# REPORT FOR NIGERIA (TO IEC) CURRENT STATE OF PLAY

Sulu, B. F. Ibrahim
Director, Energy Management
Energy Commission of Nigeria

### **Outline**

### 1. The Report

- 1.1 Purpose
- 1.2 Scope
- 1.3 EE Stakeholders

### 2. Highlights of the Content

- 2.1 EE Policy Documents
- 2.2 Main Objectives of EE Policies
- 2.3 EE Governance and Organogram
- 2.4 Energy System Efficiency
- 2.5 EE Financing
- 2.6 EE Collaborations

#### 3. ECN EE Structure

### 1.1 Purpose of the Report

### **Energy Efficiency Report aims at**

- establishing the current state of play in Nigeria as regards promoting energy efficiency;
- b. particularly as it relates to compliance with the Energy Charter Treaty and the Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA).
- c. Prepared at the ECS, Brussels; Q4/2019
- d. To be updated!

**Note**: Rapid and In-depth EE Reports of Other Countries – Guides

### 1.2 Scope of the Report

It is not an appraisal report but a document documenting the current state of play EE in the Country.

**Energy in national** development plan

energy sector structure and basic information

Synergy between energy and environmental policies

Integration of energy efficiency across national policies: transport, water, health, green economy, environment etc.

Regulations, policies and measures to deliver EE improvement

Coordination of EE among MDAs and division of responsibilities

**EE policy framework** 

**EE** market and structure

**Funding and financing EE** 

**Regional EE cooperation and market** 

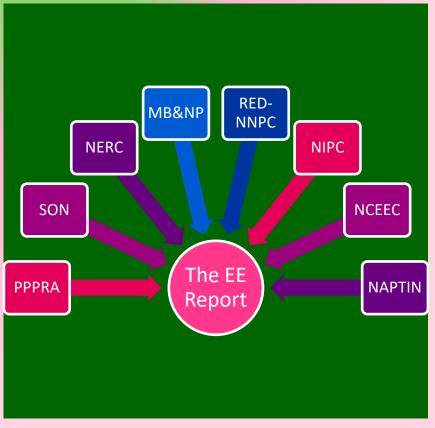
Roles of development partners

### 1.3 EE National Stakeholders

### Non-Responsive (37)

### Responsive (8)

SN	Org.	SN	Org.	SN	Org.
1	NAEC	13	FMTrans	25	MAN
2	ICEED	14	UNIDO	26	JICA
3	NCS	15	NEMSA	27	ECOWAS & ECREEE
4	FMFin	16	REA	28	DPR
5	NNPC	17	FMITI	29	PTDF
6	NACCIMA	18	GIZ	30	TCN
7	MPR	19	FMEnv.	31	NADDC
8	NBET	20	FMPH&W	32	UNDP
9	CBN	21	ВОІ	33	NUC
10	NNRA	22	АЕРВ	34	COREN
11	AfDB	23	NBRRI	35	NSE
12	USAID	24	UKDFID	36	KOICA



### 2.1 Relevant Policy Documents to EE

### (General) Energy Policy

National Energy Policy, 2003 (2018)

Sustainable Energy Bill, 2019

Rural Electrification Policy, 2009 and Rural Electrification Strategy and Action Plan, 2016

**Economic Recovery and Growth Plan, 2017 - 2020** 

Draft National Integrated Infrastructure Master Plan, 2015

Sustainable Energy for All Action Agenda, 2016

Nationally Determined Contributions, 2015

### RE and EE Policy

ECOWAS RE Policy, 2015 and ECOWAS EE Policy, 2015

National Renewable Energy and Energy Efficiency Policy, 2015

National Energy Efficiency Action
Plan and National Renewable Energy
Action Plan, 2015

Regulation for Mini-Grid, 2016

## Sectoral Policy

National Electric Power Policy, 2001 and Electric Power Sector Reform Act. 2005

National Petroleum Policy, 2015 and National Gas Policy, 2015

**National Transport Policy, 2010** 

Nigeria Minerals and Mining Act, 2007

**National Automotive Policy, 2013** 

**National Forest Policy, 2006** 

Agricultural Policy of Nigeria, 2001

National Building Code of Nigeria, 2006 and Building Energy Efficiency Code, 2017

**National Policy on Industry** 

### 2.2 Main Objectives of EE Policy

Sector	Main Policy Objectives				
Buildings, Lighting and Appliances	To ensure that all categories of buildings (residential, commercial, public and industrial) are energy-efficient compliant from the conceptual stage, through design, construction, exploitation to decommissioning and are comfortable for their purpose.				
Industry	To ensure quality, adequate and reliable energy supply to the industries using available locally sourced energy types and technologies in an environmentally sustainable manner and at a cost that guarantees competitiveness of the industry, and conforming with global energy efficiency best practices.				
Transport	To develop an adequate, safe, environmentally sound, efficient and affordable integrated transport system within the framework of a progressive and competitive market economy in line with global best practice and, standards of fuel efficiency and transportation infrastructure.				
Electric Power	To promote the private sector-driven industry to attract investments and guarantee reliable and adequate electricity supply at cost-recovery tariff to all sectors of the economy; and promote energy efficiency in electricity generation, transmission and distribution.				
Petroleum	To enhance indigenous capacity in the industry value chain and move Nigeria from a crude oil export-based economy to an attractive private sector driven oil and gas-based industrial economy" and, make the gas stand-alone industry, separate from the oil.				
Renewable Energy	To harness all viable new and renewable energy sources (electricity, heat and fuels) sustainably for national development; improve the efficiency of traditional biomass and transit to modern bioenergy, and also pursue peaceful applications of nuclear energy.				

### 2.3 Draft EE Governance and Organogram

Organisation	EE Responsibility
President/FEC	To approve EE Policies and Programmes and facilitate EE legislations.
NASS	To enact EE laws and perform oversight functions.
FMB &NP	To integrate EE plan into National Development Plans.
ECN	To coordinate EE policies and plans and serve as National repository for energy efficiency.
SON	To set and enforce standards on EE equipment and processes.
FMP	To be responsible for EE policies & plans in Electricity Generation, Transmission and Distribution.
NERC & NEMSA	To ensure that the regulatory environment in the electric power that is EE compliant.
	President/FEC NASS FMB &NP ECN SON FMP

To integrate EE policy and practices into all the value-chain of petroleum industry.

To ensure adoption of IEE and RECP policy and practices in all industrial activities.

To ensure the road infrastructure and buildings meet EE requirements

To participate in EE activities in line with their aims and objectives.

To ensure marketing of petroleum and products compile with EE practices.

To integrate EE practices into the electrification of the rural, remote and under served communities.

To ensure adoption of EE practices & RE technology in mitigating the impacts of CC on the environment.

To integrate EE policy and practices into all modes of transportation: fuel efficiency and infrastructure

To ensure that locally manufactured and assembled, & imported automobiles and components meet EE

To ensure energy efficient transmission system.

To ensure PPP&R are cost-reflective and recovery.

To ensure a regulatory environment that is pro EE.

**TCN** 

**REA** 

**MPR** 

**NNPC** 

FMEnv.

**FMITI** 

**FMT** 

FMW&H

**NADDC** 

**NGOs** 

standards

PPPRA/NMDPRA

DPR/NUPRC

8

9

10

11

12

13

14

15

16

**17** 

19

20

#### ORGANOGRAM OF ENERGY EFFICIENCY RELATED INSTITUTIONAL FRAMEWORK **PRESIDENT** FEDERAL EXECUTIVE COUNCIL NATIONAL ASSEMBLY **Approves EE Policies, Plans and Programmes and gives** Legislates EE Laws and its oversight **Federal Republic of Nigeria** FEDERAL MINISTRY OF BUDGET AND **ENERGY COMMISSION OF NIGERIA NATIONAL PLANNING EE Coordination and Repository Integrates EE into National Development Plans** SUPPLY SIDE **END USES SIDE ELECTRIC POWER** OIL AND GAS RENEWABLE ENERGY LIGHTING AND APPLIANCES BUILDINGS INDUSTRY TRANSPORT (Including Renewable (Including Renewable (General) SECTOR Electricity) Fuels) **ENERGY COMMISSION OF** FED. MIN. OF WORKS & FEDERAL MINISTRY OF FEDERAL MINISTRY OF FEDERAL MINISTRY OF MINISTRY OF PETROLEUM NIGERIA ENERGY COMMISSION OF HOUSING; FED. MIN. OF WORKS & HOUSING **INDUSTRY, TRADE & POWER** RESOURCES NIGERIA RANSPORTATION AND; FED (Focal Point for Renewable (HOUSING SECTOR) INVESTMENT MIN. OF AVIATION POLICY LEVEL **Heat Applications)** NIGERIAN FLECTRICITY COREN, ARCON, OSGOF CPC, O&GFZ, IntITF, NIPC **DPR and PPPRA** ARCON, COREN SON NADDC REGULATORY COMMSSION REGULATORY LEVEL GenCos, DisCos NNPC and Building Industry TCN, NBET, REA, ubsidaries uilders and Businesses in MEDAN Electrical Appliances OCs. LOCS FSCOS NAPTIN NAEC OPERATION LEVEL RESEARCH INSTITUTIONS ACADEMIA SON NEMSA **FMFin** NCS FACILITATING ORGANISATION PROFESSIONAL **DEVELOPMENT PARTNERS** INDUSTRY ASSOCIATIONS Other STAKEHOLDER ASSOCIATIONS LEGEND **DPR - Department of Petroleum Resources** ARCON - Architects Registration Council of Nigeria TCN - Trasmission Company of Nigeria NADDC - National Automotive Design and Development Council NBET - Nigerian Bulk Electricity Trader PPPRA - Petroleum Products Pricining and Regulatory Agency FAAN - Federal Airports Authority of Nigeria ITF - Industrial Training Fund REA - Rural Electrification Agency O&GFZ - Oil and Gas Free Zone IOCs - International Oil Companies NPA - Nigerian Ports Authority SMEDAN - Small and Medium Enterprises Development Agency LOCs - Local Oil Companies FERMA - Federal Road Maintenance Agency ESCOs - Energy Service Companies NAPTIN - National Power Training Institute of Nigeria COREN - Council for Registration of Engineering in Nigeria RSDT - Road Sector Development Team IntITF - International Trade Fairs NAEC - Nigerian Atomic Energy Commission OSGOF - Office of Surveyor General of the Federation NRC - Nigerian Railway Corporation NIPC - Nigeria Investment Promotion Commission SON - Standards Organistaion of Nigeria FMBN - Federal Mortage Bank of Nigeria CPC - Consumer Protection Council NNPC - Nigerian National Petroleum Corporation FHA - Federal Housing Authority BOI - Bank of Industry ECN/ECS: NIGERIA ENERGY EFFICIENCY REPORT, 2019

### 2.4 Efficiency of the Energy System

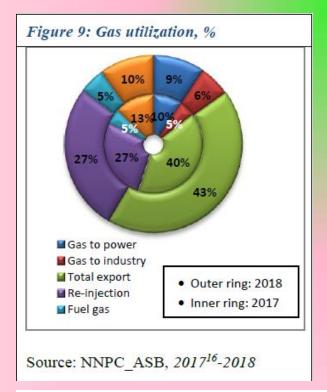


Figure 6: ATC&C Loses, 2015-2019

Source: NFRC (2015- Aug. 2019)

80

60

80

Actual

2015

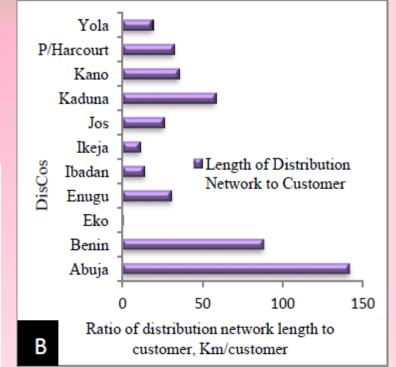
2015

2016

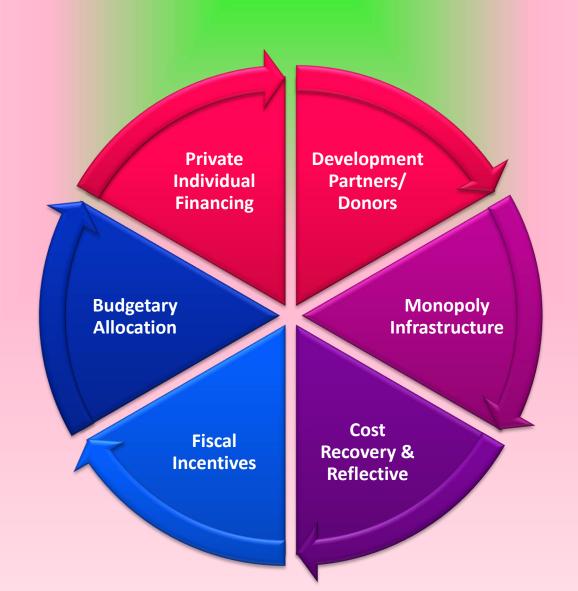
2017

Years

Table 3: DisCos' market perform. indicators (2016 – 2019) <sup>1</sup>						
Item	GenCos (to NBET)	NBET (to DisCos				
Total Invoice, 10 <sup>9</sup> ₩	172.94	168.06				
Total Payment, 10 <sup>9</sup> <del>N</del>	38.31	34.93				
Av. Performance Ratio, %	22.15	20.78				
Highest Performance Ratio, %	28.77	29.13				
Lowest Performance Ratio, %	14.33	10.79				
Source: NBET <sup>11</sup> , 2019						



### 2.5 EE Funding, Financing and Incentives



### 2.6 Regional and International Collaborations

### Regional

**ECREEE** 

WAPP/ERERA

Bilateral Electricity Trade with Niger & Benin

WAGP/WAGPA

Trans-Regional Gas Pipeline Projects: Trans-Sahara Gas Pipeline & Nigerian-Moroccan Gas Pipeline

### International

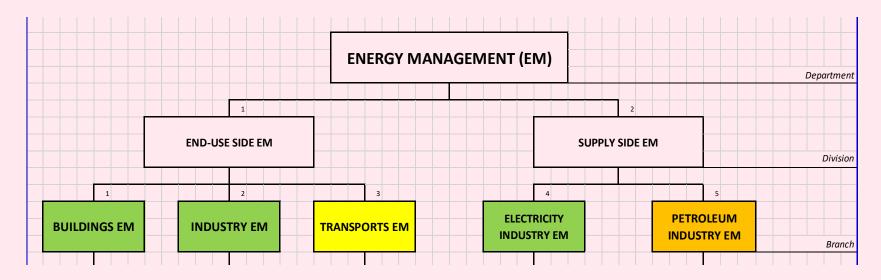
**NESP (Nigeria and EU/GIZ)** 

**UNDP/GEF** 

**JICA** 

**SUNREF (AFD)** 

### 3. ECN EE Structure



- 1. To serve as National EE repository: this is to aid the ECN responsibility for strategic planning and co-ordination of national policies in the field of EE in all its ramifications;
- 2. To monitor the performance of the energy sector in the execution of government policies on EE.

### **THANK U**