

# Energy Investment Opportunities

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# Presentation Outline

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- ❑ Investment Opportunities
- ❑ Energy Situationer
- ❑ Policy Initiatives
- ❑ Enabling Laws for Investors



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# Investment Opportunities



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# Upstream Oil & Gas and Coal



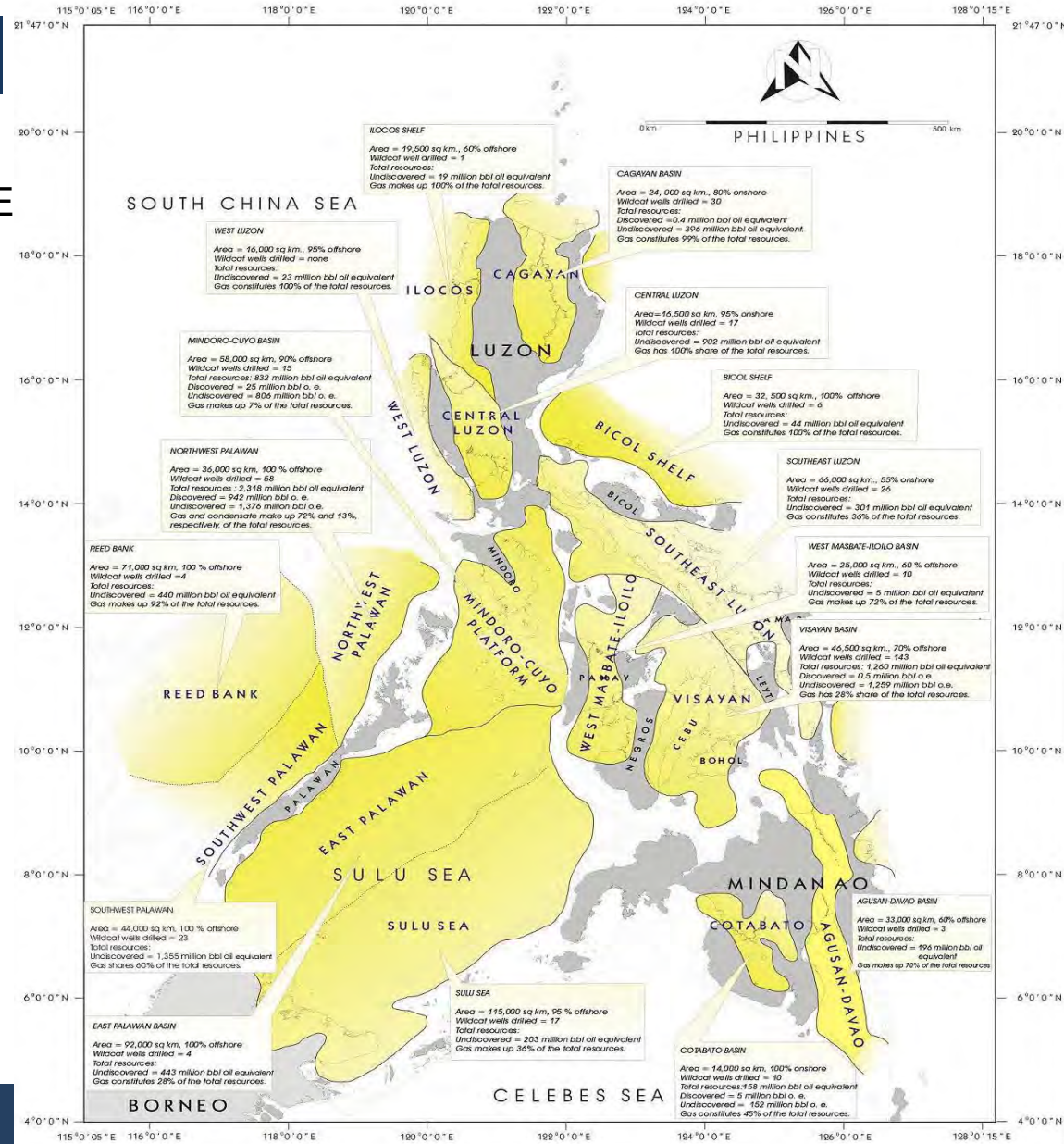
# Upstream Oil & Gas

## Philippine Sedimentary Basins

Total area: 709,000 sq km

Combined Potential: 4,777 MMBFOE

1. Ilocos Shelf
2. Cagayan Basin
3. Central Luzon Basin
4. Bicol Shelf
5. Southeast Luzon Basin
6. Mindoro-Cuyo Basin
7. West Masbate-Iloilo Basin
8. Visayan Basin
9. Agusan-Davao Basin
10. Cotabato Basin
11. Sulu Sea Basin
12. East Palawan Basin
13. Southwest Palawan Basin
14. Reed Bank Basin
15. Northwest Palawan Basin
16. West Luzon Trough



# Upstream Oil & Gas

## Sedimentary Basin in Visayas

### West Masbate – Iloilo Basin

Area: 25,000 Sq. Km. 60% Offshore

Wildcat Wells Drilled: 10

Total Resources:

Undiscovered: 5 million BBL equivalent

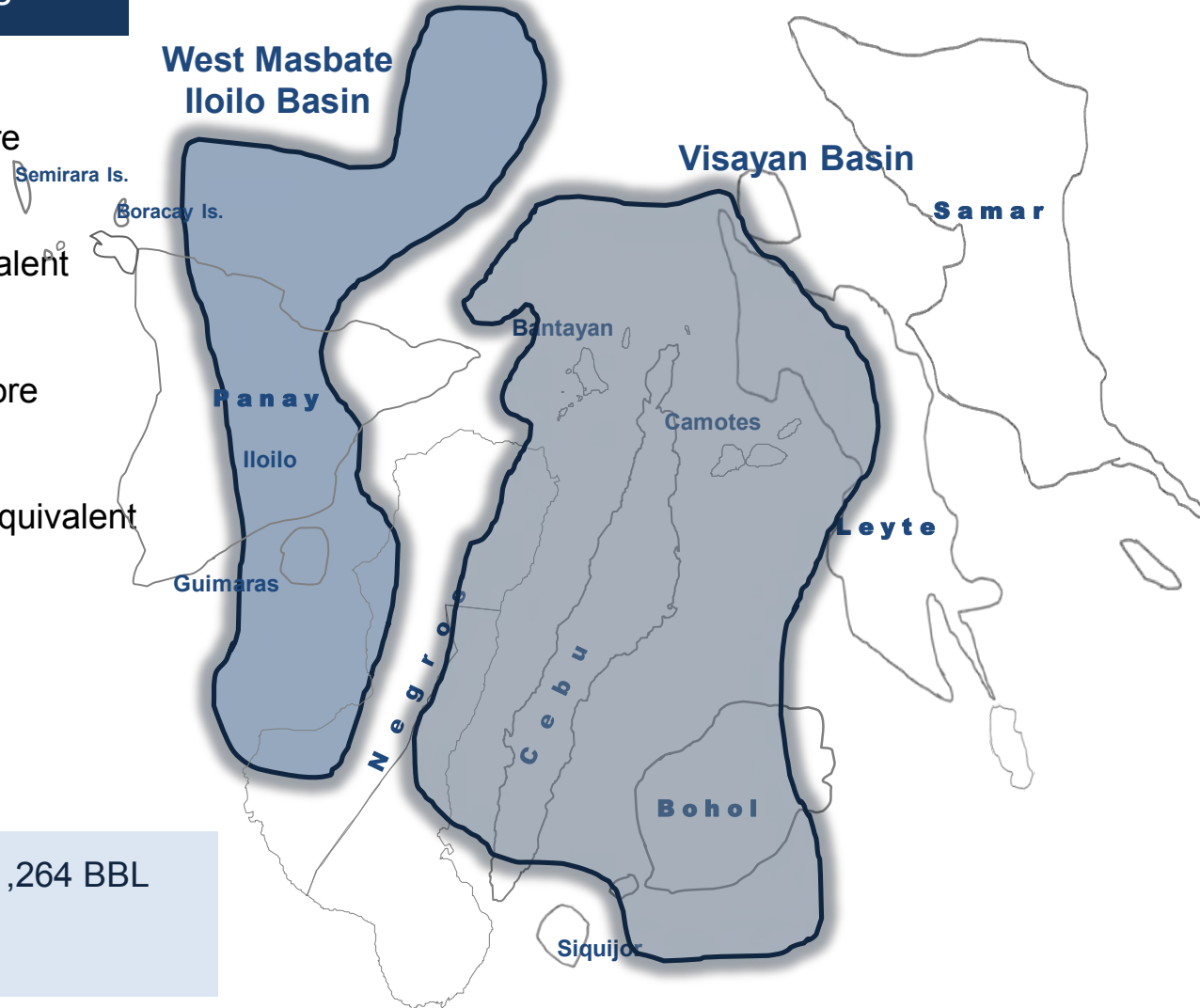
### Visayan Basin

Area: 46,500 Sq. Kms. 70% Offshore

Wildcat Wells Drilled: 145

Total Resources

Undiscovered: 1,259 million BBL equivalent



Total Resources Undiscovered = 1,264 BBL

Equivalent

Total Area = 71,500 Sq. Kms.



# Upstream Oil, Gas and Coal

## PRODUCTION (2017-1H 2018)



OIL  
**2.26** MMB



GAS  
**213.22** BCF



COAL  
**20.52** MMT

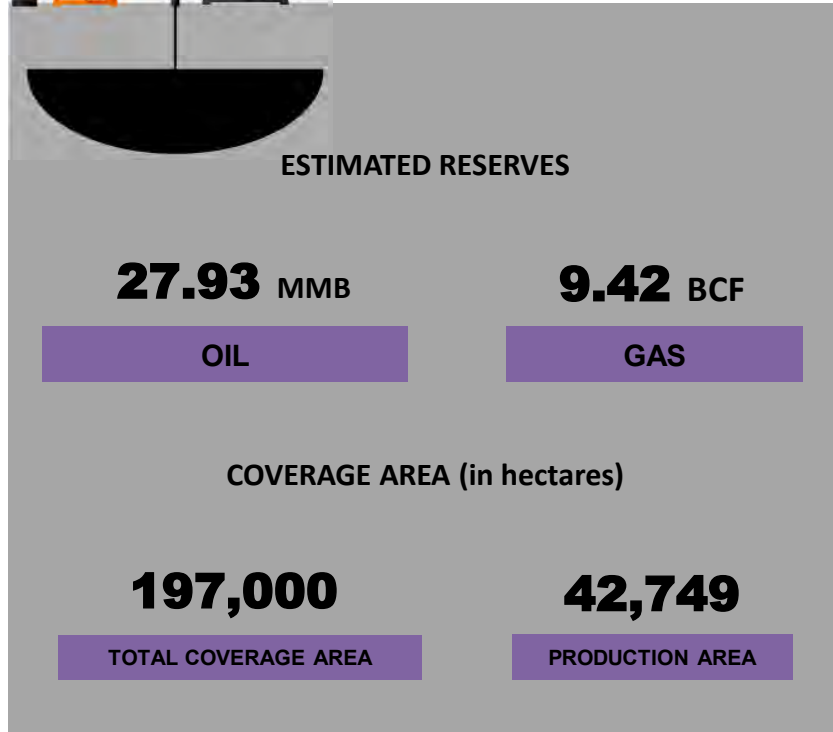


CONDENSATE  
**5.92** MMB

## NEW OIL AND GAS FIELD DISCOVERY



ALEGRIA, CEBU



# Upstream Coal and Oil & Gas

## Petroleum Service Contracts (SCs) Exploration & Development

### **23 Active Service Contracts** (as of December 2018)

- 7 SCs in the Production Stage
- 16 SCs in the Exploration Stage  
(8 SCs under Force Majeure, 3 SCs under Technical Moratorium)

## Coal Operating Contracts (COCs) Exploration & Development

### **57 Active Coal Operating Contracts** (as of March 2019)

- 26 COCs in the Exploration Stage
- 31 COCs in the Development and Production Stage

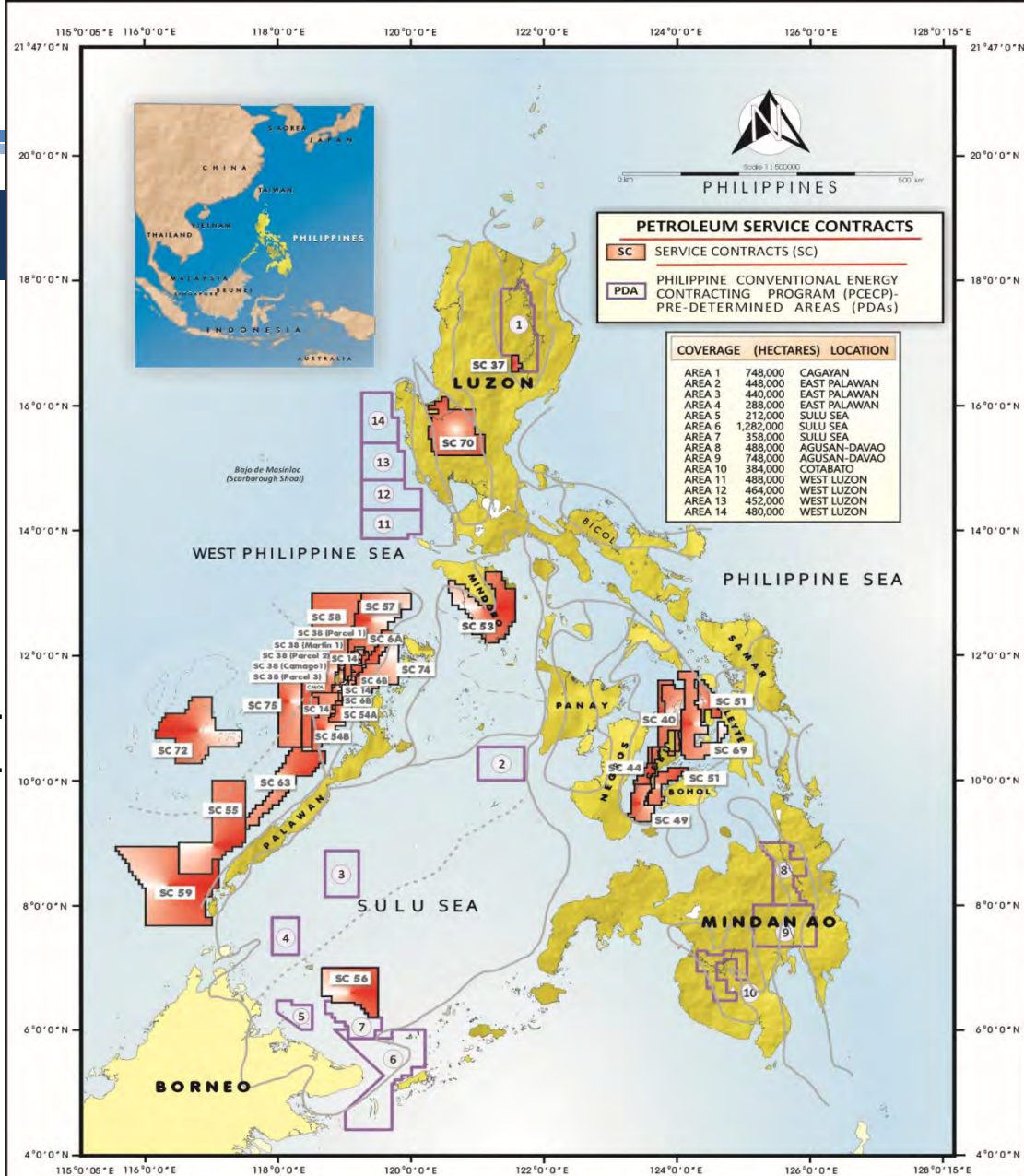




# Upstream Oil & Gas

## 2018 PCECP Areas for Offer

1. Cagayan – 748,000 has.
2. East Palawan – 448,000 has.
3. East Palawan – 440,000 has.
4. East Palawan – 288,000 has.
5. Sulu Sea – 212,331 has.
6. Sulu Sea – 1,282,335 has.
7. Sulu Sea – 358,000 has.
8. Agusan – Davao – 488,000 has.
9. Agusan – Davao – 748,000 has.
10. Cotabato – 384,000 has.
11. West Luzon – 488,000 has.
12. West Luzon – 464,000 has.
13. West Luzon – 452,000 has.
14. West Luzon – 480,000 has.



# Upstream Coal

## Summary of Regional Coal Reserves (in Million Metric Tons)

<b>QUEZON</b>
Resource Potential - 2.00
In-situ Reserves - 0.09

<b>MINDORO</b>
Resource Potential - 100.00
In-situ Reserves - 1.44

<b>SEMIRARA</b>
Resource Potential - 550.00
In-situ Reserves - 96.19

<b>NEGROS</b>
Resource Potential - 4.50
In-situ Reserves - 2.01

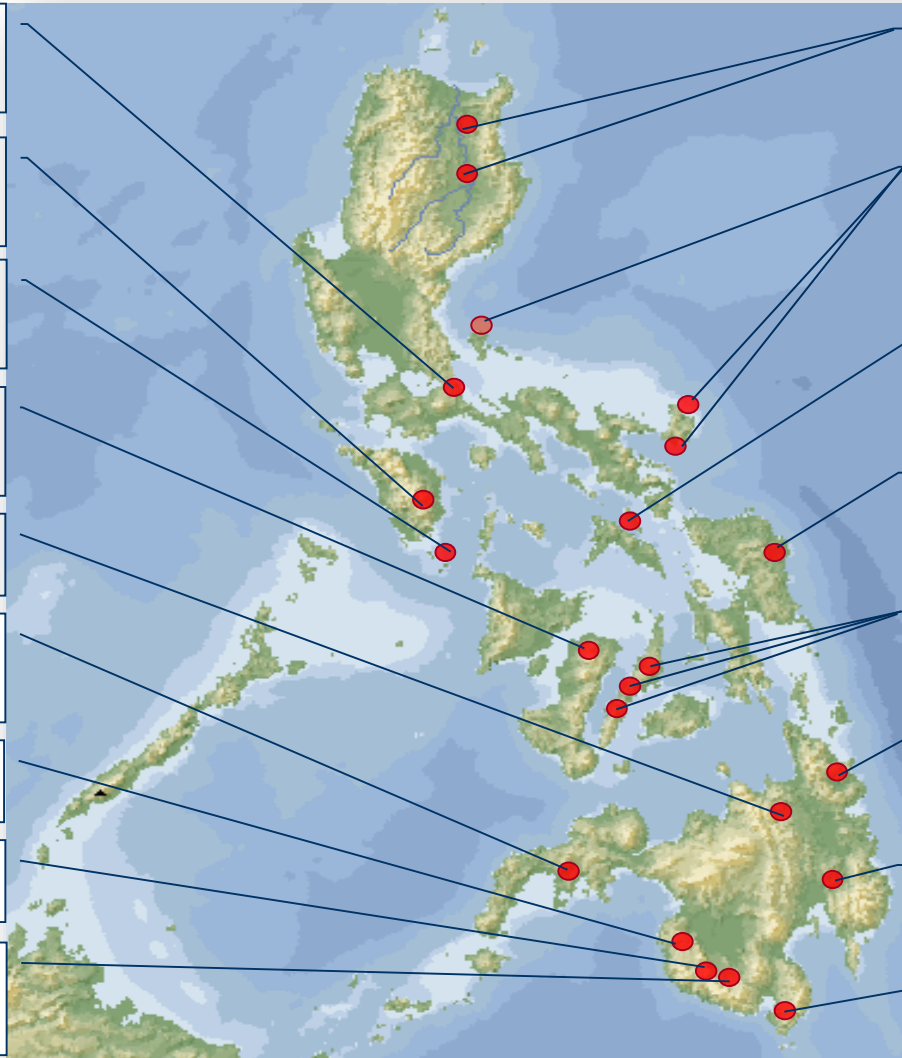
<b>BUKIDNON</b>
Resource Potential - 50.00

<b>ZAMBOANGA</b>
Resource Potential - 45.00
In-situ Reserves - 38.05

<b>MAGUINDANAO</b>
Resource Potential - 108.00

<b>SULTAN KUDARAT</b>
Resource Potential - 300.30

<b>SOUTH COTABATO</b>
Resource Potential - 230.40
In-situ Reserves - 81.07



<b>CAGAYAN VALLEY</b>
Resource Potential - 336.00
In-situ Reserves - 82.57

<b>BATAN-POLILLO-CATANDUANES</b>
Resource Potential - 17.00
In-situ Reserves - 6.77

<b>MASBATE</b>
Resource Potential - 2.50
In-situ Reserves - 0.07

<b>SAMAR</b>
Resource Potential - 27.00
In-situ Reserves - 8.59

<b>CEBU</b>
Resource Potential - 165.00
In-situ Reserves - 11.84

<b>SURIGAO</b>
Resource Potential - 209.00
In-situ Reserves - 69.73

<b>DAVAO</b>
Resource Potential - 100.00
In-situ Reserves - 2.37

<b>SARANGANI</b>
Resource Potential - 120.00



# Upstream Coal

## Areas for Investments in Coal

- Setting up of coal preparation plants
- Expansion of production of volumes of higher rank Philippine Coals
- Putting up of coal-fired power plants using Clean Coal Technologies
- Putting up of mine-mouth power plants
- Exploration of the Philippine Coal Basins and development of local coals

### Coal Basins in Visayas:

#### Semirara

Resource Potential: 550 million MT  
In-situ Reserves: 96.19 million MT

#### Negros

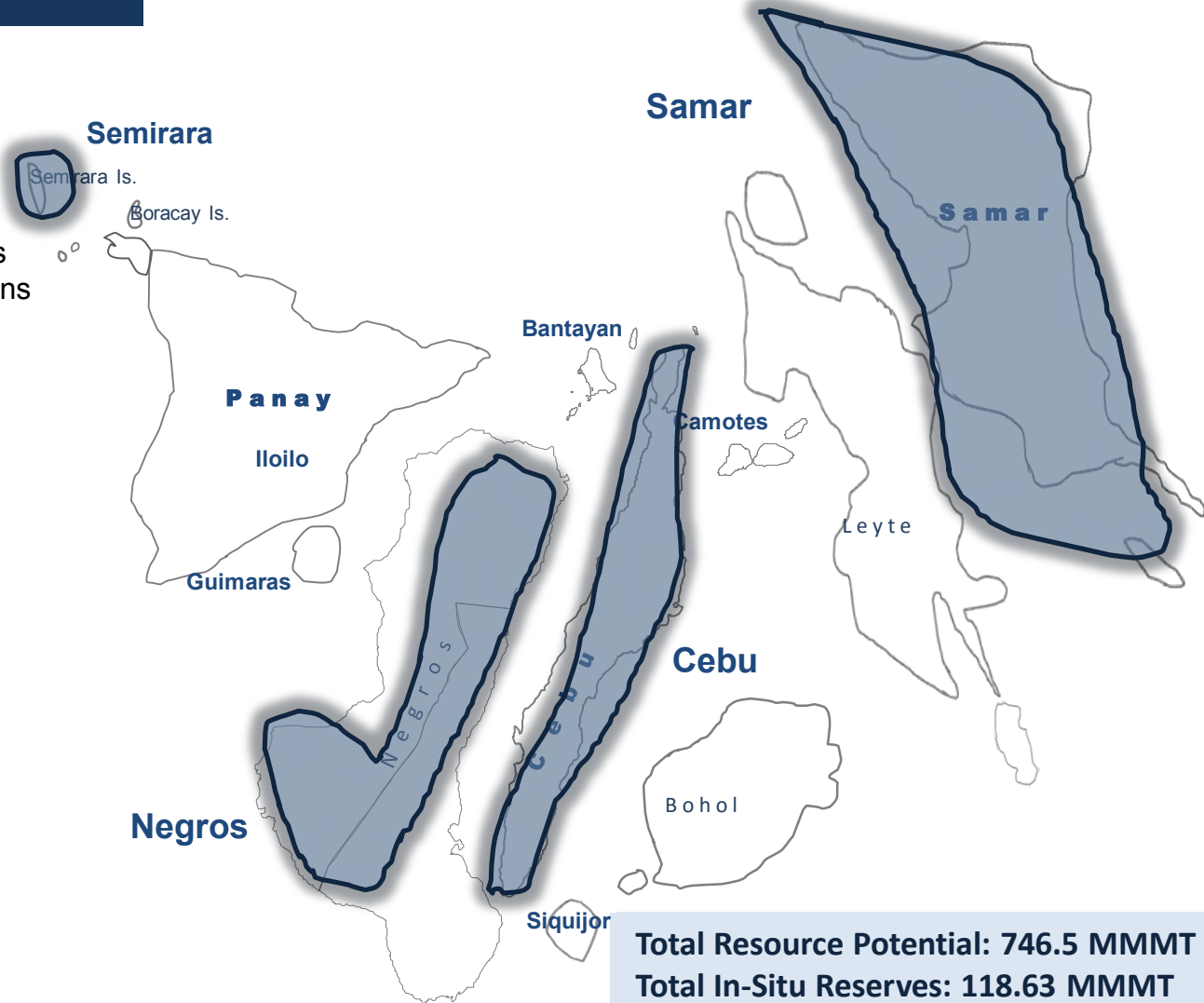
Resource Potential: 4.50 million MT  
In-situ Reserves: 2.01 million MT

#### Cebu

Resource Potential: 165 million MT  
In-Situ Reserves: 11.84 million MT

#### Samar

Resource Potential: 27 million MT  
In-Situ Reserves: 8.59 million MT





# Renewable Energy



# Renewable Energy

## National Renewable Energy Program

Renewable Energy Targets, 2010 - 2030		
Sector	Target Additional Capacity	Target Year
Biomass	277 MW	2015
Wind	2,345 MW	2022
Hydropower	5,398 MW	2023
Ocean Power	75 MW	2025
Geothermal	1,495 MW	2030
Solar	284 MW	2030
<b>Total</b>	<b>9,874 MW</b>	



# Renewable Energy

## Renewable Energy Projects in the Philippines

RESOURCES	AWARDED PROJECTS				INSTALLED CAPACITY (MW)	
	Grid-Use	Own-Use	Grid-Use (MW)	Own-Use (MW)	Grid-Use	Own-Use
Hydro Power	455		13,445.16		975.79*	
Ocean Energy	7		26.00			
Geothermal	40		555.00**		1,906.19	
Wind	64	1	2,381.50		426.90	0.006
Solar	216	16	6,512.12	4.286	925.34	3.218
Biomass	57	24	334.17	16.77	449.01	128.16
<b>Sub-Total</b>	<b>839</b>	<b>41</b>	<b>23,260.17</b>	<b>21.056</b>	<b>4,683.23</b>	<b>131.38</b>
<b>TOTAL</b>	<b>880</b>		<b>23,281.23</b>		<b>4,814.61</b>	

As of March 2018

\* excluding 49 installed projects with 2,643.68MW capacity under RA 7156, CA 120, PD 1645, RA 3601 & Own-Use

\*\* excluding 1 potential project with 20MW capacity under PD 1442.



# Renewable Energy

## Policies to Promote Renewable Energy

- **Net-Metering for RE**

A Renewable Energy Policy Mechanism which shall provide consumers to produce its own electricity requirement with maximum capacity of 100 kW.

- **RE Portfolio Standards (On-Grid and Off-Grid)**

Market based policy that requires the mandated electricity industry participants to source an agreed portion of their supply from eligible RE Resources

- **Must and Priority Dispatch for Variable REs**

DOE Circular No. DC2015-03-0001 dated 20 March 2015 promulgated the implementation framework

- **Renewable Energy Market (REM)**

Venue for trading of Renewable Energy Certificates (RE Certificates)

- **Green Energy Option**

Mechanism to provide end-users the option to choose RE as their sources of energy



# Energy Trilemma Index

## SUSTAINABILITY

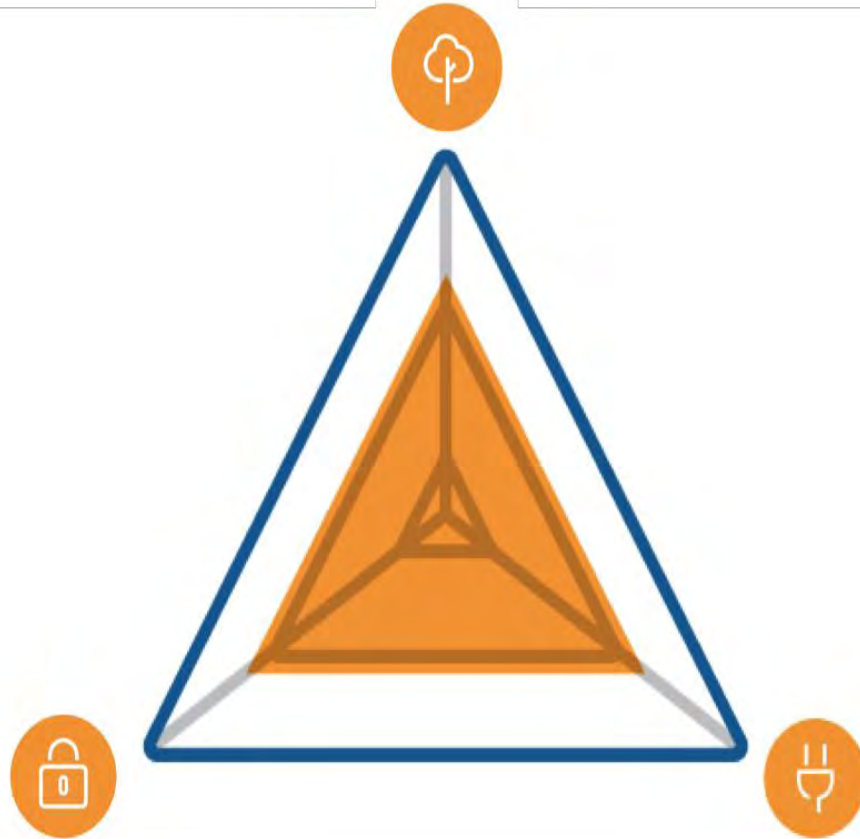
1<sup>ST</sup> in the World

## SECURITY

70<sup>TH</sup> in the World

## EQUITY

96<sup>TH</sup> in the World







# Power Sector

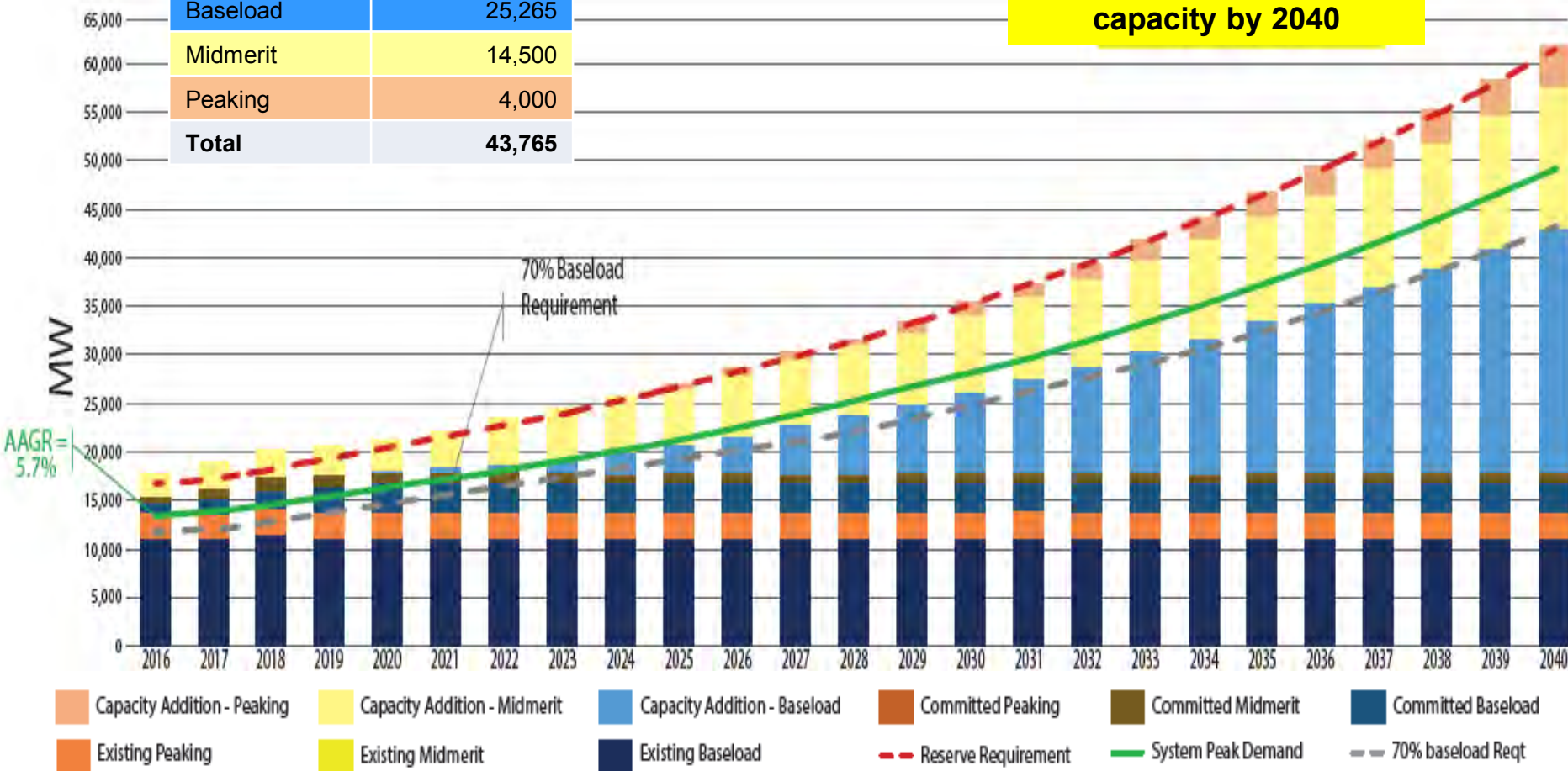


# Philippines Demand and Supply Outlook 2016-2040

## Philippines Demand and Supply Outlook, 2016-2040

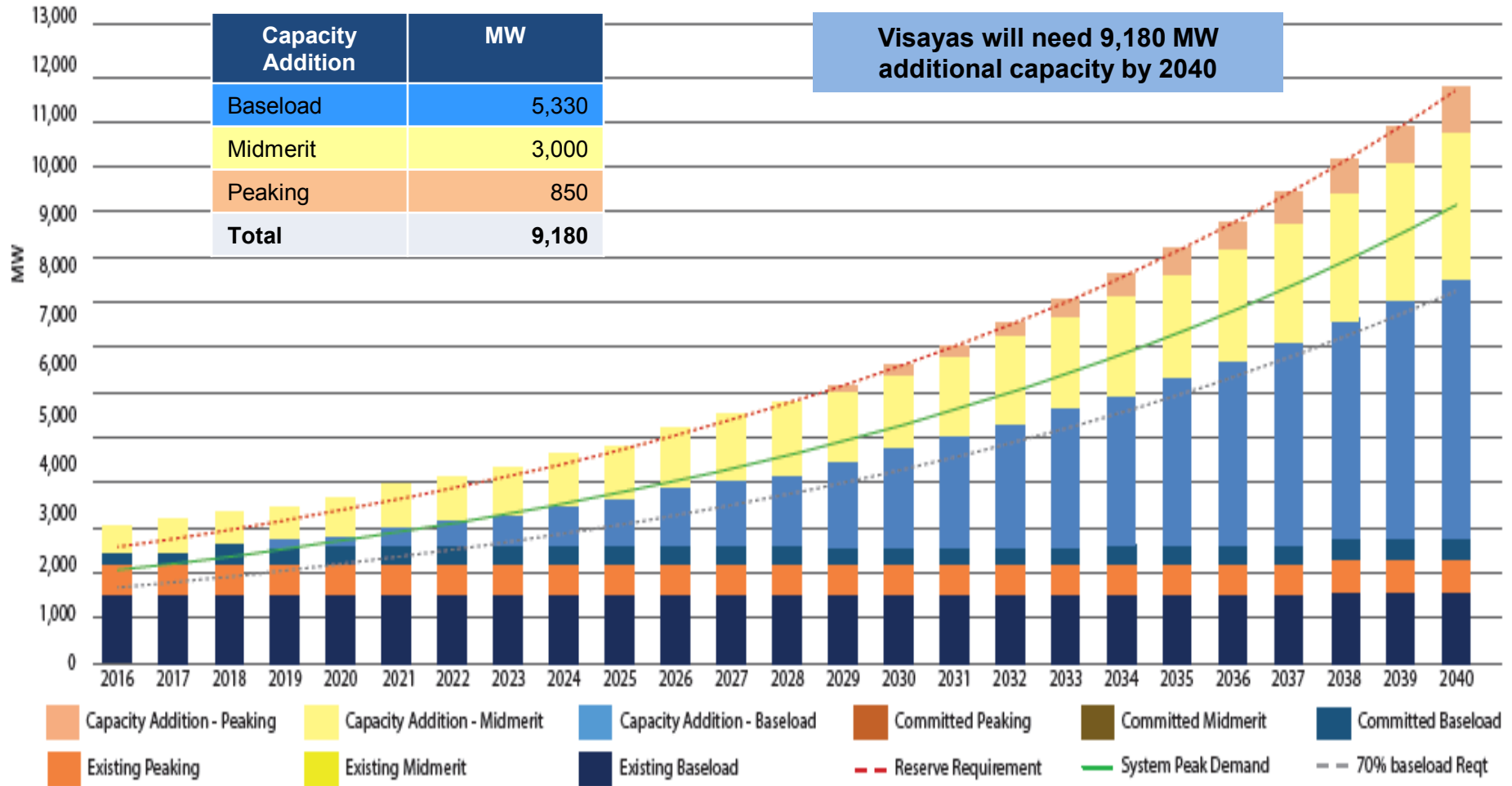
Capacity Addition	MW
Baseload	25,265
Midmerit	14,500
Peaking	4,000
<b>Total</b>	<b>43,765</b>

**Philippines will need 43,765 MW additional capacity by 2040**



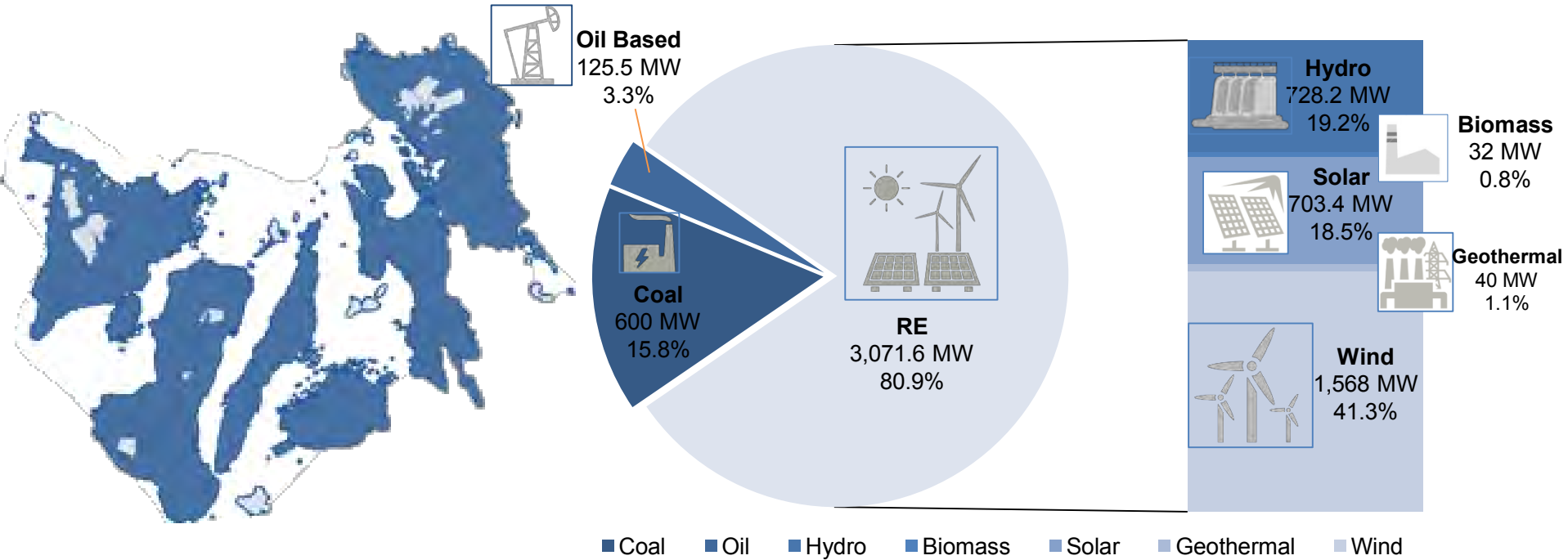
# Visayas Power Development Plan to 2040

## Visayas Demand and Supply Outlook, 2016-2040



# Visayas Indicative Power Projects

**TOTAL VISAYAS INDICATIVE CAPACITY = 3,797.1 MW**



# Visayas Grid Committed Power Projects, 784.7 MW

Name of the Project	Project Proponent	Location	Rated Capacity (MW)	Target Commercial Operation
<b>COAL</b>			<b>435.0</b>	
Therma Visayas Energy Project***	Therma Visayas Inc.	Brgy. Bato, Toledo City, Cebu	300.00	U1: May 2019 U2: 2019
Concepcion Coal-fired Power Plant Unit 2	Palm Thermal Consolidated Holdings Corp.	Brgy. Nipa, Concepcion, Iloilo	135.00	2019
<b>OIL-BASED</b>			<b>70.0</b>	
Modular Diesel Ancillary Service Power Plant	Isabel Ancillary Services Co. Ltd. (Formerly Marubeni Diesel Genset Facility)	Isabel, Leyte	70	Aug 2019
<b>HYDRO</b>			<b>23.1</b>	
Igbulo (Bais) Hydroelectric Power Project	Century Peak Energy Corporation	Igbaras, Iloilo	5.1	Dec 2019
Timbaban	Oriental Energy and Power Generation Corporation	Madalag, Aklan	18.0	Dec 2019
<b>GEOHERMAL</b>			<b>50.0</b>	
Biliran Geothermal Plant Project Phase 1	Biliran Geothermal Incorporated	Biliran, Biliran	50.00	U1: Jul 2021 U2: Sep 2023 U3: Mar 2024 U4: Jan 2025 U5: Oct 2025 U6: Jun 2026

\*\*\* on-going testing and commissioning    <sup>b</sup> Updated from proponent's submission

As of 31 March 2019



# Visayas Grid Committed Power Projects, 784.7 MW

Name of the Project	Project Proponent	Location	Rated Capacity (MW)	Target Commercial Operation
<b>BIOMASS</b>			<b>206.6</b>	
VMC Cogeneration Power Plant Project	Victorias Milling Company, Inc.	Victoria, Negros Occidental	40.0	2019
SCBI Multi-Feedstock Biomass Power Plant Project	San Carlos Biopower, Inc.	Negros Occidental	20.0	2019
HPC Cogeneration Power Plant Project	Hawaiian-Philippine Company	Negros Occidental	20.58	2019
BISCOM Cogeneration Power Plant Project	BISCOM, Inc.	Binalbagan, Negros Occidental	48.0	Jun 2019
Bais Bagasse-Fired Cogeneration Power Plant Project	Central Azucarera Don Pedro	Calasagan, Bais City, Negros Occidental	25.0	Jun 2019
Biomass Power Plant Project	HDJ Bayawan Agri-Venture Corporation	Himamaylan City, Negros Occidental	3.0	Sep 2019
Biomass Power Plant Project	North Negros Biopower, Inc.	Manapla, Negros Occidental	25.0	Dec 2019
SNBI Cane trash-Fired Biomass Power Plant Project	South Negros BioPower, Inc.	Negros Occidental	25.0	Dec 2019
<b>Total</b>			<b>784.7</b>	

\*\*\* on-going testing and commissioning    <sup>b</sup> Updated from proponent's submission

As of 31 March 2019



# Visayas Grid Indicative Power Projects, 3,797.1 MW

Name of the Project	Project Proponent	Location	Rated Capacity (MW)	Target Commissioning
<b>Coal</b>			<b>600.0</b>	
SMC Loboc Malabuyoc Coal-Fired Power Plant Project	SMC Global Power Holdings Corp.	Mactan, Cebu	300.0	TBD
SMC Global Combined Cycle Gas Turbine Project	SMC Global Power Holdings Corp.	San Carlos, Negros Occidental	300.0	TBD
<b>Solar</b>			<b>703.4</b>	
Ceko Solar PV Project (Daanbantayan Solar PV Power)	CEKO Solar Farm Systems Corp.	Brgy. Tominjao, Daan Bantayan, Cebu	100	Apr 2019
Silay Phase II Solar Power Project	Silay Solar Power Inc.	Silay City, Negros Occidental	10	Apr 2019
Bogo V Solar Power Project	Sun Premier Bogo Philippine Corporation	Bogo , Cebu	16.7	May 2020
Bogo 3 Solar Power Plant	Sun Premier Bogo Philippine Corporation	Bogo, Cebu	15	May 2020
Sunpalo Solar Power Plant	Sunpalo Solar Energy, Inc.	San Miguel, Leyte	100	Sep 2020
Grid Tied Solar Farm	E & P Green Energy, Inc.	Biliran, Blliran	25	TBD
Tigbauan Solar Power Project	Solexar Energy International, Inc.	Tigbauan, Iloilo	34.3	TBD
Victorias Solar Power Project	VictoriaSolar Energy Corp.	Brgy. XII, Victorias City, Negros Occidental	30.6	TBD
Medellin Solar Power Plant	Solar Philippines, Inc.	Medellin, Cebu	300	TBD
Puente Al Sol Solar Power Plant	Puente Al Sol, Inc.	Cadiz City, Negros Occidental	70	TBD
Roxas City Solar Power Project <sup>1</sup>	Solar Philippines Commercial Rooftop Projects, Inc.	Roxas City, Capiz	0.7	TBD
Gaisano Iloilo Solar Rooftop Project <sup>1</sup>	EDC Siklab Power Corporation	Iloilo City, Iloilo	1.03	TBD

TBD – to be determined

<sup>b</sup> Updated from proponent's submission

As of 31 March 2019



# Visayas Grid Indicative Power Projects, 3,797.1 MW

Name of the Project	Project Proponent	Location	Rated Capacity (MW)	Target Commissioning
<b>HYDRO</b>			<b>728.2</b>	
Loboc Hydroelectric Power Project	Sta. Clara Power Corporation	Loboc, Bohol	1.2	Dec 2020
Aklan Pumped-Storage Hydropower	Strategic Power Development Corp.	Malay, Aklan	300	Feb 2024
Amlan (Plant A)	Natural Power Sources Integration, Inc.	Amlan, Negros Oriental	3.2	Dec 2025
Malago	Vivant-Malago Hydropower, Inc	Silay City, Negros	6.0	Dec 2025
Amlan (Plant C)	Natural Power Sources Integration, Inc.	Amlan, Negros Oriental	0.8	Dec 2026
Main Aklan River Hydroelectric Power Project	Sunwest Water & Electric Company, Inc.	Libacao, Aklan	15.0	Dec 2026
Lower Himogaan	LGU Sagay	Sagay, Negros Occidental	4.0	Dec 2026
Amlan (Plant B)	Natural Power Sources Integration, Inc.	Amlan, Negros Oriental	1.5	Dec 2026
Cantakoy	Quadriver Energy Corp.	Danao, Bohol	8.0	TBD
Hilabangan (Lower Cascade)	Century Peak Energy Corporation	Kabankalan, Negros Occidental	3.0	TBD
Hilabangan (Upper Cascade)	Century Peak Energy Corporation	Kabankalan, Negros Occidental	4.8	TBD
Maninila (Lower Cascade)	Century Peak Energy Corporation	San Remigio, Antique	4.5	TBD
Maninila (Upper Cascade)	Century Peak Energy Corporation	San Remigio, Antique	3.1	TBD
Sibalom (Upper Cascade)	Century Peak Energy Corporation	San Remigio, Antique	4.2	TBD
Sibalom (Middle Cascade)	Century Peak Energy Corporation	San Remigio, Antique	4.0	TBD
Sibalom (Lower Cascade)	Century Peak Energy Corporation	San Remigio, Antique	3.3	TBD
Bolusao Pumped Storage	San Lorenzo Samar and Water, Inc.	Lawaan, Eastern Samar	300	TBD
Ilog Hydroelectric Power Plant	PHINMA Energy Corporation	Mabinay, Negros Occidental	21.6	TBD
Maslog Hydroelectric Power Project	Iraya Energy Corporation	Maslog, Eastern Samar	40.0	TBD

TBD – to be determined

<sup>b</sup> Updated from proponent's submission

As of 31 March 2019





# Visayas Grid Indicative Power Projects, 3,797.1 MW

Name of the Project	Project Proponent	Location	Rated Capacity (MW)	Target Commissioning
<b>Geothermal</b>			<b>40.0</b>	
Dauin Geothermal Project	Energy Development Corporation (EDC)	Dauin, Negros Oriental	40.00	Dec 2025
<b>Wind</b>			<b>1,568.0</b>	
Bronzeoak Wind Power Project	Bronzeoak Philippines, Inc.	Negros Occidental	100	Feb 2020
Iloilo 1 Wind Project	Energy Development Corporation	Batad & San Dionisio, Iloilo	213	Aug 2020
Nabas Wind Power Project Phase II	PetroWind Energy Corporation	Brgy. Pawa, Nabas, Aklan	14	Sep 2021
Iloilo 2 Wind Project	Energy Development Corporation	Concepcion, Iloilo	500	TBD
Negros Wind Project	Energy Development Corporation	Manapla & Cadiz, Negros Occidental	262	TBD
Montesol Wind Power Project	Monte Solar Energy, Inc.	Bais City, Manjuyod and Mabinay, Negros Oriental	54	TBD
Pulupandan Wind Power Project	First Maxpower International Corporation	Pulupandan, Negros Occidental	50	TBD
Aklan I Wind Power Project Phase I	Tri-Conti Elements Corporation	Nabas-Malay, Aklan	75	TBD
Bohol I (Ubay) Wind Power Project	Tri-Conti Elements Corporation	Ubay, Alicia, Mabini, Bohol	100	TBD
Ivisan Wind Power Project	Tri-Conti ECC Renewables Corporation	Ivisan, Capiz	50	TBD
Anda Wind Power Project <sup>1</sup>	Tri-Conti ECC Renewables Corporation	Anda, Candijay & Guindalman, Bohol	50	TBD
Batan Wind Power Project <sup>1</sup>	Tri-Conti Elements Corporation	Batan, Aklan	50	TBD
Tanjay Wind Power Project <sup>1</sup>	Constellation Energy Corporation	Bais Negros Oriental	50	TBD

TBD – to be determined

<sup>b</sup> Updated from proponent's submission

As of 31 March 2019



# Visayas Grid Indicative Power Projects, 3,797.1 MW

Name of the Project	Project Proponent	Location	Rated Capacity (MW)	Target Commissioning
<b>Biomass</b>			<b>32.0</b>	
MCEI Multi-Feedstock Biomass Power Plant Project	Megawatt Clean Energy, Inc.	Negros Occidental	12.0	Dec 2020
UGEP Rice Husk-Fired Biomass Power Plant Project	UGEP Ormoc Biomass Power	Leyte	2.5	Dec 2020
Green Power Panay Biomass Power Plant	Green Power Panay Philippines, Inc.	Mina, Iloilo	17.5	Dec 2022
<b>Oil Based</b>			<b>125.5</b>	
Sulzer Diesel Power Plant	General Milling Corporation	GMC Complex, Lapu-Lapu City, Cebu	5.5	TBD
Caterpillar Diesel Power Plant	General Milling Corporation	GMC Complex, Lapu-Lapu City, Cebu	2	TBD
Cummins Diesel Power Plant	General Milling Corporation	GMC Complex, Lapu-Lapu City, Cebu	1	TBD
Bunker C Fired Power Plant	Alsons Energy Development Corp.	Calbayog, Samar	55	TBD
Bunker Fired Power Plant	GT Energy Corp.	Calbayog, Samar	18	TBD
Diesel Power Plant	SPC Power Corporation	Tagbilaran, Bohol	44	TBD

TBD – to be determined

<sup>b</sup> Updated from proponent's submission

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# Visayas Grid Indicative Power Projects, 3,797.1 MW

Name of the Project	Project Proponent	Location	Rated Capacity (MW)	Target Commissioning
<b>BESS</b>			<b>166.6</b>	
Caticlan Battery Energy Storage	SMCGP Philippines Energy Storage Co. Ltd.	Caticlan	20	TBD
Iloilo Battery Energy Storage	SMCGP Philippines Energy Storage Co. Ltd.	Iloilo	20	TBD
Ormoc Battery Energy Storage	SMCGP Philippines Energy Storage Co. Ltd.	Ormoc, Leyte	20	TBD
Mactan Battery Energy Storage	SMCGP Philippines Energy Storage Co. Ltd.	Mactan, Cebu	20	TBD
Bohol Battery Energy Storage System	SMCGP Phils. Energy Storage Co. Ltd.	Bohol	20	TBD
Cebu Battery Energy Storage System	SMCGP Phils. Energy Storage Co. Ltd.	Compostela, Cebu	20	TBD
Samboan Battery Energy Storage System	SMCGP Phils. Energy Storage Co. Ltd.	Samboan, Cebu	20	TBD
Tabango Battery Energy Storage System	SMCGP Phils. Energy Storage Co. Ltd.	Tabango, Leyte	20	TBD
Toledo Battery Energy Storage System	Global Business Power Corp.	Toledo City, Cebu	6	TBD
<b>Total Indicative</b>			<b>3,797.1</b>	

TBD – to be determined

<sup>b</sup> Updated from proponent's submission

As of 31 March 2019



# Summary of Visayas Power Projects

Type of Power Plant	Committed			Indicative		
	No. of Proponents	Capacity (MW)	% Share	No. of Proponents	Capacity (MW)	% Share
Coal	2	435.0	55.4	1	600.0	15.8
Oil-Based	1	70.0	8.9	3	125.5	3.3
Natural Gas	0	0.0	0.0	0	0.0	0.0
Renewable Energy	11	279.7	35.6	34	3,071.6	80.9
Geothermal	1	50.0	6.4	1	40.0	1.1
Hydro	2	23.1	2.9	13	728.2	19.2
Biomass	8	206.6	26.3	3	32.0	0.8
Solar	0	0	0.0	10	703.4	18.5
Wind	0	0	0.0	7	1,568.0	41.8
<b>TOTAL</b>	<b>14</b>	<b>784.7</b>	<b>100.0</b>	<b>38</b>	<b>3,797.1</b>	<b>100.0</b>

\*\* for accounting purposes; declared capacity for Ancillary Services (AS) to the system

As of 31 March 2019



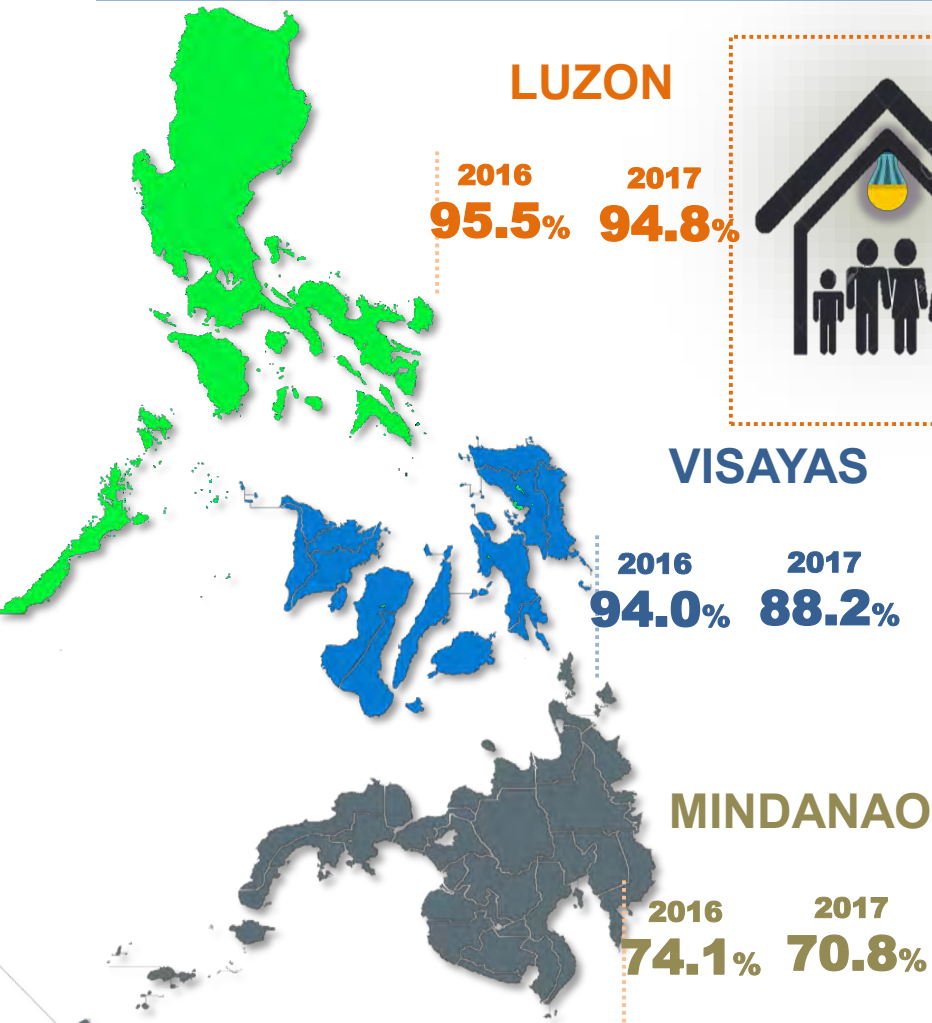
# Technology-Neutral Energy Mix Policy

No “**one-size-fits-all**” approach for an ideal energy mix so both conventional and non-conventional sources must be considered.

Developing countries, like the Philippines, will need **cost-efficient** and **reliable energy** to meet its economic potential.



# Expanded Energy Access



✓ 20.94 Million out of 23.7 Million households have electricity in the country

✓ 88.3% household electrification level

**Total Electrification Program (TEP)**

Electricity access for the unserved and underserved communities and households



2016 based on the 2010 Census  
2017 based on the actual potential households identified by DUs

# Off-Grid

## Investment Opportunities for Off-Grid Areas

### **Abundance of off-grid sites**

- 7,641 islands, 1,702 potential off-grid sites.
- 2,399,108 households in the Philippines remain unserved.

### **Opportunities for hybridisation of diesel mini-grids and power plants**

- 400 MW of diesel generating capacity installed in over 320 off-grid missionary areas.
- Recent study by ASEP revealed that savings of up to 4-5 PHP/kWh diesel power plants are possible.

### **Policy frameworks for mini-grids being re-worked by government**

- DOE aims to attain 100% electrification for all islands of the Philippines by 2022.
- Streamlining of the process for Qualified Third Parties (QTP) and New Power Producer (NPP) investments in hybrid and clean energy mini-grids in the Philippines under way.



# Ideal Location of New Power Plants





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# Natural Gas Industry



# Downstream Natural Gas

## Integrated LNG Terminal



- Safeguard against the anticipated depletion of the Malampaya gas facility in 2024.
- Initial 200-MW power plant, storage facilities, liquefaction and regasification units.
- Output will serve PEZA areas.

Project Cost: **PHP 100 billion**  
Targeted Completion: **2020**





# Alternative Fuels & Energy Efficiency



# Alternative Fuels and Energy Efficiency

## Areas for Investment :

- Energy efficient appliances & equipment
- High efficiency motors
- Fuel efficient & low-carbon vehicles
  - Hybrid, electric, etc.
  - Charging stations for Alternative Energy Vehicles
- Energy efficient building technologies
  - Green building
  - Building Energy Management Systems Design and Architecture
- Energy Service Companies (ESCOs)
- Performance Assessment and Audit
- Smart Technology (Smart Grid, Smart Meters)
- Power Sector Infrastructure Development / Upgrading
- Transmission and distribution network expansion





# Energy Situationer



# 2017 Total Primary Energy Supply

## ENERGY MIX

## SOURCE



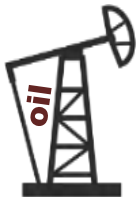
**26.7%**



**5.6%**



**33.7%**



**33.9%**

**TOTAL**

**57.9**<sub>MTOE</sub>

**INDIGENOUS**

**50.9%**

**IMPORTED**

**49.1%**



**32.9%**



**15.8%**



**0.4%**



# 2017 Total Final Energy Consumption

Total Final Energy  
Consumption

34.03  
MTOE

## BY FUEL



Electricity – 19.7%



Coal – 8.8%



Oil – 48.8%



Natural Gas – 0.2%



Biofuels – 1.5%



Biomass – 21.0%

## BY SECTOR



Agriculture, Fishery and  
Forestry – 1.5%



Industry – 23.3%



Transport – 35.5%



Residential – 26.7%



Commercial – 13.0%

\* Preliminary as of 24 April 2018  
\*\* Excludes non-energy used



# 2018 Visayas Demand and Supply Snapshot

**2,053 MW**

Peak Demand  
(24 May 2018)

**3,450 MW**

Installed Capacity

**3,000 MW**

Dependable Capacity

**14,054 GWh**

Gross Generation



Coal



Nat Gas



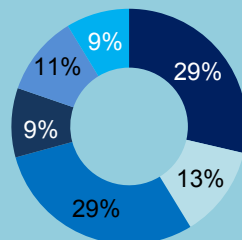
RE



Oil-based

Electricity Sales and  
Consumption

**13,492 GWh**



■ Residential      ■ Commercial  
■ Industrial      ■ Others  
■ Own-Use      ■ Systems Loss

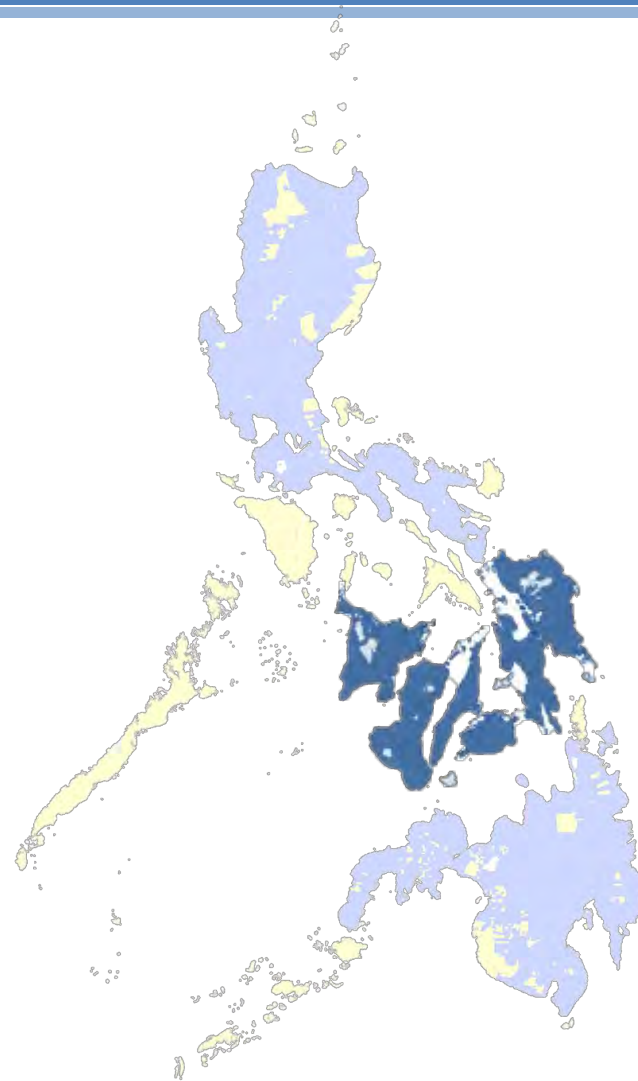
**0 MW**

Newly Installed Capacity

**Power Projects**

766 MW - Committed

3,903 MW - Indicative



Blue and yellow fill colors correspond to grid and off-grid areas, respectively





# Newly-operational Power Plants - Visayas

01 January to 30 April 2019

POWER PLANT FACILITY NAME	CAPACITY, MW		LOCATION MUNICIPALITY / PROVINCE
	INS	DEP	
<b>COAL</b>	<b>170.0</b>	<b>150.00</b>	
Therma Visayas, Inc.(TVI) U1	170.00	150.00	Toledo City, Cebu
<b>DIESEL</b>	<b>8.00</b>	<b>6.40</b>	
Calumangan DPP U5	8.00	6.40	Bago City, Negros Occidental
<b>Total</b>	<b>178.00</b>	<b>156.40</b>	

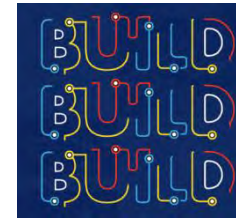




# Policy Initiatives



# Policy Initiatives



## Strategic Directions 2017 - 2040

**1**

**ENSURE  
ENERGY  
SECURITY**

**2**

**EXPAND  
ENERGY  
ACCESS**

**3**

**PROMOTE A  
LOW CARBON  
FUTURE**

**4**

**STRENGTHEN  
COLLABORATION  
AMONG ALL  
GOVERNMENT  
AGENCIES  
INVOLVED IN  
ENERGY**

**5**

**IMPLEMENT,  
MONITOR AND  
INTEGRATE SECTORAL  
AND TECHNOLOGICAL  
ROADMAPS AND  
ACTION PLANS**

**6**

**ADVOCATE THE  
PASSAGE OF THE  
DEPARTMENT'S  
LEGISLATIVE  
AGENDA**

**7**

**STRENGTHEN  
CONSUMER  
WELFARE AND  
PROTECTION**

**8**

**FOSTER  
STRONGER  
INTERNATIONAL  
RELATIONS AND  
PARTNERSHIPS**



# Nine-Point Agenda



**100% Electrification by 2022**



**Affordability, Choice and Transparency**



**Technology Neutral Approach**



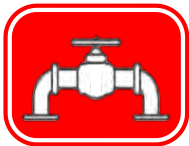
**Streamlining Domestic Policy to Cut Red Tape**



**Power to Meet Demand Needs by 2030**



**Delivery of PSALM Privatization**



**LNG Needs for Anticipated Depletion**



**More Efficient Power Use**



**Completion of Transmission Projects by 2020**





# Enabling Laws for Energy Investors



# Enabling Policies and Laws for Investors

- ❑ **Executive Order No. 30** Creating the Energy Investment Coordinating Council in order to Streamline the Regulatory Procedures affecting Energy Projects
- ❑ **Republic Act No. 11032** Ease of Doing Business Act of 2018
- ❑ **Republic Act No. 11234** Energy Virtual One-Stop Shop (EVOSS) Act
  - Department Circular No. DC2019-05-0007 (Implementing Rules and Regulations)
- ❑ **Republic Act No. 11285** Energy Efficiency and Conservation Act



# **Republic Act No. 11234**

# **Energy Virtual One-Stop Shop (EVOSS) Act**

**Department of Energy**  
30 May 2019



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# Background





# Republic Act No.11234 EVOSS Act

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- “An Act Establishing the Energy Virtual One-Stop Shop for the Purpose of Streamlining the Permitting Process of Power Generation, Transmission and Distribution Projects”
- Otherwise known as the “Energy Virtual One-Stop Shop (EVOSS) Act
- Signed on March 8, 2019
- Published in the Official Gazette on March 14, 2019 and Manila Bulletin on March 18, 2019
- Effective on March 29, 2019
- IRR was signed on May 30, 2019



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# Salient Features



# Energy Virtual One-Stop Shop (EVOSS)

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- Within one (1) year from the effectivity of the Act, the DOE shall establish the EVOSS
- DOE shall operate and maintain an effective information technology infrastructure system, which shall be updated regularly



# Characteristics

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- a) Recognizes the legal effect, validity, and enforceability of electronic documents submitted in relation to applications for permits and/or certifications necessary for, or related to, applications for power generation, transmission, or distribution projects.
  
- b) Utilizes an online payment system for all fees imposed for applications for permits and/or certifications necessary for, or related to, applications for power generation, transmission, or distribution projects.



# Characteristics

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- c) Provides a secure and accessible paperless processing system through which proponents may:
- 1) Obtain the list of all electronic documentary requirements, corresponding fees and permitting process for all concerned Government agencies and entities
  - 2) Prepare, submit, process, and receive actions on all submitted electronic documentary requirements;
  - 3) Monitor and inquire on the status of ongoing applications for permits and/or certifications necessary for, or related to, applications for power generation, transmission, or distribution projects,
  - 4) Calculate, pay, and settle all appropriate fees electronically; and
  - 5) Submit complaints concerning inaction on submitted electronic documents.



# Characteristics

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- d) Provides a secure and accessible system for all Government agencies and entities involved in the permitting process to interoperate with respect to:
- 1) Unified and streamlined permitting process;
  - 2) Uniform templates for electronic documentary requirements;
  - 3) Compliance with mandated processing time as stated in this Act or as imposed by the EVOSS Steering Committee, whichever is shorter;
  - 4) Updating and monitoring of all electronic documentary requirements for action;
  - 5) Determining which government bureau, office, agency, GOCC, LGU, or entity an ongoing application is in, and its status there; and
  - 6) Other aspects of the processing system.



# Characteristics

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- e) Operates as a one hundred percent (100%) virtual storage and rules driven system built as an integrated shared service of Government agencies and entities involved in the permitting process.
  
- f) Utilizes a technology platform and an operations management software platform for Government, agencies and entities involved in the permitting process to build their defined processes and forms within a strict timeframe using published standards.



# Time Frame

Agency	Total No. of Calendar Days	Agency	Total No. of Calendar Days
DOE	60	PNP	15
DAR	75	DPWH	30
DA	60	PNRI	15
DENR	120	Others Agencies	15
ERC:	60	LGUs:	
all applications	270	cities or municipalities	15
quasi-judicial cases		provinces	15
System Operator & Transmission Network Provider	60	NCIP:	
		CNO	10
		FPIC	105
NWRB	60		
IEMOP	15		
DOTr	30		





# Prohibited Acts and Penalties

Administrative Offenses	Penalties	
	Government Official/Employee	Private Entity
a) Willful refusal to participate in the EVOSS.	1 <sup>st</sup> offense - 30 days suspension without pay 2 <sup>nd</sup> offense - 3 months suspension without pay 3 <sup>rd</sup> offense - Dismissal and perpetual disqualification from public service.	In cases of violation by the system operator and market operator of (a), (b), and (c), the ERC shall impose a fine of One hundred thousand pesos (P100,000.00) for every day of delay.
b) Willful acts which delay the operationalization of the EVOSS.		
c) Failure to comply with the mandated timeframes as provided in this Act, or as imposed by the EVOSS Steering Committee.	1 <sup>st</sup> offense - 30 days suspension without pay and mandatory attendance in Values Orientation Program; 2 <sup>nd</sup> offense - 3 months suspension without pay; 3 <sup>rd</sup> offense - Dismissal and perpetual disqualification from public service, and forfeiture of retirement benefits.	
d) Tampering with EVOSS or any part or component thereof.	Dismissal and perpetual disqualification from public service.	
e) Divulging information or releasing any aspect of a document submitted by a project proponent to anyone other than an authorized person or agency.		

[Sec 17-19]



**For inquiries, please contact**

***Investment Promotion Office  
Department of Energy***



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