Transcontinental Gas Pipe Line Company, LLC

PA DEP Section 401 Water Quality Certification Application

Module S1 – Project Summary

Leidy South Project

August 2019

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MODULE S1
PROJECT SUMMARY

Transcontinental Gas Pipe Line Company, LLC (Transco), a subsidiary of The Williams Companies, Inc. is submitting an application to the Pennsylvania Department of Protection (PADEP) for a Section 401 Water Quality Certificate under the Federal Clean Water Act guideline for Project related impacts to Waters of the United States subject to jurisdiction under Section 404 of the Clean Water Act and subject to PA Code Title 25 Chapter 105. The following provides an overall summary of the project scope as defined in Module S1 of the Environmental Assessment Form.

S1.A Project Description

Transco is proposing the Leidy South Project (Project). The Project is an expansion of Transco's existing natural gas transmission system and an extension of Transco's system through a capacity lease with National Fuel Gas Supply Corporation. The Project will enable Transco to provide 582,400 dekatherms per day (Dth/d) of incremental firm transportation capacity for abundant supplies of natural gas from northern and western Pennsylvania to existing and growing markets in Transco's Zone 6. Transco's Zone 6 includes the portion of the Transco system in Pennsylvania, New York, New Jersey, and Maryland. The Project consists of the following components:

- 6.3 miles of 36-inch pipeline loop along Transco's Leidy Line in Clinton County, Pennsylvania (Hensel Replacement) and the related abandonment of 5.8 miles of existing 23.375-inch pipeline on Leidy Line A;
- 2.4 miles of 36-inch pipeline loop along Transco's Leidy Line in Clinton County, Pennsylvania (Hilltop Loop);
- 3.5 miles of 42-inch pipeline loop along Transco's Leidy Line in Lycoming County, Pennsylvania (Benton Loop);
- Existing Compressor Station 605 (Wyoming County, Pennsylvania);
    - Increase the total certificated horsepower of the two electric motor-driven units from 30,000 horsepower (HP) to 42,000 HP and modifications to existing coolers;

- New Compressor Station 607 (Luzerne County, Pennsylvania);
    - Install two gas turbine-driven compressor units (23,465 nominal HP at International Organization for Standardization [ISO] conditions each, 46,930 HP total) and gas coolers;
- Existing Compressor Station 610 (Columbia County, Pennsylvania);
    - Add one gas turbine-driven compressor unit (31,871 nominal HP at ISO conditions) and gas cooling;
    - Increase the total certificated horsepower of the two electric motor-driven units from 40,000 HP to 42,000 HP and re-wheel the existing compressors;
- New Compressor Station 620 (Schuylkill County, Pennsylvania);
    - Install one gas turbine-driven compressor unit (31,871 nominal HP at ISO conditions);
- Ancillary facilities, such as mainline valves (MLVs), communication facilities, cathodic protection and pig launchers and receivers in Pennsylvania.

Subject to the Federal Energy Regulatory Commission (FERC) approval of the Project and receipt of the necessary permits and authorizations, Transco anticipates that construction of the Project will commence in winter 2020/2021 to meet a target in-service date of December 1, 2021.

S1.A.1 Project Counties and Phases

The Project will take place within Clinton, Columbia, Luzerne, Lycoming, Wyoming, and Schuylkill counties, Pennsylvania, as outlined in Figure 1.1-1 – Leidy South Project Location Map. Chapter 105/Section 404 Joint Permit Applications will be submitted for impacts to waters of the Commonwealth for the Hensel Replacement and Hilltop Loop within Clinton County, the Benton Loop within Lycoming County, and Compressor Station 607 within Luzerne County. The Project will not impact waters of the Commonwealth in Columbia, Wyoming and Schuylkill counties. The Project will not have any earth disturbance within Wyoming County. The Project will not be completed in Phases, as all Project components will be constructed to meet the target in-service date.

S1.A.1(i) Comprehensive Environmental Assessment

The proposed Project qualifies for the Comprehensive Environmental Assessment (CEA) due to the Project impacts being in multiple counties. As part of the CEA, Transco analyzed alternatives, impacts, mitigation and antidegradation for all structures and activities associated with the Project, including the cumulative impact of the Project and other existing and potential projects. The alternatives analysis for the Project can be found in Module 3, Appendix S3-4 Alternatives Analysis. The alternatives address energy source and systems analysis evaluated for the Project. Within the systems analysis various design options and routes were considered to determine the proposed Project design. Project impacts are discussed within Module S3, where impacts to resources are quantified, and impacts to threatened, endangered, or species of special concern are addressed. Proposed mitigation for the Project can be found within Module S4. Proposed mitigation measures described in this section include the avoidance and minimization measures proposed as part of the Project, and plans for onsite and offsite mitigation, as it relates to wetlands and riparian buffers. Antidegradation measures for the Project are found in Module 3, Section S3.E.

S1.A.1(ii) Nature, Extent, and Timeline of Project

Subject to FERC approval of the Project and receipt of the necessary permits and authorizations, Transco anticipates that construction of the Project will commence in winter 2020/2021 to meet a target in-service date of December 1, 2021.

General Construction Techniques

Transco will use conventional techniques for buried pipeline construction to ensure safe, stable, and reliable transmission facilities, consistent with Commission and USDOT specifications. Construction of the proposed pipelines will follow a set of sequential operations, unique to the pipeline industry. The Project will require multiple construction spreads that will proceed along the pipeline Right of Ways in one continuous operation. The entire process will be coordinated in such a manner as to minimize the total time a tract of land is disturbed and, therefore, susceptible to erosion and/or temporarily precluded from its normal use.

Areas requiring special construction plans and techniques may include road or utility crossings, waterbodies and wetlands, unusual topographies associated with unstable soils and trench conditions, residential or urban areas, agricultural areas, areas requiring rock removal, and

permanent recreation facilities, among others. Typically, pipeline construction will take place in the following order:

- Surveying and Staking
- Installation of Erosion and Sediment Controls
- Clearing, Grading, and Fencing
- Trenching
- Pipe Stringing
- Pipe Bending
- Pipe Assembly and Welding
- X-Ray and Weld Repair
- Coating Field Welds, Inspection, and Repair
- Pipe Preparation and Lowering-In
- Tie-Ins
- Padding, Backfilling, and Grade Restoration
- Clean-up and Restoration
- Hydrostatic Testing

Specialized Construction Techniques

In addition to conventional pipeline construction techniques, specialized construction techniques will be utilized in sensitive resource areas, including waterbody and wetland crossings or in areas with construction constraints, such as residential areas, road crossings, utility crossings, areas with side slopes, and rocky areas. These construction methods will be outlined in Chapter 102 and 105 permit submittals.

S1.A.1(iii) List of Chapter 105 Applications associated with Overall Project

Transco will submit three Chapter 105 Joint Permit Applications for the Project. One application will be submitted for the Hensel Replacement and Hilltop Loop, both of which will take place in Clinton County. A second application will be submitted for the Benton Loop which is located in Lycoming County. The third application will be submitted for Compressor Station 607 which is located in Luzerne County.

S1.A.1(iv) Summary of Overall Project Impacts

As part of the Project, unavoidable wetland and watercourses impacts are anticipated to occur. No net loss of wetlands will occur as a result of the proposed Project as Transco proposes to offset impacts through onsite restoration and offsite compensatory wetland mitigation. Mitigation is discussed in greater detail in Module 4, Appendix S4-1. In all instances, impacts have been minimized or avoided to the greatest extent practicable. A summary of the overall known impacts is provided in Table S1.A.1-1. There are no proposed water resources impacts in Columbia, Wyoming, and Schuylkill counties. There are no anticipated future impacts associated with the overall Project.

Table S1.A.1-1
Aquatic Resource Impact Summary Table

Project Component	Impact Type	Resource	Direct (Acres)	Indirect (Acres)
Benton Loop (Lycoming County)	Permanent	Wetland	-	1.52
		Watercourse	-	0.45
	Temporary	Wetland	-	1.12
		Watercourse	-	0.94
Hilltop Loop (Clinton County)	Permanent	Wetland	-	0.36
		Watercourse	-	1.05
	Temporary	Wetland	-	0.57
		Watercourse	-	1.00
Hensel Replacement (Clinton County)	Permanent	Wetland	0.02	1.34
		Watercourse	-	1.72
	Temporary	Wetland	-	1.07
		Watercourse	-	0.42
Compressor Station 607 (Luzerne County)	Permanent	Wetland	0.20	-
		Watercourse	-	-
	Temporary	Wetland	-	0.13
		Watercourse	-	-

Table S1.A.1-1
Aquatic Resource Impact Summary Table

Project Component	Impact Type	Resource	Direct (Acres)	Indirect (Acres)
Notes: 1. Watercourse impacts include floodway impacts				

S1.B Additional Information

S1.B.1 Purpose and Need

Transco proposes to construct and operate the Project facilities to provide an incremental 582,400 Dth/d of year-round firm transportation capacity from the Marcellus and Utica Shale production areas in northern and western Pennsylvania to Transco's mainline at the River Road Regulator Station in Lancaster County, Pennsylvania. As a result of Transco's negotiations with two anchor shippers and Transco's Open Season for the Project that was held from October 9, 2018 through October 29, 2018, Transco has executed long-term, binding precedent agreements with three shippers for all of the 582,400 Dth/d of firm transportation capacity under the Project, as detailed in Table S1.B.1-1.

Table S1.B.1-1
Transco's Customers and Transportation Capacity Subscribed to the Project

Shipper	Transportation Contract Quantity (Dth/d)
Cabot Oil & Gas Corporation	250,000
Seneca Resources Corporation	330,000
UGI Utilities, Incorporated D/B/A UGI North	2,400
Key: Dth/d = dekatherms per day	

The Project will provide Transco's customers and the markets they serve with greatly enhanced access to Marcellus and Utica Shale supplies providing users, such as power generators, access to clean, abundant, and lower priced natural gas as a better alternative to coal and oil. Access to the Marcellus and Utica Shale production areas is currently constrained on days where natural gas demand is the highest on the interstate pipeline systems by existing pipeline capacity. By increasing gas supply access at the River Road Regulator Station, the Project will support overall reliability and diversification of energy infrastructure along the Atlantic

seaboard. The increased Project capacity further diversifies energy infrastructure by increasing the system's ability to meet growing northeast and southeast demand from the Marcellus and Utica in addition to gas historically produced in other areas of the United States. Moreover, the Project will benefit the public by promoting competitive markets and increasing the security of natural gas supplies to major delivery points serving the Atlantic seaboard.

A review of the Annual Energy Outlook 2018 (Energy Information Administration 2018) reference case indicates that natural gas consumption is expected to rise from 26 trillion cubic feet (Tcf) in 2018 to 34 Tcf in 2040 and will continue to grow to 35 Tcf in 2050. Therefore, Transco's proposal is consistent with expected market demand and the needs expressed by Transco's customers in the binding precedent agreements that have been executed for this additional capacity (see Table S1.B.1-1). As such, and as explained more fully in Transco's Certification Application, the Project is consistent with the Commission's Statement of Policy on the Certification of New Interstate Natural Gas Pipeline Facilities.

S1.B.2 Water Dependency

Based on the Project purpose and need presented above, the Project was sited to avoid and minimize impacts to resources. Due to the linear nature of the FERC regulated interstate pipeline Project and required above ground facilities, the Project is considered water dependent as unavoidable impacts to resources are proposed for the Project.

S1.B.3 Aquatic Resource Summary Table

Wetland and Watercourse Delineations were conducted during Fall 2018 and Spring 2019. A summary of the resources located within the investigation area is provided in Table S1-B.3-1. Flow regimes are noted in the table below, which include ephemeral, intermittent, and perennial streams. Cowardin wetland classifications are also noted which include Palustrine Emergent (PEM), Palustrine Scrub-Shrub (PSS), Palustrine Forested (PFO), and Palustrine Open-water (POW).

Table S1.B.3-1
Aquatic Resource Summary Table

Project Component	Resource Type	Cowardin Class / Stream Type	Number Delineated	Total Area Delineated (Acres)
Benton Loop	Wetland	PEM	27	6.9
		PSS	1	0.11

Table S1.B.3-1
Aquatic Resource Summary Table

Project Component	Resource Type	Cowardin Class / Stream Type	Number Delineated	Total Area Delineated (Acres)
		PFO	18	3.83
		POW	2	0.51
	Watercourse	Intermittent	4	0.07
		Ephemeral	16	0.32
		Perennial	16	1.41
Hilltop Loop	Wetland	PEM	13	3.41
		PSS	1	0.04
		PFO	8	3.94
		POW	2	0.08
	Watercourse	Intermittent	6	0.56
		Ephemeral	7	0.11
		Perennial	2	1.19
Hensel Replacement	Wetland	PEM	23	14.17
		PSS	7	20.16
		PFO	20	43.61
		POW	1	0.05
	Watercourse	Intermittent	18	0.26
		Ephemeral	10	0.11
		Perennial	9	2.49
Compressor Station 607	Wetland	PEM	10	4.22
		PSS	1	0.02
		PFO	2	1
		POW	0	0
	Watercourse	Intermittent	8	0.61

Table S1.B.3-1
Aquatic Resource Summary Table

Project Component	Resource Type	Cowardin Class / Stream Type	Number Delineated	Total Area Delineated (Acres)
		Ephemeral	1	0.01
		Perennial	0	0
Compressor Station 620	Wetland	PEM	2	1.72
		PSS	0	0
		PFO	1	3.39
		POW	0	0
	Watercourse	Intermittent	1	0.05
		Ephemeral	1	0.01
		Perennial	1	2.16

For detailed information on each specific resource identified as part of the Project, see Module 2, Appendix S2-1.

S1.B.4 Summary of Proposed Project Impacts

A summary of the proposed Project permanent and temporary direct and indirect impacts is provided in Table S1.B.4-1. The table is broken out by each Project component where resource impacts are proposed. Further detail regarding the impacts at each specific resource can be found in Module S3.A.

Table S1.B.4-1
Aquatic Resource Impact Summary Table

Project Component	Impact Type	Resource	Direct (Acres)	Indirect (Acres)
Benton Loop (Lycoming County)	Permanent	Wetland	-	1.52
		Watercourse	-	0.45
	Temporary	Wetland	-	1.12
		Watercourse	-	0.94
Hilltop Loop (Clinton County)	Permanent	Wetland	-	0.36

Table S1.B.4-1
Aquatic Resource Impact Summary Table

Project Component	Impact Type	Resource	Direct (Acres)	Indirect (Acres)
		Watercourse	-	1.05
	Temporary	Wetland	-	0.57
		Watercourse	-	1.00
Hensel Replacement (Clinton County)	Permanent	Wetland	0.02	1.34
		Watercourse	-	1.72
	Temporary	Wetland	-	1.07
		Watercourse	-	0.42
Compressor Station 607 (Luzerne County)	Permanent	Wetland	0.20	-
		Watercourse	-	-
	Temporary	Wetland	-	0.13
		Watercourse	-	-

Notes:

1. Watercourse impacts include floodway impacts

References

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