

MEDIUM TERM EXPENDITURE FRAMEWORK (MTEF) FOR 2019-2022

MINISTRY OF ENERGY

PROGRAMME BASED BUDGET ESTIMATES
For 2019









MINISTRY OF ENERGY



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Ministry of Finance

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1.5. Appropriation BillSummary of Expenditure by Sub-Programme, Economic Item and Funding

Entity: 018 - Ministry of Energy (MoEN)
YTD: Year Total 2019 | Currency: GH Cedi
Version 1

		909	(D			19I				Funds / Others			Donors		
	Compensation of employees	Goods and Services	Сарех	Total	Compensation of employees	Goods and Services	Сарех	Total	Statutory	ABFA	Others	Goods and Services	Сарех	Total	Grand Total
01801 - Management And Administration	2,443,989	1,419,152	8,522,816	12,385,957											12,385,957
01801001 - GENERAL ADMINISTRATION And FINANCE	1,799,047	1,048,978	8,522,816	11,370,841											11,370,841
01801002 - Human Resource	316,669	61,704		378,373											378,373
01801003 - Policy Planning, Budgeting, Monitoring And Evaluation	201,916	247,570		449,486											449,486
01801004 - Research, Statistics Information And Public Relations	126,358	006'09		187,258											187,258
01802 - Power Generation, Transmission And Distribution (Power Management)	384,641	164,549	64,794,151	65,343,341								19,594,613	183,560,081	203,154,694	268,498,035
01802001 - Power Generation and Transmission	72,778	61,704	24,354	158,836											158,836
01802002 - Power Distribution	311,863	102,845	64,769,797	65,184,505								19,594,613	183,560,081	203,154,694	268,339,199
01803 - Petroleum Development	274,350	267,439	3,181,852	3,723,641											3,723,641
01803001 - Upstream	203,061	123,408		326,469											326,469
01803002 - Downstream	21,540	123,408	3,181,852	3,326,800											3,326,800
01803003 - Health, Security, Safety and Environment	49,749	20,623		70,372											70,372
01804 - Renewable Energy Development	86,650	205,681	4,670,863	4,963,194		12,666,021	69,863	12,735,884				13,063,074	122,373,388	135,436,462	153,135,541
01804001 - Renewable Energy	059'98	133,364	4,670,863	4,890,877		12,666,021	69,863	12,735,884				13,063,074	122,373,388	135,436,462	153,063,224
01804002 - Alternative Energy		72,317		72,317											72,317
01805 - Energy Sector Regulation					16,586,306	13,135,000	33,500,000	63,221,306							63,221,306
01805001 - Power Sector Regulation					16,586,306	13,135,000	33,500,000	63,221,306							63,221,306
Grand Total	3,189,631	2,056,821	81,169,682	86,416,134	16,586,306	25,801,021	33,569,863	75,957,190				32,657,687	305,933,469	338,591,156	500,964,480

PART A: STRATEGIC OVERVIEW OF THE MINISTRY OF ENERGY

1. NMTDPF POLICY OBJECTIVES

Power Sector Policy Objectives

- Ensure availability of, clean, affordable and accessible energy
- Ensure efficient transmission and distribution system
- Ensure energy availability and reliability
- Ensure efficient utilization of energy
- Enhance capacity for policy formulation and coordination
- Improve financial capacity and sustainability of utility companies

Petroleum Sector Policy Objectives

- Promote petroleum exploration
- Promote development and use of indigenous capabilities for exploitation of petroleum resources
- Leverage oil and gas industry as a catalyst for national economic development
- Minimize potential environmental impacts of oil and gas industry
- Reduce greenhouse gas emissions
- Make Ghana the aviation hub for West African sub region

2. GOAL

Safeguard the Natural Environment and ensure a resilient built environment - under the Pillar 3: Revamping Economic and Social Infrastructure.

3. CORE FUNCTIONS

- 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
- Strengthen the capacity of energy sector institutions in planning and coordination of the sector



4. POLICY OUTCOME INDICATORS AND TARGETS

Outcome	Unit of	Bas	eline	Lates	t status		Target
Indicator	Measurement	Year	Value	Year	Value	Year	Value
Description							
POWER SUB SE	CTOR		•				
Expansion of	Additional						
generation	power						
capacity (SDG	generation		445		785		206
target 7.1, 7a,	capacity		443		763		
7b)	installed in						
	MW						
Improved of	Percentage						
Power	reduction in						
Distribution	distribution		24.25		23.85		20
System Losses	losses						
(SDG target 7)		-					
Electricity	Number of						
extended to	communities						
deprived	connected to	2017	587	2018	700	2020	1500
communities	the national						
(SDG target 7b)	grid	=				=	
Access to	Percentage						
Electricity	communities		84.15		84.32		90
increased (SDG	connected		01.13		04.52		
target 7b)		-					
Increased							
penetration of							
renewable	RE capacity						
energy in the	addition to the		0		20MW		195MW
energy supply	grid						
mix (SDG target							
7a, 7.2, 7.3)							



Outcome	Unit of	В	aseline	La	test status		Target
Indicator	Measurem	Year	Value	Year	Value	Year	Value
Description	ent						
PETROLEU	M SUB SECT	OR					
Increased productivity of Jubilee field (SDG target 9.b)	Annual volume of oil and gas produced		Oil,mmbbl 32.75 GAS EXPORT 44.23Bscf		Oil, mmbbl 53.34 GAS EXPORT 59.25 Bscf		Oil, mmbbl 34.02 GAS EXPORT 35.58 Bscf
Increased productivity of TEN field (SDG target 9.b)	Annual volume of oil and gas produced	2017	Oil, mmbbl 19.82 Gas export 25.87 Bscf		Oil, mmbbl 37.35 Gas export 33.88 Bscf	2020	Oil, mmbbl 24.93 Gas export 13.73 Bscf
Increased productivity of Sankofa- GyeNyame field (SDG target 9.b)	Annual volume of oil and gas produced		Oil, mmbbl 5.46 Gas export 7.21 Bscf	2018	Oil, mmbbl 12.35 Gas export 7.21 Bscf		Oil, mmbbl 16.50 Gas export 62.42Bscf
LPG COOK Stoves and Cylinders distributed (SDG Target 7)	Number of Cylinders Number of Districts		22		39,240 Cylinders 17800 Cookstov es 24 districts 22 districts		



EXPENDITURE TREND FOR 2018 5.

20:	MINISTRY OF 18 BUDGET PERFORMA			
SOURCE	APPROVED BUDGET	RELEASES	ACTUAL EXP.	VARIANCE
	GH¢	GH¢	GH¢	GH¢
COMPENSATION OF EMPLOYEES (GOG)	2,630,392.00	2,020,642.76	2,020,642.76	609,749.24
GOOD AND SERVICES (GOG)	1,941,790.00	1,168,356.00	1,069,883.30	773,434.00
CAPEX (GOG)	85,441,770.00	79,226,359.00	79,226,359.00	6,215,411.00
COMPENSATION OF EMPLOYEES (IGF)				
(ENERGY COMMISSION)	16,586,305.00	10,229,303.00	9,992,470.67	6,357,002.00
GOOD AND SERVICES (IGF)				
(ENERGY COMMISSION)	40,435,493.00	6,882,611.31	6,539,199.48	33,552,881.69
CAPEX (IGF)				
(ENERGY COMMISSION)	2,510,189.00	-	-	2,510,189.00
GOODS AND SERVICES (DONOR)	178,362,595.00	96,697,846.15	96,697,846.15	81,664,748.85
CAPEX (DONOR)/ OTHERS	586,488,879.00	-	-	586,488,879.00
TOTAL	914,397,413.00	196,225,118.22	195,546,401.36	718,172,294.78
NOTE 1: OTHER RELEASES BY MoF				
a. ECG Debt to LITASCO GHC330,898,005.00		330,898,005.00		
b. ECG to KARPOWER GHANA COMPANY LTD GHC	454,410,000	454,410,000.00		
	Total:	785,308,005.00		
ESLA		185,447,603.00		



Compensation of Employees

An amount of **GHS 2,630,392.00** was allocated to the Ministry of Energy for Compensation of Employees for 2018. As at end of October, 2018, an amount of **GHS 2,020,642.76** representing 76.82% was has been utilized by the Ministry in respect of Compensation of Employees.

Goods and Services

An amount of **GHS 1,941,790.00** was approved and allocated for Goods and Services for the Ministry for the 2018 fiscal year. As at October 2018, an amount of **GHS 1,168,356.00 representing 60% of the allocation** was released to the Ministry with **GHS 1,069,883.30** representing **55.10%** been utilized by the Ministry.

Capital Expenditure

In 2018, an amount of **GHS 85,441,700.00** was allocated to the Ministry for capital expenditure. As at October 2018, releases made to the Ministry of Energy totaled an amount of **GHS 79,226,359.00** of which same had been utilized, representing a percentage of 92.73%.

ABFA

No amount was allocated to the Ministry of Energy for the 2018 fiscal year for ABFA.

DONOR

Development Partners releases as at October 2018 stood at **GHS 96,697,846.15** representing 54.21% out of the **GHS 764,851,474.00** allocated to the Ministry.

Retained Internally Generated Funds (IGF)

An amount of **GHS 59,531,897** was approved and allocated for internally generated funds for Energy Commission under Ministry of Energy for the 2018 fiscal year. As at October 2018, an amount of **GHS 17,111,914.31** representing 23% of the allocation was released for utilization.

NOTE:

OTHER RELEASES BY MoF

- a. ECG Debt to LITASCO GHS 330,898,005.00
- b. ECG to KARPOWER Ghana Company Ltd GHS 454,410,000
- c. TOTAL: 785,308,005.00

ESLA - 185,447,603.00



6. SUMMARY OF KEY ACHIEVEMENTS IN 2018

POWER SECTOR DEVELOPMENT AND MANAGEMENT

EXPANSION IN GENERATION CAPACITY

- Installation works have been completed under the 340MW CenPower Power Project.
 After full commissioning, the project will add 340MW to the installed capacity of 4517MW
- 420 GWh of energy was injected into the National Interconnected Transmission System (NITS) by BPA as at September 2018.
- The 400MW Early Power Project Phase 1 is at 40% completion.

The Ministry is facilitating the relocation of the 450MW karpowership from Tema to Sekondi to utilize gas produced from the Sankofa Fields.

In 2019, the Ministry will facilitate the completion of the following projects:

- 192MW Amandi Power Project
- 400MW Early Power Project Phase 1 (147MW)

TRANSMISSION SYSTEM IMPROVEMENT PROJECTS

In line with Government's policy to create a non-congested transmission system GRIDCo continued with the Transmission System Reinforcement Project to improve operational reliability, security and control among others. Key among these includes: (*status as at* 30^{th} *September* 2018)

- Aboadze 330kV Substation Expansion Project is 51% complete
- 330kV Aboadze-Prestea Transmission Line Project is 98% complete
- Volta-Achimota-Mallam 161kV Transmission Line Upgrade is 41% complete
- 225Kv Bolgatanga –Ouagadougou interconnection Project has been completed
- The Prestea-Kumasi 330KV Tranmission Line is 94% complete
- 330 kV Kumasi, Tamale and Bolgatanga Substations under the 330kV Transmission Line Project is 98% complete
- 330 kV Kumasi -Bolgatanga Transmission Line Project is 96.3% complete

In 2019, the Ministry will facilitate the completion of the following projects

- 161kV Aboadze-Takoradi line upgrade project
- 161kV Takoradi-Tarkwa-New Tarkwa-Preatea line upgrade project
- 330kV A4BSP Nkawkaw-Anwomaso Line Project



Grounding Of Tower BT7/1 Foundation:-Volta —Achimota - Mallam Upgrade



Casting Of Reinforced Cement Concrete Pad For Tower BT4/6 Foundations And Chimney For Tower BT4/1:-Volta-Achimota-Mallam Upgrade







Auto Transformer Positioned on Pad at Bolgatanga II Substation





330/225kV Bolgatanga II Substation Works



7



Conductor Stringing Works In Progress: Aboadze- Prestea 330kV Transmission Line





Erected Gantries And Beams And Compaction The Surface Of The Substation Platform - Aboadze Substation





Gantry Installation At Tamale II Substation Site



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ELECTRICITY DISTRIBUTION

RURAL ELECTRIFICATION

Under rural electrification, 122 out of a targeted 456 communities were connected to the national grid as at September, 2018 with other projects at various stages of completion. The national electricity access rate increased from 84.15% in December, 2017 to 84.32% in September, 2018. (The initial target for 2018 was to connect 1,796 communities but following the Ministry's 2018 Midyear Performance review, the target was revised to 456 communities)

In 2019, a total of 1,250 communities, is expected to be connected to the national grid.

REGIONAL CAPITALS STREET LIGHTING PROJECT

In order to reduce electricity consumption by streetlights, the Ministry of Energy is replacing the inefficient 250W High Pressure Sodium (HPS) lamps with 150W LED types and also rehabilitating existing infrastructure in Accra and Kumasi. About 85% of streetlights on selected roads in Accra and Kumasi have been retrofitted with LED lamps.



To comprehensively address the current challenges, we face with street lighting in the country, Cabinet is currently considering a Strategy Document for Street lighting in Ghana submitted by a Taskforce commissioned by the Ministry of Energy.

ECG PRIVATE SECTOR PARTICIPATION PROGRAMME

Under the ECG Private Sector Participation, three agreements,

- Lease and assignment agreement
- Bulk supply agreement
- Government support agreement

have been signed between ECG, Power Distribution Systems Limited (PDS) and Government. Also, post contract negotiations have been held between the GoG negotiation team and PDS.

- Working groups have been formed by ECG and PDS to hold technical meetings. Bilateral
 meetings have also commenced between ECG and PDS. The transfer date to PDS is
 February 1, 2019.
- In 2019, ECG will operate as responsible asset owner and will;
 - Monitor the performance of the concessionaire
 - Energy trading to PDS and for export.

RENEWABLE & ALTERNATIVE ENERGY

Solar Lantern Program

As part of Government's strategy to increase penetration of renewable energy in the energy mix, a total of 24, 770 Solar Lanterns (with phone charging functionality) were sold as at September 2018 at 70% subsidy to poor off-grid rural households to replace the use of kerosene as the main lighting fuel for non-electrified communities.

The impact of the project on beneficiaries have been very positive. Studies have revealed that the demand for kerosene as fuel for lighting has significantly reduced.

Additional 100,000 units will be procured as part of the target to totally eradicate kerosene lanterns.

Mini-grids Electrification/ Off-grid Electrification

As part of Governments efforts to reach universal access by 2020, the 5 Mini-grids in selected island communities on the Volta Lake have been handed over to VRA to be



responsible for the Operation & Maintenance services in accordance with the Public Sector led Mini-grid Policy to mainstream it into the National electrification system.

Feasibility studies have commenced for the installation of addition 55 mini-grids for remote, island and off-grid communities.

Solar Micro-grids have been deployed in 26 remote Health Facilities in Brong Ahafo, Northern and Western regions to provide the basic electricity needs until such a time that grid electricity is extended to such remote areas. The 26 micro grids for these health facilities have been completed and commissioned.

SOLAR ROOFTOP PROGRAMME

In line with Government's goal of increasing the penetration of renewable energy in the energy generation mix and the promotion of distributed solar power for Government and Public buildings, the Solar Rooftop Programme was initiated to help reduce Government's expenditure on utilities.

The final phase of feasibility of incorporating solar systems to complement electricity supply at the Jubilee House has been completed.

Contract has been awarded for the installation of a 65kW solar rooftop system at the Ministry of Energy to cut down government expenditure on electricity.

These activities will eventually be extended to most public institutions. (Parliament House, the Judiciary, Second Cycle institutions, MMDAs etc.)

Government is currently exploring funding options to implement the "Ghana Goes Solar" initiative which will see most public buildings implement solar systems to complement their electricity needs.

The 22.26kW solar rooftop installation at the Winneba Judicial Court is a clear demonstration of Government's effort to reduce its expenditure on electricity.

UTILITY SCALE SOLAR

As part of efforts to encourage Private Sector Participation in the renewable power generation, Government in August 2018 commissioned a 20MW utility solar project by Mienergy in Winneba.

Procurements processes are underway for VRA and BPA to add a total of 167 MW of renewable energy from solar, wind and hydro to the national grid.

RENEWABLE ENERGY FAIR

The 4th edition of the Ghana Renewable Energy Fair held from the 9th to 11th October, 2018, on the theme: Renewable energy: Exploiting energy resources at the district level was



a great success. This brought together various stakeholders in the renewable energy industry and provided a platform for the promotion of renewable energy technologies in Ghana to support Governments 1D1F initiative

APPOLLONIA RENEWABLE ENERGY DEMONSTRATION CENTER

The Appollonia Renewable energy demonstration center is undergoing rehabilitation. When completed, it will showcase all applications of renewable energy technologies for energy generation.

NUCLEAR ENERGY

A part of Government's commitment to the Paris agreement on climate change under the SDG goal 7and the need for Ghana to industrialise and add value to its abundant natural resources, Government has taken a decision to include nuclear energy into the energy mix in the near future. Considering that it takes a minimum of fifteen (15) years to plan for the integration of nuclear plant in the grid. This year, the following has been achieved:

- During the visit of His Excellency, the President, to Beijing to attend the Africa-Chiana Summit, an InterGov. Agreement (IGA) with China National Nuclear Corporation (CNNC) to deepen Ghana's corporation in the field of peaceful use of nuclear energy, was finalised and signed in August 2018.
- Preliminary site assessment has been completed for the candidate areas to site the first nuclear power plant. Phase 1 of the nuclear programme is also near completion.
- An integrated work plan for the nuclear programme has been reviewed and being implemented with the assistance of the International Atomic Energy Agency (IAEA)

SECOND POTLINE START-UP

In 2018, VALCo restarted a second Potline and energized it on June 1, 2018. The restart process is 50% complete and is projected to be completed and the Plant running steadily at two Potlines by the end of 2018. Output is expected to average 53,500 tons with an estimated revenue of \$110 million.

As a result of the 2nd Potline restart, VALCO has engaged 180 direct personnel. Additionally, 900 indirect personnel have been employed in the downstream and allied industries following the 2nd Potline restart.

VALCO is working with international partners to develop the aluminum downstream sector. Currently, VALCO is working with three joint venture global partners to establish downstream companies to manufacture alloyed rims, extrusion profiles for windows and doors and LED lamp fixtures.

In 2019,



VALCO will run full two out of its five Potlines to increase its output to 80,000 tons with an associated revenue of US\$160 million. This output will represent 40% utilization of the 200,000 tons per annum (tpa) installed capacity of the Smelter, enough to, at least, breakeven and keep the Smelter alive as it readies itself to serve as an off-taker for the alumina to be refined from Ghana's bauxite.

Given VALCo's anchor role regarding Government's vision for an integrated aluminum industry, the Smelter Technology Upgrade project will be embarked on to take advantage of economies of scale and to improve efficiencies further.

This is a two-Phased project, estimated to cost between US\$500 million and US\$600 million. This is expected to expand the Smelter output within the existing facilities from 200,000 tpa to 290,000 tpa (174,000 tpa at Phase I and 116,000 tpa at Phase II). It is estimated to generate annual revenues of US\$380 million at Phase I, increasing to US\$630 million in the 2nd and final Phase. Corresponding annual net profits are estimated at US\$24 million and US\$42 million for Phase s I and II respectively.

PETROLEUM SECTOR

OIL AND GAS PRODUCTION

a. JUBILEE FIELD PRODUCTION

- Total oil production from the Jubilee Field as of September 30, 2018 was **20,599,845** barrels compared to **24,302,185** barrels for the same period in 2017 representing a reduction of **15%** due to the two shutdowns of the FPSO as part of the Turret Remediation Project. The 2018 production translated into average daily production of **75,457** barrels.
- Associated gas production for the period was 31,323 MMscf of which 15,087 MMscf representing 48.17% was exported to the Gas Processing Plant at Atuabo for power generation.

b. TWENEBOA-ENYENRA-NTOMME (TEN) FIELD PRODUCTION

- The TEN field produced a total of **17,530,233** barrels of oil in the first three (3) quarters of 2018 with a daily average production of **64,213.31** barrels, against a planned daily average of 63,659 bopd.
- Associated gas produced from the TEN Field as at 30th September 2018 was 28,685.06 MMscf, of which 17,163.21 MMscf was re-injected, 2,755.10 MMscf was utilized on the FPSO for power generation, 8,010.29 MMscf was exported and 756.46 MMscf was flared.



 The exported gas of 8,010.29 MMscf was delivered to the GNGC Atuabo GPP to substitute the Jubilee foundation gas volumes exports during the shut-down of the Jubilee FPSO for Turret Remediation Project and Riser 2 disconnection to help meet the nominated value to GNGC.

c. SANKOFA GYENYAME (SGN) FIELD PRODUCTION

The Sankofa Gye Nyame Field from January 1 through September 30, 2018 produced 6,897,116.19 barrels of oil and 14,668.55 MMScf of gas. This is equivalent to 25,038.14 barrels per day and 53.73 MMScf per day for oil and gas respectively.

JUBILEE FIELD - TURRET REMEDIATION PROJECT

The Jubilee Partners continued work towards the completion of the Turret Remediation Project. The project is expected to be completed in the 1st Quarter 2019.

INTERCONNECTION OF GNGC AND WAPCO PIPELINE SYSTEMS

The Ministry is pursuing the Interconnection of Ghana Gas and WAPCo Pipeline system aimed at supplying stranded gas in the west for generation in the east. In line with the above, the Ghana National Gas Company pipeline has been extended from the end terminal valve to WAPCO fence awaiting tie-in.

This project is scheduled to be completed in Q1, 2019.

The Onshore Receiving Facility (ORF) package progressed very well with tie-in works to the GNGC pipeline completed

RURAL LPG PROMOTION PROGRAM

The Ministry distributed 17,800 cook stoves and accessories and 2,000 cylinders from Jan – Oct, 2018 under the Rural LPG Promotion Programme (RLPGPP).

The objective of the RLPGPP is to promote LPG as a healthier, safer and cleaner fuel in semi-urban and rural areas in a bid to reduce deforestation.

In view of the new National LPG Promotion Policy to be implemented in 2019, the Rural LPG Promotion Programme is under review to channel Governments intervention through subsidizing cost of cylinders for first time LPG users in collaboration with LPG marketing companies and also the provision of LPG stoves. A revised programme will be submitted to Cabinet for approval in 2019.



ENERGY SECTOR POLICY

A new National Energy Policy has been drafted to provide the framework for guiding operations within Ghana's energy sector and also ensure a fair balance between the aspirations of Government and the interests of industry players, academia, local communities, civil society and other key stakeholders.

The draft Policy was subject to a nationwide stakeholder consultation in the first Quarter of 2018 and is being finalized for submission to cabinet.

Currently, the Ministry in collaboration with Energy Commission is working on finalizing the Policy Document to be submitted to Cabinet.

ENERGY SECTOR REGULATION

Management of Block Licensing

In line with government's policy to deepen transparency in the management of Ghana's petroleum resources and also to give practical meaning to Section 10 of the new Petroleum (Exploration and Production) Act, 2016 Act 919, the Ministry in May 2018 inaugurated the Licensing Round Bid Evaluation and Negotiation (LRBEN) Committee for the first ever oil and gas licensing round for six (6) Offshore Oil Blocks in Cape Three Points in the Western Region

His Excellency, the President, launched the 1st Oil and Gas Licensing Round on October 15, 2018. The competitive tender process is the first ever since the discovery of oil in Ghana. The new process aims at ensuring transparency, value for money and getting companies with financial and technical expertise in the award of blocks

Promotional activities have been lined up from October to November, 2018.

The Bid Rounds committee expects to start sending out invitations to bid in November ahead of prequalification deadline and also to prepare all the necessary documents for a successful Bid Round.

The Blocks are expected to be awarded to successful bidders in August, 2019.



GHANAIAN CONTENT POLICY FOR THE PETROLEUM DOWNSTREAM SECTOR

A Local Content and Local Participation Policy for the petroleum downstream sector to ensure active participation of Ghanaians in the downstream sector value chain was approved by Cabinet in Q2 2018.

A Local Content Committee has been set up at the National Petroleum Authority (NPA) to coordinate activities on Local Content.

ACCELERATED OIL AND GAS CAPACITY PROGRAMME (AOGCP)

With the launching of the Accelerated Oil and Gas Capacity Programme (AOGCP) in November 2017, the Petroleum Commission in 2018 has established the AOGCP Secretariat and has engaged a Programme Manager for the Programme.

In 2019, the Commission will be looking forward to rigorously implement the programme based on a number of MoUs signed with international technical universities.

THE NATIONAL LPG PROMOTION POLICY

Cabinet in 2017 approved the National LPG Policy. This Policy seeks to abolish the current LPG Marketing model and replace it with the Cylinder Recirculation model (CRM). The policy seeks to consolidate activities in the LPG value chain with the view to reducing Health, Safety, Security and Environmental risk exposure.

As at September 2018 the following milestones have been chalked:

- New Value Chain has been developed with the inclusion of new players namely; Bottling Plant, Cylinder transporter and Cylinder Re-distributor.
- New LPG Pricing framework has been developed based on the Full Cost Recovery principle.
- License requirements for bottling plant has been issued to the industry and prospective applicants
- New Construction and Operational standards and guidelines based on international benchmarks developed for the new value chain
- Completed engagement with Council of state, Otumfuo Nana Osei Tutu II, National House of Chiefs, and Parliamentary Select Committee on Mines and Energy
- Risk assessment exercise completed in all 10 regions

Development of an implementation plan for the Policy is ongoing.

DEVELOPMENT OF A PETROLEUM HUB

The Ministry has come up with a roadmap for making Ghana a hub for refined petroleum products in the West African sub-region. A draft Petroleum Infrastructure Master Plan for



the Development of Ghana as a Petroleum Hub has been developed. Reports on stakeholder engagement has been completed and the first draft report of the Masterplan is under review.

In 2019, the Ministry will facilitate the full implementation of the Petroleum Hub Master Plan

GAS ACT

Following a review of the Gas Master Plan, the Ministry has developed terms of reference for the development of the Gas Act to provide a comprehensive legislation on gas related matters. It is expected that the draft Act will be finalized and passed in 2019.

GENERAL PETROLEUM REGULATIONS (GPR)

The General Petroleum Regulation was passed into law in August 2018. This regulation will make it possible for disclosure of beneficial ownership, details of contractors and licensees as well as a one-stop-shop platform for accessing all economic and infrastructure data relating to the petroleum industry.

The development of this and other upstream petroleum regulations led to the attraction of key global industry players (e.g. ExxonMobil) on the back of sustained investor interest as well as significant de-risking of the Western Basin.

IMPLEMENTATION OF THE ELECTRICAL WIRING REGULATIONS

About 2,900 electrical technicians were trained and certified and licensed to ensure proper wiring of all facilities to protect persons and properties.

INSPECTION AND ENFORCEMENT OF REGULATIONS

Inspections and Enforcement of Statutory requirements and licensing conditions in the Natural Gas, Electricity and Renewable Energy industries in Ghana are been vigorously undertaken.

In 2019, Energy Commission will partner the various stakeholders in the energy sector for the continuous enforcement of standards and regulations within the sector to streamline all activities. Among the regulations and standards to be enforced include:

- Review and update the National Grid Code to include a Renewable Energy Sub-code to ensure the provision of fair, transparent, non - discriminatory, safe, reliable and cost effective delivery of electrical energy in the country
- Energy Commission will enforce the developed guidelines to provide guiding principles for installation, operation and regulation of embedded generation in Ghana and ensure that excessive generation is not injected back into the national Interconnected Transmission System



- Development and enforcement of regulations to facilitate the handling of Liquefied Natural Gas through stakeholder's consultations
- The Energy Commission will see to the enforcement of the Street Lighting Policy which seeks to regulate the assembling, installation, operation and maintenance of street and public lighting in Ghana
- Enforcement of regulations to ensure that electrical wiring conductors and accessories sold on the Ghanaian market meet minimum standards for the safety of persons, property and livestock

PETROLEUM REGISTER

In accordance with Section 56 of the Petroleum Exploration and Production Act 2016 (Act 919) the Minister for Energy in February 2018 lunched the Petroleum Register. It is a Register of petroleum agreements, licenses, permits and authorizations. This Register has closed a chapter in Ghana's history and lifted the veil for all players to experience the fairness, transparency and predictability in the upstream sector.

It also provides Civil Society Organization's (CSOs) and citizens the platform to monitor all upstream petroleum activities and demand accountability of the government.

This new dawn further affords the country opportunities to attract reputable oil and gas companies with the requisite capital and technical capabilities to invest in Ghana's geological basins.

IMPLEMENTATION OF LOCAL CONTENT IN UPSTREAM PETROLEUM

With the aggressive implementation of the Petroleum (Local Content and Local Participation) Regulations, 2013 (LI 2204) a significant number of Ghanaian companies have registered with the Petroleum Commission to participate in the upstream petroleum industry in Ghana. The rigorous promotion of Joint Ventures in accordance with Regulation 43(1) of LI 2204 has enhanced participation of indigenous Ghanaian companies in the industry.

In 2019, the Ministry will work towards amending L.I. 2204 to make the Regulations robust enough to counter and meet the challenges created by the industry and also deepen the promotion of indigenous Ghanaian participation and in-country spend in the sector.

LOCAL CONTENT FUND

In accordance with provision in the Petroleum (Exploration and Production) Act, 2016 (Act 919) a local content fund has been established at the Petroleum Commission. The Fund seeks to:

- Provide financial resources to small and medium scale enterprises to support their participation in oil and gas activities.
- Provide education, training, research and development in the oil and gas sector. Implementation of the Local Content Fund is scheduled for 2019.



VALUE OF SERVICE IN THE UPSTREAM SECTOR

Ghanaian participation in the upstream petroleum industry progressed during the period. As at the end September 2018 about 600 indigenous Ghanaian companies have registered with the Commission providing goods and services to companies in the oil and gas industry.

The total value of contracts awarded to indigenous Ghanaian companies and Joint Ventures amounted to USD\$799M representing an increase of 44% (source: Tullow and ENI). Out of this amount a total of USD\$ 453M worth of contracts were awarded to indigenous Ghanaian companies whilst contracts awarded to Joint Venture companies recorded an amount of USD\$ 346M (source: Tullow and ENI).

Additionally, Aker Energy has awarded contracts worth USD\$40.3M to Joint Venture companies in accordance with their local content obligations.

RENEWABLE AND ALTERNATIVE ENERGY PROMOTIONS

In line with the Government's goal of ensuring the supply of adequate, reliable, affordable and sustainable energy required for rapid economic development, the Energy Commission has been tasked to embark on a renewable energy promotion campaign to increase the renewable energy component of the energy generation mix and the promotion of distributed solar power for government agencies and public buildings.

1n 2019, the Ministry through Energy Commission will also promote the use of indigenous renewable energy resources and clean energy.

LOCAL CONTENT AND LOCAL PARTICIPATION IN THE POWER SUB SECTOR

1n 2019, The Energy Commission in collaboration with Ministry will ensure that Ghanaian citizens, Ghanaian companies and indigenous Ghanaian companies play an active role in the electricity and renewable energy sector with the view of achieving the following:

- Provide an enabling environment to ensure the maximum use of financial capital, expertise, goods and services locally
- Create employment for Ghanaians
- Promote businesses in the electricity supply industry
- Develop and promote local content and local participation in electricity supply industry through education, skills and expertise development, transfer of technology and know – how and also develop an active research and development portfolio
- To promote local capacity in the manufacture of electrical equipment, electrical appliances and renewable energy equipment
- Increase competitiveness among local manufacturers of electrical equipment, electrical appliances and renewable energy equipment





6.0- Programme, Sub-Programme and Natural Account Summary

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

AND				
	2019	2020	2021	2022
Programmes - Ministry of Energy (MoEN)	500,964,480	500,964,480	500,964,480	500,964,480
01801 - Management And Administration	12,385,957	12,385,957	12,385,957	12,385,957
01801001 - GENERAL ADMINISTRATION And FINANCE	11,370,841	11,370,841	11,370,841	11,370,841
21 - Compensation of employees [GFS]	1,799,047	1,799,047	1,799,047	1,799,047
22 - Use of goods and services	1,045,978	1,045,978	1,045,978	1,045,978
28 - Other expense	3,000	3,000	3,000	3,000
31 - Non financial assets	8,522,816	8,522,816	8,522,816	8,522,816
01801002 - Human Resource	378,373	378,373	378,373	378,373
21 - Compensation of employees [GFS]	316,669	316,669	316,669	316,669
22 - Use of goods and services	61,704	61,704	61,704	61,704
01801003 - Policy Planning, Budgeting, Monitoring And Evalua	449,486	449,486	449,486	449,486
21 - Compensation of employees [GFS]	201,916	201,916	201,916	201,916
22 - Use of goods and services	247,570	247,570	247,570	247,570
01801004 - Research, Statistics Information And Public Relati	187,258	187,258	187,258	187,258
21 - Compensation of employees [GFS]	126,358	126,358	126,358	126,358
22 - Use of goods and services	60,900	60,900	60,900	60,900
01802 - Power Generation, Transmission And Distribution	268,498,035	268,498,035	268,498,035	268,498,035
01802001 - Power Generation and Transmission	158,836	158,836	158,836	158,836
21 - Compensation of employees [GFS]	72,778	72,778	72,778	72,778
22 - Use of goods and services	61,704	61,704	61,704	61,704
31 - Non financial assets	24,354	24,354	24,354	24,354
01802002 - Power Distribution	268,339,199	268,339,199	268,339,199	268,339,199
21 - Compensation of employees [GFS]	311,863	311,863	311,863	311,863





6.0- Programme, Sub-Programme and Natural Account Summary

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
22 - Use of goods and services	19,697,458	19,697,458	19,697,458	19,697,458
31 - Non financial assets	248,329,878	248,329,878	248,329,878	248,329,878
01803 - Petroleum Development	3,723,641	3,723,641	3,723,641	3,723,641
01803001 - Upstream	326,469	326,469	326,469	326,469
21 - Compensation of employees [GFS]	203,061	203,061	203,061	203,061
22 - Use of goods and services	123,408	123,408	123,408	123,408
01803002 - Downstream	3,326,800	3,326,800	3,326,800	3,326,800
21 - Compensation of employees [GFS]	21,540	21,540	21,540	21,540
22 - Use of goods and services	123,408	123,408	123,408	123,408
31 - Non financial assets	3,181,852	3,181,852	3,181,852	3,181,852
01803003 - Health, Security, Safety and Environment	70,372	70,372	70,372	70,372
21 - Compensation of employees [GFS]	49,749	49,749	49,749	49,749
22 - Use of goods and services	20,623	20,623	20,623	20,623
01804 - Renewable Energy Development	153,135,541	153,135,541	153,135,541	153,135,541
01804001 - Renewable Energy	153,063,224	153,063,224	153,063,224	153,063,224
21 - Compensation of employees [GFS]	86,650	86,650	86,650	86,650
22 - Use of goods and services	25,862,459	25,862,459	25,862,459	25,862,459
31 - Non financial assets	127,114,114	127,114,114	127,114,114	127,114,114
01804002 - Alternative Energy	72,317	72,317	72,317	72,317
22 - Use of goods and services	72,317	72,317	72,317	72,317
01805 - Energy Sector Regulation	63,221,306	63,221,306	63,221,306	63,221,306
01805001 - Power Sector Regulation	63,221,306	63,221,306	63,221,306	63,221,306
21 - Compensation of employees [GFS]	16,586,306	16,586,306	16,586,306	16,586,306





6.0- Programme, Sub-Programme and Natural Account Summary

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
22 - Use of goods and services	12,900,000	12,900,000	12,900,000	12,900,000
27 - Social benefits [GFS]	235,000	235,000	235,000	235,000
31 - Non financial assets	33,500,000	33,500,000	33,500,000	33,500,000



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 Energy policies.
- To oversee the effective implementation of sector polices, 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 realization 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 four sub programmes and delivered by five Directorates: General Administration and Finance; Human Resource Development and Management; Policy Planning, Budgeting, Monitoring and Evaluation; and Research, Statistics, Information and Public Relations.





6.0- Programme, Sub-Programme and Natural Account Summary

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01801 - Management And Administration	12,385,957	12,385,957	12,385,957	12,385,957
01801001 - GENERAL ADMINISTRATION And FINANCE	11,370,841	11,370,841	11,370,841	11,370,841
21 - Compensation of employees [GFS]	1,799,047	1,799,047	1,799,047	1,799,047
22 - Use of goods and services	1,045,978	1,045,978	1,045,978	1,045,978
28 - Other expense	3,000	3,000	3,000	3,000
31 - Non financial assets	8,522,816	8,522,816	8,522,816	8,522,816
01801002 - Human Resource	378,373	378,373	378,373	378,373
21 - Compensation of employees [GFS]	316,669	316,669	316,669	316,669
22 - Use of goods and services	61,704	61,704	61,704	61,704
01801003 - Policy Planning, Budgeting, Monitoring And Evalua	449,486	449,486	449,486	449,486
21 - Compensation of employees [GFS]	201,916	201,916	201,916	201,916
22 - Use of goods and services	247,570	247,570	247,570	247,570
01801004 - Research, Statistics Information And Public Relati	187,258	187,258	187,258	187,258
21 - Compensation of employees [GFS]	126,358	126,358	126,358	126,358
22 - Use of goods and services	60,900	60,900	60,900	60,900



BUDGET SUB-PROGRAMME SUMMARY

PROGRAMME 1: MANAGEMENT AND ADMINISTRATION

SUB-PROGRAMME 1.1: GENERAL ADMINISTRATION AND FINANCE

1. **Budget Sub-Programme Objectives**

- To ensure efficient performance of the sector in achieving its objective
- To provide administrative and other functional support through the availability of services and necessary facilities to the sector
- To ensure efficient 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 Directorate ensures proper financial management and adherence to financial regulations in the operations of the Ministry. It advises and secures the interest of the Ministry in all financial transactions. It applies international accounting principles and standards, the PFM Act/regulations and general public best practices in the management of the financial resources of the Ministry.

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 and 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 submits reports on every assignment it undertakes, copies of which are subject to request by Management and the Internal Audit Agency.

General Administration has the following units under its jurisdiction, namely, Estate, Procurement and Stores, Transport, Protocol, General Registry and Legal and Finance Directorate has Treasury, Accounts and Resource Mobilisation Units under its jurisdiction. The Sub-programme is currently supported by one hundred and nine (109) staff out of which eight one (81) are civil servants.

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

KEY CHALLENGES OF THE SUB-PROGRAMME

Challenges encountered by the sub programme in undertaking its programmes include:

- Inadequate office accommodation
- Inadequate staff
- Untimely release of funds to undertake programmes
- Delay in meeting programme execution timelines due to technical challenges.



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.

		Past	Years		Proje	ections	
Main Outputs	Output Indicator	2017	2018	Budget Year 2019	Indicative Year 2020	Indicative Year 2021	Indicative Year 2022
Improve internal administration	Number of Minutes of Management Meetings	12	4	12	12	12	12
Annual Procurement and Cash Plan	Number of procurement plans	1	1	1	1	1	1
Internal Audit reports	Number of responses to Audit Queries	20	15	8	8	10	10
Financial management (Monthly and Annual	Number of Monthly reports	12	12	12	12	12	12
Report)	Annual financial reports submitted	1	1	1	1	1	1
Audit Committee Reports	Number of reports generated	4	2	4	6	6	6
Entity Tender Committee (ETC) review reports	Number of ETC reports approved	4	3	4	6	6	6
Ministerial Advisory Board Reports	Number of reports generated	4	1	4	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 Internal Management of the Organisation

- Payment of Utilities
- Payment of Cleaning Materials
- Travel and Transport
- Payment of Special Services
- Payment of General Expenses

Procurement of Office Supplies and Consumables

 Payment of Materials and Office Consumables

Information, Education and Communication

Seminars and Conference Cost

Maintenance, Rehabilitation, Refurbishment and Upgrade of existing Assets

• Payment for Repairs and Maintenance

Projects

Acquisition of Immovable and Movable Assets

• Procurement of Assets and office equipment



8 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01801001 - GENERAL ADMINISTRATION And FINANCE	11,370,841	11,370,841	11,370,841	11,370,841
21 - Compensation of employees [GFS]	1,799,047	1,799,047	1,799,047	1,799,047
22 - Use of goods and services	1,045,978	1,045,978	1,045,978	1,045,978
28 - Other expense	3,000	3,000	3,000	3,000
31 - Non financial assets	8,522,816	8,522,816	8,522,816	8,522,816



PROGRAMME 1: MANAGEMENT AND ADMINISTRATION

SUB-PROGRAMME 1.2: Human Resource Development & Management

1. Budget Sub-Programme Objectives

- To ensure consistent and effective development and management of requisite Human Resource in terms of numbers, skills-mix and competencies for the execution of Sectoral goals (mandates).
- To introduce strategic mechanisms for planning and controlling human resource development and ensure 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 constitutes employees' development, motivation and the management of man-power for effective and efficient service delivery towards the realization 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
- Coordinate 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 Development and Management Directorate.

The Directorate has a total of eight (8) personnel (all civil servants) who are in charge of delivering the above job functions.

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 Energy Sector in general. The Directorate's programmes are funded through Government of Ghana and Donor support.

Key Issues/Challenges for the Programme

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
- Inadequate 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.

	Past Years			Projections			
Main Outputs	Output Indicator	2017	2018	Budget Year 2019	Indicative Year 2020	Indicative Year 2021	Indicative Year 2022
Staff trained, resourced and motivated	Number of personnel trained	80	40	90	95	100	105
Recruitment	Number of personnel recruited for vacant positions	40	0	40	45	45	50
conducted	Number of new employees inducted	33	4	20	20	20	20



		Past	Years		Proj	ections	
Main Outputs	Output Indicator	2017	2018	Budget Year 2019	Indicative Year 2020	Indicative Year 2021	Indicative Year 2022
Performance of staff appraised	Number of officers appraised	100	127	150	150	150	150
Human Resource Development/Ma nagement guidelines & procedures developed and reviewed periodically.	Number development and reviews carried out	1	1	1	1	1	1
Improved Staff Welfare	Number of welfare programmes organized	6	2	6	6	6	6
Revised Organizational / Job schedules and functions and Establishment Levels	Number of Reviews carried out	1	1	1	1	1	1



Budget Sub-Programme Operations and Projects 4.

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

Omerations
Operations
Placement and Promotions expenses
Conduct Promotion interviews
Conduct Orientation / Induction of new Staff
Personnel and Staff Management
Collation and Evaluation of staff performance Appraisal forms
Development of HRM Policy and Guidelines
Review of Work Programme and Performance
Organize Staff Welfare and Safety Programme
Update of Organizational Manual
Manpower Skill Development
Staff trained and resourced

	Project	
No Projects		





8 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01801002 - Human Resource	378,373	378,373	378,373	378,373
21 - Compensation of employees [GFS]	316,669	316,669	316,669	316,669
22 - Use of goods and services	61,704	61,704	61,704	61,704



PROGRAMME 1: MANAGEMENT AND ADMINISTRATION

SUB-PROGRAMME 1.3: Policy Planning, Budgeting, Monitoring and **Evaluation (PPBME)**

1. **Budget Sub-Programme Objective**

- To ensure effective policy planning, budgeting, monitoring and evaluation of Energy sector activities.
- To cater for the design and application of monitoring and evaluation systems for purposes of assessing the operational effectiveness of the ministry's strategies and interventions.

2. **Budget Sub-Programme Description**

This sub-programme, handled by the Policy Planning, Budgeting Monitoring and Evaluation Directorate (PPBMED);

- Spearheads and facilitates the preparation of strategic and corporate plans for the sector, defining sector targets and performance indicators.
- Translates programmes into financial costing and budgeting.
- Ensures that sector projects and programmes are in line the with national development agenda.
- Monitors and prepare reports on the implementation of all sector programmes and projects for the achievement of sectoral goals.

The Directorate has a total of four (4) personnel out of which three (3) are civil servants who are in charge of delivering the above job functions. The programmes are carried out in collaboration with various Directorates/Agencies of the Ministry. The Directorate's programmes are funded through the Government of Ghana.

Key Challenges of the sub-programme

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

- Inadequate staff
- Difficulties in obtaining data on performance especially from Sector Agencies
- Delays in getting inputs from Directorates and Units
- Inadequate and delays in the release of funds
- Directorate/Units and Agencies not adhering to approved templates for reporting.



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.

		Past Years		Projections					
Main Outputs	Output Indicator	2017	2018	Budget Year 2019	Indicative Year 2020	Indicative Year 2021	Indicative Year 2022		
Annual Work Programme	Submitted by	14 April	12 th March	3rd February	3rd February	3rd February	3rd February		
Annual Performance Report	Submitted by	14th January	15 th January	25th January	25th January	25th January	25th January		
Report on Mid-year Performance	Report submitted by	20th July	20 th August	3rd Sept	3rd Sept	3rd Sept	3rd Sept		
Quarterly performance report	Number of reports submitted	4	3	4	4	4	4		
Draft Budget	Number of Budget Committee Meetings	5	12	10	10	10	10		

4. Budget Sub-Programme Operations and Projects

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

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

	Projects
No Projects	





8 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01801003 - Policy Planning, Budgeting, Monitoring And	449,486	449,486	449,486	449,486
21 - Compensation of employees [GFS]	201,916	201,916	201,916	201,916
22 - Use of goods and services	247,570	247,570	247,570	247,570



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 Sub-programme serves as the main information and publications point of all the other Directorates in the sector.

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

It 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 Sub programme are mostly funded by the Government of Ghana, and this comprises the activities of the Communication unit and Research, Statistics and Information Management Directorate.

In all, the Directorate has thirteen (13) staff out of which five (5) are civil servants. The Directorate is often not able to deliver its mandate effectively due to the following factors:

- Inadequate budgetary allocation
- Inadequate staff
- Inadequate Staff Capacity, especially in data collection and analysis



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.

		Past	Years		P	rojections	
Main Outputs	Output Indicator	2017	2018	Budget Year 2019	Indicative Year 2020	Indicative Year 2021	Indicative Year 2022
Compilation of statistical data for analysis and dissemination	Number of research activities undertaken	3	6	4	4	4	4
Press conferences	Number of Press Conference held	3	8	10	10	10	10
Public sensitization	Number of Outreach Programmes	2	5	5	5	5	5
Media Interviews	Number of Interviews conducted	16	20	20	20	20	20
Production of Communicatio n Materials	Number of Materials produced	300	50	500	500	500	500
Establishment of ICT Enterprise Architecture	Number of staff trained on E- workspace application systems	100	100	150	150	100	100



4. Budget Sub-Programme Operations and Projects

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

Operations	Projects
Research and Development	No Projects
Upgrade and maintenance of data bank	
Dissemination of information on status of projects	
Comprehensive sector report on oil and gas production	
Energy update (Annual Magazine) Meet the press	
ICT Enterprise Architecture	





8 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01801004 - Research, Statistics Information And Public	187,258	187,258	187,258	187,258
21 - Compensation of employees [GFS]	126,358	126,358	126,358	126,358
22 - Use of goods and services	60,900	60,900	60,900	60,900



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 (EC) and the Public Utility Regulatory Commission (PURC) 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 ensure the reliable supply of affordable energy services to meet national demand. The policy responses will be:

- Increase generation capacity
- Reinforce and add capacity at the transmission and distribution levels
- Strengthen the regulatory environment

The various objectives have been set in consultation with the various stakeholders in order to ensure the reliable supply of affordable energy services

- Achieve gas-based generation for at least 50% of thermal power plant
- 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





6.0- Programme, Sub-Programme and Natural Account Summary

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01802 - Power Generation, Transmission And Distribution	268,498,035	268,498,035	268,498,035	268,498,035
01802001 - Power Generation and Transmission	158,836	158,836	158,836	158,836
21 - Compensation of employees [GFS]	72,778	72,778	72,778	72,778
22 - Use of goods and services	61,704	61,704	61,704	61,704
31 - Non financial assets	24,354	24,354	24,354	24,354
01802002 - Power Distribution	268,339,199	268,339,199	268,339,199	268,339,199
21 - Compensation of employees [GFS]	311,863	311,863	311,863	311,863
22 - Use of goods and services	19,697,458	19,697,458	19,697,458	19,697,458
31 - Non financial assets	248,329,878	248,329,878	248,329,878	248,329,878



PROGRAMME 2: POWER SECTOR DEVELOPMENT AND MANAGEMENT

SUB-PROGRAMME 2.1: 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 is five (5) out of which two (2) are civil servants. Funding of programmes is through Government of Ghana (GoG) and Donor. The list of beneficiaries of programmes and projects carried out in the power subsector cuts across the entire country.

Key challenges

- Inadequate funds for the effective execution of projects
- Inadequate staff
- Delays in payment of compensation to secure Right of Way (ROW) for projects.



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.

		Past Years		Projections			
Main Output	Output Indicator	2017	2018	Budget Year 2019	Indicative Year 2020	Indicative Year 2021	Indicative Year 2022
Expansion of generation capacity	Additional power generation capacity installed in MW	445	340	387	206	-	-

4. Budget Programme Operations and Projects

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

Operations					
Electric power generation, transmission and distribution					
Monitoring of projects					
Staff trained and resourced					

	Project
No Projects	

8 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01802001 - Power Generation and Transmission	158,836	158,836	158,836	158,836
21 - Compensation of employees [GFS]	72,778	72,778	72,778	72,778
22 - Use of goods and services	61,704	61,704	61,704	61,704
31 - Non financial assets	24,354	24,354	24,354	24,354



PROGRAMME 2: POWER SECTOR DEVELOPMENT AND MANAGEMENT

SUB-PROGRAMME 2.2: Power Distribution

1. Budget Sub-Program Objectives

- To increase access to electricity
- To restore financial health of 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 thirty-two (32) out of which sixteen (16) are civil servants. Funding of programmes is through Government of Ghana (GOG) and Donor. The list of beneficiaries of programmes and projects carried out in the the sub-sector cuts across the entire country.

Key Issues/Challenges

- Insufficient budgetary allocation
- Unavailability of key materials for the effective implementation of projects.
- Delays in clearing of materials owing to MoF new directives on Tax Exemption.
- Delays in processing contractor's payments.



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.

	Past Years		Years	Projections				
Main Outputs	Output Indicator	2017	2018	Budget Year 2019	Indicative Year 2020	Indicative Year 2021	Indicative Year 2022	
Reduced Power Distribution System Losses	Percentage reduction in distribution losses	24.25	23.85	21	20	-	-	
Electricity extended to deprived communities	Number of communities connected to the national grid	587	122	1250	1500	1500	1500	
Access to Electricity increased	Percentage communities connected	84.15	84.32%	87	90	90	-	

4. Budget Sub-Programme Operations and Projects

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

Operations						
Electric power generation, transmission and						
distribution						
Monitoring of projects						
Staff trained and resourced						
Procurement of Electrical Networks						

Projects
National Electrification Programme
SHEP Programme
Street lightening Programme
Litigation



8 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding

Year: 2019 | Currency: Ghanaian Cedi (GHS)

	2019	2020	2021	2022
01802002 - Power Distribution	268,339,199	268,339,199	268,339,199	268,339,199
21 - Compensation of employees [GFS]	311,863	311,863	311,863	311,863
22 - Use of goods and services	19,697,458	19,697,458	19,697,458	19,697,458
31 - Non financial assets	248,329,878	248,329,878	248,329,878	248,329,878



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).

This Programme is funded mainly from the Government of Ghana (GoG) with support from other Developmental Partners Fund.





6.0- Programme, Sub-Programme and Natural Account Summary

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01803 - Petroleum Development	3,723,641	3,723,641	3,723,641	3,723,641
01803001 - Upstream	326,469	326,469	326,469	326,469
21 - Compensation of employees [GFS]	203,061	203,061	203,061	203,061
22 - Use of goods and services	123,408	123,408	123,408	123,408
01803002 - Downstream	3,326,800	3,326,800	3,326,800	3,326,800
21 - Compensation of employees [GFS]	21,540	21,540	21,540	21,540
22 - Use of goods and services	123,408	123,408	123,408	123,408
31 - Non financial assets	3,181,852	3,181,852	3,181,852	3,181,852
01803003 - Health, Security, Safety and Environment	70,372	70,372	70,372	70,372
21 - Compensation of employees [GFS]	49,749	49,749	49,749	49,749
22 - Use of goods and services	20,623	20,623	20,623	20,623



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 its 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 of thirteen (13) personnel (out of which 6 are civil servants) in charge of delivering the above job functions. Funding is mainly from the Government of Ghana (GoG) with support from other Developmental Partners Fund.



Budget Sub-Programme Results Statement 3.

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	Past	t Years	Projections				
Outputs	Indicator	2017	2018	Budget Year 2019	Indicative Year 2020	Indicative Year 2021	Indicative Year 2022	
Sedimentary basins promoted	Number of promotional events organised and attended	3	5	4	4	4	4	
Bidding process opened	Number of successful bidding process opened	N/A	Guidelines for Bidding process developed First bidding process initiated	2	4	4	4	
Petroleum Agreements (PA) increased	Number of PAs ratified	0	0	6	6	6	6	
Plan of Development (PoD) approved	Number of PoDs approved	1	0	1	0	0	0	
Jubilee + Greater Jubilee production increased	Annual volume of oil and gas produced	Oil,mm bbl 32.75 GAS EXPO RT 44.23B	Oil, mmbbl 20.59 GAS EXPORT 15.08 Bscf	Oil, mmbbl 32.84 GAS EXPOR T 34.15Bs	Oil, mmbbl 34.02 GAS EXPORT 35.58 Bscf	Oil, mmbbl 34.11 GAS EXPORT 34.12 Bscf	Oil, mmbbl 34.28 GAS EXPORT 35.59 Bscf	



		scf		cf			
TEN production increased	Annual volume of oil and gas produced	Oil, mmbbl 19.82 Gas export 25.87 Bscf	Oil, mmbbl 17.53 Gas export 8.01 Bscf	Oil, mmbbl 25.60 Gas export 10.95 Bscf	Oil, mmbbl 24.93 Gas export 13.73 Bscf	Oil, mmbbl 23.22 Gas export 18.25 Bscf	Oil, mmbbl 18.44 Gas export 18.28 Bscf
Sankofa- GyeNyame production increased	Annual volume of oil and gas produced	Oil, mmbbl 5.46 Gas export 7.21 Bscf	Oil, mmbbl 6.89	Oil, mmbbl 13.14 Gas export 56.54 Bscf	Oil, mmbbl 16.50 Gas export 62.42Bscf	Oil, mmbbl 14.80 Gas export 62.42 Bscf	Oil, mmbbl 10.90 Gas export 62.42 Bscf
WAGP- GNGC Interconnectio n completed	Percentage completion	20	95	100	N/A	N/A	N/A
Turret Remediation Project completed	Progress of TRP execution	Turret bearing Locked	Bearing Stabilizati on commence d	Bearing stabiliza tion complet ed and Permane nt solution commen ced	Permanent solution completed		
Projects sites visited	Number of sites visited	N/A	4	3	4	4	4



4. Budget Sub-programme Operations and Projects

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

1	J I U
Operations	Projects
Monitor Energy System	No Projects
 Monitoring and evaluation of petroleum sector related projects/activities 	
 Performance monitoring of Jubilee, Ten and Sankofa- GyeNyame Fields. 	
• Monitor and evaluate block acquisitions	
Gas Production related activities	
 Full Implementation of Gas Master Plan, evaluate Gas infrastructure and develop LNG infrastructure and fertilizer. 	

8 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01803001 - Upstream	326,469	326,469	326,469	326,469
21 - Compensation of employees [GFS]	203,061	203,061	203,061	203,061
22 - Use of goods and services	123,408	123,408	123,408	123,408



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 three (3) Units and performs the following functions:

Refinery Unit

- Develops and reviews broad policies for the downstream sub-sector of the Ministry.
- Designs and develops petroleum products supply mechanisms, systems, plans, strategies, standards and regulations to ensure availability of petroleum products to all parts of the country and reduce heavy burden of oil imports on the country's economy by accelerating the exploration of indigenous hydrocarbon resources, create new strategic options and generate National competitive advantage

Petroleum Storage and Transportation 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.

Distribution and Marketing 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, expand distribution and marketing infrastructure
- Create new strategic options and generate National competitive advantage.



The Directorate has eight (8) staff (out of which one (1) is a civil servant). Funding is mainly from the Government of Ghana (GoG) with support from other Developmental Partners Fund.

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.

			Past Years		Projections			
Main Outputs	Output Indicator	2017	2018	Budget Year 2019	Indicative Year 2020	Indicative Year 2021	Indicative Year 2022	
LPG Cylinders and Stoves	Number of Cylinders/ Cook stoves	37,240	2000 cylinders 17,800 cook stoves	60,000	-	-	-	
	Number of Districts	22	22	100 Constit uencies	-	-	-	

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	Rural LPG promotion programme
Distribution of cook stoves and accessories Monitoring of projects	



8 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01803002 - Downstream	3,326,800	3,326,800	3,326,800	3,326,800
21 - Compensation of employees [GFS]	21,540	21,540	21,540	21,540
22 - Use of goods and services	123,408	123,408	123,408	123,408
31 - Non financial assets	3,181,852	3,181,852	3,181,852	3,181,852



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 performs the following functions:

- Ensure adherence to Health Safety and Security principles, standards and regulations within the Ministry and Sector Agencies.
- Coordinates and reports on adherence to sustainable environmental protection principles, standards and regulations in the Energy sector.

The Directorate has a total of five (5) personnel out of which two (2) are civil servants.



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	Past Year	rs		P	rojections	
Outputs	Indicator	2017	2018	Budget Year 2019	Indicative Year 2020	Indicative Year 2021	Indicative Year 2022
Policy drafted and implemented	% of policy drafted policy directions implemented quarterly update reports on Policy drafting and Implementati on HSE Policy (MoV)	100% of policy drafted	Policy passed by Parliament	30% of policy impleme nted	60% of policy implement ed	80% of policy implement ed	100% of policy implement ed
Identified high risk issues closed-out	% of issues closed-out Update report on implementati on of recommendat ions in audit report (MoV)	-	25% of high risk issues closed-out	50% of high risk issues closed- out	80% of high risk issues closed-out	100% of high risk issues closed-out	-
Risk register Mitigation measures implemented (HSE Policy developed	% of risk register developed % of mitigation measures	100% of risk assessm ent conduct ed	40% of mitigation measures implement ed	70% of mitigati on measure s impleme nted	90% of mitigation measures implement ed	100% of mitigation measures implement ed	-



Policy Statement developed)	implemented Update report on Implementati on of Draft HSSE Policy (MoV)						
Programmes/ projects in action plan drafted and implemented	% of Action Plan drafted % of programmes/ projects implemented quarterly reports on implementati on and monitoring of programmes/ projects (MoV)	100% of action plan drafted	15% of programme s/ projects in action plan implement ed	35% of program mes/ projects in action plan impleme nted	50% of programm es/ projects in action plan implement ed	70% of programm es/ projects in action plan implement ed	-
SEA recommendat ions within Ministry's purview Implemented	% of recommendat ions implemented Update reports on implemented recommendat ions from SEA report (MoV)	-	80% of SEA drafted	35% of recomm endation s impleme nted	50% of recommen dations implement ed	70% recommen dations implement ed	100% recommen dations implement ed
Capacity of Staff built through training	number of staff participate in training	5	5	5	5	5	5



programmes/ conferences/	programmes/ conferences/			
workshops	workshops			

4. Budget Sub-Programme Operations and Projects

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

Operations
Petroleum Sector Regulation
Full implementation of the Health Safety Security
and Environment Policy
Monitoring of projects

Projects]		
Projects		lo Projects	No



8 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01803003 - Health, Security, Safety and Environment	70,372	70,372	70,372	70,372
21 - Compensation of employees [GFS]	49,749	49,749	49,749	49,749
22 - Use of goods and services	20,623	20,623	20,623	20,623



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:

- Inadequate staffing for implementation of the sub programme
- 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.
- 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
- Inadequate funding for the Ghana Nuclear Power Programme

To achieve 10% penetration of renewable in the electricity generation mix, electricity for remote communities and the reduction of over dependency on wood fuel (charcoal, firewood and crop residue) for cooking 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
- Promote net metering concept for households and institutions
- Support Resource Assessment for wind, hydro and biomass
- Reduce the dependency of grid electricity by MDAs through roof-top solar PV
- Support the implementation of the Local Content L.I for RE
- Promote Public Private Partnership for integrated hydro projects



- Establish 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
- Establish and operationalize Owner operation of GNPPO
- Research into other cheaper alternative energy sources

The number of staff required in the delivering of this programme is nineteen (19). Currently, there are fourteen (14) staff out of which three (6) are civil servants delivering the programme and the funding source is GoG and Development Partners.





2.6 Budget by Chart of Account

6.0- Programme, Sub-Programme and Natural Account Summary

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01804 - Renewable Energy Development	153,135,541	153,135,541	153,135,541	153,135,541
01804001 - Renewable Energy	153,063,224	153,063,224	153,063,224	153,063,224
21 - Compensation of employees [GFS]	86,650	86,650	86,650	86,650
22 - Use of goods and services	25,862,459	25,862,459	25,862,459	25,862,459
31 - Non financial assets	127,114,114	127,114,114	127,114,114	127,114,114
01804002 - Alternative Energy	72,317	72,317	72,317	72,317
22 - Use of goods and services	72,317	72,317	72,317	72,317



BUDGET SUB- PROGRAMME SUMMARY

PROGRAMME 4: RENEWABLE ENERGY DEVELOPMENT

SUB-PROGRAMME 4.1: Renewable Energy

1. Budget Sub-Programme Objective

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

2. Budget Sub-Programmes Description

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

Renewable Electrification Unit

The Unit is responsible for the development, implementation and monitoring of renewable based electricity services for off-grid and grid connected electrification programmes. It consists of;

- Utility Scale RE
- Distributed RE generation
- MINI-GRID AND Stand-alone RE electrification

Bioenergy and Energy Conservation Unit

The Unit develops and reviews the broad policies for the biomass sub-sector of the Ministry. It designs and develops bio-power mechanisms, systems, plans, strategies, standards and regulations to support corporate, domestic life and business create new strategic options and generate national competitive advantage.



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.

		Past	Years		P	rojections	
Main Outputs	Output Indicator	2017	2018	Budget Year 2019	Indicative Year 2020	Indicative Year 2021	Indicative Year 2022
Increased penetration of renewable energy in the energy supply mix	RE capacity addition to the grid (MW)	0	20MW	0.5MW	195MW	140.5MW	70MW
Mini-grid Electrification using Renewable Energy technologies in island and lakeside communities installed	Number of communities connected to the mini-grid	5	3	6	10	30	20
Distributed Solar PV for Pubic Facilities	Number of DPV installed	1	1	1	1	1	1
Standalone solar PV installations (public and households)	Number of systems installed	250	25	30	50	30	30



4. Budget Sub-Programme Operations and Projects

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

Operations

Renewable Energy Programme Renewable Electricity Non-Renewable Electricity

Projects

MMDAs Solar Rooftop Programme

Utility Scale Renewable Electricity



2.8. Budget by Chart of Account

8 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01804001 - Renewable Energy	153,063,224	153,063,224	153,063,224	153,063,224
21 - Compensation of employees [GFS]	86,650	86,650	86,650	86,650
22 - Use of goods and services	25,862,459	25,862,459	25,862,459	25,862,459
31 - Non financial assets	127,114,114	127,114,114	127,114,114	127,114,114



BUDGET SUB- PROGRAMME SUMMARY

PROGRAMME 4: RENEWABLE ENERGY DEVELOPMENT

SUB-PROGRAMME 4.2: Alternative Energy (Nuclear)

1. Budget Sub-Programme Objective

To formulate, evaluate and monitor the implementation of policies related to the nuclear and alternative energy subsector.

2. Budget Sub-Programme Description

The Unit develops and reviews the broad policies for the nuclear and clean alternative power sub-sector of the Ministry. It also designs and develops mechanisms, systems, plans, strategies, standards and regulations for the smooth integration of nuclear and clean alternative power into the generation mix to become the new base-load of electricity to support Industrial growth, corporate, domestic life and businesses, and to also create new strategic generation option for international competitive advantage of being a net exporter of clean cheap electricity



3. Budget Sub-Program Results Statement

The table indicates the main outputs, its indicators and projections by which Ministry measures the performances whilst the projections are the Ministry's estimate of future performance.

		Past '	Years		Proje	ections	
Main Outputs	Output Indicator	2017	2018	Budget Year 2019	Indicative Year 2020	Indicative Year 2021	Indicative Year 2022
Phase II activities of Nuclear Electricity Development Program completed.	Percentage of tasks completed	5	5	15	30	35	10
Nuclear Energy Planning and Implementation	2 Potential Nuclear power sites identified	8 candidate areas identified	8 candidate areas identified	6 candidate areas identified	4 candidate sites identified	4 candidate sites identified	2 potential sites identified
Owner/Operato r Company Established and Operational	Percentage of tasks completed for the Legislative Instrument Establishing Owner/Oper ator assented	5	40	45	10	-	-

4. Budget Sub-Programme Operations and Projects

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

Operations
Renewable Energy Programme
Nuclear and Alternative Energy

	Projects
No Projects	



2.8. Budget by Chart of Account

8 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01804002 - Alternative Energy	72,317	72,317	72,317	72,317
22 - Use of goods and services	72,317	72,317	72,317	72,317



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 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.





2.6 Budget by Chart of Account

6.0- Programme, Sub-Programme and Natural Account Summary

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01805 - Energy Sector Regulation	63,221,306	63,221,306	63,221,306	63,221,306
01805001 - Power Sector Regulation	63,221,306	63,221,306	63,221,306	63,221,306
21 - Compensation of employees [GFS]	16,586,306	16,586,306	16,586,306	16,586,306
22 - Use of goods and services	12,900,000	12,900,000	12,900,000	12,900,000
27 - Social benefits [GFS]	235,000	235,000	235,000	235,000
31 - Non financial assets	33,500,000	33,500,000	33,500,000	33,500,000



BUDGET SUB-PROGRAMME SUMMARY

PROGRAMME 5: ENERGY SECTOR REGULATION

SUB-PROGRAMME 5:1 Power Sector Regulation

1. Budget Sub-Programme Objectives

• To regulate, manage and co-ordinate the utilization of Electricity and Natural Gas resource policies.

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 Operations of Natural Gas Market

Regulation of renewable energy sector service providers

 Establish regulatory mechanism for ensuring quality and reliable exploit of Biomass, wind, wood fuels and solar resources in Ghana.

Regulation of local content and local participation in the electricity supply industry

Implement local content and local participation regulations

Funding Source and Key Challenges



- The Sub-Programmes is basically funded from the Ghana Government, Regulatory and Energy Fund and donor support.
- Key challenges facing the energy sector renewable energy promotions environment are initial
 high investment cost regulatory capture (staff poaching) due to lack of commensurate
 remunerations and lack of permanent energy policy and strategy framework to support the
 regulatory environment.

Other challenges

- Revenue capping policy has greatly impacted the Commission's operations.
- The cyclical energy sector debt is also a challenge; especially default rate of regulatory and operational fees customers are high.



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.

	Past Years			Projections			
Main Outputs	Output Indicator	2017	2018	Budget Year 2019	Indicative Year 2020	Indicative Year 2021	Indicative Year 2022
Increased participation by Independent Power Producers (IPPs)	Number of wholesale suppliers licensed	4	0	0	0	0	-
Increased grid- connected solar systems	Number of institutions and household supplied	6	100	100	100	100	100
300 households are connected to the National solar rooftop project	Number of household connected (stand- alone)	400	2,000	1,000	1,000	1,000	1,000
Certified electrical technician	Number licensed	1,600	1,200	1,200	1,200	1,200	1,200

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	
No Projects	
No Projects	



2.8. Budget by Chart of Account

8 - Sub-Programme and Natural Account

Entity: 018 - Ministry of Energy (MoEN)

Funding: All Source of Funding Year: 2019 | Currency: GH Cedi

	2019	2020	2021	2022
01805001 - Power Sector Regulation	63,221,306	63,221,306	63,221,306	63,221,306
21 - Compensation of employees [GFS]	16,586,306	16,586,306	16,586,306	16,586,306
22 - Use of goods and services	12,900,000	12,900,000	12,900,000	12,900,000
27 - Social benefits [GFS]	235,000	235,000	235,000	235,000
31 - Non financial assets	33,500,000	33,500,000	33,500,000	33,500,000



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.

		Pa	st Years	Projections			
Main Outputs	Output Indicator	2017	2018	Budget Year 2019	Indicative Year 2020	Indicative Year 2021	Indicative Year 2022
	General Petroleum Regulation (%completion)	70%	100%	-	-	-	-
Development of upstream Petroleum Regulation	Local Content Fund (% completion)	-	Guidelines for fund developed Secretariat to manage fund in place	Full implementation (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
No Operations	No Projects





1.6. Appropriation BillSummary of Expenditure by Cost Center, Economic Item and Funding

Entity: 018 - Ministry of Energy (MOEN) Year: 2019 | Currency: GH Cedi

Elicity. Oto - Millistry Of Elici	Currency: GHC	
EIIIIIA. OTO -	Year: 2019	Vorsion 1

		909	(S			19I				Funds / Others			Donors		
	Compensation of employees	Goods and Services	Сарех	Total	Compensation of employees	Goods and Services	Capex	Total	Statutory	ABFA	Others	Goods and Services	Capex	Total	Grand Total
018 - Ministry of Energy (MoEN)	3,189,631	2,056,821	81,169,682	86,416,134	16,586,306	25,801,021	33,569,863	75,957,190				32,657,687	305,933,469	338,591,156	500,964,480
01801 - Headquarters	3,189,631	2,056,821	81,169,682	86,416,134								32,657,687	305,933,469	338,591,156	425,007,290
0180101 - Gen. Admin and Finance.	1,848,795	1,048,978	8,522,816	11,420,589											11,420,589
0180101001 - Gen. Admin and Finance.	1,848,795	1,048,978	8,522,816	11,420,589											11,420,589
0180102 - Human Resources Devt. & Management.	316,669	61,704		378,373											378,373
0180102001 - Human Resources Devt. & Management.	316,669	61,704		378,373											378,373
0180103 - Planning, Budgeting, Monitoring & Evaluation.	201,916	247,570		449,486											449,486
0180103001 - Planning, Budgeting, Monitoring & Evaluation.	201,916	247,570		449,486											449,486
0180104 - Petroleum.	224,601	267,439	3,181,852	3,673,892											3,673,892
0180104001 - Petroleum.	224,601	267,439	3,181,852	3,673,892											3,673,892
0180105 - Power	384,641	164,549	64,794,151	65,343,341								19,594,613	183,560,081	203,154,694	268,498,035
0180105001 - Power	384,641	164,549	64,794,151	65,343,341								19,594,613	183,560,081	203,154,694	268,498,035
0180106 - Research, Statistics and Information	126,358	006'09		187,258											187,258
0180106001 - Research, Statistics and Information	126,358	006'09		187,258											187,258
0180107 - Renewable Energy	86,650	205,681	4,670,863	4,963,194								13,063,074	122,373,388	135,436,462	140,399,656
0180107001 - Renewable Energy	86,650	205,681	4,670,863	4,963,194								13,063,074	122,373,388	135,436,462	140,399,656
01802 - Energy Commision					16,586,306	25,801,021	33,569,863	75,957,190							75,957,190
0180201 - Gen. Admin					16,586,306	25,801,021	33,569,863	75,957,190							75,957,190
0180201001 - Gen. Admin					16,586,306	25,801,021	33,569,863	75,957,190							75,957,190





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