

Centrespread

Aride's Australian mission's direct aid programme-funded renewable energy project - 20.04.2013
Aride takes first steps to become self-sufficient on solar power

Since March 28, the Aride Island Nature Reserve has been functioning on solar power provided by a newly installed renewable energy hybrid system (solar system), comprising panels, a 5kw inverter and 20 batteries.



The new installation is in line with the goal of the Island Conservation Society (ICS) – which owns and manages the island – to promote 'green' and sustainable eco-tourism on it.

The project, which is being divided into two phases, is primarily aimed at reducing the island's demand for fossil fuels (mainly diesel).



Phase one is being funded by the Australian High Commission Direct Aid Programme (DAP) and WHL Energy Ltd with a contribution of R415, 500, while phase II – which is set to start in October 2013 with R630,000 funding from the UNDP/GEF Small Grants Programme – will help to boost this system by reducing reliance on diesel by over 90%.



It will also provide a model for other small scale renewable energy and nature conservation projects on remote islands, as well as serve as a tool to educate younger generation and make them aware of the threat of climate change on human-wellbeing, ecosystem services and functioning.



Headed and supervised by the ICS, the installation of the solar system was carried out by a team of local technicians from Solar Energy Seychelles – who specialise in engineering design, building construction and solar installation, under the supervision of senior researcher Mike Prior-Jones of the Sharp Laboratories of Europe Ltd.



Solar Energy Seychelles has been very keen to work with local NGOs to promote 'green' technology and in turn has made a substantial in-kind contribution of R293,300 towards this project so far. Similarly SHARP has made an in-kind contribution towards the project.

According to the ICS, it is projected that on completion of this project in December 2014 Aride Island community will only emit a low level of green house gases (GHG) and about 10 tonnes of carbon dioxide will be avoided each year.

Benefits of photo-voltaic system

A photo-voltaic system (PV) is a form of clean and quiet electrical energy generation technology, which poses no adverse effect to the environment such as air pollution, noise pollution or oil spillage. The process involves simply the collection and conversion of sunlight energy by photovoltaic cells into electrical energy which can be used directly or stored in a battery.

Maintenance associated with this technology is normally simple and can be done by the users themselves and includes no battery maintenance except for periodic checks, panel cleaning, cleaning and greasing of battery poles.

This therefore makes the associated maintenance cost relatively low.

Furthermore, this system unlike most other energy conversion technologies has no running cost. That is, there is no need for continuous fuel supply to sustain the operation.

Employing such technology in a highly sensitive area of rich biodiversity like Aride Island will be a perfect blend. T

he island and its environment are more prone to negative impacts via other technology such as oil driven generators employed for electricity generation. Negative impacts can be in the form of



oil spillage during unloading, which can be a major factor for Aride Island considering its fringing reef and choppy sea particularly during the south east monsoon as well as its small and shallow freshwater aquifer.



Noise and air pollution from greenhouse gases such as carbon dioxide release as a result of the generator running can cause disturbance to wildlife, especially birds and thus result in additional impacts.



Other environment pollution involve soil contamination particularly with oil spillage or even improper disposal of used oil from the generator set, which is known to be toxic to soil micro-organisms and plants and also acts as source of groundwater contamination.

This system has the added benefit of boasting a very low maintenance and day to day running cost.

The ICS recognises the need for good communication, education and creating awareness about conservation issues and would like to take this opportunity to use this project as a learning platform to sensitise school children about the threat climate change poses to human wellbeing, ecosystem services and functioning.

It is proposed that an interactive learning process is applied through oral presentation, discussions within the schools and followed by island field visits to Aride where students will have the chance to discover what non-governmental organisations are doing to combat climate change and hopefully inspire them to encourage and/or replicate in the future such systems in their community or elsewhere.

About Aride Island special reserve



Aride Island special reserve is situated just under 10km north of Praslin and is the most northerly granitic island on the Seychelles Plateau, with the largest seabird colonies of all the granitic islands of Seychelles.

It is second in importance only to Aldabra as a haven for biodiversity in the country, and it is managed by the IICS, which is a locally registered non-governmental organisation. The total human population on the island is only eight people who are permanent staff and volunteers working as tour guides and wardens, while others are involved in monitoring and research.



Intermittently the island entertains visitors and researchers who are not employed by the island. Aride Island offers guided tours to visitors five days per week.

The island generates £40,000 annually through UK's ICS which depending on the exchange rate which fluctuates massively in rupee value. In recent years it has been between R400,000 and R1 million and currently stands at R700,000. Local income is around R1 million annually while project income varies hugely.

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