

Nicor Gas Residential HVAC GHP LOGIC MODEL

Barriers

I. Energy efficiency policies focused on electrification; lack of attention to gas efficiency standards

II. Unclear value proposition

III. Change-averse supply chain

IV. Inadequate supply chain communication channels, tools and training

V. Lack of product awareness

VI. Unknown product reliability -1st generation units commercially available 2023

VII. Installation challenges for retrofits

Opportunities

I. Policy- and consumer-driven climate response

II. Consumer interest in lower energy costs

III. Commercially available product anticipated in 2023

IV. Multiple manufacturers offering multiple types of HVAC GHP products offered

V. High saturation of gas heating appliances

Strategic Interventions

Participate in North American Collaborative (NAGHPC) to build support for commercialization of residential GHPs, influence codes, and amplify market demand

Validate energy savings, safety, reliability, and installation requirements

Engage and support manufacturers

Integrate residential HVAC GHPs into TRM and program offerings

Engage and support installers, distributors, and retailers

Build consumer awareness and demand

Support inclusion of residential HVAC GHPs in carbon reduction strategies

Outputs

Output 1
a. NAGHPC launched
b. Pooled NAGHPC resources to support residential HVAC GHPs market launch
c. Manufacturers commit to bring residential HVAC GHPs to market
d. Inclusion of residential HVAC GHPs in state/regional/national codes and standards
e. Utility offerings include residential HVAC GHPs

Output 2
a. Field demonstrations across North America
b. Certified residential HVAC GHPs available in North America
c. Qualified products list
d. Case studies and value proposition for business case and marketing
e. Contributions to federal rulemaking processes

Output 3
Manufacturers' commitment to service area

Output 4
a. Marketing plan and campaign targeting supply chain
b. Trainings and support for supply chain
c. Develop supply chain champions

Output 5
a. Inclusion of residential HVAC GHPs in IL TRM
b. Utility rebates/ financing available for qualified residential HVAC GHPs

Output 7
Increased quantity of incentives offered

Output 6
Consumer-facing awareness and sales marketing campaigns

Output 8
Case studies and value proposition demonstrating how residential HVAC GHPs support decarbonization

Outcomes

Short-Term (1-3 yrs)

Outcome 1
Unified North American front to market

Outcome 2
One or more HVAC GHP manufacturers offer qualified residential HVAC GHPs

Outcome 3
QPL adopted by utilities and manufacturers

Outcome 5
Installer, distributor, and retailer awareness, knowledge, and comfort with GHPs increases

Outcome 6
Installers, distributors, and retailers increasingly stock, recommend, sell, & install qualified residential HVAC GHPs

Outcome 7
Illinois gas utilities have robust and aligned residential HVAC GHP programs

Outcome 9
Consumer awareness increases

Outcome 13
Regional and North American decarbonization efforts recognize residential HVAC GHP as viable decarbonization strategy

Medium-Term (3-5 yrs)

Outcome 4
Residential gas HVAC market differentiates around QPL

Outcome 8
Installers recommendation includes most efficient gas option and its associated value proposition

Outcome 10
Consumers increasingly purchase and are satisfied with qualified residential HVAC GHP

Outcome 11
Residential HVAC GHP market share increases for gas residential HVAC replacements

Outcome 12
Increased market demand reduces product costs

Long-Term (5-10+ yrs)

Outcome 14
Majority of residential HVAC GHP manufacturers maintain a pipeline of innovation with efficiency as core development and marketing strategy

Outcome 15
Industry-respected organization incorporates residential HVAC GHPs into their efficient technology specifications

Outcome 16
US and Canadian federal standards require AFUE > 1.0 for residential gas HVAC units

Outcome 17
Majority of newly installed residential gas HVAC units have AFUE > 1.0

Goal

Program: Residential HVAC GHP
Date: February 2024

Market Transformation Role

Market's Response