WE MAKE CLEAN ENERGY HAPPEN℠

Northwest Pipeline Emissions Reduction Program

Customer Fact Sheet

The Emissions Reduction Program (ERP) is designed to strengthen the safety, efficiency, reliability and flexibility of the Northwest Pipeline system, while also minimizing environmental impact by reducing emissions.

This proactive program provides a practical and measured approach to mitigate business and customer risks through the replacement of 21 vintage 1956 natural gas reciprocating engines with low emission gas turbines or electric motor drives. The program will also replace 15 gas turbines with conventional combustion controls with gas turbines with low emissions technology at various compressor stations over a five-year period.

Background

Williams' Northwest Pipeline (NWP) system was largely constructed prior to enactment of the Clean Air Act (CAA), providing grandfathered status to legacy compression. As CAA self-implementing requirements began to apply to grandfathered sources, select emissions sources are controlled or runtime restrictions implemented for compliance with National Ambient Air Quality Standards (NAAQS).

NAAQS are the foundational component of the CAA and set limits for pollutants common in outdoor air including Ozone (O_3), Carbon Monoxide (CO) and Nitrogen Dioxide (NO_2). NWP system-wide emissions are significant and may affect the state's ability to demonstrate compliance with NAAQS Standards. **Non-compliance could result in operational restrictions, reducing the reliability of meeting delivery obligations and air quality regulations.**

States in the Pacific Northwest are also setting ambitious targets to reduce emissions, including Greenhouse Gas (GHG) through the lawmaking process. **Washington and Oregon** have enacted State Laws and Executive Orders respectively to establish timelines to significantly reduce GHG emissions and further clean electricity goals. **Colorado** has enacted a State Law to strictly limit VOC's, CO and NO_x for all internal combustion engines greater than 1,000 hp that will require the replacement of the legacy reciprocating engines at the Rangely compressor station on an accelerated schedule to comply.

In addition, some of the 1956 vintage reciprocating engines have certain components and engine parts that are reaching end of useful life, and in some instances are obsolete, increasing the risk of failure that will impact the safety and reliability of the Northwest Pipeline system.

Williams is committed to working collaboratively with its customers to ensure the continued safe and reliable delivery of natural gas through its Northwest Pipeline System

Why is Northwest Pipeline proposing the ERP now?

Along with a significant amount of legacy compression on the NWP system approaching the end of its useful life – posing inherent risks to safety, reliability and flexibility – emissions across the system are significant. Given today's backdrop, with the oil and gas industry under intense scrutiny from a safety and environmental perspective, operating this key infrastructure in a safe and reliable manner, while reducing emissions with immediate and practical solutions, is critical to ensuring natural gas continues to play a role in our nation's clean energy future. This program will reduce Northwest Pipeline's environmental impact, while also mitigating the following risks:

- Potential operational restrictions that could negatively impact the system-wide ability to meet routine and peak demand requirements
- Uncertainty regarding continued authority to operate currently permitted sources at stations that cannot model compliance with NO2 NAAQS
- Potential for critical safety issues leading to loss of primary containment, equipment failure and accidental ignitions

What are the benefits of the program?

In addition to ensuring the continued safety, reliability, and efficiency of the Northwest Pipeline system, there are several benefits to be achieved by acting now, including:

- A measured and proactive approach for replacement of aging infrastructure through financial discipline and execution strategy that minimizes risk
- Significant reduction in emissions (NOx emissions by 59% and methane emissions by 28% from 2019 levels) resulting in less environmental impact and improved air quality for local communities
- Reductions in methane emissions is strongly aligned with our partnership in ONE Future and EPA's Natural Gas STAR programs
- Demonstrates intentional efforts to reduce our carbon footprint in the environmentally sensitive Pacific Northwest
- Mitigates risks associated with the 2010 1-hour NO2 NAAQS
- Reduces uncertainty regarding system-wide impact of multiple facilities that cannot model compliance
- Potential for reduced operating expenses

For more information or questions on ERP, please contact Camilo Amezquita at Camilo.X.Amezquita@williams.com

