

HOUAY MAKCHAN RIVER HYDRO LAOS

**Clean power to bridge Southeast Asia's
electricity supply-demand gap**



This run-of-river hydropower project on the Houay Makchan River in Champassak Province, southern Laos generates renewable energy from flowing water. The 5 MW-capacity hydro plant helps bridge the regional supply-demand electricity gap with affordable clean energy, as well as delivering social and economic benefits to surrounding communities.

The Context

Electricity supply in Laos is falling behind demand, and imported power from Thailand via the regional grid comes from emissions-intensive thermal power stations that generate energy by burning fossil fuels.

The Project

This small-scale, run-of-river hydroelectricity project generates renewable energy from the flowing waters of the Houay Makchan River on the Bolaven Plateau in Champassak Province, southern Laos. The hydropower facility features a fixed weir, a sand flush, intake, headrace channel, head tank, penstock, a powerhouse with two MECAMIDI turbines (each with a 2.5 MW capacity), and a tailrace. The power generated by the project is supplied to the Lao Power Grid (which is connected to the Thailand Power Grid through transmission lines), thus supplying clean electricity to the wider region.

The Benefits

As well as displacing electricity from the fossil fuel-dominated Thailand Power Grid with renewables, the remote communities surrounding the project benefit from better electricity access, as well as improved access to clean water. The local economy also receives a boost from increased investment and new job opportunities created by the project.

This project brings millions of dollars to a remote region of southern Laos that previously attracted very little investment, boosting the local economy.



Gold Standard



Million of dollars

invested in this remote region of Laos



1,583 people

benefiting from 10 new water pumps in the nearby villages of Nam Tuad and Tayik Seua



27,000 MWh

of renewable hydroelectricity supplied to the regional grid on average annually



23 long-term jobs

created for local people in project operation that pay above average salaries



15,107 tCO₂e

mitigated on average annually in the first crediting period, by displacing energy from thermal power plants

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

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