

Making the Case for DERs

Setting the context - a brief overview of competitive markets and vertically integrated utilities

- Energy Day ahead and Real Time, how those markets work
- Capacity/Resource Adequacy
- Ancillary Services
- Frequency Regulation

The distribution grid - current inefficiencies, reliability issues, and constraints

- Issues relating to meeting peak demand (load factor)
- Regulatory models (e.g. NY REV, MA SMART)

How DERs can address multiple needs and illustrative DER use cases

- Brooklyn Queens Demand Management
- Hawaii Water Heater Program
- Other examples: OhmConnect, SunRun, sonnen, Swell, Tesla

Identifying and Qualifying the Resources

Technologies - commercial and residential

Aggregation

- Communication, coordination, remote monitoring, and state of readiness
- Dispatch and portfolio management vendor control vs utility control

Cybersecurity concerns

■ The risk of connecting IT to operational technology/SCADA

Planning Considerations

- Assigning value to DERs in the resource planning process
- Best planning practices for utilities and grid operators

Policy & Rate Structures

- Federal policy drivers
- Tax incentives and subsidies
- Current policy and regulatory landscape

Evolving Grid Architecture

- Challenges of growing bidirectional needs
- Effective architectural designs including communications latency and bandwidth issues

Learn what a DER approach that is optimized for the future looks like. If you have any questions, please contact learning@sepapower.org