CASE STUDY 13

LITS N LIGHTS

PROBLEM:

The unprecedented COVID-19 pandemic came as a harsh shock to the entire country. The healthcare system witnessed a massive struggle. While hospitals, especially the ones in remote areas, struggled due to the dearth of beds and oxygen, the difficulties were doubled because of severe power cuts and unavailability of energy storage.

The districts of East Khasi Hills and East Jaintia Hills in Meghalaya witnessed the same adversity. Making primary health care centers and hospitals in these districts fully operational seemed like an impossible task.

INTERVENTION:

It was during the onset of Covid-19's second wave that Lits N Lights, a Guwahati based enterprise focusing on distribution of DRE products, was approached by SELCO to solarize eight health care centers in the districts of East Khasi Hills and East Jaintia Hills.

Each of these sub-centers within the district catered to an entire village, with a population of around 300 people. With no source of power, nor any backup, these centers prior to Covid-19 pandemic were usually non-functional beyond 2pm IST. However, the need for power in these centers surged during Covid-19, when vaccination storage at a prescribed temperature became a necessity.

IMPACT:

Each centre was set up in a week's time from the day of commencing work. This included setting up a solar system of 1kW and training the staff on battery and panel maintenance. The solar system installed includes a solar module, solar inverter, solar battery and a baby warmer. Till date Lits N Lights have installed twelve such solar systems across different centres. These centres now remain open till late evening and the vaccines are safely stored for a longer period, which has come as a huge respite to the 1600+ people connected with these eight centres in East Khasi and East Jaintia hills.

ABOUT THE ORGANIZATION:

Lits N Lights, based out of Guwahati, has more than 10 years of experience in solar market.

It works with some of the leading brands and provides complete solar solutions under one roof. The enterprise also undertakes the supply and installation of off-grid/ on-grid solar power plants.

CASE STUDY 14

NAVITAS SOLAR

PROBLEM:

Water across many parts of India is often contaminated with fluorine, iodine, arsenic and other impurities. This contaminated water is neither fit for consumption nor can be used for other purposes. According to a report by NITI Ayog, experts believe that 40% of people in India may not have a connection to a clean water source by 2030. Owing to climate change, continuous depletion in groundwater levels is also one of the emerging problems in today's time. Non-availability of bore-well or corporation's water makes it difficult for women to complete the chores and disrupts their daily lives.

INTERVENTION:

To address the growing concern around non-availability of safe drinking water, Navitas Green Solutions developed the Solar Powered Community Water Purification System. In the system, water is lifted from open sources such as an open well, river, pond, canal etc., and is then stored in an over-head tank. The system is powered by Solar Panels consisting of 2 or 3 solar modules (approximately 335 Wp) and can easily lift water from a depth of 30 metres. The water is purified using RO and UV technology which removes arsenic and other impurities from the water. At places where it is installed, 30 % of the water is used for drinking purposes and 70% water is utilised for sanitation purposes. The Drinking water outlet operates by a touch sensor, which ensures less wastage. Two streetlights, along with the system are provided for the easy accessibility of the system under low light or darkness. This system is sustainable in nature as it is automated and powered by solar energy.

IMPACT:

In the remote areas where safe drinking water is difficult to access, the community water purification system has brought huge respite for people. The module is currently deployed in North East, Sundarbans, border areas, and disaster prone zones. This system is also very useful to fulfill the drinking water requirements in army camps, as it reduces the burden of supplying tankers of fresh water, resulting in lesser transportation cost and reduced emissions. This system has also been successful in fulfilling requirements of water for drinking and other usage in schools and small villages.

ABOUT THE ORGANIZATION:

Navitas Solar strives to provide one of the best solutions for sustainable solar electric power with one of the most advanced production lines in India. Navitas Solar specialises in manufacturing of high efficiency mono & poly crystalline solar modules. With a total installed capacity of 200MW p.a. solar module production, expanding to 500MW in the same facility, Navitas Solarstands among the largest solar module manufacturers in India.