

Beyond Backup Power: How Virtual Power Plants Build Resiliency

JAMES MANZER MARCH 2025



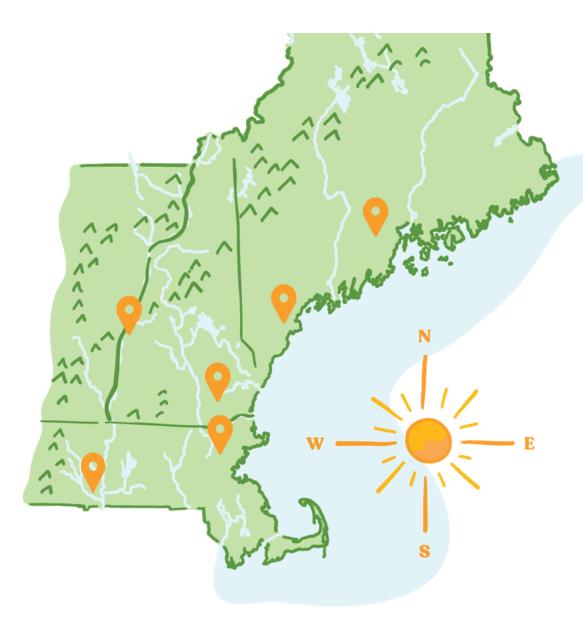


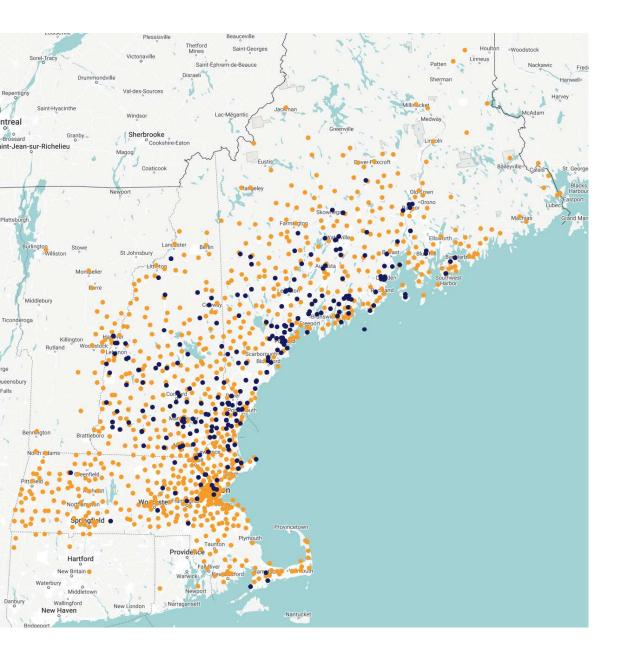
Agenda

- 🗲 What is a VPP
- How do they work today?
- How will they work tomorrow?
- How VPPs will change building design
- Success Stories and Challenges
 - Financial Opportunities
- Q&A

Locations

- Montville, Maine
- South Portland, Maine (HQ)
- Enfield, New Hampshire
- Brentwood, New Hampshire
- North Andover, Massachusetts
- Westfield, Massachusetts





Projects

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19,679 total ReVision projects



140 thousand

estimated tons of CO₂ offset annually

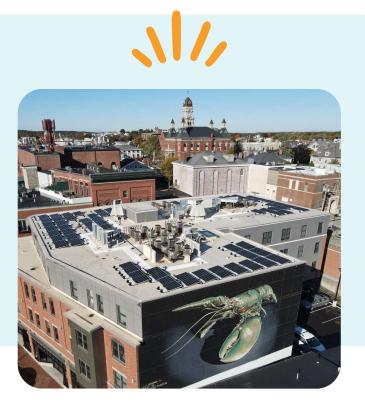


\$73 million

estimated annual electric bill savings

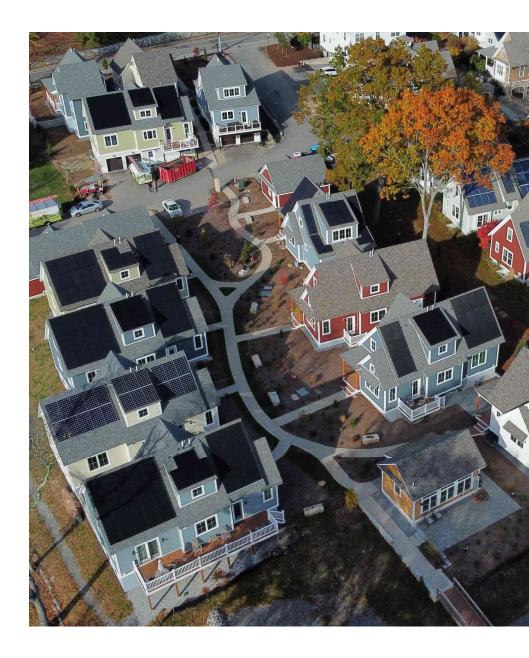
What is a VPP?

- A Virtual Power Plant is a network of solar, batteries, and EVs working together like a power plant, generating and storing energy.
- Balances energy supply and demand in real time using decentralized resources.
- Array and battery owners earn payments by generating and sharing electricity with the grid



How Does a Virtual Power Plant Work Today?

- Energy Production
- Energy Coordination
- Energy Dispatch
- Financial Incentives



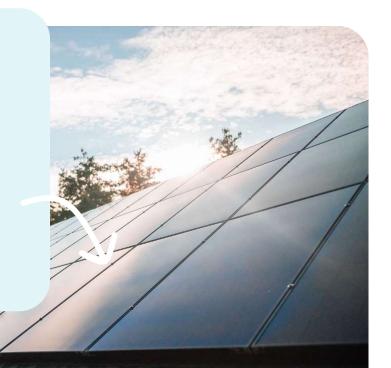
How will a Virtual Power Plant Work Tomorrow?

- Smart meters + dynamic pricing will create real-time energy markets.
- Home batteries, EVs, and smart appliances will automatically buy and sell power based on market conditions instead of waiting for a utility call.
- Energy management platforms will enable individual buildings to maximize profits by responding to price signals, not just peak demand events.



How VPPs will change Building and Energy Design

- Buildings will no longer be just consumers of energy—they will be grid-interactive assets.
- What this means for architects & builders:
 - -Solar ready roofs
 - -Battery Storage Space (fire code)
 - -EV ready parking areas (prepped for V2G)
 - -Smart controls
 - -Load flexibility



The Texas Success Story

- Texas is a Global VPP Leader Second to UK in Virtual Power Plant deployment.
- **Deregulated Electricity Market** Competitive energy markets accelerate solar + battery storage adoption.
- Fast and Simple Grid Integration Streamlined interconnection makes it easier to participate.



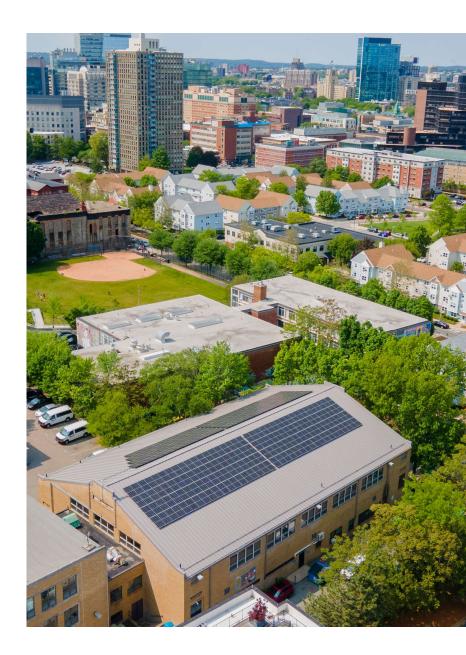
Implementation Challenges

What's Slowing Down Adoption?

-Interconnection Delays

- -Regulatory Barriers
- -Fire codes
- -Upfront Costs
- -Centralized control

*Keep your eye on sunsetting of net metering (California) – is headed to MA next?



Financial Opportunities

-New Revenue Streams

- TOU (Time of Use) Pricing
- ConnectedSolutions

-Current Incentives Supporting VPP Growth:

- Federal Tax Credit (ITC) for solar + storage.
- 0% Interest 7-Year HEAT Loan for Massachusetts residents.
- SMART Incentive Program for new solar systems.
- More utilities expanding demand response programs—early adopters are already benefiting.











Thank you!

For more info, please contact:

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