

An aerial photograph of a residential neighborhood with a winding river or canal. The houses are densely packed, and there are many trees. The water is dark and reflects the surrounding greenery.

SUNRUN®

Anne Hoskins
Chief Policy Officer

PJM Roundtable 2019

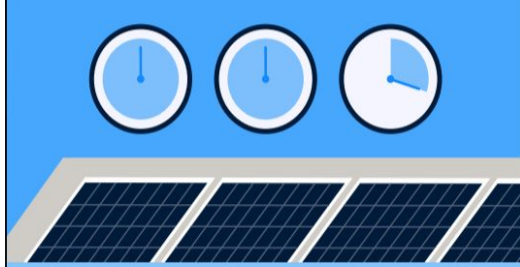
SUNRUN

The national leader in solar, storage, & home energy management.

22 states + DC & Puerto Rico

Active in policy throughout country.

More than a quarter million customers nationwide



On average, every
2.3 minutes
a new system is installed



Sunrun customers have saved over
\$300 million
on electricity bills



And produced
5 billion
kWh of clean energy

More than
5,000



Brightbox home batteries
are providing back up power
during outages.

The solar
installer is
the fastest
growing job
in America.

Sunrun alone has
created more than
4,000
jobs & thousands more
through our partners.



Brightbox: Product and Markets

Brightbox meets needs of residential customer + grid at lowest cost.

Back-Up Power
(Island during Outage)

Grid Services
(Capacity, Voltage,
Active/Passive)

Bill Management
(TOU, CPP, Hourly)

Energy Self-Supply

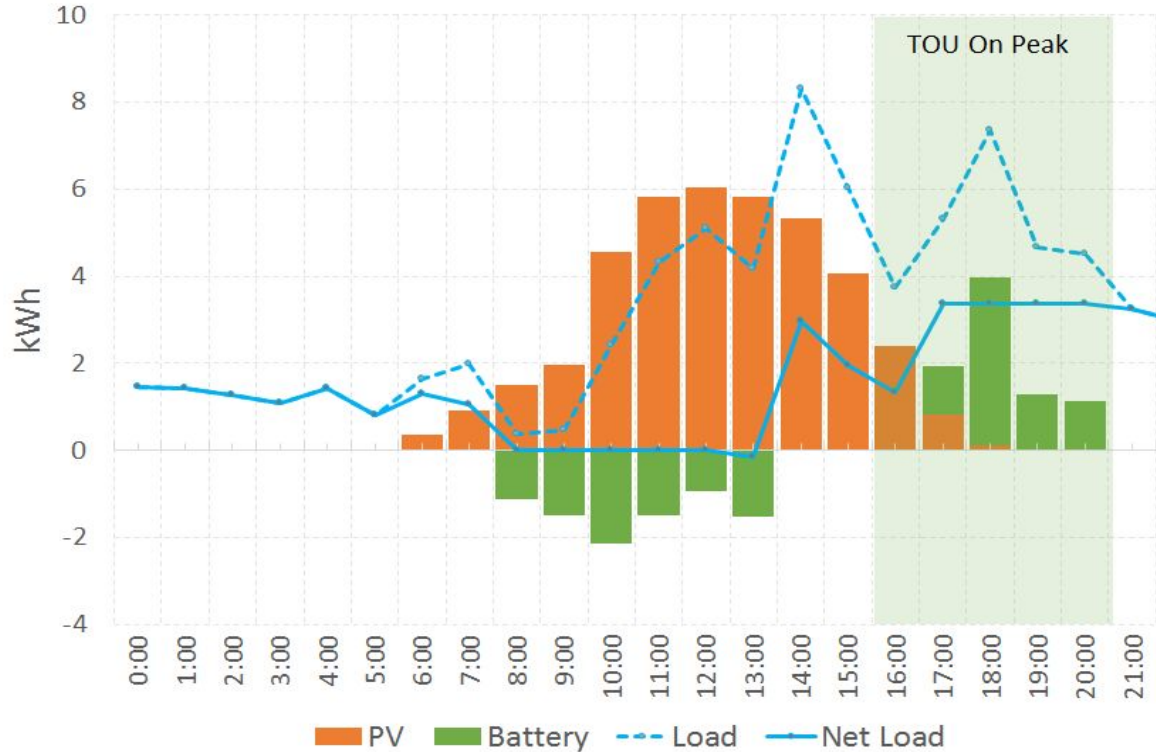


Now Available In: HI, CA, AZ, NY, MA, FL, PR, TX, VT, & NJ

Brightbox for Time Shifted Solar

Illustrative Residential Solar+Storage & Load Curve

Brightbox manages residential load shift in CA - managed for TOU, to **minimize midday solar exports**, and to **flatten evening load** - with flexibility for DR or other targeted shift, while maintaining charge for backup.



Home Solar & Batteries: the future, today

Wholesale: e.g., ISO-NE

- 20 MW bid won in 2019 Forward Capacity Auction
- Spread through number of New England states & ~5,000 homes
- First in nation
- Still providing backup power!

Retail: e.g. BYOD

- Bring Your Own Device: reduce G, T&D costs
- Utility program reducing wholesale or utility costs
- MA, VT, NH, NY, soon CT
- Low risk, pay for performance
- Still providing backup power!

Utility: e.g. Aggregation

- Virtual Power Plant Procurement
- NWA - locational
- Peaker replacement
- Low-income/multifamily
- Still providing backup power!

Sunrun Lands Another Big Virtual Power Plant Deal, This Time in Hawaii

Aggregated residential solar-storage systems will be used to help meet Hawaii's unique grid challenges.

Big Win for Local Energy: First Virtual Power Plant Snags Contract in US Wholesale Capacity Auction

07.20.19 | WORLD CHANGING IDEAS

This “virtual power plant” made of solar and batteries means Oakland can stop burning jet fuel

The solar panels will power low-income housing—and then fill up batteries to use when demand peaks.

DEEP DIVE

Hollywood's next star could be virtual power plants as LADWP closes out natural gas

Sunrun's 295 MW residential solar-storage VPP proposal for Los Angeles could be proof-of-concept

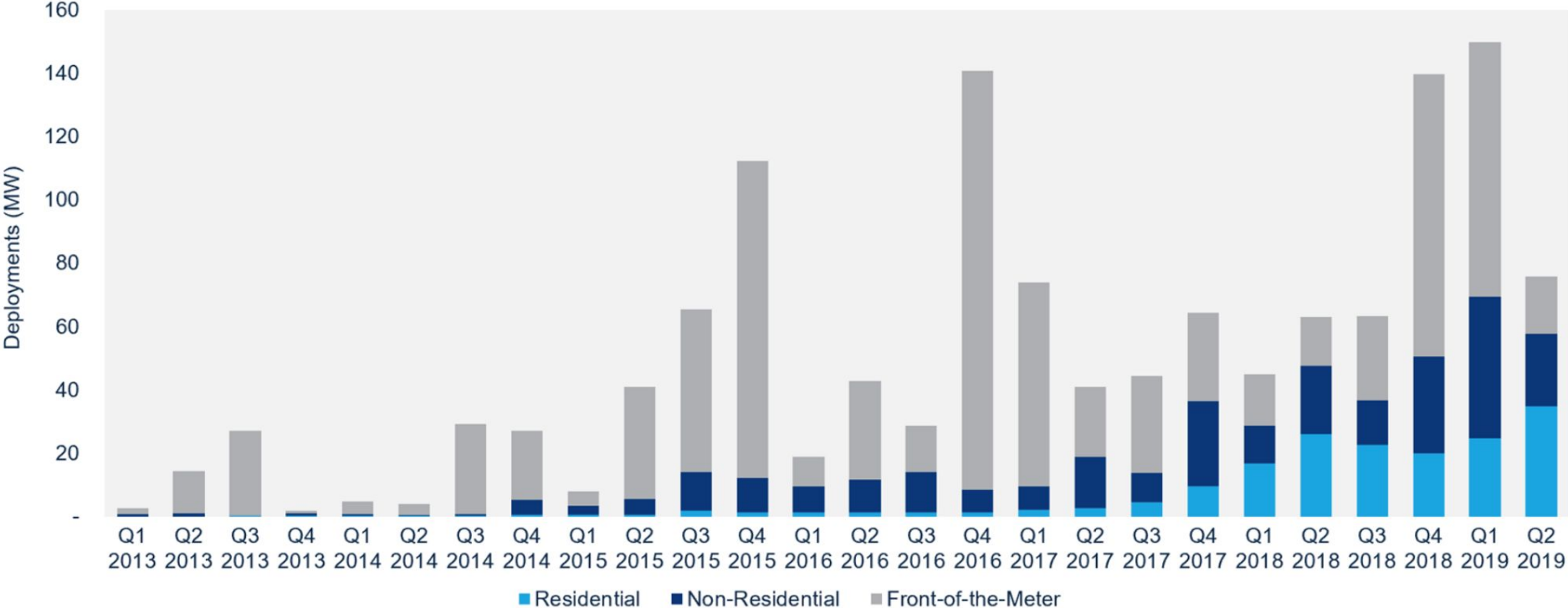


Sunrun's participation in ISO-NE Forward Capacity Auction 13 shows the promise of distributed storage

- 20 MW across several New England states
- ~5,000 individual customer-sited solar+battery systems
- Typical installation today is 10 kWh / 5 KW paired with 5-10 kW solar, with expected larger future batteries
- Customers get **backup power**, optimization of **solar production** (e.g. Clean Peak), and share of **capacity revenue**
- ISO-NE most conducive wholesale market today

“Autonomous Procurement” Will Not Stop. Let’s Harness It.

Q2 2019 US Storage Installations
WoodMac, GTM



Let's Harness the Distributed Fleet in PJM

State Level

- Bedrock market fundamentals: NEM, IX, metering, etc.
- Performance programs, like BYOD to unlock value
- Incentive to bridge revenue gap until costs decline

PJM

- Clear BTM pathway that recognizes value
- Duration rule
- Limit complexity on qualification, metering, etc.



Thank You.