



At SDG&E, our mission is to improve lives and communities by building and operating the cleanest, safest and most reliable energy company in America. To do this, we must manage our

costs, modernize our infrastructure and use innovation and technology to improve our customers' experience.

The Pipeline Safety & Reliability Project is just one of many projects that embodies our mission. The proposed new natural gas pipeline will replace aging transmission infrastructure, boost energy reliability throughout the region, and complement our renewable energy portfolio - currently 43 percent of the electricity we deliver and growing.

In September 2015, we submitted an application to the California Public Utilities Commission (CPUC) to construct the pipeline. Since then, the CPUC has begun its formal review of the proposed project, held public meetings in San Diego to discuss the environmental review, and held hearings in San Francisco where experts provided additional information about the project.

We look forward to the ongoing review of this important project and are hopeful the CPUC will approve our plan to bolster the safety and reliability of San Diego's natural gas system. This newsletter highlights the benefits of the project and describes how it will help our region achieve a cleaner energy future.

We encourage you to learn more about the project and participate in the process.

Jimmie Cho
Senior Vice President
San Diego Gas & Electric

Pipeline Safety & Reliability Project will enhance the safety of San Diego's natural gas system



SDG&E crews working to install the Line 1600 pipeline in 1949.

SDG&E's highest priority is the safety of our customers, employees and the communities where we deliver energy. That's why maintaining and replacing aging infrastructure is a core part of our business. One of SDG&E's key safety initiatives is the Pipeline Safety Enhancement Plan (PSEP), a proactive, system-wide plan for enhancing the safety of our aging natural gas infrastructure. Our proposal to replace Line 1600 - a 1940s-vintage natural gas transmission line - with a new, modern pipeline is one of many PSEP projects underway here in San Diego.

Line 1600 was constructed in 1949 using materials and construction practices of that era, but a lot has changed since then. Today, California law requires that pipelines undergo a "pressure-test" prior to being placed into service. Pipelines that were not previously pressure-tested must either be pressure-tested now or replaced.

Line 1600 is one of just two pipelines that transport gas into the San Diego region. But at nearly 70 years, it is older than nearly 90 percent of the natural gas transmission lines currently in-service in the United

States. SDG&E has taken proactive steps to enhance the safety of Line 1600. We've lowered the pressure of the line, replaced some segments of the line, and we regularly monitor for leaks and perform internal inspections of the line using sophisticated robotic equipment. These inspections provide important data about the integrity of the line, such as cracks associated with the 1949 manufacturing process that can weaken the pipeline over time. We use this data to make sure the line is safe.

Although Line 1600 operates safely today at a reduced pressure, it must be either pressure-tested or replaced to meet the new pipeline safety requirements as soon as practicable. Rather than impacting traffic and the community and incurring the expense that would be associated with pressure-testing this 1949 vintage pipeline with known defects, we believe the more prudent approach is to construct a modern pipeline built with superior materials, design and technology. Construction of a new pipeline will enable us to lower the pressure of Line 1600 dramatically, which will improve safety and meet pipeline safety requirements.

Project will provide needed reliability for future generations

Although we might not realize it, we depend on natural gas every day. From hot water to heating our homes to cooking meals for our families, natural gas is an integral part of our daily lives. Natural gas also fuels our local economy; from regional hospitals and healthcare facilities, to businesses such as hotels and restaurants, life sciences companies and research institutes, and hundreds of schools that serve thousands of students. We need a reliable natural gas system to fuel our homes and businesses as well as to complement the renewable energy resources that provide increasing amounts of electricity to our customers. And given that our region is also home to more than a dozen U.S. military installations vital to national defense and homeland security, a reliable energy supply for the region takes on national importance.

Any disruptions to the region's natural gas supplies could have profound impacts on our communities. Vital services throughout our region rely on a dependable supply of natural gas.

Today, our natural gas system relies on just two transmission lines to deliver the natural gas that San Diego customers use every day. Approximately 90 percent of the natural gas is delivered by a 30-inch pipeline near Interstate 5, while a 16-inch pipeline near the Interstate 15 corridor delivers the rest. To comply with new state safety standards, SDG&E is proposing to replace the 16-inch pipeline, Line 1600, with a new larger 36-inch line that will provide needed reliability and operational flexibility to the natural gas transmission system.

As part of the application process, SDG&E analyzed more than two dozen alternatives to ensure the Pipeline Safety & Reliability Project was the most cost-effective, prudent option. Other alternatives included pressure-testing Line 1600 instead of building a new line, importing natural gas through Mexico instead of building a new line, and multiple alternative routes, including an offshore option.

In 2016, PricewaterhouseCoopers conducted an independent analysis of the relative costs and benefits of these alternatives in more detail and concluded that the Pipeline Safety & Reliability Project is the most cost-effective, prudent alternative.



This map of the proposed project route is for illustration purposes only. For detailed route maps, visit sdge.com/pipeline-project.

Natural gas plays a key role in our clean energy future



The 26 MW NRG Borrego Solar Facility in Borrego Springs delivers clean solar power to SDG&E customers in San Diego. (Photo by NRG Energy, Inc.)

More renewable energy with natural gas

SDG&E is a leader in California's battle against climate change. More than 43 percent of the electricity SDG&E provides its customers today comes from renewable resources like wind and solar. With no coal or nuclear energy in our portfolio, it's one of the cleanest energy portfolios in the nation. And we've invested in energy storage, including the world's largest lithium ion battery facility.

These advances would not be possible without natural gas, a key source of cost-effective energy that keeps the lights on when renewable resources aren't generating enough to meet our needs, like on cloudy days and every evening when the sun goes down. Like electricity, natural gas can be made from renewable sources. About 80 percent of all methane emissions in California come from the state's dairy and farm operations, landfills and wastewater

treatment plants. That methane can be harnessed and cleaned to produce renewable natural gas for use in transportation as well as in homes and businesses.

Reducing greenhouse gas emissions with natural gas

The transportation sector is a prime target in the fight against climate change. Trucks, cars and other vehicles account for a majority of carbon emissions—more than 50 percent here in San Diego. Reducing the number of diesel and gasoline-powered vehicles on our roads can reduce both greenhouse gas emissions and air pollution. SDG&E is committed to providing customers with clean energy choices, including in the transportation sector. Today, we are helping to reduce vehicle emissions by building electric vehicle charging infrastructure for cars throughout the region. Many public agencies, school districts and businesses have converted heavy- and light-duty trucks and other vehicles to operate on compressed natural gas (CNG). Converting more vehicles from diesel to CNG can reduce GHG emissions by 20-30 percent and NOx emissions by 50 percent.

The pathway to clean

To achieve these carbon emission and air pollution reductions, we need a safe and reliable natural gas system that supports and facilitates our climate and air quality goals. The proposed Pipeline Safety & Reliability Project will not only enhance the safety and reliability of our natural gas system, but will also help us get another step closer to meeting our clean air goals.

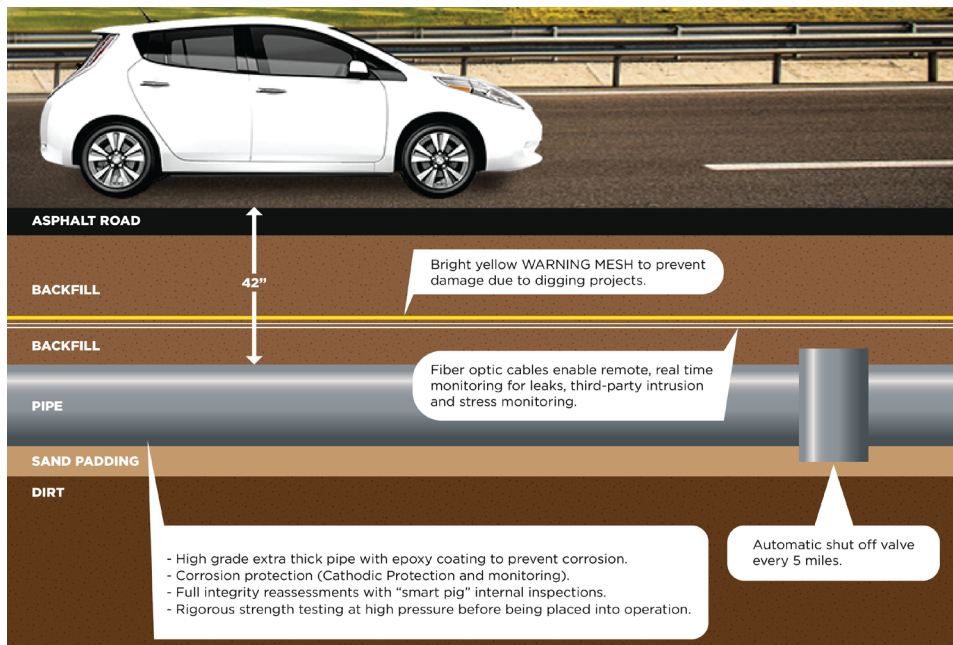
For additional information about the CPUC process, please visit cpuc.ca.gov/environment/info/ene/sandiego/sandiego.html.

SDG&E's Estimated Project Schedule



*Schedule dependent upon duration of CPUC process and approval.

Answers to your questions



Q. Are natural gas pipelines safe?

A. Yes. SDG&E safely operates approximately 230 miles of gas transmission pipelines and more than 8,000 miles of gas distribution pipelines throughout San Diego County. The system is operated and maintained in accordance with strict state and federal pipeline safety regulations and subject to rigorous inspections to detect leaks. SDG&E's comprehensive and proactive natural gas pipeline safety program protects our customers and employees. Constructing a new line and lowering the pressure of the existing 16-inch line is part of SDG&E's proactive, long-term pipeline safety plan. The new 36-inch natural gas transmission line will be constructed with modern industry-leading materials and robust design features including thick, high-grade steel pipe coated with epoxy to prevent corrosion, automatic shut-off valves and state-of-the-art fiber-optic technology that will provide real time information on the status of the pipe. Additionally, a third-party study confirms the proposed pipeline will be extremely safe and will pose no significant safety risk.

Q. Will construction of this proposed project create additional traffic in communities?

A. The proposed project has been designed to avoid construction-related impacts as much as possible, and SDG&E will work closely with local communities prior to and during construction to maximize coordination and mitigate potential impacts. With safety as our first priority, SDG&E will propose site-specific traffic control plans tailored to address the needs of each work location along the proposed pipeline route. These traffic plans will be designed to allow for traffic flow, including access to driveways and businesses during construction. The typical pipeline construction zone will be about 1,500 feet long and move down the roadway at a rate of approximately 200 to 300 feet per day. This means that construction in front of most locations will typically last 1 to 2 weeks. The traffic control plans will comply with applicable state, county and city government requirements and may include construction barricades and signage to identify changes to pedestrian walkways or vehicle speed limits.

Q. How will this project impact energy bills?

A. The 47-mile project is estimated to cost \$639 million, which will add approximately 57 cents to the average residential gas customer's monthly bill. The actual impact on customer bills will be determined when a final project is approved by the CPUC.

Q. Does this new pipeline support the increased use of renewable energy?

A. Yes. Improving the reliability of the region's natural gas transmission system will enable SDG&E to continue adding more renewable energy sources like wind and solar onto the grid. As we saw during the recent solar eclipse, natural gas is a "flexible" resource that starts quickly when demand peaks and is available when intermittent renewables aren't. Natural gas is a clean fuel that is central to the state's and SDG&E's climate change and sustainability goals. Further, SDG&E has one of the nations' cleanest energy portfolios as the first California investor-owned utility to meet at least 33 percent of customer needs with renewable energy. SDG&E is also the nation's only utility that's received a Climate Leadership Award from the Environmental Protection Agency - an honor we have received three times.

Q. How can I participate in the public process?

A. SDG&E encourages the public to participate in the CPUC's review process. Public meetings and other opportunities to provide public comment will be announced by the CPUC before a final decision is announced. For more information about the project or to be placed on the CPUC's mailing list, please visit our website at sdge.com/pipeline-project or the CPUC's website at cpuc.ca.gov/environment/info/ene/sandiego/sandiego.html. If you have specific questions or comments for SDG&E, please call us at **1-844-873-7417** or email us at pipeline-project@sdge.com.

CONTACT INFORMATION

📞 1-844-873-7417

✉️ pipeline-project@sdge.com

🖥️ sdge.com/pipeline-project

🐦 @sdge

📘 [Facebook.com/sandiegogasandelectric](https://www.facebook.com/sandiegogasandelectric)

📺 San Diego Gas and Electric

