

SPAN[®]

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SPAN: Enabling Electrification for All

Core Product: The SPAN Smart Electrical Panel



SPAN 32

SPAN 48

SPAN 24

SPAN 16

SPAN Panel

efficiently integrates sources, loads, and storage, enhancing functionality and reducing costs of whole home electrification

Additional Products



SPAN Drive

launched in 2022 to fully control any EV charging, including intelligent throttling.



SPAN App

facilitates whole home energy management and creates an intuitive interface to the home.



SPAN Fleet

software services for fleet management and virtual power plants.

Different models for different use cases

SPAN Panel

Customer-owned in home electric service panel



- Comprehensive home energy management for every circuit
- Requires full panel replacement
- Customer can opt-in to programs to share data and controls with a utility

SPAN Edge

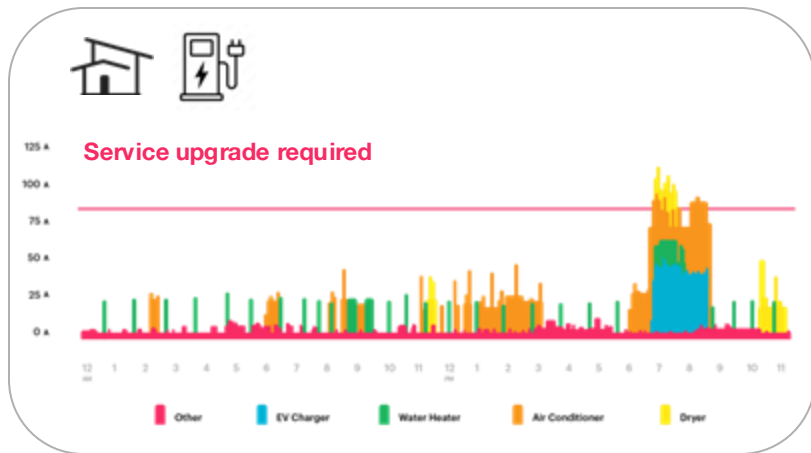
Utility-owned distribution grid asset



- Support for up to 8x 240V loads (EV charger, HVAC, water heater, etc)
- Utility enables electrification and provides customer with EMS value
- Simplified opt-in to utility submetering and tailored programs/incentives

All powered by the same platform to support rapid residential electrification, provide multi-home demand flexibility, defer or avoid costly infrastructure investment, improve end-customer satisfaction, advance beyond VPP and demand response, and integrate seamlessly into utility operations.

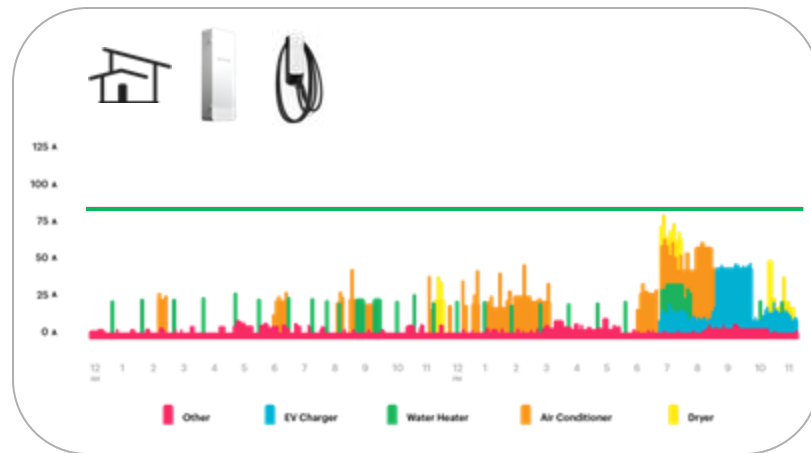
PowerUp is the energy management system (EMS) feature in all SPAN Panels



Increase electrical service required

When building all-electric homes, or meeting code requirements for future electric pre-wires, critical load sub-panels increased and over-built utility-side electrical service is often required, which can cost **\$11k per home** and delay projects by **months, even years**, or at worst, cause the customer to cancel their project.

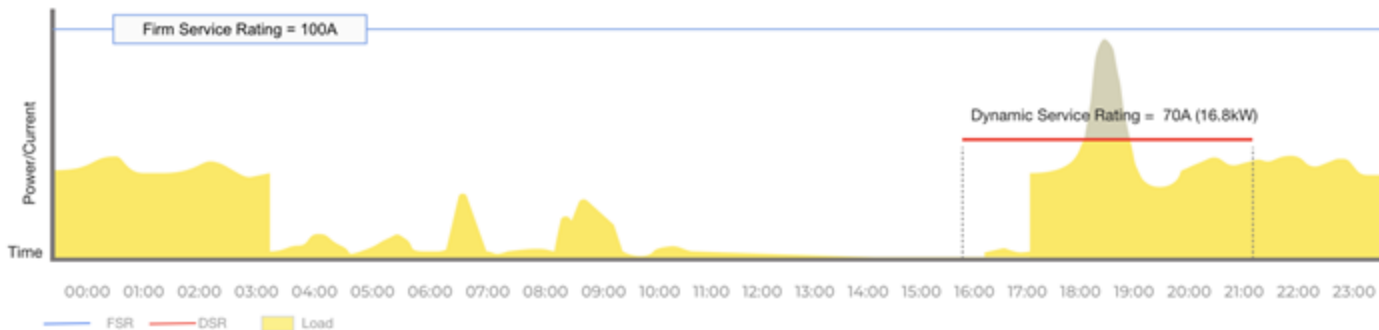
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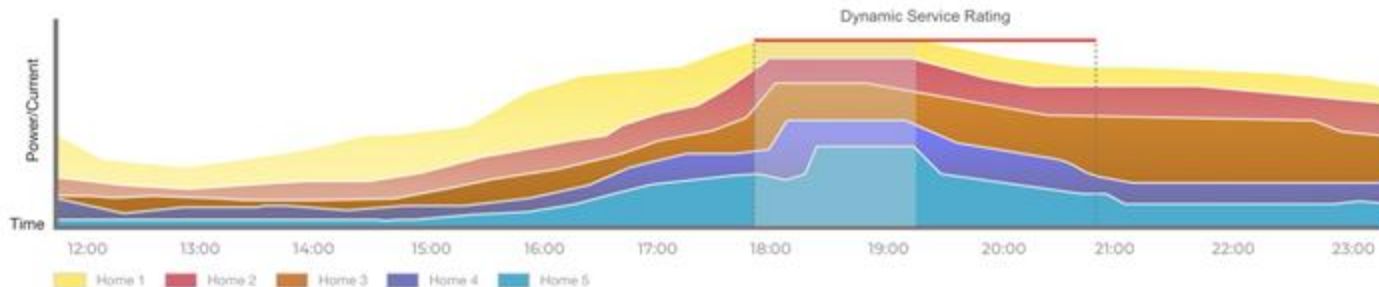
Electrification with SPAN PowerUp

SPAN automatically shifts loads based on homeowner preferences to intelligently control energy consumption in the home behind the scenes, enabling **faster**, often **less expensive installations**.

SPAN Dispatchable Dynamic Service Rating



Aggregated DSR for Distribution NWA



SPAN Total System Benefits Up to 7X Cost



Total System Value

Exceeds **\$14,000 per device** —delivering a consistent **\$7,900 to \$8,100** customer savings by avoiding costly panel upgrades.

Total Feeder-Level CapEx Deferral

Total utility benefits reach up to **\$1.3 Million per 500-home feeder** with up to **\$1.16M** in secondary distribution avoidance alone.

Regulatory Proof: High Cost-Effectiveness

SPAN delivers a High ROI (TRC Ratio) of **3.8 to 6.5**, with the most scalable scenario achieving a positive **PAC ratio of 1.18**.

<http://www.ethree.com/smart-panels>



Thank you!

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Examples of smart panels enabling electrification

1. Service Upgrade Avoidance pilot at PG&E (EPIC

4.02B)

- Augmenting “Socket of the Future” initiative to enable electrification without service or panel upgrades
- Starting Q4 2025 to offer SPAN Edge as fully subsidized, fast-install alternative to service upgrades



2. Transportation electrification at Green Mountain Power

- “In 2021, GMP piloted SPAN smart electric panels, which allow for electrification without the need for service upgrades. This technology was extended to the Resilient Neighborhood Pilot, a community of new, fully electrified homes in South Burlington, each with all electric heating and cooling, induction stoves, and Level 2 EV chargers. These homes demonstrate that 200A service equipment and a home energy management system can meet the needs of a fully electrified house without the need for upgrading to a larger service.”
- [Case No. 24-3023-INV](#) – Public Utility Commission 2024 Investigation into Rates Related to Electric Vehicles, p. 5

3. Targeted electrification at National Grid (Massachusetts)

- “[P]articipating customers will receive temporary, artificial virtual service limit signals to their smart panels to test how their smart panels can automate pausing or shifting loads in line with customer preferences, to remain within those limits with minimal or no customer inconvenience.
- National Grid MA - [Targeted Electrification Demonstration Project Proposal](#), p. 63-64