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Hybrid energy module for experiments and studies in remote locations

Misha Krassovski, Jeffery Riggs, Chris Tavino, Stan Wullschleger, and Susan Heinz
Oak Ridge National Laboratory, CDIAC, Oak Ridge, United States of America (krassovskimb@ornl.gov)

Increased concerns about regional and global climate change in recent decades has led to a significant expansion of monitoring, observational, and experimental sites in remote areas of the world. During this same time, advances in technology and availability of low-power equipment, have allowed increasingly sophisticated measurements with an increasingly wide variety of instruments, sensors, and sensor networks. However, the deployment and use of these technologies in remote locations is restricted not only by harsh environmental conditions, but by the availability of electrical power and communication options. With this presentation we would like to share our experience of designing and building hybrid energy (solar and wind) module that can be used to provide power and communication capabilities for remote installations.