



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
NASHVILLE, TENNESSEE 37243-0435

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COMMISSIONER

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April 24, 2017

**Via Electronic Submittal at FERC.gov**

Attn: Kimberly D. Bose, Secretary  
Office of Energy Projects  
Federal Energy Regulatory Commission  
888 First Street NE, Room 1A  
Washington, DC 20426

Dear Ms. Bose:

The Tennessee Department of Environment and Conservation (TDEC) appreciates the opportunity to provide comments on the Columbia Gas Transmission, LLC (Columbia Gas) proposed *Mountaineer XPress Project* (MXP), and the Columbia Gulf Transmission, LLC (Columbia Gulf) proposed *Gulf XPress Project* (GXP) included in the Draft Environmental Impact Statement (Draft EIS) prepared by the Federal Energy Regulatory Commission (FERC). Columbia Gas requests authorization to construct and operate a total of 170.7 miles of natural gas transmission pipeline, new compressor stations, and other appurtenant facilities and to modify one existing compressor station and two pending compressor stations located in West Virginia. Columbia Gulf requests authorization to construct and operate compressor stations and to upgrade an approved compressor station and one existing meter station in Kentucky, Tennessee, and Mississippi.

Actions considered in detail within the Draft EIS include:

- **Proposed Action Alternative** – Columbia Gas requests authorization to construct and operate a total of 170.7 miles of natural gas transmission pipeline, new compressor stations, and other appurtenant facilities, and to modify one existing compressor station and two pending compressor stations, all located in West Virginia. The MXP would provide about 2,700,000 dekatherms per day (Dth/d) of available capacity for transport to multiple Midwest, Northeast, and Mid-Atlantic markets across Columbia Pipeline Group's system, including the Columbia Gulf Leach interconnect with Columbia Gulf. Columbia Gulf requests authorization to construct and operate compressor stations and to upgrade an approved compressor station and one existing meter station in Kentucky, Tennessee, and Mississippi. The GXP would provide about 860,000 Dth/d of natural gas delivery to markets in the Gulf Coast region. Under the proposed action the GXP project would lead to the construction of the Cane Ridge Compressor Station on approximately 23 acres in Antioch Township, Davidson County, Tennessee, and the Clifton Junction Compressor Station on approximately 29 acres in Waynesboro, Wayne County, Tennessee.
- **No-Action Alternative** – Under the no-action alternative, the environmental impacts identified in the Draft EIS would not occur. Existing natural gas transportation systems would continue to provide natural

gas service to these regions; however, the projects'<sup>1</sup> customers would likely seek natural gas and transportation services from other sources. To increase capacity or to provide access to new sources of natural gas, the Companies<sup>2</sup> may need to construct additional and/or new gas pipeline facilities and appurtenances in other locations (i.e., system alternatives) to provide the volumes of natural gas contracted through the projects' binding precedent agreements with the respective shippers. Alternatively, customers of the projects' shippers could seek to use other energy alternatives, such as alternative fuel or renewable energy sources, which could also require new facilities. If other new natural gas pipeline facilities or other energy infrastructure were approved and constructed, each project would result in specific environmental impacts that could be less than, similar to, or greater than the current proposals.

- **System Alternatives** – To analyze system alternatives, the Draft EIS evaluated potential impacts associated with using other existing interstate natural gas pipelines to transport an equivalent volume of gas to meet customer requirements set forth in the binding precedent agreements, and to provide firm transportation service to Columbia Gas' TCO Pool<sup>3</sup>, as well as more southerly markets accessible from Columbia Gulf's pipeline. One of the primary purposes of the MXP is to increase deliverability by approximately 1,800,000 Dth/d to the TCO Pool.
- **Major Pipeline Route Alternatives** – FERC received comments during the public scoping period regarding the use of co-location opportunities with other utilities to reduce MXP impacts on landowners, communities, and the environment.<sup>4</sup> Columbia Gas' route review during the MXP pipeline siting process considered co-location opportunities where practicable, with several caveats. Even with the limited opportunities available, Columbia Gas was able to co-locate with other utility corridors almost 24 miles, or about 13.9 percent, of the MXP route. Additionally, FERC analyzed two major route alternatives to the MXP that involved looping/upgrades to the existing Columbia Gas pipeline systems with greater ability to co-locate pipelines (Legacy 1 and Legacy 2 Alternatives), and one major route alternative (LXP Alternative) that included modifications to a Columbia Gas project currently under FERC review (the LXP; Docket No. CP15-514). These alternatives are substantially different from the proposed MXP route and from each other.
- **Pipeline Route Variation Alternatives<sup>5</sup>** – During development of the MXP, Columbia Gas identified and evaluated numerous route variations and alignment modifications as additional information became available.<sup>6</sup>

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<sup>1</sup> Columbia Gas Mountaineer XPress Project (MXP) and the Columbia Gulf XPress Project (GXP) collectively.

<sup>2</sup> Columbia Gas Transmission, LLC (Columbia Gas) and Columbia Gulf Transmission, LLC (Columbia Gul) collectively.

<sup>3</sup> The TCO Pool is the main pooling point on Columbia Gas' system. Specifically, the TCO Pool refers to Columbia Gas' highly liquid trading pool. Shippers may make deliveries into the TCO Pool, i.e., Columbia Gas' Interruptible Paper Pool, from any source delivered into Columbia Gas' system. The TCO Pool is a daily and monthly pricing point listed by S&P Global Platts as "Columbia Gas, Appalachia."

<sup>4</sup> A pipeline is considered co-located with an existing corridor if the new right-of-way is adjacent to or overlaps the existing right-of-way. A pipeline can parallel an existing linear facility without being co-located (i.e., there is a separation between the rights-of-way), but this can result in multiple clear-cuts along similar paths with limited benefit in reducing impacts on environmental and other resources. Parallel configurations are typical for a gas pipeline where the corridor being followed is a foreign pipeline or utility, or where the company does not have multiple line rights within its existing right-of-way. In either scenario, whether truly co-located or simply paralleling another utility, construction within or adjacent to existing rights-of-way can minimize impacts on visual sightlines and intrinsic value, depending on how the new pipeline is configured in relation to the existing corridors. Because co-location usually minimizes vegetation clearing, it subsequently reduces fragmentation of forested habitats. Conversely, multiple corridors can have negative impacts on landowners, and studies have shown there can be detrimental effects on certain species of wildlife in areas with multiple co-located pipelines, as corridors can expand to the point that they create barriers to wildlife passage, and in some cases, effectively isolate populations. The extent of this effect depends on the species, life cycles, the geography of an area, and the cleared corridor width.

<sup>5</sup> Route variations differ from system or major route alternatives in that they are designed to reduce impacts on specific localized features, are typically shorter than major route alternatives, and do not result in a significant departure from the original alignment.

<sup>6</sup> In its application filing, Columbia Gas identified and provided its rationale for adopting 21 minor variations and 3 more significant route modifications (the Maxwell Ridge, Sherwood Lateral, and Hurricane Creek Alternatives) that were considered. Two of the modifications

- **MXP Aboveground Facility Site Alternatives** – Columbia Gas selected the proposed compressor station locations to optimize gas flow hydraulics, integrate with other pipelines on the Columbia Gas system, and to minimize construction challenges given that much of the terrain where compression is required is mountainous and rugged. The three new compressor station sites proposed by Columbia Gas are privately owned parcels for which Columbia Gas has obtained purchase rights. No significant issues were identified with any of the three proposed sites, and FERC received no comments to evaluate any specific alternate sites during the public scoping period. As such, FERC did not evaluate alternative sites for the Sherwood, White Oak, or Mount Olive Compressor Stations. Additionally, FERC did not receive comments or evaluate alternatives for modifications at existing compressor facilities during the public scoping period.
- **GXP Compressor Station Alternatives** – The number and locations of the compressor stations proposed for GXP considered the basic flow dynamics of natural gas on Columbia Gulf’s system and the effects of the GXP. To determine the amount of compression needed by the GXP and the location of compressor stations, Columbia Gulf used a combination of factors, including compression ratios, fuel consumption, and compressor suction and discharge pressures.<sup>7</sup>

As the environmental and natural resources regulatory authority in Tennessee, TDEC’s comments will focus on proposed actions and associated impacts that will occur in Tennessee. Proposed actions occurring in Tennessee are included as part of the GXP project. Under the proposed action, Tennessee would see two new natural gas compressor stations constructed:

- The Cane Ridge Compressor Station is proposed for construction on approximately 23 acres in Antioch Township, Davidson County, Tennessee.
- The Clifton Junction Compressor Station is proposed for construction on approximately 29 acres in Waynesboro, Wayne County, Tennessee.

TDEC’s **Office of Energy Programs** has reviewed the Draft EIS and provides the following comments regarding the proposed actions occurring within Tennessee.

- Section 4.5.1.1.1 “Pipeline Facilities” – In the final EIS, TDEC recommends that consideration be given to using electric-powered lawn equipment, which is as much as fifty percent (50%) quieter than traditional gas-operated models. Electric-powered lawn equipment has zero air emissions onsite, reduces petroleum-fuel purchases, and eliminates used oil waste.
- Section 4.1.4.8 “Flash Flooding” – TDEC encourages Columbia Gas to elevate essential electric components, utility boxes, and any backup power generation as a resiliency measure to ensure safe operation in the event of a flash flood or an extreme flood event. Columbia Gas should evaluate beyond

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were specifically developed in response to comments received during project scoping. In its October 13, 2016 supplemental filing, Columbia Gas identified an additional 48 route changes, which resulted from further project refinements in consideration of its 2016 field surveys, stakeholder comments, input from FERC staff, and other considerations. These route adjustments were adopted to address landowner concerns, design changes, and constructability constraints, as well as to avoid certain parcels and landmarks.

<sup>7</sup> Columbia Gulf proposed the new compressor stations to meet the volumetric and pressure requirements for its existing lines, as well as to meet the requirements of the project shippers, while minimizing environmental impacts and maintaining service to existing customers. Applying site-specific conditions to the results of hydraulic modeling led Columbia Gulf to determine that each compressor station must be located within approximately 1 mile upstream and downstream of the optimal compression location. This would achieve the hydraulic efficiency necessary to meet the required project shipper volume.

the FEMA 100-year floodplain map for the Cane Ridge and Clifton Junction Compressor Stations in Tennessee as recent flooding events in Middle Tennessee have exceeded 100-year floodplain levels.<sup>8</sup>

TDEC's **Division of Water Resources (DWR)** has reviewed the Draft EIS and provides the following comments regarding the proposed action occurring within Tennessee.

- The project as proposed will include the disturbance of more than one acre, and will therefore require a NPDES – General Stormwater Construction Permit, as well as a Storm Water Pollution Prevention Plan and Best Management Practices Plan.<sup>9</sup> TDEC acknowledges that this consideration is included in the Draft EIS and recommends that it be included in the Final EIS.
- It is not clear from the Draft EIS if the Cane Ridge Compressor Station could impact the unnamed tributary to Mill Creek on the east-southeast portion of the property. If there is the potential for impact, the project will need to file an Aquatic Resource Alteration Permit (ARAP) application.<sup>10</sup> TDEC recommends that additional clarification on potential impacts to the unnamed tributary to Mill Creek be included in the Final EIS.
- As noted in the Draft EIS, the two compressor station sites are located in karst terrain. The particular geologic formations involved are less likely to form sinkholes than some of the other geologic formations in Middle and East Tennessee. Should sinkholes or other karst drainage features be encountered during the two projects, the modification of sinkholes is regulated under the Underground Injection Control (UIC) Program and requires DWR approval.<sup>11</sup> TDEC recommends that these considerations be addressed in the Final EIS.

TDEC's **Division of Archaeology (DoA)** has reviewed the Draft EIS and provided the following comments regarding the proposed action occurring within Tennessee. Environmental Resources Management Archaeologists conducted cultural resource surveys at the two proposed compressor stations in Tennessee. Two prehistoric archaeological sites were located within the footprint of this proposed project. However, they were determined to be ineligible for the National Register of Historic Places. The Tennessee State Historic Preservation Officers concurred with these findings (May 16, 2016); DoA also agrees with Columbia Gas' recommendation that no further archaeological surveys are required for this project to move forward.

TDEC's **Division of Natural Areas (DNA)** has reviewed the Draft EIS and has no specific comments regarding the proposed actions or its alternatives potential impacts to endangered species.<sup>12</sup> In regards to clearing activities, if any wood is transported from site, special consideration should be given to protect against the spread of the Emerald Ash Borer (*Agilus planipennis*), a federally regulated invasive species found in Tennessee. TDEC

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<sup>8</sup> For example, the Opry Mills Mall site in Metro Nashville was built two feet above the 100-year floodplain levels, yet the 2010 historic flood exceeded those levels. Similar rainfall levels have been seen in the Metro Nashville area since 2010 and pose significant risk to these same watersheds. For more information visit <http://www.tennessean.com/story/news/local/2015/05/02/promise-floodwall-nashville/26759801/>.

<sup>9</sup> For more information on NPDES Stormwater Construction Permitting please visit <http://www.tn.gov/environment/article/permit-water-npdes-stormwater-construction-permit>. Additionally, Projects in Metro Nashville where ground cover, natural or man-made, is removed require a grading permit in addition to a CGP. <http://www.nashville.gov/Water-Services/Developers/Stormwater-Review/Who-Needs-A-Grading-Permit.aspx>.

<sup>10</sup> For more information on the ARAP program please visit <https://www.tn.gov/environment/article/permit-water-aquatic-resource-alteration-permit>.

<sup>11</sup> TDEC's UIC Program is housed in the Drinking Water Unit, more information can be found at <https://www.tn.gov/environment/article/permit-water-underground-injection-control-permit>.

<sup>12</sup> The Tennessee Wildlife Resources Agency (TWRA) manages information related to state listed rare animal species, and should be consulted in addition to the Division of Natural Areas.

recommends Columbia Gas include language in the Final EIS to identify any ash trees onsite and check for infestation or otherwise that may be deemed to present a hazard of the spread of the Emerald Ash Borer.<sup>13</sup>

TDEC's **Division of Solid Waste Management (SWM)** has reviewed the Draft EIS and recommends the Final EIS reflect that any wastes associated with construction at the two compressor station sites in Tennessee must be handled in accordance with the Solid and Hazardous Waste Rules and Regulations of the state.<sup>14</sup>

TDEC's **Division of Air Pollution Control (APC)** has reviewed the Draft EIS and provides the following comments regarding the proposed action occurring within Tennessee.

- The estimated natural gas compressor emissions are likely to be at levels that will require Title V permits to be issued by each of the separate state and county (local air program) jurisdictions they are proposed to be constructed within. TDEC does not issue permits for facilities inside of Davidson County. Facilities inside of Davidson County would fall under the jurisdiction of the Metro Nashville Local Air Program and must comply with their permitting regulations.<sup>15</sup> TDEC recommends that the likely need for Title V permits be referenced in the final EIS.
- TDEC Title V construction permits for facility ID# 91-0098 were issued August 31, 2016 and September 9, 2016 for the proposed facility located off US 64 Savannah Highway, (Clifton Junction) in Wayne County. Both permits expire on August 30, 2017, and the facility is required to apply for a Title V Operating Permit when the source begins operation. TDEC recommends that the likely need for Title V permits be referenced in the final EIS.
- Davidson and Wayne counties are both classified as attainment for all National Ambient Air Quality Standards (NAAQS) pollutants. The applicant has conducted air quality modeling using the Environmental Protection Agency's (EPA) approved AERMOD modeling software for the two compressor stations proposed to be constructed in Tennessee and has provided summary reports detailing that emissions will minimally impact the NAAQS for the pollutants evaluated. Because both counties are currently classified as attaining the NAAQS, General Conformity applicability determinations will not be required.
- No demolition of existing structures is described as planned for this project (in Tennessee), however, if any existing structures were to be subject to demolition, both the state and local asbestos NESHAPs R&D programs will need to be notified 10 working days in advance of the planned demolition(s). Any existing pipeline segments in Tennessee that may be subject to replacement should also be evaluated for both asbestos and PCBs prior to any activities that would otherwise disturb any wrappings or coatings on the pipe found to contain these regulated materials. If these materials are found to be present, appropriate measures must be taken to implement special handling and disposal of the affected pipeline segments in accordance with federal, state and or local asbestos or PCB regulations.
- The Draft EIS includes a listing on page 4-282 of the State of Tennessee Air Regulations that the Wayne County facility would be subject to with regard to air permitting requirements. TDEC recommends that

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<sup>13</sup> For more information regarding the Emerald Ash Borer please visit <https://www.tn.gov/agriculture/topic/ag-businesses-eab>.

<sup>14</sup> Reference TDEC SWM Rule 0400 Chapter 11 for Solid Waste and Chapter 12 for Hazardous Waste <http://sos.tn.gov/effective-rules>.

<sup>15</sup> For more information on the Metro Nashville, Air Pollution Control program visit <http://www.nashville.gov/Health-Department/Environmental-Health/Air-Pollution-Control.aspx> or contact John Finke, Director Division of Pollution Control Metro Public Health Department 2500 Charlotte Avenue Nashville, TN 37209-4129 Phone: (615) 340-5653 Email: [john.finke@nashville.gov](mailto:john.finke@nashville.gov).

the applicable Metro (Davidson County) regulations also be listed for the project that is proposed for Davidson County.<sup>16</sup>

- Footnote 41 on page 4-290 references a procedure to obtain the modeling information discussed in the Draft EIS. On attempting to obtain this information for review purposes, the following message statement was displayed: “The General and Advanced Searches are not available at this time.” It would be desirable to have additional time to review this information and any MOVES modeling results obtained after modeling using the MOVES transportation model.

TDEC appreciates the opportunity to comment on this Draft EIS. Please note that these comments are not indicative of approval or disapproval of the proposed action or its alternatives, nor should they be interpreted as an indication regarding future permitting decisions by TDEC. Please contact me should you have any questions regarding these comments.

Sincerely,



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<sup>16</sup> The Metro Nashville regulations can be found at <http://www.nashville.gov/Health-Department/Environmental-Health/Air-Pollution-Control/Pollution-Downloads.aspx>.