Energy Storage System Operations in Maine and New England Presentation to the Maine Energy Storage Commission – Augusta, Maine November 6, 2019



ENGIE Storage

ENGIE in New England

We are the world's largest energy services company that serves utilities and customers in over three dozen countries, and over 110 GW of installed capacity worldwide.

- Commissioning approximately 100 MW / 200 MWh in 2019-2020 across New England
- Active industry participant in the MA SMART, Clean Peak Program
- Operator of several ISO-NE participating batteries, including one in Maine
- Owner / operator of several biomass and solar assets across New England
- Developing new products / services for utilities and renewable asset owners

| Location | Storage Technology Type | Project | Project Status |
|--------------|-------------------------|--------------------|--------------------|
| | | Size/Capacity | |
| Madison, ME | FTM standalone battery | 5 MW / 10MWh | Operational |
| Madison, ME | BTM municipal battery | 2 MW | Q4 2019 Operations |
| Holyoke, MA | FTM battery paired with | 3 MW / 6 MWh | Operational |
| | solar (5 MW) | | |
| Acushnet, MA | Battery energy storage | 1500 kW / 3000 kWh | Operational |

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ENGIE Storage

We build turnkey energy storage solutions that serve consumers and producers on both sides of the meter.

- US Storage Division HQ in Silicon Valley
- Over 170 energy storage projects (100 MWh)
- Ranked #1 provider by Navigant Research
- Pioneer of innovative commercial structures
- Backing of world's largest energy services company

Key Services



Energy Site Analysis & System Design



Hardware Integration,
Interconnection & Operations



Software Service Stacking & Aggregation



Performance-based Financing Options & Guarantees

Customer Examples

Businesses & Government













Utilities & Network Operators





















"HG&E is pleased to work with ENGIE on this project which expands our portfolio of low-cost renewable energy and helps us maintain some of the lowest electric rates in the region."

James M. Lavelle, Manager Holyoke Gas & Electric



Service Area: Northeastern U.S.

Size: 3 MW / 6 MWh

Customer Challenge

High annual coincidental peak demand charges.

ENGIE Storage Solution

Design, finance, supply, and install an energy storage system to work with a solar PV system. 20-year commitment to operate system and integrate controls with HG&E's asset control and monitoring system.

Services

- · Coincidental Peak Demand Shaving
- Solar firming
- Capacity

Operations / Diagnostics

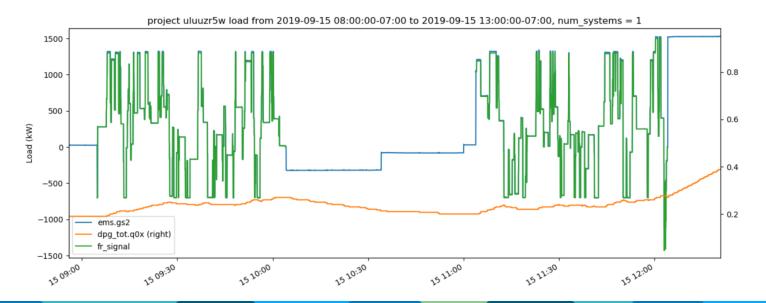
Hourly SOC checks per ISO-NE requirements in advance of delivery hour; any GridSynergy-generated system errors (e.g., voltage out of range, high module temperature, etc.)

Asset Management

Regular communications on planned outages, emergency event response, real-time unplanned outages between ISO and ENGIE.

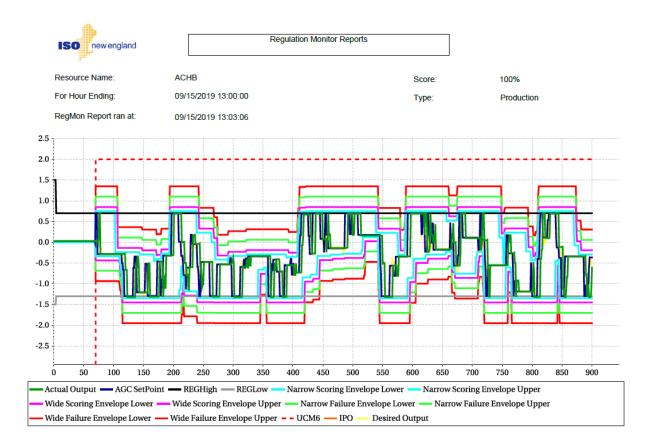
ENGIE-Customer Communications

Automatic email notification to customer desk via GridSynergy of impending time window of dispatch, amount of kW, and reason for dispatch (e.g., RNS/LNS or ICAP). Override with notice as necessary.



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BESS Daily Operations



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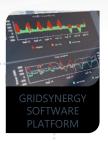
Common System Configuration



KYZ or CT



Cellular 4G



RS-485





QUESTIONS?

