

The Boys & Girls Club of St. Helena and Calistoga in Napa County, California, needed to bolster its energy resiliency to better serve the needs of the community. The organization sought to install a solar + storage microgrid, but had difficulty finding the right project partner to deliver a solution in a timely manner.

Imagine being able to combine the predictability tools of an Energy Management System with the full control of a Power Management System in one, easy-to-use software platform that allows you to make maximum use of renewable energy, reduce fuel costs, improve efficiency, decrease greenhouse gas emissions and improve power reliability both on-grid and off-grid: that's ...

Promote locally produced & consumed renewable energy, work towards a sustainable society. On December 1, 2020, Sony Computer Science Laboratories, Inc. (Sony CSL; President & CEO: Hiroaki Kitano) will make its ...

The power outages caused by these natural disasters can last several hours, days, and weeks. Microgrids can satisfy wide-ranging demands via their variable solutions, from off-grid to on-grid applications. The digital twin (DT) concept opens a new dimension in the energy system to break down data silos and carry out seamless functional ...

ETAP Microgrid software allows for design, modeling, analysis, islanding detection, optimization and control of microgrids. ETAP Microgrid software includes a set of fundamental modeling tools, built-in analysis modules, and engineering device libraries that allow you to create, configure, customize, and manage your system model. Microgrid ...

This chapter discusses an SDN-enabled architecture that transforms isolated local microgrids into integrated networked microgrids capable of achieving the desired resiliency, elasticity, and efficiency. It provides an overview of SDN architecture, OpenFlow protocol, and SDN-based microgrid communication architecture.

Once the controller logic is deployed to the ETAP Microgrid controller hardware software-in-the-loop (SIL) or hardware-in-the-loop (HIL), testing can be utilized where the physical controller interacts with the model of the microgrid and associated devices. ETAP Microgrid Controller hardware is designed for environments while delivering optimal ...

Market Dynamics Shaping the Future of Microgrid Modeling Software The microgrid modeling software market is experiencing a transformative phase, driven by several interrelated dynamics that are reshaping its landscape. Increasing demand for renewable energy sources is a primary catalyst, as governments and organizations worldwide aim to reduce carbon emissions and ...

UK-based influence investment firm as well as renewable energy job developer Pash Global has signed a 25-year power purchase arrangement (PPA) with the Island of Saint Helena's single energy company for the advancement of a 3.2 MW hybrid-technology microgrid task. The agreement with Link Saint Helena Ltd consists of a microgrid system for the ...

The agreement with Connect Saint Helena Ltd includes a microgrid for the South Atlantic island that combines a 568 kWp/500 kW solar farm; a three-turbine, 2.7 MW wind farm; and a 3.2 MWh/3.5 MW ...

September 2023: Acquired microgrid software provider, Greenbird Energy Solutions, to expand its microgrid capabilities. (Source: Eaton Press Release) June 2023: Partnered with Shell to develop microgrid solutions for off-grid communities in Africa. ...

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A collection of software that can simulate the operation of an inverter on a microgrid or control a real inverter. In addition, it can simulate the control of multiple nodes on a microgrid." Application: Simulation of inverters and microgrids; control of inverters on microgrids." The MMI submodule is designed to control custom inverter hardware ...

Software: Microgrid Sizing Capability v 1.0 ... and quantities of electric power generation and energy storage technologies that should be purchased when developing a microgrid. In addition to determining which technologies to purchase, the model determines the optimal policies for operating the microgrid. The model selects the purchases and ...

Dr. Peter Lilienthal, HOMER's founder and head of microgrid software solutions said: "I've been working in distributed renewables, microgrids, island grids, and minigrids for almost 40 years, developing the HOMER software for over 25 years, and leading HOMER Energy with Marilyn Walker for the past 11 years.

The ODC Microgrid Controller is an optimization-based model predicative microgrid controller (MPMC) to minimize operation cost (and/or CO2 emissions) in a microgrid in the grid-connected mode. It is composed of several modules, including a) forecasting, b) optimization, c) data exchange and d) power balancing modules. ... To order this software ...

Web: <https://purelysolar.co.za>