



CONNECTING TOMORROW'S GRID

WATTCH FOR BATTERY STORAGE OPTIMIZATION AND CONTROL

Commercial, Industrial and Grid-Scale Energy Storage | Solar + Storage



With industry-leading scheduling capabilities and AI-enabled dispatch strategies, Wattch's Loom Energy Management System (EMS) enables you to maximize the value of your battery assets while maintaining full observability and operational control.

Our cloud-based optimization engine continuously updates long-term strategies based on forecasted conditions and financial opportunities, while edge controllers respond to real-time measurements and ensure reliable, compliant operations.

Take complete ownership of your battery operations through an intuitive interface that allows you to create, modify, and audit every aspect of your controls strategy.



INTELLIGENT ECONOMIC OPTIMIZATION

Wattch Loom continuously adapts dispatch strategy based on real-time and forecasted economic signals to automatically maximize asset revenue across all value streams.



COMPLETE SCHEDULING CONTROL

Wattch's advanced, priority-based scheduling system enables users to test, implement, and optimize dispatch timing with full autonomy and auditability.



UNPRECEDENTED OBSERVABILITY

Every input, output, and intermediate calculation is recorded in full fidelity, providing unmatched observability compared to legacy black-box control systems.



COMPREHENSIVE FORECAST TRANSPARENCY

Review forecast performance across different time horizons to understand system decision-making, identify systematic biases, and build confidence in optimization strategies.



RELIABLE EDGE EXECUTION

The Wattch Edge Controller maintains optimized operations for up to two weeks without cloud connectivity, using the most recent forecasts to ensure uninterrupted operation.

WATTCH LOOM ARCHITECTURE

Wattch Loom organizes your operational logic into three clear categories, giving you granular control without complexity.



CONSTRAINTS

Invariants such as export limitations, interconnection agreement requirements, and battery state of charge boundaries for warranty compliance



INCENTIVES

Time-variant financial signals, including time-of-use energy pricing, market signals, utility program payments, and carbon incentives



FORECASTS

Load forecasting using advanced AI/ML models and solar forecasting using cloud-vector satellite models integrated into the Wattch Digital Twin

FLEXIBLE DISPATCH STRATEGIES

Dispatch strategies within Loom can be defined as either basic fixed setpoints or higher-level operational concepts that combine constraints and incentives. Examples include:

- Energy arbitrage
- Demand charge mitigation
- Load following
- Solar-only charging
- Clip capture
- Demand response
- Auto-consumption maximization
- Frequency regulation
- Resilience
- Carbon arbitrage
- Or a combination of these

ADVANCED SCHEDULING SYSTEM

Wattch's scheduling system supports specific date-time events, basic recurring events (e.g. "2 PM on Tuesday"), and a variety of advanced scheduling constructs (e.g. "Last day of month" or "Weekends"). Once defined, a strategy becomes available in Wattch's scheduling system.

Layered events resolve automatically, with higher-priority entries always taking precedence.

Schedules are editable in the cloud but persisted to the edge, ensuring execution even during outages.



Example Deployment: 1 MW/2 MWh front-of-meter utility-owned battery storage with 1.7 MW on-site solar in Georgia, colocated with a natural gas peaker plant

SOLUTIONS FOR EVERY APPLICATION

FRONT OF THE METER

Economic dispatch optimization for utility-scale storage with support for ISO telemetry and grid compliance requirements

BEHIND THE METER

Facility-specific ML models that enable precise load forecasting, solar cooptimization, and demand charge mitigation

MICROGRIDS

Microgrid controller for off-grid sites with real-time coordination of solar, storage, generators, and loads

GET STARTED

For more information or to get a quote for your portfolio, reach out to hello@wattch.io

