

How a smart grid is transforming the energy system?

Under the rapid decarbonization and implementation of smart grid technologies, energy system has become extremely data rich. How to process and visualize the information based on data acquired is essential. Displaying the useful and important information is critical for the system operators to respond better to the evolving status.

What is a power grid agent?

Power Grid Agent: Receives power load and demand responses and adjusts the proper distribution and prices correspondingly. Monitor Agent: Displays and monitors the status of all the stations and EVs via GUI. Time Agent: Allow user to start and stop simulation and predicts the time of the simulation case.

How technology has evolved to make the power grid smarter?

Therefore, a lot of new technologies (communication and sensor) have evolved to provide above features. The evolved communication and sensor technologies applied to the power grid to make smarter, that is, Smart Grid (SG) [1,2]. The SG infrastructure is the backbone of the future smart cities and the connected electric mobility.

What is smart power grid visualization technology?

With the rapid development of computer technology and network, the visualization technology of smart power grid has been greatly improved. For example, HTML5 supports 2D/3D graphics and interaction, making the structure of the dispatch system visualization transform from the traditional Client/Server (C/S) to Browser/Server (B/S).

What data does a smart grid collect?

In smart grid, most data are related to system operation and energy consumption. The operation data are mostly from sensors in the grid and related data from weather, energy markets, and geographic information. 6 Energy consumption data are mostly measured by smart meters.

What is a communication network in a grid network?

The communication network within the grid network plays an important role to gather information about the workings of the various systems within the grid and helps to analyse the working efficiency and the demand of the end users .

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Here we systematically review the analyses and practice on data visualization in power and energy systems. Visualization related to different energy system applications, including smart grid, electric vehicle, and building ...

PowerWechat, Golang, SDK, Github, PowerWechat Artisan Cloud, Golang, ...

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In recent years, in the field of the power system, the application research of cloud computing technology is also underway. Integrating the smart grid into cloud computing has a bright prospect for...

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Dr. Jacky Lai, DeltaGrid's Business Head at Delta's Energy Infrastructure and Industrial Solutions Business Unit stated, "As EV charging change people's electricity consumption behavior, power consumption of ...

PowerWeChat Tutorial, PowerWechatTutorial, API, Golang WeChat, ...

For solving these problems, this paper proposes a WeChat-based system under the virtual private cloud environment to achieve real-time monitoring and alarming for the ...

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