



# UPDATES ON POWER SECTOR PLANS AND POLICIES

**IRMA C. EXCONDE**  
*Assistant Director, EPIMB*

**“E-Power Mo: Communicating Efficiency Across Energy Sector”**

24 April 2018

Baguio City



# Presentation Outline

---



## Power-Related Development Plans



## Power Sector Roadmap Implementation Updates



## Luzon Power Grid Snapshot



# Presentation Outline

---



## Power-Related Development Plans



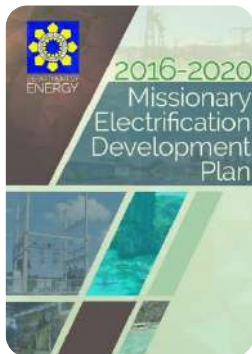
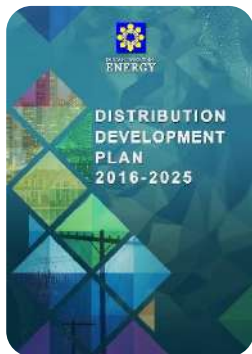
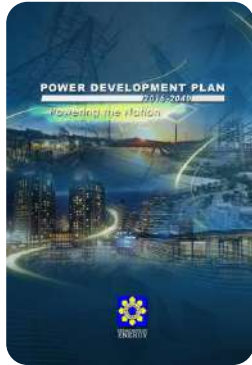
## Power Sector Roadmap Implementation Updates



## Luzon Power Grid Snapshot



# Power-Related Development Plans



**IRMA C. EXCONDE**  
Assistant Director, EPIMB

Energy Consumers and Stakeholders' Conference  
**E-Power Mo!**

Philippine International



“

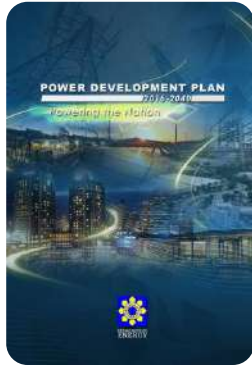
E-SECURE Mo,  
E-SECURE  
Natin, Para sa  
Kinabukasan  
ng Lahat

Asst. Director ICE Exconde,  
DOE-EPIMB

**E-Power Mo! Manila – 12 July 2017**

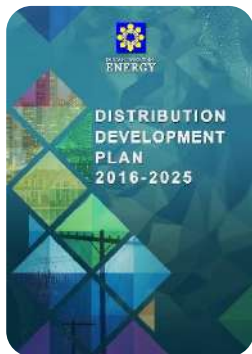


# Power-Related Development Plans



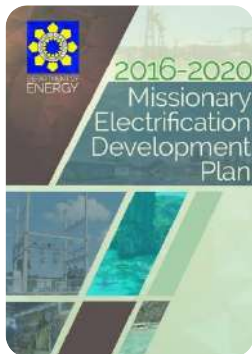
## Power Development Plan 2016-2040

<https://www.doe.gov.ph/electric-power/power-development-plan-2016-2040>



## Distribution Development Plan 2016-2025

<https://www.doe.gov.ph/electric-power/2016-2025-distribution-development-plan>



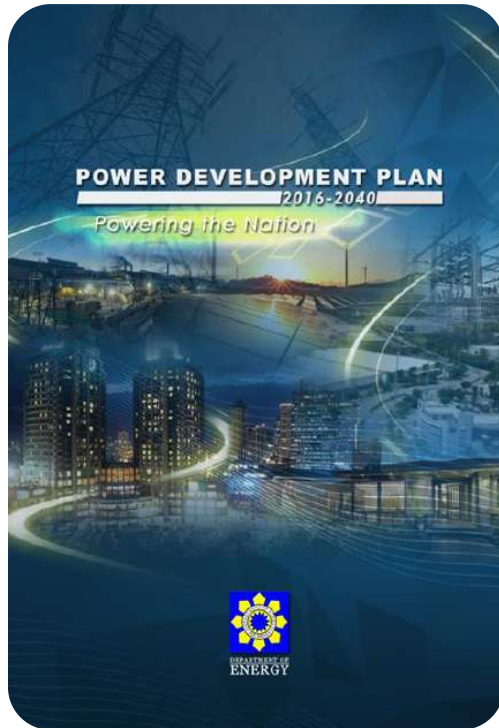
## Missionary Electrification Development Plan 2016-2020

<https://www.doe.gov.ph/electric-power/missionary-electrification-development-plan>

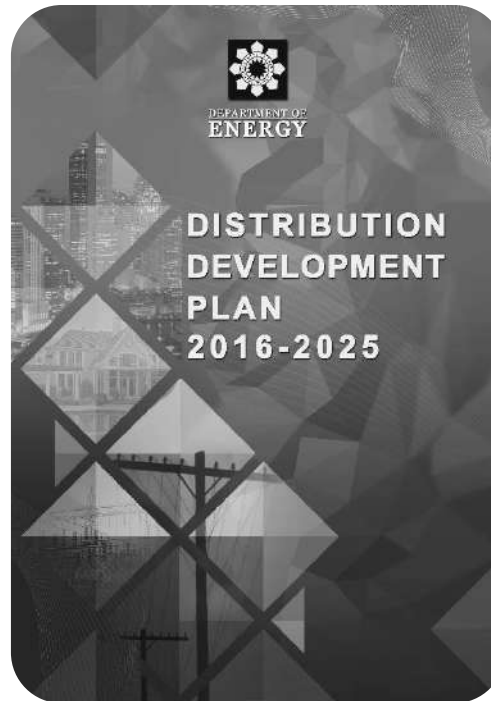




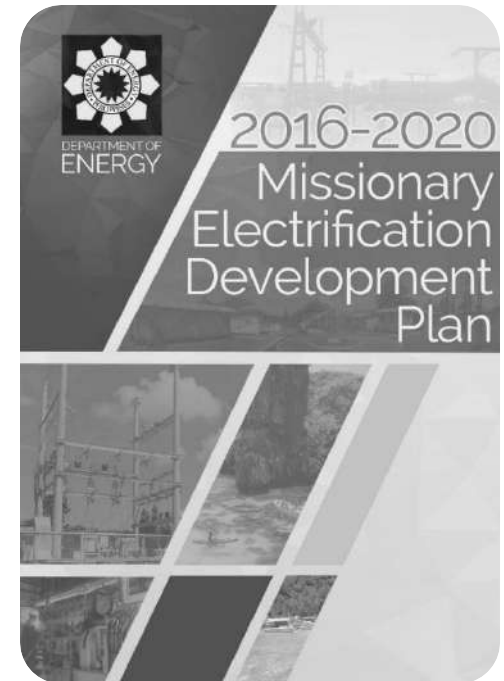
# Power-Related Development Plans



**PDP**



**DDP**

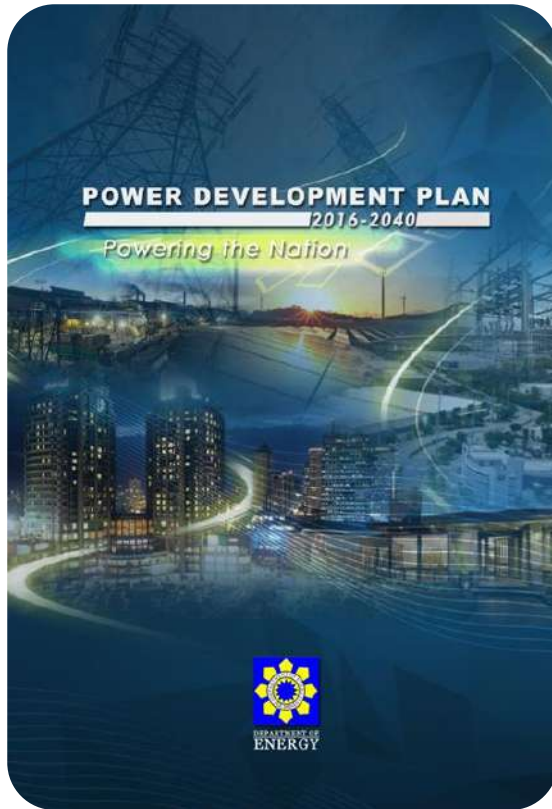


**MEDP**



# Power Development Plan 2016 – 2040

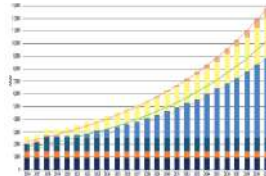
## Major Contents



### Philippine Electricity Profile



### Five-Year Performance Assessment, 2011-2015



### Demand and Supply Outlook, 2016-2040



### Power Sector Roadmap

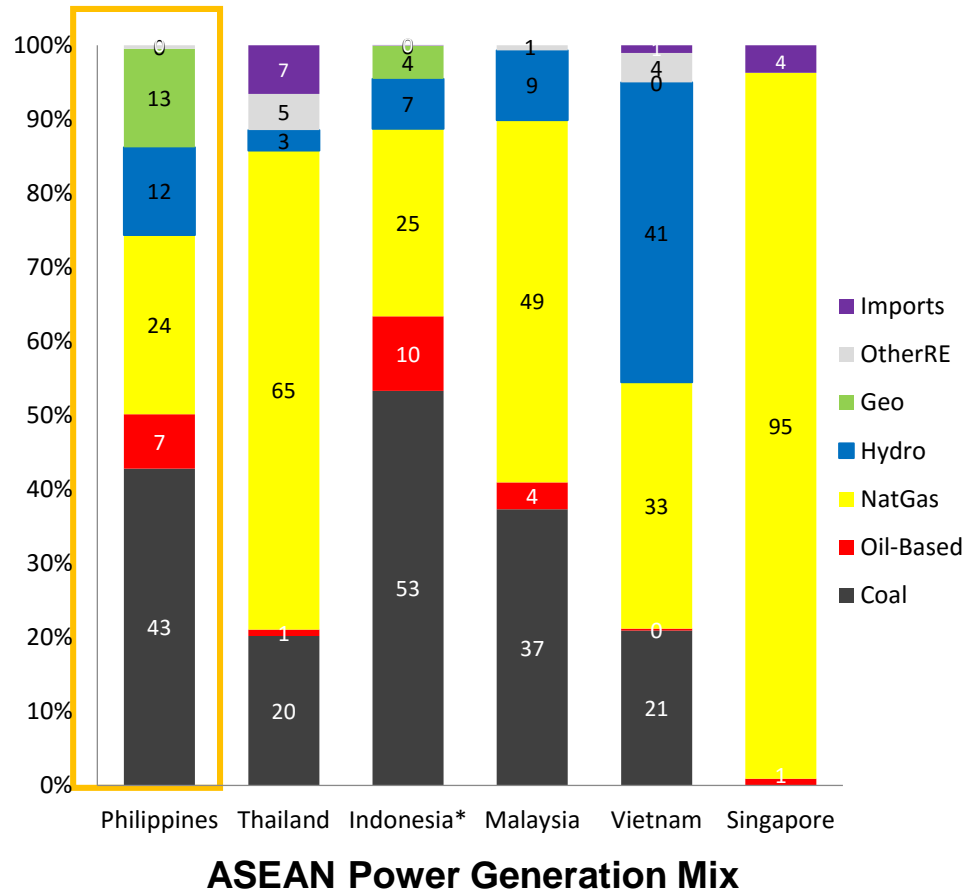


# Power Development Plan 2016 – 2040

## Major Contents



## Philippine Electricity Profile



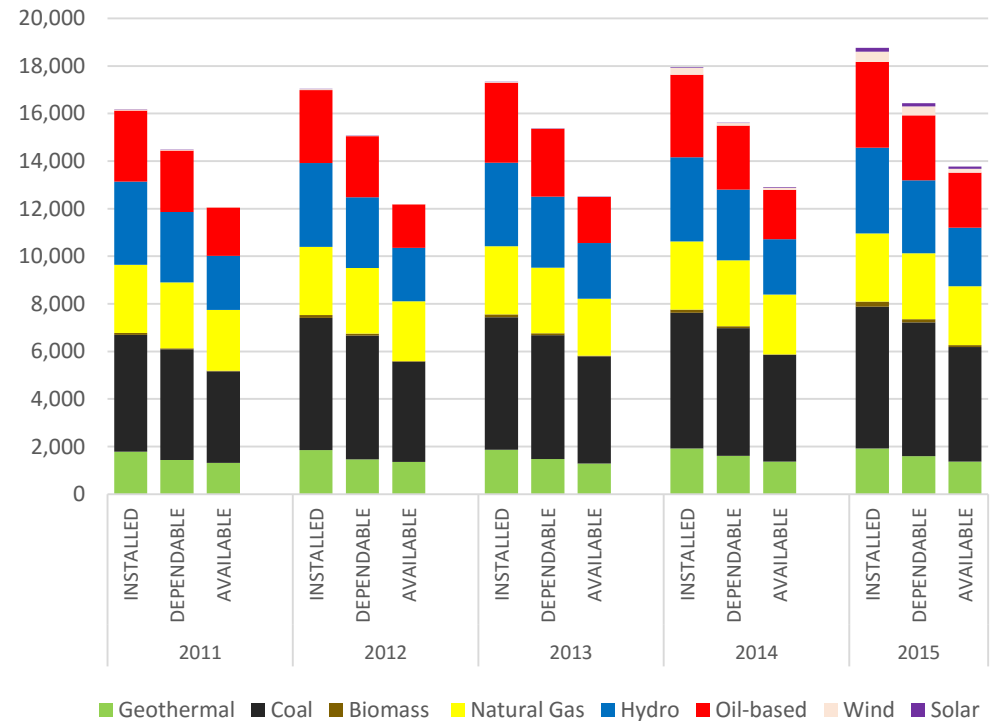


# Power Development Plan 2016 – 2040

## Major Contents



## Five-Year Performance Assessment, 2011-2015

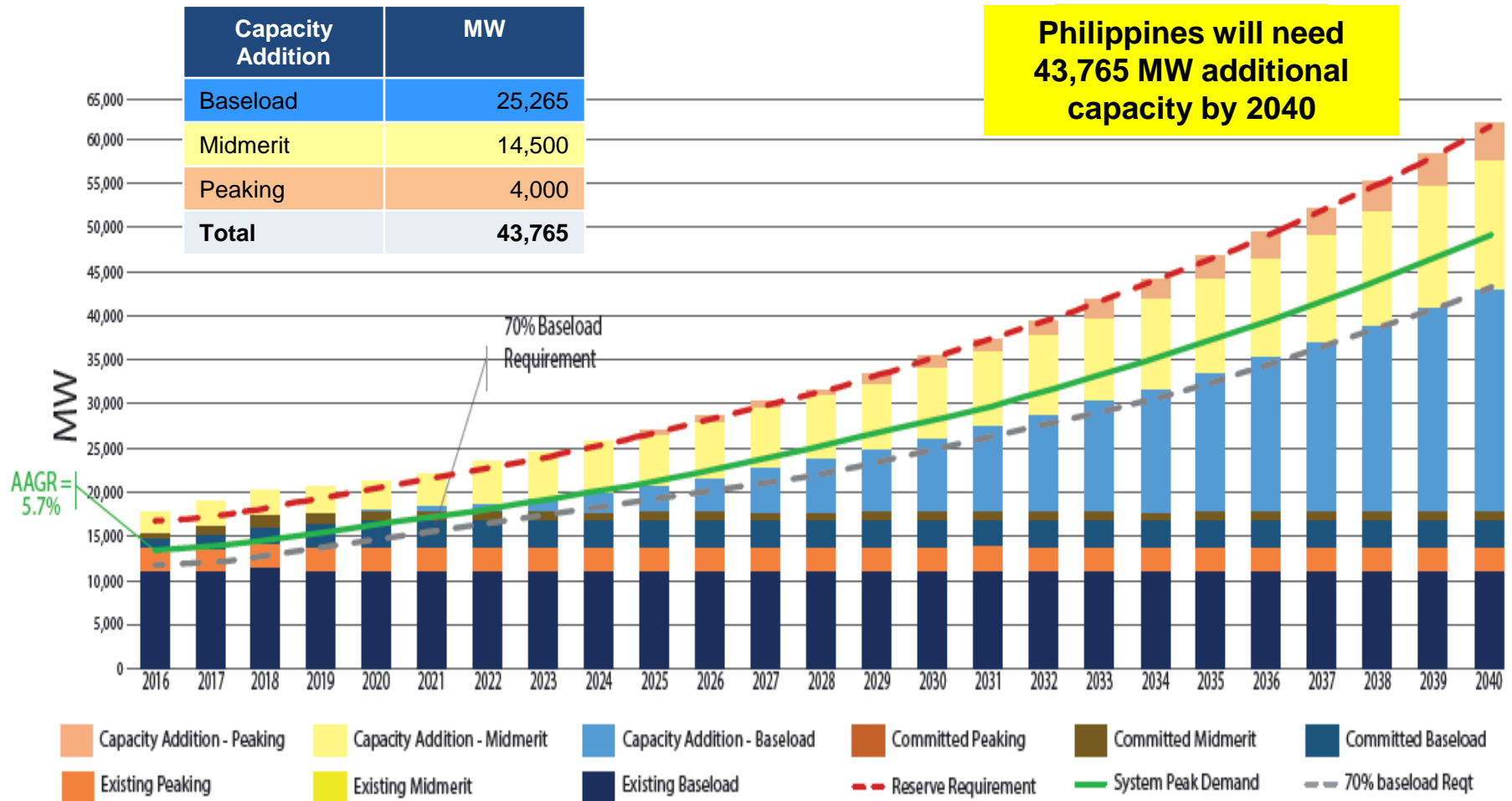


Installed, Dependable and Available Capacity

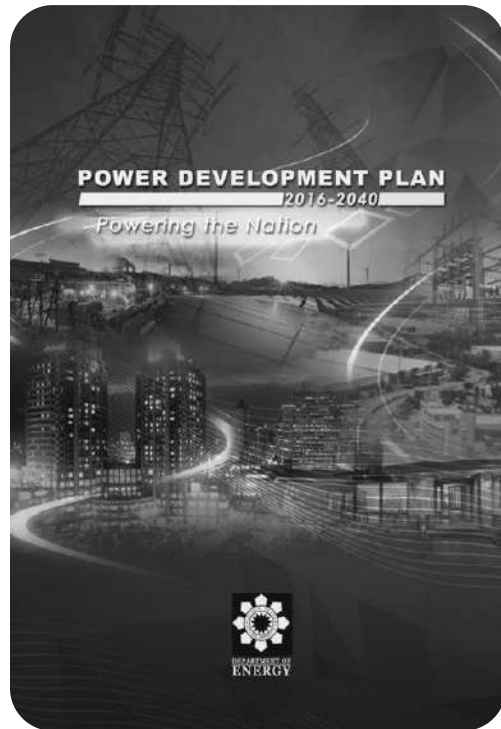


# Power Development Plan 2016 – 2040

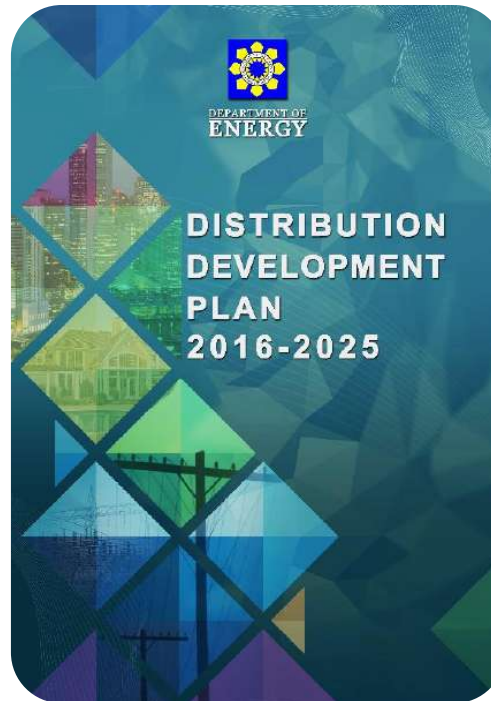
## Philippines Demand and Supply Outlook, 2016-2040



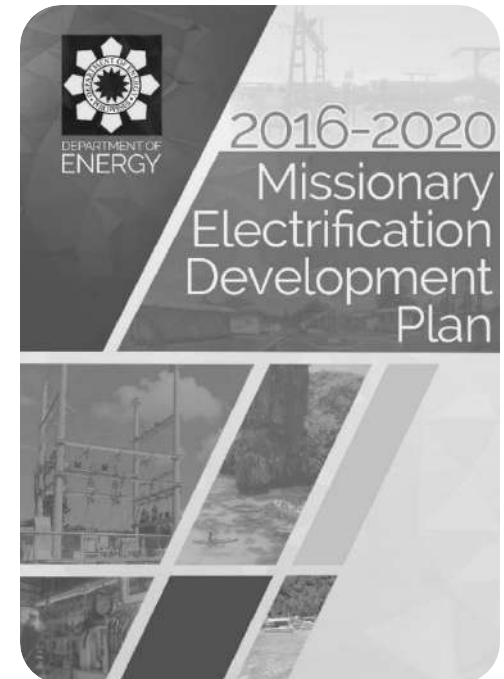
# Power-Related Development Plans



**PDP**



**DDP**

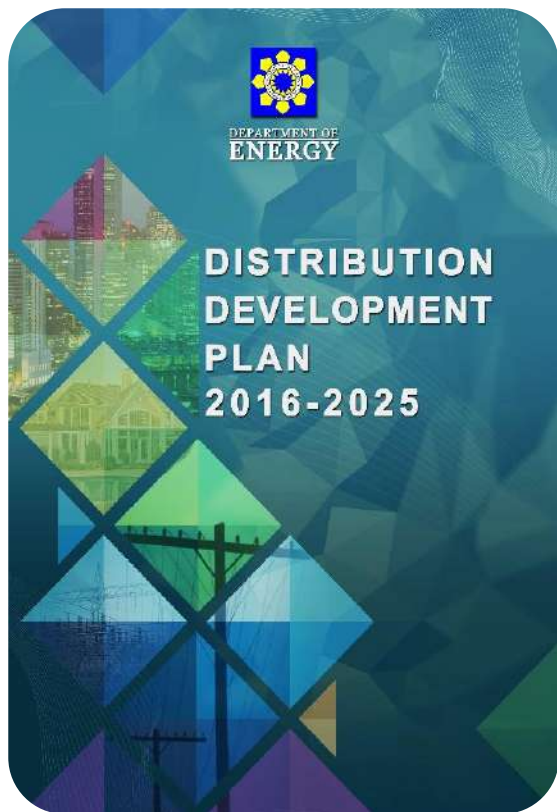


**MEDP**



# Distribution Development Plan 2016-2025

## Key Elements



### Demand

- Number of Customers
- Demand (MW) and Energy (MWh)
- Accounting of unserved energy



### Supply

- Power Supply Sources
- Uncontracted supply requirement for CSP



### Household Electrification

Barangay Sitio Electrification Program (BSEP)  
Household Electrification Development Plan (HEDP)



### Capital Expenditure (CAPEX) Program

- Infrastructure Projects
- Investment Requirements



# Policy Integration in the DDP



Competitive Selection Process (CSP)



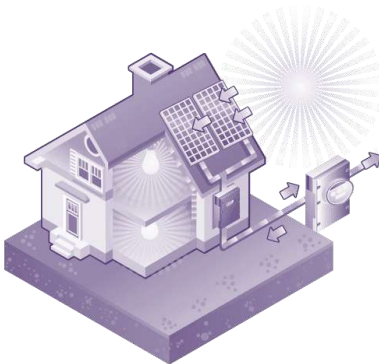
Retail Competition and Open Access (RCOA)



Renewable Portfolio Standard (RPS)



WESM



Net Metering



Resilient infrastructures

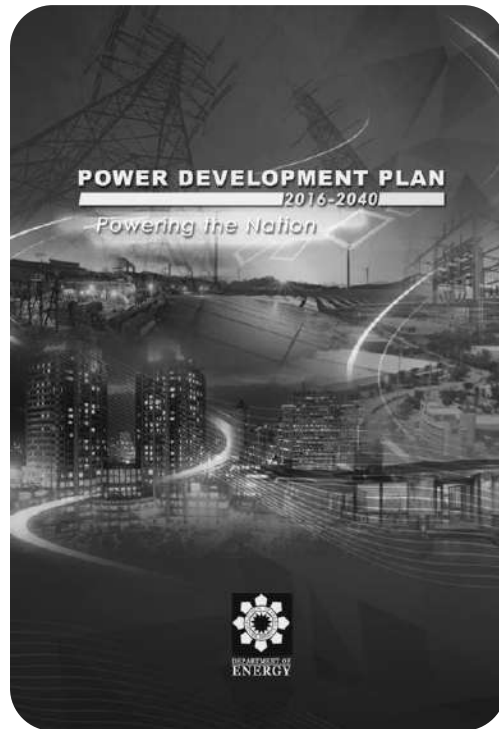


Green Energy Option Program (GEOP)

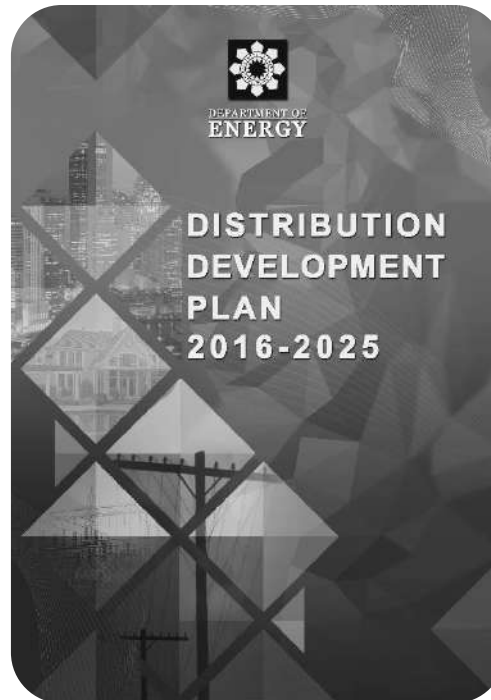




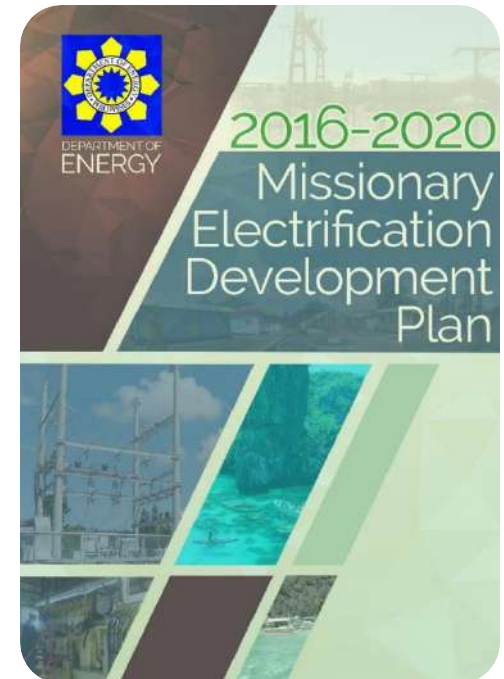
# Power-Related Development Plans



**PDP**



**DDP**

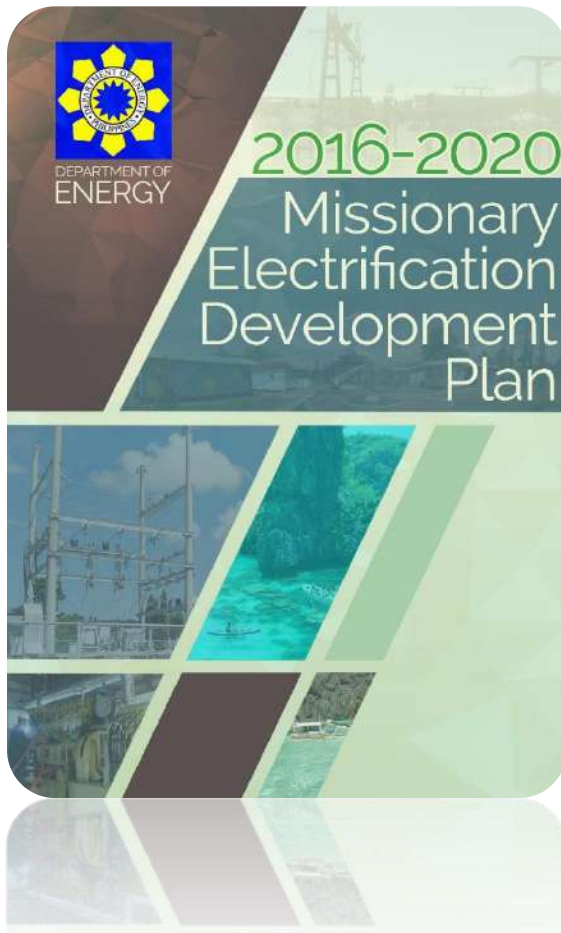


**MEDP**



# Missionary Electrification Development Plan 2016-2020

## Major Contents



Status of Missionary Electrification in the Philippines



Remote and Unviable Electrification



Demand and Supply Outlook



Plans and Programs



# Missionary Electrification Development Plan 2016-2020

## Major Contents



### Plans and Programs

- 1** Improvement of the Private Sector Participation Program
- 2** Improvement of Operations and Services in Missionary Areas
- 3** Rationalization of the Universal Charge for Missionary Electrification
- 4** Implementation of NPC Missionary Electrification Plan
- 5** Island Interconnection Programs Integration with Transmission Development Plan



# Transmission Development Plan 2016-2040



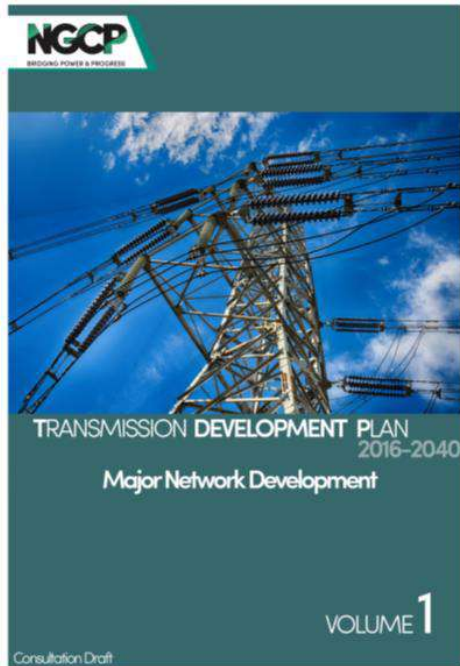
**APRIL-MAY 2018**

- NGCP Public Consultation with Luzon, Visayas and Mindanao Stakeholders



# Transmission Development Plan (Volume 1)

## Major Contents



**1** Transmission Network Development

**2** Transmission Master Plan

**3** Small Island Interconnection

**4** Ideal Locations of Power Plants

**5** Identification of Sites for Bulk Load Growth





# Presentation Outline

---



## Power-Related Development Plans



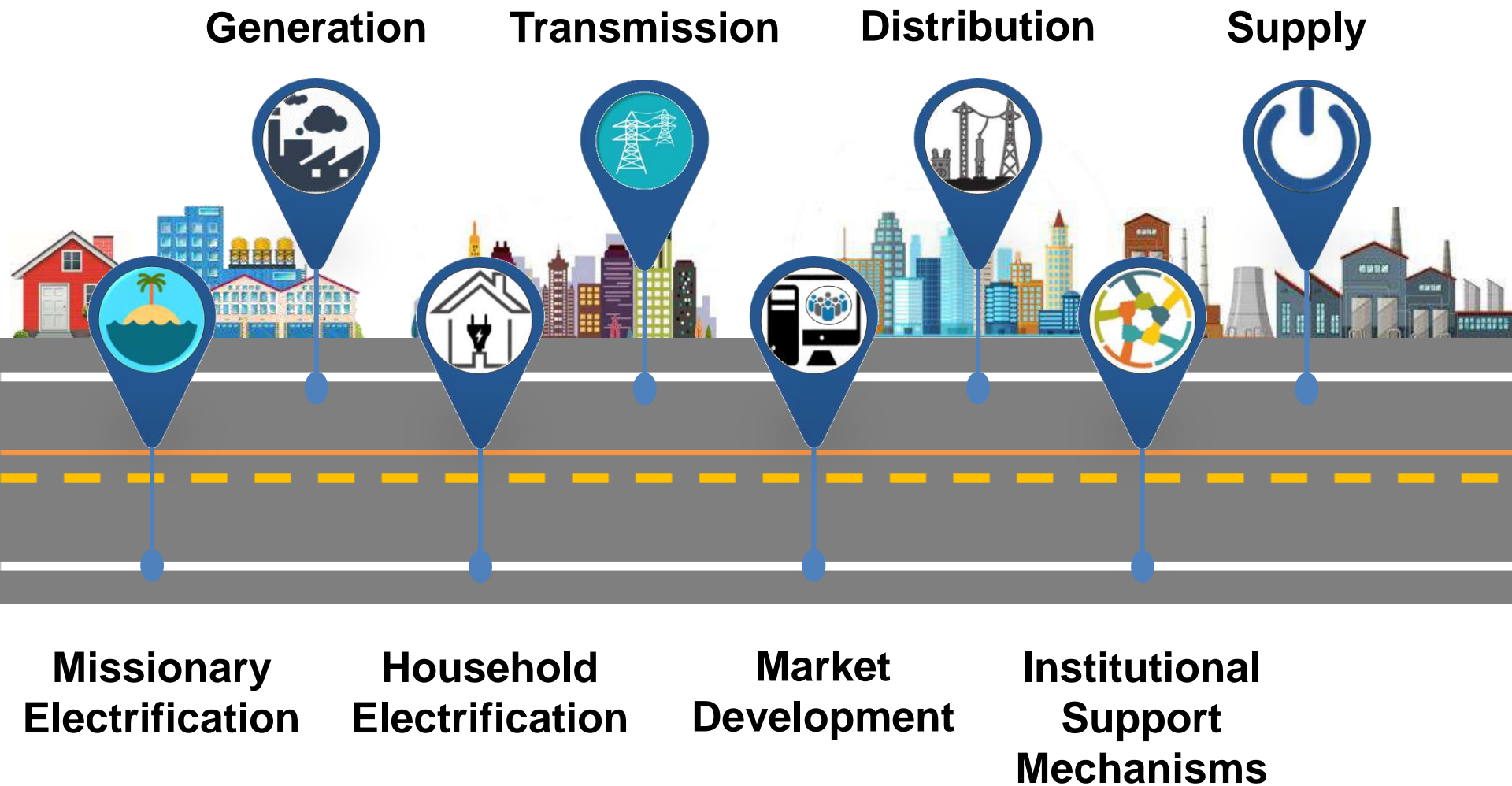
## Power Sector Roadmap Implementation Updates



## Luzon Power Grid Snapshot



# Power Sector Roadmap Implementation Updates



# Power Sector Roadmap Implementation Updates

## Generation



**1**

Executive Order No. 30

**2**

Performance Assessment and Audit

**3**

Energy Resiliency Policy

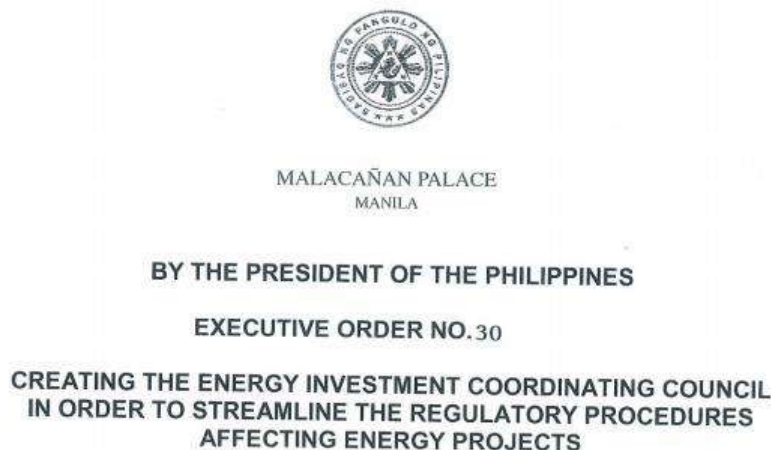
**4**

Pursuing the Entry of New and Emerging Technologies for Power Generation



# Generation Roadmap Implementation Updates

## 1 Executive Order No. 30



**E-Power Mo! Manila – 12 July 2017**

**APRIL – MAY 2018**

- Public Consultation on the IRR of EO 30 in Luzon, Visayas and Mindanao with Stakeholders



# Generation Roadmap Implementation Updates

## 2 Performance Assessment and Audit



Breakout Session 2: Power Sector

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

**Redentor E. Delola**  
Assistant Secretary, DOE

Energy Consumers and Stakeholders' Conference  
12 July 2017  
PICC, Pasay City

Department of Energy  
Powering the Nation



“

Quality is  
doing it right  
when no one is  
looking

”

- Asst. Secretary Red  
Delola, DOE

**E-Power Mo! Manila – 12 July 2017**





# Generation Roadmap Implementation Updates

## 2 Performance Assessment and Audit



**SEPTEMBER 2017**

- Focus Group Discussions in Luzon, Visayas and Mindanao with Electric Power Industry Stakeholders



**OCTOBER 2017**

- Writeshop on the Finalization of the Guidelines



**NOVEMBER 2017**

- Performance Assessment and Audit in ORMECO



**DECEMBER 2017**

- Promulgation of DOE Circular No. 2017-12-0016



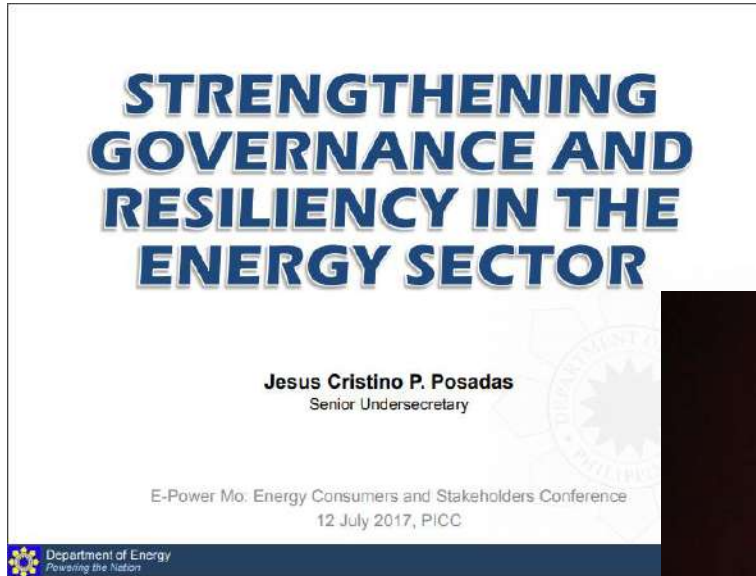
**2018**

- Development of Accreditation Guidelines for 3<sup>rd</sup> Party Independent Auditor



# Generation Roadmap Implementation Updates

## 3 Energy Resiliency Policy



**E-Power Mo! Manila – 12 July 2017**



# Generation Roadmap Implementation Updates

## 3 Energy Resiliency Policy



**AUGUST-  
SEPTEMBER 2017**

- Public Consultations in Luzon, Visayas and Mindanao with Stakeholders



**JANUARY 2018**

- Promulgation of DOE DC No.DC2018-01-0001



**JULY 2018**

- Deadline for the Submission of Resiliency Compliance Plan (RCP)\* of Energy Industry Participants and Electric Cooperatives (via NEA)



\* To be updated every three (3) years subject to compliance, monitoring



# Generation Roadmap Implementation Updates

4

Pursuing the Entry of New and Emerging Technologies for Power Generation



## Energy Storage Systems

Adoption of Expanded Energy Storage System (ESS) for Operational Improvement of the Energy Industry

**MARCH - JUNE  
2018**

- Focus Group Discussions with Attached Agencies and Electric Power Industry Stakeholders

**JUNE - JULY 2018**

- Public Consultations in Luzon, Visayas and Mindanao with Electric Power Industry Stakeholders

**2018**

- Issuance of Department Circular



# Power Sector Roadmap Implementation Updates

## Transmission



**1**

Timely Completion of Transmission Projects

**2**

Policies Towards Adequate Contracted Capacities for Reserves





# Transmission Roadmap Implementation Updates

1

## Timely Completion of Transmission Projects



Visayas-Mindanao  
Interconnection Project (2020)

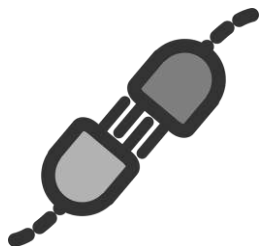
Western Route

Cebu-Zamboanga



# Transmission Roadmap Implementation Updates

## Visayas-Mindanao Interconnection Project (2020)



**OCTOBER 2017 -  
JUNE 2018**

- Route Survey
- Procurement Process

**NOVEMBER 2017 -  
MARCH 2018**

- Geological Works

**DECEMBER 2017 -  
JUNE 2020**

- ROW Acquisition

**DECEMBER 2020**

- Target Commercial Operation

Source: NGCP Mindanao-Visayas Interconnection Project Status Details



# Power Sector Roadmap Implementation Updates

## Distribution



**1** Distribution Development Plan (DDP)

**2** Competitive Selection Process (CSP)

**3** Direct Connection



# Distribution Roadmap Implementation Updates

## 1 Distribution Development Plan (DDP)



DOE Plans and Policies

Energy Storage System

Smart Grid

CSP Portal

Power Supply Procurement Plan

New DDP Form and Manual



# Distribution Roadmap Implementation Updates

## 2 Competitive Selection Process (CSP)



**DECEMBER 2017 -  
JANUARY 2018**

- Public Consultation with Luzon, Visayas and Mindanao Electric Power Industry Stakeholders in Davao

**FEBRUARY 2018**

- Promulgation of Department Circular No. DC2018-02-0003

**MARCH 2018**

- Issuance of CSP Advisory

**APRIL - JUNE 2018**

- Incorporation of Power Supply Procurement Plan (PSPP) in DDP

**2018 ONWARDS**

- Implementation of CSP



# Distribution Roadmap Implementation Updates

**3**

## Direct Connection



**MAY 2014**

- ERC endorsement to DOE of All Direct Connection Application

**NOVEMBER 2014**

- Issuance of Department Order Creating the Direct Connection Evaluation Committee

**MAY 2016**

- Promulgation of DOE House Rules Governing the Review and Evaluation of Direct Connection Applications

**JUNE 2018**

- Issuance of Department Circular Governing the Review and Evaluation of Direct Connection Applications





# Distribution Roadmap Implementation Updates

## 3 Direct Connection



**Proposed Department Circular  
GOVERNING THE  
REVIEW & EVALUATION OF  
DIRECT CONNECTION APPLICATION**

**MS. LUNINGNING G. BALTAZAR**  
*Chief*  
*Power Market Development Division (PMDD)*

24 APRIL 2018  
BAGUIO CITY



Department of Energy  
Empowering the Nation

**E-Power Mo! Baguio – 24 April 2018**



# Power Sector Roadmap Implementation Updates

## Supply



**1**

Retail Competition and Open Access



# Supply Roadmap Implementation Updates

## 1 Retail Competition and Open Access



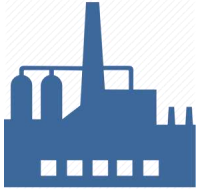
**E-Power Mo! Cebu City – 7 September 2017**



# Supply Roadmap Implementation Updates

1

## Retail Competition and Open Access



**OCTOBER -  
NOVEMBER 2017**

- Public Consultation in Luzon, Visayas and Mindanao with Stakeholders

**DECEMBER 2018**

- Promulgation of Department Circular No. DC2017-12-0013 for Contestable Customers

**DECEMBER 2018**

- Promulgation of Department Circular No. DC2017-12-0014 for Retail Electricity Suppliers

**WAY FORWARD**

- Seek Supreme Court Final Ruling on the Cases



# Power Sector Roadmap Implementation Updates

## Household Electrification



**1**

Inclusion of Indigenous People (IP) as Host Communities

**2**

Total Electrification



# Household Electrification Roadmap Implementation Updates

1

## Inclusion of Indigenous People (IP) as Host Communities



Breakout Session 4: Power Sector

**Proposed Amendment to the  
Benefits to Host Communities Program  
Rule 29(A) of EPIRA-IRR**

**Director Mario C. Marasigan, CESO III**  
OIC - EPIMB

Energy Investment Forum and Stakeholder's Conference  
**E-POWER MO!**  
03 October 2017  
Grand Regal Hotel, Davao City



Department of Energy  
Empowering the Filipino

#ePOWERmo



“We believe we should amend our issuances/legal framework in providing benefits to host communities of generating facilities to support the development of the IPs”

Director Mario C. Marasigan, CESO III  
OIC - EPIMB

October 3, 2017 | Davao City

E-POWER Mo!



**E-Power Mo! Davao – 3 October 2017**





# Household Electrification Roadmap Implementation Updates

1

## Inclusion of Indigenous People (IP) as Host Communities



**SEPTEMBER -  
NOVEMBER 2017**

- Public Consultations in Luzon, Visayas and Mindanao with Stakeholders

**FEBRUARY 2018**

- Promulgation of Department Circular No. DC2018-03-0005

**APRIL 2018  
ONWARDS**

- Ongoing Solicitation of Inputs on the Draft Administrative Operating Guidelines for the Utilization and Availment of Financial Benefits for IPs

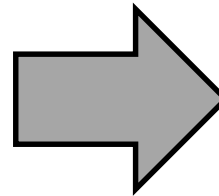


# Household Electrification Roadmap Implementation Updates

## 2 Total Electrification



Mandating the DOE to formulate comprehensive plans and programs to accelerate the electrification of unviable, unserved and underserved areas in the country and address the concerns on non-performing and ineffective Distribution Utilities in the country.



# Power Sector Roadmap Implementation Updates

## Market Development



- 1** Establishment of WESM Mindanao
- 2** Transition to the Independent Market Operator
- 3** WESM Design Enhancements / New Market Management System
- 4** Smart Grid



# Power Sector Roadmap Implementation Updates

## Market Development



**5** Causer Pays Mechanism

**6** Green Energy Option Program (GEOP)

**7** Renewable Portfolio Standards (RPS)  
On-Grid

**8** Renewable Portfolio Standards (RPS)  
Off-Grid



# Market Development Roadmap Implementation Updates

## 1 Establishment of WESM Mindanao



**MAY 2017**

- Promulgation of Department Circular No. DC2017-05-0009



**JUNE 2017**

- Launching of WESM Mindanao



**JULY 2017  
ONWARDS**

- Ongoing Trial Operations



**SEPTEMBER 2018**

- Readiness Certification by PEMC

**OCTOBER 2018**

- Target Commercial Operation



# Market Development Roadmap Implementation Updates

**2**

## Transition to the Independent Market Operator



**AUGUST 2017**

- PEMC Transition Committee

**NOVEMBER 2017**

- Market Participants' Update for Formulation of an IMO Transition Plan and Draft Department Circular

**DECEMBER 2017 -  
MARCH 2018**

- Public Consultation and Focus Group Discussions with Luzon, Visayas and Mindanao Stakeholders

**JANUARY 2018**

- Promulgation of Department Circular No. DC2018-01-0002

**APRIL 2018**

- Public Consultations and Meetings on IMO Operating Agreement

**2018**

- Appointment of the IMO





# Market Development Roadmap Implementation Updates

3

## WESM Design Enhancements / New Market Management System (NMMS)



- Preparations for the implementation of the enhanced WESM design and the commercial operations of the NMMS.



- Ongoing Trial Operations Program for the Market Operator and the trading participants from all three regions, Luzon, Visayas, and Mindanao, to familiarize and prepare themselves for the changes expected under the enhanced WESM design.

**SEPTEMBER 2018**

- Readiness Certification by PEMC

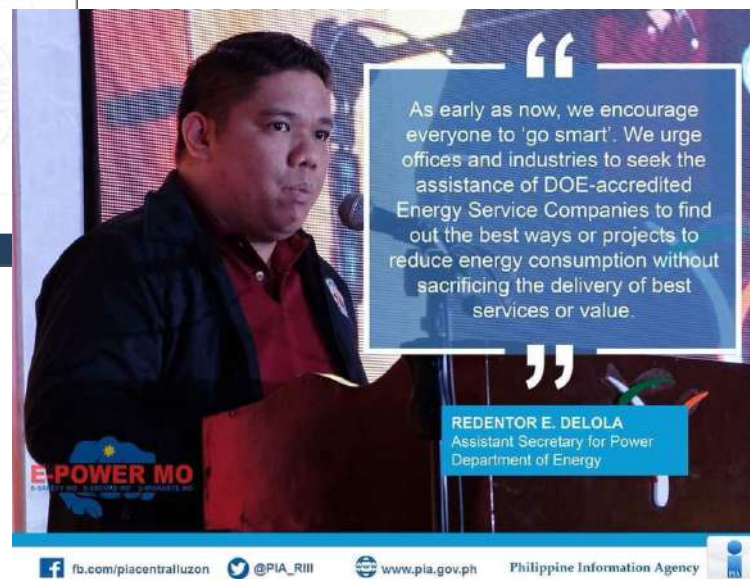
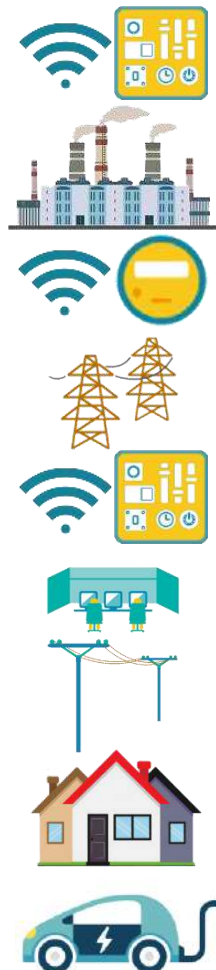
**OCTOBER 2018**

- Target Commercial Operation



# Market Development Roadmap Implementation Updates

## 4 Smart Grid



E-Power Mo! Pampanga – 29 November 2017



# Market Development Roadmap Implementation Updates

## 4 Smart Grid



**JANUARY -  
FEBRUARY 2018**

- One-on-One Workshops with MERALCO, Aboitiz Distribution, and CEPALCO



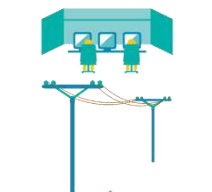
**MARCH - JUNE  
2018**

- Levelling with All the Distribution Utilities
- Drafting of Smart Grid Roadmap



**JULY - AUGUST  
2018**

- Focus Group Discussions and Writeshop for the Draft Department Circular on Smart Grid



**AUGUST -  
SEPTEMBER 2018**

- Public Consultations on the Draft Department Circular



**OCTOBER 2018**

- Issuance of Department Circular and Roadmap



# Market Development Roadmap Implementation Updates

**5**

## Causer Pays Mechanism



Policy for Effective Allocation of Ancillary Services in the Grid through Causer Pays Mechanism



**SEPTEMBER 2017  
- FEBRUARY 2018**

- Meetings on the Draft Department Circular

**FEBRUARY -  
APRIL 2018**

- Focus Group Discussions in Luzon, Visayas and Mindanao with Stakeholders

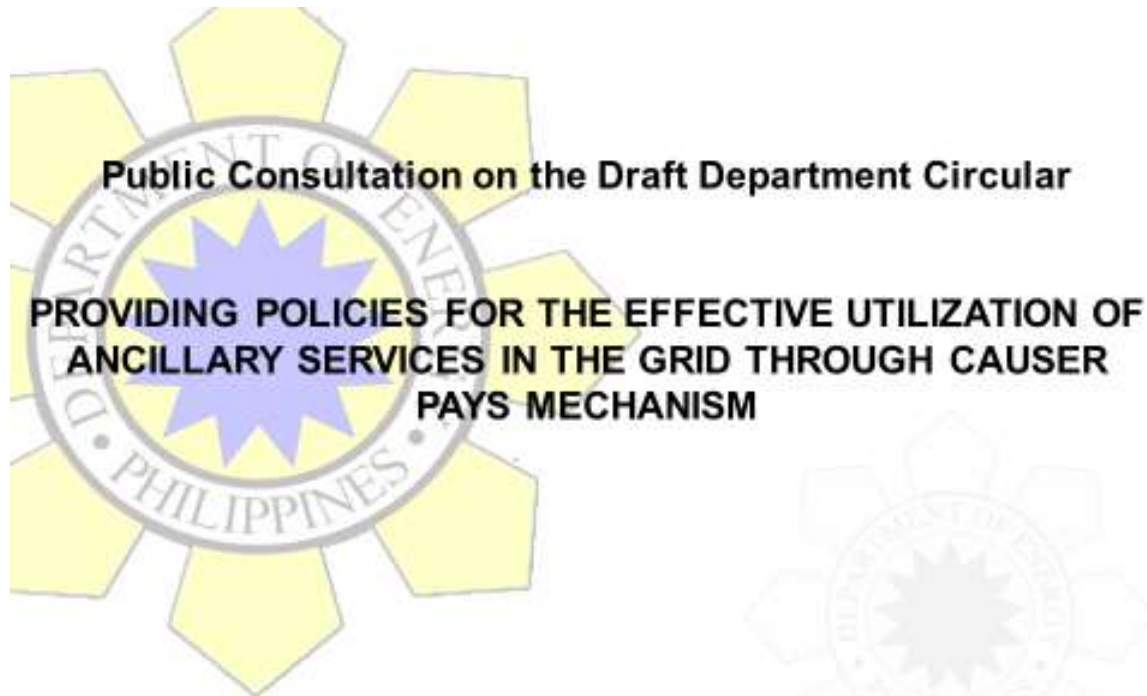
**2018**

- Public Consultations
- Target Issuance of Department Circular



# Market Development Roadmap Implementation Updates

## 5 Causer Pays Mechanism



24 April 2018

*Hotel Supreme Convention Plaza, Baguio City*



**E-Power Mo! Baguio – 24 April 2018**



# Market Development Roadmap Implementation Updates

6

## Green Energy Option Program (GEOP)



Promulgating the Rules and Guidelines Governing the Establishment of Green Energy Option Program Pursuant to Section 9 of Renewable Energy Act of 2008.



**DECEMBER 2017 -  
JANUARY 2018**

- Public Consultations with Luzon, Visayas and Mindanao Stakeholders

**2018**

- Finalization of GEOP Rules with NREB





# Market Development Roadmap Implementation Updates

**7**

## Renewable Portfolio Standards (RPS) On-Grid



Promulgating the Rules and Guidelines Governing the Establishment of the Renewable Portfolio Standards for On-Grid Areas



**DECEMBER 2017**

- Promulgation of Department Circular No. DC2017-12-0015 for On-Grid Areas

**MARCH - APRIL  
2018**

- Preparation for RPS Roll-Out

**APRIL - JUNE 2018**

- RPS Roll-Out for the Implementation of RPS On-Grid



# Market Development Roadmap Implementation Updates

8

## Renewable Portfolio Standards (RPS) Off-Grid



Promulgating the Rules and Guidelines Governing the Establishment of the Renewable Portfolio Standards for Off-Grid Areas

**OCTOBER 2017 -  
FEBRUARY 2018**

- Public Consultations in Luzon, Visayas and Mindanao with Off-Grid Stakeholders

**FEBRUARY 2018  
ONWARDS**

- Ongoing Review by the DOE

**JUNE 2018**

- Tentative Training of RPS Off-Grid Trainers

**2018**

- Roll-Out Program



# Power Sector Roadmap Implementation Updates

## Institutional Support Mechanisms



**1**

E Power Mo!

**2**

EPIRA Information, Education and  
Communication Campaigns



# Presentation Outline

---



## Power-Related Development Plans



## Power Sector Roadmap Implementation Updates

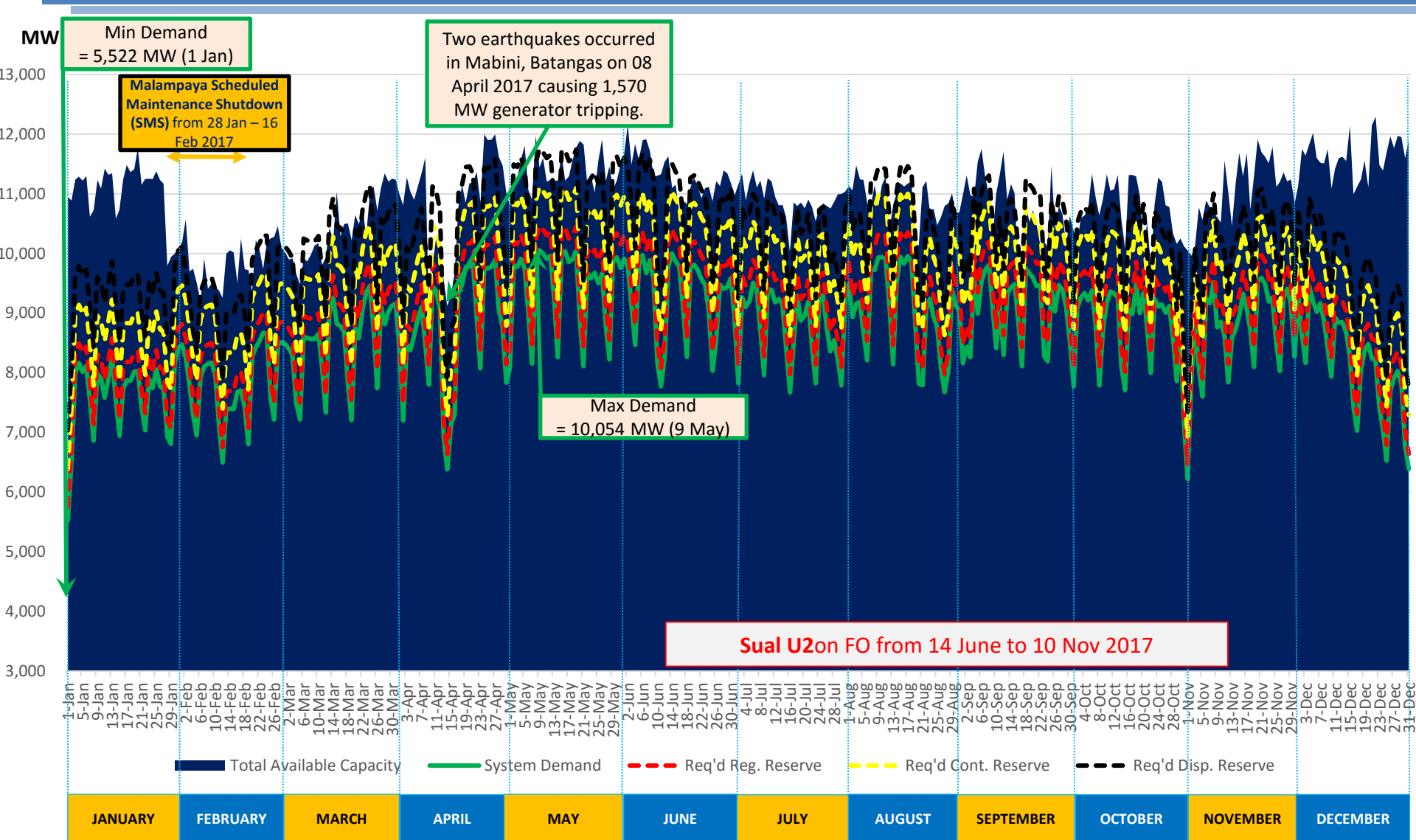


## Luzon Power Grid Snapshot



# Luzon Supply-Demand Situation

01 January to 31 December 2017



Source: National Grid Corporation of the Philippines (NGCP) Daily Operations Report



# Luzon Newly Operational Power Plants in 2017

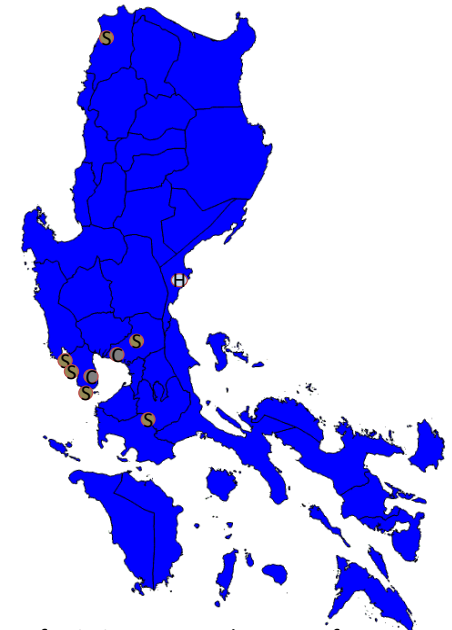
POWER PLANT FACILITY NAME	CAPACITY, MW		OWNER/ OPERATOR
	INS	DEP	
<b>LUZON</b>	<b>391.7</b>	<b>374.1</b>	
<b>COAL</b>	<b>330.0</b>	<b>324.0</b>	
SCPC U1	150.0	150.0	SMC Consolidated Power Corporation
SCPC U2	150.0	150.0	
UPPC	30.0	24.0	United Pulp & Paper Co., Inc (former own-used plant)
<b>SOLAR</b>	<b>60.9</b>	<b>49.3</b>	
MARIVELES SOLAR	18.0	12.6	Next Generation Power Technology Corporation
STA. RITA PHASE 1 SOLAR	32.3	29.3	Jobin-Sqm Inc. (JOBIN)
CW HOME DEPOT SOLAR	1.7	1.2	CW Marketing & Development Corporation (CW)
MORONG SOLAR	5.0	3.5	SPARC Solar Powered Agri-Rural Communities Corporation
SAN RAFAEL SOLAR	3.8	2.7	SPARC Solar Powered Agri-Rural Communities Corporation
SARRAT SOLAR	1.0	0.7	Bosung Solartec, Inc. (BOSUNG)
<b>HEPP</b>	<b>0.8</b>	<b>0.8</b>	
SAN LUIS	0.8	0.8	EPower Technologies Corp.



**Newly  
Operational**

**2016 1,318.8 MW\***

**2017 391.7 MW**



Source: DOE List of Existing Power Plants as of 31 December 2017

\*DOE 2016 Philippine Power Situation Report

\*Excluding Battery Energy Storage

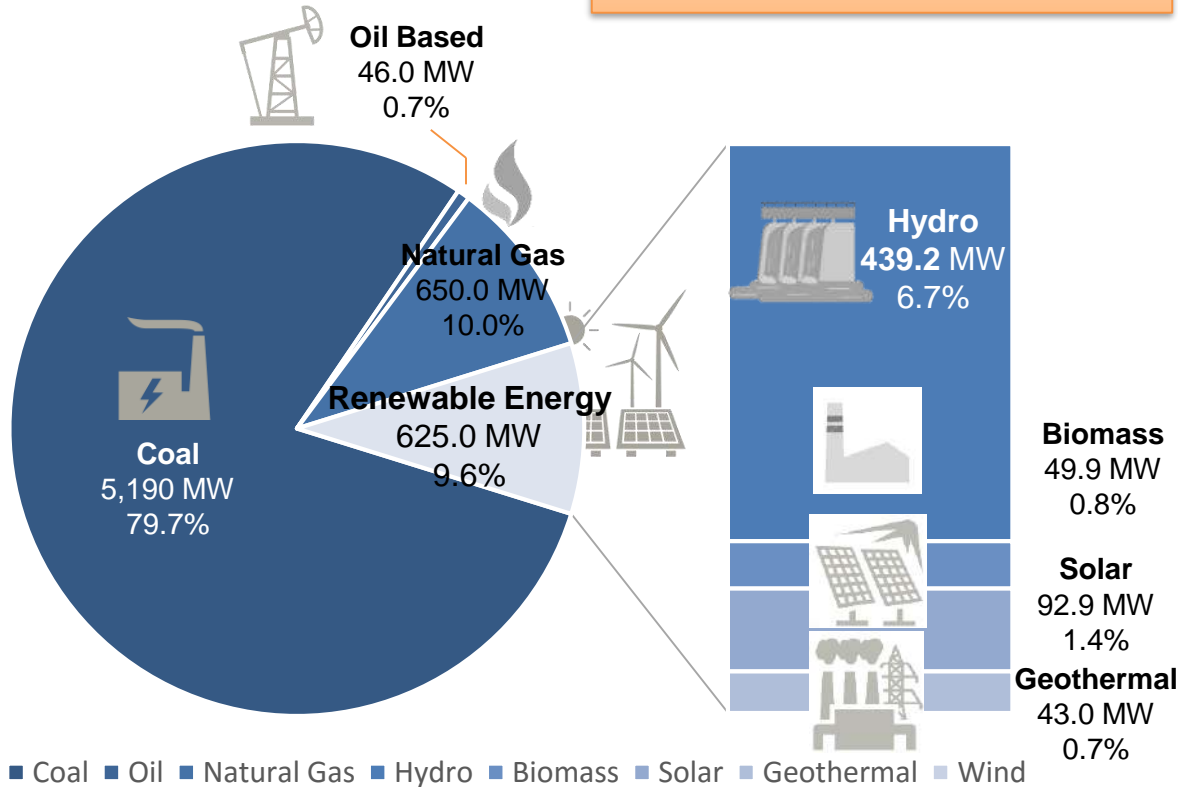


Department of Energy  
Empowering the Filipinos

# Luzon Committed Power Projects

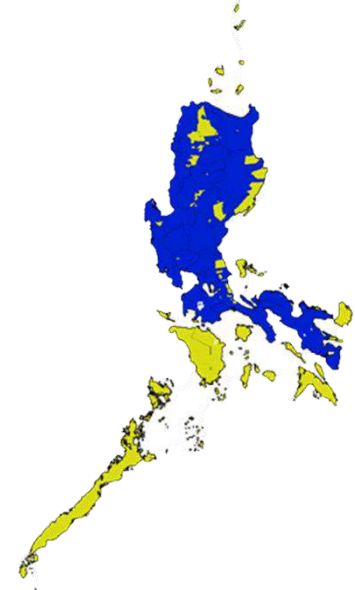
as of December 2017

**TOTAL LUZON  
COMMITTED CAPACITY =  
6,510.97 MW**



**Committed  
Capacity**

2016	3,527.92 MW*	
2017	6,510.97 MW	
	2,983.05 MW	84.6%



Source: DOE List of Private Sector-Initiated Power Projects as of 31 December 2017

\* DOE List of Private Sector-Initiated Power Projects as of 31 December 2016

\*Excluding Battery Energy Storage



Department of Energy  
Empowering the Filipinos



# Luzon Committed Power Projects

as of December 2017

**LUZON COMMITTED  
CAPACITY = 6,510.97 MW\***

Legend:

Coal	Geothermal	Biomass
Oil-based	Hydro	Wind
NatGas	Solar	BESS

670 MW GLEDC Coal Fired Power Project (2022)

10 MW AES Battery Storage (2018)

300 MW Masinloc Expansion (2019)

93 MW Sta. Rita Phase 2 Solar (2018)

1,200 MW GNPowder Dinginin  
Coal (U1:2019, U2:2020)

300 MW SMC Limay Coal (U3:2018, U4:2019)

420 MW Pagbilao Coal-Fired Power Project (2018)

12 MW Maibarara 2 Geothermal  
Power Project (2018)

600 MW Redondo Peninsula  
Energy Inc (RPEI) (2019)

32 MW Central  
Azucarera Bagasse-Fired  
Power Project (2018)

2x23MW SLP GC  
GT (2018)

650 MW EWC  
Combined Cycle Gas-  
Fired Power Plant  
(2018)

Aggregated 439 MW from 59 Hydro Projects

2 MW ACNPC WTE Biomass Power Plant Project (Phase 2: 2018)

12 MW SJCIpower Rice Husk-Fired Power Plant Project Phase 2 (2018)

5 MW Isabela La Suerte  
Rice Husk-Fired Power  
Project (2018)

500 MW San Buenaventura  
Power Ltd. (SBPL) Coal Power  
Project (2019)

600 MW Atimonan One Energy  
Coal U1 (2021)

31 MW Bacman 3 Geothermal  
Power Project (2022)

Source: DOE List of Private Sector-Initiated  
Power Projects as of 31 December 2017

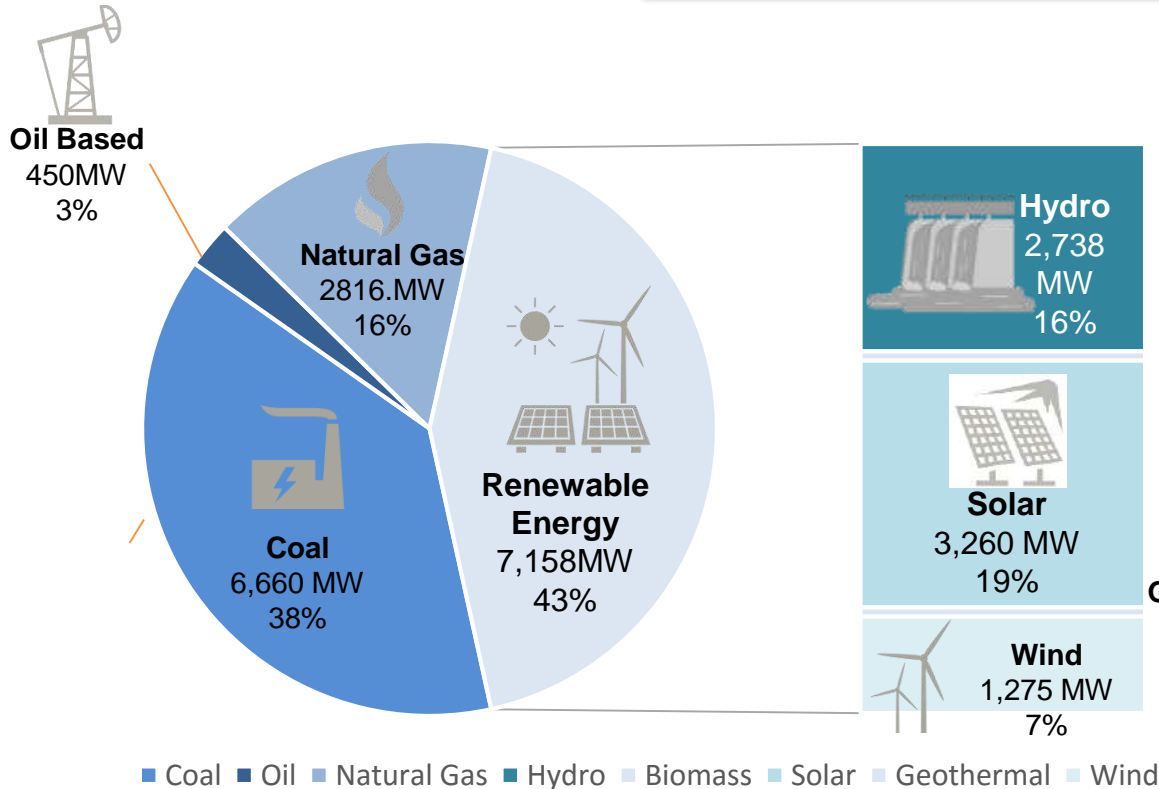
\*Excluding Battery Energy Storage



# Luzon Indicative Power Projects

as of December 2017

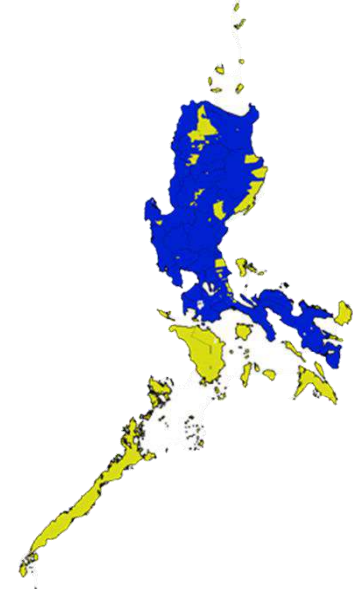
**TOTAL LUZON  
INDICATIVE CAPACITY =  
17,443.75 MW**



**Indicative  
Capacity**

Year	Indicative Capacity	Change
2016	12,075.5 MW*	
2017	17,443.7 MW	44.5%

↑

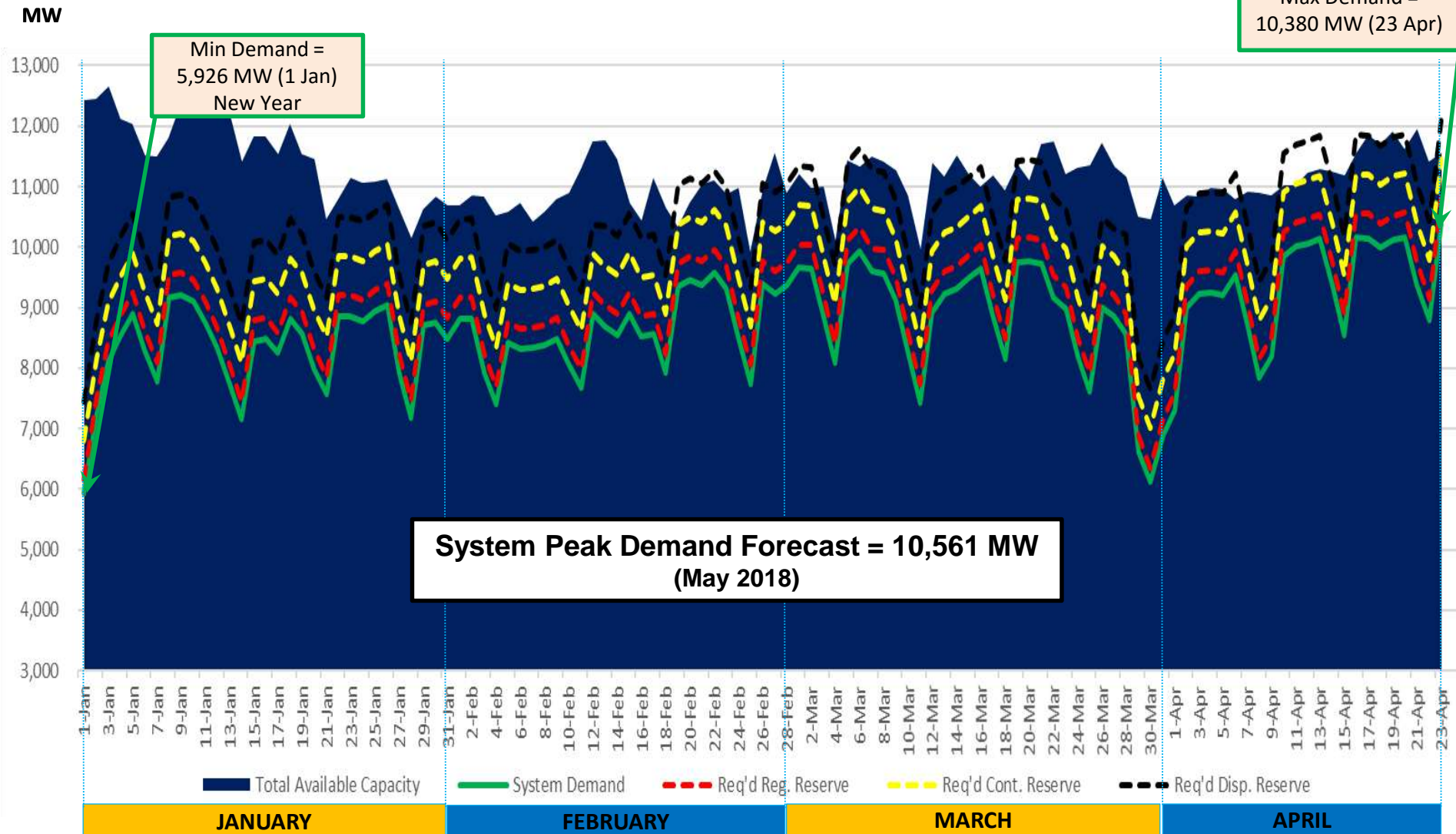


Source: DOE List of Private Sector-Initiated Power Projects as of 31 December 2017  
 \* DOE List of Private Sector-Initiated Power Projects as of 31 December 2016



# Luzon Supply-Demand Situation

01 January to 23 April 2018



Source: National Grid Corporation of the Philippines (NGCP) Daily Operations Report



# Measures to Address Increasing Demand

---



Close Coordination with Electric Power Industry Stakeholders in Monitoring the Supply-Demand Situation



Aggressive Information, Education and Communication (IEC) Campaigns on Energy Efficiency





# Thank You!



(+632) 840-2120



[ixconde@gmail.com](mailto:ixconde@gmail.com)



[www.doe.gov.ph](http://www.doe.gov.ph)



<https://web.facebook.com/doe.gov.ph>



@doe\_ph

