



Non-Pipeline Alternatives: Bringing Together Utilities & the Heat Pump Industry



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NY-GEO 2023
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Albany, New York on
April 27, 2023*

Moderator:

Will Lange / WaterFurnace

Panel:

Jennifer Brock / NYSEG/RG&E

John Manning / Earth Sensitive Solutions

Owen Brady-Traczyk / National Grid

Cory Scofield / Central Hudson

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NYSEG and RG&E Non-Pipes Alternatives (NPA) Program Overview

April 27, 2023



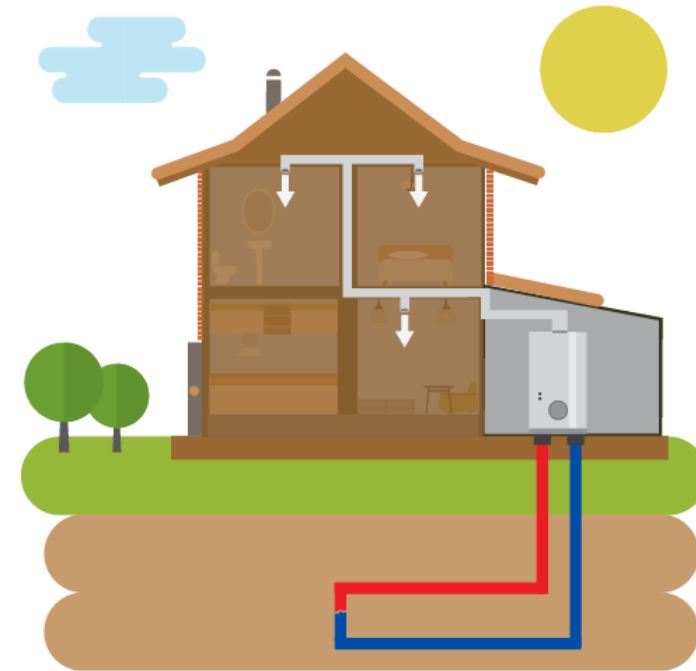
What is an NPA?

A Non-Pipes Alternative (“NPA”) utilizes cost-effective third party solutions to defer or avoid certain traditional natural gas capital pipeline projects needed to address system reliability concerns.

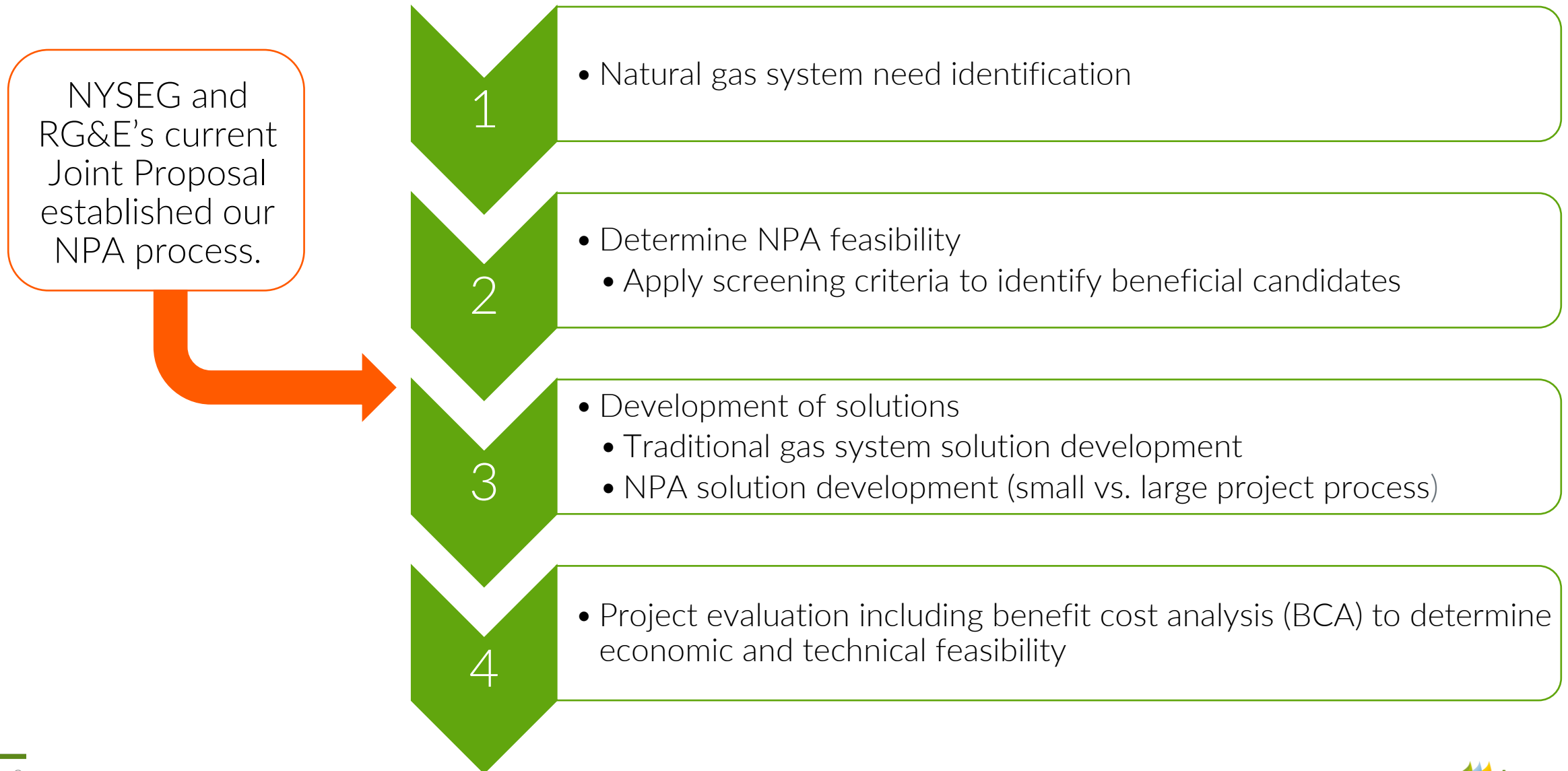
NPAs support:

- NYSEG and RG&E’s commitment to a zero-net increase in billed natural gas use under current rate plan;
- Climate Leadership and Community Protection Act (CLCPA); and
- Delivery of other benefits to society and customers including lower energy costs achieved through reduced capital spending

Supply Side NPA Solutions	Demand Side NPA Solutions
<ul style="list-style-type: none">✓ Renewable natural gas✓ Hydrogen✓ Compressed and liquified natural gas	<ul style="list-style-type: none">✓ Heat pumps / beneficial electrification✓ Fuel switching✓ Thermal storage✓ Targeted energy efficiency✓ Targeted demand response✓ Heat recovery systems✓ Combined heat and power technology



General NPA Process – Steps



NYSEG Lansing NPA Project Status

Project Name	Current Status
Residential Heat Pumps	<ul style="list-style-type: none"> • Developed robust marketing strategy to enhance community engagement • Actively signing up customers and installing projects
Single Commercial Ground Source Heat Pump	<ul style="list-style-type: none"> • Entering into construction phase
Energy Efficiency at Two Public Authority Buildings	<ul style="list-style-type: none"> • Currently in design phase
Education & Outreach Program	<ul style="list-style-type: none"> • Hosted community event in December 2022 • Setting up tables at various community locations • Engaging with various community organizations
Community Ground Source Heat Pump	<ul style="list-style-type: none"> • In contracting phase
Industrial Heat Recovery	<ul style="list-style-type: none"> • In contracting phase





NPA Small Projects – Leak Prone Main Replacement Projects

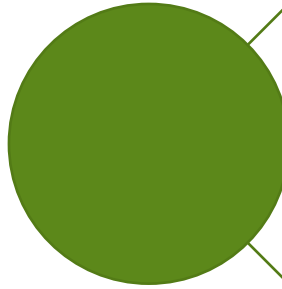
**NYSEG
Whole Home
Electrification
Program**

Exclusive invitation to receive energy upgrades at **NO COST** for your building or home.

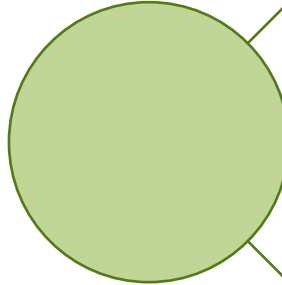
Contact Us
NYSEG has partnered with ICF Resources, LLC. To learn more, schedule a site visit, or review your potential upgrade options, please contact:
John Pfeiffer
Phone: 845.204.8226
Email: John.Pfeiffer@icf.com
For additional information, please visit nyseg.com/WholeHome.



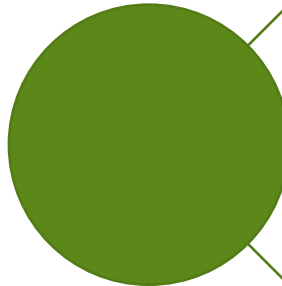
 **NYSEG**
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GOAL: 100% Electrification of customers within a Leak Prone Main (“LPM”) segment



Whole Home Electrification Program was implemented by NYSEG & RGE in 2022



We are targeting **19** segments within the NYSEG and RG&E service territory for **2023**

Non-Pipeline Alternative (NPA) Update

Owen Brady-Traczyk
Director, Future of Heat Solutions



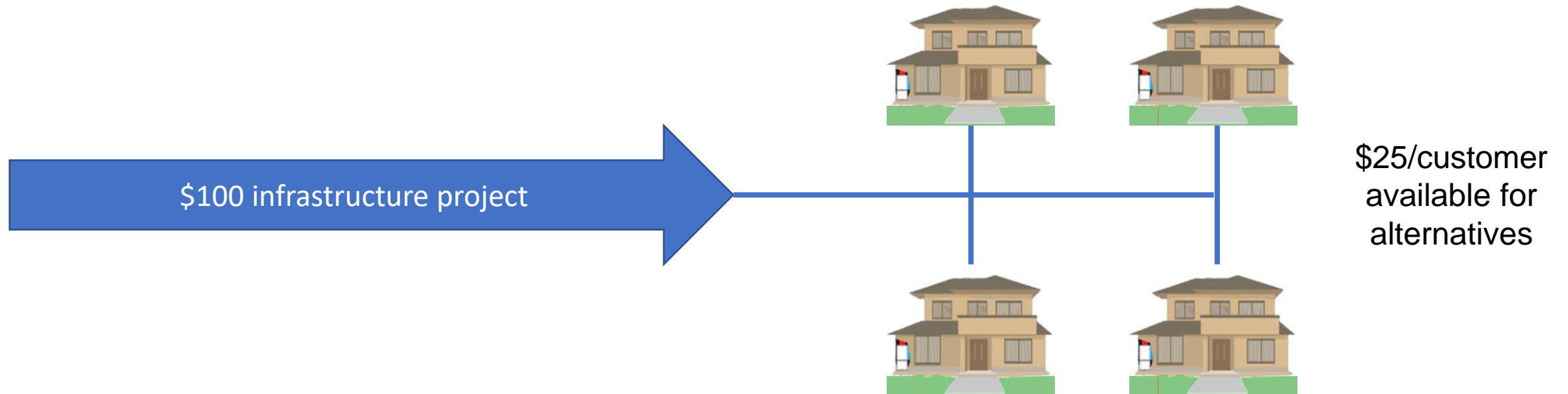
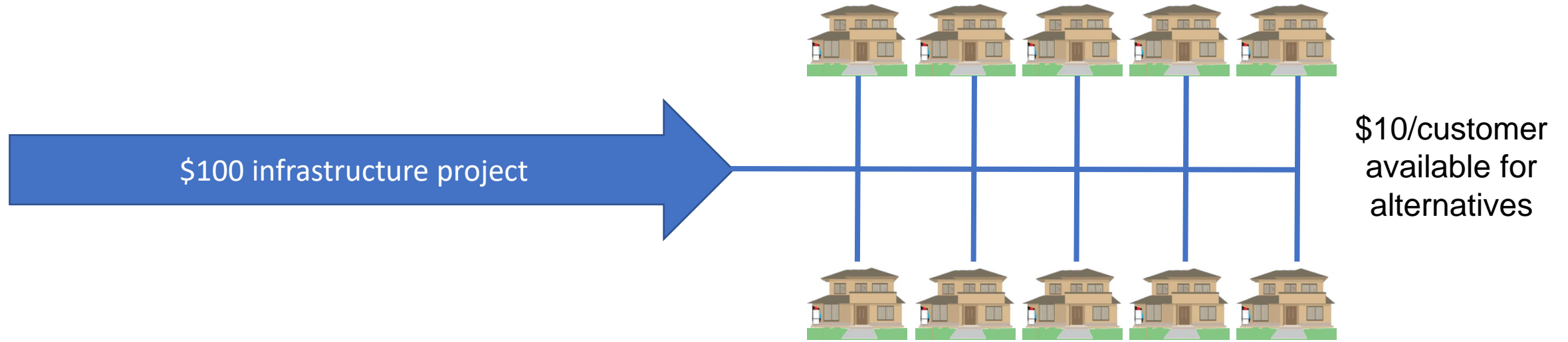
nationalgrid



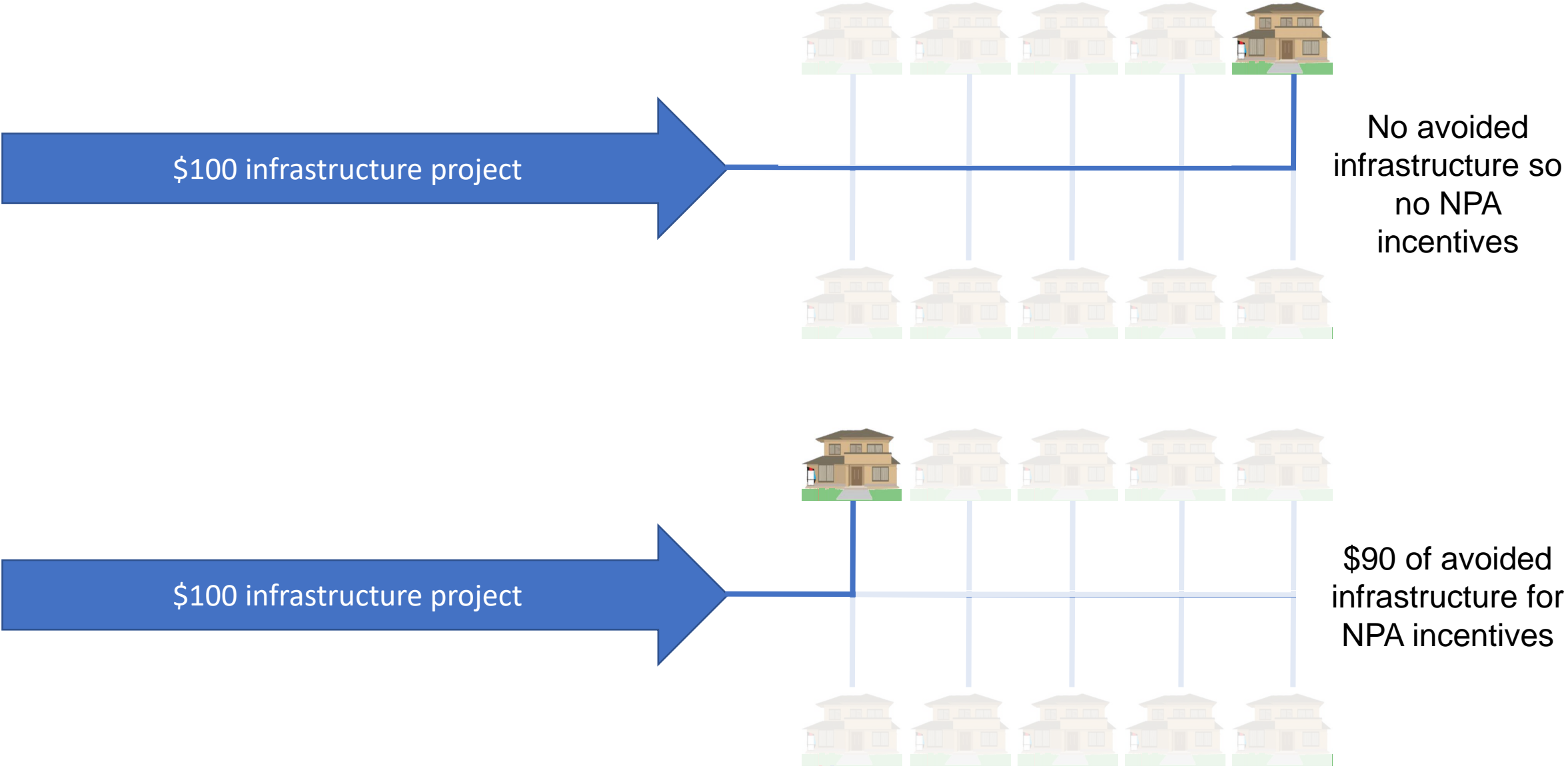
Filings Related to NPAs

- Gas Planning Order (Case 20-G-0131)
 - Filings were made by the joint gas utilities in NY on Aug 10, 2022
 - Joint and individual filings that established various structural NPA elements
 - Suitability and Screening Criteria (e.g. project size, timing)
 - Cost Recovery Framework
 - Should standardize NPA approaches across the state
- New Gas Connections Cost Report (Case 19-G-0309)
 - Filing made by National Grid on May 12, 2022
 - Described costs to connect new customers to the gas system under the 100' allocation
 - Outlined a possible structure that would provide the same allocation for alternatives as an NPA

The Challenge of (Relative) Scale



Project Differences



\$100 infrastructure project

No avoided infrastructure so no NPA incentives

\$100 infrastructure project

\$90 of avoided infrastructure for NPA incentives

NPA Experience

- **North Queens RFP** – issued Dec 2021, 1 response received that didn't meet system need
- **Northern/Southern Long Island RFP** – issued to 11 vendors in July 2022, 1 bid received
 - Meeting with internal teams and DPS Staff to make a final decision
- **Gansevoort Farm Tap Replacement** – 20 customers; 15 customers wanted to continue receiving gas service, 4 out of the 5 are interested in the NPA
 - Finalizing customer documentation and contracting for geothermal/electric appliance installs
- **Coordinated Transition NPA pilot** – contacted customers on selected LPP street segments in Albany region that had 5-7 homes; 20% interest on 2 segments and 0% interest on remaining 2
 - Reworking outreach and increasing the number of segments for CY23
- **LPP NPA Analysis** – contacting customers on selected LPP segments to assess interest; thus far nearly every segment (27 out of 30) has had customers that wanted to continue gas service
- **LI Residential Developer** – exploring possibility of geothermal in lieu of gas main extension
 - Working with developer and geothermal vendor to finalize design and potential NPA incentive value

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THEN EMPLOYEES
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THAT
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HARDER.



Central Hudson's Non-Pipeline Alternatives



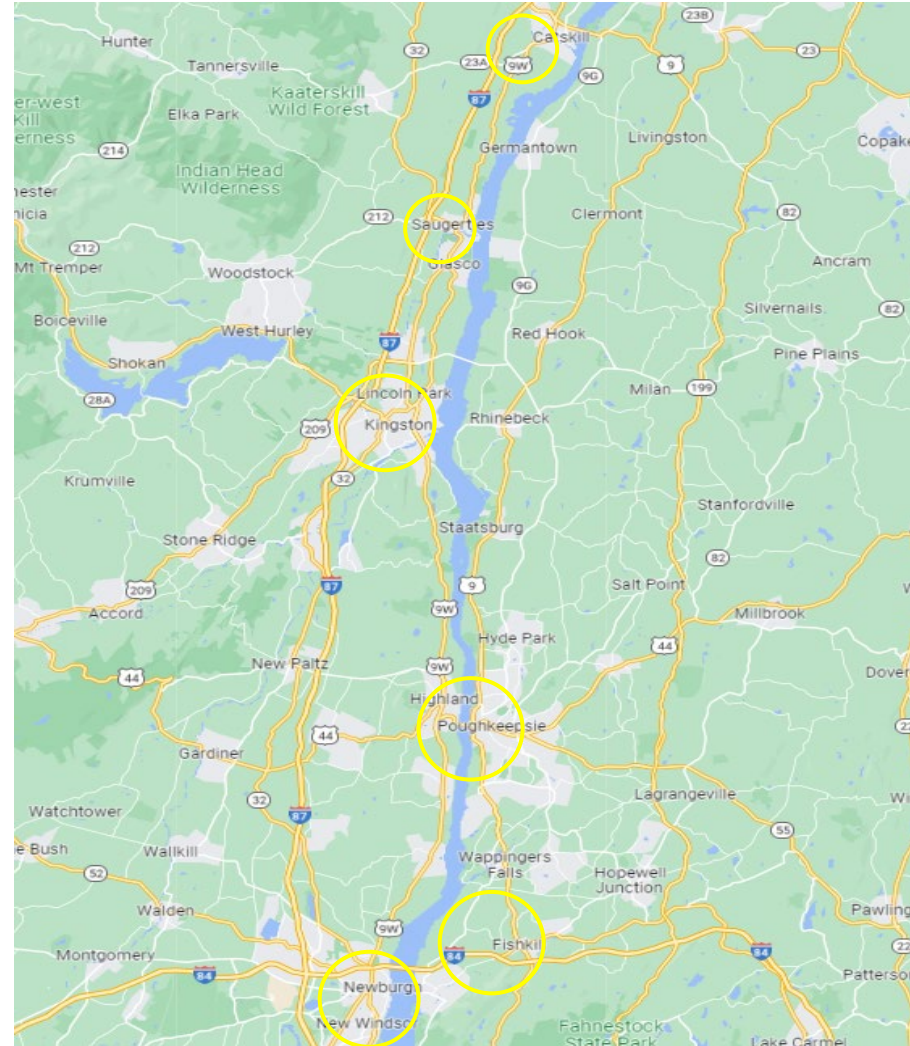
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Cory Scofield
Director, Demand-Side Management



Transportation Mode Alternatives

- The Company has a target of at least 15 miles of Leak-Prone Pipe (LPP) replacement per year
- Replaces gas using equipment (heating and appliances) with electric devices.
- Also considered in “unique” scenarios
- *100%* participation required in each location
- Overview: 11 Municipalities, ~45 Cases
- Average case: 2-3 dwelling, ~500 feet
- 4 cases fully converted (7 SF, 2 MF homes)



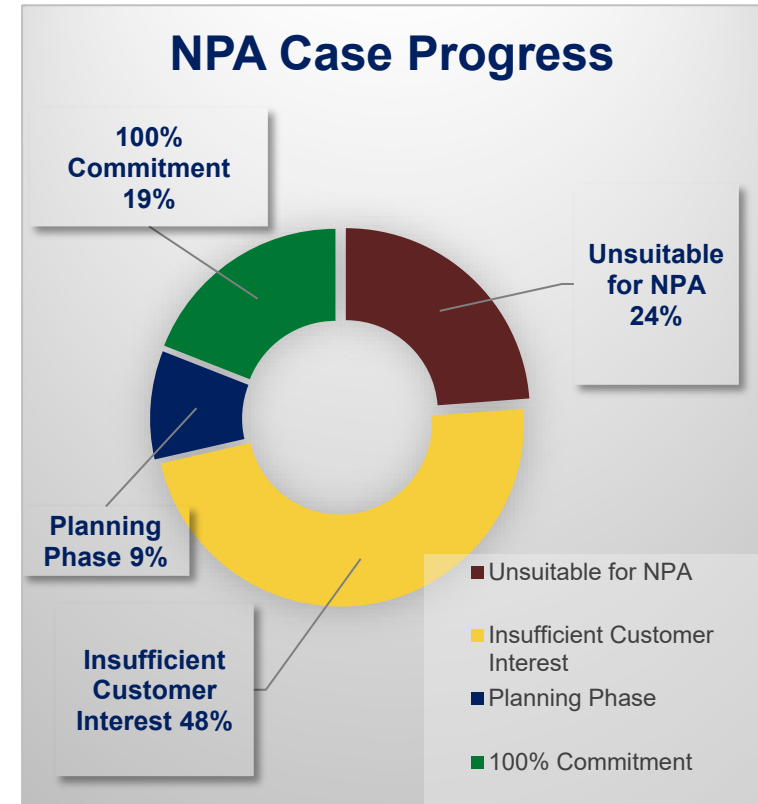
Challenges / Risks

➤ Project-level Challenges:

- 100% participation for each case
- Short timeline to coordinate with municipal projects
- New customer requests prior to retiring pipe main

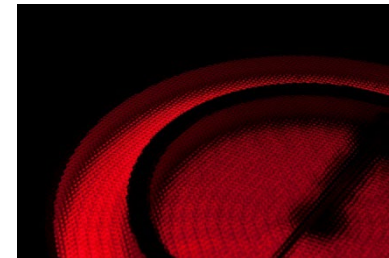
➤ Customer-level Challenges:

- Unique property layouts
- Approving Boards / Powers of Attorney
- Multi-family, Landlord / Tenant
- Customers change in position
- Sale of property during solicitation period
- Preference for natural gas



Beneficial Electrification Upgrade

- Full Electric Conversion
 - “Whole-Home Beneficial Electrification”
 - Heat Pump installations in compliance with NYS Clean Heat guidelines
 - Heat pump water heater
 - Electric cooking range
 - Other appliances as needed (ex: electric clothes dryer)
 - Electric panel upgrade (as needed)
- Targeted marketing strategy, followed by customer education and enrollment.
- Central Hudson covers the equipment & install cost



Customer Education

GO ELECTRIC

Whole Building/House Beneficial Electrification Program

Central Hudson recently evaluated gas infrastructure in your area and is considering retiring aging gas lines on your street. In return, the company is offering exclusive upgrades to convert natural gas appliances to energy efficient electric models.

Examples of potential upgrades include:

- Combined heating and cooling system (air-source heat pump);
- Electric heat pump water heater;
- Induction cooktop/electric oven;
- Conversion of other natural gas appliances, as applicable.

This offer is exclusive to your address, by invitation only and is non-transferable. It is contingent upon a property audit and feasibility study of the area. The value of the upgrades is dependent on your home and location. Participation in this program is voluntary.

How does this program benefit you? Central Hudson manages the process, pays for new energy efficient equipment and installation. In addition, you may qualify for a cash home-upgrade completion bonus.

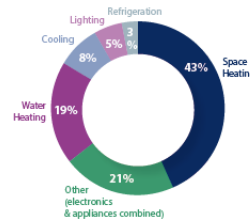


HEAT PUMP BENEFITS

- **Versatile:** Can be used for heating and cooling;
- **Healthy:** Filters and dehumidifies indoor air;
- **Low carbon footprint:** Transfers heat from the outside air to heat your home in cooler months and works in reverse in warmer months, resulting in lower carbon emissions;
- **Work in lower temperatures:** Cold climate heat pumps work even on cold winter days;
- **Efficient:** Heat pumps have high efficiencies compared to other heating and cooling technologies;
- **Long lifespan:** With proper maintenance, systems will last up to 20 years;
- **Quiet:** Air-source heat pumps are quieter than window air conditioner units.



How We Use Energy in the Average Home



According to the U.S. Energy Information Administration, water heating is the second single highest energy expense after space heating for most homes. An efficient electric heat pump water heater can help you save.

ELECTRIC HEAT PUMP WATER HEATER BENEFITS

- **Cost savings:** The older your water heater, the less efficient it is, according to Consumer Affairs. Replacing your older gas water heater with a new HPWH can save money, especially if it has a higher energy factor (EF) rating, which compares the amount of hot water it produces per day to the amount of fuel it consumes. The higher the EF number, the higher the savings.

INDUCTION COOKTOP/ ELECTRIC OVEN BENEFITS



- **Efficient:** Induction cooking uses magnetic currents to directly heat your pots and pans instead of the cooktop, so there is very little heat loss.
- **Fast:** Because heat is created immediately through induction, food heats up and water boils 50 percent faster when compared to standard electric or gas cooktops.
- **Easy:** Induction burners don't heat the surface so any spills, splatters or occasional boil-overs won't burn onto the cooktop, making it easy to clean.

To learn more, schedule a virtual appointment or review your upgrade options, contact:

CENTRAL HUDSON
Phone:
Email:
CentralHudson.com/Invitation-Only



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For information on Central Hudson's other incentive and rebate programs, visit:
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New Opportunities

- “Farm Taps”
- UTEN
- Geothermal District Loop Feasibility Study

Thank you!

