



Who Will Pay for Building Electrification? *A Policy Perspective*

Moderator:

Jessica Azulay / *AGREE*

Panel:

Annie Carforo / *WE ACT*

Audrey Schulman / *HEET*

Michael Hernandez / *ReWiring America*

Lisa Dix / *Building Decarbonization Coalition*

*Presented Live at the
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Conference
Albany, New York on
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Who will pay for building electrification?

A policy perspective

Welcome :-) and a little orientation to NY

- New York's Climate Plan calls for 1-2 million homes to be electrified by 2030; our Governor has set a goal of 2 million "climate friendly" homes by 2030
- We have to electrify nearly all of our homes by 2050
- We have hundreds of millions allocated for utility and NYSERDA incentives already for heat pumps and energy efficiency, and a state geothermal tax credit
- The IRA will bring in in billions more
- Electrification-readiness is a big challenge as we have a lot of older housing stock in dire need of repairs, upgrades, weatherization, and electrical work
- We also pay billions every year on our gas bills to heat our homes and make hot water and cook our food - it's important that as we ask the question "Who will pay for electrification?" We also ask, "Who will pay for the gas system?"
- All of these issues are in active debate in the NY Legislative Budget and Legislative Session right now!

Panel Participants

- **Jessica Azulay, Moderator - Executive Director of Alliance for a Green Economy**
- **Michael Hernandez - NY Policy Director of Rewriting America**
- **Annie Carforo - Climate Justice Campaign Manager**
- **Lisa Dix - NY Director of Building Decarbonization Coalition**
- **Audrey Schulman - Co-Founder and Executive Director of Home Energy Efficiency Team (HEET)**

Who Will Pay for Building Electrification: A Policy Perspective

April 26, 2023

Michael Hernandez, New York Policy Director for Rewiring America



ONE IDEA



Rewiring America was founded as a nonprofit in 2020 with one simple idea: **Electrify Everything**



32%

of our emissions come from
our buildings, the largest
source of emissions in the
state

**MONEY TO GO
ELECTRIC**



**The Inflation Reduction Act will
jumpstart the electrification
movement.**

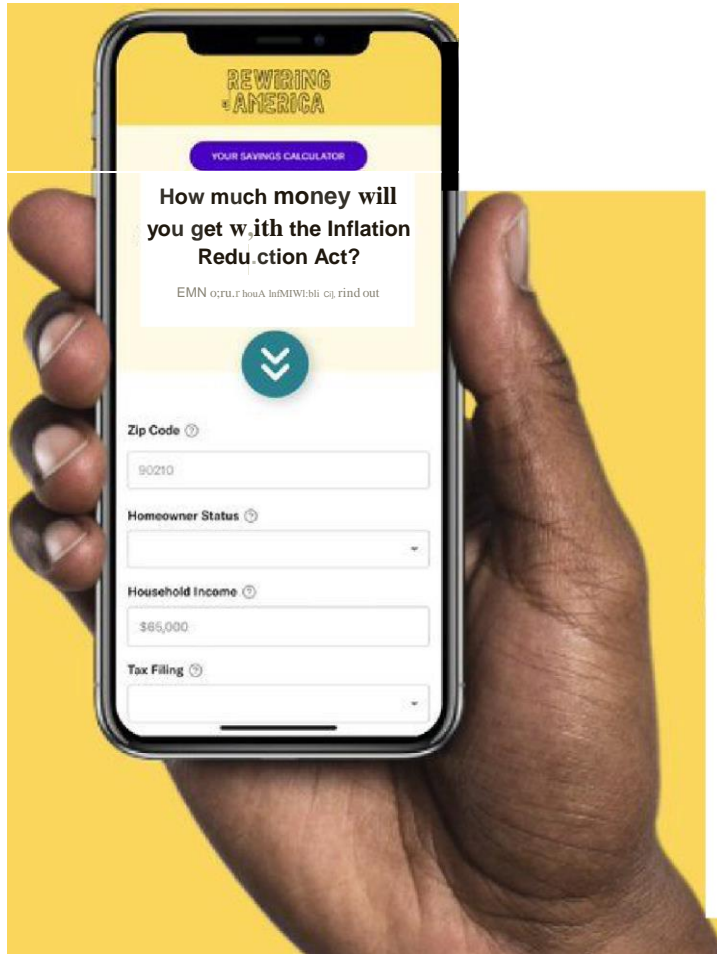


The Inflation Reduction Act's Electrification Incentives for Consumers

The Inflation Reduction Act provides thousands of dollars for households to go electric.

How much will you get?

TRY OUR CALCULATOR!



REWIRING
AMERICA

When it comes to financial incentives available for consumers under the Inflation Reduction Act, they fall mainly under one of two categories:



CONSUMER TAX CREDITS

Clean Energy Credit (25D)

- What:** A 30% tax credit for the purchase and installation of solar panels, geothermal heat pumps, and battery storage.
- Who:** Anyone with a high enough federal tax liability, including renters.
- When:** Now through 2034 and retroactive to 2022.
- Details:** The tax credit is uncapped.

Energy Efficiency Tax Credit (25C)

- What:** A 30% tax credit for residential efficiency and electrification upgrades, up to \$3,200 per year.
- Who:** Anyone with enough federal tax liability, including renters.
- When:** Now through 2032.
- Details:** The purchase and installation of heat pumps & heat pump water heaters qualify for up to a \$2,000 tax credit.

Electrification Rebates

- What:** Point-of-sale rebates up to \$14,000 for electric appliances including heat pumps, heat pump water heaters, induction stoves, electrical panel upgrades, and rewiring.
- Who:** Low- and middle-income households.
- When:** State energy offices are finalizing this program now. We expect a roll out in late 2023 and into 2024.
- Details:** 100% of project costs are covered for low income households, 50% for middle-income households.

Efficiency Rebates

What: Rebates for large-scale projects that verifiably improve a home's energy efficiency.

Who: Everyone! Rebates for low-income households are doubled.

When: State energy offices are finalizing this program now. We expect a roll out in late 2023 and into 2024.

Details: Consumers have two ways to claim this rebate, either **modeled** or **measured** energy savings.

The total rebate amount a consumer qualifies for depends on the route & the amount of energy savings the project generates.



Other Electrification Incentives

Workforce and Labor Incentives for Contractors

- **Contractor Training Grants**
- **Prevailing Wage Incentives**
- **Contractor Incentives**

Commercial Incentives

- **Energy Efficient Commercial Buildings Deduction**
- **Energy Efficient Home Credit**

**The Inflation
Reduction Act:**
Energy
Infrastructure
Reinvestment
Program

ENERGY INFRASTRUCTURE REINVESTMENT PROGRAM (1706)

- **Administration:** Department of Energy - Loan Programs Office
- **Timing:** Through 2026
- **Program details:** \$250 billion in low-interest loans to replace aging energy infrastructure with clean renewable energy.
- **Benefits:** Circumvent transmission backlogs for renewable energy generation, provide jobs and tax revenue for communities reliant on fossil fuel industry



State & Utility Electrification Incentives

Beyond the Inflation Reduction Act, New York State and some local utility companies also offer electrification incentives that can often be stacked with federal incentives.

Check with your local utility or head to [DSIREusa.org](https://www.dsireusa.org), the Database of State Incentives for Renewables & Efficiency® to learn more.

New York State

- EV Rebate
- EV Charging Station Rebate

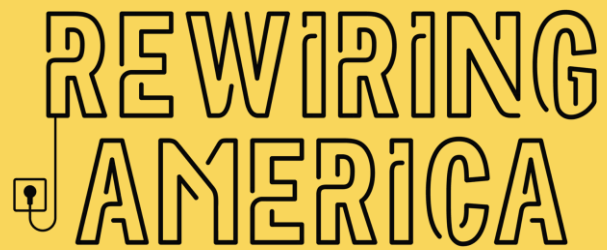
Consumer

- **Central Hudson:** Rebates for Heat Pumps and HP Water Heaters
- **National Grid:** Rebates for Heat Pumps

Commercial

- **Con Edison:** Commercial & Industrial Clean Heat Incentives, Multifamily Building Electrification Incentives

REWIRING AMERICA



michaelh@rewiringamerica.org



NY-GEO 2023 Conference: How Will We Pay for Building Electrification? A Policy Perspective

Annie Carforo - Climate Justice Campaign Manager, *WE ACT for Environmental Justice*

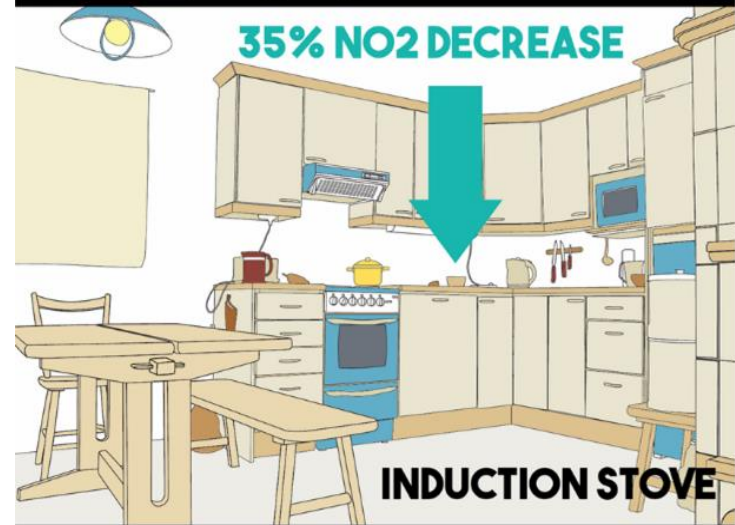
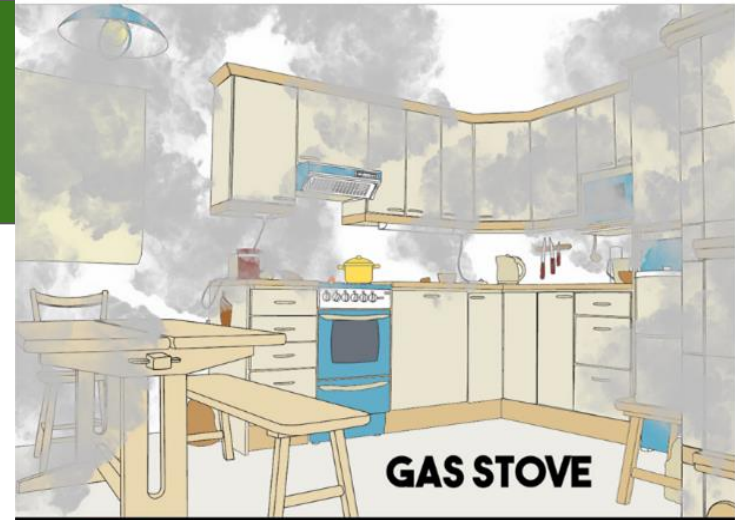
Out of Gas, In With Justice Pilot

- The Out of Gas, In with Justice pilot studied the feasibility and benefits of electrification in New York City Housing Authority (NYCHA) by comparing improvements to air quality and participant satisfaction between ten apartments with induction stoves and ten with their existing gas stoves.
- It is the first study of its kind to focus on the effects of residential cooking electrification with tenants in-place in an urban public housing setting with low-income residents and residents of color.



Out of Gas, In With Justice Pilot

- Households with induction stoves experienced a **35% reduction in daily nitrogen dioxide (NO₂)** concentrations compared to households with gas stoves.
- Households with **gas stoves** had **concentrations of NO₂ above what is considered safe for outdoor exposure** according to the Environmental Protection Agency's (EPA) Air Quality Index.
- Participants were unanimous about one aspect of the pilot: **they loved their new induction stoves.**



Challenges to Building Electrification

- Older housing with structural deficiencies need significant investments to reach the electrification starting line.
 - Deferred maintenance
 - Health and safety issues
 - Electrical capacity
- Existing programs are not designed to address older buildings with complex issues.
- Renters have limited autonomy over decarbonization efforts despite having the most to gain from these interventions.

Two Million Climate-Friendly Homes by 2030

In her 2022 State of the State, Governor Hochul announced a plan to electrify 2 million homes by 2030 - 40% of those homes will be low to moderate income.

To date, there is no comprehensive plan to achieve this goal.

We need the following interventions to help decarbonization efforts reach low-income housing:

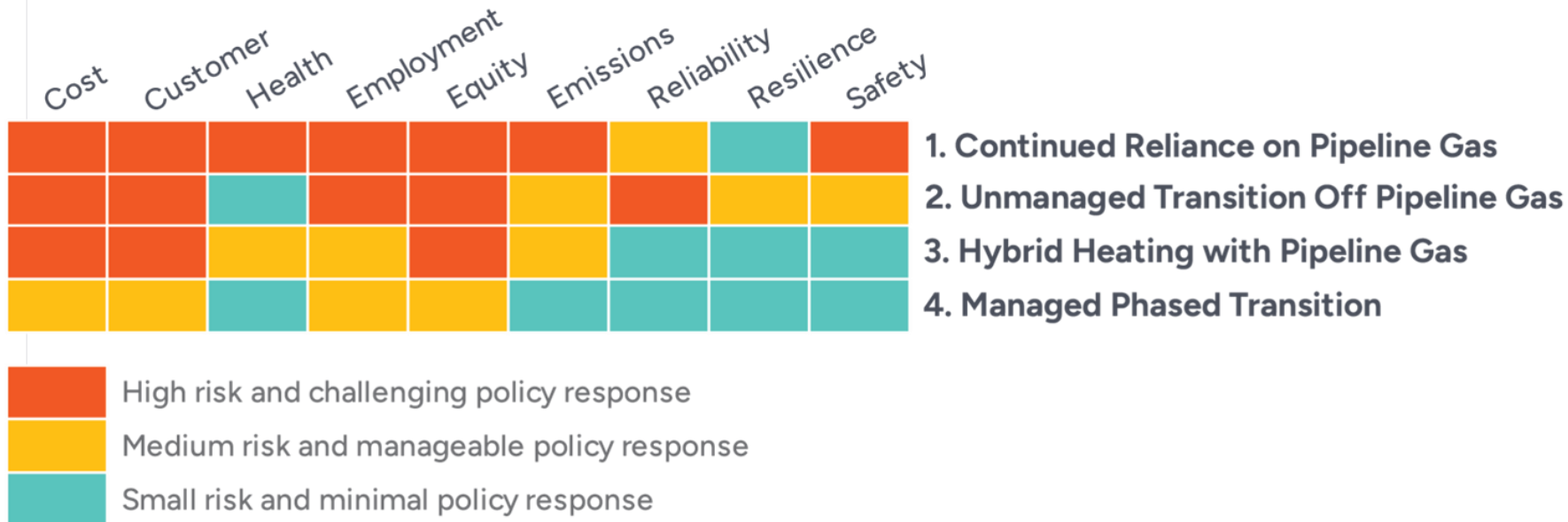
- More transparency with NYSERDA programs
- A cost/benefit analysis that prioritizes health and safety
- A GAP Fund

The Future of Gas in NYS

- **Key Findings**

- Gas Utilities Heavily Invest in Gas Infrastructure
- Gas Mains are Expensive to Replace
- Growing Competition Makes Gas Distribution System More Expensive
- Declining Gas Customers will Increase Gas Rates
- Lower Income Gas Ratepayers are Especially at Risk
- RNG & Hydrogen Proposals are not Credible, Practical or Cost-Effective
- Intervention is Needed Now to Prevent Energy Cost Crisis
- NY Must Take a Phased, Managed, Equitable Approach to Gas Transition

New York should take a managed, phased approach to gas system transition



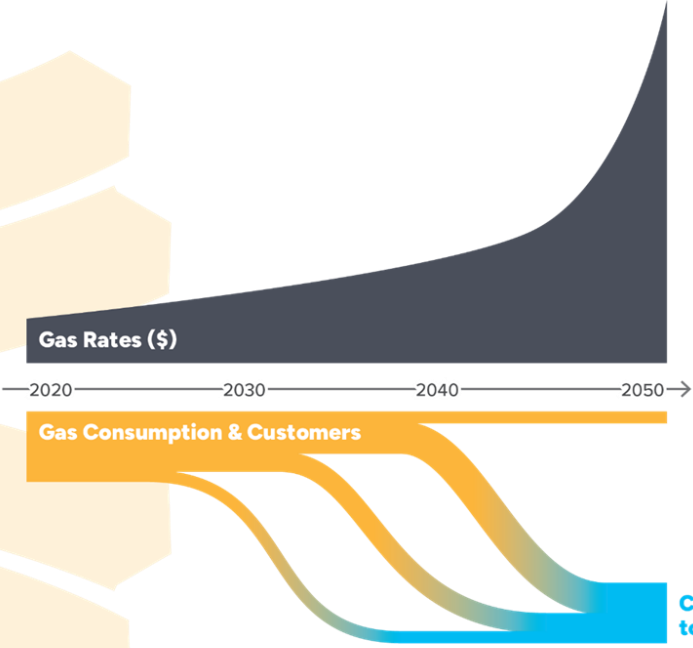
Without State action, the cost of gas for customers will rise exponentially



Aging Pipeline → **Infrastructure Replacement**

Climate Policy
(federal, state, local)
Limits **fossil fuel consumption** to stem damage arising from the GHG emissions.
Facilitates consumers' adoption of **clean alternatives**

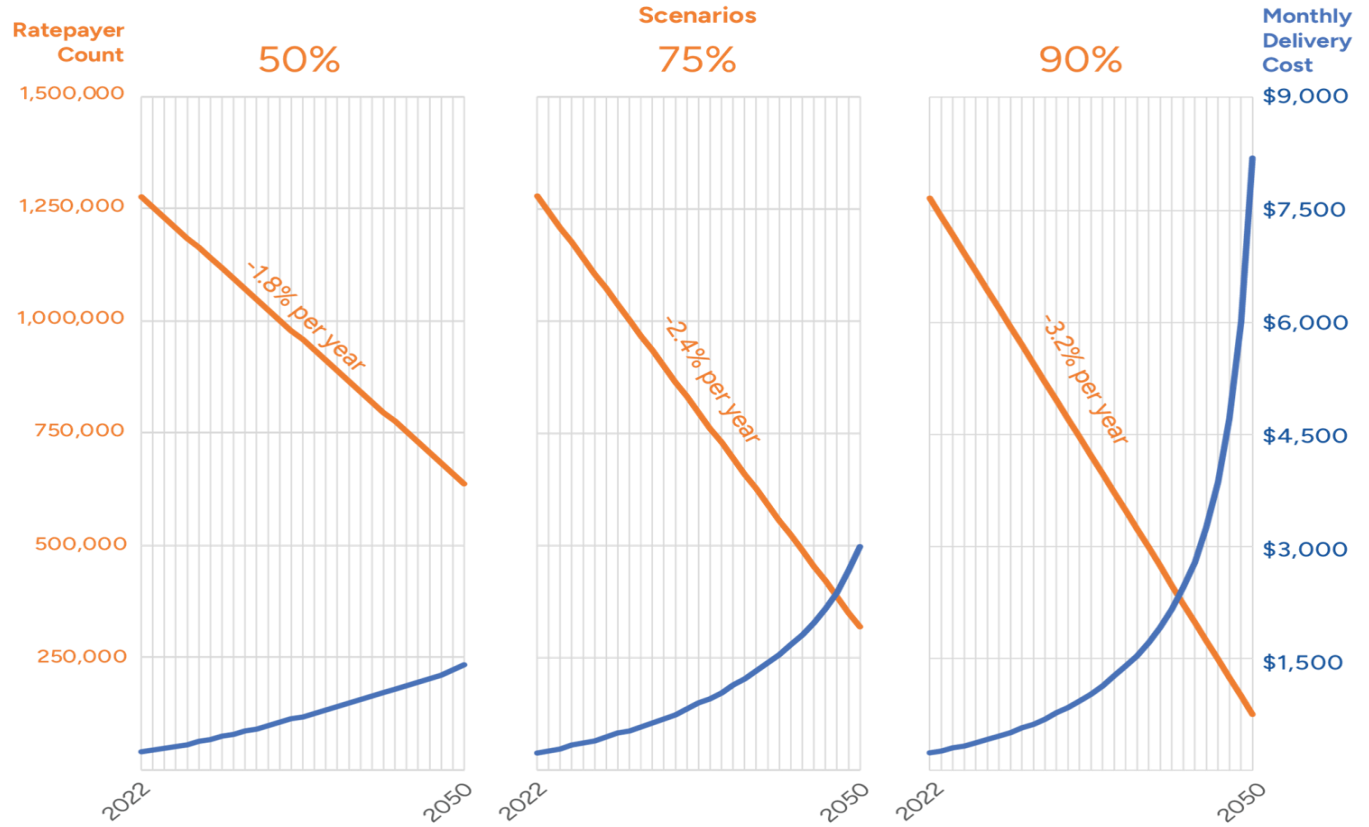
Competing Technologies
Heat Pumps, Induction Stoves



Gas rates rise as **Gas consumption and customer counts fall**

Competing alternatives to pipeline gas
Electrification, efficiency, flexibility, non-pipe fuels

Effect of ratepayer and consumption decline on monthly delivery costs by 2050

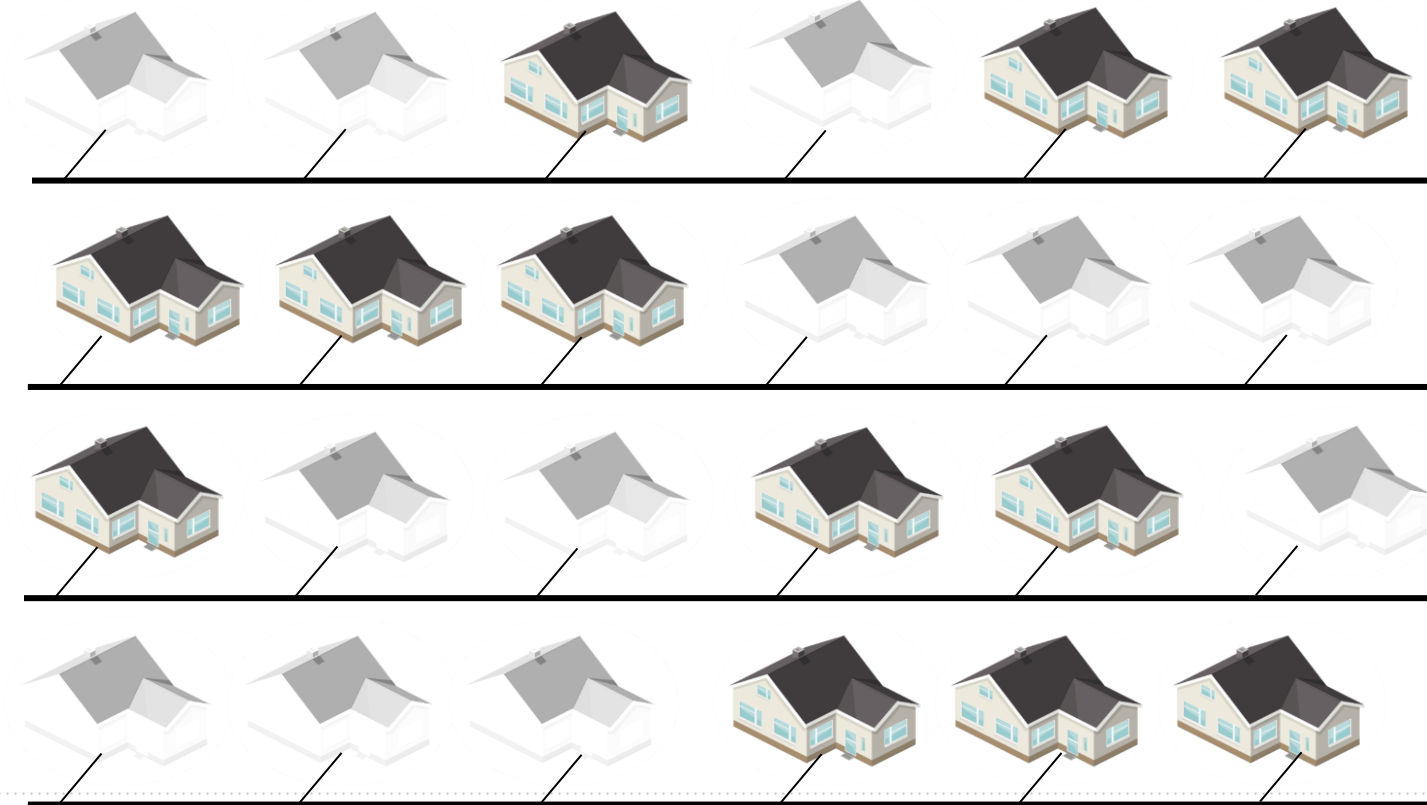


The Future of Gas in NYS

- **Key Recommendations**

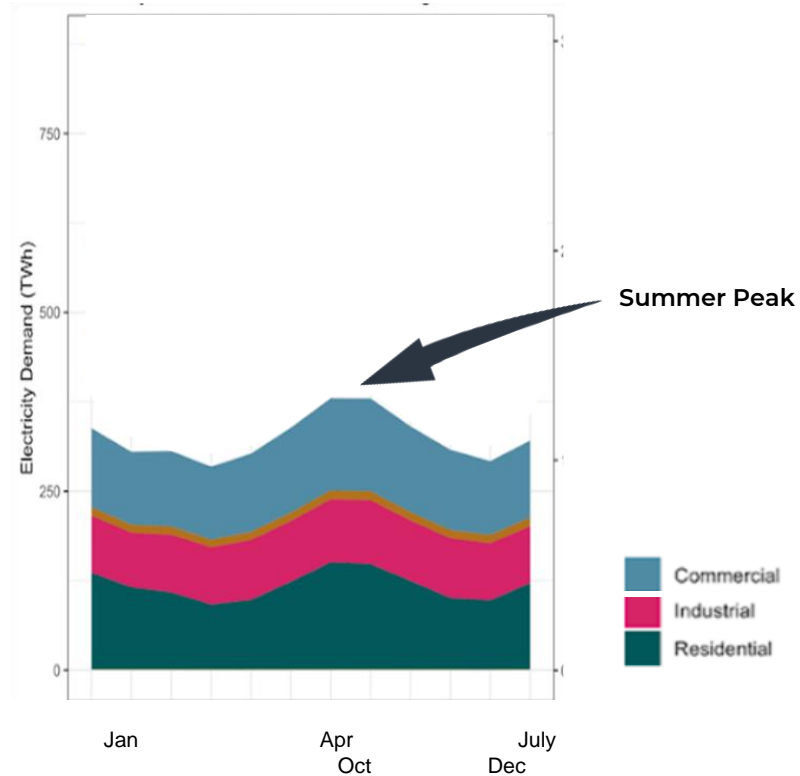
- Update utility laws that impede implementation of NY's climate law
- PSC Adopt an overarching gas planning framework for the Gas Planning docket (20-G-0131) and Climate Law Compliance docket (22-M-0149)
- PSC Clarifies issues related to RNG and hydrogen
- PSC Steers development of Climate Law Compliance Pathways Studies
- DEC Establishes medium & long-term sector specific emissions reduction targets

Fleeing Customers, Increasing Gas Bills



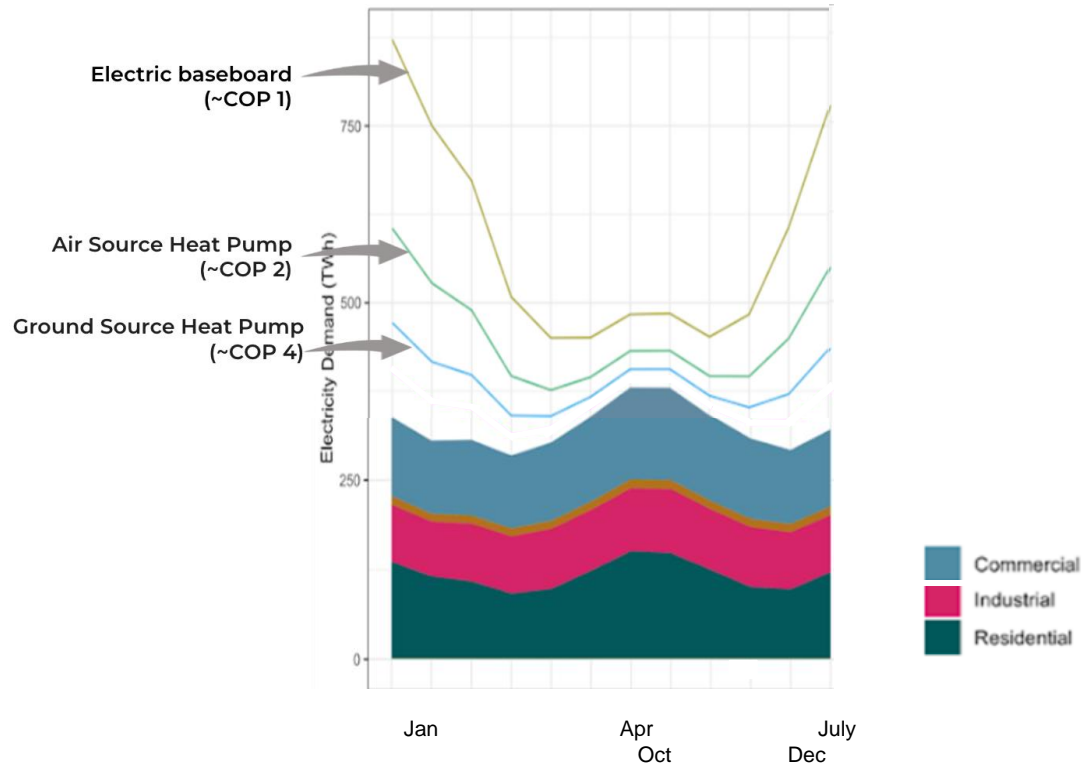
Current US Seasonal Electric Peaks

(for buildings)



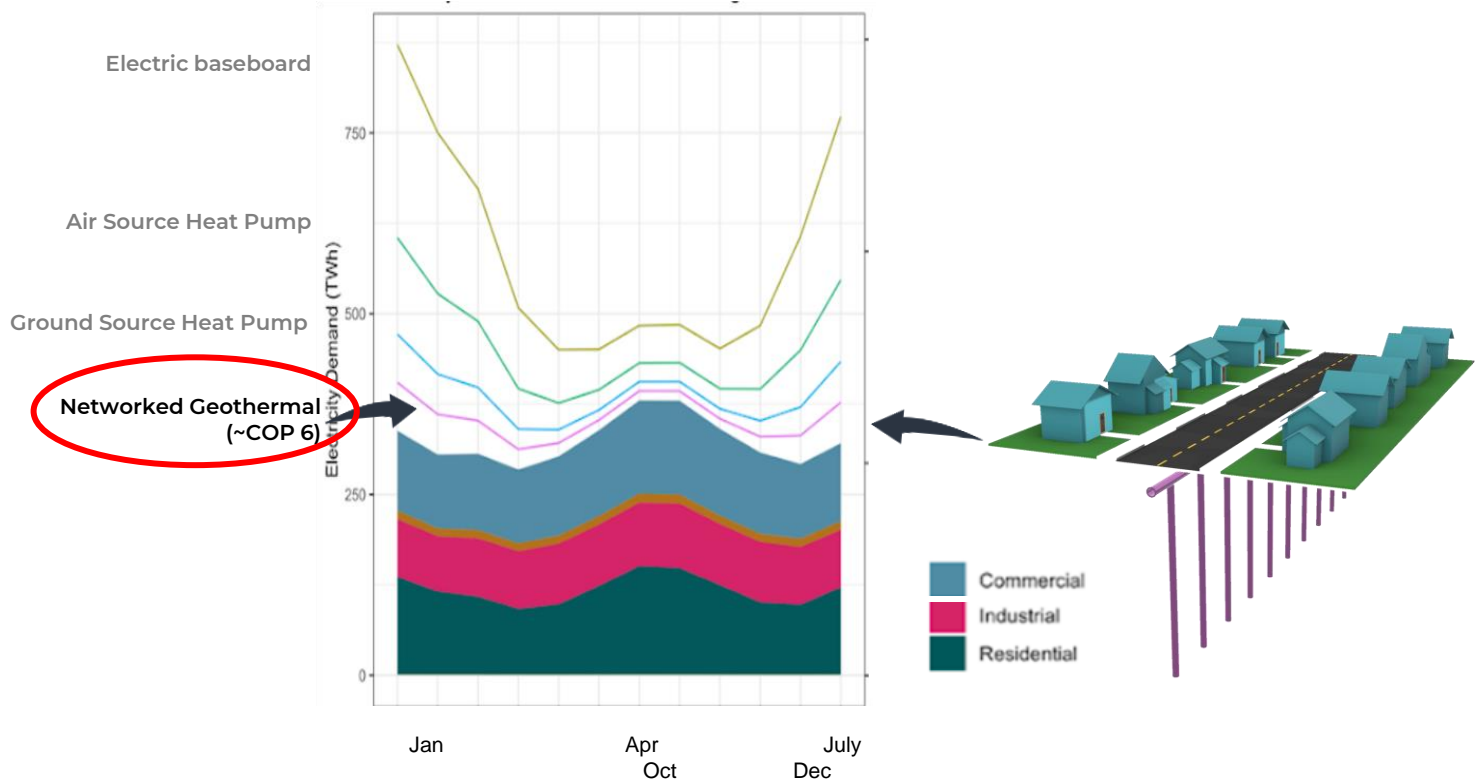
Future US Seasonal Electric Peaks

(for buildings)



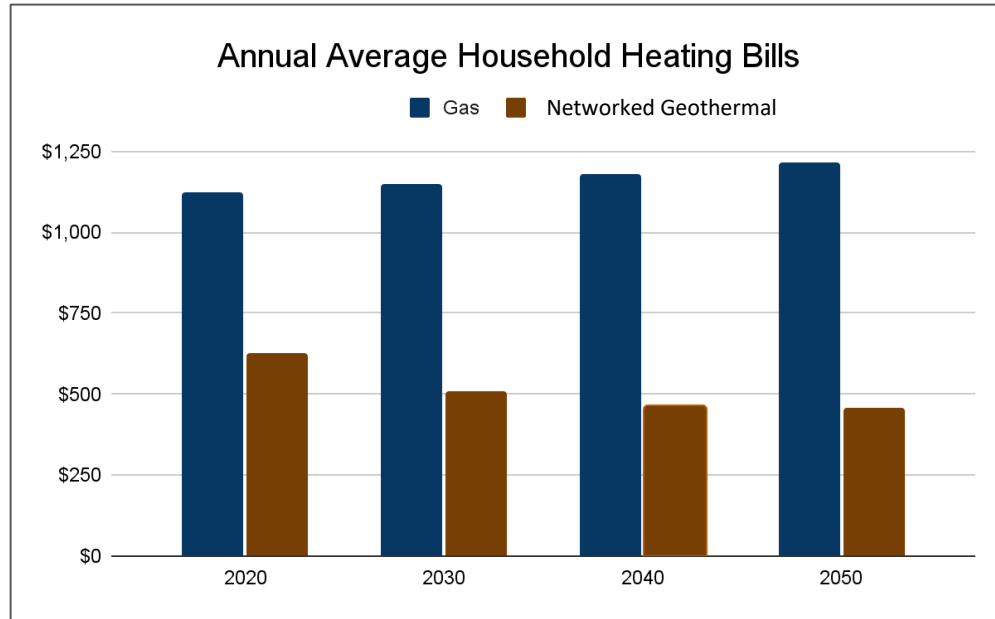
Future US Seasonal Electric Peaks

(for buildings)

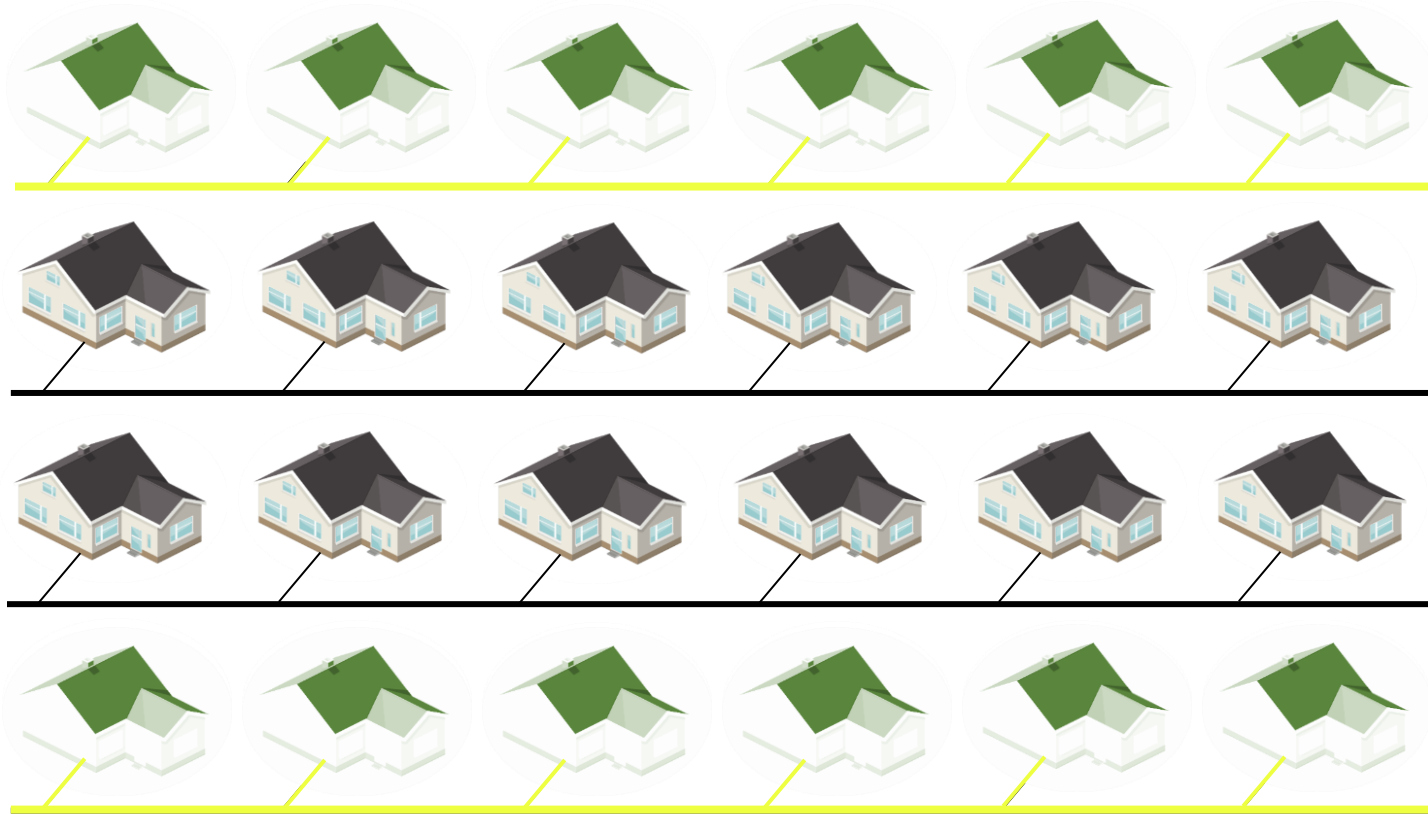


MA Energy Bill Projection

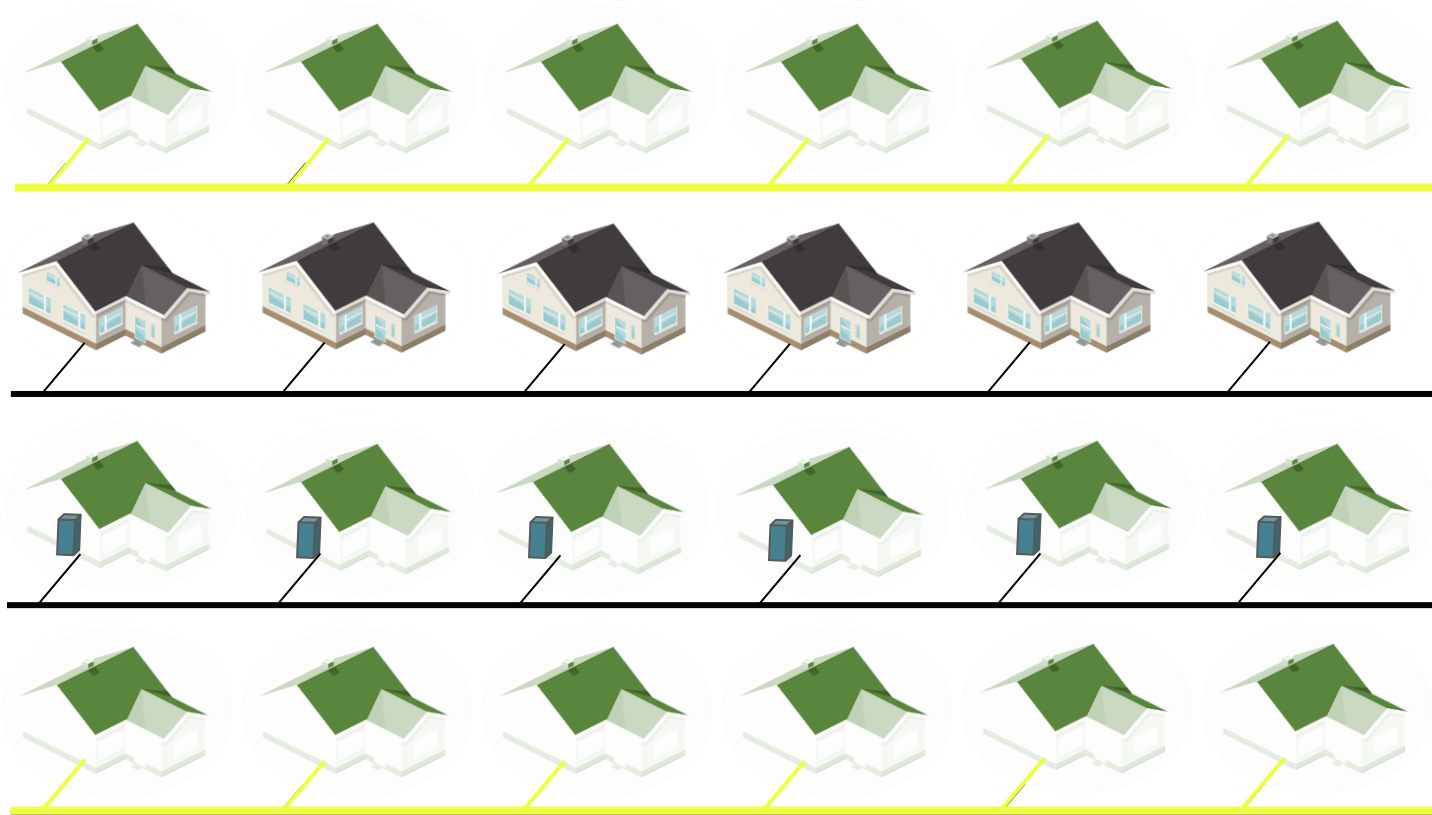
(gas vs networked geothermal)



Merged Gas/Geo Rate Rise, Customer Bill Stays Low



Zonal Electrification, Using Avoided Costs



Staging with Multi-source Heat Pumps

