to facilities and												
	project sites												
	conducted	_						-					
	Fourth quarter												
	meetings with sector												
	agencies/companies												
	held												
	Third quarter							$\sqrt{}$					
	monitoring and							٧V					
	progress report submitted to Chief												
	Director												
	Visit to facilities and												
	project sites												
	conducted												

Projects	Activities (Operations)	Location	Baseline	Output indicator	Quar schee	terly t lule	ime		Indicativ	e Bud	get	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donors and others	Lead	Collab.
TRAINING AND CAPACITY BUILDING	Training needs assessment conducted Short courses for staff identified 2 members of staff participate in Argus Africa LPG Conference 3 staff attached to downstream agencies or companies a month each. 3 staff attend short courses Participation in two (2) workshops and seminars. 3 members of staff trained (Short Courses) 3 staff attached to downstream agencies or companies a month each	Headoffic e, Ministry of Energy	Six (6) staff received short course trainings on various areas	Staff capacity Develope d All 10 staff of the directorat e capacity build		$\sqrt{}$			GH⊄10 1,900.0 0				

Projects	Activities (Operations)	Locati on	Baselin e	Output indicators	Quar	terly tii	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donors and others	Lead	Collab.
	3 members of staff trained (Short Courses) 2 members of staff participate in LPG Summit 3 staff attached to downstream agencies or companies a month each						$\sqrt{}$						
	3 members of staff trained (Short Courses) 2 members of staff participate in Global LPG Conference 3 staff attached to downstream agencies or companies a month each							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicat ors	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Impleme Agencies	nting
				013	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
National	Stakeholder	Headoffice	National LPG	Nation	$\sqrt{}$								
LPG	consultation	, Ministry	Promotion	al LPG									
Promotion	meetings held	of Energy	Policy	Promot									
Policy -	on		approved by	ion									
NLPGPP	Implementati		Cabinet for	Policy									
	on Plan		implementatio	Imple					GHØ5				
	Review of		n	mentat					5,500				
	New LPG		Draft	ion					.00				
	Pricing		Implementati	Plan									
	Formula		on Plan	Report									
	Review of		developed	s on									
	New LPG		Committee	Imple									
	License		constituted to	mentat									
	Framework		oversee the	ion of									
	Review of		implementatio	Policy									
	Monthly and		n of the										
	Quarterly		Cylinder										
	Implementati		Recirculation										
	on Reports		Model (CRM)					1					

Projects	Activities (Operations)	Location	Baseline	Output indicat	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	nting
				ors	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
	Review of												
	Draft												
	Nationwide												
	Sensitization												
	Programme												
	(Communicati												
	on Strategy)												
	developed												
	Review of												
	New LPG												
	Guidelines					$\sqrt{}$							
	and Codes of												
	practice												
	Review of												
	Draft												
	Regulations												
	developed												
	Review of												
	Monthly and												
	Quarterly												
	Implementati												
	on Reports												

Projects	Activities (Operations)	Location	Baseline	Output indicat ors		terly ti	ne sche	edule	Indica	tive B	udget	Implemer Agencies	iting
				013	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
	Meetings with												
	Parliamentary												
	Sub-												
	Committee												
	for Energy												
	and									1			
	Mines/Subsid									1			
	iary						$\sqrt{}$			1			
	Legislation												
	held												
	Review of												
	Monthly and												
	Quarterly												
	Implementati												
	on Reports	-											
	Review of									1			
	Risk									1			
	Mitigation									1			
	Plan									1			
	developed							$\sqrt{}$		1			
	Review of									1			
	Monthly and									1			
	Quarterly									1			
	Implementati									1			
	on Reports												

Projects	Activities (Operations)	Location	Baseline	Output indicat	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Impleme Agencies	•
				ors	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
NATIONAL FUEL QUALITY POLICY	Off-Site Committee meetings to revise draft Policy organized Revised Draft Policy submitted	Headoffice , Ministry of Energy	Committee on Fuel Quality Policy formed Existing Documents gathered from various stakeholders and reviewed	Nation al Fuel Quality Policy (finaliz ed) Nation al Fuel Quality	$\sqrt{}$								
	Stakeholder consultation forum organized Draft Policy finalized and submitted to Cabinet Implementati on Plan developed		Draft National Fuel Quality Policy developed	Policy Imple mentat ion Plan Nation al Fuel Quality Monito ring Plan		$\sqrt{}$			GH¢ 42,60 0.00				

Projects	Activities (Operations)	Location	Baseline	Output indicat	Quar	terly tir	ne sche	edule	Indica	ative B	udget	Impleme Agencies	
				ors	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
	National Fuel Quality Standards revised (if necessary) Monitoring Plan developed						$\sqrt{}$						
	Implementati on Plan rolled out Monitoring of Implementati on undertaken Review of Draft Regulations							$\sqrt{}$					

Products Strategic Stock Policy - PPSSP	Concept Paper developed Committee to develop PPSSP constituted Draft Policy developed	Headof fice, Ministr y of Energy	Draft Structure for the Petroleum Products	ors Petrole	$\frac{1 \text{st}}{\sqrt{}}$	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
Products Strategic Stock Policy - PPSSP	developed Committee to develop PPSSP constituted Draft Policy	fice, Ministr y of	Structure for the Petroleum		$\sqrt{}$			1					
Strategic Stock Policy - PPSSP	Committee to develop PPSSP constituted Draft Policy	Ministr y of	the Petroleum				1						
Stock Policy - PPSSP	develop PPSSP constituted Draft Policy	y of											
Policy - PPSSP	constituted Draft Policy	-	Droducto	um									
PPSSP	Draft Policy	Energy	FIGUUCIS	Produc									
	b		Strategic	ts									
	dovalanad		Stocks Policy	Strateg									
	developed		developed	ic									
	Stakeholder		Committee set	Stocks		$\sqrt{}$							
	consultative		to redefine the	Policy									
	meetings and		role of BOST	Role of									
	forum held		Desktop	BOST									
	Study trips to		research on	redefin					GH¢				
	model countries		countries that	ed					52,60				
	conducted	-	have	Strateg			, ,		0.00				
	Policy submitted		implemented	ic			$\sqrt{}$						
	to Cabinet for		such policy	Stocks									
	approval		Documents	Levy									
	Drafting of PPSSP		gathered for	reactiv ated									
	Regulations		development	ateu									
	started	-	of Concept Dapor					11	-				
	Review of PPSSP		Paper					$\sqrt{}$					
	Regulations PPSSP finalized												

Projects	Activities (Operations)	Locati on	Baseline	Output indicat ors	Quar	terly tir	ne sche	dule	Indicati	ve Budg	et	Implemen Agencies	nting
				015	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
PETROLEU M PRODUCTS TRADE POLICY	Committee to develop Policy constituted Draft Policy developed Meeting with stakeholders held Meetings with	Headof fice, Ministr y of Energ	EMT Directives on illicit petroleum products trade Revised Import/Expor	"Nation al Petrole um Produc ts Trade Policy	$\sqrt{}$				GH¢55				
	Deputy Minister (for views of EMT) Policy finalized and submitted to Cabinet Visits to neighboring countries with Trade Agreements (if needed) Review of draft Regulations Review of draft		t Guidelines Documents gathered for development of Concept Paper	Petrole um Produc ts Trade Regulat ions		√√	√√		,500.0 0				

Projects	Activities (Operations)	Locatio n	Baseline	Output indicat ors	Quar	terly tir	ne sche	dule	Indica	tive B	udget	Impleme Agencies	
				013	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
Petroleum Downstrea m Financing Policy - PDFP	Working Team for Petroleum Downstream Financing Policy formed 6 meetings to begin drafting of policy Engage	Ministry of Energy	Issues regarding financing for petroleum downstream identified Initial discussions with	Petrole um Downs tream Financi ng Policy Imple mentat	$\sqrt{}$								
	stakeholders Organize Forum to solicit input of stakeholder Revise draft policy 6 Committee meetings held		stakeholders on financing challenges Desktop studies on policies in other countries	ion Plan		$\sqrt{}$			GH⊄ 42,60 0.00				
	Submit Final Draft of policy to Cabinet Monitor development of Regulations and						$\sqrt{}$	$\sqrt{}$	-				

Projects	Activities (Operations)	Loca tion	Baselin e	Output indicators	Quart sched	terly tii lule	me		Indic	ative l	Budget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
Monitori ng The Impleme ntation of Downstr eam Policies	Annual PDM and UPPF Monitoring report for 2017 submitted Review of the Deregulation and Zonalization Policies Report on the review of implementation of the Policy on Premix Fuel	Head offic e, Mini stry of Ener gy	"Zonaliz ation Policy revised Policy on Petroleu m Prices Liberaliz ation	Monitoring report on Zonalization Policy submitted Monitoring report on Deregulation Policy submitted Report on	$\sqrt{}$								
	Stakeholder forum on Deregulation and Zonalization Policies review organized Recommendations of PDM review submitted to the Minister Quarter 1 PDM and UPPF Monitoring report submitted Report on the review of implementation of the Policy on Premix Fuel submitted to Minister		develope d and in impleme ntation	Review of Petroleum Product Pricing Policy Report on Review of Policy on Premix Fuel Monitoring Reports of PDM and UPPF for 2017 submitted		$\sqrt{}$			GH¢ 33,2 00.0 0				

Projects	Activities (Operations)	Locatio n	Baselin e	Output indicat	Qua	rterly t	ime scł	nedule	Indica	ative B	udget	Implemer Agencies	nting
				ors	1st	2nd	3rd	4th	GoG	IGF	DONOR	Lead	Collab.
	Recommendations of												
	Deregulation and												
	Zonalization Policies						$\sqrt{}$						
	review submitted to												
	the Minister												
	Quarter 2 PDM and												
	UPPF Monitoring												
	report submitted												
	Deregulation and												
	Zonalization Policies												
	review completed												
	Quarter 3 PDM and							$\sqrt{}$					
	UPPF Monitoring												
	report submitted												

	(Operations)	Location	Baseline	Output indicat ors	Quai	terly t	ime scł	nedule	Indica	tive B	udget	Impleme Agencies	0
				015	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
M DOWNSTR EAM INFRASTR UCTURE FARIFF POLICY - PDITP	Committee to develop Policy constituted Draft Policy developed Stakeholder consultation meeting and forum held Policy submitted to Cabinet for approval Review of PDITP Regulations started Review of PDITP	Headoffice , Ministry of Energy	Desktop research on countries that have implement ed such policy Document s gathered for developme nt of Concept Paper	Petrole um Downst ream Infrastr ucture Tariff Policy Tariff Setting Regulat ions		√√	√√		GHS 52,60 0.00				

Projects	Activities (Operations)	Locatio n	Baselin e	Output indicat ors	Qua	rterly t	ime scł	nedule	Indicative	Budge	et	Implemen Agencies	ting
				015	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
Downstream Infrastructure Master Plan (DIMP)	Draft Concept Paper (and Terms of Reference) developed Committee constituted	Headoffi ce, Ministry of Energy	Draft Downstr eam Infrastru cture Paper	Downst ream Infrastr ucture Master Plan	$\sqrt{}$				GHS 31,400.00				
	Committee meetings held to draft Plan		develope d by NPA			$\sqrt{}$							
	Draft Master Plan developed Stakeholder consultations undertaken						$\sqrt{}$						
	Stakeholder Forum organized Master Plan finalized							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Qua	rterly t	ime scl	nedule	Indica	ative B	udget	Implement	ting Agencies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
Developme	Meetings with	Headoffice	Meetings	Reports on	$\sqrt{}$								
nt Of	investors and	, Ministry	held with	12"									
Downstrea	stakeholders	of Energy	developers	Pipeline									
m	Meetings with		of 12"	and New		$\sqrt{}$							
Infrastruct	investors and		pipeline	Offshore									
ure	stakeholders			Mooring									
	Meetings with			Facility			$\sqrt{}$						
	investors and												
	stakeholders												
	Monitor												
	progress of												
	development												
	Meetings with							$\sqrt{}$					
	investors and												
	stakeholders												
	Monitor												
	progress of												
	development												

Projects	Activities (Operations)	Locatio n	Baselin e	Output indicat ors	Qua	rterly t	ime scł	nedule	Indica	tive B	udget	Impleme Agencies	0
				015	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
Petroleu	Study trips to Malaysia,	Headoffi	Draft	Downst	$\sqrt{}$								
m Hub	Singapore and	ce,	Petroleu	ream									
Master	Netherlands undertaken	Ministry	m	Infrastr									
Plan	Master Plan finalized	of	Infrastru	ucture									
Impleme	and submitted	Energy	cture	Master									
ntation	Stakeholder		Master	plan		$\sqrt{}$							
	engagements		Plan for	Implem									
	Revise Master Plan with		the	entatio									
	inputs from		Develop	n									
	stakeholders		ment of	Timelin									
	Commissioning of		Ghana as	е									
	Preparatory Studies		а	Implem									
	Establishment of		Petroleu	entatio			$\sqrt{}$						
	Petroleum Hub		m Hub	n									
	Development Authority		develope	Report									
	or Development		d										
	Company												
	Begin Promotional												
	activities undertaken												
	Site identification, pre-							$\sqrt{}$					
	feasibility and various												
	assessment studies												
	Promotional activities												
	undertaken							1					

Projects	Activities (Operations)	Location	Baseline	Output indicat	Quar	terly tir	ne sche	edule	Indicative	Budge	et	Implemen Agencies	nting
				ors	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
Rural LPG Promotion Program	Remaining 25,000 pieces of 6 kg cylinders from 2017 distribution schedule distributed RLPGPP Schedule, Distribution Matrix and Budget for 2018 revised Implementati on Team reconstituted to focus on RLPGPP activities	Headoffice , Ministry of Energy	145,500 LPG cylinders, cook stoves and related accessories distributed in at the end of 2017 Procurement of 25,000 LPG cylinders and related accessories underway	100,000 LPG cylinder s and cook stoves distribu ted	$\sqrt{}$				GH⊄ 16,347,50 0.00				

Projects	Activities (Operations)	Location	Baseline	Output indicato	Quar	terly tin	ne sche	edule	Indica	tive B	udget	Impleme Agencies	•
				rs	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
	Monitoring												
	and												
	Evaluation												
	exercises												
	conducted in												
	2 districts												
	Reconnaissan												
	ce Survey												
	conducted in					$\sqrt{}$							
	12 districts												
	Distribution												
	of 25,000 LPG												
	cylinders and												
	cook stoves in												
	12 districts												
	completed												
	1												
	Implementati									1			
	on Team									1			
	meeting held									1			

Projects	Activities (Operations)	Location	Baseline	Output indicato	Quar	terly tin	ne sche	edule	Indica	itive Bu	dget	Impleme Agencies	nting
				rs	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
	Monitoring						$\sqrt{}$						
	and												
	Evaluation												
	exercises												
	conducted in												
	3 districts												
	Reconnaissan												
	ce Survey												
	conducted in												
	12 districts												
	Distribution												
	of 25,000 LPG												
	cylinders and												
	cook stoves in												
	12 districts												
	completed												
	1												
	Implementati												
	on Team												
	meeting held												

Projects	Activities (Operations)	Location	Baseline	Output indicato	Quar	terly tin	ne sche	edule	Indica	tive B	udget	Impleme Agencies	-
				rs	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
	Monitoring							$\sqrt{}$					
	and												
	Evaluation												
	exercises												
	conducted in												
	3 districts												
	Reconnaissan												
	ce Survey												
	conducted in												
	10 districts												
	Distribution												
	of 25,000 LPG												
	cylinders and												
	cook stoves in												
	10 districts												
	completed												
	1												
	Implementati												
	on Team												
	meeting held							1					

Projects	Activities (Operations)	Locati on	Baseline	Output indicato	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Impleme Agencies	nting
				rs	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
Monitoring of Activities of Downstrea m Agencies/ Companies	Introductory letters and introductory meetings with downstream sector agencies/compan ies done First quarter meetings with sector agencies/compan ies held	Headof fice, Ministr y of Energy	Staff assigned to serve as liaison officers to each of the downstream agencies and companies	Quarterl y progress reports on downstre am activities of sector agencies /compan ies The	$\sqrt{}$				GH¢ 55,50 0.00				
	Second quarter meetings with sector agencies/compan ies held First quarter monitoring and progress report submitted to Chief Director Visit to facilities and project sites conducted			Ministry' s supervis ory role over the downstre am industry strength ened		$\sqrt{}$							

Projects	Activities (Operations)	Locati on	Baseline	Output indicato	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
				rs	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
	Third quarter												
	meetings with												
	sector												
	agencies/compan												
	ies held												
	Second quarter						$\sqrt{}$						
	monitoring and												
	progress report												
	submitted to												
	Chief Director												
	Visit to facilities												
	and project sites												
	conducted												
	Fourth quarter												
	meetings with												
	sector												
	agencies/compan												
	ies held												
	Third quarter												
	monitoring and							$\sqrt{}$					
	progress report												
	submitted to												
	Chief Director												
	Visit to facilities												
	and project sites												
	conducted					1	1						

Projects	Activities (Operations)	Locati on	Baseline	Output indicato	Quar	terly tir	ne sche	edule	Indicative	Budget		Implem Agencie	0
				rs	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
TRAINING	Introductory	Headof	Staff	"Quarterl									
AND	letters and	fice,	assigned to	у									
CAPACITY	introductory	Ministr	serve as	progress									
BUILDING	meetings with	y of	liaison	reports									
	downstream	Energy	officers to	on									
	sector		each of the	downstre	$\sqrt{}$								
	agencies/compan		downstream	am									
	ies done		agencies	activities									
	First quarter		and	of sector									
	meetings with		companies	agencies									
	sector			/compan									
	agencies/compan			ies									
	ies held	-		The					GHØ				
	Second quarter			Ministry'					55,500.00				
	meetings with			S									
	sector			supervis									
	agencies/compan			ory role									
	ies held			over the		$\sqrt{}$							
	First quarter			downstre									
	monitoring and			am									
	progress report			industry									
	submitted to			strength									
	Chief Director			ened									
	Visit to facilities												
	and project sites												
	conducted												

Projects	Activities (Operations)	Locati on	Baseline	Output indicato rs	Quar	terly tir	ne sche	edule	Indicativ	e Budge	et	Implemen Agencies	ting
				15	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
	Third quarter meetings with sector agencies/compan ies held Second quarter monitoring and progress report submitted to Chief Director Visit to facilities and project sites						$\sqrt{}$						
	conductedFourth quartermeetings withsectoragencies/companies heldThird quartermonitoring andprogress reportsubmitted toChief DirectorVisit to facilitiesand project sitesconducted							$\sqrt{}$					

Projects	Activities (Operations)	Locatio n	Baseli ne	Output indicato rs	Quar	terly tin	ne sche	dule	Indicative	e Budge	t	Implement Agencies	ting
				15	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
TRAINING AND CAPACITY BUILDING	Training needs assessment conducted Short courses for staff identified 2 members of staff participate in Argus Africa LPG Conference 3 staff attached to downstream agencies or companies a month each. 3 staff attend short courses Participation in two (2) workshops and seminars. 3 members of staff trained (Short Courses) 3 staff attached to downstream agencies or companies a month each	Headoff ice, Ministr y of Energy	Six (6) staff receive d short course trainin gs on variou s areas	"Staff capacity Develope d All 10 staff of the directora te capacity build "		√√			GH⊄ 101,900. 00				

Projects	Activities (Operations)	Locatio n	Baseli ne	Output indicato	Quar	terly tir	ne sche	dule	Indicati	ve Budg	get	Implemen Agencies	ting
				rs	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
	 3 members of staff trained (Short Courses) 2 members of staff participate in LPG Summit 3 staff attached to downstream agencies or companies a month each 						$\sqrt{}$						
	3 members of staff trained (Short Courses) 2 members of staff participate in Global LPG Conference 3 staff attached to downstream agencies or companies a month each							$\sqrt{}$					

Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	Quar sched	terly ti lule	me		Indica	tive Bu	dget	Imple: Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
National LPG Promotion Policy - NLPGPP	Stakeholder consultation meetings held on Implementation Plan Review of New LPG Pricing Formula Review of New LPG License Framework Review of Monthly and Quarterly Implementation Reports	Headoff ice, Ministr y of Energy	National LPG Promotion Policy approved by Cabinet for implementa tion Draft	National LPG Promotion Policy Implement ation Plan Reports on Implement ation of Policy	$\sqrt{}$				GHØ				•
	Review of Draft Nationwide Sensitization Programme (Communication Strategy) developed Review of New LPG Guidelines and Codes of practice Review of Draft Regulations developed Review of Monthly and Quarterly Implementation Reports		Implement ation Plan developed Committee constituted to oversee the implementa tion of the Cylinder Recirculatio n Model (CRM)			$\sqrt{}$			55,50 0.00				

Projects	Activities (Operations)	Locat ion	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indica	tive Bu	dget	Implei Agenci	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Meetings with												•
	Parliamentary Sub-												
	Committee for Energy												
	and Mines/Subsidiary												
	Legislation held						$\sqrt{}$						
	Review of Monthly and												
	Quarterly												
	Implementation Reports												
	Review of Risk Mitigation												
	Plan developed												
	Review of Monthly and												
	Quarterly							$\sqrt{}$					
	Implementation Reports												

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly t	ime scl	nedule	Indicati	ve Bu	dget	Impler Agenci	nenting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
National Fuel Quality Policy	Off-Site Committee meetings to revise draft Policy organized Revised Draft Policy submitted	Headoffice , Ministry of Energy	Committee on Fuel Quality Policy formed	National Fuel Quality Policy (finalized) National	$\sqrt{}$				GHØ42 ,600.0 0				
	Stakeholder consultation forum organized Draft Policy finalized and submitted to Cabinet Implementation Plan developed		Existing Document s gathered from various stakeholde	Fuel Quality Policy Implement ation Plan National Fuel Quality		$\sqrt{}$							
	National Fuel Quality Standards revised (if necessary) Monitoring Plan developed		rs and reviewed Draft National Fuel	Monitoring Plan			$\sqrt{}$						
	Implementation Plan rolled out Monitoring of Implementation undertaken Review of Draft Regulations		Quality Policy developed					1					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indica	tive Bu	dget	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Petroleum Products Strategic Stock Policy - PPSSP	Concept Paper developed Committee to develop PPSSP constituted Draft Policy developed Stakeholder consultative meetings and forum held Study trips to model countries conducted Policy submitted to Cabinet for approval Drafting of PPSSP	Headoffice, Ministry of Energy	Draft Structure for the Petroleum Products Strategic Stocks Policy developed Committee set to redefine the role of BOST Desktop research on countries that have implemented such policy	Petroleum Products Strategic Stocks Policy Role of BOST redefined Strategic Stocks Levy reactivated		~~	√√		GH⊄ 52,60 0.00				
	Regulations started Review of PPSSP Regulations PPSSP finalized		Documents gathered for development of Concept Paper					$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indica	tive Bu	ldget	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Petroleum Products Trade Policy	Committee to develop Policy constituted Draft Policy developed Meeting with stakeholders held Meetings with Deputy Minister (for views of EMT) Policy finalized and submitted to Cabinet Visits to neighboring countries with Trade Agreements (if needed) Review of draft Regulations Review of draft Regulations	Headoffice , Ministry of Energy	EMT Directives on illicit petroleum products trade Revised Import/Exp ort Guidelines Documents gathered for developmen t of Concept Paper	"National Petroleum Products Trade Policy Petroleum Products Trade Regulations "		√√	√√		GH¢ 55,50 0.00				

Projects	Activities (Operations)	Locat ion	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indica	tive Bu	dget	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Petroleum Downstream Financing Policy - PDFP	Working Team for Petroleum Downstream Financing Policy formed 6 meetings to begin drafting of policy Engage stakeholdersOrganize Forum to solicit input of stakeholder Revise draft policy 6 Committee meetings heldSubmit Final Draft of policy to CabinetMonitor development of Regulations and	Head office, Minist ry of Energ y	Issues regarding financing for petroleum downstream identified Initial discussions with stakeholders on financing challenges Desktop studies on policies in other countries	Petroleum Downstrea m Financing Policy Implement ation Plan		√√	√√	√√	GH⊄ 42,60 0.00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indica	tive Bu	dget	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
PETROLEUM PRODUCTS STRATEGIC STOCK POLICY - PPSSP	Concept Paper developed Committee to develop PPSSP constituted Draft Policy developed Stakeholder consultative meetings and forum held Study trips to model countries conducted Policy submitted to Cabinet for approval Drafting of PPSSP Regulations started Review of PPSSP Regulations PPSSP finalized	Headoffice , Ministry of Energy	Draft Structure for the Petroleum Products Strategic Stocks Policy developed Committee set to redefine the role of BOST Desktop research on countries that have implemented such policy Documents gathered for development of Concept Paper	Petroleum Products Strategic Stocks Policy Role of BOST redefined Strategic Stocks Levy reactivated			√√		GH¢ 52,60 0.00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sched	terly ti lule	me		Indica	tive Bu	dget	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Petroleum Products Trade Policy	Committee to develop Policy constituted Draft Policy developed Meeting with stakeholders held Meetings with Deputy Minister (for views of EMT) Policy finalized and submitted to Cabinet Visits to neighboring countries with Trade Agreements (if needed) Review of draft Regulations Review of draft Regulations	Headoffice , Ministry of Energy	EMT Directives on illicit petroleum products trade Revised Import/Expo rt Guidelines Documents gathered for development of Concept Paper	National Petroleum Products Trade Policy Petroleum Products Trade Regulations		√√	√√		GH¢ 55,50 0.00				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sched	terly tii lule	me		Indica	tive Bu	dget	Impler Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Petroleum Downstrea m Financing Policy - PDFP	Working Team for Petroleum Downstream Financing Policy formed 6 meetings to begin drafting of policy Engage stakeholders Organize Forum to solicit input of stakeholder	Headoffice, Ministry of Energy	Issues regarding financing for petroleum downstream identified Initial discussions with stakeholders on financing challenges	Petroleum Downstream Financing Policy Implementat ion Plan	√ √				GH⊄ 42,60				•
	Revise draft policy 6 Committee meetings held Submit Final Draft		Desktop studies on policies in other				$\sqrt{}$		0.00				
	of policy to Cabinet Monitor development of Regulations and Implementation		countries					$\sqrt{}$	-				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar schee	terly ti dule	ime		Indicat	tive Bu	dget	Impler Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
MONITORI	Annual PDM and UPPF	Headoffice,	Zonalizati	Monitoring	$\sqrt{}$				GHS				
NG THE	Monitoring report for	Ministry of	on Policy	report on					33,20				
IMPLEME	2017 submitted	Energy	revised	Zonalization					0.00				
NTATION	Review of the		Policy on	Policy									
OF	Deregulation and		Petroleu	submitted									
DOWNSTR	Zonalization Policies		m Prices	Monitoring									
EAM	Report on the review of		Liberaliza	report on									
POLICIES	implementation of the		tion	Deregulation									
	Policy on Premix Fuel		develope	Policy									
	Stakeholder forum on		d and in	submitted		$\sqrt{}$							
	Deregulation and		implemen	Report on									
	Zonalization Policies		tation	Review of									
	review organized			Petroleum									
	Recommendations of			Product									
	PDM review submitted			Pricing Policy									
	to the Minister			Report on									
	Quarter 1 PDM and			Review of									
	UPPF Monitoring report			Policy on									
	submitted			Premix Fuel									
	Report on the review of			Monitoring									
	implementation of the			Reports of									
	Policy on Premix Fuel			PDM and									
	submitted to Minister			UPPF for 2017									
				submitted									

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indica	tive Bu	dget	Impler Agenci	nenting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Recommendations of						$\sqrt{}$						
	Deregulation and												
	Zonalization Policies												
	review submitted to the												
	Minister												
	Quarter 2 PDM and UPPF												
	Monitoring report												
	submitted												
	Deregulation and							$\sqrt{}$					
	Zonalization Policies												
	review completed												
	Quarter 3 PDM and UPPF												
	Monitoring report												
	submitted												

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar schee	terly t dule	ime		Indicat	tive Bu	dget	Impler Agenci	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donot	Lead	Collab
Petroleum	Committee to develop	Headoffice,	Desktop	Petroleum	$\sqrt{}$								
Downstrea	Policy constituted	Ministry of	research	Downstream									
m	Draft Policy developed	Energy	on	Infrastructure									
Infrastruct	Stakeholder		countries	Tariff Policy		$\sqrt{}$							
ure Tariff	consultation meeting		that have	Tariff Setting									
Policy -	and forum held		implemen	Regulations									
PDITP	Policy submitted to		ted such				$\sqrt{}$						
	Cabinet for approval		policy						GH¢				
	Review of PDITP		Documen						31,40				
	Regulations started		ts						0.00				
	Review of PDITP		gathered					$\sqrt{}$					
	Regulations		for										
			developm										
			ent of										
			Concept										
			Paper										

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar schee	terly t lule	ime		Indica	tive Bu	dget	Impler Agenci	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Development	Meetings with	Headoffice	Meetings	Reports on	$\sqrt{}$								
Of	investors and	, Ministry	held with	12" Pipeline									
Downstream	stakeholders	of Energy	developer	and New									
Infrastructure	Meetings with		s of 12"	Offshore		$\sqrt{}$							
	investors and		pipeline	Mooring									
	stakeholders			Facility									
	Meetings with						$\sqrt{}$						
	investors and												
	stakeholders												
	Monitor progress of												
	development												
	Meetings with							$\sqrt{}$					
	investors and												
	stakeholders												
	Monitor progress of												
	development									1			1

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indica	tive Bu	dget	Impler Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
Petroleum Hub Master Plan Implement	Study trips to Malaysia, Singapore and Netherlands undertaken Master Plan finalized and submitted	Headoffice , Ministry of Energy	Draft Petroleu m Infrastruc ture	Downstream Infrastructure Master plan Implementatio n Timeline	$\sqrt{}$								
ation	Stakeholder engagements Revise Master Plan with inputs from stakeholders Commissioning of Preparatory Studies		Master Plan for the Developm ent of Ghana as	Implementatio n Report		$\sqrt{}$							
	Establishment of Petroleum Hub Development Authority or Development Company Begin Promotional activities undertaken	-	a Petroleu m Hub develope d						-				
	Site identification, pre- feasibility and various assessment studies Promotional activities undertaken							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti dule	ime		Indicat	tive Bu	dget	Implei Agenci	nenting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Rural LPG	Remaining 25,000 pieces	Headoffic	145,500	100,000 LPG									
Promotion	of 6 kg cylinders from	е,	LPG	cylinders and									
Program	2017 distribution	Ministry	cylinders,	cook stoves									
	schedule distributed	of Energy	cook	distributed									
	RLPGPP Schedule,		stoves		$\sqrt{}$								
	Distribution Matrix and		and										
	Budget for 2018 revised		related										
	Implementation Team		accessori										
	reconstituted to focus on		es						GH¢				
	RLPGPP activities	_	distribute						16,34				
	Monitoring and		d in at the						7,500.				
	Evaluation exercises		end of						00				
	conducted in 2 districts		2017										
	Reconnaissance Survey		Procurem										
	conducted in 12 districts		ent of										
	Distribution of 25,000		25,000 LPG			11							
	LPG cylinders and cook stoves in 12 districts		cylinders			$\sqrt{}$							
	completed		and										
	1 Implementation Team		related										
	meeting held		accessori										
			es										
			underway										

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quai sche	rterly t dule	ime		Indica	tive Bu	dget	Impler Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Monitoring and												
	Evaluation exercises conducted in 3 districts												
	Reconnaissance Survey												
	conducted in 12 districts												
	Distribution of 25,000												
	LPG cylinders and cook						$\sqrt{}$						
	stoves in 12 districts						•••						
	completed												
	1 Implementation Team												
	meeting held												
	Monitoring and												
	Evaluation exercises												
	conducted in 3 districts												
	Reconnaissance Survey												
	conducted in 10 districts												
	Distribution of 25,000												
	LPG cylinders and cook							$\sqrt{}$					
	stoves in 10 districts												
	completed												
	1 Implementation Team												
	meeting held												

Project s	Activities (Operations)	Location	Base line	Output indicators	Quar	terly ti	me sch	edule	Indica	tive B	udget	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
Monitor ing Of Activiti es Of Downst ream Agencie s/ Compa nies	Introductory letters and introductory meetings with downstream sector agencies/companies done First quarter meetings with sector agencies/companies held Second quarter meetings with sector agencies/companies held First quarter monitoring and progress report submitted to Chief Director Visit to facilities and project sites conducted	Headoffice , Ministry of Energy	Staff assig ned to serve as liaiso n office rs to each of the down strea m agenc ies and comp anies	Quarterly progress reports on downstream activities of sector agencies/co mpanies The Ministry's supervisory role over the downstream industry strengthened		~~			GHS 55,50 0.00				

Projects	Activities (Operations)	Location	Baselin e	Output indicators	Quai sche	rterly t dule	ime		Indica	ative B	udget	Imple Agenc	menting ries
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
	Third quarter meetings						$\sqrt{}$						
	with sector												
	agencies/companies held												
	Second quarter												
	monitoring and progress												
	report submitted to Chief												
	Director												
	Visit to facilities and												
	project sites conducted	_							_				
	Fourth quarter meetings							$\sqrt{}$					
	with sector												
	agencies/companies held												
	Third quarter monitoring												
	and progress report												
	submitted to Chief												
	Director												
	Visit to facilities and												
	project sites conducted												

Proje cts	Activities (Operations)	Location	Baselin e	Output indicators	Quar	terly tin	ne sche	dule	Indicati	ve Bu	lget	Implement Agencies	•
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
TRAIN ING AND CAPA CITY BUILD ING	Training needs assessment conducted Short courses for staff identified 2 members of staff participate in Argus Africa LPG Conference 3 staff attached to downstream agencies or companies a month each. 3 staff attend short courses Participation in two (2) workshops and seminars. 3 members of staff trained (Short Courses) 3 staff attached to downstream agencies or companies a month each	Headoffice , Ministry of Energy	Six (6) staff received short course trainings on various areas	Staff capacity Developed All 10 staff of the directorat e capacity build		√√			GH¢ 101,90 0.00				

Projects	Activities (Operations)	Locati on	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	ative B	udget	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
	3 members of staff trained (Short Courses)2 members of staff participate in LPG Summit3 staff attached to downstream agencies or companies a month each3 members of staff trained (Short Courses)2 members of staff participate in Global LPG 							<u>√</u> √					

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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	terly tin	ne sche	dule	Indicati	ve Bu	dget	Implement Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
Health Safety Security and	inauguration of Multi Stakeholder Working Group	Nationwide	Draft Policy submitted to	Workshops to develop Incident Manageme	$\sqrt{}$				GHØ 80,000		(GOGIG) GHØ 200,000	Ministry of Energy	Ghana Oil and Gas for Inclusive
Environ ment Policy for the Energy	maiden meeting to discuss modalities of Working Group		managem ent for comments	nt Plan and Manageme nt System for the industry	$\sqrt{}$								Growth (GOGIG), MESTI, MELR, EPA, FID,
Sector	Conduct MSWG workshop to review documents on standards development, Management System and Incident Investigation Plan					$\sqrt{}$							GNPC, GNGC, PC, NPA, BOST, TOR, AOMCs, TOA, GCMC, CBOD, VRA, ECG, GOIL, GRiDCo, NEDCo

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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indicative	Budge	t	Implement Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
	Conduct MSWG												
	workshop to												
	develop first												
	draft on												
	standards						$\sqrt{}$						
	development,												
	Management												
	System and												
	Incident												
	Investigation												
	Plan	_											
	Workshop to												
	develop final												
	HSSE												
	Management												
	System and							$\sqrt{}$					
	Incident												
	management												
	Plan and												
	undertake site												
	visits												

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Adopted	Policy Objectives	: Minimize pot	ential envir	onmental impa	acts of c	oil and g	as indu	stry					
Project s	Activities (Operations)	Location	Baselin e	Output indicators	Quar	terly tii	ne sche	edule	Indica	ative B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
Sustaina bility and social inclusio n (SSI) policy	stakeholder comments reviewed in- house funding from GOGIG on development of policy obtain	Nationwide	A draft SSI policy for the oil and gas sector	Reviewed draft Policy with consultants inputs		$\sqrt{}$					(GOGIG), GHØ 300,000	Ministry of Energy	GOGIG, GNPC, GNGC, PC, NPA, BOST, TOR, TOA, GCMC, CBOD,
	draft policy reviewed by consultant in-house review	-					$\sqrt{}$	$\sqrt{\sqrt{1-1}}$			-		VRA, ECG, GRiDCo, NEDCo, GOIL
	of consultant's draft							vv					GOIL

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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indica	tive B	udget	Implement Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
National Climate Change - Smart Energy	Template for emission reduction strategies developed	Nationwid e	A draft proposal on the need for a national	National Climate Change- Smart Action Plan	$\sqrt{}$				GH¢ 80,00 0			Ministry of Energy	MESTI, EPA, GNPC, GNGC, PC NPA,
Action Plan	Letters requesting for GHG emission reduction strategies plans of various agencies sent		climate change policy- smart energy action plan for the	report		$\sqrt{}$							BOST, TOR, GCMC, VRA, ECG GRiDCo, GOIL, NEDCo
	Work plan for GHG emission reduction strategies of agencies collated and reviewed		energy industry.				$\sqrt{}$						

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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	ative B	udget	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
	Letters requesting for update reports on GHG emission reduction strategies sent						$\sqrt{}$						
	Update reports from agencies collated National Climate Change - Smart Action Plan printed and circulated	-						$\sqrt{}$	-				

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Projects	Activities (Operations)	Locati on	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indica	ative Bu	dget	Implement Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
Coordinate	inauguration of	Headq	Permane	Progress of							Jubilee	TGL	PC, GNPC
the Turret	Multi Stakeholder	uarter	nt Spread	work							Partners		MoEn
Remediati	Working Group	S	Mooring		$\sqrt{}$								
on Project	maiden meeting to		(PSM)										
(TRP)	discuss modalities		executed										
	of Working Group												
	Conduct MSWG												
	workshop to												
	review documents												
	on standards					$\sqrt{}$							
	development,												
	Management												
	System and												
	Incident												
	Investigation Plan	-							_				
	Conduct MSWG												
	workshop to												
	develop first draft												
	on standards						, ,						
	development,						$\sqrt{}$						
	Management												
	System and												
	Incident												
	Investigation Plan							1		1			

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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
	Conduct												
	MSWG												
	workshop to												
	develop first												
	draft on												
	standards												
	development,							$\sqrt{}$					
	Management												
	System and												
	Incident												
	Investigation												
	Plan												

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tin	ne sche	edule	Indica	tive B	udget	Implement Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
Sustainabil ity and social inclusion policy	Stakeholder workshop with project affected communities in the Western Region (GPP and ORF) and Northern and Upper East Region (BOST depots and Pipelines, Power substations)	Nationwid e	Reviewed draft Policy with consultan ts inputs	Draft Policy with stakeholder inputs					GHØ8 0,000		(GOGIG) GHØ 200,000	Ministry of Energy	Ghana Oil and Gas for Inclusive Growth (GOGIG), MESTI, MELR, EPA, FID, GNPC, GNGC, PC, NPA, BOST, TOR, AOMCs, TOA, GCMC, CBOD, VRA, ECG, GOIL, GRiDCo, NEDCo

UNIT: HEALTH SAFETY, SECURITY AND ENVIRONMENT - 2019 ANNUAL WORK PLAN

HSSE 2019 ANNUAL WORKPLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
	stakeholder												
	workshop												
	with project												
	affected												
	communities												
	in Greater					$\sqrt{}$							
	Accra Region												
	Conducted												
	(Petroleum												
	Products												
	Filling												
	stations)	-							_				
	Stakeholders												
	in some												
	selected												
	project												
	affected												
	communities						, ,						
	consulted						$\sqrt{}$						
	(Mini-grid												
	projects)	4						$\sqrt{}$	-	1			
	stakeholder							VV		1			
	workshop to review draft									1			
										1			
	policy									1			
	organized						1	1	1	1	1	1	1

Adopted P	olicy Objectives:	Promote pet	roleum expl	oration									
Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implement Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Loan (USD)	Lead	Collab.
National Climate Change - Smart Energy Action Plan	Letters requesting for update reports on GHG emission reduction strategies sent	Nationwide	2018 report on National Climate Change- Smart Action Plan	2019 report on National Climate Change- Smart Action Plan		$\sqrt{}$		$\sqrt{}$	GHØ 80,00 0			Ministry of Energy	MESTI, EPA, GNPC, GNGC, PC, NPA, BOST, TOR, AOMCs, TOA, GCMC, CBOD, VRA, ECG, GOIL
	Update reports from agencies collated					$\sqrt{}$		$\sqrt{}$					
	National Climate Change - Smart Action Plan printed and circulated					$\sqrt{}$		$\sqrt{}$					

UNIT: HEALTH SAFETY, SECURITY AND ENVIRONMENT - 2019 ANNUAL WORK PLAN

♦ UNIT: HEALTH SAFETY, SECURITY AND ENVIRONMENT - 2020 ANNUAL WORK PLAN

Projects	Activities (Operations)	Locati on	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implement Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
Minimize potential environ mental impacts of oil and	MSWG workshop on 2st draft guidelines for developing operating procedures	Nation wide	Identified required industry standard s for developm		$\sqrt{}$				GH⊄8 0,000		(GOGIG) GHØ 200,000	Ministry of Energy	MESTI, MELR, EPA, FID, GNPC, GNGC, PC NPA,
gas industry	Final draft guidelines on operation procedure		ent			$\sqrt{}$							BOST, TOR, AOMCs, TOA,
	Review of existing industry standards						$\sqrt{}$						GCMC, CBOD,
	strategy for disseminating adopted standards and guidelines for developing operating procedures in the							$\sqrt{}$					VRA, ECG GOIL
	industry Develop standards for the industry, based on number of standards required							$\sqrt{}$					

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Projects	Activities (Operations)	Locati on	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
Sustainabil ity and social inclusion	draft policy submitted to management for comments	Nation wide	Draft Policy with stakehold	reviewed CSR projects along	$\sqrt{}$						(GOGIG), GHØ200,000	Ministry of Energy	GNPC, GNGC, PC, NPA, BOST,
policy	management comments included in draft policy		er inputs	principles of policy		$\sqrt{}$							TOR, AOMCs, TOA, GCMC, CBOD,
	review of CSR projects alone principles of policy						$\sqrt{}$		-				VRA, ECG, GOIL
	review of CSR projects along principles of policy							$\sqrt{}$					

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Projects	Activities (Operations)	Locati on	Baseline	Output indicators	Quar	terly tin	ne sche	edule	Indica	tive B	udget	Implement Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
National Climate Change - Smart Energy Action	conduct a workshop to review work plan of agencies on GHG emission strategies	Nation wide	2019 report on National Climate Change- Smart	2020 report on National Climate Change- Smart Action Plan	$\sqrt{}$				80,00 0			Ministry of Energy	MESTI, EPA, GNPC, GNGC, PC, NPA, BOST,
Plan	letters requesting for update reports on GHG emission reduction strategies per review sent		Action Plan			$\sqrt{}$		$\sqrt{}$					TOR, AOMCs, TOA, GCMC, CBOD, VRA, ECG GOIL
	update reports from agencies collated					$\sqrt{}$		$\sqrt{}$					
	National Climate Change - Smart Action Plan printed and circulated					$\sqrt{}$		$\sqrt{}$	-				

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rojects	Activities (Operations)	Locatio n	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Implement Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
lealth afety ecurity nd Invironm nt Policy or the Inergy ector	Develop standards for the industry, based on number of standards required	Nation wide	Guidelines for developing Operating Procedures 1 standard developed	A Draft Health Safety Security and Environmen t Policy Document Submitted to Cabinet	$\sqrt{}$		$\sqrt{}$	$\sqrt{}$	80,00 0		(GOGIG) 200,000	Ministry of Energy	MESTI, MELR, EPA, FID, GNPC, GNGC, PC NPA, BOST, TOR, AOMCs, TOA, GCMC, CBOD, VRA, ECC GOIL

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Projects	Activities (Operations)	Location	Baseline	Output indicato rs	Quar	terly tir	ne sch	edule	Indica	ative B	udget	Implement Agencies	ting
				15	1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
Sustainabi lity and social inclusion policy	Review of CSR projects alone principles of policy	Nationwide	reviewed CSR projects along principles of policy	reviewed CSR projects along principle s of policy		$\sqrt{}$		$\sqrt{}$			(GOGIG) 100,000	Ministry of Energy	GNPC, GNGC, PC NPA, BOST, TOR, AOMCs, TOA, GCMC, CBOD, VRA, ECG GOIL

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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive B	udget	Impleme Agencies	0
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab.
National Climate Change - Smart Energy Action Plan	Letters requesting for update reports on GHG emission reduction strategies sent update reports from agencies collated National Climate Change - Smart Action Plan printed and circulated		2020 report on National Climate Change- Smart Action Plan	2021 report on National Climate Change- Smart Action Plan					20,00		Ministry of Energy		GNPC, GNGC, PC NPA, BOST, TOR, AOMCs, TOA, GCMC, CBOD, VRA, ECG GOIL

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	ative B	udget	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	GRIDCo Loan (USD)	Lead	Collab.
Upgrade Volta - Achimota -	Tower foundation works	Tema, Achimota , Mallam	10% of the works was completed	Percentage (%) completion	$\sqrt{}$	$\sqrt{}$					15M	GRIDCo	(AMANDI)
Mallam 161kV	Tower Erection	,	as at December	Number of towers	$\sqrt{}$	$\sqrt{}$							
Transmissi on Line	Stringing of lines		2017	Number of Kms			$\sqrt{}$						
	Electromecha nical installations			Percentage (%) completion				$\sqrt{}$					
	Commissionin g and testing			Line is fully in service									
Provide a temporary connection to Accra	Draw a detailed line survey, plan, profile and	Pokuase	Financing approved by the Board.	Project Plan available		$\sqrt{}$							
Bulk Supply Point	soil tests Tower foundation works		Project yet to commence	Percentage (%) completion			$\sqrt{}$	$\sqrt{}$			4.70M Sunon Asogli	GRIDCo	
	Erection of towers			Number of towers			$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	•terly ti dule	me		Indic	ative Bud	lget	Impleme Agencies	0
					1st	2nd	3rd	4th	GoG	IGF	GRIDCo Loan (USD)	Lead	Collab.
Upgrade the SCADA Phase I to Phase II	Upgrade from version 4 to version 9 and change hardware	Tema	Financing approved by the Board. Project yet to commence	Version 9 installed and fully functional					$\sqrt{}$	2.30M		GRIDCo	
Construction of 225 kV Bolgatanga - Ouagadougou Interconnection Project	Commissioni ng and testing	Corridor from Bolgatanga to the Ghana/Bur kina Faso border	Line completed awaiting final inspection and commissioni ng testing	Percentage (%) completion	$\sqrt{}$						36.3M (WB)	GRIDCo	AFD
330/225kV Bolgatanga II	Erection of towers	Nayania near	Civil Works is 85%	Number of towers	$\sqrt{}$	$\sqrt{}$							
Substation	Stringing of lines	Bolgatanga	complete whilst the	Number of Kms		$\sqrt{}$							
	Electromecha nical installations		electromech anical Works is	Percentage (%) completion			$\sqrt{}$					GRIDCo	
	Commissioni ng and testing		90% completed.	Substation is fully in service			$\sqrt{}$						

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar schee	terly ti dule	me		Indica	ative Buo	dget	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	GRIDCo Loan (USD)	Lead	Collab
Construction 330 kV	Erection of towers	Kumasi, Kintampo,	Overall completion	Number of towers	$\sqrt{}$	$\sqrt{}$						GRIDCo	
Kumasi - Bolgatanga	Stringing of lines	Tamale	was 80%. Installation		$\sqrt{}$	$\sqrt{}$							
Transmission Line Project	Electromecha nical installations	Bolgatang a	works was about 60% and supplies	Number of Kms % completion			$\sqrt{}$						
	Commissioni ng and testing		substantially completed.	Line is fully in service			$\sqrt{}$						
Construction of 330 kV	Erection of towers	Kumasi, Kintampo,	Overall completion	Number of towers	$\sqrt{}$	$\sqrt{}$					148.5M (AMANDI)	GRIDCo	
Kumasi, Гamale and -	Stringing of lines	Tamale	was 70% with civil works	Number of Kms	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						
Bolgatanga Substation	Electromecha nical installations	Bolgatang a	substantially completed and	Percentage (%) completion			$\sqrt{}$						
	Commissioni ng and testing		electromecha nical works in progress as at December 2017	Substation is fully in service			$\sqrt{}$						

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sched	terly tiı lule	me		Indic	ative E	Budget	Impleme Agencies	-
					1st	2nd	3rd	4th	GoG	IGF	GRIDCo Loan (USD)	Lead	Collab.
Constructio n of	Erection of towers	Western Region	Stringing is 60% complete	Number of towers	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					GRIDCo	
Aboadze – Prestea	Stringing of lines		Tower erection is 90% complete	Number of Kms	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						
330kV Transmissio n Line	Electromechan ical installations		Stringing of shield wire and OPGW 40%	Percentage (%) completion	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				29.7M (AMANDI)		
	Commissionin g and testing		complete (as at December 2017)	Line is fully in service				$\sqrt{}$					
Expansion of Aboadze	Design Review	Western Region	35% of casting of equipment	Reviewed Design	$\sqrt{}$		$\sqrt{}$					GRIDCo	
330kV Substation	Tower foundation works		foundation has been completed. Design review is	Number of towers		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			32M (AMANDI)		
	Erection of towers		70% complete (as at December 2017)	Number of Kms		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sche	edule	Indica	ative Buo	dget	Implen Agenci	es
					1st	2nd	3rd	4th	GoG	IGF	GRIDCo Loan (USD)	Lead	Collab.
Provide a cemporary connection	Tower foundation works	Pokuase	Financing approved by the	Percentage (%) completion	$\sqrt{}$	$\sqrt{}$						GRIDC o	
to Accra Bulk Supply	Erection of towers		Board. Project yet	Number of towers	$\sqrt{}$	$\sqrt{}$							
Point	Stringing of lines		to commence	Number of Kms			$\sqrt{}$						
	Electromechanical installations			Percentage (%) completion			$\sqrt{}$				4.70M (Sunon		
	Commission, test and energize line			Line is fully in service				$\sqrt{}$			Asogli)		
Upgrade the SCADA Phase I to Phase II	Upgrade to version 9 and change hardware	Tema	Current network manager is version 4	A new version compatible with the current Microsoft office		$\sqrt{}$	$\sqrt{}$			2.30M		GRIDC o	
Extension of Prestea-	Call bids, receive and evaluate	Prestea,		Receive Bids	$\sqrt{}$								
Ounkwa 30kV Extension .ine	Award contract and hold project kick start meeting	Dunkwa		Contract Awarded	$\sqrt{}$								

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indic	ative	Budget	Impleme Agencies	0
					1st	2nd	3rd	4th	GoG	IGF	GRIDCo Loan (USD)	Lead	Collab
2019/2020	Geotechnical investigation and sight survey	Prestea, Dunkwa		The site is ready for the inception of the project	$\sqrt{}$						22M (AMANDI)	GRIDCo	
	Design Review			Reviewed Design	$\sqrt{}$								
	Tower foundation works			Percentage (%) completion		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Erection of towers			Number of towers		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
Constructi on of the	Call bids, receive and evaluate	Kumasi		Receive Bids		$\sqrt{}$							
Kumasi I – Kumasi II Bulk Supply	Award contract and hold project kick start meeting			Contract Awarded		$\sqrt{}$							
Supply Point (K2BSP) 2019/2020	Geotechnical investigation and sight survey			The site is ready for the inception of the project		$\sqrt{}$					10M (NEWMONT)	GRIDCo	
	Design Review			Reviewed Design		$\sqrt{}$							
	Tower foundation works			Percentage (%) completion			$\sqrt{}$	$\sqrt{}$]		
	Erection of towers			Number of towers			$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	terly ti lule	me		Indic	ative E	Budget	Impleme Agencies	•
					1st	2nd	3rd	4th	GoG	IGF	GRIDCo Loan (USD)	Lead	Collab.
Buipe- Salaga	Call bids, receive and evaluate	Buipe, Salaga		Receive Bids		$\sqrt{}$							
Fransmissi	Award contract	0		Contract		$\sqrt{}$							
on Project	and hold project			Awarded									
	kick start												
19/20	meeting					-					_		
	Draw a detailed			Tower spotting		<i>, , ,</i>							
	line survey			and soil test		$\sqrt{}$							
	(tower spotting			completed for							30M	GRIDCo	
	and soil			the project to							(JICA)	GRIDCO	
	investigation) Geotechnical			start. The site is		$\sqrt{}$					UICAJ		
				ready for the		$\mathbf{v}\mathbf{v}$							
	investigation and sight survey			inception of the									
	signt survey			project									
	Tower			Percentage (%)			$\sqrt{}$	$\sqrt{}$			-		
	foundation works			completion			v v	vv					
	Erection of			Number of		1	$\sqrt{}$	$\sqrt{}$			-		
	towers			towers			l v v	v v					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indic	ative	Budget	Impleme Agencies	0
					1st	2nd	3rd	4th	GoG	IGF	GRIDCo Loan (USD)	Lead	Collab
Construction of the Kumasi I – Kumasi II	Tower foundation works	Kumasi		Percentage (%) completion	$\sqrt{}$	$\sqrt{}$						GRIDCo	
Bulk Supply Point (K2BSP)	Erection of towers	•		Number of towers	$\sqrt{}$	$\sqrt{}$					10M (NEWMONT)		
	Stringing lines			Number of Kms			$\sqrt{}$						
	Electromecha nical installations			Percentage (%) completion			$\sqrt{}$						
	Commissioni ng and testing			Project completed and ready for use				$\sqrt{}$					
Buipe-Salaga Transmission Project	Tower foundation works	Buipe Salaga		Percentage (%) completion	$\sqrt{}$	$\sqrt{}$							
	Erection of towers			Number of towers	$\sqrt{}$	$\sqrt{}$					30M (JICA)	GRIDCo	
	Stringing lines			Number of Kms			$\sqrt{}$						
	Electromecha nical installations			Percentage (%) completion			$\sqrt{}$						
	Commissioni ng and testing			Project completed and ready for use				$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quai sche	terly t dule	ime		Indic	ative	Budget	Impleme Agencies	-
					1st	2nd	3rd	4th	GoG	IGF	GRIDCo Loan (USD)	Lead	Collab
Extension of Prestea Dunkwa	Tower foundation works	Prestea, Dunkwa		Percentage (%) completion	$\sqrt{}$	$\sqrt{}$							
330kV Transmission	Erection of towers			Number of towers	$\sqrt{}$	$\sqrt{}$					22M		
Line	Stringing lines	-		Number of Kms			$\sqrt{}$				(AMANDI)	GRIDCo	
	Electromechanic al installations			Percentage (%) completion			$\sqrt{}$						
	Commissioning and testing			Project completed and ready for use				$\sqrt{}$					
Provide a connection to	Call bids, receive and evaluate			Bids Receive and evaluated		$\sqrt{}$							
Takoradi Second Bulk Supply Point 2020	Award contract and hold project kick start meeting			Contract Awarded and project inception meeting held for the commencement of the project		$\sqrt{}$					20M (AFREXIM Bank)	GRIDCo	
	Geotechnical investigation and sight survey			The site is ready for commencement		$\sqrt{}$							

GRIDCO – 2020 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti dule					Budget	Impleme Agencies	<u>s</u>
					1st	2nd	3rd	4th	GoG	IGF	GRIDCo Loan (USD)	Lead	Collab
	Design Review			The site is ready for commencement of the project		$\sqrt{}$					20M (AFREXIM Bank)	GRIDCo	
	Tower foundation works			Reviewed Design for the project		$\sqrt{}$							
	Erection of towers			Percentage (%) completion			$\sqrt{}$	$\sqrt{}$					
Kasoa Substation	Call bids, receive and evaluate			Bids Received and evaluated	$\sqrt{}$	$\sqrt{}$							
Project	Award contract and hold project kick start meeting			Contract Awarded	$\sqrt{}$	$\sqrt{}$							
	Geotechnical investigation and sight survey			The site is ready for the inception of the project	$\sqrt{}$	$\sqrt{}$					24.68M (Czech	GRIDCo	
	Design Review			Reviewed Design	$\sqrt{}$	$\sqrt{}$					Bank/CKD Energy)		
	Tower foundation works			Percentage (%) completion		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Erection of towers	•		Number of towers		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			-		

GRIDCO - 2021 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quan sche	rterly t dule	ime	-		ative	Budget	Imple ng Age	
					1st	2nd	3rd	4th	GoG	IGF	GRIDCo Loan (USD)	Lead	Coll ab.
Provide a connection to	Tower foundation works			Percentage (%) completion	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						
Takoradi Second Bulk	Erection of towers			Number of towers	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				20M (AFREXIM	GRID	
Supply Point	Stringing lines			Number of Kms				$\sqrt{}$			Bank)	Со	
	Electromechanical installations	-		Percentage (%) completion				$\sqrt{}$					
	Commissioning and testing			Project completed and ready for use				$\sqrt{}$	-				
Kasoa Substation	Tower foundation works			Percentage (%) completion	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						
Project	Erection of towers			Number of towers	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				24.68M (Czech	GRID Co	
	Stringing lines			Number of Kms				$\sqrt{}$			Bank/CKD		
	Electromechanical installations	1		Percentage (%) completion				$\sqrt{}$	1		Energy)		
	Commissioning and testing			Project completed and				$\sqrt{}$					
				ready for use									

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	erly ti lule	me		Indica	ative Budget		Implem Agencie	0
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Wind Power Project-1 (75MW) - VESTAS	Submit Draft Final ESIA to EPA for Comments on ESIA.	ANLOGA /SROGB E	Studies 1. Draft Feasibility report on	1. Issuance of Final ESIA to EPA by end of March 2018	$\sqrt{}$							VRA VESTA S	
	Contact GRIDCo for Grid Impact report.		WPP-1 submitted; 2. GRID	2. Complete Feasibility Study and submit	$\sqrt{}$								
	Follow up on Works Permit for WPP-1.		Study ongoing	Reports by end of June 2018.	$\sqrt{}$								
	Apply for Siting Permit for WPP1.		by GRIDCo 3. ESIA Report to be submitted to EPA for	 3. Obtain Siting Permit by end of March 2018 4. Complete land acquisition by end of June 	$\sqrt{}$					GHS9.39M (estimated project cost			
	Final of ESIA Reports from ESIA Consultant after EPA Comments.		approval	2018 5. Signing of JV Agreement by end of 2018		$\sqrt{}$				US\$190M)			
	Submit Final ESIA to REDP Owner's Engineer. Obtain Works	-				$\sqrt{}$						-	
Ot Pe	Permit from MMDA.					$\sqrt{}$							

Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indica	tive Buc	lget	Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Obtain Siting												
	Permit.					$\sqrt{}$							
	Submit VRA's												
	comments on						$\sqrt{}$						
	Feasibility												
	Study												
	Finalise												
	Feasibility						$\sqrt{}$						
	Study Report												
	from REDP												
	Owner's												
	Engineer.												
	Execute the												
	JV agreement												
	subject to							$\sqrt{}$					
	satisfactory												
	outcome of												
	the ESIA and												
	other studies.												
Wind Power	Submit Draft	WOKUM	1. Draft Feasibility	1. Issuance of Final					1				
Project-2	Final ESIA to	AGBE/	reports on WPP-2	ESIA to EPA by end				1					
(75MW):	EPA for	GOI	submitted;	of March 2018				1					
Elsewedy	Comments on	-	2. GRID Study	2. Complete				1					
-	ESIA.		ongoing by	Feasibility Study	$\sqrt{}$			1					
			GRIDCo	and submit Reports				1					
				and submit Reports				1					

*	VOLTA RIVER AUTHORITY	- 2018 ANNUAL WORK PLAN
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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sched	terly ti lule	me		Indica	tive Budget	;	Implemen Agencies	ting
					1st	2nd	3rd	4th	GoG	IGF	Don or	Lead	Collab
	Finalise Grid Impact report.		3. ESIA Report to be	end of June 2018.	$\sqrt{}$								
	Follow up on Works Permit for WPP-1.		submitted to EPA for approval	3. Obtain Siting Permit by end of March 2018	$\sqrt{}$				-				
	Complete Land Acquisition.	-	Licenses and Permits						-				
	Finalise ESIA Reports from ESIA Consultant after EPA Comments.		 Provisional License obtained from Energy Commission. Application for Works Permit 		√√	$\sqrt{}$				GHS4.69 M (estimat		VRA	
	Submit Final ESIA to REDP Owner's Engineer.		submitted to Ada West Municipal Assembly			$\sqrt{}$				ed project cost US\$190		Elsewedy	
	Apply for Siting Permit for WPP-2.		since 2017.			$\sqrt{}$				M)			

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sched	terly ti lule	me		Indica	tive Bud	lget	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Submit VRA's												
	comments on						$\sqrt{}$						
	Feasibility												
	Study												
	Finalise												
	Feasibility						$\sqrt{}$						
	Study Report												
	from REDP												
	Owner's												
	Engineer.												
	Obtain Works												
	Permit from						$\sqrt{}$						
	MMDA.												
	Obtain Siting												
	Permit.						$\sqrt{}$						
	Finalize both												
	Technical and												
	Commercial							$\sqrt{}$					
	Negotiations												
	with Elsewedy.												

Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indica	tive Budg	jet	Implem Agencie	0
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
12 MW Solar	Receipt of Tenders	Kaleo (8MWp)	Request for proposals	1. Bids to be received on	$\sqrt{}$								
Power	Award of contract	and	issued to	February 15,		$\sqrt{}$				GHS12.	KfW –		
Project	Installation of PV Modules	Lawra (4MWp)	prequalified bidders.	2018 2. Contract award			$\sqrt{}$			5M	Euro 22.81	VRA	
	Commencement of Pre- Commissioning Test at Lawra Site Image: Commission of the second secon	by end of April 2018 3. Commissioning at Lawra Site by end of November 2018				$\sqrt{}$			million				
Kpong Generating	Handover of Unit 1 to VRA	Akuse	1. Unit 2 completed	1. Operational acceptance (OAC)	$\sqrt{}$						GH¢ 39.85mil	VRA	AFD
Station Retrofit	Start Unit 3 retrofit works		and in commercial	of Unit 1 by February 23,	$\sqrt{}$						lion (AFD/V		
Project	Start disassembly works of unit 3		operation 2. Unit 1	2018 (Unit1 commissioned		$\sqrt{}$					RA)		
Start of refurbishment activities on unit			retrofit completed and Unit 3	into service on 13th February and under		$\sqrt{}$							
	Continue with unit 3 refurbishment		Retrofit to commence	observation) 2. Shut down of unit 3 by March			$\sqrt{}$						
				2018 and start of retrofit works									

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	terly ti lule	me		Indica	tive Budg	et	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Commence assembly and installation works on unit 3							$\sqrt{}$					
Rehabilitat ion Of Kpong	Award of Contract Works in	Akuse	Evaluation report approved by	1. Award Contract by end of March	$\sqrt{}$					GH¢ 26.43 million		VRA	
Dam (East And West Dykes And Spillway Project	progress		the Central Tender Review Committee (CTRC) Technical and	2018 2. Commenceme nt of Works by Contractor		$\sqrt{}$							
Pwalugu Hydro Developme nt (Feasibility	Complete Study on Evaluation of Design Alternatives.	PWALUGU	Technical and ESIA studies substantially completed. Additional	1. Commenced additional technical study in January 2018		$\sqrt{}$					GH¢ 3.29milli on (AFD)	VRA	AFD
)	Award Contract for Irrigation Study		Studies to improve2.bankability of projectad im required.	2. Commence additional		$\sqrt{}$							
	Commence socio economic study from the irrigation scheme			irrigation studies by April 2018			$\sqrt{}$						

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indica	tive Bud	lget	Implem Agencie	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
TAKORADI 4 THERMAL POWER PROJECT	Sourcing financing and review of ECA agreement	PWALUGU	Receipt of Paliamentar y approval for Soverigning		$\sqrt{}$	$\sqrt{}$					GHS3.29 M (AFD Loan)	VRA	
	Reach Financial Close issue Notice to Proceed		Guarantee and renogoation of EPC contract price with EPC Contractor based on the new ECA sourcing			$\sqrt{}$	$\sqrt{}$						

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly ti	me sch	edule	Indica	ative Bud	get	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Asset Manageme nt Project	GIS Mapping of MV and LV network and Customer indexing	Upper East and Upper West Operation al Areas	25% of network GIS mapped and customers indexed	Network 100% GIS mapped and customer indexed by December 2018							US\$ 1,400	MoEn – GEDAP / SECO	NEDCo
Enterprise Geographic Informatio n System (Upper	Complete 40% of network and customer indexing mapping				$\sqrt{}$								
East and Upper West)	Complete 60% of network mapping and customer indexing					$\sqrt{}$							
	Complete 80% of network mapping and customer indexing						$\sqrt{}$				1		
	Complete 100% of network mapping and customer indexing							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	erly ti ule	me		Indicat	tive Budg	jet	Impleme Agencies	•
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Customer Densification Project Network Intensificatio	Supply and installation of distribution materials to upgrade and expand network	Upper East and Upper West Operation al Areas	Prepare drawings and specification s	Distribution materials supplied and installed by December 2018							US\$ 4,616	MoEn - GEDAP / SECO	NEDCo
n Project in UE and UW Areas	Approval of Tendering Document by SECO				$\sqrt{}$								
	Tendering and award of Contract					$\sqrt{}$							
	Commence production of equipment and materials						$\sqrt{}$						
	Complete production of equipment and materials							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indica	tive Budg	get	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Network Reinforceme nt and Technical Loss Reduction Projects -	Installation of protection systems at selected nodes of the distribution network	Northern, Upper East and Upper West Operation al Areas	50% of equipment and materials delivered	Complete supply of equipment/mat erials and installation works by December 2018						US\$ 7,785		VRA	NEDCo
Network Protection System	Complete shipment of Equipment/m aterials					$\sqrt{}$							
Improvemen t Project Phase (2) (NPSIP II)	Complete installation works in Northern Area (Tamale)						$\sqrt{}$						
	Complete installation works in Upper East Area (Bolgatanga)							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indica	tive Budg	get	Implen Agencie	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Network Reinforceme nt and Technical Loss Reduction	Supply and delivery of 1No. 10/13MVA transformer to NEDCo	NEDCO Central, Stores Tamale	Approved Evaluation Report	1No. power transformer to be delivered by Dec. 2018						GHS 1,200			
Projects –	Award Contract				$\sqrt{}$								
Supply of 10/13MVA	Commence manufacturing Attend Factory					$\sqrt{}$	$\sqrt{}$						
Power Transformer	Acceptance Test (FAT												
	Deliver Transformer to NEDCo							$\sqrt{}$					

Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	Quart sched	terly ti lule	me		Indica	tive Budget	t	Impleme Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Network Reinforceme nt and Technical Loss Reduction	Supply and delivery of distribution materials for operations and maintenance	NEDCO Wide	Approved Evaluation Report	Distribution materials to be delivered by Dec. 2018						GHS 1,200		NEDCo	
Projects –	Award Contract				$\sqrt{}$								
Supply of	Commence manufacturing					$\sqrt{}$							
Distribution Materials	Attend Factory Acceptance Test (FAT)						$\sqrt{}$						
	Deliver materials to NEDCo							$\sqrt{}$					
Network Reinforceme nt and Technical Loss	Supply and delivery of distribution transformers for operations	NEDCO Wide	Approved Evaluation Report	Distribution transformers to be delivered by Dec. 2018						GH6,000		NEDCo	
Reduction Projects –	Award Contract				$\sqrt{}$								
Supply of Distribution	Commence manufacturing					$\sqrt{}$							

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indica	tive Budge	t	Implem Agencie	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
transformers	Attend Factory Acceptance Test (FAT)						$\sqrt{}$						
	Deliver Transformers to NEDCo							$\sqrt{}$					
Revenue Mobilization Project – Supply of Locally Manufacture d PPM	Supply and installation of 25,000 prepayment meters for revenue mobilization	Sunyani	Approved Evaluation Report	25,000 No. meters to be delivered by Dec. 2018						GHS 35,166			NEDCo
(25,000)	Award Contract	-			$\sqrt{}$								
	Commence manufacturing					$\sqrt{}$				_		_	
	Attend Factory Acceptance Test (FAT)						$\sqrt{}$						
	Deliver meters to NEDCo							$\sqrt{}$					

Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	Quart sched	erly ti ule	me		Indica	tive Budge	t	Impleme Agencies	•
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Network Reinforcement and Technical Loss Reduction Projects –	Supply and delivery of steel poles for maintenance of network	NEDCO Wide	Approved Evaluation Report	Deliver steel poles by Dec. 2018						GHS 3,000		NEDCo	
Supply of steel poles	Award Contract				$\sqrt{}$								
•	Commence manufacturing					$\sqrt{}$							
	Attend Factory Acceptance Test (FAT)						$\sqrt{}$						
	Deliver steel poles to NEDCo							$\sqrt{}$					
Network Reinforcement and Technical Loss Reduction Projects - Supply of tools and equipment	operations and maintenance of network	NEDCO Wide	Approved Evaluation Report	Deliver tools and equipment by Dec. 2018						GHS 500,000		NEDCo	
and equipment	Award Contract				$\sqrt{}$								

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sched	terly ti lule	me		Indica	tive Budge	t	Implem Agencie	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Commence manufacturing					$\sqrt{}$							
	Attend Factory Acceptance Test (FAT) Deliver tools and						$\sqrt{}$						
	equipment to NEDCo							$\sqrt{}$					
Network Reinforcem ent and Technical Loss	Supply and installation of 25,000 prepayment meters for revenue mobilization	NEDCO Wide	Approved Evaluatio n Report by CTRC.	Deliver meters by Dec. 2018						GHS 35,166		NEDCo	
Reduction	Award Contract				$\sqrt{}$								
Projects	Commence manufacturing					$\sqrt{}$							
Supply of Locally Manufactur	Attend Factory Acceptance Test (FAT)						$\sqrt{}$						
ed PPM (25,000)	Deliver meters to NEDCo							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	terly tin lule	me		Indica	tive Budget	t	Impleme Agencies	•
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Network Reinforceme nt and Technical Loss Reduction	Supply and deliver to stores 100,000 Electronic post-paid meters	NEDCO Wide	Contractor Selected	100,000No. meters to be delivered by Dec. 2018						GHS 7,554.67		NEDCo	
Projects	Commence manufacturing				$\sqrt{}$								
Procurement of 100,000 Credit						$\sqrt{}$							
meters	Deliver 60% of meters to NEDCo						$\sqrt{}$						
	Commence manufacturing							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	terly ti lule	me		Indica	tive Budg	get	Implem Agencie	•
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Customer Information Sytem Project Installation	Install CIS with Billing system and integration with AMR system	NEDCo Wide	Prepare specification s and scope	Complete CIS for NEDCo by 2019							US\$ \$5,417.6 91/MCC	MiDA	NEDCo
of Customer Information	Complete				$\sqrt{}$								+
System (CIS)	Scoping and				VV								
System (CIS)	Design												
	Processes												
	Complete	-											1
	Procurement					$\sqrt{}$							
	processes												
	Complete 40%												
	of installation						$\sqrt{}$						
	works	_											
	Complete												
	100% of							$\sqrt{}$					
	installation												
	works											1	1

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indica	ative Bu	ıdget	Implem Agencie	•
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Customer Information Sytem Project -	Build Capacity if Commercial staff for developing rate cases	NEDCo Head Office									US\$ \$250	MiDA/ MCC	NEDCo
Technical Assistance for tariff	Complete Scoping and Design processes				$\sqrt{}$								
applications	Complete Procurement of consultant					$\sqrt{}$							
	Complete 40% of assignment						$\sqrt{}$						
	Complete 100% of assignment							$\sqrt{}$					
Customer Densification Project	Extension of distribution lines to potential customers	NEDCO Wide	Project Scoping and Design stage	Complete Intensification by 2020							US\$ \$2,538	MiDA /MCC	NEDCo
Customer densification and intensification	Complete Scoping and Design Processes				$\sqrt{}$								

Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	Quart sched	erly ti lule	me		Indica	tive Bu	lget	Implem Agencie	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Complete Procurement Procurement					$\sqrt{}$							
	Commence manufacturing of equipment						$\sqrt{}$						
	Commence installation works							$\sqrt{}$					
Customer Densification Project -	Creation of an ESMS policy Document	NEDCo Wide	Project Scoping and Design stage	Complete ESMS Policy by 2019							US\$ \$212	MiDA/ MCC	NEDCo
Development of Environmenta	Complete Scoping and Design Processes				$\sqrt{}$								
l and Social Management system (ESMS)	Complete Procurement of consultant					$\sqrt{}$							
for NEDCo	Complete 40% of assignment						$\sqrt{}$						
	Complete 60% of assignment							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	erly ti ule	me		Indica	tive Budg	get	Implem Agencie	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Commercial Loss Reduction Project Customer Census and service normalisation	Meter relocation, Accounts normalisation, Service connection Upgrade, informal connection normalization etc Complete procurement of contractor	Tamale	Prepare drawings and material estimates	Complete service normalizati on	√√						US\$ \$7,906/ MCC	MiDA	NEDCo
	Complete procurement 30% of Customer audit					$\sqrt{}$							
	Complete procurement 65% of Customer audit						$\sqrt{}$						
	Complete procurement 100% of Customer audit							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly dule	time		Indica	ative B	udget	Implem Agencie	•
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Commercial loss Reduction Project	Installation of AMR meters	Tamale	Prepare Specifications and drawings	Complete AMR installatio							US\$ \$1,388	MiDA /MCC	NEDCo
	Commence procurement of contractor			n	$\sqrt{}$								
	Complete procurement of contractor					$\sqrt{}$							
AMR metering	Complete 50% of installation works						$\sqrt{}$						
	100% of meter installation works							$\sqrt{}$					
Network Reinforcement and Technical Loss Projects	Extension of MV network to AgDevCo Farm	Babato in Brong Ahafo	Prepare Specifications and drawings	Complete power extension to							US\$ \$3,249/ MCC	MiDA	NEDCo
Power supply	Commence procurement of contractor			AgDevCo irrigation site	$\sqrt{}$								
to AgDevCo Irrigation project site	Complete procurement of contractor					$\sqrt{}$							

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	erly ti ule	me		Indica	tive Budg	get	Impleme Agencies	•
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Complete 50% of installation works						$\sqrt{}$						
	100% of meter installation works							$\sqrt{}$	-				
Network Reinforceme nt and Technical Loss Projects	Extension of MV network and installation of distribution transformer	NEDCo Wide	Prepare Specificatio ns and drawings	Complete special injection project						US\$ \$1,388		NEDCo	
	Complete procurement of contractor				$\sqrt{}$								
Special Injection	Complete 20% of installation works					$\sqrt{}$							
Projects /Network Rehabilitatio	Complete 60% of installation works						$\sqrt{}$						
n	Complete 100% of installation works							$\sqrt{}$					

♦ NORTHERN ELECTRICITY DISTRIBUTION COMPANY - 2021 ANNUAL V	WORK PLAN
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Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	Quart sched	erly ti ule	me		Indica	tive Budg	get	Implem Agencie	•
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Procuremen t of Vehicles, Tools and Equipment	Procure various distribution martials tools and equipment for operations	Tamale, Bolga, Wa, Techim an and	Prepare specificatio ns and biding document	NO OF VEHICLES PROCURED							US\$ \$5,250	MiDA /MCC	NEDCo
	Commence procurement Processes	Sunyani			$\sqrt{}$								
	Complete procurement process					$\sqrt{}$							
	Award contract and commence shipment						$\sqrt{}$						
	Take delivery of equipment and tools							$\sqrt{}$					
High voltage distribution system (HVDS)	Inject more lower rated transformers by extending the MV lines and reducing in the length of the LV lines	NEDCo wide	Prepare specificatio ns and biding document	Complete HVDS project by 2021							US\$ \$16,270/ MCC	MiDA	NEDCo

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	ative Bu	ıdget	Implen Agenci	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Commence procurement				$\sqrt{}$								
	Complete procurement and award contract					$\sqrt{}$							
	Commence Manufacturing						$\sqrt{}$		-				
	Deliver materials and commence construction Works							$\sqrt{}$	_				
Construction of three (3) primary substations	Construct 34.5/11kV substations at Fuo, Banvim, and Islamic	Tamale	Prepare specificati ons and biding document	Complete substation constructio n by 2021							US\$ \$6,430/ MCC	MiDA	NEDCo
	Commence procurement				$\sqrt{}$				-				
	Complete procurement and award contract					$\sqrt{}$							
	Commence Manufacturing						$\sqrt{}$		-				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	terly tin lule	me		Indica	tive Bud	lget	Implem Agencie	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Deliver materials and commence construction Works							$\sqrt{}$					
eactive ower ompensation	Installation of Capacitor Banks on the MV distribution network	Tamale	Prepare specification s and biding document	Complete Capacitor bank installation by 2020							US\$ \$417	MiDA /MCC	NEDCo
	Commence procurement				$\sqrt{}$								
	Complete procurement and award contract					$\sqrt{}$							
	Commence Manufacturing						$\sqrt{}$						
	Deliver materials and commence construction Works							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sched	terly tin lule	me		Indica	tive Bud	get	Implem Agencie	•
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Mobile Transformer oil treatment plant	Procure a truck mounted Oil treatment plant	Tamale Head Office	Prepare specification s and biding document	Receive delivery of equipment by 2019						US\$ \$500		US\$ \$500	
(I I	Commence procurement Processes				$\sqrt{}$								
	Complete procurement process					$\sqrt{}$							
	Award contract and commence shipment						$\sqrt{}$						
	Take delivery of equipment and tools							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	terly tin lule	me		Indic	ative Budget		Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Network Reinforce ment and Technical Loss	Conversion of old Koforidua and Swedru substations into indoor substations	Koforidua and Swedru		100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GHØ16,208, 973.2		ECG	
Reduction R Project th A ir SI P	Reconstruction of the Daboase and Awaso substations into indoor substations	Daboase and Awaso		100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GHØ21,967, 025.7		ECG	
	Provision of additional 33kV submarine cable on the Donkorkrom 33kV feeder	Donkorkrom		100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GHØ6,246,3 68.52		ECG	
	Supply and installation of BSP at Kasoa (Revised to 33/11kv Primary Substation at KATH- Kumasi)	Kasoa and Kumasi		100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GHØ29,070, 000		ECG	World Bank AfDB

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indica	tive Budget		Imple g Agei	mentin 1cies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Network Reinforce ment and Technical Loss Reduction Project	Construction of a 2x20/26MVA 33/11KV at Anyaa Fan Milk complete with 33kv (16.7km OHL and 1.2 km UG) and 11kv (8km UG and 12km OHL)	Anyaa and UG Accra		100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GHØ 42,397,526 .65		ECG	
	Looping of the existing Adenta to Dodowa 33kv tower line through the Appolonia substation and expansion of the 33kV board at Appolonia by 4No. panels to allow for the loop	Adenta , Dodowa and Appolonia Accra		100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢ 28,351,015 .8			

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sched	terly tin lule	me		Indica	tive Budget		Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Revenue Mobilizati on and commerci al loss reduction	Develop billing and revenue management process to resolve complaints within 30 days	All ECG operational area		Billing and revenue system established	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢1,655 ,000.00		ECG	
project	System wide smart metering to ensure real time data energy sales	All ECG operational area		20% completion	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GHØ5,075 ,000.00		ECG	
	Implement AMR for Distribution Transformer Metering	All ECG operational area		35% completion	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢7,917 ,044.00		ECG	
	Supply and Installation of Smart Metering for High Consuming Customers	All ECG operational area		Complete 60% smart metering	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GHØ131,7 ,3,012.00		ECG	World Bank AfDB
	Develop Faulty Meter Management Process and resolution within a day	All ECG operational area		Faulty meter management system operationalis ed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢1,206 ,885.00		ECG	

Adopted P	olicy Objectives: Imp	rove financial	capacity and s	ustainability of u	itility co	mpanie	es						
Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	erly ti ule	me		Indicative	Budget		Impler Agenci	nenting les
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Revenue Mobilizati on Projects	Aggressively roll out alternative (electronic) channels of payment (i.e. mobile, internet and ECG Apps etc)	All ECG operationa l area		Operationalis ed MTN mobile App.		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GHØ45,00 0.00			ECG	
	Implement infrastructure for utility court setup	All ECG regional offices		Ten utility court Established	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	GH100,00 0.00			ECG	

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly t dule	ime		Indic	ative Budget		Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF (USD'000)	Donor	Lead	Collab
BarPoint <td>Construction of Bulk Supply Points (BSP) at Pokuase in the North Eastern part pf Accra</td> <td>Pokuase</td> <td>Project design is completed</td> <td>100% project completion and commissioned</td> <td>$\sqrt{}$</td> <td>$\sqrt{}$</td> <td>$\sqrt{}$</td> <td>$\sqrt{}$</td> <td></td> <td>USD41,377</td> <td></td> <td>ECG</td> <td></td>	Construction of Bulk Supply Points (BSP) at Pokuase in the North Eastern part pf Accra	Pokuase	Project design is completed	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD41,377		ECG	
Technical	Low voltage bifurcation and network improvement	Kaneshie Achimota Dansoman	Technical Studies completed	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD6,341.2		ECG	
	Introduction of High Voltage Distribution System	Accra	Contractor has been procured	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD14,796.3		ECG	

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly t dule	ime		Indica	tive Budget		Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF (GH¢'000)	Donor (GH¢'000)	Lead	Collab
Network Reinforcem ent and	Reconstruction of the Daboase and Awaso substations into indoor substations	Daboase and Awaso	Technical studies completed	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢7,332.3		ECG	
Technical Loss Reduction Project	Provision of additional 33kV submarine cable on the Donkokrom 33kV feeder	Donkokrom	Contractor has been procured	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢2,082.0		ECG	
	Supply and installation of BSP at Kasoa (Revised to 33/11KV Primary Substation at KATH- Kumasi	Kasoa and Kumasi	Project is underway with a progress of 5%	100% Completion of project and commissioning	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			GH⊄9,690. 1	ECG	World Bank AfDB

Projects	Activities (Operations)	Location	Baseline	Output indicators		rterly t dule	ime		Indicat	tive Budget		Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF (USD'000)	Donor (USD'000)	Lead	Collab
Network Reinforcem ent and Technical Loss Reduction	Construction of a 2x20/26MVA 33/11KV at Anyaa Fan Milk with 33Kv (16.7KM OHL and 1.2km UG) and11kv (8km UG and 12km OHL)	Anyaa and UG Accra	Progress at 15%	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD14,132 .5	ECG	MCC MiDA
Project	Looping of the existing Adenta to Dodowa 33kv tower line through the Appolonia substation and expansion of the 33kv board at Appolonia by 4No. panels to allow for the loop	Adenta Dodowa And Appolonia Accra	Design drawing for the project completed	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD9,450.4		ECG	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quarterly time schedule				Indicative Budget			Implementing Agencies	
					1st	2nd	3rd	4th	GoG	IGF (USD'000)	Donor (USD'000)	Lead	Collab
Revenue Mobilizatio n and commercial loss reduction project	Aggressively roll out alternative (electronic) channels of payment (ie. Mobile, internet and ECG apps)	Accra and Tema	MTN Apps for payment of bills operational	Number of payment channels established	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD69,156. 3		ECG	
	System wide smart metering to ensure real time data energy sales	All ECG operational area	100% Automatic Meter Reading (AMR)	Attain project progress of 20% by 2019	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD5,075.2		ECG	
	Supply and installation of Smart Metering for High Consuming Customers	All ECG operational area	Nuri Smart Meters Installations at Legon and Prampram district	Number of Smart Meters Installed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD131,73 0.1	ECG	World Bank AfDB

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quarterly time schedule				Indicative Budget			Implementing Agencies	
					1st	2nd	3rd	4th	GoG	IGF (USD'000)	Donor (USD'000)	Lead	Collab
Modernisati on of ECG Business Process	Modernize distribution network operation through Geographic Information System (GIS)	Kasoa, Accra and Tema	Data capturing in Kasoa completed	Improve operation efficiency	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD1,936. 04	ECG	MCC MiDA
Projects	Introduction of outage management system (OMS)	Accra	Contractor yet to be procured	Reduce outage and operational time	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD2,395. 8	ECG	MiDA MCC
	Introduction of meter management system (MMS)	Accra	Tender have been issued	Improve operational efficiency	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD1,197. 9	ECG	MiDA MCC
	Establishment of Enterprise Resource Plan (ERP)	Accra and Tema	Bidding is on-going	Improve operational efficiency	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD5,269. 3	ECG	MiDA MCC

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly t dule	ime		Indica	ative Budget		Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF (USD'000)	Donor	Lead	Collab
Network Reinforcem	Construction of Bulk Supply Points (BSP) at Pokuase in the North Eastern part pf Accra	Pokuase	Project design is completed	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD41,377		ECG	
ent and Technical Loss Reduction Project	Low voltage bifurcation and network improvement	Kaneshie Achimota Dansoman	Technical Studies completed	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD6,341.2		ECG	
	Introduction of High Voltage Distribution System	Accra	Contractor has been procured	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD14,796.3		ECG	

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly t dule	ime		Indica	tive Budget		Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF (GH¢'000)	Donor (GH¢'000)	Lead	Collab
Network Reinforcem ent and	Reconstruction of the Daboase and Awaso substations into indoor substations	Daboase and Awaso	Technical studies completed	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢7,332.3		ECG	
Technical Loss Reduction Project	Provision of additional 33kV submarine cable on the Donkokrom 33kV feeder	Donkokrom	Contractor has been procured	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢2,082.0		ECG	
	Supply and installation of BSP at Kasoa (Revised to 33/11KV Primary Substation at KATH- Kumasi	Kasoa and Kumasi	Project is underway with a progress of 5%	100% Completion of project and commissioning	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			GH⊄9,690. 1	ECG	World Bank AfDB

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly t dule	ime		Indicat	ive Budget		Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF (USD'000)	Donor (USD'000)	Lead	Collab
Network Reinforcem ent and Technical Loss Reduction	Construction of a 2x20/26MVA 33/11KV at Anyaa Fan Milk with 33Kv (16.7KM OHL and 1.2km UG) and11kv (8km UG and 12km OHL)	Anyaa and UG Accra	Progress at 15%	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD14,132 .5	ECG	MCC MiDA
Project	Looping of the existing Adenta to Dodowa 33kv tower line through the Appolonia substation and expansion of the 33kv board at Appolonia by 4No. panels to allow for the loop	Adenta Dodowa And Appolonia Accra	Design drawing for the project completed	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD9,450.4		ECG	

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly t dule	ime		Indica	tive Budget		Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF (USD'000)	Donor (USD'000)	Lead	Collab
Revenue Mobilizatio n and commercial	Aggressively roll out alternative (electronic) channels of payment (ie. Mobile, internet and ECG apps)	Accra and Tema	MTN Apps for payment of bills operational	Number of payment channels established	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD69,156. 3		ECG	
loss reduction project	System wide smart metering to ensure real time data energy sales	All ECG operational area	100% Automatic Meter Reading (AMR)	Attain project progress of 20% by 2019	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD5,075.2		ECG	
	Supply and installation of Smart Metering for High Consuming Customers	All ECG operational area	Nuri Smart Meters Installations at Legon and Prampram district	Number of Smart Meters Installed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD131,73 0.1	ECG	World Bank AfDB

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly t dule	ime		Indica	tive Budget		Impler Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF (USD'000)	Donor (USD'000)	Lead	Collab
Modernisati on of ECG Business Process	Modernize distribution network operation through Geographic Information System (GIS)	Kasoa, Accra and Tema	Data capturing in Kasoa completed	Improve operation efficiency	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD1,936. 04	ECG	MCC MiDA
Projects	Introduction of outage management system (OMS)	Accra	Contractor yet to be procured	Reduce outage and operational time	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD2,395. 8	ECG	MiDA MCC
	Introduction of meter management system (MMS)	Accra	Tender have been issued	Improve operational efficiency	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD1,197. 9	ECG	MiDA MCC
	Establishment of Enterprise Resource Plan (ERP)	Accra and Tema	Bidding is on-going	Improve operational efficiency	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD5,269. 3	ECG	MiDA MCC

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly t dule	ime		Indica	ative Budget		Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF (USD'000)	Donor	Lead	Collab
Network Reinforcem	Construction of Bulk Supply Points (BSP) at Pokuase in the North Eastern part pf Accra	Pokuase	Project design is completed	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD41,377		ECG	
ent and Technical Loss Reduction Project	Low voltage bifurcation and network improvement	Kaneshie Achimota Dansoman	Technical Studies completed	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD6,341.2		ECG	
	Introduction of High Voltage Distribution System	Accra	Contractor has been procured	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD14,796.3		ECG	

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly t dule	ime		Indica	tive Budget		Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF (GH¢'000)	Donor (GH¢'000)	Lead	Collab
Network Reinforcem ent and	Reconstruction of the Daboase and Awaso substations into indoor substations	Daboase and Awaso	Technical studies completed	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢7,332.3		ECG	
Technical Loss Reduction Project	Provision of additional 33kV submarine cable on the Donkokrom 33kV feeder	Donkokrom	Contractor has been procured	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢2,082.0		ECG	
	Supply and installation of BSP at Kasoa (Revised to 33/11KV Primary Substation at KATH- Kumasi	Kasoa and Kumasi	Project is underway with a progress of 5%	100% Completion of project and commissioning	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			GH⊄9,690. 1	ECG	World Bank AfDB

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly t dule	ime		Indicat	ive Budget		Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF (USD'000)	Donor (USD'000)	Lead	Collab
Network Reinforcem ent and Technical Loss Reduction	Construction of a 2x20/26MVA 33/11KV at Anyaa Fan Milk with 33Kv (16.7KM OHL and 1.2km UG) and11kv (8km UG and 12km OHL)	Anyaa and UG Accra	Progress at 15%	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD14,132 .5	ECG	MCC MiDA
Project	Looping of the existing Adenta to Dodowa 33kv tower line through the Appolonia substation and expansion of the 33kv board at Appolonia by 4No. panels to allow for the loop	Adenta Dodowa And Appolonia Accra	Design drawing for the project completed	100% project completion and commissioned	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD9,450.4		ECG	

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly t dule	ime		Indica	tive Budget		Impler Agenci	nenting ies
					1st	2nd	3rd	4th	GoG	IGF (USD'000)	Donor (USD'000)	Lead	Collab
Revenue Mobilizatio n and commercial	Aggressively roll out alternative (electronic) channels of payment (ie. Mobile, internet and ECG apps)	Accra and Tema	MTN Apps for payment of bills operational	Number of payment channels established	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD69,156. 3		ECG	
loss reduction project	System wide smart metering to ensure real time data energy sales	All ECG operational area	100% Automatic Meter Reading (AMR)	Attain project progress of 20% by 2019	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		USD5,075.2		ECG	
	Supply and installation of Smart Metering for High Consuming Customers	All ECG operational area	Nuri Smart Meters Installations at Legon and Prampram district	Number of Smart Meters Installed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD131,73 0.1	ECG	World Bank AfDB

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly t dule	ime		Indica	tive Budget		Impler Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF (USD'000)	Donor (USD'000)	Lead	Collab
Modernisati on of ECG Business Process	Modernize distribution network operation through Geographic Information System (GIS)	Kasoa, Accra and Tema	Data capturing in Kasoa completed	Improve operation efficiency	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD1,936. 04	ECG	MCC MiDA
Projects	Introduction of outage management system (OMS)	Accra	Contractor yet to be procured	Reduce outage and operational time	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD2,395. 8	ECG	MiDA MCC
	Introduction of meter management system (MMS)	Accra	Tender have been issued	Improve operational efficiency	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD1,197. 9	ECG	MiDA MCC
	Establishment of Enterprise Resource Plan (ERP)	Accra and Tema	Bidding is on-going	Improve operational efficiency	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD5,269. 3	ECG	MiDA MCC

***** BUI POWER AUTHORITY - 2018 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tin	ne sche	edule	Indicativ	e Budge	et	Imple Agenc	menting ies
					1st	2nd	3rd	4th	Others	IGF	Dono r	Lead	Collab
50 MWp HSH - 3SIL	Application for relevant permits Securing Power Purchase Agreement (PPA)	Carpenter	Provisional License obtained for the project	Permits (siting & construction and Environmenta l)	$\sqrt{}$	$\sqrt{}$			USD 54M (est)			BPA	3SIL
	Execute Project Development Assistance (PDA)			PDA PPA	$\sqrt{}$	$\sqrt{}$							
	Secure construction Permit						$\sqrt{}$						
	Commence Civil works			Percentage completion of Civil works				$\sqrt{}$					
50 MWp HSH - PowerChin a/Sinohydr o	Application for relevant permits Securing Power Purchase Agreement (PPA) Execute PDA	Carpenter	Memorandu m of Understandin g (MoU) has been executed	1.Secure Provisional License 2. PDA	$\sqrt{}$				USD 54M (est)			BPA	Power China /Sinoh ydro
	Secure siting and construction Permit		2.Application for Provisional License has been made	Siting and construction permit secured		$\sqrt{}$	$\sqrt{}$						
	Commence Construction		been made	% completion of Civil works				$\sqrt{}$					

Solution BUI POWER AUTHORITY - 2018 ANNUAL WORK PLAN

Projects	Activities (Operatio	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indicativ	e Budget	:	Imple Agenc	menting ies
	ns)				1st	2nd	3rd	4th	Others	IGF	Donor	Lead	Collab
20-50 MWp HSH - Eni Ghana	Secure all permits & Licenses 2.PDA 3.PPA	Carpenter	Memorandu m of Understandi ng (MoU) executed	1. Permits (siting & construction and Environmental) 2.PDA 3. PPA		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	USD 54M (est)			BPA	Eni Ghana
10 MWp HSH - BPA (Phase	Tendering	Bui/ Carpenter	Request For Proposal	Select EPC Contractor	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					BPA	
1 of 100MWp)	Applicatio n for relevant permits	. Carpenter	(RFP)	Permits & Licenses	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						
	Execute EPC contract			10MWp	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						
	Civil works			Percentage completion of Civil works			$\sqrt{}$			USD 12M (est)			
				Percentage completion of M&E installations									

***** BUI POWER AUTHORITY - 2018 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indicative	Budget		Imple Agenc	menting ties
					1st	2nd	3rd	4th	Others	IGF	Donor	Lead	Collab
3 Northern Regions Solar PV developme	Land Search	Yendi, Tumu Sawla Bawku	Land Acquisition has commenced	No of Land Search completed	$\sqrt{}$					USD 1.6M (est)		BPA	Land Commissi on
nts	Area Demarcation	Zebilla Buipe		Area Demarcations undertaken	$\sqrt{}$								
	Agree Land Lease term			Lease agreed		$\sqrt{}$	$\sqrt{}$						
	Cadastral Survey			Survey undertaken		$\sqrt{}$	$\sqrt{}$						
30 kW Tsatsadu	Tendering	Alavanyo - Abehenease	Design completed	Select EPC Contractor	$\sqrt{}$	$\sqrt{}$			USD 135,000.0	USD 215,0		BPA	UNDP- RETT
Mini Hydro power	Execute contract		Permits	EPC Contract	$\sqrt{}$	$\sqrt{}$			0	00.00			Project EC/MoEn/E
F	Commence civil works		secured.	Percentage	$\sqrt{}$	$\sqrt{}$							CG/CATHO LIC
	Commence & complete M&E Installations		Land Pe	completion of Civil works			$\sqrt{}$						CHURCH/A LAVANYO TRADITION AL
	Testing & Commissioning		Manufacture of a new asynchronou	Percentage completion of M&E installations				$\sqrt{}$					COUNCIL/ ICSHP
			s generator commenced.	mstanations									

Solution BUI POWER AUTHORITY - 2018 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indicative	e Budget		Impler Agenc	menting ies
					1st	2nd	3rd	4th	Others	IGF	Donor	Lead	Collab
Western Rivers	Data validation and Partnership with custodian agencies	Jomoro Sefwi Wiaso Tanoso	Preliminary Site Assessment	No of gauging stations data validated	$\sqrt{}$					USD 56,13 6.36		BPA	WRC/ HSD
	Rehabilitation of 3 No. gauging stations on the Tano River			No of gauging stations rehabilitated		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indicativ	e Budget	t	Imple Agen	ementing cies
					1st	2nd	3rd	4th	Others	IGF	Donor	Lea d	Collab
50 MWp HSH - 3SIL	Civil works	Carpenter	Assumption - 2018	Percentage completion of	$\sqrt{}$	$\sqrt{}$						BPA	3SIL
	M&E installations		target achieved	Civil works	$\sqrt{}$	$\sqrt{}$							
0	Testing & commissionin g			Percentage of M&E installations			$\sqrt{}$						
				Tested & Commissioned									
50 MWp		Assumption	Percentage completion of	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					BPA	PowerC	
HSH - PowerChina M / ii Sinohydro T c	M&E installations		target achieved	Civil works	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						hina/ Sinohyd ro
	Testing & commissionin g			Percentage of M&E installations			$\sqrt{}$						
				Tested & Commissioned									

***** BUI POWER AUTHORITY - 2019 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	terly tin lule	me		Indicativ	e Budget		Imple Agenc	menting cies
					1st	2nd	3rd	4th	Others	IGF	Donor	Lead	Collab
20-50 MWp HSH - Eni Ghana	Civil works	Carpenter	Assumption - 2018 target achieved	Percentage completion of Civil works	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					BPA	Eni Ghana
	M&E installations			Percentage of M&E installations	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					_	
	Testing & commissioning			Tested & Commission ed				$\sqrt{}$					
10 MWp HSH - BPA (Phase 1 of 100MWp)	M&E installations	Bui/Carpenter	Assumption - 2018 target achieved	Percentage completion of Civil works	$\sqrt{}$							BPA	
100MWp) 7 (Testing and Commissioning			Percentage of M&E installations	$\sqrt{}$								
	Tendering of phase 2			Complete tender and		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Execute contract			award contract		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

***** BUI POWER AUTHORITY - 2019 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sched	terly ti lule	me		Indicativ	e Budget		Imple g Ager	mentin 1cies
					1st	2nd	3rd	4th	Others	IGF	Donor	Lead	Collab
3 Northern Regions Solar PV developme nts	Grid Impact Study for 2 No. out of 6 No. sites Expansion/ Upgrade of Substations 2 No. out of 6 No. substation	Yet to be determined	achieved Assumption -	No. of Grid Impact Studies completed No. of expansions/ upgrades completed						USD 12M (est)		BPA	GRIDC o EC
Western Rivers	Rehabilitation of 5 No. gauging stations located on the Tano, Pra & Ankobra Rivers	Hwidiem Prestea Ankwaso Hiawa Twifo Praso	Assumption - 2018 target achieved	No of gauging stations rehabilitated	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				BPA	WRC/ HSD
	Pre-Feasibility for cascade system for Tano River			Percentage completion of Pre- feasibility studies	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

***** BUI POWER AUTHORITY - 2020 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tin	ie sche	dule	Indicative	Budget		Imple: Agenc	menting ies
					1st	2nd	3rd	4th	Others	IGF	Donor	Lead	Collab
90 MWp HSH - BPA (Phase 2 of 100MWp)	Commence Civil works	Bui/Carpenter	Assumption - 2019 target achieved	Percentage (%) of civil works completed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD 96M (est)		BPA	
	Commence & complete M&E Installations	-		Percentage (%) completion of M&E	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						
	Testing & commissioning			Tested and commission ed				$\sqrt{}$					
3 Northern Regions Solar PV developme	Grid Impact Study for 2 No. out of 6 No. sites	Yet to be determined	Assumption 2019 target achieved	No. of Grid Impact Studies completed						USD 12M (est)		BPA	GRIDCo EC
nts	Expansion/ Upgrade of Substations 2 No. out of 6 No. substation			No. of expansions/ upgrades completed									
Western Rivers	Feasibility for cascade system for Tano River	Tano River 2	Assumption - 2019 target achieved	Percentage of feasibility studies	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				BPA	WRC/H SD
fo Pr fo Sy	Pre-Feasibility for cascade system for Ankobra River			Percentage completion of pre-feasibility studies	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

***** BUI POWER AUTHORITY - 2021 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sched	terly ti lule	me		Indicative	e Budget		Imple Agenc	menting cies
					1st	2nd	3rd	4th	Others	IGF	Donor	Lead	Collab
3 Northern Regions Solar PV developme nts	Grid Impact Study for 2 No. out of 6 No. sites Expansion/ Upgrade of Substations 2 No. out of 6 No. substation	Yet to be determined	Assumption 2020 target achieved	No. of Grid Impact Studies completed No. of expansions/ upgrades completed					-	USD 12M (est)		BPA	GRIDCo EC
Western Rivers	Feasibility for cascade system for Tano River Pre-Feasibility for cascade system for Ankobra River	Along the Tano River	Assumption - 2020 target achieved	Percentage of feasibility studies Percentage completion of pre- feasibility studies	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				BPA	WRC/H SD

✤ VRA-RESETTLEMENT TRUST FUND - 2018 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	erly ti ule	me		Indicative	e Budge	et	Implem Agencie	0
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Construction of 6-unit Teachers' quarters	Invite contractors to bid for projects, award project to selected contractor	Mpakadan	Requests received from communities in 2016/ 2017	Commissioning and handing of over of completed projects			$\sqrt{}$	$\sqrt{}$	GHØ260, 000			VRA- RTF	
Construction of 6-unit Teachers' quarters, Supply of 4 no. Polytanks	Invite contractors to bid for projects, award project to selected contractor	Grubi	Requests received from communities in 2016/ 2017	Commissioning and handing of over of completed projects			$\sqrt{}$	$\sqrt{}$	GHØ 270,000			VRA- RTF	
Adopted Poli	cy Objectives: Ens	ure affordable	, equitable, easily ac	cessible and Unive	rsal Hea	lth Cov	verage	(UHC)			·		·
Construction of 6-unit Nurses' Quarters	Invite E contractors to bid for projects, award project to selected contractor	Bladjai,	Requests received from communities in 2016/ 2017	Commissioning and handing of over of completed projects			$\sqrt{}$	$\sqrt{}$	GHØ 260,000			VRA- RTF	

Adopted Policy Objectives: Enhance inclusive and equitable access to, and participation in quality education at all levels Indicative Budget **Projects** Activities Location Baseline Output **Quarterly time** Implementing (Operations) indicators schedule Agencies 1st 2nd 3rd 4th GoG IGF Donor Lead Collab VRA-Constructi Invite Kitare Requests Commissioni RTF on of 6received ng and contractors to $\sqrt{\sqrt{}}$ $\sqrt{\sqrt{}}$ GH¢260,0 from handing of unit bid for projects, Teachers' over of 00 communities award project in 2016/ completed quarters to selected 2017 projects contractor Commissioni Constructi Invite Requests VRA-Bowiri on of 6-Odumase received ng and RTF contractors to $\sqrt{\sqrt{}}$ $\sqrt{\sqrt{}}$ handing of GH¢260.0 unit from bid for projects, Teachers' over of 00 communities award project in 2016/ completed quarters to selected 2017 projects contractor Bau-kafaba VRA-Constructi Requests Commissioni Invite on of 6received ng and RTF contractors to $\sqrt{\sqrt{}}$ $\sqrt{\sqrt{}}$ GH¢260.0 handing of unit from bid for projects, Teachers' over of 00 communities award project Quarters in 2016/ completed to selected 2017 projects contractor

✤ VRA-RESETTLEMENT TRUST FUND - 2018 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	terly ti lule	me		Indicative	Budget		Imple Agenc	menting ries
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Construction	Invite	Dedeso	Requests	Commissioni									
of Police Post	contractors to bid for projects, award project to selected contractor	Wireko	received from communities in 2016/ 2017	ng and handing of over of completed projects			$\sqrt{}$	$\sqrt{}$	GH¢150,0 00			VRA- RTF	
Construction of Canteen Block for school	Invite contractors to bid for projects, award project to selected contractor	New Senchi	Requests received from communities in 2016/ 2017	Commissioni ng and handing of over of completed projects			$\sqrt{}$	$\sqrt{}$	GHØ131,5 10			VRA- RTF	
Rehabilitatio n of 6-unit classroom block	Invite contractors to bid for projects, award project to selected contractor	Adukrom	Requests received from communities in 2016/ 2017	Commissioni ng and handing of over of completed projects			$\sqrt{}$	$\sqrt{}$	GH₡181,0 62			VRA- RTF	

✤ VRA-RESETTLEMENT TRUST FUND - 2018 ANNUAL WORK PLAN

*	VRA-RESETTLEMENT TRUST FUND	- 2018 ANNUAL WORK PLAN
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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	terly ti lule	me		Indicative	Budget	-	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Rehabilitatio n of 6-unit and 3-unit classroom blocks	Invite contractors to bid for projects, award project to selected contractor	Sabadu	Requests received from communities in 2016/ 2017	Commissioni ng and handing of over of completed projects			$\sqrt{}$	$\sqrt{}$	GHØ254,7 43			VRA- RTF	
Adopted Poli	cy Objectives: E	nsure affordal	ole, equitable, easi	ly accessible an	d Unive	ersal He	ealth Co	overage	e (UHC)				
Rehabilitatio n of clinic	Invite contractors to bid for projects, award project to selected contractor	Asukawka w	Requests received from communities in 2016/ 2017	Commissioni ng and handing of over of completed projects			$\sqrt{}$	$\sqrt{}$	GHØ 113,039			VRA- RTF	
Adopted Poli	cy Objectives: In	nprove access	to safe and reliab	le water supply	service	es for al	1						
Solar Powered Water System	Invite contractors to bid for projects, award project to selected	Asukawka w	Requests received from communities in 2016/ 2017	Commissioni ng and handing of over of completed projects			$\sqrt{}$	$\sqrt{}$	GHØ 54,000			VRA- RTF	

♦ VRA-RESETTLEMENT TRUST FUND - 2018 ANNUAL WORK PLAN

Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	-	rterly dule	time		Indicative B	udget		Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Rehabilitati on of 20- seater vault chamber latrine	Invite contractors to bid for projects, award project to selected contractor	Tapa Amanfr om	Requests received from communities in 2016/ 2017	Commissioning and handing of over of completed projects			$\sqrt{}$	$\sqrt{}$	GH₡40,257			VRA- RTF	
Provision of furniture and fencing of KG and Constructio n of KVIP	Invite contractors to bid for projects, award project to selected contractor	Takoroa no	Requests received from communities in 2016/ 2017	Commissioning and handing of over of completed projects			$\sqrt{}$	$\sqrt{}$	GH₡60,000			VRA- RTF	
Provision of furniture and fencing of KG and Constructio n of KVIP	Invite contractors to bid for projects, award project to selected contractor	Kete Krachi	Requests received from communities in 2016/ 2017	Commissioning and handing of over of completed projects			$\sqrt{}$	$\sqrt{}$	GH¢60,000			VRA- RTF	
Adopted Pol	icy Objectives: Impro	ve access t	o safe and reliabl	e water supply ser	vices	for all							
Supply and installation of Water Pump	Invite contractors to bid for projects, award project to selected contractor	Ntonab oma	Requests received from communities in 2016/ 2017	Commissioning and handing of over of completed projects			$\sqrt{}$	$\sqrt{}$	GH¢12,000			VRA- RTF	

◆ VRA-RESETTLEMENT TRUST FUND - 2019 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly dule	time		Indicative B	udget		Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Rehabilitati on of 3-unit Classroom Block	Invite contractors to bid for projects, award project to selected contractor	New Senchi	Requests received from Resettlement Townships in 2018	Project commissioned and handed over to community		$\sqrt{}$	$\sqrt{}$		GHØ150,00 0			VRA- RTF	
Constructio n of Kindergarte n Block	Invite contractors to bid for projects, award project to selected contractor	New Adjena	Requests received from Resettlement Townships in 2018	Project commissioned and handed over to community		$\sqrt{}$	$\sqrt{}$		GHØ250,00 0			VRA- RTF	
Constructio n of Teachers Quarters	Invite contractors to bid for projects, award project to selected contractor	Todome	Requests received from Resettlement Townships in 2018	Project commissioned and handed over to community		$\sqrt{}$	$\sqrt{}$		GH¢350,00 0			VRA- RTF	
Constructio n of Teachers Quarters	Invite contractors to bid for projects, award project to selected contractor	Fesi	Requests received from Resettlement Townships in 2018	Project commissioned and handed over to community		$\sqrt{}$	$\sqrt{}$		GH¢350,00 0			VRA- RTF	

◆ VRA-RESETTLEMENT TRUST FUND - 2019 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly edule	time		Indicative B	udget		Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Construction of Teachers Quarters	Invite contractors to bid for projects, award project to selected contractor	Теро	Requests received from Resettlement Townships in 2018	Project commissioned and handed over to community		$\sqrt{}$	$\sqrt{}$		GH¢350,00 0			VRA- RTF	
Construction of Teachers Quarters	Invite contractors to bid for projects, award project to selected contractor	Adonkwanta	Requests received from Resettlement Townships in 2018	Project commissioned and handed over to community		$\sqrt{}$	$\sqrt{}$		GH¢350,00 0			VRA- RTF	
Adopted Polic	y Objectives: Ens	ure affordable, e	equitable, easily a	accessible and Uni	iversal	Healt	ı Covei	rage (U	HC)				
Rehabilitatio n of clinic	Invite contractors to bid for projects, award project to selected contractor	Buma	Requests received from Resettlement Townships in 2018	Project commissioned and handed over to community		$\sqrt{}$	$\sqrt{}$		GH¢200,00 0			VRA- RTF	

Adopted Policy Objectives: Enhance inclusive and equitable access to, and participation in quality education at all levels Projects Activities Location **Baseline** Output **Quarterly time Indicative Budget** Implementing indicators (Operations) schedule Agencies 1st 2nd 3rd 4th GoG IGF Donor Lead Collab Construction Invite Tokoroano Requests Project of Teachers received from commissioned contractors to $\sqrt{\sqrt{}}$ $\sqrt{\sqrt{}}$ bid for Resettlement and handed GH¢350.00 VRA-Quarters projects, Townships in over to RTF 0 2019 award project community to selected contractor Construction Invite Gulubi Requests Project received from 6-unit commissioned contractors to $\sqrt{\sqrt{}}$ $\sqrt{\sqrt{}}$ Resettlement Classroom bid for and handed GHØ500.00 VRA-Townships in over to RTF projects, 0 award project 2019 community to selected contractor Rehabilitatio Ntonaboma Requests Project Invite received from commissioned n of 6-unit contractors to $\sqrt{\sqrt{}}$ $\sqrt{\sqrt{}}$ Classroom bid for Resettlement and handed GH¢250,00 VRA-RTF Townships in over to block projects, 0 award project 2019 community to selected contractor

✤ VRA-RESETTLEMENT TRUST FUND - 2020 ANNUAL WORK PLAN

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Adopted Poli	cy Objectives: Er	nhance inclusive	e and equitable a	ccess to, and parti	cipatio	on in qu	uality e	educati	on at all levels				
Projects	Activities (Operations)	Location	Baseline	Output indicators	-	Quarterly time schedule			Indicative B	udget		Implementin Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Rehabilitatio n of Teachers Quarters	Invite contractors to bid for projects, award project to selected contractor	Memchemfr e	Requests received from Resettlement Townships in 2019	Project commissioned and handed over to community	$\sqrt{}$	$\sqrt{}$			GHØ250,00 0			VRA- RTF	

Adopted Policy Objectives: Enhance inclusive and equitable access to, and participation in quality education at all levels **Projects** Activities Location **Baseline** Output **Quarterly time Indicative Budget** Implementing (Operations) schedule Agencies indicators 2nd 3rd 4th GoG IGF Donor Lead Collab 1st Rehabilitatio Invite New Senchi Requests Project n of Junior commissioned received from contractors to $\sqrt{\sqrt{}}$ $\sqrt{\sqrt{}}$ Resettlement and handed GH¢150.00 VRA-**High School** bid for projects, award project Townships in over to RTF 0 to selected 2019 community contractor Rehabilitatio Nkwakube Project Requests Invite n of Primary received from commissioned contractors to w $\sqrt{\sqrt{}}$ $\sqrt{\sqrt{}}$ "B" School GH¢150.00 bid for projects, Resettlement and handed VRAaward project Townships in over to 0 RTF to selected 2019 community contractor Construction Todome Requests Project Invite commissioned of Teachers received from contractors to $\sqrt{\sqrt{}}$ $\sqrt{\sqrt{}}$ Quarters bid for projects, Resettlement and handed GH¢300,00 VRA-RTF award project Townships in over to 0 to selected 2019 community contractor Requests Project Construction Wusuta Invite of Teachers received from contractors to commissioned $\sqrt{\sqrt{}}$ $\sqrt{\sqrt{}}$ Quarters bid for projects, Resettlement and handed GH¢300,00 VRA-RTF award project Townships in over to 0 to selected 2019 community contractor

✤ VRA-RESETTLEMENT TRUST FUND - 2021 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly dule	time		Indicative B	udget		Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Rehabilitatio n of Junior High School	Invite contractors to bid for projects, award project to selected contractor	Pai- Katanga	Requests received from Resettlement Townships in 2019	Project commissioned and handed over to community	$\sqrt{}$	$\sqrt{}$			GH⊄150,00 0			VRA- RTF	
Construction of Teachers Quarters	Invite contractors to bid for projects, award project to selected contractor	Tokroano	Requests received from Resettlement Townships in 2019	Project commissioned and handed over to community	$\sqrt{}$	$\sqrt{}$			GH¢300,00 0			VRA- RTF	
Construction of Kindergarten block	Invite contractors to bid for projects, award project to selected contractor	Kete Krachi	Requests received from Resettlement Townships in 2019	Project commissioned and handed over to community	$\sqrt{}$	$\sqrt{}$			GH¢200,00 0			VRA- RTF	
Construction of Teachers Quarters	Invite contractors to bid for projects, award project to selected contractor	Kitare	Requests received from Resettlement Townships in 2019	Project commissioned and handed over to community	$\sqrt{}$	$\sqrt{}$			GH¢200,00 0			VRA- RTF	

✤ VRA-RESETTLEMENT TRUST FUND - 2021 ANNUAL WORK PLAN

◆ VRA-RESETTLEMENT TRUST FUND - 2021 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly dule	time		Indicative B	udget		Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Constructi on of 6- Unit Primary School	Invite contractors to bid for projects, award project to selected contractor	Gulubi	Requests received from Resettlement Townships in 2019	Project commissioned and handed over to community	$\sqrt{}$	$\sqrt{}$			GHØ450,00 0			VRA- RTF	
Constructi on of Teachers Quarters	Invite contractors to bid for projects, award project to selected contractor	Prang	Requests received from Resettlement Townships in 2019	Project commissioned and handed over to community	$\sqrt{}$	$\sqrt{}$			GH¢300,00 0			VRA- RTF	
Rehabilita tion of Primary School	Invite contractors to bid for projects, award project to selected contractor	Ntonabom a	Requests received from Resettlement Townships in 2019	Project commissioned and handed over to community	$\sqrt{}$	$\sqrt{}$			GH⊄150,00 0			VRA- RTF	
Adopted P	olicy Objectives: En	sure affordab	e, equitable, easil	y accessible and U	nivers	al Hea	lth Cov	verage	(UHC)		<u> </u>		
Constructi on of Health Centre	Invite contractors to bid for projects, award project to selected contractor	Labum	Requests received from Resettlement Townships in 2019	Project commissioned and handed over to communities	$\sqrt{}$	$\sqrt{}$			GH⊄500,00 0			VRA- RTF	

✤ VRA-RESETTLEMENT TRUST FUND - 2021 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	OutputQuarterly timeindicatorsschedule			Indicative B	udget		Implementing Agencies			
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Construction of 2no. 10- seater KVIP	Invite contractors to bid for projects, award project to selected contractor	Botoku	Requests received from Resettlement Townships in 2019	Project commissioned and handed over to community	$\sqrt{}$	$\sqrt{}$			GH¢150,00 0			VRA- RTF	

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly dule	time		Indicative Budget	Implem Agencie	-
					1st	2nd	3rd	4th	Financing Mode	Lead	Collab
Expansion of VALCO's Operations – 3 Cell lines operations	Procurement of parts, equipment, machinery and raw materials Conditioning of the equipment Preparation of the 2 nd Cell Line Start-up Operations of	VALCO	One Line Production with a total output of 40,000 MTPA	2 nd Cell Line Operation with Production Output of 20,000 MT for the year	√√	$\sqrt{}$			US \$5 million per start-up per Cell Line and upgrade of critical Plant machinery	VALCO	MoEn
	2nd Cell Line. Complete Start- up Operations of 2nd Cell Line						$\sqrt{}$		-		
	Sustain Operations							$\sqrt{}$			

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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indicative Budget	Implem Agencie	
					1st	2nd	3rd	4th	Financing Mode	Lead	Collab
JV Partnership with PerfectEnerg y (PE) – a Chinese Aluminium Profile	Execute Shareholders' Agreement (SHA) and Power Purchase Agreement (PPA)	Aluminiu m Park (VALCO)	Memorandum of Understanding and Non- Disclosure Agreement executed	Commission VALCO-Perfect Energy (Ghana) 5,000 MTPA Aluminium Extrusion Plant	$\sqrt{}$	$\sqrt{}$			US \$22.5 million financed by Joint Venture Partners	VALCO	PE
manufacture r	Power evacuation to Project Site				$\sqrt{}$	$\sqrt{}$					
	Complete Preliminary Engineering Activities				$\sqrt{}$	$\sqrt{}$					
	Secure all Permits and Licenses					$\sqrt{}$					
	Commence construction of Phase 1						$\sqrt{}$				

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VOLTA ALUMINIUM COMPANY - 2018 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators		rterly edule	time		Indicative Budget	Implem Agencie	
					1st	2nd	3rd	4th	Financing Mode	Lead	Collab
	Complete construction of Phase 1										
								$\sqrt{}$			
	Commence Production of Aluminium Profiles							$\sqrt{}$			
JV Partnership with Korean Investors to	Sign Memorandum of Understanding (MoU)	ALUMINIUM PARK (VALCO)	Discussion with key stakeholders on Project	Commissio n LED Fixtures Manufactur			$\sqrt{}$		US\$ 50 million financed by JV Partners	VALCO	Korea n Invest ors
produce LED fixtures	Conduct Feasibility Studies		Implementatio n Plan	ing Plant			$\sqrt{}$				
	Execute Shareholders' Agreement (SHA) and Power Purchase Agreement (PPA)										
							$\sqrt{}$				
	Power evacuation to Project Site							$\sqrt{}$			
	Complete Preliminary Engineering Activities							$\sqrt[n]{\sqrt{}}$	-		

♦ VOLTA ALUMINIUM COMPANY - 2018 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly t	ime scl	hedule	Indicative Budget	Implem Agencie	•
					1st	2nd	3rd	4th	Financing Mode	Lead	Collab
	Secure all Permits and Licenses							$\sqrt{}$	US\$ 110 million financed by JV		
	Commence construction of LED Plant							$\sqrt{}$	Partners		
	Complete construction of LED Plant	_									
	Commence Production of LED fixtures							$\sqrt{}$			
JV Partnership with Sural	Sign Memorandum of Understanding (MoU)	ALUMINIU M PARK	Non- Disclosure	Commission a 60,000 MTPA			$\sqrt{}$		US\$ 110 million financed by JV Partners	VALCO	Sural Europe
Europe – a European	Complete Feasibility Study	(VALCO)	Agreement Executed	Aluminium Rod Mill and				$\sqrt{}$			Luiope
Aluminium Rods, Cables	Approve Project		between VALCO and	Cable Plant				$\sqrt{}$			
and Automotive	Achieve Financial Close		JV Partner.					$\sqrt{}$	1		
products manufacturer	Engage Project Engineering Services							$\sqrt{}$			

VOLTA ALUMINIUM COMPANY - 2018 ANNUAL WORK PLAN

Projects	ojects Activities (Operations) Locati		Baseline	Output indicators	-	rterly dule	time		Indicative Budget	Implem Agencie	•
					1st	2nd	3rd	4th	Financing Mode	Lead	Collab
Cell Technology Upgrade Upgrade P69 Smelter	METSOL to review technical requirements at the VALCO Smelter for Phase 1 implementation	VALCO	Business Proposal from METSOL Ltd (an international company	Number of upgraded Cells and improved operational	<i>, , ,</i>				US \$270,000 (Self Financed	VALCO	METS OL
Technology to Metsol Smelter	METSOL to submit a proposed implementation plan Complete Engineering Design and	-	which specializes in technical solutions for	efficiencies	$\sqrt{}$						
Technology in the short term	Purchases for Phase 1 Complete the installation of the 10 MPF Cells	-	the aluminium Industry)			$\sqrt{}$					
	Evaluate Performance of 10 MPF Cells					$\sqrt{}$					

VOLTA ALUMINIUM COMPANY - 2018 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tin	ne sch	edule	Indicative Budget	Implem Agencie	•
					1st	2nd	3rd	4th	Financing Mode	Lead	Collab
Cell Technology Upgrade Upgrade to METSOL Cell Technology to sustain VALCO's operations in the short-to- medium term	Attain Notice to Proceed (NTP) to implement Phase 2 (i.e. converting one entire Cell Line to MPF Cells)	VALCO	Technology Supply Agreement with METSOL signed	Number of upgraded Cells and improved operational efficiencies					US \$270,000 (Self financed)		
Co-develop a 1,200 MW Gas-fired Combined	Continue review of draft Financial Model	VALCO	Draft Power Purchase Agreements (PPAs) submitted to	Signed PPA's and SHA and secured permits	$\sqrt{}$				US \$1.2 billion (Financed by Project Developer and inclusive of in-kind equity	VALCO	FPE
Cycle Power Plant with	Engage services of Legal Advisor to review PPAs and Project Agreements				$\sqrt{}$				contribution from VALCO)		

♦ VOLTA ALUMINIUM COMPANY - 2018 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tin	ne sch	edule	Indicative Budget	Implen Agenci	nenting es
					1st	2nd	3rd	4th	Financing Mode	Lead	Collab
	Complete Financial Model					$\sqrt{}$					
	Continue review of PPAs and Shareholders' Agreement (SHA)					1					
	Commence securing of all Permits and Licenses						$\sqrt{}$				
	Execute PPAs and Shareholders' Agreement (SHA)						$\sqrt{}$				
	Upgrade Project Feasibility Study						$\sqrt{}$				
	Achieve Financial Close	-						$\sqrt{}$	-		
	Complete securing of all Permits and Licenses							$\sqrt{}$			

VOLTA ALUMINIUM COMPANY - 2019 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sch	edule	Indicative Budget	Impleme Agencies	•
					1st	2nd	3rd	4th	Financing Mode	Lead	Collab
JV Partnership	Procurement of equipment	ALUMINIUM PARK	Output of 5,000	Additional Output of		$\sqrt{}$			US \$22.5 million financed	VALCO	PE
with PerfectEnergy	Commence construction of Phase 2	(VALCO)	MTPA Aluminiu	5,000 MTPA Aluminium			$\sqrt{}$		by Joint Venture Partners		
(PE) – a Chinese Aluminium	Complete construction of Phase 2		m Extrusion Plant	Extrusion Plant							
Profile								$\sqrt{}$	-		
manufacturer	Commence Production of Additional Aluminium Profiles							$\sqrt{}$			
JV Partnership with Korean Investors to	Construction of LED Plan	ALUMINIUM PARK (VALCO)	Discussion with key stakeholde rs on	Commissioni ng of LED Fixtures Manufacturi	$\sqrt{}$				US\$ 50 million financed by JV Partners	VALCO	KOREA INVES ORS
produce LED fixtures	Complete construction of LED Plant		Project Implement	ng Plant		$\sqrt{}$					
	Commission LED Plant		ation Plan			$\sqrt{}$			1		

***** VOLTA ALUMINIUM COMPANY - 2019 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indicative Budget	Implem Agencie	-
					1st	2nd	3rd	4th	Financing Mode	Lead	Collab
JV Partnership with Sural	Engage Project Engineering Services	ALUMINIUM PARK	Engaged Project	Commission a 60,000 MTPA Aluminium	$\sqrt{}$				US\$ 110 million financed by JV Partners	VALCO	Sural Europe
Europe – an European	Procure Equipment and Deliver to Plant site	(VALCO)	Engineerin g Services	Rod Mill and Cable Plant	$\sqrt{}$	$\sqrt{}$					
Aluminium Rods Cables and	Construct Buildings and offices				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			
Automotive products manufactur er	Install Equipment						$\sqrt{}$	$\sqrt{}$			
Cell Technology Upgrade	Secure Funding for Phase 2	VALCO	P69 Smelter Technolog	Complete upgrade to METSOL Cell	$\sqrt{}$				US \$2.4 million (VALCO Resources)	VALCO	METSOL
Upgrade to METSOL Cell Technology	Complete Engineering Design and purchase materials for Phase 2 Complete the installation of Phase 2		y Pilot Phase Completed	Technology Improved efficiencies and increased	Ŵ	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			

***** VOLTA ALUMINIUM COMPANY - 2019 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indicative Budget	Implem Agencie	•
					1st	2nd	3rd	4th	Financing Mode	Lead	Collab
Upgrade to DUBAL (D18+) Cell	Conduct Prefeasibility Studies	VALCO	P69 Smelter Technolog	Improved efficiencies and increased	$\sqrt{}$				US \$300 million	VALCO	EMAL
Technology	Compile Capex Estimates		У	production of primary	$\sqrt{}$						
to completely convert P69	Select option for Board Approval			aluminum		$\sqrt{}$					
Smelter Technology to the D18+	Compose Project Proposal for Board Approval					$\sqrt{}$					
Smelter Technology- Phase 1	Compose Specifications for Feasibility Study and FEED					$\sqrt{}$					
	Source for funding	-					$\sqrt{}$				
	Compose specifications for Project Phase 1						$\sqrt{}$				
	Prepare detailed Engineering design										

***** VOLTA ALUMINIUM COMPANY - 2019 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indicative Budget	Implem Agencie	
					1st	2nd	3rd	4th	Financing Mode	Lead	Collab
	for Phase 1(Rectifier Station and Cell Lines						$\sqrt{}$				
	Commence Purchasing and Hiring for Phase 1							$\sqrt{}$			
	Commence Construction Work at Cell Lines 3, 4 and 5							$\sqrt{}$			
Co-develop a 1,200 MW Gas-fired Combined Cycle Power	Complete the Engineering and design of the Power Plant	VALCO	Signed PPA's and SHA and secured permits						US \$1.2 billion (Financed by Project Developer and inclusive of in- kind equity contribution from VALCO)	VALCO	FPE
Plant with FirstPower Energy	Complete Procurement		Financial Closure		$\sqrt{}$						
(FPE), USA @ Tema	Commence construction of Phase 1					$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			

♦ VOLTA ALUMINIUM COMPANY - 2020 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicato	Quart	terly tir	ne sche	edule	Indicative Budget	Implem Agencie	•
				rs	1st	2nd	3rd	4th	Financing Mode	Lead	Collab
Expansion of VALCO's Operation Increase Production Level from 2 Cell Line Operations to 5 Cell Line Operations	Procurement of parts, equipment, machinery and raw materials Preparation of the newly constructed Cells Start-up Operations Complete Start-up Operations Sustain Operations	VALCO	2 Cell Lines Production with a total output of 80,000 MTPA	Total Producti on Output of 59,160 MT for the year	√√	$\sqrt{}$			US\$ 500 million (D18+ smelter technology conversion)	VALCO	
JV Partnership with Sural Europe – an European Aluminium Rods Cables and Automotive products manufacturer	Construct Buildings and offices Commission the plant Start-up Rod Mill Plant Full Production	ALUMINIUM PARK (VALCO)	Installed Equipment	Commissi on a 60,000 MTPA Aluminiu m Rod Milling Plant	√√ √√ √√	$\sqrt{}$			US\$ 110 million financed by JV Partners	VALCO	Sural Europe

VOLTA ALUMINIUM COMPANY - 2020 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indicative Budget	Implem Agencie	-
					1st	2nd	3rd	4th	Financing Mode	Lead	Collab
Upgrade P69 Smelter Technology to DUBAL (D18+) Smelter Technology in the long term	Continue construction works on Cell Lines 3, 4 and 5 Start-up of newly constructed Cells Secure funds for Phase 2 Compose specifications for Project Phase 2 Prepare detailed Engineering design for Phase 2 (Rectifier Station and Cell Lines	VALCO	Specificati ons for Phase 1 complete and Funds attained	Improved efficiencie s and increased productio n of primary aluminum	_√√	√√	√√ √√	 √√	US \$500 million	VALCO	EGA and FATA Spa

***** VOLTA ALUMINIUM COMPANY - 2020 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly ti	me sch	edule	Indicative Budget	Implem Agencie	•
					1st	2nd	3rd	4th	Financing Mode	Lead	Collab
Co-develop a 1,200 MW Gas- fired Combined Cycle Power Plant with FirstPower Energy (FPE), USA @ Tema	Continue Construction	VALCO	Constructi on of Phase 1 commence d		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	US \$1.2 billion (Financed by Project Developer and inclusive of in-kind equity contribution from VALCO)	VALCO	FPE

***** VOLTA ALUMINIUM COMPANY - 2021 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar schee	terly ti dule	me		Indicative Budget	Impleme Agencies	0
					1st	2nd	3rd	4th	Funding Mode	Lead	Collab
Expansion of VALCO's Operation	Procurement of parts, equipment, machinery and raw materials	VALCO	2 Cell Lines Production with a total output of 80,000	Total Production Output of 11,310 MT for the year	$\sqrt{}$	$\sqrt{}$			US\$ 500 million (D18+ smelter technology conversion)	VALCO	
	Preparation of additional newly constructed Cells		MTPA and additional volume of		$\sqrt{}$	$\sqrt{}$					
	Start-up Operations		59,160 from newly			$\sqrt{}$					
	Complete Start-up Operations		constructed Cells				$\sqrt{}$				
	Sustain Operations							$\sqrt{}$			
Cell Technology Upgrade Upgrade to	Continue construction works on Cell Lines 3, 4 and 5	VALCO	Newly constructed Cells	Percentage of Project complete	$\sqrt{}$				US \$300 million	VALCO	EGA and FATA Spa
DUBAL (D18+) Cell Technology to completely convert P69	Start-up of additional newly constructed Cells		Specificatio ns for Phase 2 complete and Funds attained			$\sqrt{}$					

♦ VOLTA ALUMINIUM COMPANY - 2021 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indicative Budget	Implem Agencie	-
					1st	2nd	3rd	4th	Funding Mode	Lead	Collab
Co the D18+ Hiring for Phase Smelter Fechnology- Phase 1 Commence Construction V	Commence Purchasing and Hiring for Phase 2	VALCO	Specificati ons for Phase 2 complete and Funds	Improved efficiencies and increased production of primary			$\sqrt{}$		US \$200 million	VALCO	EGA and FATA Spa
Phase 1	Commence Construction Work at Cell Lines 1 and 2	-	attained	aluminum				$\sqrt{}$		VALCO	
Co-develop a 1,200 MW Gas-fired Combined	Complete Phase 1 (Total of 400 MW)	VALCO	50% of Constructio n works for Phase 1	Percentage of Project complete	$\sqrt{}$				US \$1.2 billion (Financed by Project Developer and inclusive of in- kind equity contribution from	VALCO	FPE
Cycle Power Plant with FirstPower Energy (FPE), USA @ Tema	Commence Construction of Phase 2 (800 MW)		completed				$\sqrt{}$	$\sqrt{}$	VALCO)		

Adopted Policy C Projects)bjectives: Leverage oi Activities	Location	Baseline	Output			-	hedule	Indica	tive Bud	lget	Impler	nenting
	(Operations)			indicators								Agenci	es
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
BOST Pumpuni Terminal Project (BPT)	Re-evaluate terms of shareholders	Pumpuni, Western Region	Feasibility and FEED commenced	20,000 m3 LPG storage tank completed			$\sqrt{}$				USD40,000,00 0	BOST	
	Continue FEED		Environment al Impact Assessment commenced	60,000 m3 capacity gas oil storage tanks constructed				$\sqrt{}$	-				
				90,000 m3 capacity gasoline storage tanks constructed									

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sched	terly ti lule	me		Indica	tive Budge	et	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Colla
BATV 12'' Multi-product Petroleum Pipeline)	Assess 12 inch pipes in Houston.	Tema to Akosomb o	Designed and procured pipes	Installed 12" pipeline from APD to Akosombo			$\sqrt{}$				USD 3,000,000	BOST	
	Finalize Settlement Agreement						$\sqrt{}$						
	Raise Capital							$\sqrt{}$	_				
	Ship pipes and other materials to Ghana.							$\sqrt{}$					
Debre-Buipe Petroleum Pipeline	Finalize Settlement Agreement with Supplier	Debre to Buipe	Pipeline design completed	Installed 6- inch pipeline from Debre			$\sqrt{}$				USD 1,500,000	BOST	
	Review Initial design			to Buipe				$\sqrt{}$					
	Procure and ship pipes to Ghana							$\sqrt{}$	-				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indica	tive Bu	ldget	Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
BRV parking lot at Buipe and Bolgatanga Depots	Conduct national competitive bid	Buipe and Bolga	Buipe: High level cost estimates determined	Buipe: -150 BRV parking lot constructed		$\sqrt{}$	$\sqrt{}$				GH¢ 12,000,000	BOST	NPA
	Award Contract		Bolga: Geotechnical survey completed on the land	Rest-room facilities built Bolga:			$\sqrt{}$						
	Commence works			-200 BRV parking lot completed			$\sqrt{}$		-				
				Rest room facilities built									

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indicat	ive Budget		Impleme Agencies	-
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
BOST Depot Upgrade	Contractor to Remobilize	ALL BOST Depots	Contracts with Vendor has been	receiving equipment at all BOST			$\sqrt{}$				USD 5,130,000		
	Commence Works		signed off	depots.			$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indica	tive Bud	lget	Impleme Agencies	-
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
			Engineering review on going Procurement of equipment currently underway.	Improved of product loading flow rates from about 900 litres/min to approximate ly 2400 litres/min								BOST	
			Shipment of equipment currently underway										
12,000 MT Capacity LPG Terminal, Tema	Procure FEED Contractor Select FEED Contractor	Tema	Expression of Interest sent out for EPC Contractor			$\sqrt{}$	$\sqrt{}$		-		USD 2,400,000	BOST	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tin	ne sche	dule	Indica	ative Bı	ıdget	Implei g Agen	mentin 1cies
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Colla b
	Commence FEED Contract							$\sqrt{}$					
Reinstatement of Tema- Akosombo Petroleum Product Pipeline	Continue clearing of Right of Way	Tema to Akosomb o through Mami Water	Award of Contract and Project kick- off. Completed external integrity test (PCM survey)	Restoration and recommissio ning of the pipeline			$\sqrt{}$				USD 1,484,000	BOST	
(TAPP)	Perform Hydrostatic Test		Reinstatement works on the section of the pipeline along the Adomi bridge commence					$\sqrt{}$					
			Commenced clearing of pipeline ROW										

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	ne sch	edule	Indic	ative B	udget	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collat
Rehabilitatio n of Barges	Commence procurement process	Akosombo	PPA approval obtained in August 2016 to undertake works	Restoration and recommissi oning of the barges			$\sqrt{}$	$\sqrt{}$			N/A	BOST	
Adopted Polic	cy Objectives: Make Ghar	ha the aviation	 hub for West Africar	1									
ATK Depot at KIA	Conduct Market Study analysis	Kotoka Internation al Airport	Concept Development	ATK Depot storage facilities in Accra, Kumasi and Tamale. Total capacity = 10,000m ³			$\sqrt{}$	$\sqrt{}$			USD 300,000	BOST	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indic	ative B	sudget	Implem Agencie	_
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
BOST Pumpuni	Procure EPC	Pumpuni,	Terms of	20,000 m3 LPG									
Terminal Project (BPT)	contractor	Western Region	Shareholder Agreement re-evaluated	storage tank completed	$\sqrt{}$	$\sqrt{}$					N/A	BOST	
				-60,000 m3 capacity gas oil									
	Commence works		FEED completed	storage tanks constructed		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD 160,000,0	BOST	
				-90,000 m3 capacity gasoline storage tanks constructed							00	0031	
Acquisition of additional	Conduct economic/ cash flow analysis	Takoradi and Tema	Evaluate/ Assess Tanks Raise Capital	Depot Acquired: Total Capacity Gas Oil by 49,677m ³	$\sqrt{}$						USD 78,500,00 0	BOST	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quai	terly ti	ne sche	edule	Indic	ative B	udget	Implem Agencie	0
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
storage facilities in Takoradi and	Acquire Property in Takoradi and Tema			Gasoline 17,000m ³	-	$\sqrt{}$							
Tema. Products; Gas Oil, Gasoline, and	Commission and commence operations						$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	ne sche	edule	Indic	ative B	udget	Implem Agencie	0
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
Development of additional Tanks in Tema, Kumasi, Bolga and Akosombo depots	Procure FEED contractor Award Contract and Commence FEED works Complete FEED works	Tema, Kumasi, Bolga and Akosombo	Scoping study completed	Gas Oil and Gasoline tanks and ancilliaries constructed at the various depots. Total Gasoline capacity: 172,500m3		√√	√√ √√		-		USD 21, 250,000	BOST	
				Total Gas Oil Capacity: 239,500m3				$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tin	ne sche	dule	Indica	ative E	Budget	Implem Agencie	0
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
BATV 12''	Procure EPC	Tema to	Settlement	Installed 12"									
Multi-product	Contractor	Akosombo	Agreement finalized	pipeline from APD to	$\sqrt{}$						USD	BOST	
Petroleum Pipeline)			Inalized	APD to							12,000,00	2001	
	Award EPC contract					$\sqrt{}$			-		0		
		_	Commenced						_				
	Award EPC contract		Raise Capital										
						$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
Debre-Buipe	Procure EPC	Debre to	Settlement	Installed 6-inch									
Petroleum Pipeline	Contractor	Buipe	Agreement finalised	pipeline from Debre to Buipe	$\sqrt{}$	$\sqrt{}$					USD		
ripenne			manocu	Debre to Duipe							5,500,000	BOST	
	Award EPC Contract	_				$\sqrt{}$	$\sqrt{}$		-		3,300,000	0031	
			Initial design					,,,	_				
	Commence Works		reviewed					$\sqrt{}$					
	Complete Works	-1			$\sqrt{}$				-				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	dule	Indic	ative I	Budget	Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
BRV parking lot at Buipe and Bolgatanga Depots	Complete Works	Buipe and Bolga	National Competitive Bid conducted Contract Awarded	Buipe: - 150 BRV parkinglot constructed Restroom facilities built Bolga: 200 BRV parking lot completed Restroom facilities built Restroom	1						Gh⊄ 8,000,000	BOST	NPA

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indic	ative B	udget	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
BOST Depot Upgrade	Continue and complete project.	All BOST Depots	Project resumed	New loading and receiving equipment at all BOST depots.	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD 11,970,000	BOST	
				Improved of product loading flow rates from about 900 litres/min to approximately 2400 litres/min									
Development of additional Barges for transportation of white products	Procure EPC Contractor	Akosombo	Scoping study completed Approval received to commence project	Nine (9No.) multiproduct barges constructed	$\sqrt{}$	$\sqrt{}$					USD 10,800,000	BOST	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indic	ative B	udget	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
from Akosombo to Debre/ Buipe	Award EPC contract			Capacity: 1,500,000ltrs		$\sqrt{}$							
	Award EPC contract	-		each		$\sqrt{}$							
Construction	Procure EPC	Akosombo	Scoping	Three (3No.)	$\sqrt{}$	$\sqrt{}$					USD		
of additional pusher boats	Contractor Award EPC contract	-	study completed	pusher boats constructed		$\sqrt{}$					4,500,000	BOST	
	nward Er G contract		Approval	With rating of		~ ~							
	Commence works		received to commence project	2x750KW		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
Reinstatemen t of Tema- Akosombo	Recommission Pipeline.	Tema to Akosombo through	Hydro test and all other major works	Restoration and recommissioning of the pipeline	$\sqrt{}$						USD	BOST	
Petroleum Product Pipeline (TAPP)	Pay retention and issue	• Mami Water	completed	(To be completed by end of July 2019)			$\sqrt{}$		-		371,000		

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indic	ative B	udget	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Colla
Rehabilitation of Barges	Award contract	Akosombo	Commence procurement	Restoration and recommissioning		$\sqrt{}$							
-	Mobilisation of	1	process	of the barges							USD		
	Contractor to site.					$\sqrt{}$					1,300,000	BOST	
	Commence repair works	-											
							$\sqrt{}$						
	Recommission Barges	-						$\sqrt{}$	-				
	y Objectives: Make Ghan	a the aviation l	l nub for West Afri	can sub region									
Adopted Polic	y objectives. Make dhan												
Adopted Polic ATK Depot at KIA	Acquire Land for project	Kotoka Internation	Market Study completed	ATK Depot storage facilities	$\sqrt{}$						USD	BOST	
ATK Depot at	Acquire Land for			storage facilities Built in Accra,		1			-		USD	BOST	
ATK Depot at	Acquire Land for project	Internation		storage facilities	$\sqrt{}$	$\sqrt{}$			-		USD 1,800,000	BOST	
ATK Depot at	Acquire Land for project Procure FEED	Internation		storage facilities Built in Accra, Kumasi and		$\sqrt{}$			-			BOST	
ATK Depot at	Acquire Land for project Procure FEED Contractor	Internation		storage facilities Built in Accra, Kumasi and		$\sqrt{}$						BOST	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar schee	terly ti lule	me		Indic	ative B	udget	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
BOST Pumpuni Terminal Project (BPT)	Continue with execution of works	Pumpuni, Western Region	Procure EPC contractor Commence works	20,000 m3 LPG storage tank completed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD 160,000,000	BOST	
	Monitor and control works			60,000 m3 capacity gas oil storage tanks constructed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
				90,000 m3 capacity gasoline storage tanks constructed									
Acquisitio n of additional storage	Assess/ Evaluate VRA Terminal to make an informed decision	Aboadze	Takoradi and Tema Acquisitions completed	Crude Oil - 155,000 m3 Diesel - 2000 m3 Storage facilities							USD 78,500,000	BOST	VRA
facilities in	Conduct economic analysis			added									

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sched	terly ti lule	me		Indic	ative B	udget	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
Takoradi and Tema: Gas Oil, Gasoline and Crude Oil	Acquire property Complete acquisition and commence operations												
Developmen t of additional Tanks in	Procure EPC contractor	Tema, Kumasi, Bolga and Akosombo		Gas Oil and Gasoline tanks and ancilliaries constructed at the various	$\sqrt{}$	$\sqrt{}$					USD	BOST	
Tema, Kumasi, Bolga and Akosombo depots	Award Contract and Commence construction works			depots. Total Gasoline capacity: 172,500m3 Total Gas Oil Capacity: 239,500m3		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			106,250,000		
	Complete construction and issue completion certificate					$\sqrt{}$							

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indic	ative B	udget	Implem Agencie	0
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
BATV 12'' Multi- product Petroleum Pipeline)	Continue woks	Tema to Akosombo	EPC Contractor procured	Installed 12" pipeline from APD to Akosombo	$\sqrt{}$						USD	BOST	
	Complete construction and issue completion certificate		Contract Awarded			$\sqrt{}$					5,000,000		

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indic	ative B	udget	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collat
Debre-Buipe Petroleum Pipeline	Continue woks	Debre to Buipe	6-inch pipes procured and shipped to Ghana	Installed 6-inch pipeline from Debre to Buipe	$\sqrt{}$								
	Complete construction and issue completion certificate		EPC Contract awarded.								USD 3,000,000	BOST	
			Works commenced		$\sqrt{}$	$\sqrt{}$							
Development of additional Barges for transportation of white	Continue with construction of works.	Akosombo	EPC Contractor procured EPC contract awarded								USD 18,000,000	BOST	
of white products from Akosombo to Debre/ Buipe			Construction works commenced		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indic	ative B	udget	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Colla
Construction of additional pusher boats	Continued with construction works	Akosombo	EPC Contractor procured and contractt awarded	Three (3No.) pusher boats constructed With rating of 2x750KW	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD 7,500,000	BOST	
12,000 MT Capacity LPG Terminal, Tema	Complete works	Tema	Preliminary Engineering Works Completed Acquire regulatory permits EPC Contract awarded and	12,000MT LPG storage tank with supporting loading facilities built	√√	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD 12,000,000	BOST	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indic	ative B	udget	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
ATK Depot at KIA	Continue with engineering design.	Kotoka International Airport	Land for project acquired FEED Contractor procured, Contract awarded and engineering design works commenced	ATK Depot storage facilities built in Accra, Kumasi and Tamale. Total capacity = 10,000m ³	1						USD 3,000,000	BOST	
Natural Gas Liquids (NGL in Western Region and Tema	Procure FEED Contractor Commence FEED	Tema and Western Region	Approval and market study completed	Storage tanks completed. 10,000m ³ in Tema 10,000m ³ in Western Region	√ √	√√ √√	$\sqrt{}$	√√			USD 2,000,000	BOST	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar schee	terly ti dule	me		Indic	ative B	udget	Implem Agencie	0
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
BOST Pumpuni Terminal Project (BPT)	Continue with execution of works	Pumpuni, Western Region	Procure EPC contractor	20,000 m3 LPG storage tank completed - 60,000 m3 capacity gas	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			USD 40,000,000	BOST	
	Monitor and control works	-		oil storage tanks constructed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
			Commence works	90,000 m3 capacity gasoline storage tanks constructed									
Development of additional Tanks in	Procure FEED contractor	Tema, Kumasi, Bolga and	Inception of concept	Gas Oil and Gasoline tanks and ancilliaries constructed at the	$\sqrt{}$	$\sqrt{}$					USD	BOST	
Tema, Kumasi, Bolga and	Award Contract and Commence FEED works	Akosombo		various depots. Total Gasoline capacity: 172,500m3 Total Gas Oil Capacity:		$\sqrt{}$					21, 250,000		
Akosombo depots	Complete FEED works			239,500m3			$\sqrt{}$						

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indic	ative B	udget	Implem Agencie	0
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
Developmen t of additional Barges for transportati on of white products from Akosombo to Debre/ Buipe	Continue and complete construction of works.	Akosombo	-Construction works continued	Nine (9No.) multiproduct barges constructed Capacity: 1,500,000ltrs each	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				USD 7,200,000	BOST	
Construction of additional pusher boats	Continue and complete construction works. Issue completion certificate				√√	√√	√√				USD 3,00,000	BOST	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar schee	terly ti dule	me		Indic	ative B	udget	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
ATK Depot at KIA	Continue Contraction works	Kotoka International Airport	Continue with engineering design.	ATK Depot storage facilities built in Accra, Kumasi and Tamale.	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				USD 900,000	BOST	
			Procure EPC Contractor and award contra	Total capacity = 10,000m ³									
Natural Gas Liquids (NGL in Western Region and	Procure EPC Contractor	Tema and Western Region	FEED completed	Storage tanks completed. 10,000m ³ in Tema	$\sqrt{}$	$\sqrt{}$					USD 10,000,000	BOST	
Tema	Commence works	_		10,000m ³ in Western Region		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	-				
Construction of HFO tanks in Tema	Procure FEED Contractor	Tema	Approval received and Scoping study completed	15,000m ³ of storage facility built.	$\sqrt{}$	$\sqrt{}$					USD 750,000	BOST	
	Award Contract and Commence FEED		completed			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

***** TEMA OIL REFINERY - 2018 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime			ative Bud '000)	get	Implen Agencie	•
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Installation of 6.5 MW Steam Turbine Generator &	Fabrication of Pipeline to connect new generator to existing facility.	TOR	Commissioning of the electrical control desk SCADA system	Generate 6.5MW of electrical power			$\sqrt{}$	1					
Replacemen t of Electrical Control Desk with SCADA	Installation of overhead crane in the generator house						$\sqrt{}$			1,500		TOR	
system	Commissioning of the electrical control desk SCADA system							$\sqrt{}$					
Adopted Pol		verage oil and gas	industry as a catalyst for r	national economic developm	ent		1			L		1	1
Supply and Erection of Direct Fired	Procurement of materials	TOR	Contract has been signed and advance payment of 50% has	CDU shall be run at full capacity, 45,000BPSD with the installation of			$\sqrt{}$						
Crude Oil Heater	Fabrication of crude heater at the factory		been effected to permit procurement and fabrication	additional heater				$\sqrt{}$		2,213		TOR	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me			ative Bud '000)	lget	Imple Agenc	menting cies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Supply and Installation of New 120T/hr	Hydro static pressure test of the boiler pump	TOR	Boiler ready to be shipped	Boiler proper has been completed and the about to be shipped to	$\sqrt{}$								
(Net) Steam Boiler	Demolition and construction of foundation.			Ghana. Work is within schedule		$\sqrt{}$				18,500		TOR	
	Manufacturing of electrical units					$\sqrt{}$							
	FAT of boiler control system						$\sqrt{}$						
Constructio n of state of the art Automated	Front end engineering design	TOR	Contract Agreement about to be signed	Contract Agreement about to be signed	$\sqrt{}$					5,000			
Loading Facilities on BOT basis	Detail engineering design						$\sqrt{}$					TOR	Build Operate Transfe (BOT)
	Contractor mobilation to site.	1						$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me			ative E '000)	Budget	Imple Agenc	menting cies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Constructio n of 7,000m3 premix tank	Front end engineering design	TOR	Contract Agreement has been signed	Contractor has submitted performance bond and will			$\sqrt{}$				4,500	TOR	вот
and 15,000m3 Gasoil tank on BOT	Detail engineering design			soon mobilize to site				$\sqrt{}$					
basis	Contractor mobilation to site.							$\sqrt{}$					
Revamping of CDU from 45,000 BPSD to 60,000 BPSD	Complete all detail designs and start the procurement.	TOR	Consortium of Osun Eng & Intertech have received payment for Mobilisation,	Complete all detail designs and start the procurement.				$\sqrt{}$			25,000	TOR	
			Test run completed and FEED is in progress										

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indic (US\$'	ative Budge 000)	et	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Construction of a new 100,000-	Pre-feasibility studies	TOR	Consortium of Osun Eng &	Complete all detail designs and start the		$\sqrt{}$							
150,000BPSD refinery	Feasibility studies	-	Intertech have received payment for Mobilisation,	procurement.			$\sqrt{}$		-	1,000		TOR	вот
	FEED		Test run completed and FEED is in progress					$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sched	terly ti lule	me		Indic (US\$	ative Bud '000)	get	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Installation of 6.5 MW Steam Turbine Generator & Replacemen t of Electrical Control Desk with a SCADA system	Running all cables from Generator to the existing system and terminating the cables and commissioning the Generator	TOR	Installation of T-G set and SCADA system and commissionin g	Generate 6.5MW of electrical power talyst for national ed	√√					1,000		TOR	
Supply and Erection of Direct Fired Crude Oil	Procurement of all instrument and auxiliary items	TOR	Shipment and installation of crude heater on site and commissionin	Plant capacity increase to original 45,000 BPSD	√√								
Heater	Installation of furnace at TOR	-	g			$\sqrt{}$				2,213		TOR	
	Mechnical Completion and Commissioning	-					$\sqrt{}$						

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule		ative Bud 000)	get	Imple Agenc	menting ties
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Revamping of CDU from 45,000 BPSD to	Shipment and arrival long lead items	TOR	Consortium of Osun Eng & Intertech have received	Complete all detail designs and start the procurement.	1							TOR	
60,000 BPSD	Preparation for installation		payment for Mobilisation, Test run	procurement.		$\sqrt{}$				25,000			
	Decommissionin g of non-essential units and installation of new ones Decommission		completed and				$\sqrt{}$						
	and installation of essential units							$\sqrt{}$					
	Hydrostatic pressure test of all newly installed units and							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me			ative Bud '000)	get	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Emergency Telephone & Fire	Revaluation of existing work	TOR	Project is about 75% completed	Completion and commissioning of project	$\sqrt{}$								
Protection Systems	Procurement of remaining materials		but has stalled since 2009	project		$\sqrt{}$			=	1 000			
	Arrival and installation of new materials						$\sqrt{}$		-	1,000		TOR	
	Completion and commissioning of fire alarm systems							$\sqrt{}$	-				
Firefighting training grounds	Revaluation of existing work	TOR	Project is about 60% completed	Completion and commissioning of project				$\sqrt{}$					
_	Procurement of remaining materials		but has stalled since 2009							1,100		TOR	
	Arrival and installation of new materials												

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	erly ti ule	me			ative Budg '000)	get	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Relocation of safety block	Revaluation of exist-ing work				$\sqrt{}$								
	Procurement of re-maining materials					$\sqrt{}$				1,000			
	Completion of frontage works						$\sqrt{}$		-	1,000			
	Completion and commissioning of new safety block							$\sqrt{}$					
Supply and Installation of New	Completion of sub-station building	TOR	Superstructu re works are about 90%	Completion of procurement process and	$\sqrt{}$								
Electrical Sub-Station and Offices for	Invitation for the supply of electrical facilities		complete. Procurement process for electrical	installation works. Works should be completed by end	$\sqrt{}$					3,000		TOR	
Movement of Products staff	Evaluation of proposal and awards of contract for the electrical facility		items to revived.	of year 2019		$\sqrt{}$							

Adopted Poli	cy Objectives: Minim	nize potential e	environmental in	npacts of oil and gas	industr	у							
Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	erly ti ule	me			ative Budge '000)	et	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Mobilisation to site and procurement of items					$\sqrt{}$							
	Installation of electrical facilities						$\sqrt{}$		-				
	Completion and commissioning	-						$\sqrt{}$					
Adopted Poli	cy Objectives Levera	ge oil and gas	industry as a cat	alyst for national eco	onomic	develo	pment						
Construction of Automated Loading	Excavation and preparation of site	TOR	Construction in progress and phase	To improve the loading rate at the loading	$\sqrt{}$								
Facilities on BOT basis	Foundation construction of LPG loading gantry		one (1) almost completed.	gantries and increase total quantity loaded a day		$\sqrt{}$				5,000		TOR	
	Installation of LPG loading gantry facilities						$\sqrt{}$						

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar schee	terly ti lule	me		Indic (US\$	ative Budg '000)	get	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Commissioning of LPG loading gantry							$\sqrt{}$					
Construction of 40,000m3 each Gasoline	Excavation and preparation of site	TOR	Construction in progress and	Increase in the storage capacity of the refinery	$\sqrt{}$								
and Atmospheric Residue (AR) Tanks. &	Construction of foundation of tanks		completed by end year 2019.			$\sqrt{}$				24,536		TOR	
Construction of Two (2) LPG	Construction/erec tion of tanks					$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
Spherical Tanks on BOT basis	Hydro static pressure test and commissioning of tanks							$\sqrt{}$	-				
Construction of 7,000m3 premix tank	Excavation and preparation of site	TOR	Construction in progress and	To increase the storage capacity of the refinery	$\sqrt{}$								
and 15,000m3 Gasoil tank on BOT basis	Construction of foundation of tanks		completed by end year 2019.			$\sqrt{}$						TOR	вот

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	terly ti lule	me			ative Buda '000)	get	Imple: Agenc	menting cies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Construction/erec tion of tanks						$\sqrt{}$	$\sqrt{}$					
	Hydro static pressure test and commissioning of tanks							$\sqrt{}$		4,500			
Adopted Poli	cy Objectives: Minim				industr	у							
Construction of New Waste Water	Invitation to suppliers.	TOR	To begin the procurement process and	Effluents requirements per EPA standards	$\sqrt{}$								
Treatment Unit (WWTU)	Evaluation report and award of contract		award Contract	improved		$\sqrt{}$				5,000		TOR	
	FEED and process simulation						$\sqrt{}$						
	Detail engineering design							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me			ative Budរ្ '000)	get	Imple Agenc	menting cies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Construction of a new 100,000 -	Completion of FEED and process simulation	TOR	Consortium of Osun Eng & Intertech have	Complete all detail designs and start the procurement.		$\sqrt{}$							
150,000 BPSD refinery	Detail engineering design.		received payment for Mobilisation,				$\sqrt{}$	$\sqrt{}$		100,000		TOR	вот
	Procurement of long lead items.		Test run completed and FEED is in progress					$\sqrt{}$					
Installation of Automatic Tank	Revaluation of existing work	TOR	To begin the procurement process and	To effectively monitor petroleum	$\sqrt{}$								
Gauging System	Procurement of remaining materials		award Contract	storage quantities in tanks		$\sqrt{}$				500		TOR	
	Arrival and installation of new materials						$\sqrt{}$						
	Completion and commissioning of tank gauging systems (Phase I)	-						$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me			ative Bud '000)	lget	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Mass Flow Meters for Oil & Gas	Invitation to suppliers.	TOR	To begin the procurement process and	To properly monitor and account for all	$\sqrt{}$								
Lines (Normal Meters - 4 set)	Evaluation report and award of contract		award Contract	product transfers in the refinery		$\sqrt{}$				300		TOR	
	Detail engineering design						$\sqrt{}$		-				
	Procurement of materials							$\sqrt{}$					
Mas Flow Meters for Lines	Invitation to suppliers.	TOR	To begin the procurement	To monitor and account for all	$\sqrt{}$								
to BDCs Loading Gantry	Evaluation report and award of contract		process and award	product transfers to and from		$\sqrt{}$							
	Detail engineering design		Contract	refinery to third party BDCs			$\sqrt{}$			700		TOR	
	Procurement of materials							$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me		Indic (US\$'	ative Bud 000)	lget	Imple Agenc	menting zies
					1st	2nd	3rd	4th	GoG	IGF	Other	Lead	Collab
-	Invitation to suppliers.	TOR	Yet to tender	Help to forecast the refinery's operations for	$\sqrt{}$								
	Evaluation report and award of contract			reliability and profitability		$\sqrt{}$				1,000		TOR	
	Detail engineering design						$\sqrt{}$	$\sqrt{}$	-				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	erly ti ule	me		Indic (US\$'	ative Bud 000)	get	Implem Agencie	•
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Constructio n of Automated Loading Facilities	Demolition of existing LPG loading gantry				$\sqrt{}$								
	Construction of Foundation for new Liquid white products automated loading gantry					$\sqrt{}$				4,000		TOR	
	Installation of white products automated loading facility						$\sqrt{}$						
Adopted Po	licy Objectives: Minim	ize potential	environmental ir	npacts of oil and gas	industr	у					1	•	1
Constructio n of New Waste Water	Detail engineering design approvals	TOR		Effluents requirements per EPA standards	$\sqrt{}$								
Treatment Jnit (WWTU)	Decommissioning of existing non- essential units			improved		$\sqrt{}$				3,000		TOR	вот

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me			ative E '000)	Budget	Imple Ageno	ementing cies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Procurement of long lead items					$\sqrt{}$							
	Construction of foundation for the new unit					$\sqrt{}$							
	Arrival and installation of new units	-					$\sqrt{}$		-				
	Hydrostatic pressure test and mechanical completion							$\sqrt{}$	-				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sched	terly ti lule	me		Indic (US\$'	ative Budg 000)	get	Imple Agenc	menting ries
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Installation of Automatic Tank	Revaluation of existing work	TOR	Work in progress according to	To effectively monitor petroleum	$\sqrt{}$								
Gauging System	Procurement of remaining materials		plan.	storage quantities in tanks		$\sqrt{}$				500		TOR	вот
	Arrival and installation of new materials	-					$\sqrt{}$						
	Completion and commissioning of tank gauging systems (Phase II)	-						$\sqrt{}$					
Mass Flow Meters for Oil & Gas Lines (Normal	Preparation of lines for installation	TOR	completed ac within time.	To monitor and account for all product transfers	$\sqrt{}$					300			
Meters - 4 set)	Installation of flow meters		in the refinery		$\sqrt{}$]					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti lule	me			ative Bu '000)	dget	Imple Ageno	menting cies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Commissioning						$\sqrt{}$						
	Monitoring and evaluation of performance of meters	_						$\sqrt{}$				TOR	ВОТ
Mas Flow Meters for Lines to BDCs Loading	Preparation of lines for installation	TOR	Work to be completed within time.	To monitor and account for all product transfers from refinery to	$\sqrt{}$								
Gantry	Installation of flow meters			third party BDCs		$\sqrt{}$				700		TOR	вот
	Commissioning						$\sqrt{}$		_				
	Monitoring and evaluation of performance of meters							$\sqrt{}$	-				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	erly til lule	me			ative Bud 000)	lget	Imple Agenc	menting ries
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Construction of a new 200,000	Procurement of long lead items.	TOR	Consortium of Osun Eng & Intertech	Complete all detail designs and start the		$\sqrt{}$							
BPSD refinery	Preparation and excavation of project site		have received payment for Mobilisation,	procurement.		$\sqrt{}$							
Const found vario Arriv instal lead i	Construction of foundation for various units		Test run completed and FEED is in progress				$\sqrt{}$						
	Arrival and installation of long lead items						$\sqrt{}$	$\sqrt{}$					
Adopted Poli	cy Objectives: Impro	ve financial ca	apacity and susta	inability of utility c	ompanie	S	1						
Procurement of LP Model	Procurement of materials	TOR	Model procured and installation started.	Help to forecast the refinery's operations for reliability and profitability				$\sqrt{}$		1,000			

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	terly ti lule	me		Indic (US\$'	ative Bud '000)	lget	Imple Agenc	menting ties
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Construction of Automated Loading Facilities	Mechanical completion of automated white products loading ganty	TOR	Project completed	Both gantries put to full use	$\sqrt{}$					3,000		TOR	
	Completion and commissioning of loading gantry					$\sqrt{}$							
	Facility performance monitoring						$\sqrt{}$						
Construction of New Waste Water Treatment Unit (WWTU)	Commission and operation	TOR	Project should be completed	Standards in effluent requirements met.		$\sqrt{}$				2,000		TOR	вот
Installation of Automatic Tank	Revaluation of existing work	TOR	Project completed	Tanks quantities monitored effectively	$\sqrt{}$								
Gauging System	Procurement of remaining materials					$\sqrt{}$							

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	terly tii lule	me			ative Budge (000)	et	Imple: Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Arrival and installation of new materials						$\sqrt{}$					TOR	ВОТ
	Completion and commissioning of tank gauging systems (Phase III)							$\sqrt{}$	-	500			
Construction of a new 200,000 BPSD	Arrival and installation of long lead items	TOR	Consortium of Osun Eng & Intertech have received	Complete all detail designs and start the procurement.		$\sqrt{}$	$\sqrt{}$			1,300,000			
refinery	Hydrostatic pressure test on all installed units		payment for Mobilisation, Test run completed and FEED is in progress					$\sqrt{}$				TOR	BOT

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart sched	erly tii ule	me		Indic (US\$'	ative Budge 000)	et	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Procurement of LP Model	Performance monitoring and evaluation of software	TOR	Project should be completed	Help to forecast the refinery's operations for reliability and profitability				$\sqrt{}$		1,000		TOR	BOT

*	GHANA CYLINDER MANUFACTURING COMPANY	- 2018 ANNUAL WORK PLAN
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Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	Qua	rterly t	ime scł	nedule	Indicativ	e Bud	get	Impleme Agencies	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Workplace Culture Strengthening Project	Review and drafting of the company policy and Operational Manual	Accra	Existing Policy, SOPs and conventi ons.	Operational Manual				$\sqrt{}$		¢60, 000		GCMC	
800,000 Cylinder Production Line Installation	Procurement and installation of a new automatic cylinder production line		Existing cylinder producti on line	Commissioni ng of new cylinder production line				$\sqrt{}$	¢12,000 ,000				GoG
Project	Extension of existing cylinder production floor	GCMC Accra	GCMC producti on floor size	Certification of completion				$\sqrt{}$		¢1,0 00,0 00			
	Acquisition of lands in the Southern belts of the country	Souther n belt of the country	Existing GCMC Assets	Land acquisition and procurement				$\sqrt{}$		¢10 0,00 0			Lands Commissio n

✤ GHANA CYLINDER MANUFACTURING COMPANY - 2018 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indica	ative Budge	et	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Stove Production Line and	Relocation & Installation of dedicated cook	GCMC Accra	Existing stove production	Better finishing of stoves produced			$\sqrt{}$			¢50,000		GCMC	
Workflow Redesign Project	stove production line.		setup	Number of stoves produced.			$\sqrt{}$						
GCMC Industrial and Institutional Collaboration Project	Draw up and implement a framework for collaboration between GCMC and the various Institutions.	GCMC Accra	Existing terms for national service & attachment students	Increased number of technically oriented students trained.				$\sqrt{}$		¢50,000		GCMC	MoEn, GNPC, NPA
Training and Capacity Building Project	Organize training programmes and workshops for technical staff of GCMC	To be determined by manageme nt.	Existing staff training policy	Number of staff trained and total number of workshops undertaken				$\sqrt{}$		¢100,00 0		GCMC	MoEn, GNPC, NPA

♦ GHANA CYLINDER MANUFACTURING COMPANY - 2018 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me scho	edule	Indicat	tive Bud	get	Impleme Agencies	0
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
GCMC Capitalization Project	Follow up on government stimulus program for GCMC	Accra	Approval by Ministry of Trade	Disburseme nt of government stimulus package			$\sqrt{}$			¢10 0,00 0		GCMC	MoEn, MoTI
	Ongoing process of entering into Strategic Partnership	Accra	Existing sharehol ding structure of the company	Receipts of expressions of interest Shortlisted possible partners						¢25, 000		GCMC	MoEn, MoF, Parliamer t

**	GHANA CYLINDER MANUFACTURING COMPANY	- 2019 ANNUAL WORK PLAN
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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indicat	tive Bu	ıdget	Impleme Agencies	•
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
800,000 Cylinder Production Line Installation	Procurement and installation of a new automatic cylinder production line	Accra	Installed cylinder productio n line	Total Percentage increase in production				$\sqrt{}$	¢14,0 00,00 0			GCMC	GoG
Project	Acquisition of lands in the Middle belts of the country	Middle belt of the country	Existing GCMC Assets	Land Procuremen t and acquisition						¢15 0,00 0		GCMC	Lands Commiss ion
GMC Industrial and Institutional collaboration Project	Draw up and implement a framework for collaboration between GCMC and the various institutions.	GCMC Accra	Existing terms for national service & attachmen t students	Number of students and graduates accepted for Industrial Experiences				$\sqrt{}$		¢12 5,00 0		GCMC	MoEn, GNPC, NPA

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tir	ne sche	edule	Indica	tive Bud	get	Impleme	nting Agencies
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Staff training and Capacity Building Project	Organize training programmes and workshops for technical staff of GCMC	To be determin ed by manage ment.	Existing staff training policy	Number of staff trained and undertaken workshops in the year				$\sqrt{}$		¢175, 000		GCMC	MoEn, GNPC, NPA
GCMC Capitalization Project	Follow up on a government Stimulus package	Accra	Existing sharehol ding structure of the company	Appointmen t of strategic partner				$\sqrt{}$		¢75,0 00		GCMC	MoEn, MoF, Parliament

♦ GHANA CYLINDER MANUFACTURING COMPANY - 2019 ANNUAL WORK PLAN

**	GHANA CYLINDER MANUFACTURING COMPANY	- 2020 ANNUAL WORK PLAN
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Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly dule	time		Indica	tive Budg	get	Implem Agencie	0
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
800,000 Cylinder Production Line Installation Project	Acquisition of lands in the Southern, Western belts of the country	Western belt of the country	Existing GCMC Assets	Land Procurement and acquisition				$\sqrt{}$		¢150,0 00		GCMC	Lands Commi ssion
Stove Production Line and Workflow redesign Project	Feasibility studies of West Africa Market	Burkina Faso, Liberia & Nigeria	List of companie s that made inquiries	Cylinder Manufacturin g Company commissed				$\sqrt{}$	¢300, 000			GCMC	GoG
GCMC Industrial and Institutional collaboration Project	Draw up and implement a framework for collaboration between GCMC and Technical Institutions.	GCMC Accra	Existing terms for national service & attachme nt students	Number of students and graduates accepted for Industrial Experiences				$\sqrt{}$		¢125,0 00		GCMC	MoEn, GNPC, NPA

↔ GHANA CYLINDER MANUFACTURING COMPANY - 2020 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar scheo	terly ti dule	me		Indica	tive Bu	dget	Impleme Agencies	0
					1st	2nd	3r d	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Staff Training and Capacity Building	Organize training programmes and workshops for technical staff of GCMC	To be determine d by manageme nt.	Existing staff training policy	Number of staff trained and undertaken workshops				$\sqrt{}$		¢175 ,000		GCMC	MoEn, GNPC, NPA

♦ GHANA CYLINDER MANUFACTURING COMPANY - 2021 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	-	rterly t dule	ime		Indica	ative Bu	ldget	Implem Director	0
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab.
800,000 Cylinder Production Line Installation Project	Acquisition of lands in the Northern belts of the country	Northern belt of the country	Existing GCMC Assets	Land Procurement and acquisition				$\sqrt{}$		¢150 ,000		GCMC	Lands Commi ssion
Stove Production Line and Workflow Redesign Project	Building and commissioning of new cylinder manufacturing factory	Either Western or Middle belt of Ghana	Projected market size from feasibility studies	Cylinder Manufacturin g Company commissed				$\sqrt{}$	¢29, 700, 000			GCMC	GoG
GCMC Industrial and Institutional Collaboration Project	Draw up and implement a framework for collaboration between GCMC and Technical Institutions.	GCMC Accra	Existing terms for national service & attachmen t students	Number of students and graduates accepted for Industrial Experiences				$\sqrt{}$		¢125 ,000		GCMC	MoEn, GNPC, NPA

♦ GHANA CYLINDER MANUFACTURING COMPANY - 2021 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar schee	terly ti dule	me		Indica	ative Bu	ıdget	Implem Director	-
					1st	2nd	3r d	4th	GoG	IGF	Donor/ Others	Lead	Collab.
Staff Training and Capacity Building	Organize training programmes and workshops for technical staff of GCMC	To be determine d by manageme nt.	Existing staff training policy	Number of staff trained and total workshops undertaken				$\sqrt{}$		¢175 ,000		GCMC	MoEn, GNPC, NPA

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	terly ti	me sch	ledule	Indic	ative Bu	dget	Implei Agenc	nenting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Development of Midstream gas and LNG activities	Develop regulatory framework	Nationwi de	Proposed mandate to regulate midstream gas activities	Regulatory structure under review including human resource issues	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
regim Estab	Develop licensing regime	-		155005	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Establish Gas department					$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Monitor supply of LNG and natural gas to power plants and industries				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	te <mark>rly t</mark> i	me sch	nedule	Indic	ative Budg	get	Impler Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Bulk Road Vehicle (BRV) Tanker Park project	Completion of Procurement process for facility manager and commencement of operation of the 100 BRV Tanker Park at Kpone	Accra	Constructio n works complete	Operational BRV tanker park at Kpone	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢36 million		NPA	MOEN, TDU, TOR, PSPs
	Feasibility study for 300 BRV Tanker Park at Buipe	Buipe			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	-				
Zonalization Policy	Complete a review of the policy and commence full implementation	Nationwi de	stakeholder Consultatio ns	Efficient implementation of zonalization policy	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				NPA	BDCs, OMCs, MoEn

*	NATIONAL PETROLEUM AUTHORITY	- 2018 ANNUAL WORK PLAN
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Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	nedule	Indicative Budget			Implementing Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Provision of guidelines for National Oil Loss Control	Complete a review of existing guidelines and commence full implementation	Accra	Draft revised guidelines under review	Reduced oil losses in the downstream	$\sqrt{}$		$\sqrt{}$	$\sqrt{}$				NPA	MoEn,E DCs, OMCs, TOU, TDU,
Petroleum Products Marking Scheme	Upgrade the current Accra/Tema zonal laboratory to run confirmatory tests as well as full product specification tests and upgrade the conditions of other NPA zonal laboratories Field monitoring activities under fuel marking scheme	Accra Accra, Kumasi, Takoradi, Buipe Nationwi de	Existing laboratory in Accra and Tema	Commencement of procurement process for installation of state-of-the-art laboratory		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢ 200 million		NPA	TOR GSA

Projects	Activities (Operations)	Locati on	Baseline	Output indicators	Quart	erly ti	me sch	iedule	Indicative Budget			Implementing Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Inspections and Monitoring	Compliance inspections of all downstream facilities	Accra	Inspections reports	Number of facilities inspected	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Construction permits and no objection inspections	_			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢3 million			
National LPG Promotion Policy	Develop a market driven structure that ensures safety and increased access to LPG.	Accra Study tour in Ivory Coast	New LPG Value √√ Chain New LPG PBU Revised HSSE	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				NPA	MOEN LPGMC	
	Enhance the capacity of existing regulatory institutions in order to meet the regulatory requirements of the new market structure			compliance guidelines Revised Operational guidelines	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢76 million	GH¢76 million		PSPs

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me scł	nedule	Indicative Budget			Implementing Agencies	
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Ensure the existence of robust and standard Health, Safety and Environmental practices in the production, marketing and			Stakeholder consultation and education programmes Cylinder Recall	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	consumption of LPG.			strategy									
	Ensure the sustainability of supply under the new market structure.			Risk assessment of LPG filling plants completed in all 10 regions	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Ensure local content and participation in the LPG sub-sector in compliance with the downstream local content policy				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	iedule	Indic	ative Bud	get	Implei Agenci	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
NPA Act and Downstrea m	Amendment of NPA Act 2005, Act 691	Accra	NPA Act 2005, Act 691	Drafting of PPMS and License	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
Regulations A H H	Amendment of Petroleum Product Pricing LI 2186		LI 2186, 2187	regulations commenced	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Amendment of Petroleum Product Marking Scheme LI 2187			Ammended BRV Tracking regulations complete	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	-	GH¢2 million		NPA	MOEN AG
	Development of a Unified Petroleum Price Fund LI				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Development of a licensing LI	-			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	-				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indic	ative Bu	dget	Impler Agenci	nenting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Establish NPA offices in all 10 regions	Procure and set up offices with relevant Human resource and tools.	10 regional capitals	All regional offices identified	Decentralization of NPA activities	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				NPA	Procure ment Authori ty
Petroleum Hub	Incorporation of Petroleum Hub needs into downstream regulatory framework	Nationwi de	Petroleum hub concept being reviewed at the MInistry		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indic	ative Budg	get	Implei Agenci	nenting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Development of Mid-stream	Develop regulatory framework	Accra		Developed regulatory	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
Gas and LNG activities	Develop licensing regime			framework Natural Gas PBU	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GHØ3 million		NPA	MOEN EC
	Establish Gas department to			Natural Gas PDU	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		mmon			EC
	monitor supply of LNG to power plants	-		HSSE and operational guidelines	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
				Monitoring reports of all LNG and natural gas supplies									
Petroleum Hub	Incorporation of Petroleum Hub needs into downstream regulatory framework	Nationwi de	Petroleum hub concept being reviewed at the MInistry		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indic	ative Budg	get	Implei Agenci	nenting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Bulk Road Vehicle (BRV) Tanker Park project	Operation of the 1000 BRV Tanker Park at Kpone	Accra	Constructio n works complete and facility manager procured	Operational BRV tanker park at Kpone	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				NPA	MOEn TDU TOR, PSPs
Petroleum Products Marking Scheme	Upgrade the current Accra/Tema zonal laboratory to run confirmatory tests as well as full product specification tests and upgrade the conditions of other NPA zonal laboratories	Accra	Existing laboratory in Accra and Tema	Fully functional state-of-the-art laboratory	VV	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GHS200 million		NPA	TOR

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indic	ative Budg	get	Impler Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Inspections and Monitoring	Compliance inspections of all downstream facilities	Accra	Inspections reports	Number of facilities inspected	\checkmark	V				GHS 3 million		NPA	PSPs
	Construction permits and no objection inspections												
National LPG Promotion Policy	Develop a market driven structure that ensures safety and increased access to LPG.	Accra	Study tour in Ivory Coast	Construction of bottling plants Recall of existing cylinders	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH ¢ 76 million	GH ¢ 76 million	NPA	MOEN PSPs
				Stakeholder consultation and education programmes Decommissioning of some high risk stations									

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tim	ie sche	dule	Indica	ative Budge	t	Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Ensure the sustainability of supply under the new market structure.				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Ensure local content and participation in the LPG sub-sector in compliance with the downstream local content policy Amendment of NPA					$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	-				
NPA Act and Downstream		Accra	NPA Act 2005, Act	Drafting completed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
Regulations	Amendment of Petroleum Product Pricing LI 2186		691 LI 2186, 2187		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GHØ2 million		NPA	MOEN AG
	Amendment of Petroleum Product				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tim	e schei	dule	Indica	itive Budge	t	Implem Agencie	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Marking Scheme LI 2187												
	Development of a Unified Petroleum Price Fund Ll				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Development of a licensing Ll	_			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tim	ie sche	dule	Indica	ative Bud	get	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Developmen t of Mid- stream Gas and LNG activities	Regulation of midstream gas and LNG activities	Nationwide		Regulatory framework completed Natural Gas PBU HSSE and operational guidelines Monitoring reports of all LNG and natural	$\sqrt{}$	VV	$\sqrt{}$	$\sqrt{}$					
Bulk Road Vehicle (BRV) Tanker Park project	Operation of the 700 BRV Tanker Park at Kpone	Accra	Constructio n works complete and facility manager procured	gas supplies Operational BRV tanker park at Kpone	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				NPA	MoEn TDU, TOR, PSPs

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tim	ne sche	dule	Indica	ative Budge	t	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Petroleum Hub	Incorporation of Petroleum Hub needs into downstream regulatory framework	Nationwid e	Petroleum hub concept being reviewed at the MInistry		V	V							
Petroleum Products Marking Scheme	Upgrade the current Accra/Tema zonal laboratory to run confirmatory tests as well as full product specification tests and upgrade the conditions of other NPA zonal laboratories	Accra	Existing laboratory in Accra and Tema	Fully functional state-of-the-art laboratory		V	V	V		GH⊄200 million		NPA	TOR

Projects	Activities (Operations)	Locatio n	Baseline	Output indicators	Quart	terly tim	ne sche	dule	Indica	ative Budget	:	Implem Agencie	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Inspections and Monitoring	Compliance inspections of all downstream facilities	Nationw ide	Reports of inspections	Number of facilities inspected	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GHØ3mill ion		NPA	PSPs
C	Construction permits and no objection inspections				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
National LPG Promotion Policy	Develop a market driven structure that ensures safety and increased access to LPG.	Accra	Study tour in model countries	Decommissionin g of all high risk LPG refilling plants	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH¢76 million	GH¢76 million	NPA	MoEn PSPs
	Enhance the capacity of existing regulatory institutions in order to meet the regulatory requirements of the new market structure.			Stakeholder consultation and education programmes	$\sqrt{}$	1	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tim	e sche	dule	Indica	ative Bud	get	Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Ensure the existence of robust and standard Health, Safety and Environmental practices in the production, marketing and consumption of LPG. Ensure the sustainability of supply under the new market structure.	-			$\sqrt{}$	√√	$\sqrt{}$	$\sqrt{}$					
	Ensure local content and participation in the LPG sub-sector in compliance with the downstream local content policy	-			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	_				

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tim	ne sche	dule	Indica	ntive Budge	t	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
NPA Act and Downstre am Regulatio ns	Amendment of NPA Act 2005, Act 691Amendment of Petroleum Product Pricing LI 2186Amendment of Petroleum Product Marking Scheme LI 2187Development of a Unified Petroleum Price Fund LIDevelopment of a licensing LI	Accra	NPA Act 2005, Act 691 LI 2186, 2187	Revised NPA Act UPPF LI Licensing LI	\checkmark	√	V	\checkmark		GHØ2 million		NPA	MoEn, AG

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tim	ie sche	dule	Indica	ative Bud	get	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Midstream gas and LNG activities	Regulation of midstream gas and LNG activities	Nationwide		Regulatory framework completed Natural Gas PBU HSSE and operational guidelines Monitoring reports of all LNG and natural gas supplies	$\sqrt{}$	~~~	VV	$\sqrt{}$				NPA	MoEn PURC
Petroleum Hub	Incorporation of Petroleum Hub needs into downstream regulatory framework	Nationwide	Petroleum hub concept being reviewed at the MInistry		V	V	V	V				NPA	GIPC, MoEn PSPs

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tim	ne sche	dule	Indica	ative Budget	t	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Bulk Road Vehicle (BRV) Tanker Park project	Operation of the 700 BRV Tanker Park at Kpone	Accra	Constructio n works complete and facility manager procured	Operational BRV tanker park at Kpone	V	V	V	V				NPA	MoEn, TDU, TOR, PSPs
Petroleum Products Marking Scheme (PPMS)	Carry out marking of petroleum products	Accra	Reports of PPMS	Quantity of petroleum products marked	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GHØ200 million		NPA	TOR
Inspections and Monitoring	Compliance inspections of all downstream facilities	Accra	Reports of inspections	Number of facilities inspected	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GH Ø 3mil lion		NPA	PSPs
	Construction permits and no objection inspections				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tim	e sche	dule	Indica	itive Budget	t	Implem Agencie	-
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
National LPG Promotion Policy	Develop a market driven structure that ensures safety and increased access to LPG.	Accra	Study tour in model countries	Cylinder Re- Circulation Model of LPG distribution fully implemented	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		GHS76 million	GHS7 6 millio n	NPA	MoEn PSPs
	Enhance the capacity of existing regulatory institutions in order to meet the regulatory requirements of the new market structure.			nationwide	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tin	ne sche	dule	Indica	ative Bud	get	Implen Agenci	nenting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Ensure the existence of robust and standard Health, Safety and Environmental practices in the production, marketing and consumption of LPG Ensure the sustainability of supply under the new market structure.	-			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	_				
	.Ensure local content and participation in the LPG sub-sector in compliance with the downstream local content policy				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tim	ne sche	dule	Indica	ative Bud	get	Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Local Content and Local Participation Development	Review: Annual Local Content Plans, Annual Performance Reports, Procurement Plans Complete FS, LC Fund, R&D, Common Qualification	PC	2017 Submitted LC Reports Collated data from plans and reports (2015-2017)	100% of Local Content, Procurement Plans reviewed Standardised LC requirements developed MoU signed with Tema Shipyard Financial	√√	√√	$\sqrt{}$	$\sqrt{}$					
	System Guidelines Prepare for Annual	-	Financial Services Paper	Services, LC Fund, R&D, CQ System	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Local Content Workshop		Draft Local	Guidelines developed									
	Organise LC capacity	Takoradi Accra	Content Fund Guidelines	2018 Annual LC workshop held	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tin	ne sche	dule	Indica	ative Budget		Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	development programmes for SMEs and indigenous Ghanaian companies		Local Content Workshop held in 2017 Organised 4 workshops for SMEs in 2017	4 SME capacity workshops organised Establish the Local Content Fund Secretariat						¢1,400,00 0		PC	
			EDC previous framework document (2015)	Operationalized EDC									
Accelerate development of regulations For Petroleum	Complete work on the General Petroleum Regulations	PC	Draft General Petroleum Regulations	General Petroleum Regulations passed into law		VV	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tim	ne sche	dule	Indica	itive Budget		Implem Agencie	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Exploration and Production	Review and Replace Petroleum (Local Content and Local Participation Regulations), 2013, L.I. 2204 Review and Replace Petroleum Commission (Fees and Charges) Regulations, 2015, L.I. 222		Current L.I. 2204 and 2221 Regulations 22 and 26 of L.I. 2204 deals with Technology Transfer Regulation 6	New LIs which address challenges identified in past years of implementation Publish Policy on Technology and skills know how transfer	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	_				
	Develop Technology and skills know how transfer Policy		Available draft documents	Incorporate requirements on Crude Lifting into Application pack	~~	~~	$\sqrt{}$	~~		Ø810,000		PC	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quart	erly tim	ie sche	dule	Indica	ative Budg	get	Implem Agencie	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Develop Crude Lifting Requirements Develop Local Content Procurement & Bid Evaluation Guidelines		Copies of drilling contracts and bid documents collated for review HSE Regulations passed into law	Publish Guidelines on Local Content Procurement & Bid Evaluation to aid Standard Drilling Rig and Associated Services Contract Guidelines for use by IOCs	√√	VV VV	√√ √√	$\sqrt{}$	_				
Regulatory Compliance Programme	Coordinate the review and approval of applications for Permits, Certificates, Approvals and Consents	PC	281 Initial Registratio n Permits were issued in 2017	An improved and well-coordinated processing of registration applications (21days to 12days)	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				PC	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indica	ative Budget		Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Establish and maintain a verifiable Petroleum Register in accordance with Section 56 of Act 919	PC	205 Renewal Registration Permits were issued in 2017	An improved and well- coordinated processing of registration applications	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Carry out at least 2 facility audits (FPSOs & Rigs)		Draft Petroleum Register has been developed and presentation	(21days to 12days) To review applications	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	_	¢810,000		РС	
	Carry out at least inspections of supply/support vessels		done to the Hon. Minister	and issue at least 250 Permits/Certi ficates	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Process applications for security clearance and permit to import explosives		Collated existing Petroleum Agreements - executed and ratified from the onset of petroleum exploration	To review applications and issue at least 200 valid Renewal Permits	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tiı	ne sch	edule	Indica	ative Budg	et	Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
			activities. Compliance monitoring was carried out on 25 service companies Processed 71 security clearance application s for operators	Authorizations and other ancillary Agreements available to the general public Audits conducted on 2 facilities and Reports/recomme ndations made All vessels contracted to secure clearance prior to entering Ghana's territorial	$\sqrt{}$	$\sqrt{}$	√√	√√					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly ti	me sch	edule	Indica	ative Budget		Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Coordinatio n of Upstream Petroleum Sector Policies	Develop the National Technology Transfer Policy	PC	Draft National Technology Transfer Policy developed	National Technology Transfer Policy	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Coordinate the development of National Emergency Response Plan (NERP)		Draft NERP (Upstream) Framework document developed	Draft NERP (Upstream) Framework document developed and approved	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		¢600,000	РС		
	Review/Provision of recommendations for Gas Master Plan		Recommen dations on Gas Master Plan submitted to Ministry of Energy	Gas Master Plan recommendations implemented	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tiı	ne sch	edule	Indica	ative Budget		Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Promotion of Ghana's hydrocarbo n potential	Prospectively mapping of Ghana's Offshore Basins	PC	Legacy seismic and well data	Leads and Prospects Catalogue	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Receive and Store Petroleum Data		Proposals for seismic acquisition surveys	Copies of all Data generated from activities of Operators and contracted service companies	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		¢2,300,00 0			
	Promote the hydrocarbon prospectively of Ghana's Sedimentary Basins at various international		Feedback from 2014- 2017 promotions	Participated in 4 promotional programmes	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tii	me sch	edule	Indica	ative Budget		Impler Agenci	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Dono r	Lead	Collab
Upstream petroleum monitoring and evaluation	Monitor offshore petroleum activities (Jubilee, TEN, OCTP and others)	Offshore Ghana (Western Region)	Full year data monitoring, compilation and analysis. Submitted monthly, Biweekly and daily production	Effective monitoring of all Field operations. Up to date database and reports on hydrocarbon production	$\sqrt{}$	~~	1	$\sqrt{}$					
	Monitor and review well performance, analyze hydrocarbon production, and production statements		summaries Jubilee: Update on reservoir through TCM	Ensure reservoir is produced according to reservoir management plan and production permit conditions Ensure major	VV	$\sqrt{}$	$\sqrt{}$			¢1,600,000			

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar	terly tiı	me sch	edule	Indica	ative Budg	et	Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Monitor reservoir management from three fields Monitor drilling and completion activities on all fields (10 wells): OCTP phase 2 (SNKE-D, SNK- 2AST, SNK-D, SNKE-C), TEN (Nt05-P, En01- P, En09), GJFFD (3 wells TBC)			approved programme are communicated to PC Cost effective and optimized decommissioning plan	√√	~~	√√	~~					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indic	ative Bu	dget	Imple: Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Monitor Turret Remediation Project				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Monitor plans and activities for decommissioni ng Saltpond field				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Voltaian Basin Project	Volta Region	Concept Paper submitted to PC for approval	Completion of Voltaian Basin Project		$\sqrt{}$	√√	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quan sche	terly t dule	ime		Indic	ative Budge	t	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Cost Evaluation of Petroleum Projects	Apply Economic Standards & Guidelines (ES&G) for Projects Evaluation Develop Economic	PC	Final ES&G for project evaluation Established industry economic standards.	Guidelines for economists in petroleum project analysis. Consistent economics evaluation of petroleum	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Guidelines for Decommissioning		Decommissi oning	projects Fit for purpose									
	Perform economic analyses to determine different economic benefits of projects, including GJFFD,		principles and information from the Petroleum Agreements. Draft ES&G and existing project	Economic Models Industry accepted economic tools and techniques Improved government revenue as a result of reduced leakages	$\sqrt{}$		$\sqrt{}$			¢500,000		PC	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indic	ative Bi	udget	Implei Agenci	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	TEN, OCTP, DWTCTP.		evaluation models and	Simplified AOE calculations	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Optimise government revenue from projects		techniques Petroleum Agreement	based on up-to date information and accurate	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Review and monitor project economics to ensure compliances		Petroleum	data	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Jointly evaluate gas commercialization proposals and participate in GSA negotiations	-	Reviewed and accepted Cost Statements	Conclusion of GSA and other related agreements for TEN, OCTP and Greater Jubilee	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
	Jointly evaluate bids for Licensing Rounds and participate in Negotiations		and Statement of Expenditures and Receipts	projects	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
			Gas Sales Agreements	Complete bidding rounds framework									

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quan sche	terly t dule	ime		Indic	ative Budge	et	Imple Agenc	menting cies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Community Relations and Social Investment Programme s	Commence the implementation of Community Relations Policy (CORSIP)	PC	Reviewed Draft CORSIP Reviewed Draft CSR guidelines and Community Stakeholder Engagement guidelines	CORSIP fully implemented	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						
	Organise Annual programme held with Western Region House of Chiefs from 2014 to 2017	Western Region (Takoradi)	Annual programme held with Western Region House of Chiefs from 2014 to 2017	Annual Stakeholder engagement with Western Regional House of Chiefs held	$\sqrt{}$		$\sqrt{}$	$\sqrt{}$		¢800,000			

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indic	ative Bı	ıdget	Imple: Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
	Annual programme held with stakeholders in the 6 coastal districts in the Western Region Organise 4 sensitization	6 Coastal Districts in the Western Region	Annual programme held with stakeholders in the six coastal districts in the Western Region from 2014 to 2017	Organised 6 workshops with stakeholders in the six coastal districts in the Western Region	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						
		Volta Region		Held 4 sensitisation programmes in the Volta Region on the Voltaian Basin Project	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indic	ative Budge	et	Imple Agenc	menting cies
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Accelerated Oil and Gas Capacity Programme	Establish AOGC Secretariat	PC	AOGC programmed launched in 2017	AOGC Secretariat established	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
(AOGC)	Complete Programme Framework			AOGC Programme Framework developed and approved	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			¢450,000		РС	
				Programme commenced	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indic	ative Budş	get	Implen Agenci	-
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Accelerate development of regulations for Petroleum Exploration and Production	Develop Policies, Laws and Regulations for upstream petroleum operations	PC	HSE, DM Regulations passed Draft GPR forwarded to AG's Dept Draft NTTP	Draft GPR NTTP developed approved Decommissioni ng Policy developed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		500,000		Petrol eum Com missi on	
Local Content and Local Participation Development	Review: Annual Local Content Plans, Annual Performance Reports, Procurement Plans	PC	200 Local Content Plans processed 1000 Work Permit applications processed LCF Guidelines	100% of all Local Content Plans, Reports, Procurement Plans processed Processed all Work Permit applications	$\sqrt{}$		$\sqrt{}$			1,500,0 00		Petrol eum Com missi on	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indic	ative Budş	get	Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collat
Promotion of Ghana's hydrocarbon potential	Undertake upstream promotional activities	USA, UK, Canada, South Africa	Promoted Ghana's hydrocarbon potential at 4 international conferences in year 2018	Participated in 6 international conferences promoting Ghana's hydrocarbon resources	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		1,500,0 00		Petrol eum Com missi on	
Upstream petroleum monitoring and evaluation	Monitor upstream operations (Jubilee, TEN, OCTP)	Offshore Ghana (Western Region)	Monitored 2018 petroleum production of Jubilee, TEN, and OCTP)	Production and operations reports of (Jubilee, TEN, OCTP) evaluated	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		1,600,0 00		Petrol eum Com missi on	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indic	ative Budg	get	Implen Agenci	-
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Accelerate development of regulations for Petroleum Exploration and Production	Develop Policies, Laws and Regulations for upstream petroleum operations	PC	GPR passed NTRP approved by Cabinet Decommissionin g Policy approved by Cabinet	Upstream petroleum LIs amended Gender Policy developed and approved by Cabinet	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		800,000		Petrol eum Com missi on	
Local Content and Local Participation Development	Review: Annual Local Content Plans, Annual Performance Reports, Procurement Plans	PC	400 Local Content Plans processed 1500 Work Permit applications processed Financial Services Guidelines	All Local Content Plans, Procurement Plans and Work Permits processed Local Content Guidelines developed	$\sqrt{}$		$\sqrt{}$			2,000,0 00		Petrol eum Com missi on	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indic	ative Bud	get	Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Promotion of Ghana's hydrocarbon potential	Undertake upstream promotional activities	USA, UK, Canada, South Africa	Promoted Ghana's hydrocarbon potential at 4 international conferences in year 2019	Participated in 5 international conferences promoting Ghana's hydrocarbon resources	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		2,000,0 00		Petrol eum Com missi on	
Upstream petroleum monitoring and evaluation	Monitor upstream operations (Jubilee, TEN, OCTP)	Offshore Ghana (Western Region)	Monitored 2018 petroleum production of Jubilee, TEN, and OCTP)	Monitored and evaluated operations of (Jubilee, TEN, OCTP)	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		1,600,0 00		Petrol eum Com missi on	

✤ PETROLEUM COMMISSION - 2021 ANNUAL WORK PLAN

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quan sche	terly t dule	ime		Indic	ative Budg	get	Implen Agenci	-
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Accelerate development of regulations for Petroleum Exploration and Production	Develop Policies, Laws and Regulations for upstream petroleum operations	PC	Upstream petroleum LIs amended Gender Policy developed and approved by Cabinet	Upstream petroleum LIs amended New upstream petroleum LIs developed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		800,000		Petrol eum Com missi on	
Local Content and Local Participation Development	Review: Annual Local Content Plans, Annual Performance Reports, Procurement Plans Develop new LC guidelines	PC	700 LocalContent Plansprocessed2000 WorkPermitapplicationsprocessedFinancialServices LCF,Research &DevelopmentGuidelinesdeveloped	All Local Content Plans, Procurement Plans and Work Permits processed New Local Content Guidelines developed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			2,000,0		Petrol eum Com missi on	

✤ PETROLEUM COMMISSION - 2021 ANNUAL WORK PLAN

Projects	Activities (Operations)		Baseline	Output indicators	Quan sche	terly t dule	ime		Indic	ative Bud	get	Implen Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
Promotion of Ghana's hydrocarbon potential	Undertake upstream promotional activities	USA, UK, Canada, South Africa	Promoted Ghana's hydrocarbon potential at 6 international conferences in year 2019	Attracted 3 companies to undertake upstream operations in Ghana	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		2,000,0 00		Petrol eum Com missi on	
Upstream petroleum monitoring and evaluation	Monitor upstream operations (Jubilee, TEN, OCTP)	Offshore Ghana (Western Region)	Monitored 2020 petroleum production and operations of Jubilee, TEN, and OCTP)	Monitored and evaluated operations of Jubilee, TEN, OCTP, Aker, Exxon	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		1,800,0 00		Petrol eum Com missi on	

Projects	Activities	Location	Baseline	Output	Quar	terly t	ime		Indic	ative Bud	get	Implen	nenting
	(Operations)			indicators	sche	dule						Agenci	es
					1st	2nd	3rd	4th	GoG	IGF	Donor	Lead	Collab
WAGP Interconnecti on and Commercial Agreements	Complete Commercial & Technical tie-in negotiations	Takoradi- Aboadze	Engineering for metering and piping modification completed	Conclude all interconnection arrangements and complete installation		$\sqrt{}$	$\sqrt{}$			US \$ 35 M		GNGC	ENI
(Phrase one)	Complete installation	-				$\sqrt{}$	$\sqrt{}$		-				
Gas Processing Plant – Train 2 FEED	Basis of Design Data	Atuabo	Conceptual Study	FEED Study Completed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			US \$ 6 M		GNGC	
Compressor Station at Atuabo	Undertaking of FEED and signing of EPC	Atuabo	Contract signed; Pre-FEED completed	Procurement of Long Lead Items by Year end			$\sqrt{}$	$\sqrt{}$		US\$60 M (loan)			
75km Esiama – Prestea Leteral Pipeline	Complete construction of Regulatory and metering station	Prestea	Installation of mainline pipe completed	Complete commissioning; Start gas deliveries	$\sqrt{}$					US \$ 70 M		GNGC	SINOPI C

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quan sche	terly t dule	ime		Indic	ative Bu	dget	Impler Agenci	nenting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab
280 km onshore pipeline from	Confirm supply and demand projections				$\sqrt{}$	$\sqrt{}$					US \$ 400 - 500		BOOT
Takoradi to	Complete Survey	-			$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				500		
Tema	Complete FEED	-				$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	-				
	Right of Way (ROW) survey	Prestea to Kumasi	Hydraulics completed	Complete ROW survey,		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$			US\$ 250		BOOT
Prestea to	Complete FEED	Kumusi		FEED and		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
Kumasi	Clearing of Right of Way ROW			clearing		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					
LNG/Associat ed Pipelines	Basis of Design	Takoradi	Hydraulics completed;	FEED EPC (start)	$\sqrt{}$		$\sqrt{}$	$\sqrt{}$			US\$ 15- 20M		
and receiving facilities (10-	Complete FEED		Contract executed		$\sqrt{}$		$\sqrt{}$	$\sqrt{}$					
15 km)	Begin EPC				$\sqrt{}$		$\sqrt{}$	$\sqrt{}$					
52km pipeline from Atuabo to the West	Complete hydraulic study by and	Atuabo to the West (border)	Conceptual Design	Complete FEED Studies	$\sqrt{}$						US\$ 80 M		
(border S	Stakeholder engagement					$\sqrt{}$							

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quai sche	terly t dule	ime		Indic	ative Bud	get	Imple Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab
9 km Pipeline from TRMS to Karpower Barge	FEED ongoing; LLI specified	Takoradi	FEED ongoing	Complete installation			$\sqrt{}$			US\$25 M			AMANDI
Pigging of Offshore & Onshore Pipelines	Offshore pipeline efficiency estimated at 86%. Onshore estimated at 92%	Atuabo – Takoradi	Offshore pipeline efficiency estimated at 86%. Onshore estimated at 92%	Complete pigging and cleaning and restore efficiencies to at least 98%		$\sqrt{}$	$\sqrt{}$			\$1.0 M			
Integrated Security System	Contract signed with security facilities provider.	Offshore	Contract signed with security facilities provider.	Complete Installation	$\sqrt{}$					US\$ 9M			
Gas Management System	Contract between GNGC and ESI signed	Accra – Atuabo	Contract between GNGC and ESI signed	Complete installation by end of 2Q 2018		$\sqrt{}$				US\$ 2.5M		GNPC	

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indic	ative Bud	get	Impler Agenci	nenting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab
Pentanes offtake	Identify Offtaker offtake Execute agreement	Atuabo	Offtaker Identified and agreement executed	Complete FEED and begin EPCC for offtake facilities			$\sqrt{}$	$\sqrt{}$		\$ 5M		Pre- Finan cing by Offta ker	
Residential Complex at Site Jomoro	Complete site works	Atuabo	Land identified	Complete site works		$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		US\$ 15M			
Headquarters Accra		Accra	Building identified			$\sqrt{}$				US\$ 15M			
Fertilizer Plant	Complete FEED	Jomoro	Conceptual Study; MOU signed; Contracts being reviewed	FEED Completed				$\sqrt{}$			US\$ 300 - 900		BOOT

-,	Activities (Operations)	Location	Baseline	Output indicators	Quai sche	terly t dule	ime		Indic	ative Bu	dget	Imple: Agenc	menting ies
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab
TEMA LNG	Complete FEED	Tema	LNG supply agreement signed Regasification agreement with BEM	Completed FEED			$\sqrt{}$				NO FUNDIN G		
TAKORADI LNG	Complete FEED	Takoradi	HOA signed between Ghana and Equatorial Guinea	Complete FEED				$\sqrt{}$			NO FUNDIN G		

,	Activities (Operations)	Location	Baseline	Output indicators	Quar sche	terly t dule	ime		Indic	ative Bud	get	Impler Agenci	nenting es
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab
9 km Pipeline from TRMS to Karpower Barge	Construction of the pipeline	Takoradi	FEED Completed	Complete installation	1	$\sqrt{}$				US\$25 M			

Projects	Activities (Operations)	Location	Baseline	Output indicators	Quarterly time schedule			Indicative Budget			Impler Agenc	menting ies	
					1st	2nd	3rd	4th	GoG	IGF	Donor/ Others	Lead	Collab
TAKORADI LNG	Construction of the pipeline	Takoradi	Complete FEED by 4Q 2018	Pipeline Construction completed	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$					

CHAPTER SIX

IMPLEMENTATION, MONITORING AND EVALUATION

The projects/programmes would be monitored and evaluated at the end of every quarter or annually to ensure that quarterly or annually milestones are met.

Data will be collected quarterly or annually based on the projects to be monitored and evaluated by the Sector. These will be undertaken through field interviews, surveys and measurement of system voltages or energies using the appropriate measuring instruments. The timelines for data collection and analysis are shown below.

***** BUI POWER AUTHORITY

Project: Construction of 50MWp (3SIL) Solar Plant

ACTIVITIES		TIME F	RAME		ACTORS
	2018	2019	2020	2021	
MTDP			11		
EVALUATION					
PRE-EVALUATION	Start 15 th Sej	ptember 201	6		BPA/3SIL
MID-TERM	Start 28 th De	cember 2018	3		BPA/3SIL
EVALUATION			_		
TERMINAL	Start 27 th De	cember 2019	Ð		BPA/3SIL
EVALUATION					
SPECIFIC	Quarterly				BPA/3SIL
EVALUATION AND					
STUDIES					
PARTICIPATORY	Monthly				BPA/3SIL
M&E					
IMPLEMENTATION	Monthly				BPA/3SIL
MONITORING					
MONTHLY OR	First week of	f every mont	h		BPA/3SIL
QUARTERLY FIELD		-			-
VISIT					
MONTHLY OR	End of every	' month			BPA/3SIL
QUARTERLY					-
REVIEW					
MEETINGS					

APR PREPARATION		
AND		
DISSEMINATION		
DATA COLLECTION	Ending of every month	BPA
DATA COLLATION	Ending of every month	BPA
DATA ANALYSIS AND VALIDATION	Ending of each year	BPA
PREPARE DRAFT MDA APR	End of December	
ORGANISE DRAFT APR REVIEW WORKSHOP	End of December	
FINAL APR SUBMITTED TO NDPC	End of December	
DISSEMINATION OF SECTOR APR	End of December	

1. Project: Construction of 50MWp (Powerchina/Sinohydro) Solar Plant

ACTIVITIES		TIME F	FRAME		ACTORS
	2018	2019	2020	2021	_
MTDP					
EVALUATION					
PRE-EVALUATION	Start 15	^h July 201	17		BPA/Powerchina/Sinohydro
MID-TERM EVALUATION	Start 28	^h Deceml	oer 2018		BPA/Powerchina/Sinohydro
TERMINAL EVALUATION	Start 27	^h Deceml	oer 2019		BPA/Powerchina/Sinohydro
SPECIFIC EVALUATION AND STUDIES	Quarter	y			BPA/Powerchina/Sinohydro
PARTICIPATORY M&E	Monthly				BPA/Powerchina/Sinohydro
IMPLEMENTATION MONITORING	Monthly				BPA/Powerchina/Sinohydro
MONTHLY OR QUARTERLY FIELD VISIT	First we	ek of eve	ry month	1	BPA/Powerchina/Sinohydro
MONTHLY OR QUARTERLY	End of e	very mor	nth		BPA/Powerchina/Sinohydro

REVIEW MEETINGS		
APR PREPARATION AND DISSEMINATION		
DATA COLLECTION	Ending of every month	BPA
DATA COLLATION	Ending of every month	BPA
DATA ANALYSIS AND VALIDATION	Ending of each year	BPA
PREPARE DRAFT MDA APR	End of December	
ORGANISE DRAFT APR REVIEW WORKSHOP	End of December	
FINAL APR SUBMITTED TO NDPC	End of December	
DISSEMINATION OF SECTOR APR	End of December	

2. Project: Construction of 20-50 MWp HSH - Eni Ghana

ACTIVITIES			ACTORS		
	2018	2019	2020	2021	
MTDP					
EVALUATION					
PRE-EVALUATION	Start 15 th Oct	tober 2017			BPA/Eni
					Ghana
MID-TERM	Start 28th De	cember 2018	}		BPA/Eni
EVALUATION					Ghana
TERMINAL	Start 27 th De	BPA/Eni			
EVALUATION					Ghana
SPECIFIC	Quarterly	BPA/Eni			
EVALUATION AND		Ghana			
STUDIES					
PARTICIPATORY	Monthly	BPA/Eni			
M&E					Ghana
IMPLEMENTATION	Monthly	BPA/Eni			
MONITORING					Ghana

MONTHLY OR QUARTERLY FIELD VISIT	First week of every month	BPA/Eni Ghana
MONTHLY OR QUARTERLY REVIEW MEETINGS	End of every month	BPA/Eni Ghana
APR PREPARATION AND DISSEMINATION		
DATA COLLECTION	Ending of every month	BPA
DATA COLLATION	Ending of every month	BPA
DATA ANALYSIS AND VALIDATION	Ending of each year	BPA
PREPARE DRAFT MDA APR	End of December	
ORGANISE DRAFT APR REVIEW WORKSHOP	End of December	
FINAL APR SUBMITTED TO NDPC	End of December	
DISSEMINATION OF SECTOR APR	End of December	

3. Project: Construction of 10 MWp HSH - BPA (Phase 1 of 100MWp)

ACTIVITIES		ACTORS				
	2018					
MTDP						
EVALUATION						
PRE-EVALUATION	Start 15 th Se	BPA				
MID-TERM	Start 28 th De	Start 28 th December 2018				
EVALUATION						
TERMINAL	Start 27 th December 2019				BPA	
EVALUATION						

SPECIFIC EVALUATION AND STUDIES	Quarterly	BPA
PARTICIPATORY M&E	Monthly	BPA
IMPLEMENTATION MONITORING	Monthly	BPA
MONTHLY OR QUARTERLY FIELD VISIT	First week of every month	BPA
MONTHLY OR QUARTERLY REVIEW MEETINGS	End of every month	BPA
APR PREPARATION AND DISSEMINATION		
DATA COLLECTION	Ending of every month	BPA
DATA COLLATION	Ending of every month	BPA
DATA ANALYSIS AND VALIDATION	Ending of each year	BPA
PREPARE DRAFT MDA APR	End of December	
ORGANISE DRAFT APR REVIEW WORKSHOP	End of December	
FINAL APR SUBMITTED TO NDPC	End of December	
DISSEMINATION OF SECTOR APR	End of December	

4. Project: Development of Solar PV plants in the 3 Northern Regions

ACTIVITIES		ACTORS			
	2018				
MTDP EVALUATION					
PRE-EVALUATION	Start 4 th September 2017				BPA

MID-TERM EVALUATION	Start 28 th February 2020	BPA
TERMINAL	Start 30 th December 2021	BPA
EVALUATION SPECIFIC	Quarterly	BPA
EVALUATION AND STUDIES		
PARTICIPATORY M&E	Monthly	BPA
IMPLEMENTATION MONITORING	Monthly	BPA
MONTHLY OR QUARTERLY FIELD VISIT	First week of every month	BPA
MONTHLY OR QUARTERLY REVIEW MEETINGS	End of every month	BPA
APR PREPARATION AND		
DISSEMINATION DATA COLLECTION	Ending of every month	BPA
DATA COLLATION	Ending of every month	BPA
DATA ANALYSIS AND VALIDATION	Ending of each year	BPA
PREPARE DRAFT MDA APR	End of December	
ORGANISE DRAFT APR REVIEW WORKSHOP	End of December	
FINAL APR SUBMITTED TO NDPC	End of December	
DISSEMINATION OF SECTOR APR	End of December	

5. Project: Construction of 30 kW Tsatsadu Mini Hydro power

ACTIVITIES		ACTORS			
	2018	2019	2020	2021	

MTDP					
EVALUATION	Ci (40th I 2045				
PRE-EVALUATION	Start 10 th January 2017	BPA			
MID-TERM	Start 28 th September 2018	BPA			
EVALUATION	Start 20 th September 2016	DFA			
TERMINAL	Start 27 th December 2019	BPA			
EVALUATION	Start 27* Detember 2017	DIA			
SPECIFIC	Quarterly	BPA			
EVALUATION AND	Quarterry	DIT			
STUDIES					
PARTICIPATORY	Monthly	BPA			
M&E		2			
IMPLEMENTATION	Monthly	BPA			
MONITORING					
MONTHLY OR	First week of every month	BPA			
QUARTERLY FIELD					
VISIT					
MONTHLY OR	End of every month	BPA			
QUARTERLY					
REVIEW					
MEETINGS					
APR					
PREPARATION					
AND					
DISSEMINATION					
DATA COLLECTION	Ending of every month	BPA			
DATA COLLATION	Ending of overy month	BPA			
DATACOLLATION	Ending of every month	DFA			
DATA ANALYSIS	Ending of each year	BPA			
AND VALIDATION		DIA			
PREPARE DRAFT	End of December				
MDA APR					
ORGANISE DRAFT	End of December				
APR REVIEW					
WORKSHOP					
FINAL APR	End of December				
SUBMITTED TO					
NDPC					
DISSEMINATION OF	End of December				
SECTOR APR					
	•				

6. Project: Feasibility studies for potential mini-hydro dam construction on the Western Rivers

ACTIVITIES		TIME	FRAME		ACTORS
	2018	2019	2020	2021	_
МТДР					
EVALUATION					
PRE-EVALUATION	Start 27 th (October 20	17		BPA/WRC/HSD
MID-TERM	Start 28 th H	February 2	020		BPA/WRC/HSD
EVALUATION					
TERMINAL	Start 30 th I	December 2	2021		BPA/WRC/HSD
EVALUATION					
SPECIFIC	Quarterly				BPA/WRC/HSD
EVALUATION AND					
STUDIES					
PARTICIPATORY M&E	Monthly				BPA/WRC/HSD
IMPLEMENTATION	Monthly				BPA/WRC/HSD
MONITORING	Monuny				DFA/ WKC/ HSD
MONTHLY OR	First week	of every m	onth		BPA/WRC/HSD
QUARTERLY FIELD	TH St WEEK	of every in	lontii		
VISIT					
MONTHLY OR	End of eve	rv month			BPA/WRC/HSD
QUARTERLY		J			/ -/ -
REVIEW					
MEETINGS					
APR					
PREPARATION					
AND					
DISSEMINATION					
DATA COLLECTION	Ending of e	very month	l		BPA
DATA COLLATION	Ending of e	very month	l		BPA
DATA ANALYSIS	Ending of e	ach year			BPA
AND VALIDATION		-			
PREPARE DRAFT	End of Dece	ember			
MDA APR					
ORGANISE DRAFT	End of Dece	ember			
APR REVIEW					
WORKSHOP					
FINAL APR	End of Dece	ember			
SUBMITTED TO					
NDPC					

DISSEMINATION OF	End of December	
SECTOR APR		

7. Project: 90 MWp HSH - BPA (Phase 2 of 100MWp)

ACTIVITIES		TIME I	FRAME		ACTORS
	2018	2019	2020	2021	
MTDP		I			
EVALUATION					
PRE-EVALUATION	Start 15 th S	eptember 2	2017		BPA
MID-TERM	Start 15 th D	December 2	018		BPA
EVALUATION					
TERMINAL EVALUATION	Start 15 th E	December 2	019		BPA
SPECIFIC	Quarterly				BPA
EVALUATION AND	Luci corry				
STUDIES					
PARTICIPATORY	Monthly				BPA
M&E					
IMPLEMENTATION	Monthly				BPA
MONITORING					
MONTHLY OR	First week	of every m	onth		BPA
QUARTERLY FIELD					
VISIT					
MONTHLY OR	End of eve	ry month			BPA
QUARTERLY					
REVIEW					
MEETINGS					
APR					
PREPARATION					
AND					
DISSEMINATION					
DATA COLLECTION	Ending of ev	very month			BPA
DATA COLLATION	Ending of e	very month			BPA
DATA ANALYSIS	Ending of ea	ach year			BPA
AND VALIDATION					
PREPARE DRAFT	End of Dece	ember			
MDA APR					
ORGANISE DRAFT	End of Dece	mber			
APR REVIEW					
WORKSHOP					

FINAL APR SUBMITTED TO NDPC	End of December	
DISSEMINATION OF SECTOR APR	End of December	

Indicators	Indicato r	Indicator	Baseline		Targets			Discorreg	N	
	Definitio n		2017	2018	2019	2020	2021	ation	Monitoring Frequency	
Addition of 50Mwp solar PV energy to the national energy mix by December 2019		Outcome	License	 PPA PDA Secure construction Permit Commence Civil works 	 Completion of Civil works Completion of M&E installations Tested & Commissioned 			Technical	Monthly	BPA/3SIL
Addition of 50Mwp solar PV energy to the national energy mix by December 2019			been executed 2.Application for Provisional License has been made	 PPA PDA Secure provisional license Secure construction Permit Commence Civil works 	 Completion of Civil works Completion of M&E installations Tested & Commissioned 			Technical	Monthly	BPA/Sinoh ydro/Powe rChina

Addition of 50Mwp solar PV energy to the national energy mix by December 2019	Outcome	been executed	1. 2. 3.	Secure all permits and licenses PPA PDA	1. 2. 3.	Completion of Civil works Completion of M&E installations Tested & Commissioned				Т	Sechnical	Monthly	BPA/Eni- Ghana
Addition of 10Mwp solar PV energy to the national energy mix by December 2019	Outcome	Proposal (RFP)	1. 2. 3. 4.	Tendering Secure all permits & licenses Execute Contract Commence Construction	 1. 2. 3. 4. 	completion of Civil works completion of M&E installations Tested & Commissioned Tendering of phase 2 Execute contract				T	Fechnical	Monthly	BPA
Acquisition of 6 sites and provision of evacuation facility for injecting utility scale	Outcome	has commenced	1. 2. 3. 4.	Land Search Demarcation Agree Land Lease term Cadastral Survey	1.	Grid Impact Studies completed Expansions/up grades completed	1.	Impact Studies complet ed	Im act	p : 1d	'echnical	Quarterly	BPA/LC/GR IDCO/EC/D EVELOPER S

Solar PV energy into NITS by December 2021				grades complet ed	plet ed 2. Exp ansi ons/ upgr ades com plet ed			
Addition of 30 kW of power to the distribution grid by December 2018	Outcome	 Design completed Permits secured. Land secured Manufacture of a new asynchronou s generator commenced. 	 Select EPC Contractor EPC Contract completion of Civil works completion of M&E installations Tested & Commissioned 			Technical	Weekly	BPA/EC/M oEn/ECG/C ATHOLIC CHURCH/A LAVANYO TRADITION AL COUNCIL/ ICSHP

Feasibility	Outcome	1. Data	1.	Validate				Technical	Quarterly	BPA/WRC/
studies for		validation		available data	1. Rehabilitation	1.	1.			HSD
potential		and		received from	works	Feasibility	Feasibil			
mini-hydro		Partnership		other	2. Pre-Feasibility	for cascade	ity for			
dam		with		stakeholders	for cascade	system –	cascade			
construction		custodian	2.		system – Tano	Tano River	system			
on the Pra,		agencies		Rehabilitation	River	2. Pre-	-			
Tano &		2.		works		Feasibility	Ankobr			
Ankobra		Rehabilitatio				for cascade	a River			
Rivers by		n of 3 No.				system –	2. Pre-			
December		gauging				Ankobra	Feasibil			
2021		stations on				River	ity for			
		the Tano					cascade			
		River					system			
							– Pra			
							River			
Addition of	Outcome	Assumption -				1.Civil		Technical	Monthly	BPA
90Mwp solar		2019 target				Works				
PV energy to		achieved				2.M&E				
the national						installation				
energy mix						S				
by December						Testing				
2020						Testing &				
						commissio				
						ning				

✤ GRIDCO M&E MATRIX

The projects/programmes would be monitored and evaluated at the end of every quarter or annually to ensure that quarterly or annually milestones are met.

Data Collection and Analysis

Data collection for analysis will be collected on a monthly, quarterly or annual basis based on the projects to be monitored and evaluated by NEDCo. These will be undertaken through field interviews, surveys and measurement of system voltages or energies using the appropriate measuring instruments. The timelines for data collection and analysis are shown in the Table below:

Monitoring and Evaluation Activities for GRIDCo Projects Commencing in 2018

Project: Provide a temporary connection to Accra Bulk Supply Point (A4BSP)

ACTIVITIES	TIME FRAME				
	2018	2019	2020	2021	ACTORS
MTDP EVALUATION PRE-EVALUATION	Start 15 th Septemb	or 2017			GRIDCo
MID-TERM EVALUATION	Start 15 th March 20				GRIDCo

TERMINAL EVALUATION	Start 15 th December 2018	GRIDCo
I ERMINAL EVALUATION	Start 15" December 2010	GRIDCO
SPECIFIC EVALUATION AND	Bi-annually starting 2 weeks after end of 2 nd Quarter	GRIDCo / MoEn /
STUDIES		PURC
PARTICIPATORY M&E	Bi-annually starting 25 th April	MoEn
IMPLEMENTATION		
MONITORING		
MONTHLY, QUARTERLY OR	1 st Tuesday of every month or every quarter	GRIDCo / MoEn /
ANNUAL FIELD VISIT		PURC
	1 st Wednesday of every month, quarter or annual	GRIDCo / MoEn /
ANNUAL REVIEW MEETINGS		PURC
APR PREPARATION AND		
DISSEMINATION AND		
DISSEMINATION		
DATA COLLECTION	20 days after January 1 st	GRIDCo
DATA COLLATION	20 days after January 1 st	GRIDCo
DATA ANALYSIS AND	5 days after data collection	GRIDCo
VALIDATION	5 days after data conection	GRIDCO
VALIDATION		
PREPARE DRAFT MDA APR	2 days after data analysis and validation	GRIDCo
ORGANISE DRAFT APR	5 days after data analysis and validation	GRIDCo
REVIEW WORKSHOP		

FINAL APR SUBMITTED TO NDPC	2 nd week in February	GRIDCo
DISSEMINATION OF SECTOR APR	End of February	MoEn

Monitoring and Evaluation Activities for GRIDCo Projects Commencing in 2019 - 2021

	TIME FRAME								
ACTIVITIES	2018	2019	2020	2021	ACTORS				
MTDP EVALUATION		1	<u> </u>	<u> </u>					
PRE-EVALUATION	Start 15 th March 201	Start 15 th March 2018							
MID-TERM EVALUATION	Start 15 th March 201	Start 15 th March 2019							
TERMINAL EVALUATION	Start 15 th December	2019			GRIDCo/PURC				
SPECIFIC EVALUATION AND STUDIES	Bi-annually starting	5 th of July			GRIDCo/MoEn				
PARTICIPATORY M&E	Bi-annually starting	25 th April			MoEn				
IMPLEMENTATION MONITORING									
MONTHLY OR QUARTERLY FIELD VISIT	1 st Tuesday of every		GRIDCo/PURC/MoEn						

QUARTERLY OR YEARLY	1 st Wednesday of every quarter or year	GRIDCo/PURC/MoEn
REVIEW MEETINGS		
APR PREPARATION AND DISSEMINATION		
DATA COLLECTION	From 15 th January annually	GRIDCo
DATA COLLATION	From 15 th January annually	GRIDCo
DATA ANALYSIS AND VALIDATION	From 15 th January annually	GRIDCo
PREPARE DRAFT MDA APR	15 th January annually	GRIDCo
ORGANISE DRAFT APR REVIEW WORKSHOP	20 January annually	GRIDCo
FINAL APR SUBMITTED TO NDPC	End of January annually	GRIDCo
DISSEMINATION OF SECTOR APR	From February annually	MoEn

Expected Results

The actual results obtained from the field visits would be compared to the expected results agreed at the beginning of the project to determine the performance of GRIDCo during the period under consideration. The variances will be identified and remedial measures will be applied where necessary. The targets indicated in Table below:

Monitoring Matrix or results framework outlining all indicators, their baselines and targets

			Baseline 2017	Targets	gets Disaggreg ng		g ng Frequen	greg ng Frequen	ation Frequen	Responsibility
				2018	2019	2020	2021	_		
Objective: 1	Ensure efficie	nt transm	ission and di	stribution syste	em		-			
Improved reliability in the Transmissio n Network	customers	Outcome	796	780	750	745	740		Monthly	GRIDCo
11 11CCW01K	Planned outages to	Outcome	346	350	320	315	310		Monthly	GRIDCo

	customers will reduce								
	Transmissio n Line in- service will improve		99.49%	99.55%	99.60%	99.70%	99.75%	Monthly	GrIDCo
	Feeder availability will improve	Outcome	99.72%	99.80%	99.85%	99.90%		Monthly, quarterly and Annually	GRIDCo
Objective : I	mprove finar	icial capa	city and sustai	nability of utili	ty compani	es			
distribution losses	Unaccounte d energy levels will reduce		4.10%	4.10%	3.8%	3.8%		Monthly, quarterly and Annually	GRIDCo
Energy transmissio n	from energy		13,677.69	15,697	18,314	21,212		Monthly, quarterly and Annually	GRIDCo
network to		Outcome	341.76	659	1,446	1,455	1,465	Monthly, quarterly	GRIDCo

neighbourin n to the			and	
g Countries neighbourin			Annual	у
g Countries				

♦ NORTHERN ELECTRICITY DISTRIBUTION COMPANY

The projects/programmes would be monitored and evaluated at the end of every quarter or annually to ensure that quarterly or annually milestones are met.

Data Collection and Analysis

Data will be collected quarterly or annually based on the projects to be monitored and evaluated by NEDCo. These will be undertaken through field interviews, surveys and measurement of system voltages or energies using the appropriate measuring instruments. The timelines for data collection and analysis are shown in the tables below.

M & E Activities for 2018 Projects

ACTIVITIES	TIME FRAM	TIME FRAME				
	2018	2019	2020	2021		
MTDP Evaluations						
Pre-term Evaluation	Start 15 th Ja	nuary 2018	NEDCo			
Mid-term Evaluation	Start 30 th Ju	ine 2018			NEDCo	
Terminal Evaluation	Start 20th D	ecember 201	0		NEDCo/	
	Start SUM D	eceniber 201	PURC			
Specific Evaluations and Studies	Ri annuallu	starting 20 th	NEDCo/			
Specific Evaluations and Studies	DI-annuany	Starting 20th	MoEn			
Participatory M&E	Bi-annually	r starting 15 th	MoEn			
Implementation monitoring						
Quarterly or Annually Field Visit	1st Tuosday	of every qua	NEDCo/			
Qualterry of Annually Pield Visit	1 st Tuesuay	of every qua	PURC / MoEn			
Quarterly or Annually Review Meetings	1st Wodnos	day of every o	NEDCo/			
Quarterry of Annually Neview Meetings		uay of every t		very year	PURC / MoEn	

APR preparation and dissemination		
Data collection	From 15 th December annually	NEDCo
Data collation	From 20 th December annually	NEDCo
Data analysis and validation	From 25 th December annually	NEDCo
Prepare Draft MDA APR	5 th January annually	NEDCo
Organise Draft APR review workshop	10 th January annually	NEDCo
Final APR submitted to MoEn	End of January annually	NEDCo
Dissemination of sector APR	From February annually	MoEn

M & E Activities for 2019 Projects

ACTIVITIES	TIME FRAM	IE	ACTORS		
	2018	2019	2020	2021	
MTDP Evaluations					
Pre-term Evaluation	Start 15 th Ja	nuary 2019			NEDCo
Mid-term Evaluation	Start 30 th June 2019				NEDCo
Terminal Evaluation	Start 30 th De	NEDCo/ PURC			
Specific Evaluations and Studies	Bi-annually	starting 20 th o	NEDCo/ MoEn		
Participatory M&E	Bi-annually	starting 15 th	MoEn		
Implementation monitoring					
Quarterly or Annually Field Visit	1 st Tuesday	1 st Tuesday of every quarter or every year			NEDCo/ PURC / MoEn
Quarterly or Annually Review Meetings	1 st Wednesd	lay of every q	uarter or eve	ery year	NEDCo/

		PURC / MoEn
APR preparation and dissemination		
Data collection	From 15 th December annually	NEDCo
Data collation	From 20 th December annually	NEDCo
Data analysis and validation	From 25 th December annually	NEDCo
Prepare Draft MDA APR	5 th January annually	NEDCo
Organise Draft APR review workshop	10 th January annually	NEDCo
Final APR submitted to MoEn	End of January annually	NEDCo
Dissemination of sector APR	From February annually	MoEn

M & E Activities for 2018 to 2021 Projects

ACTIVITIES	TIME FRAM	ACTORS			
	2018	2019	2020	2021	
MTDP Evaluations					
Pre-term Evaluation	Start 15 th Ja	nuary 2018	NEDCo		
Mid-term Evaluation	Start 15 th Ja	nuary 2020	NEDCo		
Terminal Evaluation	Start 30th D	ecember 202	NEDCo/		
	Start SU" D	PURC			
Specific Evaluations and Studies	Bi-annually	starting 20 th	NEDCo/		
Specific Evaluations and Studies	DI-annually	MoEn			
Participatory M&E	Bi-annually	MoEn			

Implementation monitoring			-		
Quarterly or Annually Field Visit	1 st Tuesday of every quarter or every year			NEDCo/	
Quarterly of Annually Pield Visit	1 ^{sh} Tuesuay	or every quar	ter or every	year	PURC / MoEn
Quarterly or Annually Review Meetings	1st Wodnos	day of every a	NEDCo/		
Quarterly of Annually Review Meetings	1st Wednesday of every quarter or every year PURC /				PURC / MoEn
APR preparation and dissemination					
Data collection	From 15 th D	ecember ann	NEDCo		
Data collation	From 20 th December annually			NEDCo	
Data analysis and validation	From 25 th December annually			NEDCo	
Prepare Draft MDA APR	5 th January	annually	NEDCo		
Organise Draft APR review workshop	10 th Januar	y annually	NEDCo		
Final APR submitted to MoEn	End of Janua	ary annually	NEDCo		
Dissemination of sector APR	From Febru	ary annually			MoEn

Expected Results

The actual results obtained from the field visits would be compared with the expected results (as shown in Table 6) set at the beginning of the project to see the performance of NEDCo during the period under consideration.

Monitoring Matrix Table

Indicators	Indicator Definition	Indicator Type	2017	Targets						
				201 8	201 9	202 0	2021	Disaggregatio n	Monitoring Frequency	Responsibility
Objective 1: E	Ensure efficient ti	ransmission a	nd distribu	tion s	ystem					
Increased access to power supply	Connecting unelectrified customers or communities	Outcome	65%	66%	70%	74%	80%	Grid Access Off grid Access	Annually	MoEn
Customer Population Growth (Annual growth rate of 6%)	Connecting unelectrified customers or communities	Outcome	841,967	6%	6%	6%	6%	Grid Access Off grid Access	Annually	NEDCo

Improved quality and reliable power supply	Required supply voltage and minimize power outages	Outcome	218V	218V	(220 - 240) V	(220 - 240) V	(220- 240)V		Quarterly and Annually	NEDCo/PURC	
Objective 3: Improve financial capacity and sustainability of utility companies											
Reduced distribution losses	Unaccounted Energy	Outcome	31.9% distributi on losses	30.6 %	25%	24%	21%	Technical Commercial	Annually	NEDCo/PURC	
Objective 4 : In	Objective 4: Improve financial capacity and sustainability of utility companies										
Increased collection efficiency	Receivables	Outcome	81%	81%	84%	88%	92%	Collection Rate – MDAs Collection Rate + MDAs	Quarterly and Annually	NEDCo	
Objective 5 : In	nprove financial o	capacity and	sustainabili	ty of u	ıtility	comp	anies				
Improved data collection and customer service delivery	Customer response time for resolving faults	Outcome	85%	85%	90%	93%	95%		Quarterly and Annually	NEDCo/PURC	

✤ VRA-RESETTLEMENT TRUST FUND

2018-2021 NMTDF Objective: mprove access to safe and reliable water supply services for all										
Indicators Indicator Indicator Baseline Disaggregation										
	Definition	Туре	2017	2018	2019	2020	2021		Frequency	
and Improved access to	The communities will enjoy safe potable water		Requests received for intervention	3				Water supply systems		Technical Officer of VRA/RTF and District Assembly Engineers

enrolment and available quality	Available educational facilities for the communities and residences for teaching staff will enhance learning	Outcome	Requests received for intervention	9	6	4	11	Construction of Kindergartens Construction of Primary and JHS Construction of Teachers Quarters	Monthly	Technical Officer of VRA/RTF and District Assembly Engineers
Reduced	Available	cess to imp Outcome	Requests	iable o	enviro	nment	al san		Monthly	Technical
Drastic reduction	toilet facilities will end open defecation which leads to epidemics like cholera etc		received for intervention					KVIP and Vault Chamber Latrine		Officer of VRA/RTF and District Assembly Engineers
Objective 4 : Ensure affordable, equitable , easily accessible and Universal Health Coverage (UHC)										

and readily available	rates and	Requests received for intervention	1		Construction of Nurses quarters Construction of	Technical Officer of VRA/RTF and
health care facilities	readily available professional care at the				Clinics	District Assembly Engineers
	health centres					

M& E ACTIVITIES

		TIME F	RAME						
ACTIVITIES	2018	2019	2020	2021	ACTORS				
MTDP EVALUATION					Management and staff				
PRE-EVALUATION	Start 15 th Novembe	Technical Officer(s)							
MID-TERM EVALUATION	Start 15 th March 20	Start 15 th March 2018							
TERMINAL EVALUATION	Start 15 th Decembe	r 2018			Management and Technical Department				
SPECIFIC EVALUATION AND STUDIES									
PARTICIPATORY M&E	Bi-annually starting	Management, Technical							

		Officer(s), District Engineers and TDC Members
IMPLEMENTATION MONITORING		
MONTHLY OR QUARTERLY FIELD VISIT	1 st Week of every month	Technical Department
MONTHLY OR QUARTERLY REVIEW MEETINGS	1 st Wednesday of every month	Management and Technical Department
APR PREPARATION AND DISSEMINATION		
DATA COLLECTION	From 15 th January annually	Technical Department
DATA COLLATION	From 15 th February annually	Technical Department
DATA ANALYSIS AND VALIDATION	From 15 th March annually	Technical Department
PREPARE DRAFT MDA APR	15 th October annually	Management and staff

ORGANISE DRAFT APR REVIEW WORKSHOP	20 November annually	Management
FINAL APR SUBMITTED TO NDPC	20 th January annually	Management
DISSEMINATION OF SECTOR APR	20 th February annually	Management

✤ GHANA CYLINDER MANUFACTURING COMPANY

LTNDP Goal	: Safeguard th	ne natural e	nvironment a	nd ensure	a resilient l	built env	rironmen	t		
			MOTE DEVELO	OPMENT AN	ND USE OF I	INDIGEN	OUS CAP	ABILITIES F	FOR EXPLOI	TATION OF
PETROLEUN Indicators	A RESOURCES Indicator	UPSTREA	M) Baseline		Targe	ets		Disaggre	Monitori	Responsibil ity
	Definition	Туре	2017	2018	2019	2020	2021	gation	ng Frequenc y	
OBJECTIVE	1: Ensure ava	ilability of c	lean, affordat	le and acc	essible ene	rgy.				
Increased efficiency in staff output	Measure of existing work policy & procedures present	Outcome	Existing policies & procedures in 2017	100%	100%	100%	100%		Yearly	GCMC
Increased access to LPG cylinders and stoves on the local market.	A measure of cylinders & stoves produced and sold.	Outcome	2017 production & Sales quantities	>80,000 pcs	>400,00 0pcs	>600, 000pc s	>800,0 00 pcs	1. Number of cylinders sold 2. Number of stoves sold	Quarterly	GCMC
Increased access to LPG Stoves	A measure of tangible steps taken to export cylinders & the	Outcome	Number of leads on potential export clients		Feasibilit y studies on market potential	Closin g of deals with potent ial	>200,0 00	1. Measure of steps taken to export	Yearly	GCMC

OBIECTIVE	quantity exported 2: Promote dev	elonment ar	nd use of indige	nous canab	ilities for ex	clients from neigh bouri ng countr ies	n of netro	cylinders & stoves. 2. Actual number of cylinders & stoves exported.		
Increased number of technical students for attachme nt & National Service	A measure of students coming in for practical training	Outcome	Number of existing attachment and technical national service personnel within the company	3	4	6	8	Attachm ent National service personne l	Yearly	GCMC
Better trained and certified Staff	A measure of GCMC staff trained.	Outcome	Percentage of staff that underwent training within the 2017	100%	100%	100%	100%	Refreshe r course Higher educatio n training	Yearly	GCMC, MoEn, GNPC, NPA
OBJECTIVE Increased productio n capacity of LPG cylinders	3: Leverage oil Measure of the company's potential to produce.	and gas indu Outcome	istry as a cataly	rst for nation	nal develop	ment				

& Productio n lines										
Increase d working capital	A measure of the company's overall health	Outcome	Working capital position at the end of year 2017	Positive	Positive	Positi ve	Positiv e	1. Existing sharehol der investme nt 2. Acquirin g a strategic partner	Yearly	GCMC, MoEn

✤ NATIONAL PETROLEUM AUTHORIT

LTNDP Goal: SAFEGUARD THE NATURAL ENVIRONMENT AND ENSURE RESILIENT BUILT ENVIRONMENT **2018-2021 NMTDF Objective: Leverage oil and gas industry as a catalyst for national economic development**

Indicators	Indicator	Indicator	Baseline		Та	rgets			Monitoring	Responsibilit y
	Definition	Туре	2017	2018	2019	2020	2021	Disaggregation	Frequency	y
Developed mid-stream industry	Number of players in the mid- stream industry licensed		LNG capacity building undertaken for 2 NPA staff	10% increase in LNG Infrastruc ture 50% mid- stream players licensed		in mid- stream infrastruc ture	increase in mid-	Licenses granted LNG infrastructure	Quarterly	NPA
Full cost recovery of all downstrea	0		Full recovery of ex-refinery and ex-pump price of all petroleum	review methodol		of subsidies	recoverv	OMC prices BDC prices	Quarterly	NPA

m investment			products except premix and RFO	ogy/mod el	put fees (storag e/rack loading /pipelin e	storage/ra ck loading and pipelines	Throughput fees (storage)		
Efficient distribution of petroleum products		Outcome	Kpone BRV tanker Park 6 inch LPG pipeline	Commenc ement BRV tanker park at Buipe	Comple tion of BRV tanker park 12 inch LPG pipeline		BRV tanker park LPG pipeline	Quarterly	NPA
for	Numbers of LI developed and functional Revised NPA Act 691 (2005)	Outcome	Draft NPA regulation	Approved LI	New NPA Act		Legislative instruments (LIs) New NPA Act	Quarterly	NPA

Improved	Failure	Outcome	5% failure rate	3%	2%	1%	1% failure	National failure	Quarterly	NPA
quality of	rate at the			failure	failure	failure	rate	rate		
petroleum products	retail outlets Quantity of Petroleum products		100% marked petroleum products	rate 100% marked petroleu m products	um	rate 100% marked petroleu m products	100% marked petroleum products	Regional failure rate		
	marked				S					
Increased compliance of Petroleum Service Provider	Percentag e of petroleum downstrea m facilities inspected		90% of facilities inspected	100%	100%	100%		% of storage facilities inspected % of outlets inspected	Quarterly	NPA

APPENDIX 1

APPROVED ESTABLISHMENT LEVELS (MINISTRY OF ENERGY)

GRADE/POSITION	NUMBER AT POST	NUMBER OF OFFICERS RECOMMENDED	VARIANCE
	SECRETARIAT OF	THE MINISTER	
Deputy Director			
	0	1	1
Senior Private			
Secretary	0	1	1
Stenographer Grade I	0	1	1
Records Officer			
	0	1	1
Principal Driver	1	1	1
	SECRETARIAT OF	THE DEPUTY MINISTI	ĒR
Senior Programme			
Officer	0	1	1
Private Secretary	0	1	1
Assistant Records			
Officer	0	1	1
Driver Grade I	0	1	1
	SECRETARIAT O	F THE CHIEF DIRECTO	R
Deputy Director			
	0	1	1
Senior Private			
Secretary	0	1	1
Records Officer		1	1
Stenographer Grade I	0	1	1
Stenographer Grade I	0	1	1
Principal Driver			1
F	0	1	1

GRADE/POSITION	OSITION NUMBER AT NUMBER OF POST OFFICERS RECOMMENDED		VARIANCE
	INTERNAL A	AUDIT UNIT	
Chief Internal			
Auditor	1	1	0
Principal Internal			
Auditor	0	1	1
Senior Internal			
Auditor	1	1	0
Internal Auditor			
	1	2	1
Assistant Internal			
Auditor	0	1	1
CC	MMUNICATIONS	& PUBLIC AFFAIRS UN	IT
Principal			
Information officer	0	1	1
Senior Information			
officer	0	2	2
Information Officer			
	0	2	2
Assistant			
Information Officer	0	1	1
	LEGAL UNIT		
Chief Legal Counsel			
	0	1	1
Principal legal			
Counsel	0	1	1
Senior Legal Counsel			
	0	1	1
Legal Counsel			
	0	2	2
Stenographer			
Secretary	0	2	2

GRADE/POSITION	ADE/POSITION NUMBER AT NUMBER OF OF OFFICERS RECOMMENDE		VARIANCE
	PROTOCOL U	NIT	
Senior Protocol Officer	0	1	1
Protocol Officer	1	1	0
Assistant Protocol Officer	0	1	1
Executive Officer	0	1	1
FINA	ANCIAL ANALYSIS	& MONITORING UNIT	
Chief Financial Analyst	0	1	1
Principal Financial Analyst	0	1	1
Senior Financial Analyst	0	1	1
Financial Analyst	0	1	1
Private Secretary	0	1	1
FI	NANCE DIRECTOR	RATE	
Assistant Controller and Accountant General	1	1	0
Chief Accountant	0	1	1
Principal Accountant	2	2	0
Senior Accountant	2	3	1
Accountant	2	4	2
Accounts Officer	0	4	4
Stenographer Secretary	1	1	0
GRADE/POSITION			VARIANCE

	NUMBER AT POST	NUMBER OF OFFICERS RECOMMENDED	
	LOCAL CONTENT		
Coordinator			
	0	1	0
Programme Officer			
	0	1	1
Assistant Director			
IIB	0	1	1
Stenographer			
Secretary	0	1	1
υελιτυ	CAFETV SECUDIT	Y AND ENVIRONMENT	UNIT
Coordinator	, SALETT, SECURIT		
COOLUMATOL	0	1	1
Senior Engineer	0	1	1
Jennor Engineer	1	1	0
Engineer	-		0
Linginioor	1	1	0
Assistant Engineer			
	0	1	1
POLICY,	PLANNING, BUDGE	ETING MONITORING &	EVALUATION
Director			
	1	1	0
Deputy Director			
	1	1	0
Senior Programme			
Officer	0	1	1
Programme Officer			
	0	3	3
Assistant Director		1	
IIB	1	1	0
Stenographer		1	1
Secretary	0	1	1

GRADE/POSITION	NUMBER AT POST	NUMBER OF OFFICERS RECOMMENDED	VARIANCE
PETR	OLEUM UPSTREAN	M DIRECTORATE	
Director	1	1	0
Principal Engineer	0	1	1
Senior Engineer	1	1	0
Engineer	1	2	1
Assistant Engineer	2	2	0
Programme Officer Stenographer	0	2	0
Secretary	0	2	2
	ETROLEUM DOWN	NSTREAM DIRECTORA	ГЕ
Director	0	1	1
Principal Engineer	0	1	1
Senior Engineer	0	1	1
Engineer	0	2	2
Assistant Engineer	0	2	2
Stenographer Secretary	0	1	1
Director	GENERATION AND	TRANSMISSION DIRE	TORATE
Principal Engineer	1	1	0
Senior Engineer	0	1	1
Engineer	0	2	2
Assistant Engineer	0	2	2
Stenographer Secretary	1	1	0

GRADE/POSITION	NUMBER AT POST	NUMBER OF OFFICERS RECOMMENDED	VARIANCE				
POWER DISTRIBUTION DIRECTORATE							
Director							
	0	1	1				
Principal Engineer							
	0	1	1				
Senior Engineer	3	1	2				
Engineer	0	2	2				
Assistant Engineer	0	2	2				
Stenographer	0		2				
Secretary	0	1	1				
POWER	MATERIAL MANAG	GEMENT UNIT					
Materials Manager	0	1	1				
Chief Procurement/Supply Chain Assistant							
(Asst. Chief Technical Officer)	0	2	2				
Procurement/Supply Chain Assistant							
(Senior Storekeeper)	0	3	3				
Forklift Operator	1	1	0				
Stenographer		1	0				
Secretary	2	2	0				
Security Guard	1	6	5				
Labourers	1	6	5				

GRADE/POSITION	NUMBER AT POST	NUMBER OF OFFICERS RECOMMENDED	VARIANCE				
RENEWABLE DIRECTORATE							
Director	0	1	1				
Principal Engineer	0	3	3				
Senior Engineer	0	3	3				
Engineer	0	2	2				
Assistant Engineer	0	4	4				
Stenographer Secretary	0	1	1				
RESEARCH, STATIST	ICS AND INFORMAT	ION MANAGEMENT D	IRECTORATE				
Director	0	1	1				
Deputy Director	1	1	0				
Senior Programme Officer	0	2	2				
Programme Officer	0	2	2				
IT/IM Officer	0	1	1				
Programmer	0	4	4				
Stenographer Grade I	0	1	1				
PERSONNEL WELFARE MANAGEMENT							
Chief Personnel Officer	0	1	1				
Principal Executive Officer	0	1	1				
Senior Executive Officer	1	1	0				
Executive Officer	0	1	1				

GRADE/POSITION	NUMBER AT POST	NUMBER OF OFFICERS RECOMMENDED	VARIANCE
HUMAN RESOU	RCE DEVELOPMENT	AND MANAGEMENT I	DIRECTORATE
Director			
	1	1	0
Deputy Director	1	1	0
Assistant Director I	1	1	0
Assistant Director IIA	2	1	1
Assistant Director IIB	0	2	2
Assistant Chief Executive Officer	1	1	0
Senior Executive Officer	1	1	0
Higher Executive Officer	0	1	1
Stenographer	1	1	0
Secretary CENERA	1 I ADMINISTRATION	I & FINANCE DIRECTO	0 DATE
Director		a rinance Directo	0
Director	1	1	0
Deputy Director	1	1	0
Assistant Director I	2	2	0
Assistant Director IIA	1	2	1
Assistant Director IIB	1	1	0
Private Secretary	1	1	0
Stenographer Secretary	0	1	1
Senior Receptionist	1	1	0
Receptionist	0	1	1

GRADE/POSITION	/POSITION NUMBER AT OFFICERS POST RECOMMENDED		VARIANCE			
RECORDS MANAGEMENT						
Principal Records						
Officer	0	1	1			
Senior Records						
Officer	0	1	1			
Chief Records						
Supervisor	0	1	1			
Principal Records						
Supervisor	1	1	0			
Records Supervisor						
	1	1	0			
Senior Records						
Assistant	0	1	1			
Junior Records	2					
Assistant	0	1	1			
I	PROCUREMENT/ST	ORES				
Chief Procurement/						
Supply Chain						
Manager	1	1	0			
Principal						
Procurement/						
Supply Chain	1	1	0			
Manager						
Assistant						
Procurement/						
Supply Chain	0					
Manager	0	1	1			
Principal						
Storekeeper	2	1	0			
Senior Storekeeper	1	1	0			
Assistant	*	-	Č			
Storekeeper	0	1	1			

GRADE/POSITION	NUMBER AT POST	NUMBER OF OFFICERS RECOMMENDED	VARIANCE
	ESTATE		
Estate Manager	1	1	0
Principal Estate			-
Manager	0	1	1
Principal Estate			
Officer	1	1	0
Senior Estate Officer			
	1	1	0
Labourer	5	4	1
Cleaners	0	4	4
	TRANSPORT		
Chief Transport Manager	1	1	0
Principal Transport Officer	0	1	1
Transport Officer	0	1	1
Yard Foreman	8	5	3
Driver Grade I/II/III	8	15	7

APPENDIX 2

	SEA DISTRIBUTION		. STAFF		. STAFF	TOTAL
	CLASS	MALE	FEMALE	MALE	FEMALE	TOTAL
1	Administrative	8	6	-	-	14
2	Accounting	6	1	-	-	7
3	Planning		1	-	-	1
4	IT/IM	3	-	-	-	3
5	Audit	4	-	-	-	4
6	Transport	1	-	23	-	24
7	Records	2	2	1	-	5
8	Personnel	1	-	-	-	1
9	Engineering	6	1	-	-	7
10	Secretarial	-	12	-	-	12
11	Executive	2	1	-	-	3
12	Labourers	-	-	13	4	17
13	Telephonist/Receptionist	-	1	-	-	1
14	Supply & Materials Mgt.	2	3	0	0	5
15	Information Officers	-	1	-	-	1
16	Estate Management	3	1	-	-	4
17	Security	-	-	2	-	2
18	Programme Officers	1	2	-	-	3
19	Protocol Officers	1	-	-	-	1
20	Geological	1	-	-	-	1
21	Technician Engineer	7	1			8
22	Technical Officer	1	1			2
	TOTAL	49	32	39	4	126

SEX DISTRIBUTION BY CLASS (MINISTRY OF ENERGY)