

## ONERGY



### PROBLEM:

The effects of climate change are being witnessed across the globe and sectors. Agriculture, for over 96% Small and Marginal farmers in West Bengal, India, has become a challenge. With limited irrigation facilities, the majority of the small and marginal farmers of Bengal only manage to grow a single crop of paddy during the monsoon/rainy season. Unreliable and unaffordable energy is also one of the key concerns for the farmers in Bengal. Added to their burden is the cost of operating on diesel gen sets and Electric pumps which consume 30% of the farmers' net income, resulting in a decline in their profit.



### INTERVENTION:

ONergy has been a pioneer in promoting inclusive business models since 2010. There are two key models promoted to better serve smallholder farmers. One is the Water as a Service (WaaS) model- a water entrepreneur operates the solar pump and sells water to other farmers on an hourly/daily/seasonal basis. Hence a poor farmer frees itself from capex. The second model is Water User Group Model - a Joint Liability Group of smallholder farmers is formed to facilitate financing and optimum water usage among the group. ONergy replaces expensive diesel pumps with solar irrigation. In addition, solar pumps are combined with drip and sprinkler systems ideal for horticulture farmers to improve productivity and reduce water usage. ONergy is also piloting sensor based automated drip irrigation to further reduce water usage by 25% as compared to conventional drip systems. This improves productivity with 'more crop per drop'. All solar pumps come with VFD control drives to improve efficiency and also remote monitoring and control for better service support. ONergy has also created portable/ movable solar pump structures suited for marginal farmers.



### IMPACT:

ONergy has created a transformative impact by adopting models such as Water as a Service (WaaS). This has been done by ensuring end user financing through banks to support first loss guarantees and forming Water User Groups. As farmers benefit from an increase in incomes, positive cash flows and better productivity, the switch to solar becomes more compelling. In addition, micro-irrigation methods such as drip and sprinkler support in horticulture and cash crop farming. Till date ONergy has deployed 1750 solar pumps in

West Bengal and 246 farmers have directly benefited from the WaaS model.

### ABOUT THE ORGANIZATION

ONergy Solar is an end-to- end solar solution expert. They provide design, engineering, manufacturing, installation, O&M and solar consultancy services for solar rooftop power plants, solar irrigation pumping, solar lighting and microgrids. Their solutions and services are focused towards reducing energy costs for our customers.