Developing the Architecture for the Integrated Grid

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Grid Architecture Grid Panel Session
Why is the Grid Architecture Critical?

- Fundamental design decisions
- Basis for integration of new technologies (interoperability)
- Facilitates innovation
- Multiple stakeholder participation
- Cyber security
Key Challenges

1) Open Enterprise Interoperability Platform
   CIM Based Messaging & Analytics Access

2) Open Communication Architecture

3) Open Application Platform
   Generation Devices/Sensors
   Tx & Rx Devices/Sensors
   Smart Meters
   Other Devices/Sensors

4) Open Cyber Security Architecture
Lessons from Australia

- Common Platform – standards-based, flexible, and cover the entire network.
- Deep situational awareness and control infrastructure.
- Advanced automation layer.
Critical Architecture Issue in Hawaii - Where is the DERMS?
Next challenge – Integrating the customer

Standards-Based Connected Devices to Enable Clean Energy Technologies

- Water Heaters
- Pool Pump
- EV Charger
- Solar Inverter
- Battery Storage
- Thermostat

EMCB
Developing a platform for advancing the interoperability standards and technologies
Together…Shaping the Future of Electricity