Trinidad and Tobago smart substation in smart grid

Distribution Substation Automation in Smart Grid 65 Substation Automation (SA) can provide integral functions to the distribution grid automation. As more IED devices are installed to the distribution network, the need for IED management, control, and the corresponding advanced application operation is a growing imperative.

smart grid, including increasing the use of renewables, EV charging, and short-term storage for intermittent renewables. Without substation upgrades, the vision for the smart grid cannot be realized. "What people don"t appreciate is the impact that the smart grid can have on climate change if we remove the

China is integrating next-generation smart substation technology, according to the State Grid China Corp. The project uses state-of-the-art software and power technology to enable remote control, protection, automation, monitoring and diagnostics for these substations, as well as to allow both a reduction in their operating costs and footprint.

Substation and Switchyard aspects such as transformers, switchyard layout and scheme, ... Generation Company of Trinidad and Tobago Limited and Trinidad Generation Unlimited. Date: Saturday 10th May 2014 Time: 8:30 am to 12:30 pm Location: Room 101, Block 1, Faculty of Engineering, The University of the West Indies, St. Augustine.

IEEE Trinidad and Tobago Section, Power and Energy Society is hosting a series of seminars to highlight various sectors of the Power Industry in Trinidad and Tobago. The first installment of this series is an open discussion on aspects of power generation as it pertains to the power generation industry in Trinidad and Tobago.

The document discusses smart grids and smart substations. It describes how smart grids utilize advanced technologies to improve power generation, transmission, distribution and usage. Key aspects include renewable energy integration, transmission efficiency, micro-grids, electric vehicle support, and demand response. Intelligent substations digitally monitor and control equipment ...

The application of ICTs to these grids results in what is typically called a Smart Grid (SG). Such smart grids use secure communication technologies and computational intelligence in an integrated fashion across electricity generation, transmission and distribution networks to achieve a cleaner, safer, securer, more reliable, more resilient ...

This study investigates the impact of integrating 10,000 battery electric vehicles (BEVs) into the electrical grid of Trinidad and Tobago through three charging scenarios: non ...

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This study investigates the impact of integrating 10,000 battery electric vehicles (BEVs) into the electrical grid of Trinidad and Tobago through three charging scenarios: non-incentivized charging, charging at work, and a Vehicle-to-Grid (V2G) program.

Smart substations are important part of the modern smart electric grid, as they provide seamless integration of renewable energy resources, enhance grid reliability, improves efficiency of the grid, and provide better power quality.

Electricity companies face increasingly higher expectations to maintain power quality and achieve greater service continuity. With the widespread integration of distributed energy resources all along the network, more smart grid capabilities are being introduced into MV/LV substations to meet these expectations. Therefore, transitioning substation assets to host these new ...

In the case of the Blocaux substation, the battery has been designed to deliver 11 kW at 110 V for up to four hours. IEC 61850 smart grid protocol. In digital substations, it is important to integrate the substation equipment with the international standard that governs protection and control systems in the grid, known as the IEC 61850.

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Electrical grids generate, transport, distribute and deliver electrical power to consumers through a complex Critical Infrastructure which progressively shifted from an air-gaped to a connected architecture. Specifically, Smart Substations are important parts of Smart Grids, providing switching, transforming, monitoring, metering and protection functions to offer a safe, efficient ...

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Let"s talk about Teslas in Trinidad and Tobago with Ian Smart of Smart Energy Limited Our goal is to help drive the adoption of emission free transportation in Trinidad and I think we have done that. When Smart Energy brought in the first Tesla into T& T, we created excitement in the market and proved to car owners that it is possible to go ...

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