

Reactions and Insights

PDIS Public Webinar | Future-Proofing Energy Security

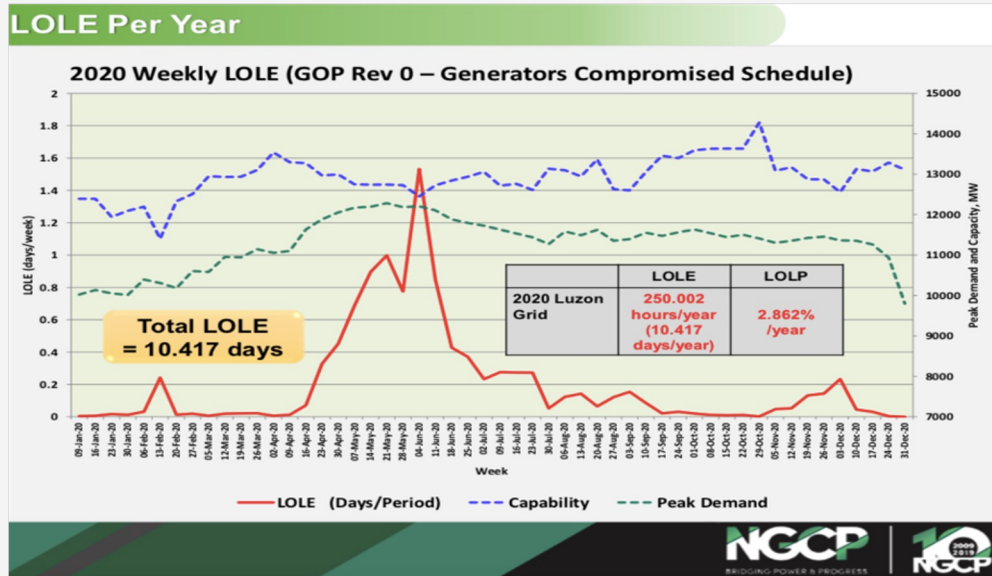
11 May 2021



- The most expensive electricity is no electricity
- No electricity translates to economic losses (VOLL): Php 210.68/kwh (2020)

Estimate Required Capacity

Calculation based on 2020 pre-COVID forecast



Loss of Load Expectation (LOLE)

Year	2020	
LOLE	24 hours/yr. (1 day/yr.)	0.24 hour/yr. (0.1 day/yr.)
Required Cap Addition, MW	~1,164	~2,125

Given that generation capacity can serve the Luzon grid, except for 250 hours, then from this analysis, Luzon grid seems to need 1,164 MW additional capacity to serve 250 hours in a year or 2.8% in a year

Will the investor build the generator based in the 1,164MW calculated need alone?

NO

PSAs

Currently, DUs are hesitant to contract peaking capacity due to low WESM price and long term PSA due to possible migration of captive customers to RCOA and GEOP. **DUs would rather buy from WESM also due to low SPC**

ASPA

Issues on ASPA contracting including the perceived increase in AS costs



WESM

If dispatch is only 2.8% per annum, then given the current Secondary Price Caps (SPC) of **Php6,245/kWh**, the generator **cannot recover its costs from WESM alone**

Generator is also subject to risk of being dispatched as **Must Run Unit** or **Constrained-on**, in both cases generator will be a **price taker**, regardless of its bids, and can request for additional compensation only up to its fuel and some variable costs, subject to validation/ receipts/etc, and recovery period which can take months

BARRIERS TO ENTRY

- Limited markets
- Contracting
 - Delays
 - Limited opportunities
 - Problematic ECs
- Transmission Constraints
 - Stranded Capacity
 - Infrastructure Delays
- Permitting bureaucracy, despite EVOSS
- Regulations
 - Slow approval process
 - High risk of penalties from high standards

The current system cannot support the additional capacity

PIDS Paper 1: Electricity Supply Interruptions in the Philippines: Characteristics, Trends, Causes

Delays in transmission facilities causing congestion or stranded capacities for some generators

Transmission Projects

TDP Projects Implementation by NGCP (2009-2019)

GRID	TOTAL TDP PROJECTS	IMPLEMENTED PROJECTS						PROJECTS NOT IMPLEMENTED
		Completed		On-going		Pre-construction Stage	SUB-TOTAL	
		Within Schedule	Delayed	Within Schedule	Delayed			
Luzon	155	7	30	14	23	49	123	32
Visayas	99	2	19	11	9	19	60	39
Mindanao	65	3	24	6	5	15	53	12

Legend:

Implemented – Projects contained in the TDP which were implemented

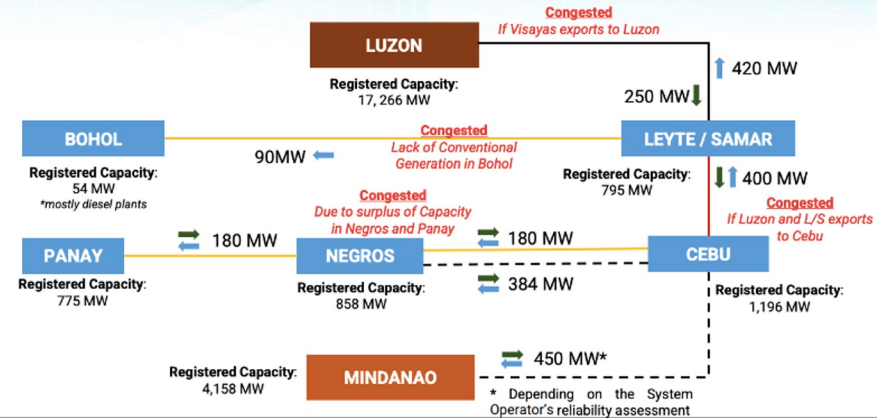
Not Implemented – Projects contained in the TDP which were not implemented

Completed – Projects contained in the TDP which have been implemented and have been completed

On-going – Projects contained in the TDP which have been implemented and have ongoing construction

Under Pre-construction – Projects contained in the TDP that have status of: 1) modified/included into a new project; 2) Waiting for approval by the ERC

Network Model



Source: DOE slides, June 10, 2022 Senate Hearing

PIDS Paper 2: The Implications of Developing a Philippine Nuclear Energy Program

- Project Economics for new technologies
- EPIRA: Generation Sector is open for private sectors only
- IAEA Guidelines should be followed

19 Infrastructure Issues



Social Issues

Careful consideration to:

- Education
- Planning
- Technology transfer

In the meantime, incentives for other sources of energy (renewable, natural gas) should be increased to address energy security

Thank you!

