

Energising villages

Naturetech Infra's smart solar micro-grids powering rural folks in UP aims to reach out to one lakh households by 2017. **Energy Next** reports

Aiming to serve rural households with reliable and smart electricity through a sustainable and scalable mode, Naturetech Infrastructure, a company that deals with solar power, has been striving to bring about a change in the Uttar Pradesh countryside through its low-cost smart solar micro-grid model.

Shyam Patra, founder and director of Naturetech Infra, says that the company has been trying to bring light into the lives of rural folks in UP by setting up smart solar micro-grids. Till date, with the limited promoters' resources, the company has built one smart AC solar micro-grid and 24 DC smart micro-grids with total beneficiary family base in excess of 400, impacting about 2,500 rural lives. It has also built 7 micro-grids for UP Non-Conventional Energy Development Agency (UPNEDA), which has become a model for large scale replication across the state.

Claiming its innovative smart solar AC micro-grids one of the cheapest models in the world, Patra, says, "The total cost of a 1 KW smart AC micro-grid with complete underground power distribution, 24 hrs electricity supply, smart prepaid metering, etc. for a village comprising 40-50 household is Rs 5 lakh." The first smart AC solar micro-grid has been in operation in Sakran Block of Sitapur district in UP since April 2013. This project which is built, owned and operated by Naturetech Infra, is the first of its kind in the country.

The solar micro-grid for a hamlet of 30 to 40 households can be electrified in just 7 days. Besides meeting the basic



Naturetech Infra team at a village with Smart Solar micro-grid

lighting and mobile charging needs of the villagers, the system also keeps surplus power for optional loads of customers like running TV and fans and for micro enterprise loads like electrical stitching machine, etc. Beneficiaries pay as per their actual use through smart prepaid meters. The capacity of the PV panel and battery bank capacity are increased in line with the increase in power demand of the consumers.

The company aims to electrify over 100,000 rural households through its cheap Smart Solar Micro-grids by 2017 besides promoting its range of complementary innovative and low cost clean energy products in areas of its micro-grid operation. In Sitapur district alone, it plans to provide cheap and affordable solar energy

to 600,000+ households over the next five years. Getting funds is a big constraint and the company is in talks with a few social impact investors and financing institutions to take forward the campaign of rural electrification through solar energy.

Revealing future initiatives, Patra states, "We have formed a consortium with New Delhi-based Alpex Solar, a leading solar PV manufacturer, to get ourselves empanelled with MNRE as implementing agency for its upcoming Grand Rural Area Energy Access Program. This program is expected to be the government's leading hope to bring electricity to 400 million population of India (50 per cent of them living in UP and Bihar) who are yet to have access to electricity." **EN**