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Residential Program Ideas for IL Utilities' 2022-2025 Plans



Presented at IL SAG Meeting

May 12, 2020

Ideas Being Presented

- Non-IQ Multi-Family Heat Pumps
- Non-IQ Single Family Home Retrofits
- All-Electric Residential New Construction Pilots

NOTE: There are three other “program ideas” being presented under the “Business Program Ideas” heading in the afternoon that are generic concepts that apply just as much to Residential as to C&I:

- *Variable Refrigerant Volume technology*
- *Midstream/Upstream Programs*
- *Leveraging Other Initiatives*

Non-IQ Multi-Family Heat Pump

- **Program concept:**
 - Retrofitting in MF buildings currently using inefficient electric resistance heat
 - Integrate into existing MF retrofits or...separate initiative - marketing to MF bldg. owners
 - Integrate with building envelop, smart t-stat measures to extent possible
 - ~50% rebates to start, can reduce over time as program gains traction
 - Can leverage midstream incentives - maybe added program incentive on top of lower midstream one
- **Target market:**
 - Ameren: ~50% of non-IQ MF electrically heated (2016 potential study)
 - ComEd: 24% of MF have primary electric heat, 18% secondary (2013 Sat. Survey)
- **Rationale:**
 - Cold climate heat pumps can save 60-70% per unit of heat (vs. electric resistance)
 - Biggest savings opportunity - by far - for affected households
 - Technology has very low market share - big opportunity to grow/shape market

Note: we have also proposed an IQ Multi-Family Heat Pump program (to be presented 5/13/20)

Non-IQ Single Family Retrofits

- **Program concept:**

- Whole building approach - focusing primarily on building envelop, HVAC distribution
- Air sealing, duct sealing, DI measures, smart t-stat, building audit *all on first visit*
 - Highly discounted initial visit - e.g. \$99 cost to participants + \$49 smart t-stat
 - 50% rebate on insulation upgrades as follow up, heat pump retrofits
 - Current incentives for other HVAC equipment
- Negotiation of affordable fixed prices from retrofitting contractors
- Integration w/on-bill and/or other financing
- Major increase to 20% of total gas program budgets

- CT utilities model
- CT 2021 target is ~2.5% of all homes

- **Target market:**

- All SF addressed through joint gas/electric program
 - target marketing of electric heat customers to enhance benefits to electric utilities

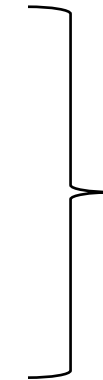
- **Rationale:**

- Largest reservoir of untapped gas savings and savings potential in electrically heated homes
- Will take decades to make significant dent in potential even with this kind of more aggressive program
- Historically low IL utility participation rates, and low conversion rates from audit to action

All Electric Residential New Construction Pilot

- **Program concept:**

- Super-efficient, all electric new construction package
 - E.g.: R-60 Attic, R-25+ walls, triple-glazed windows, very tight
 - High performance, cold climate heat pumps (centrally-ducted)
 - HP water heaters, other efficient appliances
 - Option of net zero, but at least PV-ready, EV-ready
- Pilot to start, then larger scale if/when market grows
- Could have affordable housing component
- Could be an MT program



- ComEd already has pilot
- DTE and Consumers (MI) launching pilots this year with significant IQ focus

- **Target market:**

- Single family new construction

- **Rationale:**

- Long-term climate goals require transition to net zero energy new construction
- Need to start testing/demonstrating options to get there
- Could provide significant savings long-term through market transformation

ENERGY FUTURES GROUP
P.O. BOX 587, HINESBURG, VT 05461

Christopher Neme | CNEME@ENERGYFUTURESGROUP.COM | **802-363-6551**

NATURAL RESOURCES DEFENSE COUNCIL
20 N. WACKER DRIVE, STE 1600, CHICAGO IL 60606
WWW.NRDC.ORG

Laura Goldberg | LGOLDBERG@NRDC.ORG | **312-651-7931**
