

# POWER SUPPLY OUTLOOK

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MPower Partners Event  
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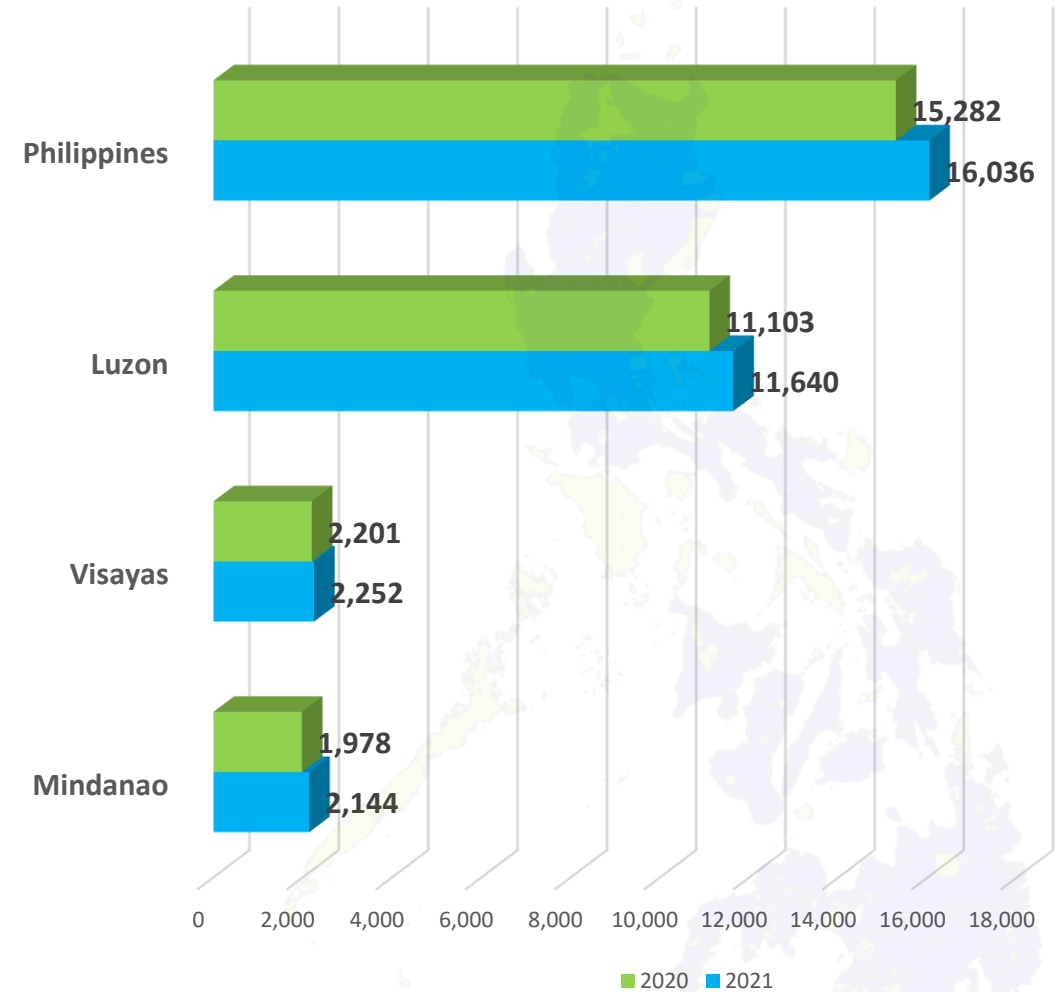
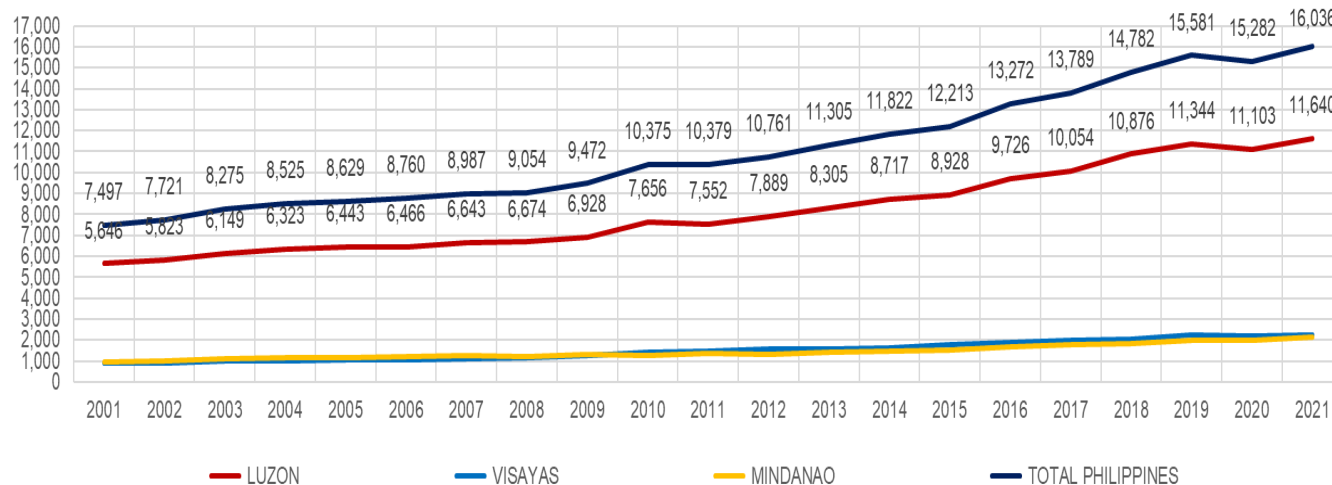


# Philippine Power Situation



# SYSTEM PEAK DEMAND

Grid	Peak Demand in MW		Difference in MW	Growth Rate in Percent
	2021	2020		
Philippines	16,036	15,282	754	4.9%
Luzon	11,640	11,103	537	4.8%
Visayas	2,252	2,201	51	2.3%
Mindanao	2,144	1,978	166	8.4%



2021 vs. 2020 Peak Demand per Grid (in MW)



# CAPACITY MIX

FUEL TYPE	PHILIPPINES (GRID AND OFF-GRID)							
	INSTALLED CAPACITY, MW				DEPENDABLE CAPACITY, MW			
	Dec 2021	% Share	Dec 2020	% Share	Dec 2021	% Share	Dec 2020	% Share
Coal	11,669	42.4%	10,943.9	41.7%	10,913	44.6%	10,245.3	43.8%
Oil Based	4,419	16.1%	4,236.6	16.1%	3,212	13.1%	3,053.6	13.0%
Natural Gas	3,453	12.6%	3,452.5	13.2%	3,286	13.4%	3,286.1	14.0%
Renewable Energy	7,959	28.9%	7,616.9	29.0%	7,049	28.8%	6,824.9	29.2%
Geothermal	1,928	7.0%	1,928.1	7.3%	1,753	7.2%	1,753.1	7.5%
Hydro	3,781	13.7%	3,779.3	14.4%	3,527	14.4%	3,526.6	15.1%
Biomass	483	1.8%	447.4	1.7%	285	1.2%	285.4	1.2%
Solar	1,324	4.8%	1,019.3	3.9%	1,041	4.3%	816.9	3.5%
Wind	443	1.6%	442.9	1.7%	443	1.8%	442.9	1.9%
<b>TOTAL</b>	<b>27,500</b>	<b>100.0%</b>	<b>26,249.9</b>	<b>100.0%</b>	<b>24,460</b>	<b>100.0%</b>	<b>23,409.9</b>	<b>100.0%</b>

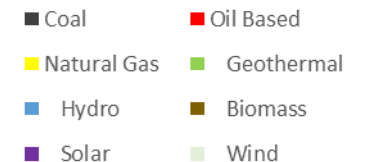
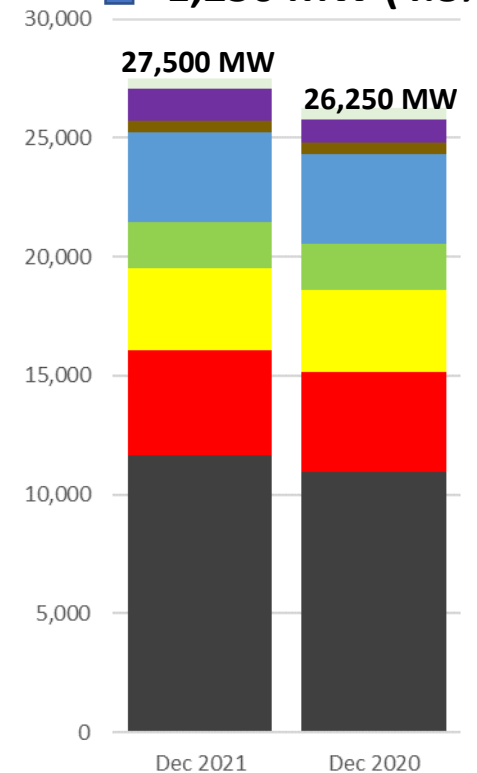
## Note:

**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.

## PH Total Installed Capacity, MW

↑ **1,250 MW (4.8%)**

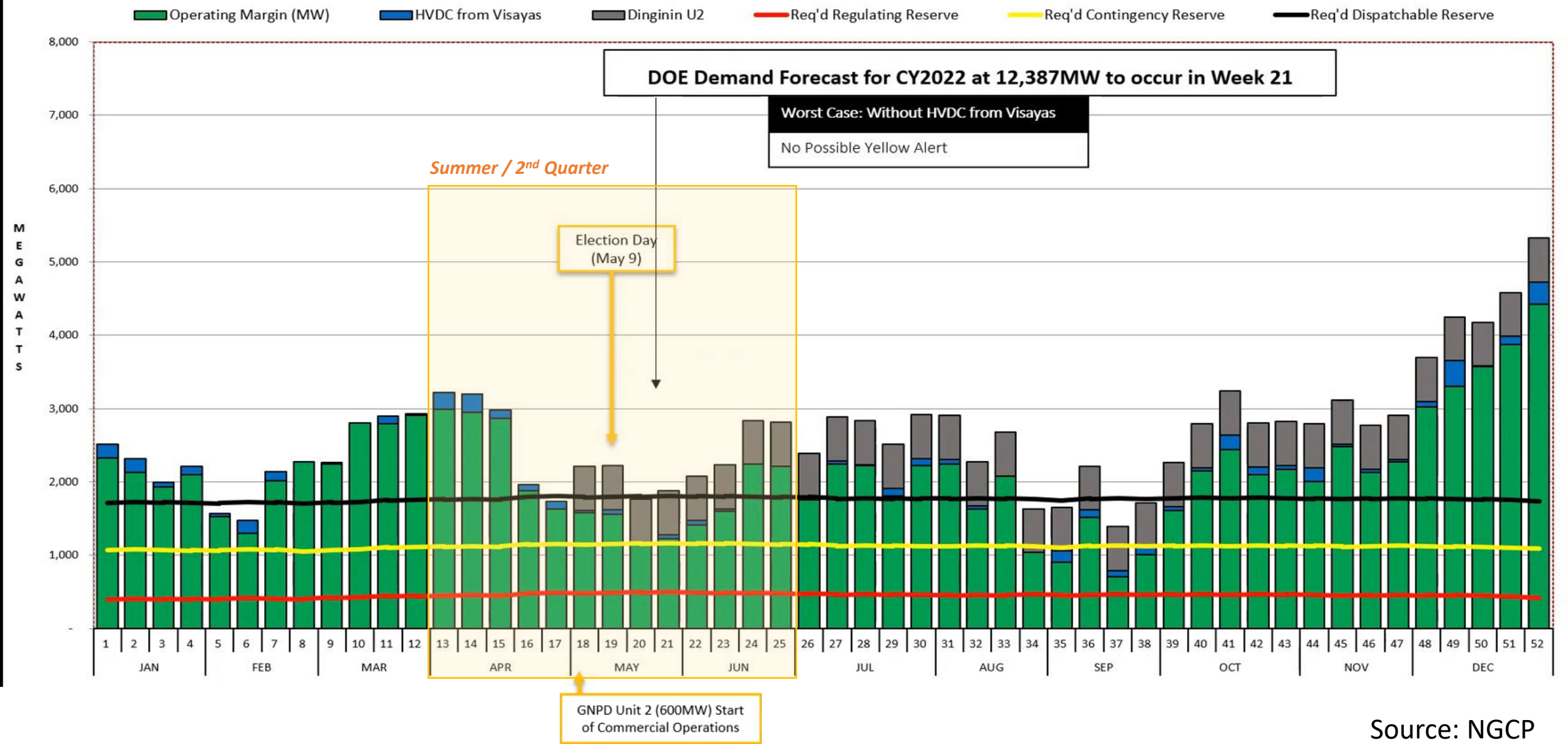


# 2022 Luzon Power Outlook



# LUZON GRID

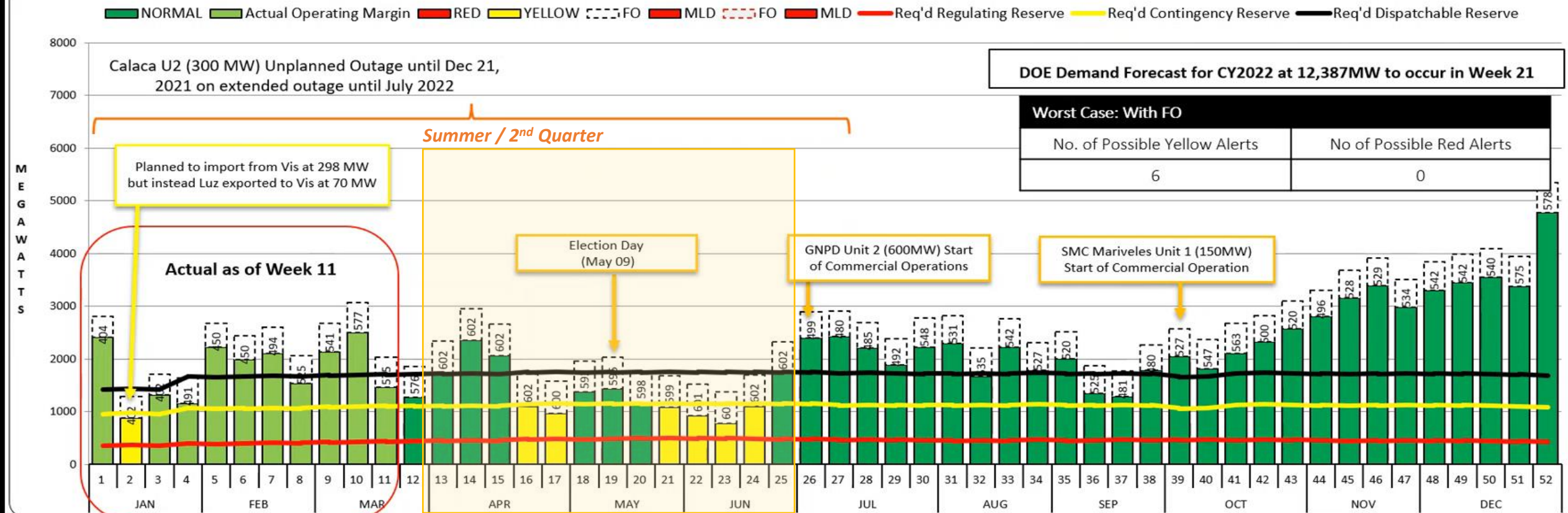
## Basecase: Power Supply Assessment – Power Outlook for CY 2022





# LUZON GRID

## Updated – Power Outlook for CY 2022 (w/Forced Outage)



GOP (Basecase), MW	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Available Capacity	12,546	12,534	12,154	12,302	11,635	11,763	12,354	12,446	12,906	13,603	13,970
System Peak Demand	10,027	10,217	10,165	10,087	10,071	10,285	10,216	10,173	10,641	10,796	11,072
Operating Margin	2,519	2,317	1,990	2,215	1,564	1,478	2,138	2,273	2,264	2,807	2,898
Actual (as of Week 11), MW	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11
Available Capacity	11,288	10,267	10,298	11,140	11,728	11,861	12,171	11,541	12,589	13,023	12,854
System Peak Demand	8,877	9,387	8,981	9,988	9,503	9,874	10,067	9,989	10,458	10,526	11,392
Operating Margin	2,411	880	1,317	1,152	2,225	1,987	2,104	1,552	2,131	2,497	1,462

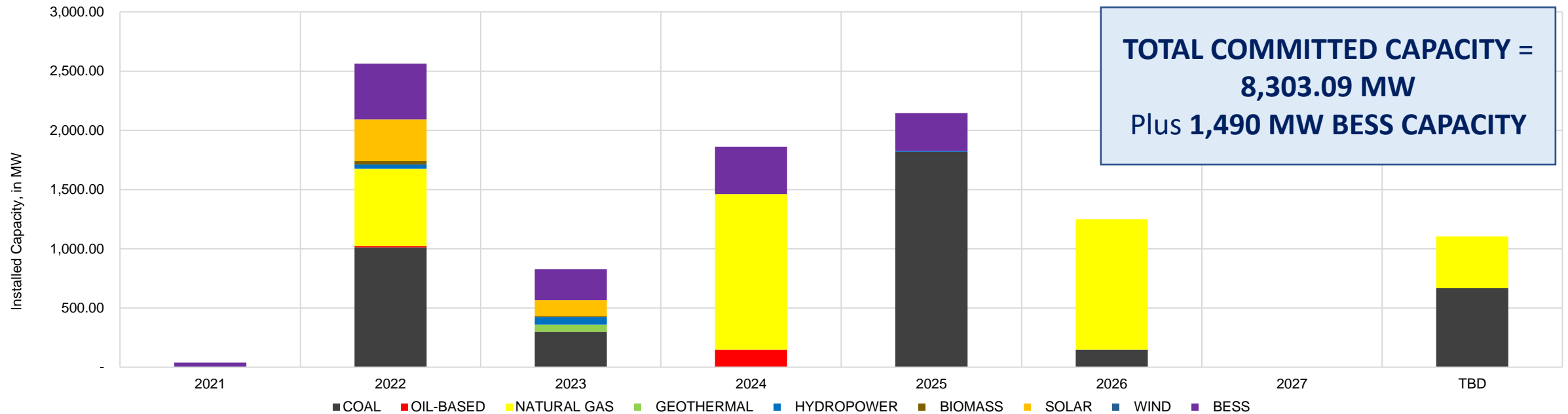
Source: NGCP



# **Luzon Committed and Indicative Power Projects**



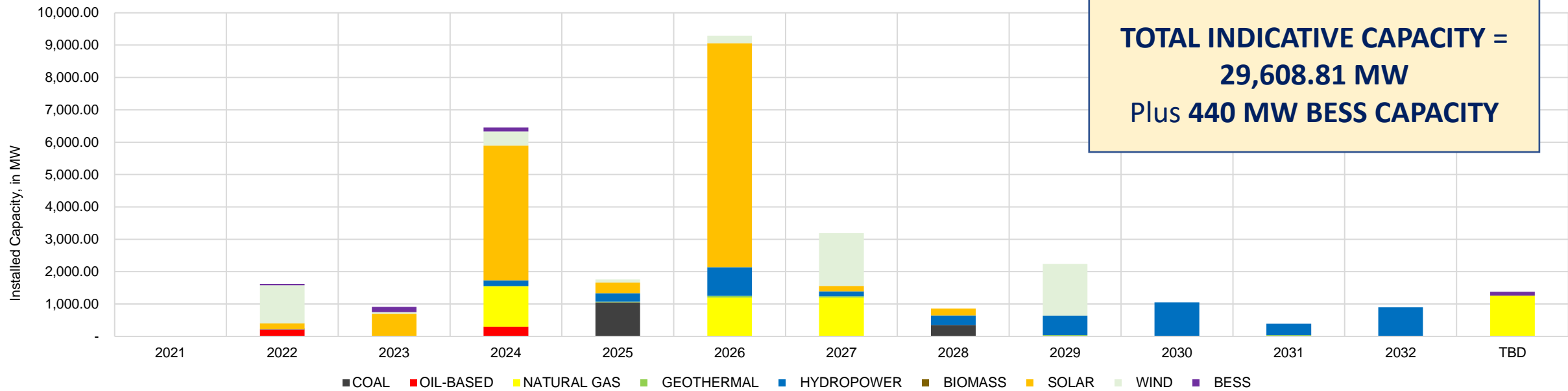
# LUZON COMMITTED POWER PROJECTS



Plant Type	2021	2022	2023	2024	2025	2026	2027	TBD*	TOTAL
COAL	-	1,012.40	300.00	-	1,818.00	150.00	-	668.00	3,948.40
OIL-BASED	-	11.04	-	150.00	-	-	-	-	161.04
NATURAL GAS	-	650.00	-	1,312.50	-	1,100.00	-	437.50	3,500.00
RENEWABLE ENERGY	-	418.91	266.74	-	8.00	-	-	-	693.65
GEOTHERMAL	-	3.00	59.00	-	-	-	-	-	62.00
HYDROPOWER	-	36.18	64.80	-	8.00	-	-	-	108.98
BIOMASS	-	27.60	8.00	-	-	-	-	-	35.60
SOLAR	-	352.13	134.94	-	-	-	-	-	487.07
WIND	-	-	-	-	-	-	-	-	-
<b>TOTAL</b>	<b>-</b>	<b>2,092.35</b>	<b>566.74</b>	<b>1,462.50</b>	<b>1,826.00</b>	<b>1,250.00</b>	<b>-</b>	<b>1,105.50</b>	<b>8,303.09</b>
BESS	40.00	470.00	260.00	400.00	320.00	-	-	-	1,490.00



# LUZON INDICATIVE POWER PROJECTS



Plant Type	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	TBD*	TOTAL
COAL	-	-	-	-	1,050.00	-	-	350.00	-	-	-	-	-	1,400.00
OIL-BASED	-	210.00	-	300.00	-	-	-	-	-	-	-	-	-	510.00
NATURAL GAS	-	-	-	1,250.00	-	1,200.00	1,200.00	-	-	-	-	-	1,260.00	4,910.00
RENEWABLE ENERGY	-	1,370.65	750.03	4,779.72	708.89	8,094.01	1,992.77	510.74	2,242.00	1,050.00	390.00	900.00	-	22,788.81
GEOTHERMAL	-	-	-	-	20.00	50.00	40.00	-	40.00	-	40.00	-	-	190.00
HYDROPOWER	-	6.80	16.30	185.39	266.91	887.00	154.00	300.00	600.00	1,050.00	350.00	900.00	-	4,716.40
BIOMASS	-	1.50	-	-	-	-	-	-	-	-	-	-	-	1.50
SOLAR	-	187.35	683.73	4,160.53	325.98	6,924.01	167.77	210.74	-	-	-	-	-	12,660.11
WIND	-	1,175.00	50.00	433.80	96.00	233.00	1,631.00	-	1,602.00	-	-	-	-	5,220.80
<b>TOTAL</b>	<b>-</b>	<b>1,580.65</b>	<b>750.03</b>	<b>6,329.72</b>	<b>1,758.89</b>	<b>9,294.01</b>	<b>3,192.77</b>	<b>860.74</b>	<b>2,242.00</b>	<b>1,050.00</b>	<b>390.00</b>	<b>900.00</b>	<b>1,260.00</b>	<b>29,608.81</b>
BESS	-	40.00	160.00	120.00	-	-	-	-	-	-	-	-	120.00	440.00



# END OF PRESENTATION

## POWER SUPPLY OUTLOOK

**Dir. Mario C. Marasigan, CESO III**  
*Officer-in-Charge, EPIMB*

MERALCO Webinar on the Power Supply Situation and ILP  
01 April 2022

