



BRIDGE

April 2023

GSMP III

On March 1, 2023 PSE&G filed for a three-year, \$2.54 billion extension of its Gas System Modernization Program (GSMP) to continue work to improve reliability and reduce greenhouse gas emissions by replacing aged pipes with modern ones, and sustaining the thousands of jobs and skilled workforce created under GSMP II with the prospect of creating more jobs.

The proposal is in keeping with PSE&G’s continued commitment to improving customer reliability while reducing methane emissions by an estimated 145,000 metric tons. The proposal also would introduce non-fossil alternatives, renewable natural gas (RNG) and hydrogen, into PSE&G’s system.

“Investing in our infrastructure to enhance reliability, maintain our safety focus and achieve low carbon goals is a smart strategy and serves both the state’s and our customers’ interests,” said Kim Hanemann, president and chief operating officer, PSE&G. “PSE&G supports a balanced approach to decarbonization while meeting today’s energy demand – an approach that recognizes natural gas as a fuel to maintain affordability and reliability, as we continue to assess options including lower-carbon fuels and electrification.”

GSMP III would support Governor Murphy’s recently announced executive orders to bolster climate adaptation and mitigation efforts, including accelerating the reduction of GHG emissions – especially in overburdened communities that are disproportionately impacted by climate change.

Program highlights

A fast and effective way to curb emissions associated with aging natural gas infrastructure is to accelerate the work started in the first two phases of GSMP, notably:

GSMP III would support Governor Murphy’s executive orders to bolster climate adaptation and mitigation efforts.



- exclusively focusing on modernizing 1,140 miles of existing infrastructure, using advanced management and construction processes to replace old, leaky cast iron pipes and unprotected steel mains with upgraded materials;
- maintaining the infrastructure and system through better gas flow control and through upgraded equipment, with the aim of enhancing safety;
- immediate reduction of leaks by installation of new pipes that can also deliver emerging lower-carbon alternatives, including RNG and hydrogen;
- an estimated 310 miles, or 38%, of the low-pressure cast iron upgrades would be in municipalities that have a significant number of overburdened communities;
- enabling higher efficiency appliances; and
- ensuring our customers' power sources remain affordable and diversified.

A proposed RNG facility would inject processed landfill gas into PSE&G's gas distribution system. A hydrogen project would reduce CO₂e emissions by an estimated 1,000 metric tons annually.

Continuing GSMP is essential to achieving our aim of reducing methane emissions by 58% from 2011 levels by 2030, and reflects U.S. EPA best management practices for reducing methane emissions from distribution mains and service lines.

Rate impacts

PSE&G residential gas bills are now approximately 32 percent lower than in 2008, including Feb. 1 and March 1 decreases reflecting lower natural gas supply costs. If implemented as proposed, the program is forecasted to increase a typical residential gas customer bill by about 3 percent or \$3 per month for each year of the three-year program.

GSMP I & II successes

GSMP's first two phases replaced more than 1,000 miles of cast iron and unprotected steel pipes and more than 75,000 pieces of equipment were modernized. From 2011 to 2021, including work done under Energy Strong, PSE&G has reduced methane emissions an average of 4% annually, 5.82% since 2018, or a total of about 250,000 metric tons of CO₂e.

The new lines are more dependable. As was illustrated when Tropical Storm Ida caused widespread flooding in September 2021, 90,000 gas customers were spared shutoffs due to our GSMP work.

Many of the upgrades have been made in overburdened communities.

Ten municipalities with most cast iron main miles replaced:

Municipality	Cast Iron Main Miles Replaced	% Reduction of starting inventory
Newark City	90.3	50%
Paterson City	77.7	62%
Clifton City	67.6	64%
Jersey City	58.2	50%
Nutley Town	34.2	65%
Passaic City	31.4	86%
Lyndhurst Twp	27.1	93%
Garfield City	26.9	75%
Trenton City	25.2	28%
North Plainfield Boro	24.8	79%

Ten municipalities with most unprotected steel main miles replaced:

Municipality	Unprotected Steel Main Miles Replaced	% Reduction of starting inventory
Cinnaminson Twp	11.2	55%
Edison Twp	10.1	62%
East Brunswick Twp	9.4	43%
Lawrence Twp	9.0	37%
Hamilton Twp	7.6	33%
Sayreville Boro	7.2	53%
Princeton Twp	7.0	42%
Old Bridge Twp	6.6	20%
Hillsborough Twp	6.4	44%
Cherry Hill Twp	5.6	22%

Reducing leaks and greenhouse gas emissions

Nationally, PSE&G has the most cast iron pipes and the eighth most unprotected steel pipes. Old pipes have more leaks, due to corrosion and other issues, and the average age of our cast iron pipes is 91 years; unprotected steel pipes – 65 years. This contributes to our average leak rate being almost three times the national average. Yet, GSMP helps to lower the incidence of leaks and helps reduce methane emissions. Because we strategically upgrade the highest risk and most leak prone pipes, at year end 2022, we had 61% fewer open leaks than permitted by the state.