



WWF

FACTSHEET

IND

2013

## Sustainable Energy Access

# Solar Charging Station

Energy Access for Sustainable Development  
ABB and WWF International

Energy Access is an important issue in the Indian Sundarbans Delta where installation of grid infrastructure is difficult due to the presence of numerous islands and water channels. WWF-India is working in this critical landscape to promote clean energy access through the installation of a centralised solar PV charging station. The energy delivery mechanism involves distribution of energy access kits and charged batteries.

### Project Details

**Project Name:** Energy Access for Sustainable Development

**Funding:** Co funded by ABB and WWF International

**Cost:** INR 20,00,000 for first solar PV charging station (5 years annual maintenance cost included)

**Community Contribution:** Land and labour

**Location:** Tipligheri village, Lahiripur Gram Panchayat, Gosaba block of Sundarbans

**Shareholders/Consumers:** 95 Households and some shops.

**Management and operation:** Adibasi Gokul Chandra Bidyut Committee. A sub-committee of Sardarpara Panio Jal Samiti managed and operated by tribal women users' group.

**Project commissioning date:** August 16, 2012



LESS THAN 5% OF  
8,293 HOUSEHOLDS,  
COMMERCIAL  
ESTABLISHMENTS  
AND COMMUNITY  
BUILDINGS IN SATJELIA  
ISLAND HAVE ACCESS  
TO SOME FORM OF  
SOLAR PHOTOVOLTAIC  
SYSTEMS



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## System Configuration

- + Generation capacity- 4.1 kWp
- + Output- 15.8 KWh
- + 140 nos battery (12V 40Ah@C10)
- + 51 nos 80 Wp modules
- + 1000 VA inverter with 2 nos. 12V 100Ah batteries to provide round the clock grid quality electricity in the community conservation centre/charging station
- + Energy Access Kits fixed in every household. This kit comprises of 12V 40Ah sealed maintenance-free tubular battery, CFL fixtures, charge/discharge controller, and a switch board with a plug point, mobile charging device, wires and clips

## Uniqueness

The project is operated and managed by tribal women users' group. A centralised solar PV charging station is installed over a village common space. Based on energy demand assessment the system capacity is 4.1 kWp while the energy delivery mechanism involves distribution of Energy Access Kits comprising of Luminaries, discharge controller, 12V 40AH battery, cell phone charging kit, switch board with a plug point and switches (for chargeable torch, small DC fans) to every household.

## Steps of village energy planning

- + Energy demand assessment
- + Village selection
- + Project introduction
- + Project site selection and land donation
- + Community level energy education and information session
- + Village level meetings seeking agreement to participate in the project.
- + Household energy budgeting (including socio-economic survey) and layout preparation
- + Community and entrepreneur energy budgeting
- + Village mapping and survey
- + Village energy plan and review
- + Energy committee formation
- + Security deposit collection and savings bank account opening
- + Local system operator selection
- + Post system installation support and training for the community



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## Conservation benefits

Energy access is expected to improve the lives and livelihoods of the community members. This project is also expected to help reduce human-wildlife conflict in this forest fringe tribal hamlet.

For more information, please contact:

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To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

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