

Solar puts radio back on the air

Things don't always go to plan when installing solar power systems in East Timor. Members from the Alternative Technology Association's International Working Group tell us about their latest work

Rule number one is that nothing is ever as they tell you it is' says Alan Hutchinson, volunteer with the ATA International Projects Group. Alan travelled to East Timor with the group in October to install solar power systems in the south-west corner of the country. He didn't think they'd be fixing radio stations along the way.

This was the group's third trip to East Timor since they established in 2003, with Alan participating in all three trips. This time nine volunteers travelled to East Timor, splitting into two groups. Alan's group was based around the Suai and Same areas.

One of the tasks was to solar power the Suai community radio station (the only mass communication in the whole area). At the last moment they were also asked to replace the solar panels on the transmitter because they had been stolen. What should have been 'a fairly straightforward sort of job' turned out to be far more complicated than expected.

The transmitter site was 10km out of town. Copper thieves had brought down the tower, stolen the coax cable, the batteries and the panels. The area had been without the radio station, a vital community service, for months. There was talk of people coming to fix it, but nothing had ever eventuated.

'What was the point of putting on solar panels if the radio station was sitting in pieces in the shed?' says Alan. Being a communications engineer meant that Alan knew something about how transmitters worked, so after getting the go-ahead, the group set about fixing the transmitter. First thing to do was call



There was dancing in the streets as radio Covalima is back on the airwaves thanks to the ingenuity and resourcefulness of the ATA International Working Group.

the office back home for some advice.

Then the group set about scavenging for bits and pieces needed to fix the transmitter. They ratted connectors and U-bolts from the UN compound, but the big problem was to find 50m of coax cable to connect the aerial to the transmitter. In true Timorese spirit, an unused piece was located at the local police station and was 'reallocated' to a more useful function with a suitable counter deal for the police (we get it down for you, you get to sell the left over bit). The old mast was bolted to the side of a shipping container next to the studio in the middle of town, with the coax run across into the studio.

Next step was how to power the setup. The solar system was 12 volt, but the transmitter was 24 volt.

'We added two 6 volt batteries on top of the 12 volt system to make 24 volt. We then connected a battery charger to these which was powered from the inverter running off the 12 volt solar-charged system. 'Odd, but workable' says Alan.

The project started at 2pm, and by 10am the next morning the radio station was all wired up. 'I wasn't getting any signal on the transmitter meter so I thought it wasn't working' says Alan. After half an hour of tearing out his hair, he was told that people were dancing

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The ATA International Projects Group would like to thank Infoxchange, who supplied a computer for a low-vision clinic, Computerbank, who supplied a laptop computer with a DVD player for a priest to show educational videos in villages, Plasmatronics for all the regulators, the Environment Shop, Latronics, Selectronics, Alco Battery Sales, Solar Charge, Going Solar and KC Stork. A big thank you also to Nathan Martin who helped get the equipment together in Darwin.

Also thank you to the Friends of Suai, Friends of Same, Friends of Aileu, Friends of Oecussi and Australian Ethical for their financial support.



Left: Nigel and Natalie attach the transmitter mast to a shipping container next to the studio. Above: The radio station performs a vital role in the local community as it is the only form of communication. Below: the solar panels are lifted onto the roof ready for installation.



around outside because the station was actually on air. The transmitter meter was broken!

Suai now had a completely solar-powered radio station. They hadn't even had town power for the last three months because of a generator breakdown.

According to ATA International Projects convener Michael Harris, communications in East Timor happen in just a couple of ways; word of mouth or via the radio. 'A lot of false information is spread. The radio provides accurate information and helps to hose down tensions'.

The radio station is also vital for promoting local businesses, or for small community announcements, such as someone asking for a lift to the next town. 'It's a very important grassroots tool run by the local community,' says Michael.

Another solar system was installed at a low-vision resource centre in Same to power lights and a computer and braille embosser printer using text-to-speech software. Two six-panel systems were established at the youth centre and community centres in Suai. A six-panel system was also installed at a health centre situated deep in the hills, two and a half hours down a rocky road, run by two rather homesick Cuban doctors. In addition, four systems were installed in the Aileu district when the group repaired a system put in last year at Lequidoe. They also installed a system for the District Administrator and police.

Team two, including Mike O'Connell (ATA President), Patrick McHugh and Bill Bennett, ventured into the remote enclave of Oecussi, installing solar lighting systems for community buildings in three centres on behalf of Whitehorse Friends of Oecussi. A large, six-panel system was provided to the local Oxfam office to run computers and other equipment.

A project was also undertaken at an Eco



Village on Atauro Island, providing lighting to all the accommodation huts as well as powering a fridge for the kitchen.

The group trained local electricians in Suai, Aileu, Oecussi and Ataouro, to the extent that Natalino, an Aileu resident, was given the parts to install a system at the health clinic at Berelau.

Due to the renewed tensions in East Timor just a few weeks prior to their

departure, the number of projects undertaken was reduced. 'Everything went very smoothly despite the unrest. There were no personal threats and we felt quite safe,' says Michael Harris.

'Regular follow-up and support is essential both for spare parts and for training of locals so they can maintain the equipment themselves. The current problems make it even more impor-

tant that we demonstrate we will not desert the people of East Timor in these troubled times.' ✨

If you would like to get involved with the ATA International Projects Working Group contact Michael Harris on michael@ata.org.au

The group welcomes volunteers to help implement projects, as well as donations of money or equipment.

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