

PLTP LAHENDONG – PLN & Pertamina Geothermal Energy



The Lahendong geothermal power plant is situated in Tomohon, North Sulawesi, about 30 km south of the province's capital city Manado.

The 20 MW unit began its commercial operation in 2001 after an extended construction period following the Asian financial crisis in 1997.

Potential geothermal resources of Lahendong / Tompaso that reached 200 MWe have been developed in PLTP Lahendong I, II and III, which supplies electricity needs for the people of North Sulawesi.

Geothermal Power Plant (PLTP) Lahendong is the largest generating units with environmentally friendly energy based on geothermal resources in North Sulawesi. North Sulawesi PLTP contributes 60% of the electricity system in the province.

In May 1999, Pertamina signed a contract with PLN to supply steam to a unit I (20MW) geothermal power plant. Lahendong area has been operated since 2001 that began with the operation of PLTP Lahendong I of 20 MW. Development of next PLTP units, namely Lahendong II 20 MW Geothermal Power Plant began in 2004 and began operation in 2007.

Pertamina Geothermal Energy (PGE) also operated Indonesia's first binary cycle power plant in the area, with the assistance of a \$ 5 million soft loan from France. The 2.5 MW plant is a pilot scheme to gather experience in the development of other small-scale geothermal power stations.

PLTP Lahendong II which is the development of PLTP Lahendong I is a strategic project because it provides a significant contribution in meeting the electricity needs in the province of North Sulawesi. This project was built with a design that has a life time operation in 30 years.

For PLTP Lahendong III 20 MW, operating tests have been carried out in April 2009, bringing the total generating capacity in the area Lahendong amounted to 62.5 MW.



Lahendong 1 & 2





Lahendong 3 & 4



Lahendong 2



Lahendong 1



Lahendong 1



Lahendong 1

Type	Geothermal Power Plant
Area	North Sulawesi
Kind of Fuel	Geothermal
Capacity	Unit 1 = 20 MW , unit 2 = 20 MW , unit 3 = 20 MW, unit 4 = 20 MW total = 80 MW
Owner	PT. PLN
Shareholders	PT. PLN
Activity Since	Unit 1 = 2001 , unit 2 = 2007 , unit 3 = 2009, unit 4 = 2013
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No. Unit	Turbine			Generator	COD	MW
	Manufacturer	Type	Serial Number			
1	CEG Alsthom	TC 203 MV 022	E 300 878	CEG Alsthom	2001	20
2	Fuji Electric	n.a	n.a	Fuji Electric	2007	20
3	Fuji Electric	n.a	n.a	Fuji Electric	2009	20
4	Fuji Electric	n.a	n.a	Fuji Electric	2013	20