

EcoGrid ESS Brings Smiles to over 5000 families of villages in Uttar Pradesh, Telangana, Maharashtra and Karnataka

TRANSFORMING LIVES WITH DRINKABLE WATER WHILE OVERCOMING OBSTACLES TO LOCAL SUSTAINABILITY AND CRISIS SITUATION CREATED BY WATER BORNE DISEASES.

Located in Northern India, Uttar Pradesh is the country's most populated state with over 200 million people. It is also home to some of India's most famous destinations, including the TajMahal and Varanasi, yet over 20 million people are without access to safe and affordable water.

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uch of the groundwater here has excessive levels of fluoride and total dissolved solids, as well as high microbial contaminants. Consequently, water-related sickness is a way of life here. Villagers suffer severe joint pain and other physical disabilities that impair their ability to work. Children's health is compromised and their growth, stunted, making it impossible to attend school. Drinking untreated water has often led to significant diseases, and sometimes even death. This was also the story of Charoli Village in UP which faced a lot of problem with drinking water. A bore well was installed and villagers would drink water through the bore well. It was found that the water had a lot of contamination which started affecting people through catching diseases. This started impacting people. Then an NGO named Safe Water Networks set up an R.O plant which started providing filtered and clean water. It started improving the lives of people who would drink non-contaminated water. Further the clean water supply was for 4 hours only because electricity was available only for limited period of time. Hence beyond that period clean water availability became again a bit scarce.

They tried various conventional battery (with lead acid technology) solutions to provide backup power to the plant. However, they faced certain challenges in terms of-

- Low operation hours/ Inconsistent performance
- Frequent Maintenance/ Site visit
- Higher Operating Costs
- Slow Charging leading to low uptime of the RO Plants

THIS LED SAFE WATER NETWORK TO TRY –

ACME's Lithium Ion based EcoGrid

A micro-grid was installed with new technology. This made electricity and stable electricity supply available for extended hours upto 18 hours. The clean water was then available not only to this entire village people but to the adjoining village as well. Hence this started containing diseases and villagers started living healthier lives. This improved through this new technology product called EcoGrid, a green technology which stores electricity and provides power to run the R.O plant for extended hours even during the night time. Hence it not only addressed the pain points such as low uptime, high O&M costs, inconsistent performance etc. of the company which would supply clean water to villagers, eventually resulted in prevention of diseases to the villagers.

This game-changing system is designed to support grid-tied, grid isolated in the event of grid failure, and off-grid configurations. Each configuration delivers years of dedicated peak shifting,



back-up power, energy efficiency and industry-leading performance. It's a breakthrough technology and a superior advantage surpass the current technology and provides several benefits to the customers by overcoming their core challenges of related process issues, safety, security and others.

Thanks to ACME's partnership with Safe Water Network, residents of Charoli & many other nearby arid villages also have 24X7 access to the treated water at a meagre amount of Rs. 7 for a 20 litre can.

The plant has a capacity to produce 1,000 litres of potable water per hour. The initiative is aimed at mitigating the drinking water woes of all the nearby villages and solving the problem of contaminated water supply in rural areas while leveraging solar with energy storage to bring the greatest advantages to

the beneficiaries of the system.

The success of this installation proved that this model can be broadly replicated at almost all the locations with same or other unique set of challenges.

Here are the outstanding advantages of EcoGrid Energy Storage Device that make it a game-changing system:

- No maintenance
- Much larger life as compared to existing technologies, hence replacement hassles are not there
- Fast charging
- Reliable Power Source
- No fumes, no health hazard
- Wide temperature range
- Optimize Economical Energy Source Utilization
- Very High Efficiency – minimum waste
- Compact- small footprint as compared to
 - Conventional systems
 - Much lesser weight
 - No logistical challenges
 - Automatic hence no discontinuity
 - All-In-One Unitized Solution
 - Green technology

ACME Group is happy to work with Safe Water Networks in their other ambitious projects under same model in four different states to provide over 5000 families affordable access to reliable and affordable clean water. EcoGrid not only overcame business pain points of the Company which would supply clean water to Villages but importantly diseases to the villagers got contained. Due to its success, EcoGrid has got installed at many more places and is continuing.

