

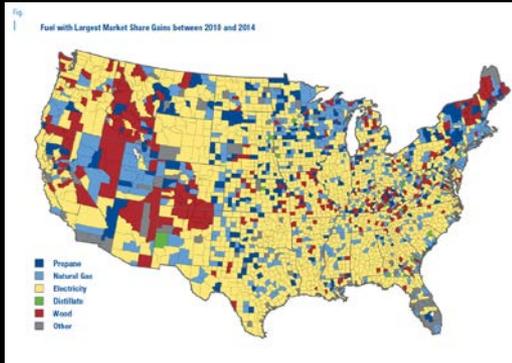
DOCKETED

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WHAT ARE THE BEST BUILDING TYPES FOR NEW ALL-ELECTRIC CONSTRUCTION?

All Building Types Can Be All-Electric. The easiest can use heat pumps and induction stoves for their thermal needs:

- Residences and Offices
- Restaurants and Schools



More challenging are high-temperature manufacturing facilities of products like:

- Recycled glass dishware
- Cement
- Canned foods



BARRIERS AND SOLUTIONS TO ELECTRIFICATION OF EXISTING BUILDINGS

Barriers:

- Low Power Buildings Can Require Panel Upgrades: Existing residential 30-100 amp services, while all-electric residences use 125-200amps. \$600-\$3000
- Cost of Possible Interior Wiring Upgrade from 120V, 15amp. \$200-\$400/fixture, \$800-\$1000 for whole house
- Mechanical engineers and contractors are unfamiliar with heat pump equipment
- Inefficient Equipment: Nine (9) Japanese HVAC and DHW heat pumps are 40-60% more efficient than those sold in America by the same brands, and use no-GHG refrigerants

Solutions:

- Bring in products from Japan designed for Power and Operating Efficiency, reducing need for wiring upgrades
- Address the costs with a Program, e.g. rebates, utility-paid work, mandated time of sale upgrades, rental license renewal obligations
- Provide Best Practices guides and classes for designers and installers

