

## Bedrock to Progressive Rock: Welcome to the Future!



**New England Energy  
Conference & Exposition**  
May 10, 2017  
Groton, CT

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## Electric Power Research Institute

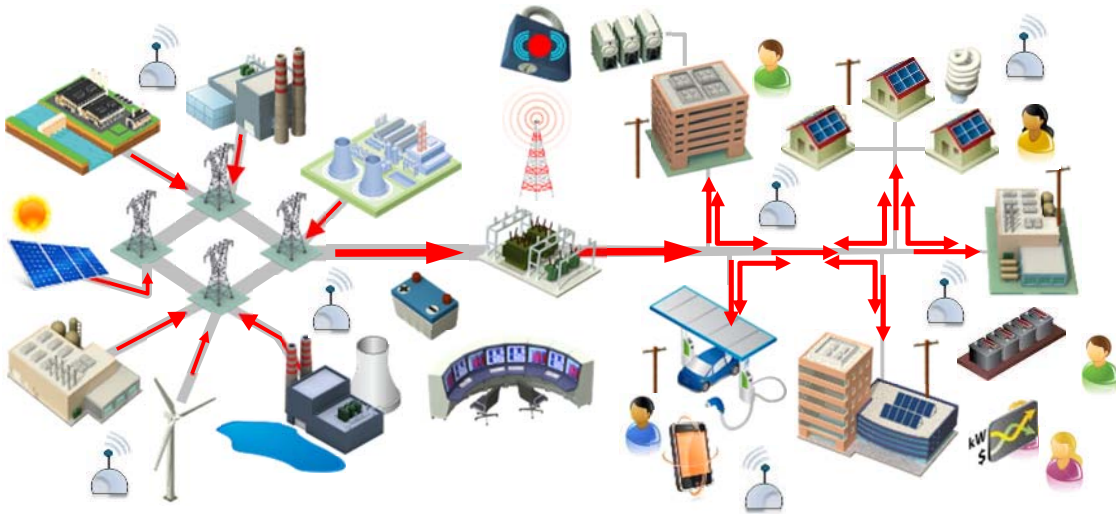
Founded in 1972 as an independent, non-profit  
center for energy and environmental research  
in the public interest

### EPRI's Members Today...

- 450+ participants in more than 30 countries
- EPRI members generate approximately 90% of the electricity in the United States
- International funding of nearly 25% of EPRI's research, development and demonstrations



# EPRI's Integrated Grid Vision



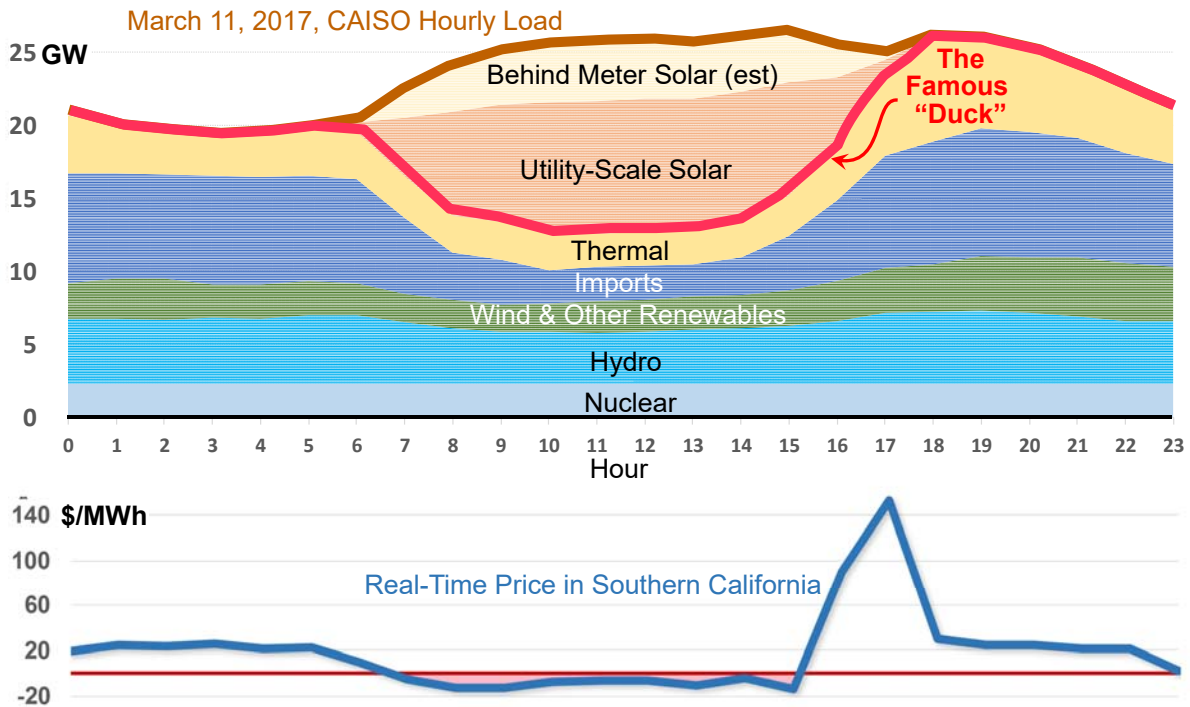
Power System that is Highly Flexible, Resilient, and Connected, and Optimizes Energy Resources

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## Happening Now:



4 Sources: CAISO Renewables Watch  
Energy Online, LCG Consulting

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## EPRI work in the Integrated Grid

- **Hosting Capacity:** How much DER (mainly solar) can a distribution feeder accept without any modification?
- **Accommodation Cost:** How much does it cost to accommodate DER *beyond* hosting capacity?
  - **Penetrations:** How does cost vary with penetration?
  - **Guided versus Unguided:** How much can be saved by guiding locations of rooftop solar on feeders?
  - **Concentrated versus distributed:** How much can be saved by concentrating solar rather than rooftop?
- **Time & Locational Value:** Can DER be used to avoid conventional distribution upgrades required for growth...
  - ... on single radial feeders?
  - ... on reconfigurable systems of radially operated feeders?
  - ... on distribution networks?
- **Next up...**





## **Together...Shaping the Future of Electricity**

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