

GUNUNG SALAK GEOTHERMAL ENERGY INDONESIA

Tapping into Indonesia's vast
geothermal potential to generate
clean electricity



This project upgrades the capacity of an existing geothermal plant, significantly increasing its efficiency. The power plant – the first of its kind in Indonesia – now generates even more clean, renewable energy, while improving the livelihoods of surrounding local communities.

The Context

There are over 150 active volcanoes in Indonesia, giving the archipelago nation huge potential for geothermal energy production. Indeed, 40 percent of the world's geothermal reserves are located underneath Indonesia, but only about 6 percent have been developed. Setting up a geothermal power plant is costly and risky. On top of this, geothermal exploration was classed as a mining activity by the government until 2014. This made it near-impossible to pursue, as almost 80 percent of Indonesia's geothermal locations are within protected national parks.

The Project

Located within Halimun-Salak National Park, the Gunung Salak Geothermal Energy project involves the capacity upgrade of three turbines at an existing geothermal power plant from 55 MW to 60 MW, significantly increasing its efficiency. This additional installed capacity of 15 MW allows the plant to generate more energy from the same source of geothermal steam. This helps service Indonesia's growing energy demands with clean electricity, reducing the need for emissions-heavy fossil fuel burning power plants.

The Benefits

The project creates social benefits extending beyond simple emissions reduction. The project promotes sustainable development and supports regional educational programmes, running activities such as book donations at local schools. The Gunung Salak project also improves employment opportunities by offering vocational training classes in the garment industry to unemployed local community members, and improves local transport infrastructure through, for example, upgrading roads and bridges.

The Gunung Salak project harnesses heat from deep within the Earth to generate clean geothermal power – a viable, renewable alternative to burning coal



IDR 372 million+

in total invested in community services, ameliorating lives and contributing to sustainable development in rural Java



IDR 55 million+

invested in local health services for communities



IDR 366 million+

invested in local educational services



1,419,000 MWh

of geothermal renewable energy generated on average annually



IDR 51 million+

invested in biogas processing (transforming livestock manure into biogas and organic fertiliser)



32 jobs

created in a remote region, boosting the local economy



IDR 198 million+

invested in local bridge and road construction



104,620 tCO₂e

mitigated on average each year



IDR 1.1 billion+

invested in education on, and conservation and regeneration of, surrounding Halimun-Salak National Park – protecting habitat for wildlife such as the West Javan gibbon, Javan eagle and Javan leopard, as well as tree nursery programs in some districts.

For more information on the UN Sustainable Development Goals, please visit: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Official name: Capacity Upgrade of Gunung Salak Geothermal Power Plant Project Indonesia | **Registry link:** http://www.vcsprojectdatabase.org/#/project_details/144 | **Registry ID:** 144