Session 3A: Commercial Buildings as Grid Assets

Moderator: Barry Coflan, Schneider Electric
Amy Jiron, U.S. OE BTO
Clay Nesler, Johnson Controls
Tim Fu, FirstFuel
Electrical power will be more distributed and digitized, demand *smarter* and more *flexible*...

**Traditional power distribution model**

1. Generation
2. Transmission
3. Distribution
4. Customer

**New power distribution model**

1. Generation
2. Transmission
3. Smart Grid
4. Micro Grid
5. Demand response
6. Net Zero Building

**Smart Flexible Demand**
US respondents that are very or extremely likely to have one or more facilities able to operate off the grid in the next ten years

54%

US respondents that are very or extremely likely to have one or more facilities that are nearly zero, net zero or positive energy or carbon status in the next ten years

61%

US respondents that plan to have one or more green certified buildings in the future

72%

2018 Energy Efficiency Indicator Study – Increase in plans to invest in EE/RE Measures

Note: Preliminary survey results based on responses from 100 US based facility and energy management executives

Copyright 2018 - Johnson Controls
Building systems integration
Energy management process (eg. ISO 50001)
Non-renewable distributed energy generation
Security system improvements
Integration of lighting systems with other building technology systems
Electric energy storage
Fire/life safety system improvements
Centralized building operations center
Onsite renewable energy
Demand response / demand management
Water efficiency improvements
Integration of fire/life safety with other building technology systems
Integration of smart building equipment with other building technology systems
Integration of building management systems with other building technology...
Integration of security systems with other building technology systems
Building envelope improvements
Thermal energy storage
Retro commissioning and building system tune-ups
Energy management and analysis software
Building controls improvements
Lighting improvements
Heating, ventilation, air conditioning (HVAC) improvements
Energy focused behavioral or educational programs

Note: Preliminary survey results based on responses from 100 US based facility and energy management executives

Copyright 2018 - Johnson Controls