Smart grid assessment Honduras

This paper proposes an approach to a comprehensive assessment of smart grids based on a comparative analysis of existing methods, taking into account the changes that need to be considered after the experience gained from the COVID-19 pandemic. The approach provides an accurate set of efficiency indicators for assessing smart grids to account ...

The objective of this technical cooperation (TC) is to support the government of Honduras (GoH) in planning the Guanaja Green Island Program in order to: (i) evaluate the existing distribution grid infrastructure; (ii) conduct energy demand-side management assessments, including the evaluation of terrestrial and maritime electric mobility options; (iii) ...

Table 1 Requirements of the overall Smart Grid project assessment . 6 The assessment should consider the following two scenarios: Business as Usual (BaU) scenario (without Smart Grids deployment), considering only planned maintenance. This is the reference scenario to assess the impact of the Smart Grid

The Smart Grid Index (SGI) is a simple and quantifiable framework that measures smartness of power grids globally, in seven key dimensions. The framework assesses proxies of each dimension using publicly available information. The index guides utilities to build smarter grids and deliver better value to customers.

The assessment of Smart Grid (SG) pilot projects through a Cost-Benefit Analysis is crucial to ensure that Smart Grid and Smart Metering roll-outs are economically reasonable and cost-effective. The key outcome of the (ex-post) analysis of the Isernia pilot project1 is that, for such ambitious Smart Grid projects, a dedicated incentive such as ...

Various MCDM methods have been used in the literature for studying the smart grid technology and applications. Haddad et al. [] used the analytic hierarchy process (AHP) to evaluate renewable energy sources in Algeria using 13 sub-criteria representing social, environmental, economic, and technical criteria.Social and environmental were found to be ...

With regard to AI and smart grids, a number of studies suggest that AI provides interesting options such as smart-building energy management, secure smart grids, microgrids, autonomous smart-grid management, integration of intermittent renewable energy sources, decentralised-grid management and energy-consumption optimisation.

When paired with smart meters, which measure the energy fed into and consumed from the grid, they can provide real-time information on energy-usage to consumers and suppliers.. Since smart grids can respond to changes in supply and demand, they are well suited to cope with variations in supply from renewable energy sources, helping to integrate more wind and solar, as well as ...

Smart grid assessment Honduras

Cyber-physical security has been becoming an important issue for many critical infrastructures in human society, including electrical power grids. This paper proposes an impact assessment framework for smart grids suffering false data injection attack against smart meters. Firstly, the propagation model of malicious false data codes in smart meter communication ...

This section discusses smart grids, threats and vulnerabilities, and cyber attacks on smart grids and their consequences. 2.1 Smart Grids. In the European context, a smart grid is an electricity grid that intelligently manages the behaviors and activities of all users linked to the grid [].This feature enables a smart grid to deliver power more efficiently than a ...

Issue 10.0. This paper summarizes work completed for Task 4, Assessment of biennial survey on smart grid motivating drivers and technologies, under the Annex 2 Programme of Work. The objective of Task 4 was to define the motivating drivers for smart grids and analyze the associated, contributing smart grid technologies.

The smart grid has been supporting in developing nations and built up nowadays to adapt to the bottleneck of sustaining substantial supplies in energy consumption such as industry and substitute ...

The research on the single attribute assessment of the power grid has a relatively thorough evaluation model and system, but it restrictedly concentrates on reflecting the development level of a certain aspect of the smart grid, lacks the comprehensive evaluation indicator, and the evaluation results lack objectivity and comprehensiveness ...

The COVID-19 pandemic has significantly affected the energy sector. The new behavior of industrial and non-commercial consumers changes the energy consumption model. In addition, the constraints associated with the coronavirus crisis have led to environmental effects from declining economic activity. The research is based on evidence from around the world ...

By deploying a "starter grid" system designed to serve specific essential services such as schools, health clinics, and businesses critical to the community"s daily operations, this pilot project can ...

The ongoing energy transition has affected the concept of distribution networks, which have turned from passive, unidirectional and fuel-based architectures into active and sustainable smart grids [1, 2].This trend has established a research field related to the optimal management of the smart grid"s resources [3, 4], such as Renewable Energy Sources (RES), ...

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