BUILDINGS ARE “MISSION CRITICAL” AND ESPC IS KEY

Kathleen McGinty
Vice President, Global Government Relations
Johnson Controls
• An Energy Revolution
• Money Proves the Point
• A Megatrend Supercharges the Change
  
  • “Bricks and Mortar” Isn’t Good Enough Anymore
• ESPC is key ... but your old ESPC won’t do...
TALKING ABOUT A REVOLUTION...

Shale plus a Housing Bust plus a Stimulus Package plus China

- Net natural gas importer (arrow) Net natural gas exporter
- 80-fold increase in installed solar capacity
- 300 percent increase in installed wind
- 90 percent drop in battery costs
- US GDP up 25%; Total energy use up just 6.6%

*BCSE 2020 Energy Factbook
FOLLOW THE MONEY

2019 Global Energy Efficiency Indicator Survey

• 75% investing in efficiency, renewables, smart buildings (16% jump)
• 87% investing in resilience (19% jump)
• 71% investing in building controls; over half in enterprise BMS
• 69% investing to cut fossil fuel use
• 63% investing to get off the grid
THE MEGATREND SUPERCHARGING THE CHANGE

Decarbonization → Electrification → Efficiency → Digitalization

From Berkeley → Britain → Beijing
BUILDING ELECTRIFICATION MOVEMENT AT THE STATE AND LOCAL LEVEL

WASHINGTON
- Statewide decarb targets
- Energy code incentivizes decarb
- Mandatory bldg. perf. standard

SEATTLE
- Proposed ban on new gas infrastructure

CALIFORNIA
- Reduce bldg. emissions 40% by 2030
- 60% RPS by 2030, 100% RPS by 2050
- Bldg Decarb Coalition: specific bans for furnaces in res, comm

SAN JOSE, BERKELEY, +++
- Bans on gas in new construction

SAN FRANCISCO
- Climate plan specifically targets electrification

SMUD
- Significant electrification incentive for customers

SCE
- Specific space/water heating electrification targets

LOS ANGELES
- “Green New Deal” expected to set electrification targets

COLORADO
- Statewide decarb targets
- Admin. developing electrification plan
- Xcel: 100% clean energy by 2050

DENVER
- Climate plan specifically targets electrification

BOULDER
- Possible code proposal to mandate heat pumps

MINNESOTA
- Statewide decarb targets
- Specific R&D for ccHP
- Xcel: 100% clean energy by 2050

MAINE
- Specific requirement for ccHP deployment

VERMONT
- Energy code incentivizes ccHP

ALL NORTHEAST STATES
- Statewide decarb targets
- Significant utility incentives for ccHP

MASSACHUSETTS
- Energy code incentivizes decarb/ccHP

CAMBRIDGE, BROOKLINE
- Bans on gas in new construction

BOSTON
- Climate plan specifically targets electrification

RHODE ISLAND
- Heating sector transformation EO

NEW YORK
- Specific IOU requirements for ccHP
- Specific R&D for electrification

NEW YORK CITY
- Bldg. perf. standard is emissions-based

NEW JERSEY
- Energy Master Plan specifies electrification

WASHINGTON, DC
- Mandatory bldg. perf. standard
- CNCA/BEI city w/ elec. program assessment
EFFICIENCY & DIGITALIZATION ARE A MUST
FROM “BRICKS AND MORTAR” TO “MISSION CRITICAL”

• Conserving Cash
• Saving the Planet
• Training the Troops
• Securing the Country
• Curing People
STANFORD UNIVERSITY CENTRAL ENERGY FACILITY
USMC RECRUIT DEPOT PARRIS ISLAND
KWAJALEIN 1 ESPC SOLAR ARRAY
ESPC IS KEY...

LEADING REASONS INVESTMENTS NOT MADE

- Lack of Technical Expertise to Evaluate
- Lack of Capital
- Insufficient Payback / ROI
BUT YOUR OLD ESPC WON'T DO...

• System Level Efficiency
• Fully Integrated Supply and Demand
• “SMART” Systems
• EaaS
• “Performance”