



Electricity supply has been irregular over the past year for Sabah's urbanites. However, despite all the hard work and progress, there remains a clear disparity in energy access between those in the city and people in remote regions where we estimate 120,000 people live beyond the state's electricity grid.

This is where the Sabah Renewable Energy Rural Electrification Roadmap (SabahRE2) is stepping up to find collaborative solutions to the issues of unmet energy demand, working alongside Sabah's Economic Planning Unit (UPEN), the Ministry of Rural Development (KPLB), and Sabah Electricity Sdn Bhd (SESB).

SabahRE2 is a consortium comprising four collaborating organisations: Forever Sabah, TONIBUNG, PACOS Trust and Green Empowerment. The idea is to consult with un-electrified communities and deploy renewable energy generation technologies to design a way to navigate towards a future of energy equity, right livelihoods, and wellbeing for rural Sabahans. As home to 72% of un-electrified rural Malaysians, and in this era of climate change, Sabah has the opening to pivot towards renewables as a viable solution for energy access for communities distant from the state grid who can pioneer a low-carbon future. The vision to address half of Sabah's rural energy demand by 2030 through mini-grid systems. The initiative launched in 2021 with the award of a British Government grant from the Partnering for Accelerated Climate Transitions (UK PACT) Programme.

To work out how to get electric power deep into the mangroves, mountains and forests of Sabah, SabahRE2 teams started both from the sky and from the ground. Using satellite images, all the villages, roads, streams, electricity distribution lines were mapped, often for the first time. Simultaneously community networks, local government officials, and anyone else with knowledge of

remote Sabah were asked about the needs and electrification status of each of the villages. Teams of local researchers, community organisers and field engineers meanwhile criss-crossed Sabah meeting communities and sharing the vision of off-grid energy supplies in places often reachable only by boat or on foot, or with a tough 4x4.

What SabahRE2 found in these remote areas were thousands of single household solar panels, and inefficient little generators running on expensive polluting diesel with most families making do on a few hours of power a day, and too weak to run things like refrigeration that could transform livelihoods. They also found beautiful villages, strong cultures, rich resources, abundant sunshine, and fast clean forest streams capable of generating enough power for mini-grids without the need of dams.

In the first year of the project 400 villages were mapped, 206 profiled, and feasibility studies for 57 undertaken on a proposed 35 mini-grids. Using TONIBUNG, Green Empowerment and PACOS Trust's experience of 20 years of establishing village renewable energy systems in Malaysian Borneo, SabahRE2 is now preparing to roll out a pilot cohort of renewable energy mini-grids. These will be financed through blending a variety of local and international funding streams and supporting communities to build the skills and the enterprises to develop, maintain and pay for their own power.

This is the cutting edge of how tackling climate change and improving life in Sabah can be practically connected; please visit www.sabahre2roadmap.org to share with us these maps, stories and hopes.



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