



# <u>Masinloc Power Station</u> <u>Expansion Project</u>

### **Under Construction**

t type	Project type	Coal-fired power plant
cation	Location	Masinloc, Zambales
Dutput	Output	315 MW x 3
Cost	Cost	US\$1.2 billion
f funds	Source of funds	Private
onent	Proponent	SMC Global Power
uction	Start of construction	March 2016 (Unit 3), TBA (Unit 4 and 5)
Status	Status	Active
rations	Start of operations	Jan 2021 (Unit 3), TBA (Unit 4 and 5)

### Project description:

This project involves construction of 3 x 315 MW units to increase existing capacity of Masinloc Power Station in Zambales, west coast of Luzon. The initial plan was to build two additional units but on February 2021, SMC Global Power announced it would construct another 315 MW unit with supercritical power technology.

The existing plant was built by GPH National Power Corporation in 1998. It was acquired by the US firm AES in 2008 and was sold to San Miguel Global Power in 2018.



Photo source: POWER Magazine

#### Developments

- March 2022: SMC Global Power has completed site development, and is finalizing the engineering, procurement and construction contract for Units 4 and 5.
- January 2022: MPP was recently granted a PAO by the ERC on Jan 10, 2022, for 1 year from Jan 11, 2022, to Jan 10, 2023.
- June 2021: SMC Global Power submitted RES license renewal application for MPPCL
- **February 2021:** SMC Global power announced development of another 315 MW unit that utilizes supercritical technology

# San Buenaventura Power Plant

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Project type	Coal-fired power plant
Location	Mauban, Quezon
Output	500 MW
Cost	PhP56 billion
Source of funds	Private
Proponent	San Buenaventura Power
Start of construction	2015
Status	Completed and operational
Start of operations	September 2019

### Project description:

The San Buenaventura Power Plant is the second unit of the Quezon Power Station on the east coast of Luzon. It is the first supercritical coal-fired plant in the country.

San Buenaventura Power Ltd. Is a partnership between Meralco Power Gen and the EGCO Group of Thailand.



#### Photo source: ABS-CBN News

#### Developments

- No available update as of latest posting.
- September 2019: Project started commercial operation.

# Atimonan One Energy Power Plant

### **Under Development**

Project type	Coal-fired power plant
Location	Atimonan, Quezon
Output	600 MW x 2
Cost	US\$3 billion
Source of funds	Private
Proponent	Atimonan One Energy
Start of construction	Pending
Status	Active
Start of operations	2025 (Units 1 & 2)

### **Project description:**

This project, a 2x600 MW ultra critical coal fired power plant, has been delayed for years due to the invalidation of its PSA with Meralco and from the opposition of local environmental groups.



Photo source: powerphilippines.com

#### Developments

- **February 2022:** AOE plant has resumed development and is scheduled to begin commercial operation by June 2025.
- July 2021: Meralco has struggled to find financing for the project and has explored replacing it with an natural gas facility.
- May 2021: Atimonan One Energy announced cancellation of the project after failing to secure a PSA from ERC.

Updated on July 2022

<u>Redondo</u> <u>Po</u>	<u>Peninsula Energy</u> ower Plant	
(	Cancelled	Carle Andrew Contraction of the
Project type	Coal-fired power plant	
Location	Subic, Zambales	Entre and the second se
Output	300 MW x 2	Ser and the second
Cost	PhP50 billion	
Source of funds	Private	the second of the second secon
Proponent	Redondo Peninsula (RP) Energy	and the second s
Start of construction		Photo source: First Gen Corporation
Status	Cancelled	Developments
Start of operations		No available update as of latest posting.
Project description:		• May 2021: RP Energy announced cancellation of project due to site stability issues and after failing to secure PSA from ERC. RP Energy will

- The project was proposed as a two 300-MW circulatingfluidized bed coal-fired power plants on the Redondo Peninsula in Subic, Zambales.
- RP Energy is a joint consortium between MeralcoPowerGen, Therma Power, and Taiwan Cogeneration International.
- consider converting project into an LNG venture.

# <u>GNPower Dinginin</u> Supercritical Coal-Fired Power Plant

### **Under Construction**

Project type	Coal-fired power plant	
Location	Mariveles, Bataan	
Output	668 MW x 2	
Cost	US\$1.7 billion	
Source of funds	Private	
Proponent	GNPower Dinginin	
Start of construction	Sept. 2016 (Unit 1), May 2020 (Unit 2)	
Status	Active	
Start of operations	December 2021 (Unit 1), 3Q 2022 (Unit 2)	Photo source: AboitizPower

Project description:

This project is a joint venture between Aboitiz Power's ThermaPower, Ayala-owned AC Power, and Naurian-American Power Partners Ltd.

It will generate an additional 1,336 MW to the existing GN Power 600 MW coal-fired plant in Mariveles.

- **December 2021:** The ERC cleared GNDP to operate and contribute an additional 668 MW to supply the power grid from its first unit.
- **September 2021:** Commercial operations for GNDP Unit 2 are expected to begin in the Q3 of 2022.

**Developments** 

• January 2021: Construction and testing and commissioning for both units face delays due to the pandemic.

Updated on July 2022

# Mindanao-Visayas Interconnection

## **Under Construction**

Project type	Power grid connection
Location	Cebu and Lanao del Norte
Capacity	450 MW
Cost	PhP 52 billion
Source of funds	Private
Proponent	National Grid Corporation of the Philippines (NGCP)
Start of construction	2018
Status	Active
Start of operations	End of 2022

### Project description:

This project will connect the Visayas and Mindanao power grids as part of the long-standing plan for a unified Philippine grid to allow Mindanao to participate in the Wholesale Electricity Spot Market.

Considered the biggest power infrastructure project in the country, it involves the installation of 184 circuit-kilometers of submarine cables and 422 circuitkilometers of overhead wires to connect the Lala Converter Station, Lanado del Norte to Dumanjug Converter Station, Cebu



#### Photo source: NGCP

### Developments

- July 2022: The construction of cable terminal stations in Santander, Cebu and Dapitan, Zamboanga, the installation of power cables, and the installation of two 92-kilometer fiber optic cables are complete.
- February 2022: Operations are expected to start in June, 2022. The power grids will be partially energized in March.
- August 2021: ROW acquisition remains to be the biggest hurdle in completing the project.
- April 2021: The Vis-Min interconnection project now 50% complete.
- February 2021: The linking of the Mindanao and Visayas power grids suffered a setback after portions of the underwater cable between Cebu and Zamboanga del Norte were damaged.

Updated on July 2022

# **GNPower Kauswagan**

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Project type	Coal-fired power plant	
Location	Kauswagan, Lanao del Norte	
Output	135 MW x 4	and the second
Cost	US\$2.5 billion	
Source of funds	Private	
Proponent	GNPower Kauswagan	
Start of construction	2015	
Status	Active	
Start of operations	Dec. 2019 (Unit 1.2.3), 2021 (Unit 4)	Photo source: GNPower



#### Project description:

This facility is a four-unit coal-fired power plant located in Lanao del Norte, Mindanao. It will be a baseload plant to support power demand throughout Mindanao.

GNPower Kauswagan is a subsidiary of AC Energy in partnership with the Philippine Investment Alliance for Infrastructure Fund and Power Partners. In March 2021, AC Energy divested all of its ownership interests to Power Partners Ltd.

#### Developments

• July 2021: GNPower successfully developed GNPower Kauswagan Ltd. Co.

July 2022

• March 2021: AC Energy signed the divestment agreement with Power Partners Ltd.

Updated on

# **EWC Pagbilao LNG Terminal**

## **Under Construction**

Project type	LNG hub terminal
Location	Pagbilao Grande Island, Quezon
Capacity	3 MTPA
Cost	US\$900 million
Source of funds	Private
Proponent	Energy World Corporation (EWC)
Start of construction	March 2019
Status	Active
Start of operations	2022-2023

Photo source: EWC

#### Developments

• May 2022: EWC plant is 95% complete. The only thing missing for the commissioning of the plant is a transmission grid.

• April 2021: EWC is raising AU\$65 million through a fully underwritten nonrenounceable one-for 2.21 entitlement offer, which will be used for the completion of Pagbilao LNG plant's transmission facilities. Project expected to be operational by 2022 or early 2023.

### **Project description:**

Australian firm EWC is developing the country's first LNG hub terminal. The facility will support an adjacent 650 MW combined cycle gas-fired power plant.

EWC has been developing the import terminal and power plant since 2011. Construction was held back by several delays including the completion of a tie-in connection of the Tayabas-Naga transmission of NGCP and movement and supply restrictions caused by the pandemic.

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# **FirstGen LNG Terminal**

### **Under Construction**

Project type	LNG hub terminal
Location	Batangas City, Batangas
Capacity	5 MTPA
Cost	US\$1 billion
Source of funds	Private
Proponents	FGEN LNG and Tokyo Gas
Start of construction	March 2021
Status	Active
Start of operations	3Q 2023



This project is a partnership between FGEN LNG, a whollyowned subsidiary of First Gen Corporation, and Tokyo Gas Co. Ltd. The targeted market is First Gen's existing gas-fired plants in Batangas: Santa Rita (1,000MW), San Lorenzo (500MW), San Gabriel (414MW), and Avion (97MW) plants. The current fuel source for these plants is the offshore Malampaya gas field, expected to end production in the current decade.



#### Photo source: First Gen

#### Developments

- June 2022: First Gen Corp. requested for an extension to March 23, 2023 for the validity of its permit to construct, expand, rehabilitate and modify the proposed facility.
- **May 2022:** First Gen Corp. is conducting a tender to secure LNG supply for its interim offshore LNG terminal in Batangas, which is set to be completed in the 4<sup>th</sup> quarter.
- January 2021: EPG contract awarded to McConnell Dowell Philippines. Construction to begin in March.

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# **Tanglawan LNG Terminal**

	Cancelled	1
Project type	LNG hub terminal	
Location	Bauan, Batangas	and the strength
Capacity	2.2 MTPA	Constant and the second
Cost	US\$2 billion	
Source of funds	Private	
Proponents	Tanglawan Philippine LNG	
Start of construction		
Status	Cancelled	Photo source:
Start of operations		
<b>Project description:</b> Proposed facility will be an onshore LNG receiving and regasification terminal integrated with a future 1,000 MW power plant.		<ul> <li>January 2021: essentially wit regarding its p</li> <li>December 20</li> </ul>

Tanglawan Philippine LNG is a joint venture between Phoenix Petroleum Philippines and China National Offshore Oil Corporation (CNOOC). • January 2021: The DOE was forced to cancel Tanglawan's NTP, saying it essentially withdrew its plans due to financial constraints and other difficulties regarding its project proposal.

**Developments** 

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• December 2019: Project applied for a temporary suspension of its permit to proceed, following Udenna Corporation's (a parent firm of Phoenix Petroleum) acquisition of Chevron Malampaya LLC's 45% stake at the Malampaya gas-to-power project consortium. Phoenix and CNOOC will submit a new concept for the project to planned LNG terminal and Malampaya project.

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# **Excelerate Energy LNG Terminal**

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LNG hub terminal	Project type
Batangas	Location
1.5 MTPA	Capacity
US\$200 million	Cost
Private	Source of funds
Excelerate Energy LP	Proponents
Pending	Start of construction
Active	Status
Q3 of 2022	Start of operations



#### Photo source: Excelerate Energy

#### Developments

Project description:

Proposed facility is the fourth LNG project application to be issued an NTP permit by DOE. Unlike other proposals for land-based facilities, Excelerate will build a floating storage regasification unit which will be easier and faster to bring into commercial operation. The market being targeted is the Ilijan gas-fired plant in Batangas, as well as a prospective expansion of Ilijan.

Excelerate Energy is a Texas-based pioneer and market leader in innovative floating LNG solutions.

- **May 2022:** Excelerate is scouting for power supply agreements for proposed anchor power plant projects. This may include plans of joining the competitive selection process of Manila Electric Company.
- **August 2021:** DOE is evaluating Excelerate's Permit to Construct application, while the company is securing the necessary permits from other concerned government agencies and financial closing prior to construction.
- **April 2021:** Excelerate Energy submits request for permit to construct, expand, rehabilitate, and modify project to DOE.

# **GigaSol Alaminos**

Completed			
Project type	Solar power farm		
Location	Alaminos, Laguna		
Capacity	120 MW		
Cost	PhP3 billion		
Source of funds	Private		
Proponents	AC Energy		
Start of construction	December 2020		
Status	Completed and Operational		
Start of operations	June 2021		

### Project description:

This solar power farm exports energy to the Luzon grid and can power 80,000 homes while avoiding 111,000 metric tons of carbon dioxide equivalent of greenhouse gases. It is the second largest largest solar power farm in the country.



#### Developments

- June 2021: Start of operations.
- December 2020: Start of construction.