

# Revamp DCFC Margins with Intelligent Demand Charge Optimization

AI Cloud Layer Integrating with Any Charger and CPMS

## The Hidden Profit Driver in DC Fast Charging

Electricity is the largest variable cost for public DC fast charging (DCFC) operators. While energy charges are based on total kWh consumed, demand charges are driven by the single **highest 15-minute peak (kW)** during the billing month.

As charger ratings scale from 150 kW to 350 kW+, simultaneous sessions can create short-duration site peaks that dramatically increase costs. In many markets, demand charges account for **50% or more of a site's electricity bill**. Critically, these charges are **independent of total energy sold** - one brief peak can erode entire month's profitability.

## The Power-Capping Trade-Off

To control demand exposure, operators typically apply static power caps:

- Caps too high → excessive demand charges → compressed margins
- Caps too low → slower charging, congestion, and lost revenue

But, the optimal power limit is not fixed. It changes with utilization patterns, EV mix, seasonality, pricing structures, and local tariff rules (including ratchets and peak-based mechanisms).

Static rules **cannot** continuously balance profitability and driver experience.

## Dynamic, Software-Defined Optimization

evPower.ai transforms demand management into a **real-time optimization problem**.

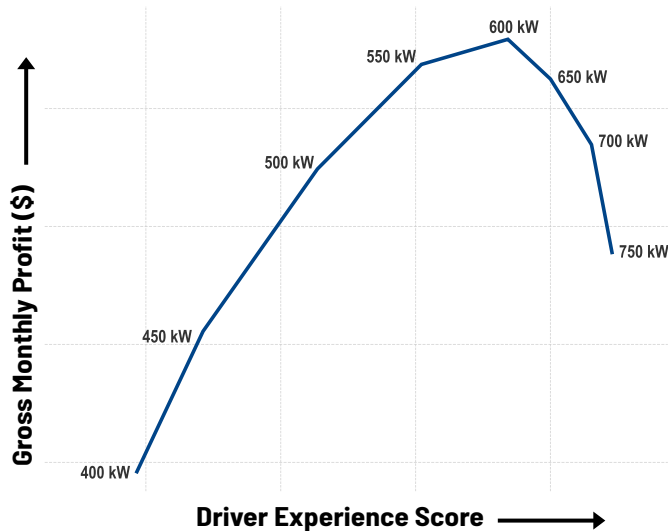
Its AI-driven Dynamic Load Management (AI-DLM):

- Forecasts site utilization and peak risk
- Incorporates local demand charge structures
- Evaluates energy procurement and charging prices
- Monitors real-time charger and site conditions

CPOs define profitability and driver-experience objectives. The AI engine then dynamically allocates power across all charging points to:

- Maximize energy sales
- Minimize demand charge exposure
- Maintain premium driver experience

Trade-off curves are continuously recalculated as conditions evolve. Built-in fail-safe controls ensure resilient operation even during communication interruptions.



Illustrative trade-offs between site-level power caps, gross profitability, and driver experience. Lower caps might reduce demand charges but degrade throughput and charging speed; Higher caps might improve driver experience at the cost of increased demand charges.

evPower.ai dynamically selects and maintains the optimal operating point per site.

## Quantify Your Savings

Apply for a **FREE demand charge simulation** for one of your DCFC sites and identify the margin improvement achievable through dynamic demand optimization. Works with any CPMS, any DC charger configuration, and any site architecture - with or without BESS or PV.

**About evPower.ai:** evPower.ai delivers AI energy management for DCFC, turning hubs into smart grid assets.