



Partnering with Utilities to Orchestrate Energy at the Edge

Armada Power offers an integrated hardware and software platform created to enable a powerful suite of grid services. Our platform provides flexible, grid-scale management of large fleets of individual electric water heaters. The patented software integrates with high-tech controllers in real time, allowing utilities to manage electric water heaters effectively. Unlike legacy controllers, Armada Power's technology offers millisecond response times that unlock many benefits and applications designed to solve the grid's biggest challenges.

Armada Power's One-of-a-Kind Solution



Active Load Management and Grid Support Hardware

Armada's U.S.-manufactured smart device features local frequency sensing for droop control and synthetic inertia, revenue-grade metering, temperature measurements, and an optional leak sensor. The simple installation on top of the water heater takes approximately 30 minutes and requires no plumbing modifications.



Enterprise Fleet Management Platform

Armada's Fleet Commander creates a centralized grid-stabilization resource by connecting your customers' electric water heaters to the cloud, enabling flexible load management. Algorithms use real-time temperature measurements and power consumption data to learn usage patterns and provide milliseconds load balancing, ensuring user comfort with minimal disruption.



User-Friendly Mobile Application

Customers can remotely manage their water heater, opting in or out of events, setting time schedules for variable rates or vacation mode, and receiving instant notifications. They also have access to view their water heater usage data on a daily, weekly, and annual basis.



Smart Water Heaters

Armada takes advantage of the stored thermal energy in every electric water heater, enabling power to be managed without functionally degrading tank temperature. Armada only operates within the natural set point of the water heater and monitors temperature in real time.

Thermal Energy Storage and State of Charge Management to Enable:

Demand Response

Intelligently manage demand response events in real-time with advanced preheating, guaranteeing a curtailable load without compromising hot water availability.

Peak Load Management

Implement targeted heating during low-demand periods and reduce consumption at peak times to ensure user comfort, improve grid stability, and decrease dependence on expensive peak power generation.

Cold Load Pickup

Randomize the reheating times for a group of water heaters post-outage to prevent peak demand spikes or equipment overload, while still preserving user comfort.

Energy Arbitrage

Adjust water heater power consumption to avoid high real-time market prices and consume energy when prices are low.

Renewables Firming

Align water heating with peak renewable energy production to absorb excess energy, enhancing renewable usage and stabilizing the grid, thereby supporting sustainability goals.

Additional Value Streams

Including fast-frequency regulation, droop control, and local voltage response.

Smart Water Heater Solutions. Making Super Smart Super Simple.

For more information visit us online at armadapower.com or email sales@armadapower.com