



## **BDC Presents: The Future of Gas in New York State**

**May 25, 2023**

### **Summary:**

BDC's report "The Future of Gas in NYS" discusses how New York State leaders can act now to save New Yorkers money and ensure an equitable, managed, and phased transition to clean energy.

### **Resources**

- <https://buildingdecarb.org/resource-library>
- <https://buildingdecarb.org/resource/the-future-of-gas-in-nys>
- <https://www.youtube.com/watch?v=teOzHQXgG38>

### **Overview:**

#### ***New York Background:***

- New York has one of the boldest climate laws in the US: Climate Leadership and Community Protection Act (CLCPA), which was passed in 2019. Includes:
  - 40% reduction of GhG by 2030, 100% net-zero by 2050
  - Equity mandates
  - Sets pathway in electric sector
  - Robust stakeholder process for scoping plan (Climate Action Council)
    - Produced recommendations for the state with requisite policy and regulatory pathways to achieve 2050 climate targets
  - Interim steps already accomplished:
    - PSC initiated the proceeding to implement the Utility Thermal Network and Jobs Act and is considering demonstration projects thermal energy networks
    - Zero-emission new construction passed in the legislature and is beginning in 2026
    - Commitment to electrify 2 million homes by 2030
- Why did BDC commission this report?
  - Purpose of report is to address remaining gaps in CLCPA and Scoping Plan, what to do about the gas system
  - Without management, declining gas consumption will concentrate system costs among a dwindling pool of gas ratepayers and create a self-reinforcing negative feedback loop for gas utilities, resulting in a significant financial burden on those left on the network, especially low-income New Yorkers.

### ***Key Findings of Report:***

- 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
- Intervention is needed now to prevent energy cost crisis
- RNG & hydrogen proposals are not credible, practical or cost-effective
- NY must take a phased, managed, and equitable approach to gas transition

### ***Key Recommendations from Report:***

- 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

### ***The Future of Gas in NYS Report Details:***

- Background:
  - Gas distribution is 25% of state's GhG emissions
  - History of the gas system in NYS: Changes in how we heat, light, and power our homes and cities is not new—the past demonstrates how we adapt to these changes.
    - First gas pipe network built in early 19th century in New York
    - Near end of 19th century, electricity began to threaten gas industry, resulting in consolidation of gas companies (precursor of Con-Ed)
    - Gas use shifts from lighting to heating and cooking, allowing gas consumption to once again expand
    - Modern gas system and pipeline networks began in the 1950s with methane “natural” gas (compared to manufactured coal gas).
      - Every gas appliance needed to be altered due to the difference in energy density between manufactured and natural gas.
        - We have changed over all of our appliances before; we can do it again
- Economics of gas system:
  - Gas utilities are regulated monopolies
  - Rate-of-return regulation determines cost of providing service by utility to allow them to recoup those costs plus a return on their investment
  - Costs of hooking up a new customer to gas is spread across all customers, thereby reducing the cost of expansion
  - Gas utilities' primary profit derives from capital expenditures
    - Consumption does not have significant impact on utility profits
    - Gas pipes are depreciated over many decades
    - 8,000 miles of leak-prone pipe (LPP) in NYS gas system; bad for safety, health, and emissions; part of broader issue of fugitive emissions
      - Gas companies are making money from fixing and replacing this LPP (cast iron, steel and early plastic pipes)
      - Net salvage is a prepayment for decommissioning and removal of gas lines, though often these gas lines aren't actually removed at end-of-useful-life.

- Four future scenarios for NYS:
  - 1. Continued reliance on pipeline gas
    - Requires ongoing reinvestment in gas system and incorporate RNG and Hydrogen
      - RNG and Hydrogen are not scalable solutions to decarbonize heat
  - 2. Unmanaged Transition off pipeline gas
    - Adoption of electric technologies on house-by-house basis
    - Drives up costs for those left on gas system
    - Suboptimal GhG reduction
  - 3. Dual Fuel–Electric and Gas
    - Leverages existing assets but increasing costs and risk of customer exits make this a poor long-term solution
  - 4. Managed Phased Transition (best scenario)
    - Led by PSC with multi-stakeholder groups to coordinate strategies over time
      - Process: halt growth, avoid reinvestment, plan for district-scale zonal transitions over the long run
    - Immediate costs savings and emissions reduction
- Conclusion and Next Steps:
  - Future of gas is expensive
  - Equitable transition should be gas segment based, beginning with LPP
  - PUCs need support and authority to act
  - We need to keep pushing on alternatives (improving technology, lowering cost, etc)

## Q & A:

Many traditional oil & gas companies are adding renewables to their portfolio and are rebranding as energy companies. In a similar manner, have any gas distribution companies transitioned to being a heating company?

- Many are trying. This question does tee-up a challenge for regulators–shift from of gas companies and electric companies as non-competing utilities; competition between these two entities is increasing and will require a shift in utility regulation
- This gas utility in Vermont is rebranding itself as a thermal service provider: <https://heatmap.news/economy/vgs-heat-pumps-electric-future>

How do you counter the argument that electricity for heating is/will be more expensive than heating by gas?

- The cost conversation is a rate design challenge and is currently being discussed in CA and elsewhere. In short, if we are able to design use for this increased amount of electricity how do we prevent rates from ballooning? In a managed phased transition you can start moving people over and if you confront a ceiling you can halt the process and solve the issues.

Do you have any broad thoughts on how the role of propane and other delivered fuels might evolve in a managed phased transition away from utility gas?

- Propane was used as a thought experiment in this report for two reasons: 1) when cost of gas delivery increases, propane could be a competitive alternative for those customers–what do we do about this potential switch from pipeline gas to propane? 2) propane may be a potential bridge in managed transition in certain instances.

When considering zonal transition of neighborhoods, it seems like good data on the actual appliances currently in homes will be critical. How good is the current data and what should be done to improve the quality of that data if it's not currently adequate?

- State of these energy assets in buildings is a big challenge. We don't want newly installed EE appliances to be thrown away if we cut them out of the gas system. Ideally could be used alongside electric in the midst of the phased transition (long process to transition neighborhoods so you can schedule appliance upgrades and retirements to align).