

# **Providing for Policies and Guidelines on the Conduct of Performance Audits for All Power Generating Plants, Transmission and Distribution Utilities**

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Energy Consumers and Stakeholders' Conference 2017

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# Outline of Presentation

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## I. Introduction

## II. Salient Features of DOE Circular No. DC2017-005-0008

- A. Policy and Objectives
- B. Scope of Coverage
- C. Creation of the Task Forces and Support Groups
- D. Responsibilities of the Task Forces
- E. Logistics
- F. Confidentiality and Ownership of Information and Findings
- G. Institutionalization
- H. Incentives and Penalties

## III. Timeline and On-going Initiatives



# I. Introduction

## A. What is performance assessment or audit?

systematic and objective examination of all G-T-D infrastructures, operations and processes based on an established set of parameters or “benchmarks”



performed by industry experts to evaluate compliance



# I. Introduction

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## A. Why Performance Assessment/Audit?



- ✓ Assess effectiveness of policies and regulations
- ✓ Balance the interest of utilities and consumers
- ✓ find practical solutions to problems, not to affix blame
- ✓ Strengthen compliance, monitoring, evaluation and response



# I. Introduction

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## B. Why Performance Assessment/Audit?



✓ Contribute/support socio-economic targets

- ★ Increase stakeholder confidence and investments
- ★ Ensure safety and compliance to environmental standards
- ★ deliver stable, secure and reasonably-priced electricity



# I. Introduction

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## B. Why Performance Assessment/Audit?

# STAKEHOLDERS

- ✓ Identify key areas for improvement;
- ✓ Assess risks, economy, efficiency and quality;
- ✓ Achieve optimal business operations;
- ✓ Safety
- ✓ Deliver “value for money” electricity services to consumers



# I. Introduction

## B. Why Performance Assessment/Audit?

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**SATISFACTION**



**VALUE FOR  
MONEY**

**WIDER  
COVERAGE**



**SAFETY  
SAFETY  
MATTERS**



# I. Introduction

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C. Is this a common practice?

- ✓ **WESTERN AUSTRALIA - Economic Regulation Authority (ERA)**
  - ★ Electricity Industry Act 2004
  - ★ not less than once in every period of 24 months (or any longer period that the Authority allows)
  - ★ conducted by an independent expert acceptable to the Authority
- ✓ **CALIFORNIA - California Public Utilities Commission (CPUC)**
  - ★ five (5) years, but frequency may be increased based on any significant problems found
  - ★ Covers transmission, distribution
- ✓ **NEW ZEALAND – Electricity Authority**
  - ★ review and assess the performance of the system operator every financial year
- ✓ **AUSTRALIA**
  - ★ annual benchmarking for distribution and transmission





# I. Introduction

## D. Performance Assessment/Monitoring and Audits for Philippines Electric Power Industry

Agency	Generation	Transmission	Distribution
DOE	Circulars, WESM Rules	Circulars, WESM Rules, Retail Rules	Circulars, WESM Rules, Retail Rules
ERC	COC, PGC	PBR, PGC	PBR, PGC, RSEC-WR
GMC	PGC	PGC	
DMC	PSGC		PDC, SIR
NEA			EC KPS, Financial, Technical, Organization Audit
TRANSCO		Concession Agreement	
PEMC	WESM Rules, MO/MSP Audit	WESM Rules, Retail Rules, MO/MSP Audit	WESM Rules, Retail Rules, MO/MSP Audit



# I. Introduction

## D. Performance Assessment/Monitoring and Audits for Philippines Electric Power Industry

Agency	Generation	Transmission	Distribution	Environment
DOE	D - I	D - DE - R	D - DE - R	D - I
ERC	D	D	D	
GMC	D	D		
DMC			D - I - R	
NEA			D - I	
TRANSCO		D - I - R		
PEMC/WESM Governance	D - DE - I - R	D - DE - I - R	D - DE - I - R	

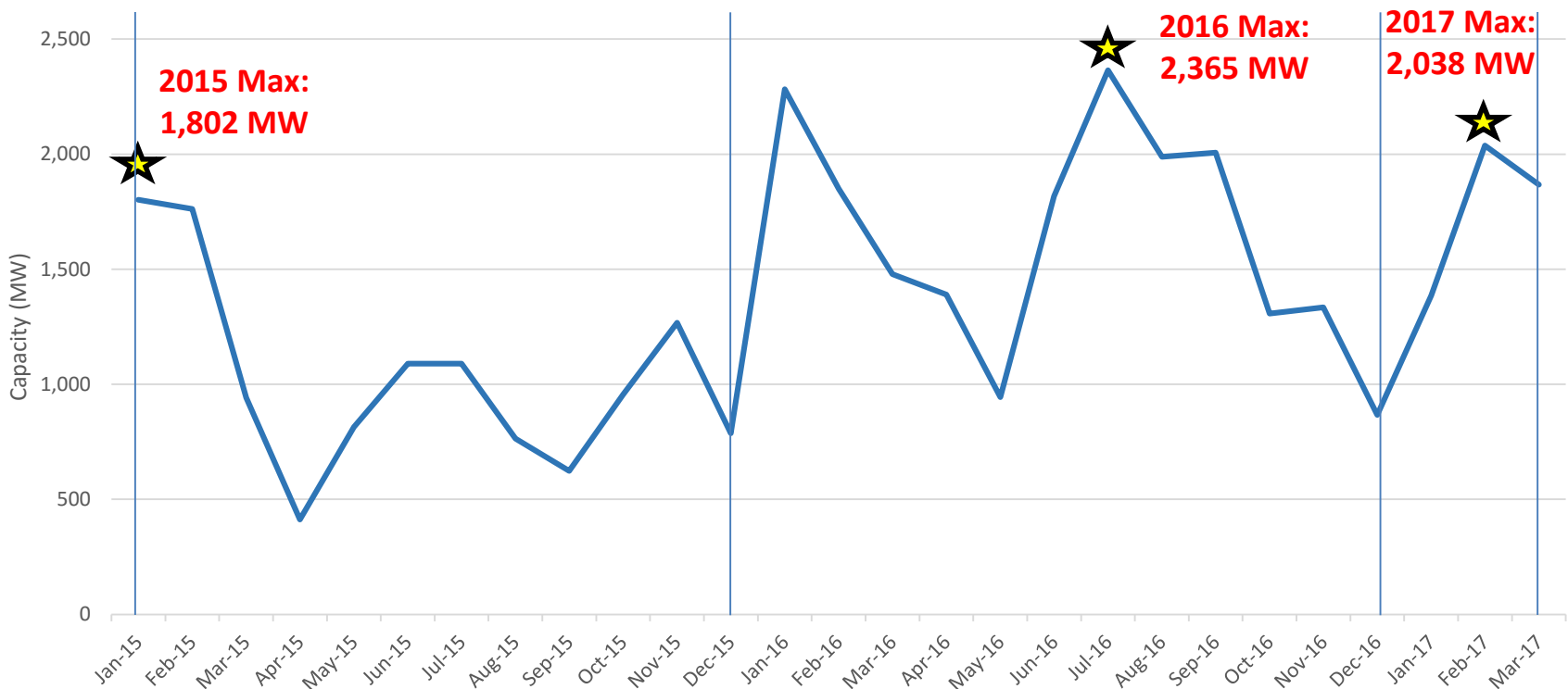
Legend: **D** – Documentary    **DE** – Desktop Evaluation    **I** – Inspection    **R** - Recommendatory



# I. Introduction

## I. Overview of Performance – GENERATION

### 2015 – 2017 Forced Outages, Luzon



Dependable Capacity = 13,600 MW, as of 31 December 2016

Source: National Grid Corporation of the Philippines Grid Operating Program revision 4

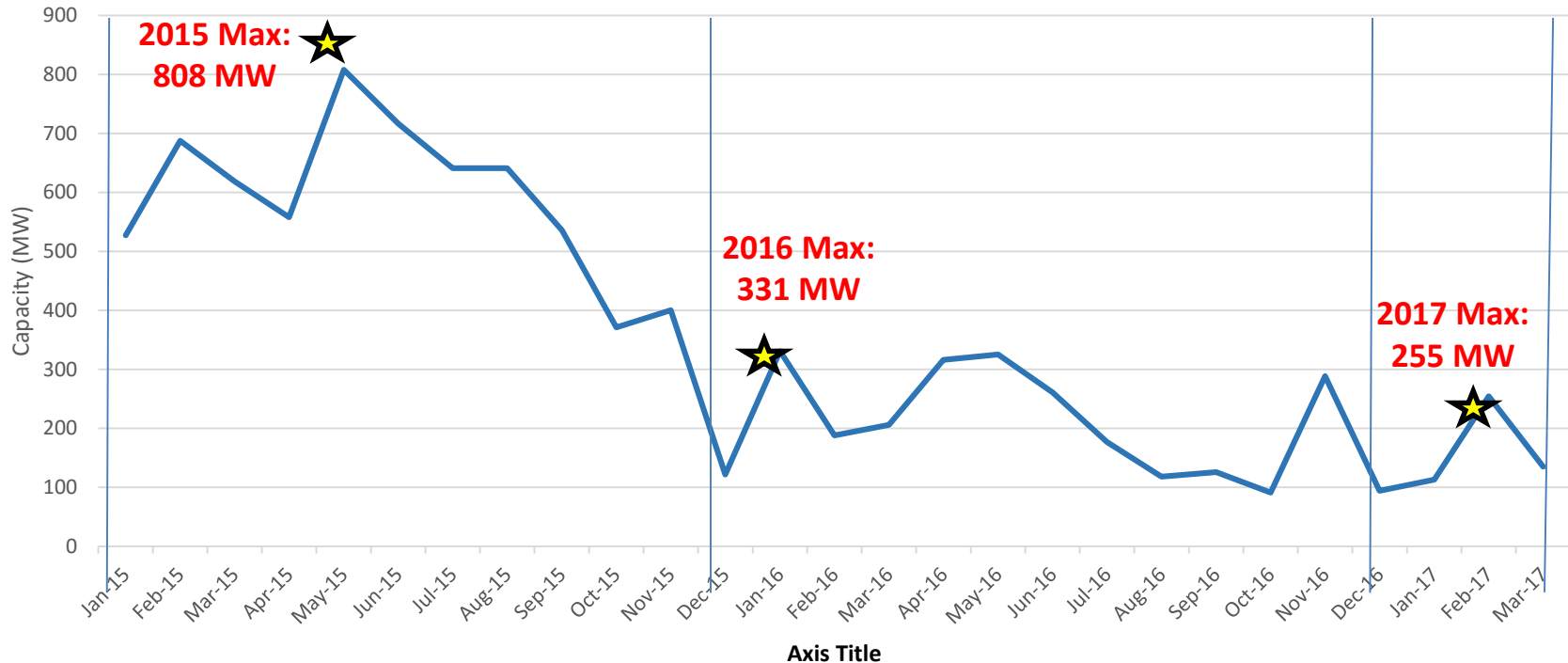
National Grid Corporation of the Philippines Grid Daily Operations Report, as of 31 March 2017



# I. Introduction

## E. Overview of Performance – GENERATION

### 2015 – 2017 Forced Outages, Visayas



Dependable Capacity = 2,813 MW, as of 31 December 2016

Source: National Grid Corporation of the Philippines Grid Operating Program revision 4

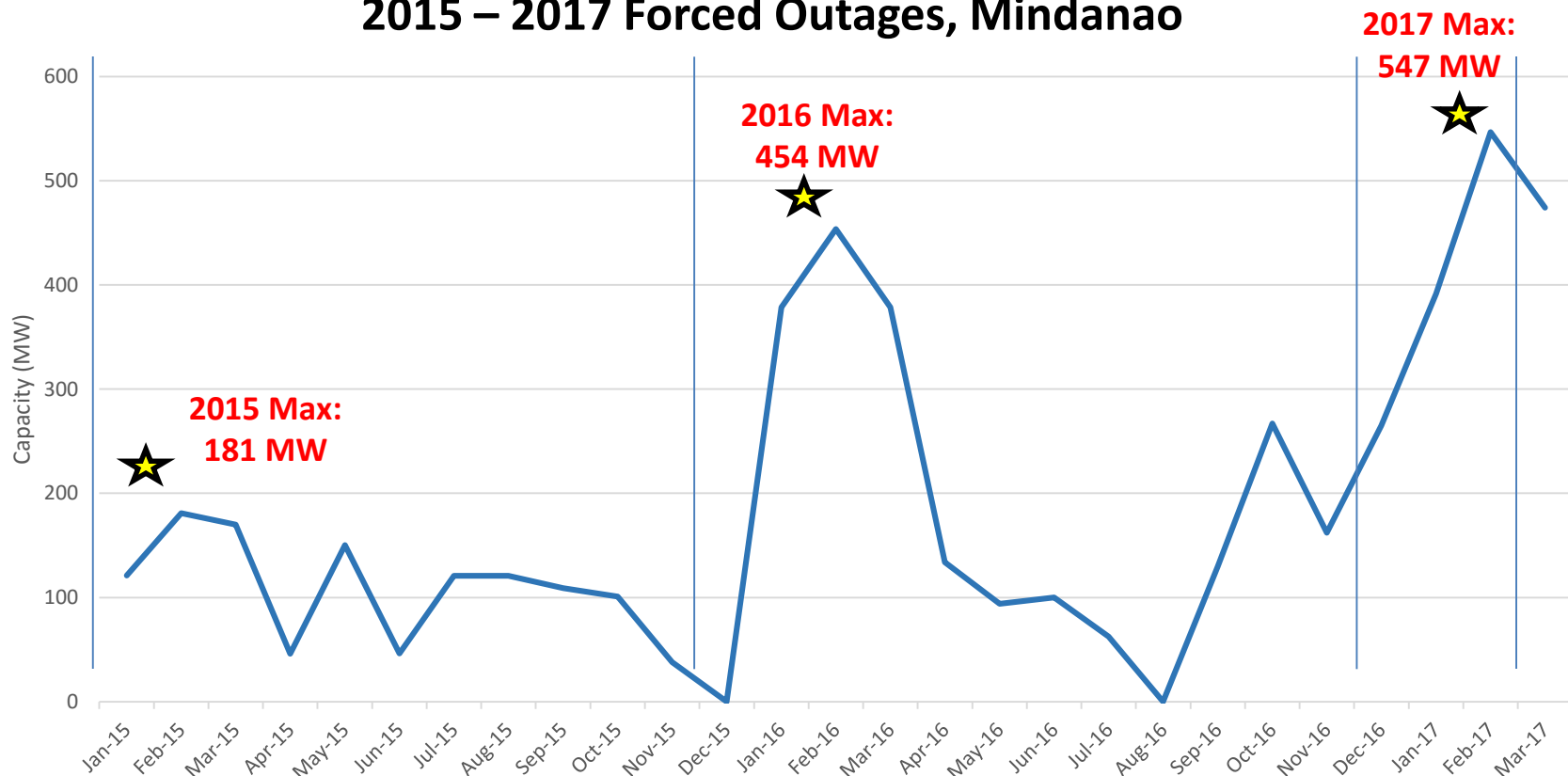
National Grid Corporation of the Philippines Grid Daily Operations Report, as of 31 March 2017



# I. Introduction

## E. Overview of Performance – GENERATION

### 2015 – 2017 Forced Outages, Mindanao



Dependable Capacity = 2,684 MW, as of 31 December 2016

Source: National Grid Corporation of the Philippines Grid Operating Program revision 4

National Grid Corporation of the Philippines Grid Daily Operations Report, as of 31 March 2017



# I. Introduction

## F. Overview of Performance – TRANSMISSION

### Frequency of Constraints on Transmission Lines (Based on Market Results), 2015

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Luzon (Ex-Ante)	0	43	41	6	75	233	99	11	43	43	2	6	602
Visayas (Ex-Ante)	17	45	84	25	116	353	183	79	74	49	9	24	1058
<b>Total (Ex-Ante)</b>	<b>17</b>	<b>88</b>	<b>125</b>	<b>31</b>	<b>191</b>	<b>586</b>	<b>282</b>	<b>90</b>	<b>117</b>	<b>92</b>	<b>11</b>	<b>30</b>	<b>1660</b>
Luzon (Ex-Post)	0	0	0	1	4	29	1	0	2	25	2	0	64
Visayas (Ex-Post)	14	0	33	17	30	96	62	59	21	3	2	30	367
<b>Total (Ex-Post)</b>	<b>14</b>	<b>0</b>	<b>33</b>	<b>18</b>	<b>34</b>	<b>125</b>	<b>63</b>	<b>59</b>	<b>23</b>	<b>28</b>	<b>4</b>	<b>30</b>	<b>431</b>

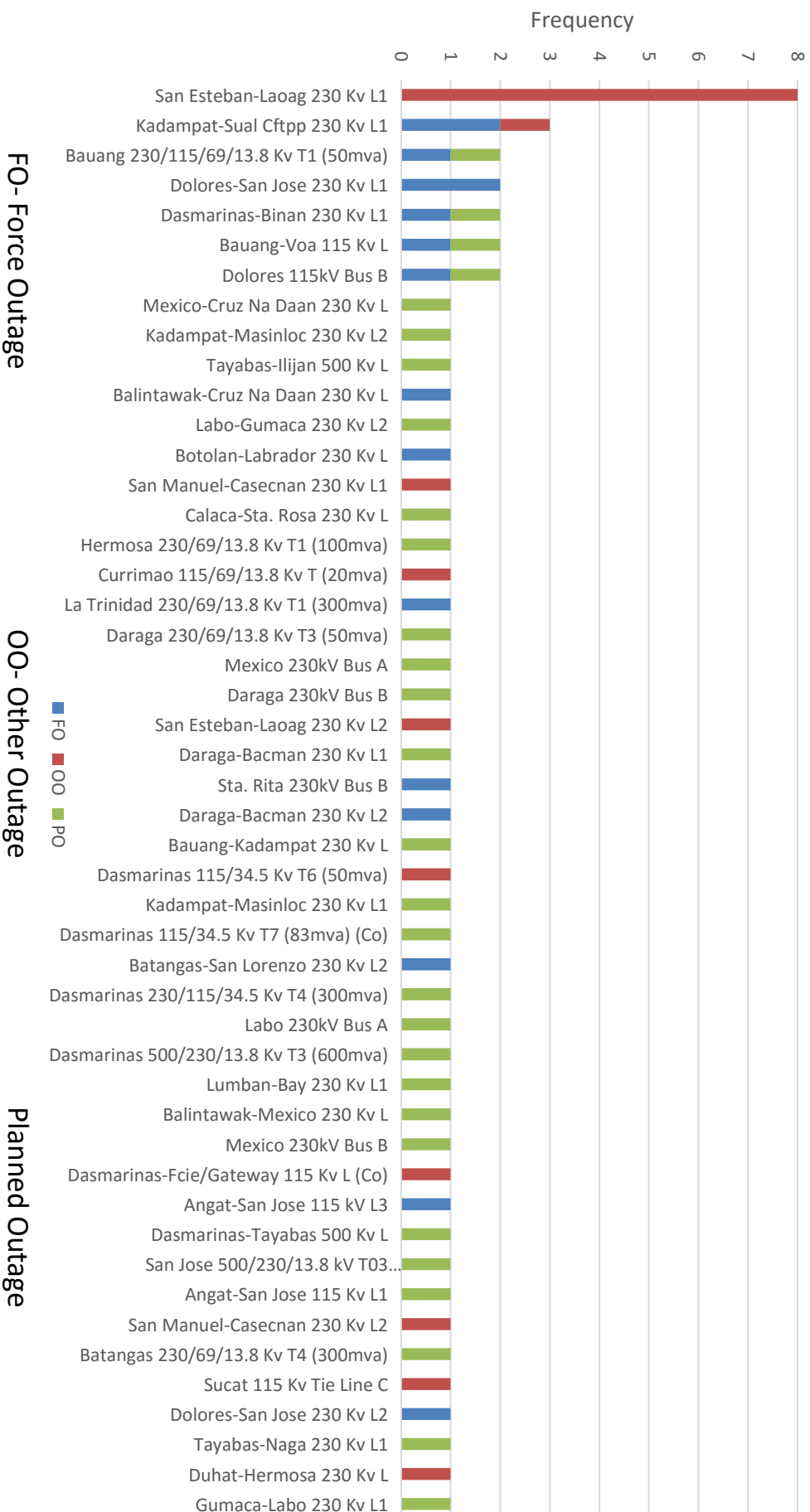
Source: 2015 Annual Market Assessment Report, PEMC



# I. Introduction

## F. Overview of Performance – TRANSMISSION

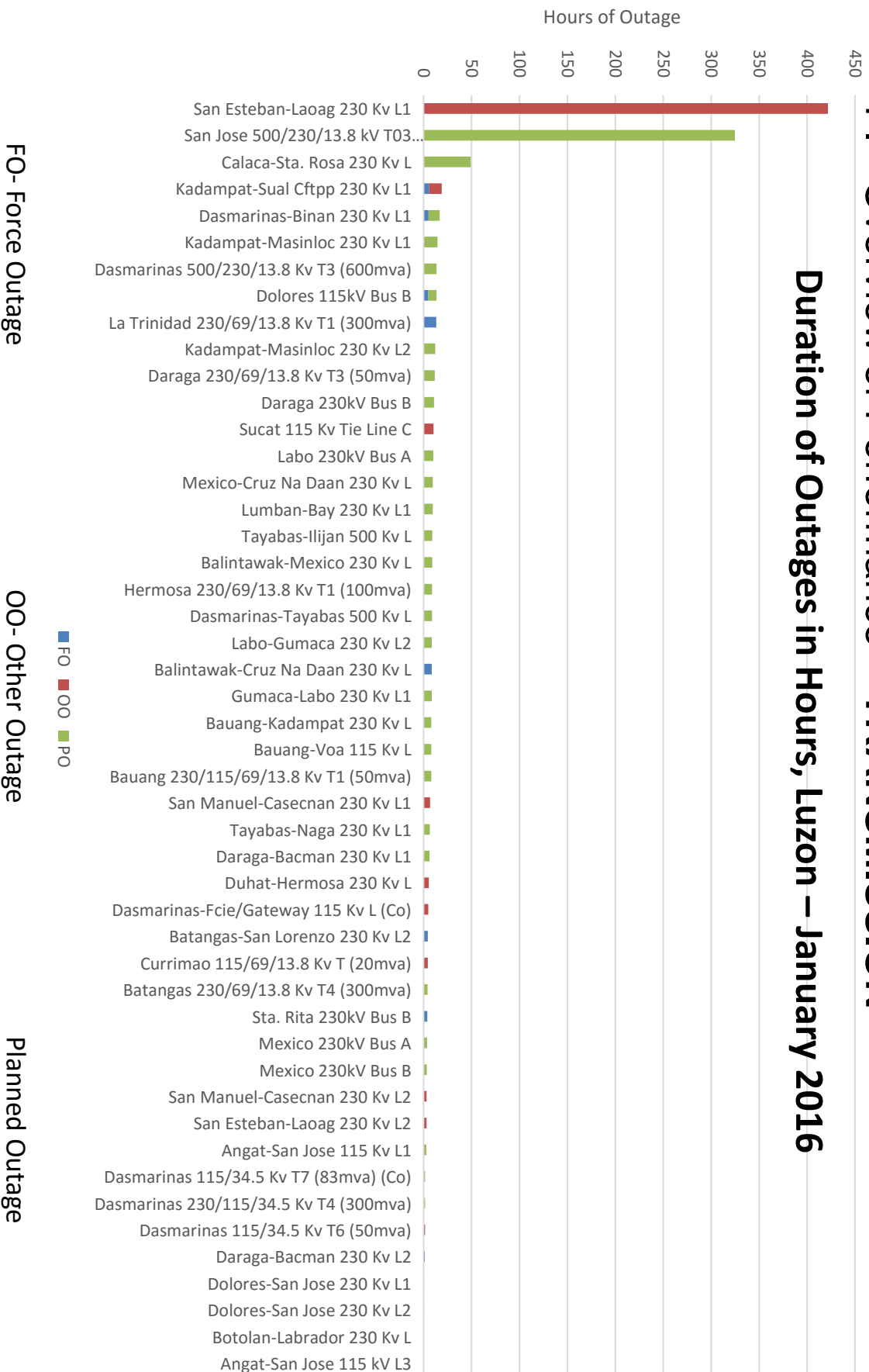
### Frequency of Transmission Facilities Outages, Luzon – January 2016



# I. Introduction

## F. Overview of Performance – TRANSMISSION

### Duration of Outages in Hours, Luzon – January 2016

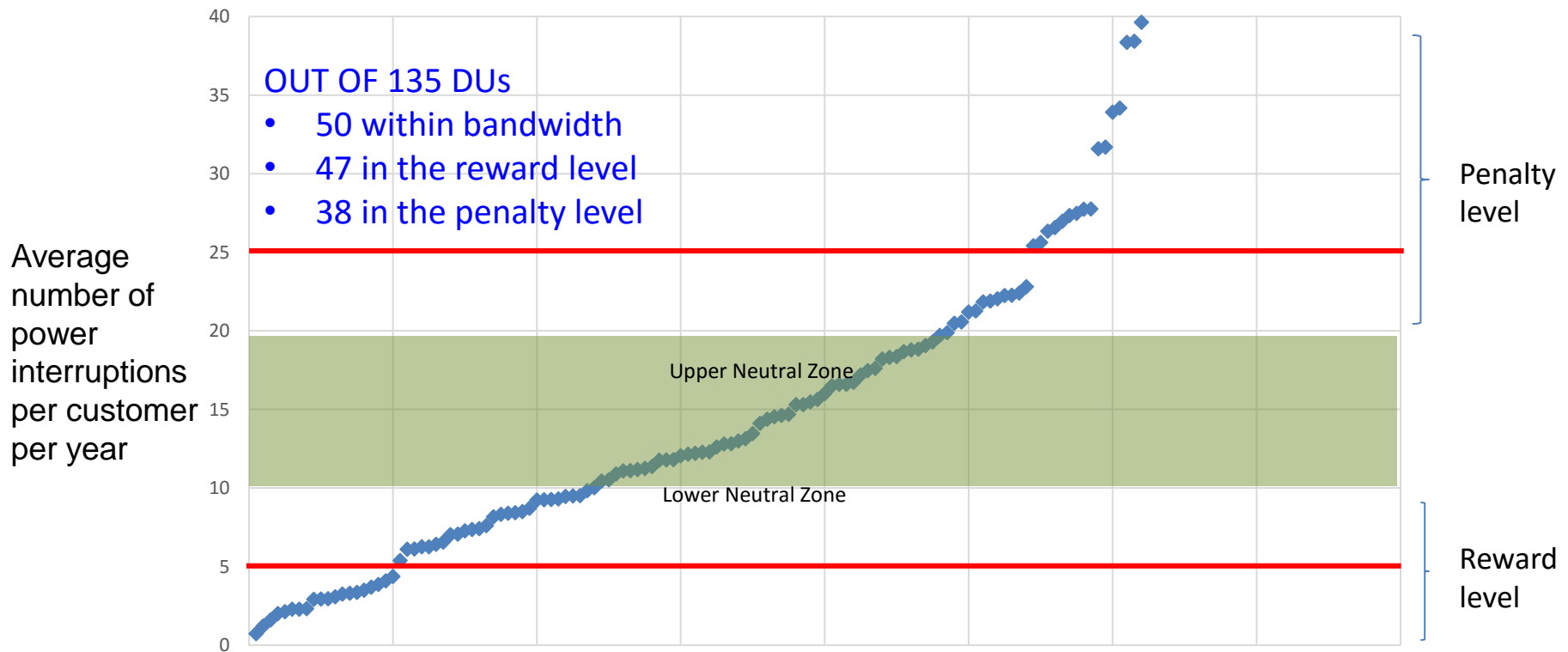




# I. Introduction

## I. Overview of Performance - **DISTRIBUTION**

### 2015 SYSTEM AVERAGE INTERRUPTION FREQUENCY INDEX (SAIFI)



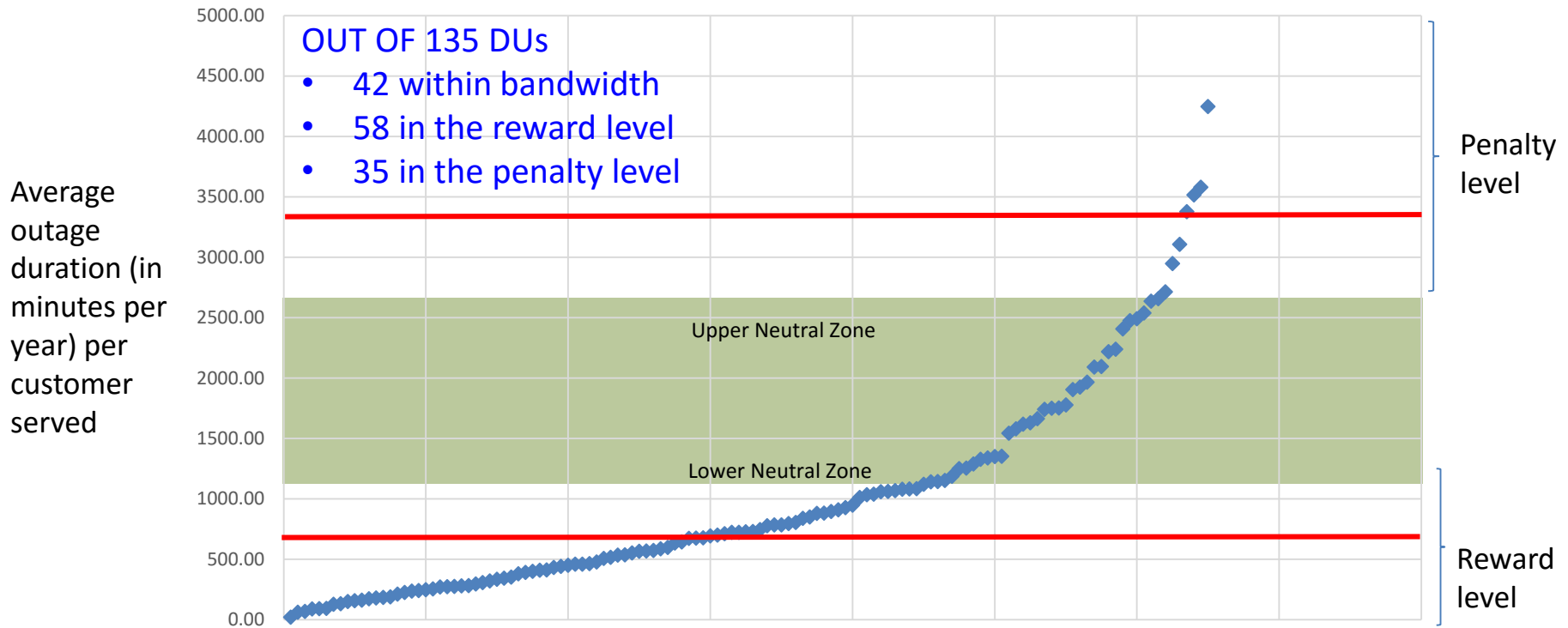
Data Source: Distribution Management Committee



# I. Introduction

## I. Overview of Performance - **DISTRIBUTION**

### SYSTEM AVERAGE INTERRUPTION DURATION INDEX (SAIDI) 2015



Data Source: Distribution Management Committee



## II. Salient Features of DOE Circular No. DC2017-05-0008

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### A. Title and Effectivity

- Department Circular No. DC2017-05-0008, entitled “**Providing for the Policies and Guidelines on the Conduct of Performance Assessment and Audit for All Power Generation, Transmission and Distribution Systems and *Facilities***” was signed by the Secretary on 03 May 2017
- Published in The Manila Times on 23 May 2017 and in The Philippine Star on 24 May 2017; and
- Effective starting 24 May 2017.



## II. Salient Features of DOE Circular No. DC2017-05-0008

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### B. Policy and Objectives

- ✓ Evaluate over-all performance and efficiency  
....to formulate policies that address any policy gaps
- ✓ Post-review of compliance
- ✓ Remove operational inefficiencies
- ✓ Identify systems of incentives and penalties
- ✓ Respond to technological advancement
- ✓ Adopt best practice, good governance and accountability
- ✓ Support socio-economic targets



## II. Salient Features of DOE Circular No. DC2017-05-0008

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### B. Policy and Objectives

- ✓ PAA - DOE tool for assessing overall performance of the industry participants
- ✓ Not intended to encroach on ERC, GMC, DMC authority to monitor and assess



## II. Salient Features of DOE Circular No. DC2017-05-0008

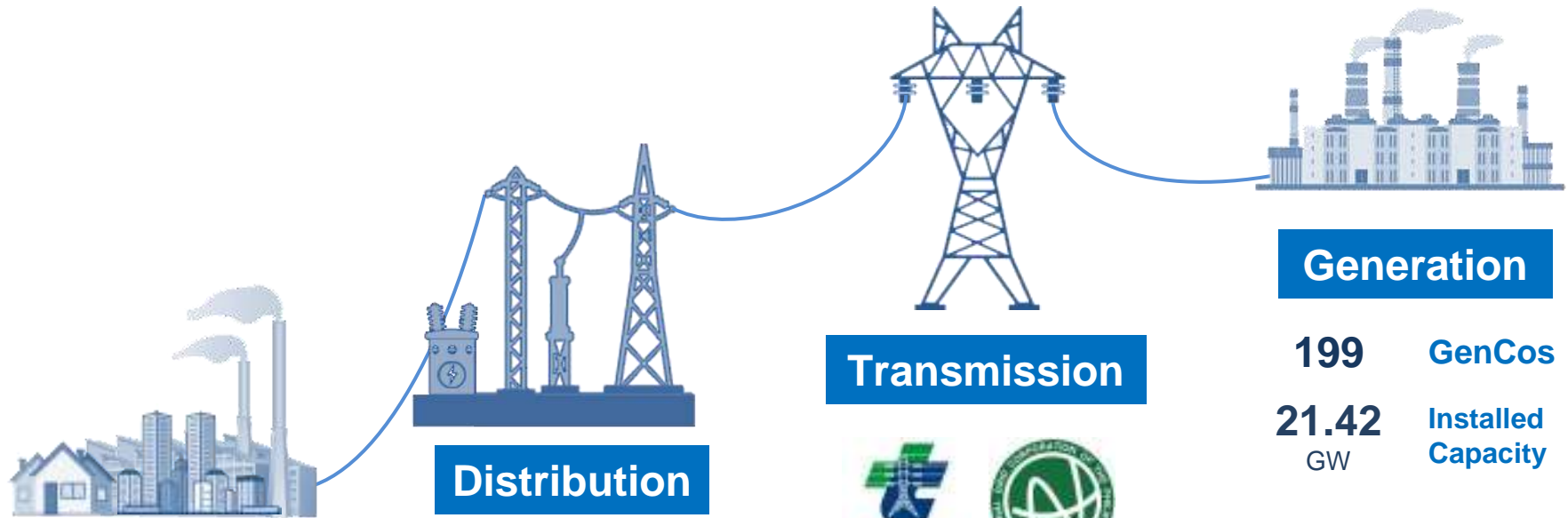
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### C. Scope of Coverage

- ✓ All Power Generation Facilities owning/or operating Generation Facilities in the main grid and off-grid areas;
- ✓ All transmission Service Provider and System Operator in the main grid and off-grid areas; and
- ✓ All Distribution Utilities in the main grid and off-grid areas

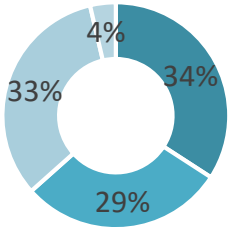


# Grid Power System



## Load

74,154 GWh



2016 Electricity Sales

- Residential
- Commercial
- Industrial
- Others

## Distribution

- 23 **PIOU**s
- 100 **EC**s
- 2 **LGUOU**s

## Transmission



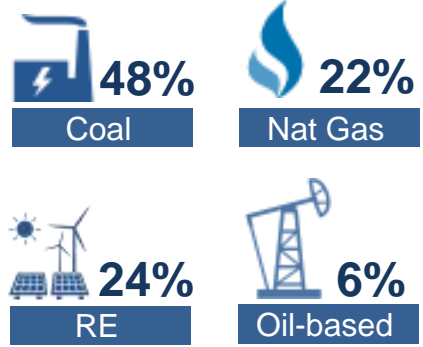
- 31,501 **MVA**
- 20,053 **ckt-km**

**Peak Demand: 13.272 GW**

- PIOU**s - Private-Investor Owned Utilities
- EC**s - Electric Cooperatives
- LGUOU**s - LGU-Owned Utilities

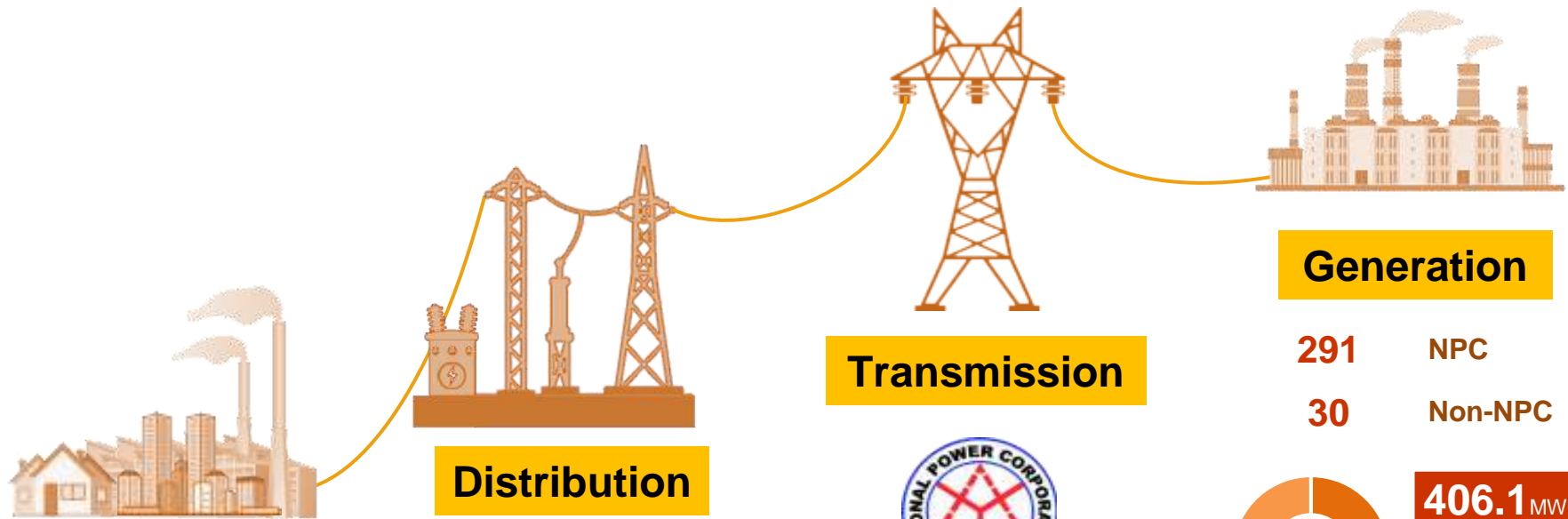
## Generation

- 199 **GenCos**
- 21.42 **GW** Installed Capacity
- 90,798 **GWh** Gross Generation



Sources of Data: DOE; NGCP

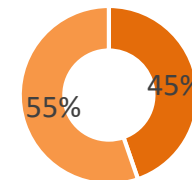
# Off-Grid Power System



## Generation

**291** NPC  
**30** Non-NPC

**406.1** MW



Total Installed Capacity

■ NPC ■ Non-NPC

**1,075** GWh

Gross Generation



**96%**  
Diesel



**4%**  
Hydro

## Transmission



**170**  
MVA



**770**  
ckt-km

## Distribution

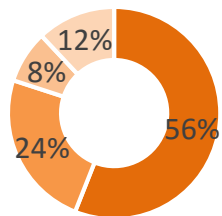
- 21** ECs
- 2** MPCs
- 3** LGUOUS
- 1** QTP

ECs - Electric Cooperatives  
MPCs - Multi-Purpose Cooperatives  
LGUOUS - LGU-Owned Utilities  
QTP - Qualified Third Parties

## Load

**1,020.1**  
GWh

2015  
Electricity  
Sales



■ Residential ■ Commercial  
■ Industrial ■ Others



**64.3%\***  
Energized

Source of Data: DOE; NPC

\*excluding ARMM areas





## II. Salient Features of DOE Circular No. DC2017-05-0008

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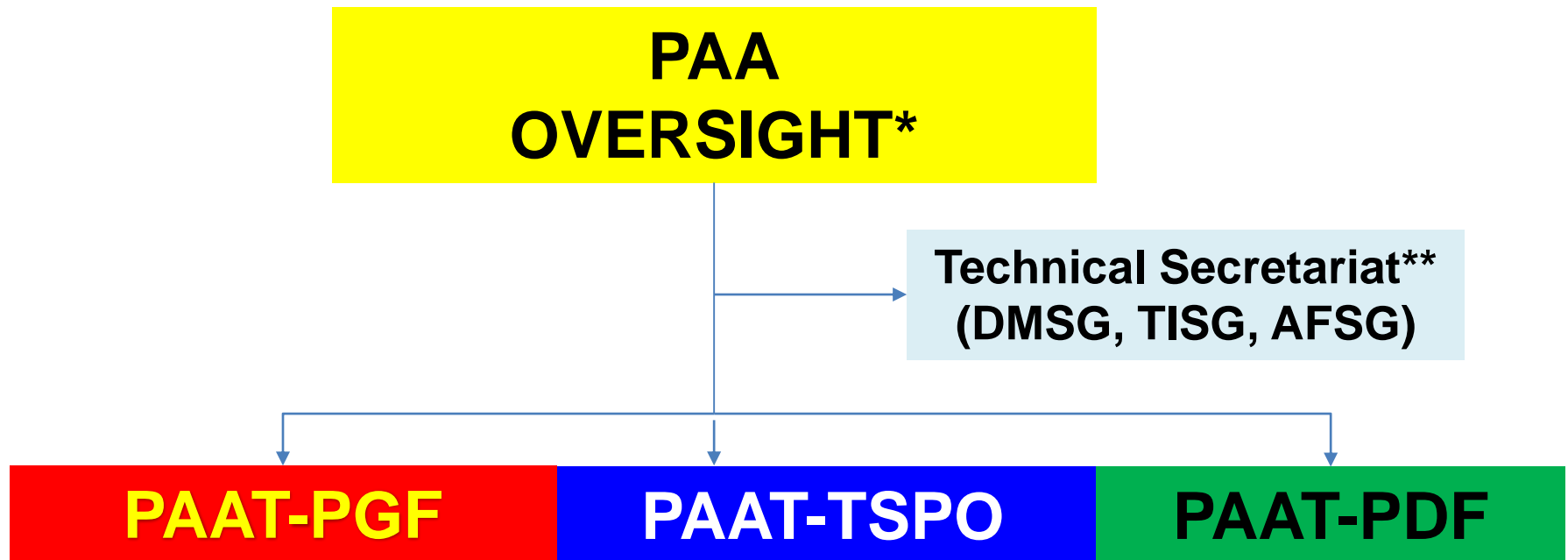
### C. Scope of Coverage – Responsibilities of Electric Power Industry Participants

- ✓ Timely and accurately provide data, reports, records and other information required for the PAA
- ✓ Allow full accessibility/unrestricted access to their facilities to PAAT to conduct inspection of facilities
- ✓ Allow conduct of testing, consistent with industry standards and practices, of any or all parts of the facilities;



## II. Salient Features of DOE Circular No. DC2017-05-0008

### D. Creation of Task Forces and Support Groups



- ☑ Performance Assessment and Audit on Power Generation Facilities (PAAT-PGF)
- ☑ PAAT on Transmission Service Provider/ Operator (PAAT-TSPO)
- ☑ PAAT on Distribution System Facilities (PAAT-DSF)

Notes:

\* Designated Undersecretary or Asst. Secretary

\*\* Head – EPIMB

\*\* Members – EUMB, REMB, EPPB, LS, AS, FS



## II. Salient Features of DOE Circular No. DC2017-05-0008

### D. Creation of Task Forces and Support Groups

**PAAT-PGF**

**PAAT-TSPO**

**PAAT-PDF**

**Chairman: DOE Undersecretary or Asst. Secretary for Power**

**Members:**

**TransCo, GMC  
(Independent),  
PEMC, PEMC-  
MSC, PEMC-TC,  
NEA**

**Members:**

**TransCo, GMC  
(Independent),  
DMC, PEMC;  
PEMC-MSC,  
PEMC-TC,  
PEMC-PAC,  
NEA**

**Members:**

**NEA, DMC  
(Independent),  
TransCo,  
PEMC;**



## II. Salient Features of DOE Circular No. DC2017-05-0008

### E. Responsibilities of the Task Forces

Priorities

- ①
- ②
- ③

Determine priority areas and entities;

KNOW THE RULES!

Establish audit procedures, parameters and protocol



Prepare and implement audit plans



Prepare audit reports – findings, recommendations, areas for improvement



## II. Salient Features of DOE Circular No. DC2017-05-0008

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### F. Confidentiality and Ownership of Information and Findings

- ✓ All data, information and findings relevant to the conduct of this Performance Assessment and Audit **shall be owned and for the exclusive use of the DOE.**
- ✓ The results of Performance Assessment and Audit **may be provided by the DOE to the ERC, for purposes of rulemaking and establishment and enhancement of standards.**
- ✓ Pursuant to a non-disclosure agreement, **all members of the task forces shall not use, disclose any information, data or findings other than for the purposes** as identified under this Circular.



## II. Salient Features of DOE Circular No. DC2017-05-0008

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### G. Institutionalization of Technical Audit

- ✓ **once every three (3) years audit** for each utility, or, **as may be directed by the DOE.**
- ✓ may be conducted by an **independent third party and reputable** Performance Assessment and Audit firms
- ✓ DOE to develop procedure on the **accreditation or engagement of an independent third party auditor**



# III. Timeline

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**MAY 4, 2017**

- Promulgation of DOE Circular No. 2017-05-0008

**JUNE 24, 2017 –**

- Effectivity of DOE Circular No. 2017-05-0008

**3<sup>rd</sup> Week Aug 2017**

- FGD on the Performance Assessment and Audit Plan

**SEPTEMBER 2017  
ONWARDS**

- Pilot assessment and audit for priority areas

**2018 ONWARD**

- Continuing assessment and audit by Task Forces
- Development of accreditation guidelines for 3<sup>rd</sup> Party Independent Auditor
- Implementation of regular 3-year assessment and audit





“ **Quality** is doing it right  
when no one is looking

”  
- Henry Ford





# Thank You!



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