



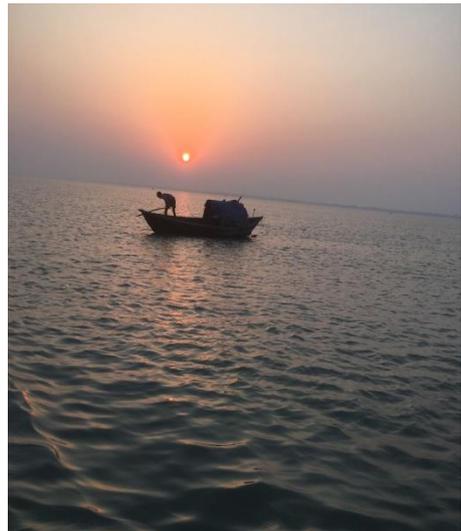
ELECTRIFICATION THROUGH RENEWABLE ENERGY BANGLADESH

Power Cell, Power Division, Government of Bangladesh appoints Meghraj Capital, India, as Joint Consultants to Develop a Detailed Project Feasibility Report for Electrifying the Remote Island of Rangabali Upozilla with Renewable Energy Sources

The country of Bangladesh includes several remote islands which are virtually cut off from the main land. Given their remoteness, most of the islands do not have access to grid based electricity.

Rangabali, an island in the Bay of Bengal, is named after the red coloured sand found in the area (ranga - red and bali – sand). The remote island, spread across 470 sq.km. in Patuakhali district, is dependent upon diesel and other polluting fuels for its energy needs.

Fishing and agriculture are the main sources of livelihood and there are a good number of commercial establishments and workshops that cater to these sectors. However, absence of a reliable power source limits these establishments and livelihood options in fully harnessing the business potential.



For example, fishermen are forced to sell off their entire catch on the same day as they cannot store the fish, and this results in low returns for the majority of the population dependant on fishing. Presently the commercial establishments (like workshops, welding shops, saw mills, etc.) are dependent on diesel generators for meeting the load requirement for machinery (eg: lathe and welding machines, etc.). Furthermore, due to a lack of reliable electricity access, the livelihood options at present are very limited.

There is a good demand for power-based establishments, and also augmentation of the present establishments based on reliable power supply, as the island has a good size of population of around 100,000 people and has tremendous demand and growth potential.

Although Rangabali Upozilla, is not connected to the mainland, extension of the grid is technically possible, but economically not feasible. However, the island offers enough non-conventional resources that could be harnessed locally to meet the power requirements with minimal support from conventional modes of generation.

Power Cell, established by the Government of Bangladesh, as part of the Ministry of Power, Energy & Mineral Resources, promotes renewable energy in the country and is responsible to implement specific renewable energy based programs to achieve viability of the sector. Power Cell has appointed Meghraj Capital Advisors, India and Infrastructure Development Company Limited (IDCOL) to develop a detailed project feasibility report for electrifying Rangabali Upozilla with renewable energy (“RE”) sources. The objective of the assignment is to undertake resource assessment at selected sites and popularise use of RE through development of RE projects in the country.

As part of this engagement, Meghraj Capital along with IDCOL will prepare the electrification plan for the entire island and will produce a detailed project feasibility report. The report will include the following key activities:

- Assessment of renewable energy potential
- Selection of appropriate technology or combination of technologies
- Appropriate project size to cater to the demand
- Appropriate business model that creates a win-win situation for all stakeholders
- Assess consumers’ ability and willingness to pay
- Mapping applicable consumer tariff
- Financial and economic modelling to assess the business viability
- Legal and institutional due diligence for the proposed project
- Suggestions on modalities for long term project sustainability considering risk assessment

The project is envisaged to create an ecosystem that drives socio-economic development of the community, based on access to electricity not only for lighting purposes but also productive and anchor loads (telecom towers, social institutions, etc).

Rangabali, located in the coastal belt of Bay of Bengal, is prone to natural disasters like tornados, floods, etc. In such cases, it is a common practice amongst the population, at least in highly flood prone villages, to shift to higher and safer areas along with their cattle and other important assets. Considering this, the project will also assess the status of floating population and suggest innovative energy solutions to meet their demand.

A pool of experts, engaged to serve the Power Cell Power Division, brings cumulative experience of around 190 years. The team from Meghraj Capital includes Vivek Mishra as Team Lead (Executive Director), Rakesh Jha as Co-Team Lead (Director), Swaraj Bose as Power Distribution Expert (Advisor) and Neeti Suhag as RE Team Support (Manager). The proposed engagement will involve extensive field work in Bangladesh with experts from different backgrounds of renewable energy resource assessment and mini-grid planning and implementation. The proposed engagement will be completed in a time frame of 4 months from February 2018.

