



# POWER SITUATION AND ROADMAP

**Dir. Nilo J. Geroche**  
Online Business Seminar on Energy and Transportation in Metro Davao  
20 October 2021



Department of Energy  
*Empowering the Filipinos*

# OUTLINE OF PRESENTATION

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Power Situation



Power Sector Roadmap  
and Policy Framework





# Power Situation and Outlook

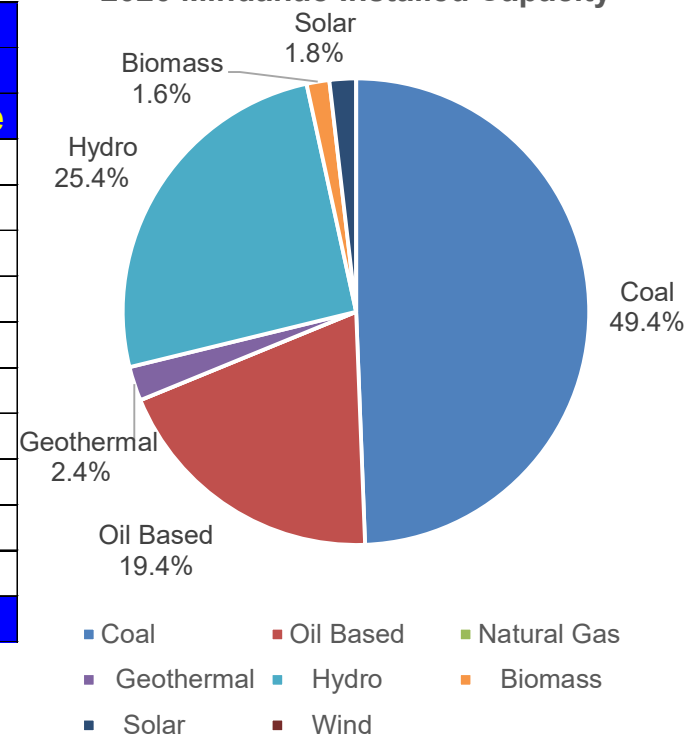


# Mindanao Capacity Mix

As of 31 December 2020

FUEL TYPE	MINDANAO			
	Capacity (MW)		Percent Share (%)	
	Installed	Dependable	Installed	Dependable
Coal	2,264	2,041	49.4	50.6
Oil Based	889	790	19.4	19.6
<i>Diesel</i>	889	790	19.4	19.6
Natural Gas	0	0	0.0	0.0
Renewable Energy	1,430	1,201	31.2	29.8
<i>Geothermal</i>	108	103	2.4	2.6
<i>Hydro</i>	1,165	1,007	25.4	25.0
<i>Biomass</i>	73	23	1.6	0.6
<i>Solar</i>	84	67	1.8	1.7
<i>Wind</i>	0	0	0.0	0.0
<b>TOTAL</b>	<b>4,584</b>	<b>4,031</b>	<b>100.0</b>	<b>100.0</b>

2020 Mindanao Installed Capacity



**Note:**

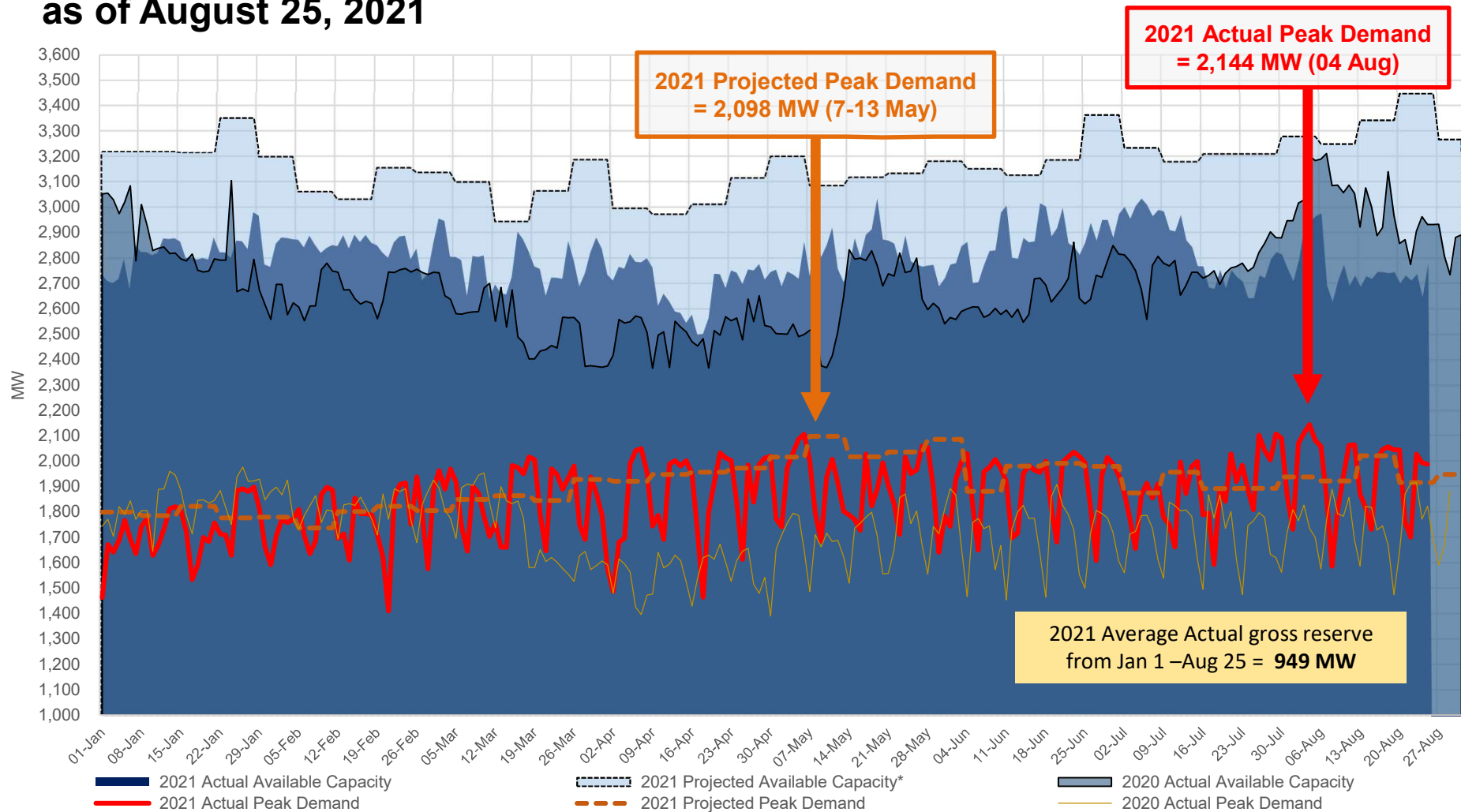
**Generator nameplate capacity (installed):** The maximum rated output of a generator, prime mover, or other electric power production equipment under specific conditions designated by the manufacturer. Installed generator nameplate capacity is commonly expressed in megawatts (MW) and is usually indicated on a nameplate physically attached to the generator.

**Dependable capacity:** The load-carrying ability of a station or system under adverse conditions for a specified period of time.



# Mindanao 2021 Demand-Supply Situation

as of August 25, 2021



**Aug. 25, 2021 data:**

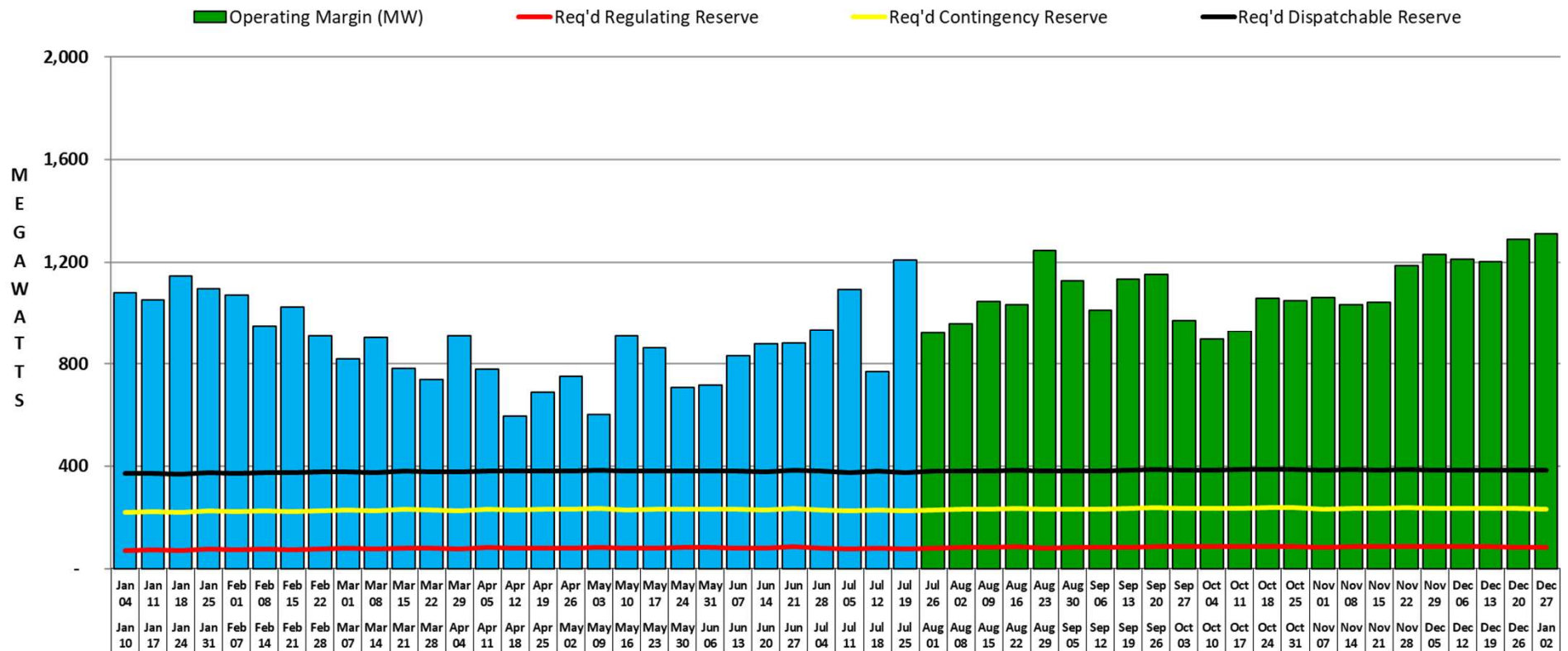
- Mindanao Peak Demand: **1,988 MW**
- Mindanao Available Capacity: **2,777 MW**
- Mindanao Excess capacity: **789 MW**



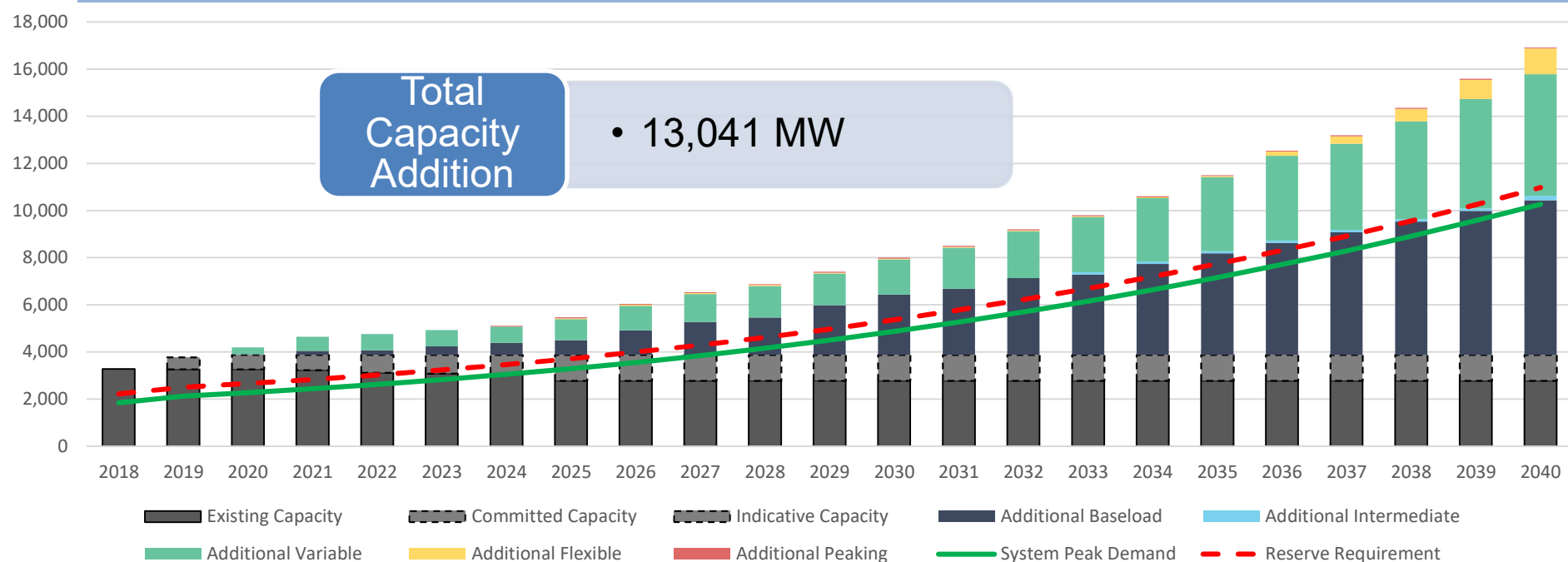
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Source: Actual Data - NGCP Daily Operations Report  
2021 Projected Demand – 2,098 MW

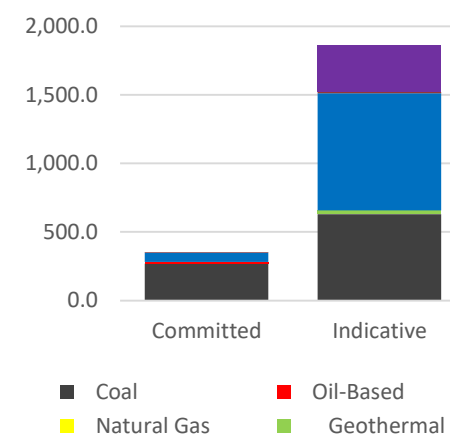
# 2021 MINDANAO POWER OUTLOOK



# Mindanao Supply Expansion 2019-2040



Type of Power Plant	Committed			Indicative		
	No. of Proponents	Capacity (MW)	% Share	No. of Proponents	Capacity (MW)	% Share
Coal	1	270.0	76.6	2	628.0	33.8
Oil-Based	1	11.0	3.1	0	0.0	0.0
Natural Gas	0	0.0	0.0	0	0.0	0.0
Renewable Energy	5	71.3	20.2	24	1,230.9	66.2
<b>TOTAL</b>	<b>7</b>	<b>352.3</b>	<b>100.0</b>	<b>26</b>	<b>1,858.9</b>	<b>100.0</b>
<b>BESS**</b>	2	240.0		2	69.0	





# Region XI Situationer

## DEMAND and CONSUMPTION

2021 Projected Ave. Demand (MW)	
DANECO	104.9
DASURECO	67.4
DLPC	468.1
DORECO	26.5
<b>REGION XI</b>	<b>666.9</b>
Mindanao Ave	1851.69

2021 Demand = 667 MW (36% of Mindanao's Ave. Peak)

2020 Electricity Consumption (MWh)	
<b>Region XI</b>	<b>3,808,611.5</b>
Mindanao	11,506,030

2020 Electricity Consumption = 3,808,612 MWh (33% of Mindanao Total)

## CAPACITY and GENERATION

2020 Capacity (MW)	Installed	Dependable
Coal	600.0	530.0
Oil-based	137.6	131.2
Hydro	61.7	61.6
Solar	28.6	22.9
Biomass	-	-
<b>Total Region XI</b>	<b>827.9</b>	<b>745.7</b>
Total Mindanao	4,584.0	4,031.0

2020 Dependable Capacity = 827.9 MW (19 % of Mindanao Total)

2020 Gross Generation (MWh)	
Coal	3,428,981.6
Oil-based	8,820.6
Hydro	282,096.3
Solar	28,888.1
Biomass	-
<b>Total Region XI</b>	<b>3,748,786.6</b>
Total Mindanao	13,852,069.4

2020 Actual Generation = 3,748,787 MWh (27% of Mindanao Total)







# **Power Sector Roadmap 2021-2040 and Policy Framework**





# Power Sector Roadmap, 2021-2040

2021-2022

2023-2040



Generation

- Implement the coal moratorium
- Establish guidelines for power plant decommissioning
- Firm-up privatization plan of government's remaining power generation assets

- Utilize cleaner technologies in power generation
- Increase flexibility in power generation



Transmission  
and System  
Operation

- Improve the Transmission Development Plan
- Monitor the timely completion of transmission projects
- Develop supplementary policies for Ancillary Services

- Implement improvements in the reliability and resiliency of the main grid
- Interconnect the Luzon, Visayas, and Mindanao grids
- Interconnect off-grid islands to the main grid

Energy Security, Resiliency, Affordability, and  
Sustainability

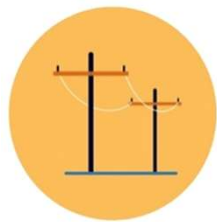




# Power Sector Roadmap, 2021-2040

2021-2022

2023-2040



Distribution

- Improve and ensure timely implementation of Distribution Development Plans
- Enhance the existing CSP policy
- Monitor the submission of reportorial requirements and ensure compliance of Distribution Utilities to policy directives
- Conduct policy review on the regulation and performance of DUs

- Institutionalize continuous improvement of the reliability and resiliency of distribution facilities

Energy Security, Resiliency, Affordability, and Sustainability





# Power Sector Roadmap, 2021-2040

2021-2022

2023-2040



Supply

- Implement retail aggregation in Luzon and Visayas
- Implement RCOA in Mindanao

- Adopt lower threshold for RCOA in Luzon, Visayas, and Mindanao



Electricity  
Market

- Implement the five-minute WESM trading interval in Luzon, Visayas, and Mindanao
- Full commercial operation of the WESM Mindanao
- Commercial operation of the reserve power market
- Conduct studies on derivatives market

- Continuous improvement of WESM design and rules

Transparent and Fair Playing Field in the Power Industry





# Power Sector Roadmap, 2021-2040

2021-2022

2023-2040



**Off-Grid  
Development**

- Monitor and assess the implementation of the Omnibus Policy
- Promulgate the policy on UC-ME subsidy rationalization
- Promulgate the policy on off-grid system operations

- Implement rationalized UC-ME subsidy system
- Conduct off-grid policy review and studies
- Interconnect off-grid islands to the main grid



**Total  
Electrification**

- Achieve 100% electrification of targeted and identified households based on the 2015 Census

- Achieve 100% electrification of targeted and identified households based on the latest available Census

Electricity Access for All





# Power Sector Roadmap, 2021-2040

2021-2040



**Overarching  
Policies and  
Programs**

- Fast-track the approval process for power facilities and infrastructure
- Implement the smart grid policy and roadmap
- Continuous evaluation and implementation of necessary amendments in the EPIRA
- Continuous improvement of power development planning
- Implement automated submission of reportorial requirements
- Establish an integrated power sector database

Electricity Access for All

Transparent and Fair Playing Field in the Power Industry

Energy Security, Resiliency, Affordability, and Sustainability



# ENERGY POLICY FRAMEWORK



## AMBISYON NATIN 2040:

*"A strongly-rooted, comfortable and secure life for all Filipinos"*



## DUTERTENOMICS: "Build Build Build"



## Energy Plans and Policies

### ENERGY SECTOR STRATEGIC DIRECTIONS

**1** ENSURE ENERGY  
SECURITY



**2** EXPAND ENERGY  
ACCESS



**3** PROMOTE A LOW  
CARBON FUTURE



**4** STRENGTHEN  
COLLABORATION  
AMONG ALL GOV'T.  
AGENCIES INVOLVED  
IN ENERGY



**5** IMPLEMENT, MONITOR  
AND INTEGRATE  
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







# Thank You!



(082) 221-0778



[doe.mfo@doe.gov.ph](mailto:doe.mfo@doe.gov.ph)



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