Sunrun

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

23 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

- **Back-Up Power (Island during Outage)**
  - 2-10 kW Solar + 9.8 kWh / 5 kW Storage

- **Grid Services (Capacity, Voltage, Active/Passive)**

- **Energy Self-Supply**

Brightbox solves for market and customer needs:

- HI: Backup Power and Solar Self Supply
- CA: Backup Power, TOU Bill Management, Grid Services
- AZ: Backup Power, TOU Bill Management
- NY: Backup Power, Grid Services
- MA: Backup Power, Grid Services
- FL: Backup Power
- Puerto Rico: Backup Power

Brightbox meets customer needs and grid needs to provide lowest cost solution.
Brightbox = Time Shifted Solar

Illustrative Residential Solar+Storage & Load Curve

Brightbox managing 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.
Residential storage market up **198%** on average YOY between 2012-2018

Market to **triple** in annual deployment between 2019-2020 and then again between 2020-2023. Residential storage accounts for a **quarter** of the market, reaching ~1 GWh annually by 2020 and ~2 GWh annually by 2022.
What do we do with all of these home batteries & solar?

<table>
<thead>
<tr>
<th>Wholesale: e.g., ISO-NE</th>
<th>Retail: e.g., BYOD</th>
<th>Utility: e.g., Aggregation Contract</th>
</tr>
</thead>
<tbody>
<tr>
<td>● 20 MW bid won in 2019 Forward Capacity Auction</td>
<td>● Bring Your Own Device</td>
<td>● Virtual Power Plant Procurement</td>
</tr>
<tr>
<td>● Spread through number of New England states &amp; ~5,000 homes</td>
<td>● Utility program reducing wholesale or utility costs</td>
<td>● NWA - locational</td>
</tr>
<tr>
<td>● First in nation</td>
<td>● MA, VT, NH, NY</td>
<td>● Peaker replacement</td>
</tr>
<tr>
<td>● Still providing backup power!</td>
<td>● Low risk, pay for performance</td>
<td>● Low-income/multifamily</td>
</tr>
<tr>
<td></td>
<td>● Still providing backup power!</td>
<td>● Still providing backup power!</td>
</tr>
</tbody>
</table>
Rising to the Challenge

Utility Business Model Undergoing Stress Test

- Increasing demand for DERs
- Puerto Rico - extreme example of broken utility model
- PG & E wildfires - climate threat
- Los Angeles gas peaker replacement
- Increasing awareness by customers and political leaders for sustainable climate solutions

Let's partner for a cleaner, more resilient, less expensive grid.
New England’s Leadership

- ISO-NE leading the nation

- Bedrock state policy
  - NEM
  - BYOD
  - Clean Peak

- Resiliency Value

- Resi PV the platform for Electrify Everything
Thank You.