UGM Builds Micro-Hydro Power Generator in Central Sulawesi

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Data from the Ministry of Energy and Mineral Resources in 2016 recorded that as many as 12,000 villages in Indonesia had yet to benefit from electricity. One of these villages is Lewara village in Central Sulawesi. This condition has driven the research team from the Faculty of Engineering, Universitas Gadjah Mada (UGM) to build a micro-hydro power generator to meet the need for power in the isolated areas.

The village is situated in Sigi regency in the Matantimali hills which is around 90 km away from Palu, the capital of Central Sulawesi. To get to the village takes an hour’s drive from Palu, followed by a motorbike ride for half an hour along steep and narrow roads. Lewara village consists of five hamlets.

UGM is building the micro-hydro power generator in the first hamlet of Lewara, which is occupied by 100 households with 300 residents. The generator utilizes the Lewara river’s flow which has a critical discharge of 90-100 litres/second.

“We’re making use of the Lewara river to generate a power capacity of 10 kilowatts. Each household will receive as much as 100 watts of electricity,” said UGM team chairman, Dr.Ir. Suprapto Siswosukarto, recently.
Suprapto said the Lewara people had long dreamed of having electricity in their village. Through the Community Resilience and Economic Development (CaRED) program, UGM, in collaboration with the New Zealand government is trying to build-up underdeveloped regions in East Indonesia.

UGM’s team, consisting of Prof.Dr.Ir.Bambang Yulistiyanto, Dr.Ir.T.Aris Sunantyo, M.Sc., and Dr.Ir.Prajitno, M.T., and Dr. Surapto, started to build the micro-hydro generator in February 2017 and aim to complete it by December 2017.

Most of the underprivileged people of Lewara have a low level of education. The majority make their living by growing cocoa, coffee, corn, and cloves that generates less than one million in income each month. “The micro-hydro generator is expected to support these activities, as well as increase the economy of the local people,” Suprapto added.

One of the residents, Naji (53), said the Lewara people had long awaited for electricity to become available in their village. During this time, they were forced to use petroleum lamps at night. Recently, a few of the residents have used generators and solar panels, but these cost too much.

“We are very happy and thankful that with the construction of the micro-hydro generator, we will soon enjoy the use of electricity here,” said Naji.

Lewara village chief, Yude, welcomed the generator’s construction by UGM. The electricity will bring progress and develop the business potential of the local people, such as in agriculture, bike repairs, etc.

“We appreciate that UGM has helped the people of Lewara to get electricity. We hope the generator will soon be up and running and electricity can be available in the other hamlets of Lewara, too,” he said.

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