TROES
The Revolution of Energy Storage

LV 2 EV CHARGING

Off-Grid Level 2 EV Charging Station with Battery Energy Storage System

CLIENT CHALLENGE

Our client in California, US operates an EV charging infrastructure with Level 2 EV chargers and since such infrastructures are power intensive, they accrue lots of electricity costs under the energy bills. Therefore, the client will utilize solar PV and energy storage system to make bill savings by taking the infrastructure off the grid.

In urban areas, there are many cases of grid infrastructure reaching their load capacities and as per Toronto Utility Department, there will be no more space for power capacity expansion soon. In case of rural highway areas, where demand of EV charger station is high, grid supported EV charger installation requires huge investments, which are cost inefficient.

In both these cases, the integrated solar PV and BESS offers a smart charging solution without overloading the existing system and making significant reduction in energy bills.

BACKGROUND

TROES is a Canadian company specializing in smart power energy storage technology, product and solutions.

TROES is developing an Off-grid Level 2 EV Charging Station with Solar power and Battery Energy Storage System (BESS) to support Electric Vehicles on rural highways by way of emergency power supply.

It can also be installed in commercial and residential buildings where load power is strictly regulated, thus relieving the burden of excessive power demands on the grid.

RESULTS

US$45,000

Initial Cost

18,000kWh

Annual Usage

US$5,400

Annual Savings

~8 Years

Payback Period

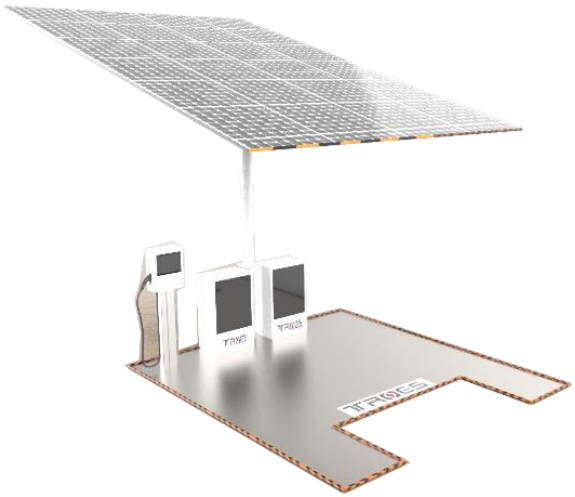
*SGIP in California offers 85% rebates for BESS under equity category.

FINANCIALS & BENEFITS

The initial system cost is US$45,000. Taking 3000 hours of sunshine in California and the EV charger usage fee as US$0.03/min (US$0.3/kWh), the annual savings will be US$5,400 with a payback period around 8 years.

ABOUT THE SYSTEM

The system comprises of an off-grid portable Level 2 EV charger, powered by a 6kW solar system and a 28 kWh BESS. This setup will be able to meet all-weather, low-intensity applications. It will supply the much-needed power supply to travelers, with each hour of charging enough to give a range of 40 kilometers.



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