PEES Power Systems

Cost-effectiveness analysis of fast charging for photovoltaic folding containers used in sports stadiums

Overview

The study aims to determine an optimal design of the DC fast -charging station with the integration of BESs to reduce its grid impact, with a cost-benefit analysis (CBA) of: the cost of the installation, lifetime of the batteries and price of the electricity. An accurate description of the. Previous works have analyzed the technical impacts of FCSs, also in combination with photovoltaic (PV) and battery energy storage system (BESS); however, a combined stochastic technical–economic evaluation has been less discussed.

Cost-effectiveness analysis of fast charging for photovoltaic folding

Strategies and sustainability in fast charging station deployment for

In addition to analyzing planning approaches, the review evaluates existing simulation models and optimization tools employed in designing and operating fast charging stations.

Technical-Economic Evaluation of EV Fast Charging Station with

The objective of this work is to develop a technical-economic method to determine: (i) the most profitable time-of-use electricity tariff for a charging station; and (ii) the economic feasibility ...

EV Fast-Charging Station: A Methodology to Economical Evaluation of

This article proposes a methodology to evaluate the economic feasibility of operating a fast-charging station (FCS) for electric vehicles on highways. This study examines 2 FCSs, incorporating a PV ...

Deep learning based solar forecasting for optimal PV BESS sizing in

This study presents a comprehensive optimization framework for integrating photovoltaic (PV) and battery energy storage systems (BESS) into ultra-fast electric vehicle charging stations

A Multi-Objective Design Approach for PV-Battery Assisted Fast ...

This paper presents a multi-objective approach to designing an optimal PV-BES assisted EV fast charging station. The trade-offs between lifetime net present val.

Investigation of Cost-Effective Electric Vehicle Charging Station

The study aims to evaluate different combinations of electric vehicle chargers' technology for use in an EV charging station powered by a photovoltaic solar system. Then a technical, ...

Cost-Benefit Analysis of a Novel DC Fast-Charging Station with a ...

The study aims to determine an optimal design of the DC fast -charging station with the integration of BESs to reduce its grid impact, with a cost-benefit analysis (CBA) of: the cost of the installation, ...

Reliability oriented techno

The cost-effective optimal placement of EV charging stations and PV plants is explored in order to minimise AVDRI and real power losses in the 33-bus radial distribution network, while ...

Optimal planning of photovoltaic-storage fast charging station

In order to maximize the social and economic benefits of fast charging service, this paper proposes a planning method of photovoltaic-storage fast charging station considering charging ...

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