



REPUBLIC OF GHANA

MINISTRY OF ENERGY

MEDIUM TERM EXPENDITURE FRAMEWORK (MTEF)

FOR 2017-2019

2017 BUDGET ESTIMATES

For copies of the MTEF PBB Estimates, please contact the Public Relations Office of the Ministry.

Ministry of Finance

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PART A: STRATEGIC OVERVIEW OF THE MINISTRY OF ENERGY

1. GSGDA II POLICY OBJECTIVES

POWER SUBSECTOR:

- Provide adequate, reliable and affordable energy to meet the national needs and for export
- 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
- Explore the options for nuclear, geo-thermal and tidal waves energy
- Ensure efficient utilisation of energy
- Ensure that energy is produced and utilised in an environmentally-sound manner
- Mainstream gender into decision-making in the energy sector
- Build transparent and effective regulatory environment
- Encourage public and private sector investments in the energy sector
- Build adequate local human resource capacity for effective management of the energy sector

OIL & GAS (PETROLUEM) SECTOR:

- Create an enabling environment for sustained exploration, development and production of Ghana's oil and gas endowment.
- Ensure accelerated and integrated development of the oil and gas industry
- Provide security for oil and gas installations and operations in the upstream, midstream and downstream
- Promote value-added investments in the oil and gas value chain.
- Ensure adequate investment for physical and social infrastructure in communities in the oil and gas production areas;
- Maximize local content in all aspects of the petroleum industry value chain
- Ensure adequate availability of petroleum products in the Ghanaian market
- Ensure the development of the needed human resource for the petroleum sector
- Ensure transparency in the management of petroleum resources
- Mainstream gender into the oil and gas sector

2. VISION

To develop a modern, diversified, efficient and financially sustainable energy economy that will ensure that all Ghanaian homes and industries have access to adequate reliable, affordable and environmentally sustainable supply of energy to meet and support the accelerated growth and development agenda envisaged for the country

3. POLICY OUTCOME INDICATORS AND TARGETS

Outcome Indicator Description	Unit of Measurement	Baseline		Latest Status		Target	
		Year	Value	Year	Value	Year	Value
POWER SUBSECTOR							
Expansion of power generation capacity	Additional power generation capacity installed in MW	2015	225	2016	880	2017	1227
Improved Power Distribution System losses	Percentage reduction in distribution losses		23		21		20
Electricity extended to deprived communities	Number of communities connected to the national grid		973		1,212		1,500
Access to Electricity increased	Percentage of communities connected		80.5%		82.34%		85
Proportion of renewable energy in the national energy supply mix increased	Percentage of energy supply mix added		0.8%		1%		2.3%
<i>Jubilee Production</i>	No of barrels produced		102,497		99,569		111,833
Increased Productivity on the Jubilee field	Millions standard cubic feet of gas per day	100	80.8	102.3			
TEN	No of barrels produced (Bopd)		23,092	65,082			
Increased Productivity on the Jubilee field	Millions standard cubic feet of gas per day		0.0	AG 11			

OIL & GAS (PETROLUUM) SECTOR

Outcome Indicator Description	Unit of Measurement	Baseline		Latest Status		Target	
		Year	Value	Year	Value	Year	Value
Gas Master Plan Developed	Approval of document	2015		2016	GMP approved by Cabinet	2017	Implementation Strategy developed
Increased use of LPG in rural areas as cooking fuel	Number of districts enrolled under the program		12 districts		27 districts		28 districts
	Number of cylinders distributed		26,050		42,630		79,060

4. EXPENDITURE TREND (MINISTRY OF PETROLEUM AND MINISTRY OF POWER)

• PETROLEUM SUBSECTOR

Compensation of Employees

An amount of GHC 1,092,620.00 was allocated to the Ministry of Petroleum for Compensation of Employees for 2016. As at end of the year 2016, an amount of GHC 1,154,489.25 was spent by the Ministry of Petroleum in respect of Compensation of Employees.

Goods and Services

An amount of GHC 600,000.00 was approved and allocated for Goods and Services for the Ministry of Petroleum for the 2016 fiscal year. As at December 2016, an amount of GHC 132,813.45 representing about 23.4% of the allocation for goods and services was released to the Ministry for utilization.

Capital Expenditure

In 2016, no amount was allocated to the Ministry of Petroleum for capital expenditure.

ABFA

No amount was allocated to the Ministry of Petroleum for the 2016 fiscal year for ABFA.

Donor

Development Partners support. As December 2016, an amount of GHC 15,082,022 had been assessed by the Ministry.

- **POWER SUBSECTOR**

Compensation of Employees

An amount of GH¢1,250,908 was allocated to the Ministry of Power under compensation for 2016 fiscal year. As at the end of the year, an amount of GH¢1,013,996.27 has been utilized by the Ministry.

Goods and Services

Under Goods and Services, GH¢667,567.00 was approved for the year. As at the end of the year under review, an amount of GH¢281,967.00 was released to the Ministry for utilization representing 43% of the allocation for the year.

GoG Capital Expenditure

For 2016, Ministry of Power was not allocated any amount in respect of Capital Expenditure.

ABFA (Power)

An amount of GH¢80,000,000.00 was approved the Ministry under the ABFA for 2016. Also in the course of the year a supplementary allocation of GH¢ 445,938,359.02 was made available to the Ministry. As at the end of the year under review, the Ministry had assessed the GHS 525,938,359.02 of the total allocation.

5. SUMMARY OF KEY ACHIEVEMENTS IN 2016

POWER

Expansion in generation capacity

In the year under reference, significant progress was made towards the expansion of power generation capacity to consolidate the gains made in addressing the power supply challenges.

A total of 880 MW of power capacity was added to the country's installed generation capacity as at year end 2016. The following projects were completed during the period:

- 200MW Kpone Thermal Power Project (KTPP)
- 360MW Asogli Project
- 20 MW BXC Solar Project
- 250MW Ameri Project
- 50MW Trojan (phase III) Project

Transmission System Improvement Projects

In line with Government's policy to create a non-congested transmission system, GRIDCO continued with the Transmission System Rehabilitation (TSRP) to improve operational reliability, security and control among others. Key among these included:

- Work on the Tumu-Han-Wa 161kV line was completed.
- Kpandu-Kadjebi 161kV line project was 90% completed
- The Aboadze-Prestea 330kV line was 48 % completed

Distribution Improvement Project

To improve the power distribution system for efficient service delivery, the following projects were undertaken by ECG and NEDCo

ECG Improvement Projects

- Construction of a 2 x 20MVA 33/11kV primary substation at Kisseiman in Accra is 85% complete.
- Construction of a 2 x 20MVA 33/11kV primary substation at Dansoman in Accra is completed and in circuit.
- The Construction of 161/33kV Bulk Supply Point at Tema (Smetlter II) was completed.
- The Replacement of obsolete 33kV switchgear at Station 'H' in Accra was completed.
- The Reconstruction of Barekese substation in the Ashanti Region was 95% complete.
- The Network Extension & Intensification in Western, Central, and Eastern & Volta Regions was 90% complete.
- The Upgrade of Cape Coast Bulk Supply Point (BSP) is 90% complete.
- Construction of Asamankese substation to improve quality of supply to over 120 communities in the Upper and Lower West Akyem and Suhum municipalities is 80% complete.
- Reconstruction of networks in major markets in Tema is completed.
- Reconstruction of network Transmission was 80% complete

The following were undertaken under GEDAP 1 & 2 for ECG

- Installation works of four (4) renewable energy-based mini-grid systems under the Mini/micro-grid Electrification have been completed and commissioned.
- GEDAP 1 -Implementation of Pilot Strategic Business Unit (SBU) for ECG-Ashanti-Strategic Business Unit (SBU) – ECG completed assignment of all Managers and Officers in Ashanti East and West to their new SBU roles. The Consultant is providing on-going advice and support to the SBU Management.
- ECG-Customer Management System – Installation, data migration, testing and training of frontline staff was successfully completed.

- Construction of Asekyem Substation in Ashanti, under GEDAP 2 was 60% complete as at December 2016.

NEDCo Improvement Projects

The Network Protection System Improvement Project Phase (1) (NPSIP I) was 90% completed which included:

- Supply of various distribution transformers and ring main units
- Development of Enterprise Geographic Information System (eGIS)

Ghana Power Compact II

- An Environmental and Social Management System (ESMS) was completed and put into effect
- The Request for Qualification (RfQ) for the ECG Private Sector Participation (PSP) Transaction was launched, prequalification applications received, and evaluation completed
- MiDA executed an Implementing Entity Agreement (IEA) with the Electricity Company of Ghana Ltd (ECG)

Rural Electrification

Under rural electrification, 1,212 communities were connected to the national grid in 2016 increasing the national electricity access rate increased from 80.5 percent in December, 2015 to 83.24 percent as at December 2016.

Local Content Policy

- The local content policy for the Power and Renewable Energy was approved by Cabinet.
- The Energy Commission Act Amendment was approved by Parliament.

Power Sector Regulation

- Government also initiated a major programme to reduce the frequency and duration of power outages experienced by electricity consumers. Working together with the ECG, the programme aims to identify the interventions required to reduce the level of outages occurring and agree a plan for implementation with the ECG that would be monitored by the Energy Commission.

RENEWABLE ENERGY

Off-grid Electrification

The Renewable & Alternative Energy Directorate worked with UNIDO and United Nations Foundation (UNF) to develop two separate off-grid renewable energy-based electrification of public institutions. Approvals have been obtained at the OiER/UNIDO and UNF and the Ministry of Energy is working out the modalities for the implementation of the projects in 2017, targeting remote rural health facilities without grid electricity.

Solar Lantern Program

- A total of 70,000 units of portable solar lanterns were (with phone charging functionality) procured through competitive tendering and sold under 70% subsidy during the year. This was done under the kerosene lantern replacement programme.
- The monitoring of the impact of the use of solar lanterns and demand for kerosene consumption was done and it revealed a significant reduction in the demand for kerosene.

Mini-grid Electrification

- Five mini-grids were completed and technically commissioned in the following districts; Ada East District, Aglakope (Krachi West District), Atigagome and Wayokope (Sene East District) and Kudorkope (Krachi East District), most of these areas are island communities.
- Under World Bank mini-grid project, management and operations contract with TTA Consortium has commenced for pilot 5 mini-grids projects.
- The socioeconomic study of the proposed three (3) island communities for the SECO grant funded mini-grids received approval and the evaluation of the expressions of interest completed for the Ada East district.
- A technical paper for General Electric CSO Mini-grid to be sited at Accra Town in the Pru East District, Brong Ahafo region was prepared.

Utility Scale Renewable Energy Programme

- A 20MW Solar Farm by BXC was completed and connected into a medium voltage distribution network at Gomoa Onyeadze and awaiting official commissioning.
- An evaluation bid for 20MW MOP/ECG Solar Tender was completed and the recommended bidder (Biotherm SA) has been notified. A Negotiation team has been constituted and awaiting ECG Board approval to commence negotiation.
- An evaluation bid for 50MW BPA/MOP Solar Tender has been completed and the recommended bidder (3SIL/Hareon China) has been notified and Implementation Agreement initialled by bidder and Bui Power Authority.

Sustainable Energy for Cooking and Productive Use Programme

- The MOP collaborated with the Energy Commission and the Ghana Alliance for Clean Cooking (GHACCO) to launch an awareness campaign on the promotion of improve cookstoves for households and agro-processing on 18th April, 2016.
- Improved cookstoves which was distributed by the private sector through GHACCO were monitored. A total of 135,930 number of stoves were distributed by the end of third quarter.

Nuclear Power Programme

The Ministry is collaborating with the Ghana Atomic Energy Commission (GAEC) towards the development and integration of Nuclear Power in the national electricity generation mix. This programme is partly to diversify the fuel supply option for the country's electricity generation sector. Achievement during the period under review include the following:

- Nuclear Regulatory Authority Board was established to regulate the nuclear energy sector in all spheres of nuclear application. The regulatory authority has also been mandated to come out with guidelines, procedures and regulations for the safe integration of Nuclear Power into Ghana's electricity generation mix
- A National Roadmap for the integration of nuclear power into Ghana's energy mix was developed. Roadmap has also been reviewed and accepted by the International Atomic Energy Agency (IAEA) as an effective one.
- A draft Nuclear power policy document was developed and is undergoing final review by Ghana Nuclear Power Programme Organisation and the National Development Planning Commission. The policy document is to serve as a guide for the implementation of the Nuclear Power Programme.

PETROLEUM

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

To ensure greater transparency and prudent management of Ghana's oil and gas resources the Petroleum (Exploration and Production) Bill 2016 was passed into law on August 4, 2016. The new Act (Act 919) replaces the Petroleum (Exploration and Production) Law, 1984, Act 84.

Petroleum (E&P) Regulations

A number of Petroleum (E&P) Regulations to ensure implementation of the new Petroleum law are at various stages of development. The Petroleum (E&P) Measurement Regulations is to ensure that accurate measurement forms the basis for the determination of revenue accruing to the country from petroleum production was passed and became effective in November 2016. Other subsidiary legislation such as, Health Safety and Security (HSSE) Drilling and Data Management regulations are at various stages of development.

Gas Master Plan

A Gas Master Plan (GMP) to provide a frame work for the gas market was approved by Cabinet.

In line with the strategic objective of increasing national access to petroleum products, a number of policy initiatives were introduced and institutional restructuring were embarked upon to further improve the enabling environment for investment in the downstream sector. These were;

Transfer of the Single Point Mooring (SPM) and Conventional Buoy Mooring (CBM) Facility to Government

The Ministry facilitated the transfer of the Single Point Mooring (SPM) and Conventional Buoy Mooring (CBM) Facility constructed on a Build Operate and Transfer (BOT) to the Government of Ghana, at the expiration of the ten-year concession period in 2016. The facility receives products and crude from larger Vessels at the Port to the Tema Oil Refinery. This transfer was effected smoothly on August 15th, 2016, without any interruptions to the delivery of crude oil and refined petroleum products in the country.

Government has nominated TOR to operate and maintain the Facility and to further expand it to meet the growing demand of the petroleum downstream sector. The Facility was built to receive both crude oil and refined petroleum products for the domestic market.

Rural LPG Promotion Programme

The Rural LPG Promotion Programme was scaled up with the distribution of 42,630 cylinders with cook stoves and related accessories in 43 Constituencies and Institutions. The Programme is part of government's efforts to curb deforestation and also to promote healthier cooking options in semi-urban and rural areas

LPG Policy

A draft LPG Policy which seeks to consolidate activities in the LPG value chain with the view to reducing HSSE risks exposure among others was developed in 2016.

The draft policy has been sent to key stakeholders and comments. Some issues of contention are currently being addressed by the Ministry.

Evacuation of Gas from West to East

Ghana National Gas Company has completed the extension of its pipeline to the battery limit of the West Africa Gas Pipeline Company (WAPCo) Regulatory & Metering Station at Aboadze. The facility is to ensure bidirectional transportation of gas between the two critical load centres of Takoradi and Tema, and guarantee flexibility and security of supply of petroleum products.

Oil Production from the Jubilee Field

The Jubilee Field experienced some challenges in the first quarter of 2016 leading to a significant reduction in production volumes, gas export and subsequent crude oil lifting. This was mainly due to damage on the turret bearing of the FPSO Kwame Nkrumah leading to a shutdown for about two months.

Oil production from the Jubilee Field from January to December 2016 was 27,006,014 barrels with an average daily production of 80,340. Gas production from January to December 2016 on the other hand was 38,142MMscf.

Tweneboa Enyeran Ntomme (TEN) Field

The TEN Field development project which is Ghana's second major oil and gas field progressed on schedule. The field commenced production on August 17, 2016. Current production is at an average rate about 55,000bopd .A total of 5,138,708 barrels of oil have been produced as at December 2016.

Offshore Cape Three Points (OCTP) Project

The Offshore Cape Three Points (OCTP) Project Ghana's third major oil and gas field operated by ENI is on course for first oil in the third Quarter Q3, 2017. The project will deliver about 45,000 bopd and 180 mmscfd of gas, enough to generate 1000 MW of power. The FPSO was named after former President J.A. Kuffour on February 4, 2017 at a ceremony in Singapore. Her Excellency, the First Lady, led Ghana's delegation for the

naming ceremony. The FPSO J.A Kuffour has set sail from Singapore in is expected in Ghana by end of the first Quarter of 2017.

National Strategic Stock of Petroleum Products

In line with its mandate of ensuring availability of petroleum products, BOST held over 106,979 tonnes of gasoline and 98,400 tonnes of premium super in strategic stock as at December 2016 thus averting emergency importation of petroleum products.

To also make Ghana a hub for petroleum product distribution in the sub region, BOST begun supplying petroleum products to the land-locked countries of Burkina Faso, Niger and Mali from the Bolgatanga depot and by sea to Benin and Nigeria.

BOST also successfully transferred 60 million litres of gasoline and gasoil (the equivalent of 1,200 truckloads) through the pipeline to the Bolgatanga Depot for export in the first half of 2016.

Local Content in Petroleum Upstream

The year 2016 witnessed aggressive implementation of the Petroleum Local Content and Local Participation Regulations, 2013 L.I. 2204.

Since the passage of the L.I. 2204, the industry has seen an increase in capital investments, local sourcing and subcontracting. Currently, about eighty per cent (80%) of the total workforce in the oil and gas industry are Ghanaians.

Indigenous Ghanaian service providers were awarded about USD 221million. This is about 73% increase compared to USD 128million for 2015. The Petroleum Commission established a number of multi-disciplinary sub-committees to accelerate the development of local content and ensure broader local participation in petroleum activities

A Local Content and Local Participation Policy for the Petroleum Downstream submitted to Cabinet awaiting approval. The Policy seeks to increase local content in the petroleum downstream to over 80 percent in the next five years.

Oil and Gas Capacity Building

Over the five years, Government has increased the capacity of institutions managing the oil and gas sector and has also supported institutions which train the Ghanaian workforce to operate in the petroleum sector through the Oil and Gas Capacity Building Project.

As part of this project, various laboratory equipment have been supplied to the Kwame Nkrumah University of Science and Technology (KNUST).

Three technical institutions, namely Regional Maritime University (RMU), Takoradi Technical Institute (TTI) and Kikam Technical Institute (KTI) have also been supported.

Local Content in Petroleum Upstream

The year has 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. Currently, about eighty percent (80%) of the total workforce in the oil and gas industry are Ghanaians.

In 2016 alone (Jan –June), contracts issued to indigenous Ghanaian service providers were in excess of USD 221million. This is about 73% increase compared to USD 128million for 2015. The Petroleum Commission has established a number of multi-disciplinary sub-committees to accelerate the development of local content and ensure broader local participation in petroleum activities

Community Relations and Social Investment Plan.

The Petroleum Commission has developed Community Relations Social Investment Plan (CORSIP) and forwarded to a number of Districts in the Western Region for review before implementation. Additionally as part of measures to reduce fishing incursions on the Exclusive Zones the Commission has developed elaborate strategies to curtail the situation.



1.5. Appropriation Bill

Summary of Expenditure by Sub-Programme, Economic Item and Funding

Entity: 018 - Ministry of Energy and Petroleum (MENP)

Year: 2017 | Currency: Value

Approved version

	GoG				IGF				Funds / Others			Donors			Grand Total
	Compensation of employees	Goods and Services	Capex	Total	Compensation of employees	Goods and Services	Capex	Total	Statutory	ABFA	Others	Goods and Services	Capex	Total	
018001 - Management And Administration	4,570,037	1,841,437	10,500,000	16,911,474								71,957,682	235,869,519	307,827,201	324,738,675
0180011 - GENERAL ADMINISTRATION And FINANCE	3,901,222	1,329,924	10,500,000	15,731,145											15,731,145
0180012 - Human Resource	329,130	63,938		393,068											393,068
0180013 - Policy Planning, Budgeting, Monitoring And Evaluation	199,368	383,637		583,005								8,483,463	33,933,851	42,417,314	43,000,319
0180014 - Research, Statistics Information And Public Relations	140,317	63,938		204,255								63,474,219	201,935,668	265,409,887	265,614,142
018002 - Power Generation, Transmission And Distribution (Power Management)	355,825	204,603	83,000,000	83,560,428											83,560,428
0180021- Power Generation and Transmission	52,704	76,726	30,000	159,430											159,430
0180022- Power Distribution	303,121	127,877	82,970,000	83,400,998											83,400,998
018003 - Petroleum Development	212,917	255,754	5,000,000	5,468,671											5,468,671
0180031- Upstream	120,757	104,997		225,754											225,754
0180032- Downstream	70,564	130,321	5,000,000	5,200,885											5,200,885
0180033- Health, Security, Safety and Environment	21,596	20,436		42,032											42,032
018004 - Renewable Energy Development	92,862	255,754	1,500,000	1,848,616								578,345	2,313,379	2,891,724	4,740,340
0180041- Renewable Energy	92,862	207,659	1,500,000	1,800,521								578,345	2,313,379	2,891,724	4,692,245
0180042- Alternative Energy		48,095		48,095											48,095
018005 - Energy Sector Regulation						37,743,102		37,743,102							37,743,102
0180051- Power Sector Regulation						16,839,464		16,839,464							16,839,464
0180052- Petroleum Sector Regulation						20,903,638		20,903,638							20,903,638
020002 - Power Generation and Transmission												12,611,213	50,444,852	63,056,065	63,056,065
0200020 - Power Generation and Transmission												12,611,213	50,444,852	63,056,065	63,056,065
020003 - Power Distribution												71,767,191	298,635,662	370,402,853	370,402,853
0200030 - Power Distribution												71,767,191	298,635,662	370,402,853	370,402,853
Grand Total	5,231,642	2,557,548	100,000,000	107,789,189		37,743,102		37,743,102				156,914,431	587,263,412	744,177,843	889,710,134

PART B: BUDGET PROGRAMME SUMMARY

PROGRAMME 1: MANAGEMENT AND ADMINISTRATION

1. Budget Programme Objectives

- To formulate policies for the Energy sector of the country
- To coordinate and monitor the activities of Energy sector agencies in the implementation of petroleum policies.
- To oversee the effective implementation of sector policies, programmes and projects
- To develop and strengthen institutional and human resource capacity in the Sector
- To provide institutional support for the administration of government business in the Energy sector

2. Budget Programme Description

The Management and Administration programme coordinates the activities of the Ministry of Energy. The programme seeks to

- Ensure timely availability of support services as well as financial and material resources to facilitate the technical and operational activities of the Ministry.
- Facilitates the recruitment, development, motivation and management of manpower for effective and efficient service delivery towards the realisation of the Energy Sector vision and mission.
- Facilitates the preparation of strategic and corporate plans for the sector, defining sector targets and performance indicators. It also monitors and evaluates the implementation of all sector programmes and projects for the achievement of sectoral goals.

The programme has five sub programmes and delivered by four Directorates: General Administration and Finance, Human Resource, Policy Planning, Monitoring and Evaluation, Research and Statistics, Information and Public Relations.



2.9. Budget by Chart of Account

9 - Sub-Programme and Natural Account

Entity: 009 - Ministry of Foreign Affairs and Regional Integration(MFARI)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
009001 - Contingencies	50,394,810	50,394,810	50,394,810
009001 - Contingencies	50,394,810	50,394,810	50,394,810
21 - Compensation of employees [GFS]	18,446,165	18,446,165	18,446,165
211 - Wages and salaries [GFS]	18,446,165	18,446,165	18,446,165
Goods and Services	26,948,645	26,948,645	26,948,645
22 - Use of goods and services	26,948,645	26,948,645	26,948,645
31 - Non financial assets	5,000,000	5,000,000	5,000,000
311 - Fixed assets	5,000,000	5,000,000	5,000,000

BUDGET SUB PROGRAMME SUMMARY

PROGRAMME 1: MANAGEMENT AND ADMINISTRATION

SUB-PROGRAMME 1.1: General Administration and Finance

1. Budget Sub-Programme Objectives

- To ensure effective functioning of the sector for the achievement of its objective
- To ensure the availability of services and facilities necessary to support the administrative and other functions of the sector
- To design and maintain a system for monitoring and evaluation of the progress of programmes and procurement with the view of eliminating waste and unearthing irregularities
- To safeguard the interest of the sector in all financial transactions relating to its budget, revenue and expenditure

2. Budget Sub-Programme Description

The General Administration is responsible for the effective functioning of the Ministry by ensuring timely availability of support services to facilitate the technical and operational activities of the Ministry.

The Finance unit ensures the availability of financial and material resources for the running of the Ministry. These include funds, vehicles, utilities, fuel and stationery. This Directorate ensures that the financial activities of the Ministry are in compliance with existing laws, policies, plans, standards and procedures.

The Internal Audit Unit improves organizational (the Ministry's) effectiveness and adds value to the operations/activities of the Ministry. These are done by;

- Identifying control weakness in the Ministry's operational systems,
- Evaluating its approach to mitigating/managing risks and
- Assessment of the governance structures in place

The Internal Audit Unit performs the following functions in the Ministry

- Cash Management Audit
- Fuel Audit
- Fixed Asset Audit
- Monitoring of Ministry's projects across the country
- Reconciling accounts with agencies
- Stores Audit
- Payroll Audit

- And any other Special assignment that may be assigned by Management from time to time

The Internal Audit Unit produces reports on every assignment it undertakes, copies of which are subject to demand by Management and the Internal Audit Agency

The Finance and Administration has the following units under its jurisdiction, namely, Accounts, Estate, Procurement and Stores, Transport, Treasury, Protocol and the General Registry. The Directorate is currently supported by eighty established staff and two contract.

The Directorate's programmes are funded through Government of Ghana subvention.

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Enhance internal management	Number of Minutes of Meetings	5	12	12	12	12
Annual Procurement and Cash Plan	Number of procurement plans	1	1	1	1	1
Internal Audit reports	Number of responses to Audit Queries	5	3	6	6	8
Financial reports (Monthly and Annually)	Number of Monthly reports	8	12	12	12	12
	Annual financial reports submitted	1	-	1	1	1
ARIC meetings	Number of minutes of meetings	4	4	4	4	4
Entity Tender Committee (ETC) review reports	Number of ETC reports approved	1	4	4	4	4
Functioning Ministerial Advisory Board meetings	Number of Minutes of Meetings	4	2	4	4	4

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and Projects to be undertaken by the sub-programme

Operations	Projects
<p>Internal Management of the Organisation</p> <ul style="list-style-type: none"> Payment of Utilities Payment of Cleaning Materials Travel and Transport Payment of Special Services Payment of General Expenses 	<p>Acquisition of Immovable and Movable Assets</p> <ul style="list-style-type: none"> Procurement of Assets and office equipment
<p>Procurement of Office Supplies and Consumables</p> <ul style="list-style-type: none"> Payment of Materials and Office Consumables 	
<p>Information, Education and Communication</p> <ul style="list-style-type: none"> Seminars and Conference Cost 	
<p>Maintenance, Rehabilitation, Refurbishment and Upgrade of existing Assets</p> <ul style="list-style-type: none"> Payment for Repairs and Maintenance 	



2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
0180011 - GENERAL ADMINISTRATION And FINANCE	15,731,145	15,731,145	15,731,145
0180011 - GENERAL ADMINISTRATION And FINANCE	15,731,145	15,731,145	15,731,145
21 - Compensation of employees [GFS]	3,901,222	3,901,222	3,901,222
22 - Use of goods and services	1,294,924	1,294,924	1,294,924
28 - Other expense	35,000	35,000	35,000
31 - Non financial assets	10,500,000	10,500,000	10,500,000

BUDGET SUB PROGRAMME SUMMARY

PROGRAMME 1: MANAGEMENT AND ADMINISTRATION

SUB-PROGRAMME 1.2: Human Resource

1. Budget Sub-Programme Objectives

- To ensure the availability, development and management of requisite Human Resource in terms of numbers, skills-mix and competencies for the execution of Sectoral goals (mandates).
- To establish systems and procedures for planning and controlling human resource development and facilitates smooth integration of new recruits, posted staff and national service personnel into the Ministry's work environment/culture.

2. Budget Sub-Programme Description

The Sub programme facilitates the recruitment, development, motivation and management of manpower for effective and efficient service delivery towards the realisation of the Energy Sector vision and mission.

The major services delivered by the sub programme are to:

- Coordinate staff recruitment and replacement processes
- Provide guidance in determining training needs of all categories of staff
- Coordinates and collate training and manpower development budgets for allocation of funds for implementation
- Coordinate staff performance appraisal management
- Initiate Human Resource Management policy guidelines
- Periodically review roles, regulations and procedures relating to training
- Institute measures to provide inter linkage between sectoral plans and those of implementing agencies relating to manpower development to ensure the optimum utilization of personnel within the sector
- Facilitate periodic management and organizational reviews, job inspections and job descriptions, schemes of service and maintenance of carrier progression plans of the sector
- Facilitate the determination (review) of appropriate sectoral manpower/establishment levels consistent with overall operational requirements of the sector.
- Assist in the formulation and institution of welfare and safety policies in compliance with the labour laws

The Sub programme is delivered by the Human Resource Directorate and is composed of two (2) units namely:

- Human Resource Development
- Human Resource Management

The Directorate has a total of eight (8) personnel who are in charge of delivering the above job functions. They are made up of one Director, one Deputy Director two Assistant Director IIA, one Assistant Chief Executive Officer, one senior executive officer, one higher executive officer and one stenographer secretary

The programmes are carried out in collaboration with various directorates of the Ministry and the beneficiaries are the entire work force of the Ministry in particular and the clients of the Petroleum Sector in general.

The Human Resources Directorate's programmes are funded through Government of Ghana and Donor support.

Key challenges which the Directorate encounters in the delivery of its core functions include but not limited to the following:

- Inadequate and delays in the release of funds
- Delays on the part of supervisors and appraisees to complete and submit performance appraisal reports
- Low level of cooperation from other directorates in providing vital data for execution of functions

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Staff trained, resourced and motivated	Number of personnel trained	50	74	80	85	100
Recruitment conducted	Number of personnel recruited for vacant positions	30	12	40	45	45
	Number of new employees inducted	60	33	60	60	60
Performance of staff appraised	Number of officers appraised	90	100	100	110	120
Human Resource Development/Management guidelines & procedures developed and reviewed periodically.	Number development and reviews carried out	1	1	1	1	1
Improved Staff Welfare	Number of welfare programmes organized	6	6	6	6	6
Revised Organizational / Job schedules and functions and Establishment Levels	Number of Reviews carried out	1	1	1	1	1

4. Budget Sub-Programme Operations and Projects

The table lists the main operations and projects to be undertaken by the sub-programme

Operations	Projects
Placement and Promotions expenses Conduct Promotion interviews Conduct Orientation / Induction of new Staff	Advertise vacant positions Orientation/Induction for new staff and Service personnel
Personnel and Staff Management Appraisal of Staff Human Resource Directors' Interface Development of HRM Policy and Guidelines Review of Work Programme and Performance Organise Staff Welfare and Safety Programme	Performance Appraisal Reporting training Welfare and Safety
Manpower Skill Development Staff trained and resourced	Development of HRM Policy and guidelines



2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
0180012 - Human Resource	393,068	393,068	393,068
0180012 - Human Resource	393,068	393,068	393,068
21 - Compensation of employees [GFS]	329,130	329,130	329,130
22 - Use of goods and services	50,938	50,938	50,938
28 - Other expense	13,000	13,000	13,000

BUDGET SUB PROGRAMME SUMMARY

PROGRAMME 1: MANAGEMENT AND ADMINISTRATION

SUB-PROGRAMME 1.3: Policy Planning, Budgeting, Monitoring and Evaluation

1. Budget Sub-Programme Objective

To ensure effective policy planning, budgeting, monitoring and evaluation of the sector activities

2. Budget Sub-Programme Description

The Policy Planning, Monitoring and Evaluation Directorate (PPMED) spearhead and facilitate the preparation of strategic and corporate plans for the sector, defining sector targets and performance indicators.

The Directorate also translates programmes into financial costing and budgeting. The PPMED ensures that sector projects and programmes are in line with national development agenda. The Directorate also monitors and prepare reports on the implementation of all sector programmes and projects for the achievement of sectoral goals.

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Annual Work Programme	Submitted by	2nd March,	7th February	31st January	31st January	31st January
Annual Performance Report	submitted by	17th January	17th January	16th January	17th January	16th January
Report on Mid-year Performance	Report submitted by	31st August	31st August	31st August	31st August	31st August
Quarterly performance report	Number submitted	4	4	4	4	4

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Draft Budget	Number of Budget Committee Meetings	5	5	5	5	5

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and projects to be undertaken by the sub-programme

Operations
Manpower Skills Development Staff trained and resourced
Policies and Programme Review Activities Preparation of annual performance report Mid-year review of Sector Performance Tender Review Board Meetings
Management and Monitoring Policies, Programmes and Projects Preparation of work programme & Quarterly Reports Projects monitored and evaluated



2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
0180013 - Policy Planning,Budgeting, Monitoring And	43,000,319	43,000,319	43,000,319
0180013 - Policy Planning,Budgeting, Monitoring And Evaluation	43,000,319	43,000,319	43,000,319
21 - Compensation of employees [GFS]	199,368	199,368	199,368
22 - Use of goods and services	8,867,100	8,867,100	8,867,100
31 - Non financial assets	33,933,851	33,933,851	33,933,851

BUDGET SUB PROGRAMME SUMMARY

PROGRAMME 1: MANAGEMENT AND ADMINISTRATION

SUB-PROGRAMME 1.4: Statistics, Research, Information and Public

Relations

1. Budget Sub-Program Objectives

- To conduct research into policy and strategy options
- To compile and analyze data for the Ministry in particular and Government as a whole
- To create and maintain a data bank for effective and efficient decision making
- To project the good image of the sector both within and outside the country by disseminating information on the Ministry's policies, activities and procedures
- To provide a mechanism for receiving feedback on government's policies and activities

2. Budget Sub-Program Description

The Directorate serves as the main information and publications unit of all the other Directorates in the sector and manages its client services centre.

It conducts research and seeks for information and data to aid decision-making relevant to the achievement of the sectoral objectives and goals.

The Directorate facilitates actions on the Ministry's policies and programmes through commissioning of projects, press releases, press conferences, briefings, workshops, seminars, meetings etc.

The activities of the Directorate are mostly funded by the Government of Ghana, and this comprises the activities of the Communication unit, the IT unit, Research and Statistics. In all, the Directorate has about thirteen (13) staff, most of who are contract staff and three (3) National service persons. The directorate is often not able to deliver its mandate effectively due to the following factors:

- Inadequate budgetary allocation
- Inadequate Staff
- Inadequate Staff Capacity, in relevant areas (data collection and analysis, communications and Information Technology)

3. Budget Sub-Program Results Statement

The table indicates the main outputs, indicators and projections by which the Ministry measures the performance of this sub-program. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Compilation of statistical data for analysis and dissemination	Reports on statistical data analysed	2	3	3	3	3
Press conferences	Number of Press Conferences held	3	3	3	3	3
Public sensitization	Number of Outreach Programmes	1	2	4	5	6
Media Interviews	Number of Interviews conducted	14	16	16	18	20
Production of Communication Materials	Number of Materials	200	300	300	400	500
Establishment of ICT Enterprise Architecture	Number of staff trained on E-workspace Application Systems	-	-	200	600	800

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and projects to be undertaken by the sub-programme

Operations	Operations
Research and Development	Comprehensive sector report on oil and gas production
Upgrade and maintenance of data bank	
Dissemination of information on status of projects	Petroleum Update (Annual Magazine) Meet the Press
Impact assessment on projects and programmes	



2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
0180014 - Research, Statistics Information And Public	265,614,142	265,614,142	265,614,142
0180014 - Research, Statistics Information And Public Relations	265,614,142	265,614,142	265,614,142
21 - Compensation of employees [GFS]	140,317	140,317	140,317
22 - Use of goods and services	63,538,157	63,538,157	63,538,157
31 - Non financial assets	201,935,668	201,935,668	201,935,668

BUDGET PROGRAMME SUMMARY

PROGRAMME 2: POWER SECTOR DEVELOPMENT AND MANAGEMENT

1. Budget Programme Objectives

- To ensure adequate and reliable power supply
- To increase access to electricity
- To restore financial health in the Power sector

2. Budget Programme Description

The Ghana electricity supply industry is unbundled with separate jurisdictions and entities regarding activities of electricity generation, transmission and distribution. Electricity generation is carried out by the state owned Volta River Authority and Independent Power Producers (IPPs).

The National Interconnected Transmission System (NITS) for electricity is owned and operated by the Ghana Grid Company Limited (GRIDCO), which is also state-owned. The Energy Commission and the Public Utility Regulatory Commission are the regulators of the power sub-sector. The EC is responsible for Technical Regulation whilst the PURC does the economic component and sets tariffs for the subsector.

The goal of the power sector is to become a major net exporter of power in the sub-region by 2020. This is to be achieved through capacity addition, modernization of transmission and distribution infrastructure

The Ministry is responsible for formulating policies to address the power shortage in the country. The policy responses will be

- Increase generation capacity
- Reinforce and add capacity at the transmission and distribution levels
- Open up the sub-sector to Independent Power Producers (IPPs) and private sector participation in generation
- Strengthen the regulatory environment

The various objectives have been set in consultation with the various stakeholders in order to address the power supply shortages:

- Increase installed generation capacity
- Achieve gas-based generation for at least 50% of thermal power plant
- Increase participation of IPPs in the Power Sector through transparent procurement
- Improve and modernise electricity distribution infrastructure to reduce system losses
- Develop a non-congested electricity transmission network

- Strengthen Regulatory Agencies to perform their functions effectively

The Ministry will be formulating policies to address the issue of inadequate access to electricity. The policy responses will be

- Increase the momentum of the National Electrification Scheme (NES) to provide access to electricity progressively to all communities
- Upgrade and reinforce transmission and distribution network capacity
- Open up the sub-sector to private sector participation in power distribution and sale

The Ministry will be formulating policies to restore the financial health of VRA and ECG. The policy responses will be

- Ensure cost-recovery tariffs for electricity production and supply
- Strengthen the Public Utilities Regulatory Commission (PURC) to determine and implement efficient and cost-reflective tariffs for electricity
- Ensure the independence of regulatory agencies

The following objective has been set in consultation with the various stakeholders in order to restore the financial health of VRA and ECG:

- Achieve economically efficient tariffs



2.9. Budget by Chart of Account

9 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
018002 - Power Generation, Transmission And Distribution	83,560,428	83,560,428	83,560,428
018002 - Power Generation, Transmission And Distribution (Power Management)	83,560,428	83,560,428	83,560,428
<i>21 - Compensation of employees [GFS]</i>	355,825	355,825	355,825
211 - Wages and salaries [GFS]	355,825	355,825	355,825
<i>Goods and Services</i>	204,603	204,603	204,603
22 - Use of goods and services	204,603	204,603	204,603
<i>31 - Non financial assets</i>	83,000,000	83,000,000	83,000,000
311 - Fixed assets	83,000,000	83,000,000	83,000,000

BUDGET PROGRAMME SUMMARY

PROGRAMME 2: POWER SECTOR DEVELOPMENT AND MANAGEMENT

SUB-PROGRAMME 2.1: Power Distribution

1. Budget Sub-Program Objectives

- To increase access to electricity
- To restore financial health NEDCo and ECG

2. Budget Sub-Program Description

The distribution sub-sector monitors and evaluates policies formulated by the Ministry to ensure that programmes and projects are implemented within set targets.

The number of staff involved in the delivering of this sub-programme is twenty seven (27). Funding of programmes is through Government of Ghana (GOG), and Donor. The list of beneficiaries of programmes and projects carried out in the power sub-sector cuts across the entire country.

3. Budget Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Reduction in distribution system losses	Percentage of distribution losses	21	21	20	19	18
Increase access to electricity	Percentage of households with electricity	80.5%	83.24%	85%	90%	95%
Extension of electricity to deprived communities	Number of towns connected	1,842	1,212	2,724	1500	500

4. Budget Programme Operations and Projects

The table lists the main Operations and projects to be undertaken by the programme

Operations	Projects
Electric power generation, transmission and distribution Monitoring of projects Staff trained and resourced Local content policy on power sector developed	National Electrification Programme SHEP Programme Procurement of Electrical Networks Litigation



2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
0180021- Power Generation and Transmission	159,430	159,430	159,430
0180021- Power Generation and Transmission	159,430	159,430	159,430
21 - Compensation of employees [GFS]	52,704	52,704	52,704
22 - Use of goods and services	76,726	76,726	76,726
31 - Non financial assets	30,000	30,000	30,000

BUDGET PROGRAMME SUMMARY

PROGRAMME 2: POWER GENERATION AND TRANSMISSION

SUB-PROGRAMME 2.2: GENERATION AND TRANSMISSION

1. Budget Sub-Program Objectives

- To ensure adequate and reliable power supply
- To restore financial health of VRA

2. Budget Sub-Program Description

The generation and transmission sub-sectors monitor and evaluate policies formulated by the Ministry to ensure that programmes and projects are implemented within set targets.

The number of staff involved in the delivering of this programme includes a Director (on secondment), Deputy Director (Civil Servant), two Assistant Engineers (on secondment), Associate Programme Officer (on secondment), a Secretary (Civil Servant) and a Service Personnel. Funding of programmes is through Government of Ghana (GoG), and Donor. The list of beneficiaries of programmes and projects carried out in the power sub-sector cuts across the entire country.

3. Budget Programme Results Statement

The following output indicators are the means by which the Ministry measures the performance of this programme. The table indicates the main outputs and an indicator for each. Where past data has been collected this is presented. The projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Expansion of power generation capacity	Additional power generation capacity installed in MW	225	870	1227	870	

4. Budget Programme Operations and Projects

The table lists the main Operations and projects to be undertaken by the programme

Operations	Projects
<p>Electric power generation, transmission and distribution</p> <p>Monitoring of projects</p> <p>Staff trained and resourced</p> <p>Local content policy on power sector developed</p>	



2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
0180022- Power Distribution	83,400,998	83,400,998	83,400,998
0180022- Power Distribution	83,400,998	83,400,998	83,400,998
21 - Compensation of employees [GFS]	303,121	303,121	303,121
22 - Use of goods and services	127,877	127,877	127,877
31 - Non financial assets	82,970,000	82,970,000	82,970,000

BUDGET PROGRAMME SUMMARY

PROGRAMME 3: PETROLEUM SECTOR DEVELOPMENT

1. Budget Programme Objectives

- To formulate, monitor and evaluate the implementation of policies relating to the petroleum sub-sector.
- To maximize the benefits of petroleum activities and resources to Ghanaians.
- To ensure a well-managed and transparent regulatory environment for operations in the petroleum sub-sector.
- To promote and encourage private sector participation in the petroleum sub-sector.

2. Budget Programme Description

- The Petroleum Directorate of the Ministry delivers this Programme with the following key services :
- Provides policy direction to the sector agencies within the petroleum sub sector and promote the use of modern forms of energy such as LPG and natural gas.
- Undertakes monitoring and evaluation of policies and projects undertaken by its institutions.
- Establishes regimes and institutions to ensure effective regulation and management of petroleum resources in a safe and transparent manner.
- Undertakes programmes to develop the capacity of its staff and sector agencies to meet new challenges. It also encourages its staff and agencies to participate in both local and international networks and fora with the aim of promoting the country's resources and encourage private sector participation in the industry.

The programme is delivered in collaboration with other state owned organisation such as Tema Oil Refinery (TOR), National Petroleum Authority (NPA), Bulk Oil Storage and Transportation Company (BOST), Ghana Cylinder Manufacturing Company (GCMC), Ghana Oil Company Limited (GOIL), Ghana National Petroleum Corporation (GNPC), and Ghana National Gas Company (GNGC) and Petroleum Commission (PC).

Thirty three (33) personnel are involved in the delivery of this programme and funding is mainly from the Government of Ghana (GoG) with support from other Developmental Partners.



2.9. Budget by Chart of Account

9 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
018003 - Petroleum Development	5,468,671	5,468,671	5,468,671
018003 - Petroleum Development	5,468,671	5,468,671	5,468,671
21 - Compensation of employees [GFS]	212,917	212,917	212,917
211 - Wages and salaries [GFS]	212,917	212,917	212,917
Goods and Services	255,754	255,754	255,754
22 - Use of goods and services	255,754	255,754	255,754
31 - Non financial assets	5,000,000	5,000,000	5,000,000
311 - Fixed assets	5,000,000	5,000,000	5,000,000

BUDGET SUB-PROGRAMME SUMMARY

PROGRAMME 3: PETROLEUM SECTOR DEVELOPMENT

SUB PROGRAMME 3.1 Upstream Development

1. Budget Sub-Programme Objectives

- To formulate, monitor and evaluate policies relating to Upstream development
- To develop policies to promote and encourage private sector participation in the Upstream development

2. Budget Sub-Programme Description

This sub programme is delivered by the Petroleum Upstream Directorate and it ensures the availability of technical expertise and guidance in all processes in the development of policies, plans, regulations, standards, programmes and projects for the Petroleum Upstream sub-sector of the Ministry.

The Directorate performs the following functions:

- Develops and reviews the broad policies for the petroleum upstream sub-sector of the Ministry.
- Designs and develops petroleum management and investment mechanisms, systems, plans, strategies, standards and regulations to Manage oil and gas revenues transparently and ensures equity
- Encourage investments along the oil and gas industry value chain, create new strategic options and generate National competitive advantage.
- Create new strategic options and generate National competitive advantage.

The Directorate has a total ten personnel made up of 8 staff, 1 administrator and a national service personal in charge of delivering the above job functions.

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Output	Output Indicator	Past Years		Projections		
		2014	2015	Budget Year 2016	Indicative Year 2017	Indicative Year 2018
Gas Policy Developed	Approval of document	N/A	N/A	Gas Policy Submitted to Cabinet	Sensitization workshops organized	Implementation
Monitoring and evaluation reports of upstream activities.	Number of upstream reports evaluated	25	30	30	35	-
Petroleum (E&P) Act	Submission of E&P Bill to parliament	N/A	60% Completed	E&P Bill passed into law – E&P Act 2016, Act 919	E&P regulations submitted to parliament	-

4. Budget Sub-programme Operations and Projects

The table lists the main Operations and projects to be undertaken by the sub-programme

Operations	Projects
<p>Monitor Energy System</p> <ul style="list-style-type: none">• Monitor and evaluate petroleum subsector activities• Monitor and evaluate block acquisitions <p>Gas Production related activities</p> <ul style="list-style-type: none">• Development of Gas Master Plan, evaluate Gas infrastructure and develop LNG infrastructure and fertilizer. <p>Monitoring and evaluation of petroleum sector related projects</p> <p>Implementation of Gas Master Plan</p> <p>Development of a Gas Policy</p>	



2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
0180031- Upstream	225,754	225,754	225,754
0180031- Upstream	225,754	225,754	225,754
21 - Compensation of employees [GFS]	120,757	120,757	120,757
22 - Use of goods and services	104,997	104,997	104,997

BUDGET SUB-PROGRAMME SUMMARY

PROGRAMME 3: PETROLEUM SECTOR DEVELOPMENT

SUB PROGRAMME 3.2: Downstream Development

1. Budget Sub-Programme Objectives

- To develop policies that promote and encourage private sector participation in the downstream sector
- To formulate, monitor and evaluate policies relating to Downstream development

2. Budget Sub-Programme Description

This Sub programme ensures the availability of technical expertise and guidance in all processes in the development of policies, plans, regulations, standards, programmes and projects for the petroleum downstream sub-sector of the Ministry.

The Petroleum Downstream Directorate delivers this sub-programme which is made up of 2 Units and performs the following functions:

Petroleum Product Distribution Unit

Develops and reviews the broad policies for the downstream sub-sector of the Ministry. Designs and develops petroleum distribution mechanisms, systems, plans, strategies, standards and regulations to ensure fair distribution of petroleum products to all parts of the country and reduce heavy burden of oil imports on the country's economy.

Petroleum Infrastructure development Unit

- Develops and reviews the broad policies for the downstream sub-sector of the Ministry.
- Designs and develops petroleum downstream mechanisms, systems, plans, strategies, standards and regulations to rehabilitate and expand petroleum refining, storage, distribution and marketing infrastructure,
- Create new strategic options and generate National competitive advantage.

The Directorate has about Nine (9) staff, most of who are contract staffs.

3. Budget Sub-programme Results Statement

The table indicates the main outputs, indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Output	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Increased use of LPG in rural areas as cooking fuel	Number of districts enrolled under the programme	12 districts	27 districts	28 districts	50 districts	50 districts
	Number of cylinders distributed	50,000	42,630	79,060	100,000	100,000

4. Budget Sub-programme Operations and Projects

The table lists the main Operations and projects to be undertaken by the sub-programme

Operations	Projects
Petroleum products, fuels and other energy resources <ul style="list-style-type: none"> Undertake Rural LPG promotion 	Procurement of LPG cylinders and accessories



2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
0180032- Downstream	5,200,885	5,200,885	5,200,885
0180032- Downstream	5,200,885	5,200,885	5,200,885
21 - Compensation of employees [GFS]	70,564	70,564	70,564
22 - Use of goods and services	130,321	130,321	130,321
31 - Non financial assets	5,000,000	5,000,000	5,000,000

BUDGET SUB-PROGRAMME SUMMARY

PROGRAMME 3: PETROLEUM SECTOR DEVELOPMENT

SUB PROGRAMME 3.3: Health, Safety, Environment and Security

1. Budget Sub-Programme Objectives

To develop, monitor and evaluate policies to ensure health, safety and security of the Petroleum sector

2. Budget Sub-Programme Description

This Sub programme ensures the availability of technical expertise and guidance in all processes in the development of policies, plans, regulations, standards, programmes and projects for the petroleum Health, Safety, Security and Environment sub-sector of the Ministry.

The Health, Safety, Environment and Security Directorate made up of 3 units deliver this sub programme and perform the following functions:

Health and Safety Unit:

- Develops and reviews broad HSSE policies and strategies for the sector.
- Designs and develops petroleum sector Health and Safety mechanisms, systems, plans, strategies and standards.
- Ensures adherence to environmental principles, standards and regulations on Health and Safety in the exploration, development and production of oil and gas from oil or gas fields.

Physical Environment Unit:

- Ensures adherence to environmental protection principles, standards and regulations in all agreements, contracts or memoranda for the exploration, development and production of oil and gas from oil or gas fields.

Petroleum Industry Security Unit:

- Ensures security for oil and gas industry installations and operations through the development of dedicated

The Directorate currently has about five (5) staff, made up of 2 permanent staff and 3 contract staff.

3. Budget Sub-programme Results Statement

The table indicates the main outputs, indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Output	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
HSSE Policy	Percentage Completion	40%	60%	80%	100%	-
Monitoring and evaluation reports of sector agencies projects.	Number of projects monitored	5	10	12	13	-

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and projects to be undertaken by the sub-programme

Operations	Projects
Petroleum Sector Regulation	
Development of Health Environment Safety and Security Policy	



2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
0180033- Health, Security, Safety and Environment	42,032	42,032	42,032
0180033- Health, Security, Safety and Environment	42,032	42,032	42,032
21 - Compensation of employees [GFS]	21,596	21,596	21,596
22 - Use of goods and services	20,436	20,436	20,436

BUDGET PROGRAMME SUMMARY

PROGRAMME 4: RENEWABLE ENERGY DEVELOPMENT

1. Budget Programme Objective

To formulate, evaluate and monitor the implementation of policies related to the renewable energy subsector

2. Budget Programme Description

The Renewable Energy Directorate is responsible for the promotion and development of the country's renewable energy resources and delivering of the programme. The main issues of the renewable energy sub-sector are:

- Low contribution of Renewable Energy (small hydro, modern biomass, wind, solar and biofuels) in the generation mix.
- Difficulty in the extension of grid electricity to remote rural communities (including islands & lakeside communities). Challenges of deploying Renewable Energy Electricity to remote off grid communities.
- Relatively high cost of energy produced from renewable sources
- Low contribution of the use of Biofuel for Energy
- Over dependence and inefficient utilization of wood fuel resources
- Inadequate funding for the promotion of Renewable Energy
- Unexplored alternative and cheaper energy sources

To achieve 10% contribution of new renewable in the electricity generation mix, electricity for remote communities and the reduction of over dependency on wood fuel from 72% to 50% by 2020, the following strategies will be undertaken:

- Implement the provisions in the Renewable Energy Act, 2011 (ACT 832)
 - Facilitate the development and enactment of relevant legislative instruments
 - Feed –in –tariff
 - Promote net metering concept for households and institutions
- Support Resource Assessment for wind, hydro and biomass
- Support R&D in the Renewable Energy Sector
- Completely wean-off MDAs from the national electricity grid through roof-top solar PV
- Promote the local assembly / manufacture of solar and other Renewable Energy equipment
- Promote Public Private Partnership for integrated hydro projects
- Establishment of the Renewable Energy Authority.
- Promote off grid electrification options

- Promote cleaner cooking technologies to reduce Household Air Pollution and over dependence on wood fuel
- Promote effective wood fuel utilization technologies to reduce rate of deforestation
- Resource and Operationalize the Renewable Energy Fund
- Nuclear Power planning and implementation
- Research into other cheaper alternative energy sources

The number of staff involved in the delivering of this programme is twenty (20) and the funding source is GoG and Development Partners.

3. Budget Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Monitor wind and biomass resource assessment	Number of sites assessed	16	16	16	16	16
Construction of PV Solar to wean-off MDAs from National Grid	Number of MDAs	-	-	1	3	4
Construction of renewable energy mini-grid	Number of mini-grid constructed	1	1	3	10	20
Monitoring the Implementation of On-going Grid Connected Renewable Energy Initiatives (Utility scale Net metering facilities)	Number of systems monitored	3	3	15	40	100
Development and Monitoring of Clean Cooking (Improved Cook stoves and LPG) initiatives	Number of projects developed	1	1	1	2	4
	Number of projects monitored	2	4	4	6	8

Main Outputs	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Nuclear Energy Planning and Implementation	Potential nuclear power sites identified	8	8	8	8	8

4. Budget Programme Operations and Projects

The table lists the main Operations and projects to be undertaken by the programme

Operations	Projects
<p>Renewable Energy Programme</p> <ul style="list-style-type: none"> • Monitor solar systems installed and developed decentralized renewable energy • Train staff in decentralized renewable energy • Coordinate the development of TOR and procurement of consultant to undertake feasibility studies • Monitoring of on-going feasibility studies • Nuclear Power site and environmental assessment • Monitor energy efficiency and conservation projects; existing and on-going waste-to-energy projects; and bio-energy initiative nationwide 	<p>Renewable Energy Programme</p> <ul style="list-style-type: none"> • Procurement of Assets and Office Equipment • Procurement of 300Kw PV Solar panels and installation systems to wean-off MoEn from grid electricity.



2.9. Budget by Chart of Account

9 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
018004 - Renewable Energy Development	4,740,340	4,740,340	4,740,340
018004 - Renewable Energy Development	4,740,340	4,740,340	4,740,340
21 - Compensation of employees [GFS]	92,862	92,862	92,862
211 - Wages and salaries [GFS]	92,862	92,862	92,862
Goods and Services	834,099	834,099	834,099
22 - Use of goods and services	834,099	834,099	834,099
31 - Non financial assets	3,813,379	3,813,379	3,813,379
311 - Fixed assets	3,813,379	3,813,379	3,813,379

BUDGET PROGRAMME SUMMARY

PROGRAMME 5: ENERGY SECTOR REGULATION

1. Budget Programme Objectives

- Develop policies, goals, strategies and advise the Minister on Power and Petroleum matters.
- Sustain the exploration, development and production of oil and gas industry.
- Regulate, develop and manage the power and petroleum sub-sectors.

2. Budget Programme Description

This sub-programme is delivered by two organisational units namely:

- Energy Commission
- Petroleum Commission

Energy Commission

The Commission is required by law to regulate and manage the development and utilization of energy resources in Ghana as well as to provide the legal, regulatory supervisory framework for all providers of energy in the country: specifically by granting licenses for the transmission, wholesale, supply, distribution and sale of electricity and natural gas and related matters.

Petroleum Commission

Petroleum Commission was established by Act 821, 2011 with the mandate to regulate and manage the utilization of petroleum resources and coordinate policies in relation to them.

The Commission is mandated by law to promote sustainable and cost efficient petroleum activities to achieve optimal levels of resource exploitation; monitor and ensure compliance with national policies, laws, regulations and agreements related to petroleum activities; and promote local content and local participation in petroleum activities.



2.9. Budget by Chart of Account

9 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
018005 - Energy Sector Regulation	37,743,102	37,743,102	37,743,102
018005 - Energy Sector Regulation	37,743,102	37,743,102	37,743,102
<i>Goods and Services</i>	37,743,102	37,743,102	37,743,102
22 - Use of goods and services	36,747,602	36,747,602	36,747,602
27 - Social benefits [GFS]	428,900	428,900	428,900
28 - Other expense	566,600	566,600	566,600

BUDGET SUB-PROGRAMME SUMMARY

PROGRAMME 5: ENERGY SECTOR REGULATION

SUB-PROGRAMME 5:1 Power Sector Regulation

1. Budget Programme Objectives

- To regulate and manage the utilization of power resources and to co-ordinate the policies in relation to them.

2. Budget Programme Description

This sub-programme is delivered by the Energy Commission through the following operations

Development of policy goal and strategy

- Comprehensive policy framework for street lighting in Ghana.
- Liquefied petroleum Gas (LPG) promotion strategy.
- Policy on kerosene supply and pricing.

Energy Planning

- Compilation and updating of the strategic national energy plan
- Completion of Electricity Generation and Transmission plans
- Update of sustainable energy plan of Ghana's energy requirements.

Regulation of Electricity and Natural Gas industries

- Establish a wholesale electricity market in Ghana to ensure effective management and governance of National Interconnected System (NITS)
- Regulate electrical wiring in Ghana to ensure safety of persons, properties and livestock.
- Establish regulatory mechanism for ensuring quality and reliable electricity supply to customers by Electricity Distribution Utilities in Ghana.
- Develop the Natural Gas Market Rules and Operation of Natural Gas Market

Development and Promotion of renewable energy and energy efficiency and conservation

- Renewable energy and resource assessments
- Renewable energy strategy development and policy analysis
- Promote renewable energy technologies.
- Regulate renewable energy service providers
- Energy Research and Development.
- Energy Efficiency & Refrigerating market Transformation.

Development and management of petroleum sector

- Development of Petroleum Legislative Instruments for the petroleum market regulations.
- Development of Standard rules for monitoring of oil marketing industries in Ghana

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future.

Main Outputs	Output Indicator	Past Year		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Increased participation by Independent Power Producers (IPPs)	Number of wholesale suppliers licensed	4	3	3	4	1
Increased grid-connected solar systems (rooftop)	Number of institutions and household supplied	800	1500	25,000	35000	-
Energy efficiency and conservation in household refrigeration in Ghana	Number of refrigerators replaced.	1000	1000	1000	1000	1000
Certified electrical technician	Number licensed	3000	4500	6000	8000	-

4. Budget Sub-Programme Operations and Projects

The table lists the main Operations and projects to be undertaken by the sub-programme

Operations
Power Sector Regulation

Projects



2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
0180051- Power Sector Regulation	16,839,464	16,839,464	16,839,464
0180051- Power Sector Regulation	16,839,464	16,839,464	16,839,464
22 - Use of goods and services	15,843,964	15,843,964	15,843,964
27 - Social benefits [GFS]	428,900	428,900	428,900
28 - Other expense	566,600	566,600	566,600

BUDGET SUB-PROGRAMME SUMMARY

PROGRAMME 5: ENERGY SECTOR REGULATION

SUB-PROGRAMME 5.2: Petroleum Sector Regulation

1. Budget Sub-Programme Objective

- To regulate and manage the utilization of petroleum resources and coordinate the policies in relation to them

2. Budget Sub-Programme Description

This sub-programme is delivered by the Petroleum Commission. The main operations under this sub-programme include:

- Promote planned, well executed, sustainable and cost efficient petroleum activities
- Promote local content and local participation
- Monitor and ensure compliance with national policies, laws, regulations and agreements related to petroleum activities
- Advise the Minister on matters related to field development plans, plans for development for transportation and decommissioning
- Ensure compliance with health safety and environmental standards in petroleum activities in accordance with the law

3. Budget Sub-Programme Results Statement

The table indicates the main outputs, its indicators and projections by which the Ministry measures the performance of this sub-programme. The past data indicates actual performance whilst the projections are the Ministry's estimate of future performance.

Main Output	Output Indicator	Past Years		Projections		
		2015	2016	Budget Year 2017	Indicative Year 2018	Indicative Year 2019
Development of upstream Petroleum Regulation	HSE/Drilling regulation (% completion)	20%	60%	100%	-	-
	Data Management Regulations (% completion)	20%	50%	100%	-	-
	Fiscal Metering regulations (% completion)	30%	70%	100%	-	-

4. **Budget Sub-Programme Operations and Projects**

The table lists the main Operations and projects to be undertaken by the sub-programme

Operations	Projects
Internal Management of the Organisation	



2.7 Budget by Chart of Account

7 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEn)

Funding: All Source of Funding

Year: 2017 | **Currency:** GH Cedi

Version 1

	Budget	Indicative Year	Indicative Year
0180052- Petroleum Sector Regulation	20,903,638	20,903,638	20,903,638
0180052- Petroleum Sector Regulation	20,903,638	20,903,638	20,903,638
22 - Use of goods and services	20,903,638	20,903,638	20,903,638



1.6. Appropriation Bill

Summary of Expenditure by Cost Center, Economic Item and Funding

Entity: 018 - Ministry of Energy and Petroleum (MENP)

Year: 2017 | Currency: Value

Approved version

	GoG				IGF				Funds / Others			Donors			Grand Total
	Compensation of employees	Goods and Services	Capex	Total	Compensation of employees	Goods and Services	Capex	Total	Statutory	ABFA	Others	Goods and Services	Capex	Total	
018 - Ministry of Energy and Petroleum (MENP)	5,231,642	2,557,548	100,000,000	107,789,189		37,743,102		37,743,102				156,914,431	587,263,412	744,177,843	889,710,134
01801 - Headquarters	5,231,642	2,557,548	100,000,000	107,789,189								156,914,431	587,263,412	744,177,843	851,967,032
0180101 - Gen. Admin and Finance.	3,901,222	1,329,924	10,500,000	15,731,145											15,731,145
0180101001 - Gen. Admin and Finance.	3,901,222	1,329,924	10,500,000	15,731,145											15,731,145
0180102 - Human Resources Devt. & Management.	329,130	63,938		393,068											393,068
0180102001 - Human Resources Devt. & Management.	329,130	63,938		393,068											393,068
0180103 - Planning, Budgeting, Monitoring & Evaluation.	199,368	383,637		583,005											583,005
0180103001 - Planning, Budgeting, Monitoring & Evaluation.	199,368	383,637		583,005											583,005
0180104 - Petroleum.	212,917	255,754	5,000,000	5,468,671								63,474,219	201,935,668	265,409,887	270,878,558
0180104001 - Petroleum.	212,917	255,754	5,000,000	5,468,671								63,474,219	201,935,668	265,409,887	270,878,558
0180105 - Power	355,825	204,603	83,000,000	83,560,428								92,861,867	383,014,365	475,876,232	559,436,660
0180105001 - Power	355,825	204,603	83,000,000	83,560,428								92,861,867	383,014,365	475,876,232	559,436,660
0180106 - Research, Statistics and Information	140,317	63,938		204,255											204,255
0180106001 - Research, Statistics and Information	140,317	63,938		204,255											204,255
0180107 - Renewable Energy	92,862	255,754	1,500,000	1,848,616								578,345	2,313,379	2,891,724	4,740,340
0180107001 - Renewable Energy	92,862	255,754	1,500,000	1,848,616								578,345	2,313,379	2,891,724	4,740,340
01802 - Energy Commission						16,839,464		16,839,464							16,839,464
0180201 - Gen. Admin						16,839,464		16,839,464							16,839,464
0180201001 - Gen. Admin						16,839,464		16,839,464							16,839,464
01803 - Petroleum Commission						20,903,638		20,903,638							20,903,638
0180301 - Gen. Admin						20,903,638		20,903,638							20,903,638
0180301001 - Gen. Admin						20,903,638		20,903,638							20,903,638