

Annual Workshop on the ECOWAS Energy Information System

The Gambia – Country Presentation on the National Energy Statistics

29 March - 02 April 2022

Mensvic Hotel (Accra, GHANA)

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Ministry of Petroleum and Energy



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Energy Sector – Overview

TOTAL ENERGY SUPPLY



Energy Supply and demand

- Relies predominantly on biomass and imported petroleum products for country energy needs
- Largest energy consumers are transport (petroleum) domestic sectors (electricity)

Source: MOPE – Report 2017



Energy Sector – Overview

National Energy Policy

- Updated in 2014; Serves as overarching policy framework for energy sector and sub-sectors (electricity, renewable energy, petroleum)
- Policy objectives:

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- Improve and expand energy supply;
- Reduce dependence on petroleum imports;
- Strengthen institutional and human capacity;
- Energy security (diversification, regional integration)
- Reduce inefficient energy use

Legislative Instruments

- Electricity Act (2005);
- PURA Act (2011);
- Renewable Energy Act (2013)

Institutional Framework





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Electricity Sub-Sector – Governance Structure





Country Factsheets

PARAMETER\$	2019	2020	PARAMETER\$	2019	2020
Number of inhabitants	2 213 174	2 279 884			
		Source: Gambia Bureau of	Share of household connected to an	65.6 %	65.6 %
		Statistic (GB03)	electricity grid (national grid and mini-grids)	Source: NAWEC	(Urban 79.1% & Rural
Tatal musik an of basisak alda an	266 647 households		in %		22.5%)
Average number of nousenoids or	8.3 people per	274 684 nousenoids			Source: GBOS & NAWEC
Average number of people per nousenolds	household	Source: Gambia Bureau of			
	Source: Gambia	Statistic (GBoS)			
	Bureau of Statistic				
	(0603)				
				2010	2020
Total grid-connected electricity installed	147 MW	147 MW		2017	
capacity in MW	Source: NAWEC	Source: NAWEC	Share (%) of households with access to	63 %	63 %
-	100 014//		improved cook-stoves (ICS)	Source: SE4ALL AA	Source: SE4ALL AA
I otal grid-connected electricity generation in	433 GWh	433 GWh	Share (%) of households with access to	59 %	59 %
IVIVVN	Source: NAWEC	Source: NAWEC	modern alternatives for cooking (e.g. LPG.	Source: SE4ALL AA	Source: SE4ALL AA
Total MWh of electricity imported (only if	13 GWh	13 GWh	biogas, solar cookers, kerosene, ethanol gel,		
applicable to your country)	Source: NAWEC	Source: NAWEC	electricity, etc.)		

Institutional anchoring of data collection and publication



The Gambia Bureau of Statistics is the principal body responsible for collecting, analysing and disseminating statistical data. It is the successor to the Central Statistics Department that was operating under the Statistics Act of 1972. The Bureau replaced the Central Statistics Department following the enactment of the new Statistics Act in 2005.



The Ministry of Petroleum and Energy (MoPE) was formally created in 2016 following the merger of the Ministry of Energy and Ministry of Petroleum and is also granted purview of the Geological Department in 2017.



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uppleme	rnt "C" to The Gambia Gazette No. of . 200	
	Statistics Act, 2006	
	THE GAMBIA	
	NO. 13 OF 2005	
~	Assented to by The President,	STATISTICS ACT, 2005
	this 20 day of anun, 200 k	ARRANGEMENT OF SECTIONS
	YAHYA AN. J. JAMMEH President	Section
*** ** *	AN ACT to provide for a sustainable, effective and efficient national statistical system for The Gambia for the collection, production and dissemination of integrated, relevant, reliable and timely statistical information, to establish The Gambia Bureau of Statistics as a supervisory authority for the national statistical system, and for matters connected therewith.	 PART I - PRELIMINARY Short title Interpretation Principles of official statistics PART II - ESTABLISHMENT OF THE BUREAU OF STATISTICS AND THE NATIONAL STATISTICS COUNCIL
	[]	4. Establishment of The Gambia Bureau of Statistics
	ENACTED by the President and the National Assembly.	 Establishment of the National Statistics Council Tenure of office of members
	PART I - PRELIMINARY	7. Meetings of the Council 8. Committees of the Council 9. Disclosure of interest
title	1. This Act may be cited as the Statistics Act, 2005.	 Transaction of business without meeting Indemnity of members Allowances
		PART III - FUNCTIONS
-		 Functions of the Bureau Functions of the Council
		PART IV - MANAGEMENT AND STAFF

- 15. The Statistician-General
- 16. Duties and powers of the Statistician-General
- 17. Secretary of the Council
- 8. Other Staff of the Bureau

Methodology of data collection

Development of Data Requirement	File Home Insert Page Layout Formulas Data Review View Help Q Tell me what you want to do
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Identification of Institution, the Data can be obtained	Clipboard IS Font IS Alignment IS Number IS Styles
	Interview
Development of Data Collection Templates	3 2000 2001 2002 2003 2004 2004 2005 2008 2010 2010 2011 2014 2014 2016 2017 2018 2019 2020p 2021p 4 Total Installed Capacity (MW) 0
	Iotal Available Capacity (MW) Iotal Iotal <t< th=""></t<>
Write letters to Institutions to obtain data / Conduct survey with relevant institutions to obtain the Data	11 KPS-HPO Image: constraint of the sector of the sec
 MOPE NAWEC GNPC GBOS PURA 	7 Felsing Sector 0

Data collected

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Annualized questionnaires on:

- Electricity
 - Renewable Energy Including Biomass
 - Energy Efficiency
- Oil

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Eco-demo



Tools used in the development of the national energy balance and indicators from statistics

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A	В	C	D	E	F	G	н	1 I I	J	K	L	M	N	0	P	Q
1	Energy Balance Data															
2 Year	Petroleum Including LPG	Electricity	Biomass							2012						
3	Ktoe	Ktoe	Ktoe							0.8	Equals	Х		C	J.8 Equals	X
4 2005	i 109.1	08 13.4128	3							0.175	Equals	148.789		C	.2 Equals	169.854
5 2006	i 114.015	98 14.0147	1							0.02	Equals	21.065				
5 2001	128.2	56 18.915	5											х	Equals	679.416
7 2008	118.390	25 19.775	1													
3 2009	140.858	36 20.3772	5							2015	i -					
2010	154.817	05 21.49	5							0.8	Equals	х		C).8 Equals	X
0 2011	157.99	16 19.9473	5							0.176178	Equals	187.586		C).2 Equals	212.9501
1 2012	148.78	94 21.065	L 679.416							0.023822	Equals	25.3641				
2 2013	1	21.5809	3											х	Equals	851.8004
3 2014	•	23.214	5													
4 2015	187.5	86 25.364	L 851.8004							2016	i					
5 2016	i 172.3	23 26.91	2 796.94							0.8	Equals	х		C).8 Equals	X
6 2017	201.2	57								0.172985	Equals	172.323		C).2 Equals	199.235
7										0.027015	Equals	26.912				
8														х	Equals	796.94
9										212.9501						
0		201	5 2016		2015	2016				199.235						
1	Petroleum	187.58	5 172.323		187586	172323										
2	Biomass	851.800	1 796.94		851800.4	796940										
3																
4	GDP (Nominal USD million)	892.	2 964.6		892200	964600										
5	Population (million)	197008	3 2033130.82		1970088	2033130.82										
6																
7	TPES (toe)	1039.386	969.263	Ktoe	1039386.4	969263	toe									
▲	oil imports TPES E	ect ele	ctricity ge	n Ene	ergy Bala	nce R	E Po	p and E	conomi	c ED	(+)	•			
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Generation of national energy balances

Estimation national electricity demand

				4	. The Gambia Roa	d Map - Load fore	casting training	exercise - v	vith solutior	ıs ~v1a(1)
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2	Item				Coefficients					
3	Intercept	of Domostic Cust	omors (Conno	ctions))	-4.9					
5	In(Number of	ita)	omers (conne	ctionsjj	-0.2					
5	In(OPD/Cap	salos (GWh))			1.5					
7	Intoonestic	sales (Own))			0.5					
8										
9										
5		Number of			In(Number of					
		Domestic			Domestic		In(Domestic	Demand	Demand	
		Customers		Domestic	Customers		sales at t-1	forecast	forecast	
10	Year	(Connections)	GPD/Capita	sales (GWh)	(Connections))	In(GPD/Capita)	(GWh))	(InGWh)	(GWh)	
11	2019	7,039,806	10,724	4,209	15.8	9.3			, ,	
12	2020	7,814,184	11,404		15.9	9.3	8.3	8.4	4,637	
13	2021	8,595,603	12,151		16.0	9.4	8.4	8.5	5,151	
14	2022	9,455,163	12,947		16.1	9.5	8.5	8.7	5,737	
15	2023	10,400,679	13,795		16.2	9.5	8.7	8.8	6,393	
16	2024	11,440,747	14,699		16.3	9.6	8.8	8.9	7,127	
17	2025	12,584,822	15,661		16.3	9.7	8.9	9.0	7,945	
	Exercise 1	Exercise 2	Exercise 3	+				1	: 4	

Tools used in the dissemination of statistics to the public

Websites

- NPIS /EIS
- MOPE (mope.gm)
- PURA (pura.gm)
- GBOS (gbosdata.org)



- PURA's Annual Report
- NAWEC's Annual Report





NAWEC

National Water and Electricity Company

Limited Annual Report and Financial Statement for the year ended 31 December 2016 **PURA** ANNUAL REPORT & FINANCIALS 2018



Public Utilities Regulatory Authority



Status of Energy Efficiency

Targets for Energy Efficient Lighting

	2013	2020	2030
Penetration rate of on-grid, energy efficient			
lights (%)	0	100	100
Penetration rate of off-grid, energy efficient			
lights (%)	0	100	100
Percentage of public street lights that are high			
efficiency (%)	0	n.a.	n.a.

Targets for High Performance Distribution of Electricity

	2013	2020	2030
Total of losses in the power system, including technical and non-technical losses, in both transmission and distribution (% of power available: generation + balance of imports and exports).	24.9	19.9	10.0

Targets for Energy Efficiency in Buildings

	2013	2020	2030
Percentage of buildings that implement energy efficient building designs and methods	n.a.	n.a.	n.a.
Percentage of energy savings in the building sector (%)	n.a.	5%	15%

Targets for Energy Efficiency in Industries

	2013	2020	2030
Percentage of Industries that implement energy efficiency measures (%)	n.a.	n.a.	n.a.
Percentage of energy savings in industry (%)	n.a.	5%	15%

Targets for Improved Cookstoves*

	2013	2020	2030
Improved cookstoves (measured in terms of the % of the population/households with access to improved cookstoves)	37.9	100	100
Percentage of energy savings in industry (%)	n.a.	n.a.	n.a.

*In order to present a holistic picture of the domestic cooking energy sector, the estimated trajectory for the development of actual use of improved cookstoves is analysed along with other cooking energy fuels and technologies in sub-section 4.3.1 of the NREAP.





CHALLENGES

The major challenges include:

- The statistic act 2005 is old and need to be updated to reflect current developments
- Regarding energy statistic lack of legal framework to mandate energy data generating institutions to collect and provide data
- Difficulties and Unwillingness of data key institutions to supply energy related information
- Inadequate funding to conduct survey in order to established baseline for some key energy datasets
- An institutional framework for the energy services characterised by fundamental weaknesses to capture energy related data;
- Very little or no available data on energy efficiency and on biomass





THANK YOU ismarong@gmail.com sannafatajo@gmail.com