

Agenda Date: August 26, 2021  
Item Number: E1

**Docket:** PG-210374  
Company Name: Northwest Natural Gas Company

Staff: Sean Mayo, Pipeline Safety Director  
Dave Cullom, Pipeline Safety Engineer

### **Recommendation**

Issue an order approving Northwest Natural Gas Company's (NW Natural or Company) Pipeline Replacement Plan (Plan) filed on May 26, 2021.

### **Background**

On December 31, 2012, the Washington Utilities and Transportation Commission (Commission) issued a Policy Statement entitled "Commission Policy on Accelerated Replacement of Pipeline Facilities with Elevated Risk"<sup>1</sup> (Policy Statement). Pursuant to the Policy Statement, each investor-owned gas pipeline utility company filed a plan for replacing pipe that represents an elevated risk of failure.

On May 26, 2021, NW Natural filed its Pipeline Replacement Plan. The Plan reviews the pipe replacement history of Cast Iron and Bare Steel pipe. Since the initial Pipeline Replacement Plan filing, NW Natural has replaced all known bare steel mains and services. As noted in the 2021 plan, the DIMP Additional and Accelerated Action portion for vintage plastic services was expanded to replace all plastic services installed prior to 1974 and verify if NW Natural had installed Polyethylene pipe with the designation of PE 3306 between 1974-1983.

Commission Staff (Staff) finds that NW Natural's Plan meets the requirements of the Policy Statement, with respect to pipeline safety.

### **I. Plan Requirements**

In accordance with the Policy Statement, the fifth Two Year-Plan was to be filed by June 1, 2021,<sup>2</sup> covering planned pipeline replacement through 2023. The Plan consists of three parts: (1)

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<sup>1</sup> "Commission Policy on Accelerated Replacement of Pipeline Facilities with Elevated Risk (December 31, 2012) (Policy Statement) (Docket 120715).

<sup>2</sup> Subsequent PLAN filings are to be filed by June 1 every two years thereafter (*i.e.*, June 1, 2019, 2021, 2023, 2025, etc.). "If the gas company makes no changes to its Master Plan, it need file only the Two-Year plan in each filing after June 1, 2013. If the company makes a material change either to its Master

a Master Plan for replacing all facilities with an elevated risk of failure; (2) a Two-Year Plan that specifically identifies the pipe replacement program goals for the upcoming two-year period; and if applicable, (3) a Pipe Location Plan for identifying the location of pipe or facilities that present an elevated risk of failure.<sup>3</sup>

Each Plan must also:

- Target pipe or facilities that pose an elevated risk of failure.
- Be a measured and reasonable response in relation to the elevated risk, and the program must not unduly burden ratepayers.
- Be in the public interest.<sup>4</sup>

## II. Commission Staff Review of Northwest Natural's Plan

### A. Overview

NW Natural has no known pipeline facilities in Washington that could be considered to have an elevated risk of failure. NW Natural Pipeline Replacement Plan (dated May 26, 2021) documents the removal of the facilities requiring accelerated replacement due to an elevated risk of failure. NW Natural completed the removal of Cast Iron pipe in 2000 and Bare Steel pipe in 2015.

The NW Natural DIMP plan indicates that Celcon Service Tee Caps (Celcon Caps) exist in Washington and that they pose a slightly elevated risk of failure. NW Natural replaces Celcon Caps when found during routine operations and maintenance activities.

NW Natural detailed several steps in the 2021 Pipeline Replacement Plan it has taken towards continual improvement. The 2021 revision includes an enhanced Excess Flow Valve (EFV) program that includes retrofitting based on risks for services installed prior to PHMSA EFV regulations, continuing Geographic Information Systems (GIS) development, and updates to damage prevention risk models to evaluate system threats.

The Company is not aware of the existence of any other infrastructure in Washington that might pose an elevated risk; therefore, the Plan does not contain a Pipe Location Plan.

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Plan, its Two-Year plan, or its Pipe Location Plan, it should file plan changes with the commission within 30 days." Policy Statement at 11, ¶ 43.

<sup>3</sup> Policy Statement at 11, ¶ 42

<sup>4</sup> Policy Statement at 12-14, ¶¶ 45-56.

## **B. Evaluation of the Required Plan Elements**

### **1. Whether the Company's Plan Targets Pipe that Poses an Elevated Risk of Failure**

According to Northwest Natural's Plan, the only remaining facilities in its system that have an elevated risk of failure are Celcon Caps. The Company has evaluated the risk of Celcon Caps and determined that a Pipe Location Plan is not warranted because the Company replaces these caps when they are found during maintenance or other activities.<sup>5</sup>

Northwest Natural's DIMP addresses the following facilities that pose an elevated risk of failure, and as shown below, the Company has either replaced all elevated risk facilities (other than Celcon Caps), or has none of the following elevated risk facilities in Washington:

- Bare Steel: Northwest Natural's 2021 Annual Report contains zero miles of main and zero services in their Washington system. There were zero Hazardous leaks for this type of material in 2020 for the Washington system.
- ABS Plastic Pipe: Northwest Natural's 2021 Annual Report contains zero miles of main and zero ABS plastic pipe services at the end of the year in their Washington System. There were zero Hazardous leaks for this type of material in 2020 for the Washington system.
- In the Additional or Accelerated Action portion of the DIMP plan, the ABS DIMP portion was expanded to replace all plastic services installed prior to 1974 and verify if NW Natural had installed Polyethylene pipe with the designation of PE 3306 from 1974-1983. Industry studies on PE 3306 have shown that this vintage of polyethylene pipe is more susceptible to brittle-like cracking. Thus far, NW Natural has not discovered any PE 3306 in the system. If PE 3306 is found, the time frame for replacement may be expanded. The new proposed completion date is 2025.
- Cast Iron: Northwest Natural has replaced all Cast Iron pipe.
- PVC: Polyvinylchloride (PVC) plastic pipe has not been installed for transportation of natural gas by NW Natural.
- Aldyl-A PE Services: NW Natural installed Century Products MDPE 2306, Aldyl A services from the late 1950s through the early 1970s. All known Aldyl A services were removed from NW Natural's system in 2013.
- Plexco Celcon Service Tee Caps: (Celcon Caps) These caps are present in NW Natural's service territory. Specific locations are unknown. These caps are prone

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<sup>5</sup> Attachment A - DIMP AA Action Overview - Service Tee Caps 8-28-13.

to cracking due to over-tightening. Northwest Natural has evaluated the issue surrounding these caps and has implemented a program to replace these caps as they are found during normal operations and maintenance activities.

Staff has reviewed Northwest Natural's TIMP and DIMP. The classification in the Company's Plan of facilities that pose an elevated risk of failure accurately reflects the analysis in the TIMP and DIMP. NW Natural has no known gas transmission facilities that pose an elevated risk of failure, and for this reason, Staff has not incorporated the TIMP into this summary.

As noted above, the Company has replaced the elevated risk facilities in its system, with the exception Celcon Caps.

Staff notes that generally, when a service tee cap experiences failure, such as Celcon Caps, the resulting leakage is usually small due to the types of defects experienced and the nature of the design of the caps. In addition, the caps are generally at the service to main tie-ins, which are located away from structures intended for human occupancy. Accordingly, this type of facility is less of a safety concern than a facility that is located closer to buildings or other structures. Consequently, the Company's procedure of replacing these caps when they are found is acceptable. Staff sees no need for the Company to have a Pipe Location Plan to locate these facilities.

## **2. Pipe Location Plan**

Northwest Natural's Plan does not contain a Pipe Location Plan because they have no known facilities that pose an elevated risk of failure other than Celcon Caps, and these facilities are being adequately addressed by the replacement of Celcon Caps when they are found.

## **3. Whether the Company's Plan is a Measured and Reasonable Response in Relation to the Elevated Risk**

Based on Staff's review, Northwest Natural's Plan is a measured and reasonable response in relation to the elevated risk. The Plan adequately addresses facilities with an elevated risk of failure. Staff has audited Northwest Natural's DIMP<sup>6</sup> and found that it addresses all known threats and implements accelerated actions that adequately addresses those threats.

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<sup>6</sup> Inspection number 2605, October 2012.

In accordance with paragraph 55 of the commission's policy statement, NW Natural has addressed the potential rate impact to its customers and is not asking for a cost recovery mechanism (DRM) at this time, nor filing a general rate case seeking recovery of costs.

### **Conclusion**

Staff recommends approval of Northwest Natural's pipeline replacement plan filed on May 26, 2021. Northwest Natural has submitted a Plan addressing all known elevated risk facilities in Washington and is consistent with the commission's policy statement.