Agenda Date: April 7, 2016
Item Number: A3

Docket: PG-160294
Company Name: Puget Sound Energy

Staff: Joe Subsits, Chief Pipeline Safety Engineer
Dave Cullom, Pipeline Safety Engineer

Recommendation

Approve Puget Sound Energy's (PSE) Pipeline 2015-2017 Two-Year Plan filed on June 1, 2015. Puget Sound Energy's plan is consistent with Commission Policy and adequately addresses elevated risk pipeline facilities in Washington.

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"[1] (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 (plan).

The commission contemplated that each company's plan would likely be tied to the company's Distribution Integrity Management Plan[2] (DIMP), its Transmission Integrity Management Plan[3] (TIMP), if any, and certain other requirements found throughout Washington Administrative Code[4] pertaining to pipeline safety.

On June 1, 2015, PSE filed an updated plan with the commission.

I. Plan Requirements

Under the Policy Statement, the first plan was to be filed by June 1, 2013,[5] covering planned pipeline replacement through 2015. The plan has three parts: (1) a Master Plan for replacing all facilities with an elevated risk of failure; (2) a Two-Year Plan that specifically identifies the pipe

[1] "Commission Policy on Accelerated Replacement of Pipeline Facilities with Elevated Risk (December 31, 2012) (Policy Statement) (Docket 120715).
[2] Title 49 CFR, Part 192, Subpart O.
[3] Title 49 CFR, Part 192, Subpart P.
[4] WAC 480-93.
[5] Subsequent plan filings are to be filed by June 1 every two years thereafter (*i.e.*, June 1, 2015, 2017, 2019, 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 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.

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.[6]

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.[7]

II. Commission Staff Review of PSE's 2015-2017 Two-Year Plan

A. Overview

PSE operates the largest natural gas distribution system in Washington. PSE has a large and varied service territory and the PSE's gas system uses a variety of different pipeline materials. PSE's plan indicates that several types of facilities exist with an elevated risk of failure and that PSE is addressing these facilities through various replacement plans. Some of these replacement plans are the result of settlement agreements between PSE and the commission and some are voluntary. In 2011 PSE identified cross bores as a top risk in the Distribution Integrity Management Program due to the quantity in PSE's system, the risk of failure, and magnitude of consequence. In 2012 a cross bore pilot program was conducted, and in 2013 the PSE cross bore safety program was officially launched.

PSE's plan contains, for each item a Master Plan, a Two-Year Plan, and a Pipe Identification (Location) Plan for each of the components in the replacement program.

[6] Policy Statement at 11, ¶ 42
[7] Policy Statement at 12-14, ¶¶ 45-56

B. Evaluation of the Required Plan Elements

PSE's plan addresses the following types of facilities that have an elevated risk of failure in Washington:

- Larger diameter (≥ 1-1/4") Aldyl "HD" polyethylene pipe.[8]
- Older vintage Steel Wrapped Mains[9]
- Older vintage Steel Wrapped Services[10]
- Sewer Cross Bore Replacement Plan[11]

PSE implemented a Pipe Identification Plan in 2013 which is designed to locate older Aldyl "HD" (Aldyl) polyethylene pipe. This pipe is prone to what is called "brittle-like cracking" due to slow crack growth (SCG) and failure, resulting from secondary loads such as rock impingement or squeeze-off.[12] The 2013 PRP Plan calls for PSE to identify PE pipe during routine operations and maintenance activities and through approximately 5,000 targeted excavations which PSE plans to complete by the end of 2016.[13] In PSE's 2015 PRP plan, PSE indicates that they prioritize performing targeted excavations in areas where paving improvements is occurring, but paving moratoriums and changes in the number of targeted excavations required could result in a change to the schedule.

For the older vintage wrapped steel mains and services, PSE is utilizing data integration through the use of Geographic Information Systems (GIS) for identification and tracking of these assets.

Sewer cross bores are being identified through the use of their public awareness program and a service provider to perform physical inspections of post-construction sewer inspections near new gas trenchless installations, and sewers near legacy gas trenchless installations. The awareness program targets plumbers, other utility contractors, municipalities, and customers to call PSE before clearing a blocked sewer.
Based on Staff's review, PSE's plan, analyzed in conjunction with PSE's DIMP, is a measured and reasonable response in relation to the elevated risks identified. PSE's plan adequately

[8] PSE DIMP, Appendix F-3, Section 1 - DuPont ALDYL "HD" Plastic Pipe.
[9] PSE DIMP, Section 1, Wrapped Steel Mains. PSE's DIMP identifies an increased risk of leakage on some older steel wrapped mains. The risk is due to a combination of factors, including corrosion, existing third party damage to the pipe coating, welds, and equipment including vintage valves. These mains are replaced based on past leak history and PSE expects to replace approximately 20 miles of steel wrapped main over the next 3 years.
[10] PSE is addressing these services under a settlement agreement approved by the commission in Docket PG-041624, the Wrapped Steel Service Assessment Program (WSSAP). PSE has identified and located all services that are targeted under the WSSAP program. Based on current risk knowledge, PSE is targeting to replace approximately 1,100 services over the next 3 years.
[11] PSE 2013 Continuing Surveilllance Annual Report, Pg. 89
[12] PE pipe is designed to be squeezed shut with a mechanical device during operations, maintenance and emergency response.
[13] PSE's 2013 PRP plan, DuPont Aldyl "HD" Plastic Pipe, Section 3.

addresses facilities with an elevated risk of failure. Staff has previously audited PSE's DIMP[14] and found that it addresses all known threats and implements accelerated actions that adequately address those threats.

C. Impact on Rates

In accordance with Paragraph 64 of the commission's policy statement, PSE submitted information for a Cost Recovery Mechanism (CRM) with its plan. Regulatory services staff will present the CRM in a separate filing in Docket No. UG-151159.

The effects of the CRM is an increase of $5,331,376 or an average increase of 0.49% for all of PSE's approximately 793,924 natural gas customers. The impact of this filing on the typical residential customer using 68 therms per month will be an increase of $0.39 on the current monthly bill of $81.25.

III. Conclusions

Staff is satisfied that the analysis presented by PSE is consistent with the Commission Policy, and adequately addresses all known elevated risk pipeline facilities in Washington. The current 2015-2017 Two-Year Plan is updated to reflect newly added projects and completed projects since the initial 2013-2015 Two-Year Plan. The commission should approve Puget Sound Energy's 2015-2017 Two- Year Plan filed on June 1, 2015.

[14] Inspection number 2609, October 2012.