

The Cost of Heat in Pennsylvania

Managing Pennsylvania's Thermal Transition

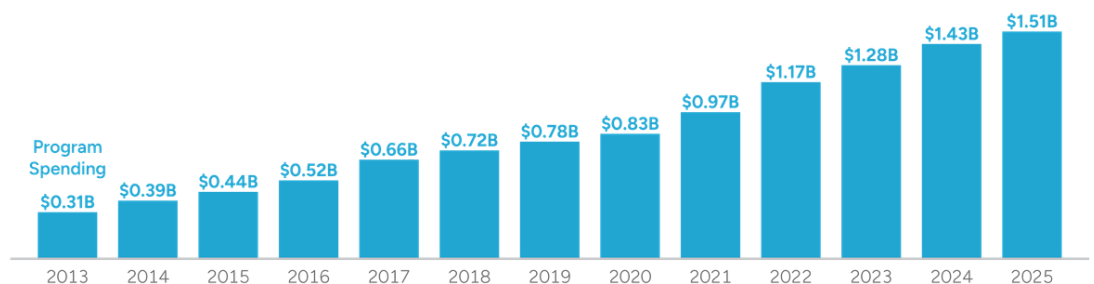


Infrastructure policy is a major driver of rising gas bills in Pennsylvania. At the center of this spending growth is Act 11, a 2012 law that created an open-ended accelerated pipeline replacement program that has received remarkably little public scrutiny. BDC's report finds that **the six largest gas utilities (the "Big Six") have spent \$11 billion through accelerated pipeline replacement programs authorized by Act 11**. To put that into context, this amount far exceeds the combined spending to date for similar pipeline replacement programs in Massachusetts, Maryland, and D.C.

The Cost of Act 11

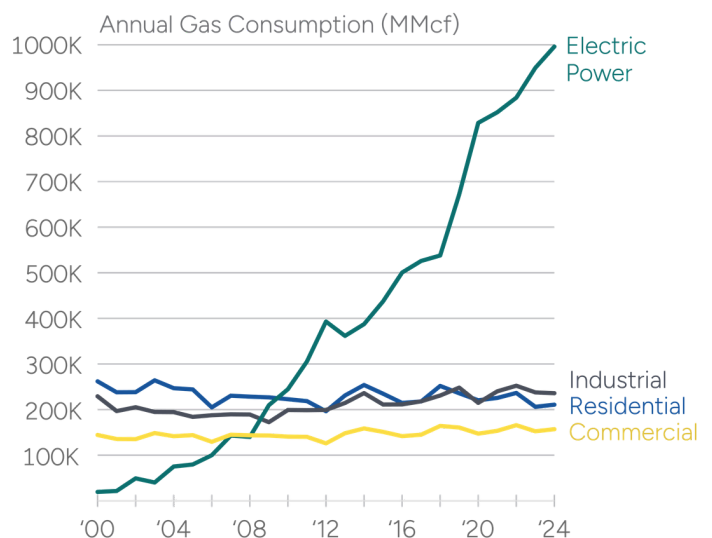
- **\$11B** in direct accelerated spending so far, 2013-2025
- **\$18-30B** in projected lifetime customer charges to date (includes investor returns)
- **+67%:** average year-round monthly bill increase in the last decade
- **Two-thirds:** share of typical gas bill that pays for gas infrastructure like pipelines, while only one-third pays for gas itself
- **25%** of households can't pay utility bills

Act 11 spending has grown steadily, totalling \$11B in direct spending as of 2025 for the Big Six gas utilities.



The Top-Heavy Gas System

Pennsylvania utilities' capital investments in pipelines are outpacing customer demand. From 2013 to 2024, the gross value of gas assets owned by the Big Six more than doubled, rising from approximately **\$10 billion to \$22.6 billion**, while demand in buildings has stagnated and declined.

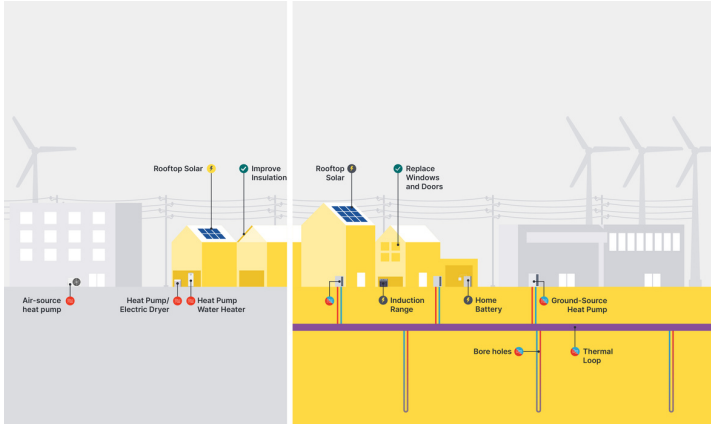


While gas use for generation is growing, residential gas use per customer has declined 28 percent since 2000.

This imbalance creates a "top-heavy" gas system: an increasingly expensive gas system spread over a relatively stagnant customer base and declining demand. As a result, customers are now responsible for paying for more than double the amount of gas infrastructure compared to 2013.

The Thermal Transition

[Neighborhood-scale decarbonization](#), which focuses on coordinating the deployment of heat pumps, electric equipment, efficiency upgrades, and thermal energy networks across entire blocks or communities, offers an affordable and efficient alternative to ongoing and accelerated gas pipeline replacements.



On the left, the “Electric Pathway,” on the right, the “Thermal Energy Network” Pathway for neighborhood-scale decarbonization

This thermal transition must include Pennsylvania’s existing **thermal workforce**—roughly 140,000 drillers, pipefitters, electricians, HVAC technicians, and insulators—who deliver heating and cooling across fossil and clean energy systems.

Union labor and independent contractors play complementary roles in this transition: organized labor is better positioned for infrastructure-scale work, while small businesses and contractors remain essential to building-level deployment.

Over a managed, decades-long transition, workers who spend part of their time in oil and gas today can increasingly apply similar skills to geothermal, thermal networks, and building electrification as clean heat deployment expands.

Recommendations

1. Protect customers and lower energy burdens

- Strengthen customer protections and assistance programs as households transition to new heating systems.
- Prioritize affordability, directing transition resources and avoided gas costs toward bill relief and clean heat for high-burden households.

2. Build Pennsylvania’s thermal workforce

- Expand training and career pathways for heat pumps, geothermal, efficiency, and thermal energy networks.
- Support local implementation through high-road labor standards, local planning, utility partnerships, and early worker and community engagement.

3. Deploy neighborhood-scale clean heat solutions

- Coordinate gas and electric system planning to avoid unnecessary and duplicative infrastructure spending.
- Launch neighborhood-scale electrification and [thermal energy network](#) pilots where aging gas infrastructure creates opportunities for retirement.

4. Reform gas planning, spending, and oversight

- Reform Act 11 to prioritize safety-critical infrastructure and require evaluation of alternatives before pipeline replacement.
- Strengthen utility accountability through long-term gas system planning, better reporting, greater rate-case transparency, and review of utility returns.