



Sustainability action · Project Renewable Energy and Energy Efficiency

Saysetha Small Hydropower

Using Laos' water resources towards its national development

The Xenamnoy 1 hydropower power facility is a small-scale run-of-river plant that generates sustainable electricity in one of the poorest regions of the world.

Project

Laos is covered by dense tropical forests and forms a rich habitat for numerous species. To save this unique landscape and at the same time generate clean energy from its rich sustainable sources for the country's growing demand, an elaborate run-of-river hydro plant has been built on the Xenamnoy River.

The project involves the development of a new run-of-the-river hydropower station. The installed capacity of the project is 14.8 MW, supplying approximately 85'000 MWh of electricity to the power grid.

Following the Laos PDR's electrification policy, the increased electricity demand cannot be met locally. Instead, it must be imported from Thailand.

This would positively contribute to the balance of payments of the country of Laos by reducing foreign currency expenditures. Thus, by the project activity, a large amount of greenhouse gases is kept from entering the atmosphere, and Laos's growing economy is fueled with emission free energy. But the project is not only mitigating global warming and taking care of the environment, the local population of this remote region far from the next city is benefitting as well.

Checklist	Additionality and permanence	3 rd party verified	Transparency	Annual CO ₂ -reduction	Social and environmental benefits	Marketing material
Project 301 393	According to the rules of The Gold Standard	by PWC	Provided by Markit Environmental Registry	50,000 tCO ₂ e	As documented in our database	High resolution pictures available



Location

Xenamnoy 1 Hydropower facility is located on the Xenamnoy River, Attapeu Province in the southern part of Laos. Laos is a Least Developed Country (LDC). It has rich hydropower assets. Unfortunately, the country lacks the necessary economic resources to make electricity services available to everyone, especially for the people living in rural areas.

Project achievements

Socio-economic impact

- The plant generates 85'000 MWh per year, providing clean electricity to over 42'000 households (estimate based on average household size of 5.9 persons and per capita electricity consumption of 338 kWh in Laos).
- During construction and operation of the plant plenty of job opportunities were provided for local residents.
- The local transport infrastructure was greatly improved: the project owner constructed a new road leading to the power plant. It is open for public use. Besides that, the conditions of several existing roads were improved.
- The project owner implemented a local water supply programme whereby a water well was dug and a water pump provided for the villagers.
- A new temple was built for religious ceremonies of the local community.
- The project owner cooperates with the local telecommunication company, providing electricity to the communication station.
- The project owner is financially supporting the appointed professional staff of the Agricultural Development Fund. This Fund introduces modern agricultural technologies to the villagers.

Environmental impact

- Better air quality due to less use of firewood for domestic use. The firewood is replaced by electricity in newly electrified rural areas.
- On average 50'000 tCO₂ per year are reduced due to displacement of fossil-fuel electricity generation in the Laos and Thailand connected power grids.

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