



IQ EV Charger case study

Driving a Tesla on Florida sunshine



Driver details

- Dan, an Enphase employee, lives in St. Johns, Florida, and has an Enphase Energy System at home. He added an IQ EV Charger to save money by charging his EV at home using solar energy.
- He drives an average of 120 miles per day with an average efficiency of 4.0 miles per kWh, and primarily charges his EV at home during the day with excess solar. He has also used manual overrides to start charging the car immediately.
- His home utility plan charges at a flat rate of \$0.13/kWh.

IQ EV Charger savings and benefits¹

- The IQ EV Charger may pay for itself in 1–2 years.
- Over \$5,700 can be saved on energy costs over 5 years by smart charging with excess solar at optimal times.
- Actual savings may be higher when additional state and utility rebates and incentives are applied to IQ EV Charger purchase and installation costs.
- Energy costs can be further reduced by always utilizing the Self-Consumption profile in the Enphase App when charging.

Dan’s estimated costs and savings over time²

ANNUAL ENERGY USE FOR CHARGING THE VEHICLE	ANNUAL COST OF CHARGING AT HOME WITH OTHER EV CHARGERS AND NO SOLAR	ANNUAL COST OF CHARGING AT HOME WITH IQ EV CHARGER AND ENPHASE SOLAR	PROJECTED ANNUAL SAVINGS WITH IQ EV CHARGER AND ENPHASE SOLAR
10,950 kWh	\$1,424	\$396	\$1,027
EV CHARGER AND INSTALLATION COST AFTER 30% FEDERAL TAX CREDIT	5-YEAR COST OF CHARGING AT HOME WITH OTHER EV CHARGERS AND NO SOLAR	5-YEAR COST OF CHARGING AT HOME WITH IQ EV CHARGER AND ENPHASE SOLAR	PROJECTED SAVINGS OVER 5 YEARS WITH IQ EV CHARGER AND ENPHASE SOLAR
\$1,469	\$7,772	\$1,981	\$5,791

Assumptions:
• Customer owned an Enphase Energy System before buying the IQ EV Charger, so the cost of the system is not included here.
• Calculation for home charging using an IQ EV Charger and Enphase Energy System is based on actual usage data from June 2024 to August 2024.

Learn more at:
enphase.com/ev-chargers/home

¹As of September 2024, assuming all variables shown below remain constant over the next 5 years. Actual results may vary.
²See financial modelling on page 2 for more information.

Financial modelling

Buying and installing an IQ EV Charger involves fixed product and installation costs. Typically, EV charging involves variable energy costs when charging from the grid versus charging using solar energy. To understand the value of an IQ EV Charger, it is important to calculate the total energy required for EV charging and then evaluate the charging options available to meet the energy requirement.

Energy calculation for EV

Metric	Value
Miles driven per day	120
Miles driven per year	43,800
Vehicle efficiency	4.0 miles/kWh
Total energy required in a year	10,950 kWh

Fixed costs

Metric	Value
Cost of IQ 60 EV Charger	\$1,099
Cost of installation	\$1,000
Total fixed cost after the 30% federal tax credit	\$1,469

Variable costs

Options for EV charging	Cost per kWh	Total variable cost for 1 year	Total variable cost for 5 years
Home charging with any other EV charger	\$0.13/kWh	\$1,424	\$7,772
Home charging with IQ EV Charger and Enphase solar	\$0.04/kWh*	\$396	\$1,981

*When only solar energy is used for EV charging, the variable cost is \$0. Usage data from June 2024 to August 2024 was analyzed from the Enphase App. The variable cost of EV charging was calculated using data from the Session History section.

Customer usage data

Metric	Value
Total cost of EV charging from June to August	\$49.40
Total energy consumed for EV charging from June to August	1,365 kWh
Cost per kWh	\$0.04/kWh