Bhuvaneswari Maturi

MEng

Department of Electrical & Computer Engineering, Faculty of Engineering

Image created in Edmonton

Images of Research Competition University of Alberta

UNITY IS POWER

Semi-finalist (2020)

The more united we are, the more powerful we are. Similarly, when the grid system of a small region or local community is interlinked, the grid becomes more efficient. This is the concept of micro-grid. It is a small network of electricity customers, who are utilizing local supply sources, typically connected to a centralized national grid yet capable of operating independently. Micro-grid usually works when connected to the grid. Still, most specifically, it can break down and perform by itself utilizing local power generation in moments of crisis, such as ice storms or power failures, or for any other purposes. A micro-grid not only generates grid back up in emergencies, it can also be used to reduce the costs or to link up to a community resource that is too small or inefficient for conventional grid use. Micro-grid encourages societies to be much more energyindependent and, in certain instances, more environmentally friendly.