Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First St., N.E., Room 1A  
Washington, DC 20426


Dear Ms. Bose:

In accordance with our responsibilities under Section 309 of the Clean Air Act, the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) regulations for implementing NEPA, EPA has completed its review of the Federal Energy Regulatory Commission’s (FERC) FEIS for the Leach Xpress Project (LX) and Rayne Xpress Expansion Project (RXE) (Projects), proposed by Columbia Gas Transmission, LLC (Columbia Gas) and Columbia Gulf Transmission, LLC (Columbia Gulf), respectively.

Columbia Gas and Columbia Gulf (Projects Proponents) request FERC authorization to construct, operate, abandon in-place, add new compression and operate certain interstate natural gas pipeline facilities in Ohio, Pennsylvania, West Virginia and Kentucky. LX would allow for the transport of 1.5 million dekatherms of natural gas per day of firm transportation service to natural gas consumers served by the Columbia Gas pipeline systems. RXE would add new compression in Kentucky to provide about 621,000 dekatherms per day of firm transportation or Columbia Gulf's system.

EPA commented on the Draft EIS (DEIS) on June 13, 2016. We rated the DEIS as Environmental Concerns, Insufficient Information (EC-2). Our comments and recommendations recommended additional information and analysis regarding: 1) identification and evaluation of alternatives, 2) avoidance and minimization of impacts to aquatic resources, forests and core forests and associated biological resources, 3) identification of environmental justice populations, 4) identification of noise impacts, and 5) analysis of greenhouse gas emissions and climate change. In order to fully protect the environment, we recommended additional avoidance, minimization and compensation measures be identified in the FEIS.
This letter represents the coordinated review and consolidated comments by EPA Regional Offices in Region 3 (Philadelphia, with responsibilities for actions in Pennsylvania and West Virginia), Region 4 (Atlanta, with responsibilities for actions in Kentucky), and Region 5 (Chicago, with responsibilities for actions in Ohio).

We appreciate that many of our earlier comments and recommendations were considered and addressed in the FEIS.

However, the FEIS perpetuates the significant omission documented through our comments on the DEIS with respect to a proper climate change analysis to inform the decision making process. Specifically, the Council on Environmental Quality’s, Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews (CEQ GHG Guidance) of August 1, 2016 specifically uses end use product combustion as an example of an indirect emission that should be calculated for each alternative considered. We view FERC’s response to our comments as very concerning in light of CEQ’s GHG Guidance and request a headquarters level meeting with us to seek a definitive resolution to this matter before you publish a Record of Decision (ROD) and so that you do not continue to take this approach in additional NEPA documents.

Also, the FEIS does not include a proposed wetland/stream mitigation plan, a Migratory Bird Conservation Plan, or documentation to support FERC assertion that the proposed Mountaineer Xpress Pipeline is not a viable alternative.

EPA recommends the Final Migratory Bird Conservation Plan that includes forest compensation mitigation approved and agreed to by the U.S. Fish and Wildlife Service, wetland/stream mitigation plans, and information to substantiate the Projects’ purpose and need is distinct from the proposed Mountaineer Xpress Pipeline Project are taken into consideration by FERC prior to making a determination regarding issuance or denial of a Certificate of Public Convenience and Necessity (Certificate). EPA continues to recommend that FERC and the Projects Proponents continue to work closely with the regulatory agencies on permitting issues, the affected communities, and other stakeholders as the proposed Projects proceed. See the enclosure for EPA’s detailed comments.

When FERC makes its determination regarding a Certificate, please send paper copies and CDs of the determination to EPA Regional Offices as follows:

- EPA Region 5: one (1) paper copy and 2 (2) sets of CDs,
- EPA Region 4: one (1) set of CDs, and
- EPA Region 3: one (1) set of CDs.

Thank you for the opportunity to provide comment on the FEIS. If you or your staff have any questions or concerns, I can be reached at 312-886-2910, or contact Virginia Laszewski of my
staff at laszewski.virginia@epa.gov or 312-886-7501. To schedule a meeting with our headquarters office, please contact Karin Leff at jeff.karin@epa.gov or (202) 564-7068.

Sincerely,

[Signature]

Kenneth A. Westlake, Chief
NEPA Implementation Section
Office of Enforcement and Compliance Assurance

Enclosure: EPA FEIS Comments
Cc (email): Federal Energy Regulatory Commission, Juan Polit, Environmental Project Manager, (LX/RXE), juan.polit@ferc.gov
Federal Energy Regulatory Commission, Julia Yuan, Environmental Project Manager, (MXP), Julia.Yuan@ferc.gov
U.S. Army Corps of Engineers, Michael Hatten, Chief, Energy Resources, Huntington District, Michael.E.Hatten@usace.army.mil
U.S. Army Corps of Engineers, Scott Hans, Chief Regulatory, Pittsburgh District, Scott.A.Hans@usace.army.mil
U.S. Fish and Wildlife Service, Lori H. Nordstrom, Assistant Regional Director, Midwest Region Ecological Services, Bloomington, MN, lori_nordstrom@fws.gov
U.S. Fish and Wildlife Service, Jeff Gosse and Elizabeth Rigby, jeff_gosse@fws.gov and elizabeth-rigby@fws.gov
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U.S. Fish and Wildlife Service Region 3, Angela Boyer, Endangered Species Coordinator, Ohio Field Office, angela_boyer@fws.gov
U.S. Fish and Wildlife Service, Lora Zimmerman, Project Leader/Supervisor, Pennsylvania Ecological Services Field Office, lora_zimmerman@fws.gov
U.S. Fish and Wildlife Service, West Virginia Field Office, John Schmidt, Project Leader, john_schmidt@fws.gov
U.S. Fish and Wildlife Service, Kentucky Field Office, Field Supervisor, Lee Andrews, Lee_Andrews@fws.gov

Columbia Gas Transmission (Columbia Gas and Columbia Gulf Transmission (Columbia Gulf) (Projects Proponents) propose to construct and operate the following natural gas facilities (Projects):

- **Columbia Gas – Leach XPress Pipeline Project (LX):** 132 miles of new 36-inch-diameter natural gas pipeline, 24 miles of 36-inch-diameter looping pipeline, 28 miles of 20-inch-diameter pipeline to be abandoned in place, 3 new compressor stations, and appurtenant facilities including 2 existing compressor station modifications, 4 new and 1 modified regulator stations, 13 pig launcher and receiver facilities, 9 mainline valves and 4 odorization facilities in Ohio, West Virginia and Pennsylvania. Columbia Gas would abandon 28.2 miles of the existing Line R-501 in Fairfield, Hocking and Vinton Counties, Ohio and construct 24.2 miles of the R-801 Loop. The proposed LX Project’s pipeline facilities would total about 106.7 miles of pipe and add approximately 143,000 horsepower (hp) of compression to transport up to 1.5 million dekatherms (Dth/d) per day of natural gas.

- **Columbia Gulf – Rayne Xpress Expansion Project (RXE):** two new compressor stations (CS), Grayson CS in Carter County and Means CS in Menifee/Montgomery Counties in Kentucky to add 51,800 hp to enable up to 621,000 Dth/d of firm transportation on its system, and modify the existing Means measurement and regulation station (Means M&R) in Menifee County, Kentucky. Columbia Gulf proposes to modify the Supervisory Control and Data Acquisition (SCADA) system within and existing building as well as install ancillary below ground piping and minor above ground appurtenance facilities.

**Project Proponents’ Purpose and Need (FEIS page 3-1):** Columbia Gas’ and Columbia Gulf’s stated objectives of the LX and RXE Projects are to deliver up to a total of 2,121,000 Dth/d of natural gas supply from the existing production region to areas of higher demand, premium markets. (FEIS page 3-1)

**Project Proponents’ Schedule:** The FEIS (page ES-2) states that "subject to the receipt of FERC authorization and all other applicable permits, authorizations, and approvals, Columbia Gas and Columbia Gulf propose to start construction of both projects in November 2016 and continue through November 2017."

The following are EPA’s comments regarding the FEIS and include our responses for select FERC responses to EPA DEIS comments found in the FEIS, Volume II – COMMENT RESPONSES, comments/responses numbered FA2-1 through FA2-89 (pages FA-9 to FA-36).
Alternatives/Alternatives Analysis/Purpose and Need (FA2-04, FA2-05, FA2-12, FA2-13, FA2-16, FA2-17, FA2-18)
FA2-17 et al. In EPA’s comments on the Draft EIS for the LX and RXE Projects, we had recommended, in part, that FERC consider the proposed Mountaineer Xpress Pipeline (MXP) Project as a viable alternative to those other two pipeline projects. FERC responded that Mountaineer is not a viable alternative, asserting that LX and RXE have their own distinct purpose and need and distinct delivery and receipt points. However, information to document that assertion was not included in the Leach Xpress and Rayne Xpress Expansion Projects FEIS.

Recommendations: We recommend that such support information on project-specific purpose and need and delivery and receipt points, and pertinent information from project-related precedent agreements be routinely included in FERC NEPA documents for all future pipeline projects. In addition, EPA requests FERC include the specific purpose and need supporting information, including delivery and receipt points, for LX and RXE Projects in FERC’s decision document for LX and RXE and provide that information to EPA.

FA2-20, FA2-21. EPA recommended specific additional information and analysis for the FEIS to understand and compare the various above-ground facilities, such as potential locations for proposed new compressor stations. FERC responds “We find the information and analysis in the FEIS sufficient to understand and compare the alternatives.”

Recommendation: EPA continues to recommend that additional information and analysis be included in future FERC NEPA documents to increase public and stakeholder understanding and ability to thoroughly compare the alternatives.

Air Quality
FA2-15. EPA recommended the FEIS include the amount of compression for the Crawford Compression Station (CS) in Ohio. FERC responds that additional compression that will be needed is currently unknown and won’t be determined until final design.

Recommendations: EPA recommends that FERC ensure that any expansion or modification of the Crawford CS does not lead to emissions of any pollutant that may cause or contribute to emission levels which exceed the allowance permitted for the pollutant for the area from new or modified facilities in the area’s federally approved State Implementation Plan (SIP). This can best be accomplished by procuring an air permit from the Ohio Environmental Protection Agency.

Greenhouse Gas Emissions
FA2-66. The FEIS did not include estimates of the indirect GHG emissions that would be caused by the proposal and its alternatives, including effects of production, and combustion of the natural gas transported by this proposal. FERC’s response to EPA’s comments on its Draft EIS indicated non-concurrence with the recommendation to calculate the indirect emissions.

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associated with end use product combustion. Combustion of the product is a reasonably foreseeable effect of this project, and falls squarely within the obligation to consider indirect impacts under NEPA. The CEQ GHG Guidance makes this same point, and uses the end use product combustion of fossil fuel as a specific example of the kind of indirect effect that should be considered under NEPA.

Recommendation: We continue to strongly recommend that FERC include estimates of emissions from production and combustion of the natural gas transported by the proposal FA2-67. In the FEIS, FERC compares the proposal's estimated GHG emissions to state GHG emission levels. Comparing one project's direct and indirect emissions to aggregated totals is not an appropriate way to consider the impact of emissions. As CEQ stated in its final guidance, such comparisons are "not an appropriate method for characterizing the potential impacts associated with a proposed action and its alternatives and mitigations because this approach does not reveal anything beyond the nature of the climate change itself: the fact that diverse individual sources of emissions each make a relatively small addition to global atmospheric GHG concentrations that collectively have a large impact." In response to comment FA2-67, FERC cites that the draft CEQ guidance allows for the use of these types of comparisons as a frame of reference; that concept is not included in the final guidance and we recommend that this reference be removed.

Recommendation: EPA recommends that FERC follow the approach outlined by the CEQ's Final Guidance and remove comparisons to aggregated emissions levels.

Environmental Justice
FA2-63, FA2-64. EPA reviewed Section 4.9.7, Environmental Justice, of the FEIS. FERC states the following regarding potential impacts to low-income populations near the Mean Compressor Station (CS) in Menifee and Montgomery Counties, Kentucky: "Although the percentage of low-income populations is 16% above the State average, the Mean CS Project would be to expand and [sic] existing facility." This number is meaningfully greater than the reference population and FERC does not provide sufficient explanation as to why additional analysis or mitigation is excluded from the FEIS. Potential negative environmental impacts primarily focus on noise and air quality. EPA notes that low-income populations may experience disproportionately high and adverse impacts as a result of the proposed project because of infrastructure vulnerabilities (such as older housing stock) and proximity. Therefore, EPA is concerned with FERC's conclusion that impacts to low-income communities would be "minor and temporary." Based on the information provided, EPA finds it is likely that low-income populations near the Mean CS will be disproportionately impacted.

Further, while EPA acknowledges that Columbia Gas and Columbia Gulf have provided "many opportunities for public input and comments about the proposed LX and RXE Projects", it is unclear if these opportunities have been provided in a meaningful and clear way to potentially impacted low-income populations. Given the likelihood for this project to potentially disproportionately and adversely impact a low-income population, the FEIS should have demonstrated that the lead agency had attempted to meaningfully involve the community in the decision-making process, and identify appropriate mitigative measures to lessen the "minor and
temporary” adverse impacts. The EPA noted that the document mentioned “noise control measures would be implemented during project construction and operation to ensure that noise attributable to the new aboveground facilities would be either less than 55 dBA Ldn at nearby noise sensitive areas NSAs”.

Recommendations: EPA recommends FERC’s decision document for the LX and RXE Projects include information that demonstrates that FERC has attempted to meaningfully involve this community in the decision-making process. We also recommend that FERC NEPA documentation for future pipeline projects include verification of FERC’s meaningful involvement with EJ communities early and often in the decision making process. See our additional comments regarding noise impacts next.

Noise Impacts
FA2-64. Further, in regards to permanent impacts such as noise, FERC in Section 5.2 (FERC Staff Recommended Mitigation) recommendation #30 states “If the noise attributable to the operation of all of the equipment at any compressor station under interim or full horsepower load conditions exceeds 55 dBA Ldn at any nearby NSAs, Columbia Gas and Columbia Gulf shall file a report on what changes are needed and shall install the additional noise controls to meet the level within 1 year of the in-service date.”

Recommendation: The EPA recommends that the additional noise controls take place if not immediately then as soon as possible and not within one year of the in-service day. The one year period implicates additional and unnecessary burden on this population. Please remind the applicant that the Noise Control Act SEC.2 [42 U.S.C. 901] “Findings and Policy”, mentions that “the inadequately controlled noise presents a growing danger to health and welfare of the population.”

Wetlands and Streams
The FEIS (pages ES-7 and 4-51) discloses that the LX Project would affect 301 wetlands and cross 983 freshwater waterbodies. “Columbia Gas would use various crossing methods such as wet open-cut, conventional bore, and horizontal directional drilling (HDD) and follow measures outlined in the [Environmental Construction Standards] ECS and Procedures to minimize impacts on waterbodies.”

FA2-51 and FA2-55: EPA recommended the FEIS include supporting materials that document avoidance and minimization of aquatic resources. FERC responds “Permit applications filed with U.S. Army Corps of Engineers (COE), NW 12 is under the purview of COE. Section 5.2, condition 9 requires the applicants to document that they have received all applicable authorizations required under federal law (or evidence of waiver thereof). The EIS is a summary document intended to disclose the potential impacts of a proposed action and specific avoidance and minimization measures for construction of the projects are presented in the ECS and are included by reference. As such, we believe that the EIS discussion of and impacts and mitigations associated with the Section 404 and USACE NWP-12 permitting is sufficient for the purpose of the EIS under NEPA.”
Recommendation: EPA continues to recommend that supporting materials and additional information on avoidance and minimization of impacts to aquatic resources be included in FERC's environmental analysis of natural gas pipelines. This information would not only include avoidance and minimization of impacts during construction, but also support the efforts made to avoid and minimize aquatic resources impacts during the identification and analysis of alternatives.

FA2-56. In addition, the FEIS does not include the proposed wetlands compensation mitigation plan as EPA recommended.

Recommendations: EPA requests that FERC recommend that the applicant provide a copy of the proposed compensatory mitigation plan to EPA Regions 3 and 5 when it is provided to FERC and the Corps. EPA will coordinate with the Corps to provide any comments or questions as a result of our review of the compensatory mitigation plan. If FERC has not already planned to do so, please include a requirement in FERC's Certificate that the compensatory mitigation plan should be completed and approved prior to construction of the proposed Projects.

Vegetation

Forest/Interior Forest/Migratory Bird Habitat

The FEIS (page 4-61) states: "The LX Project would affect 1,380.6 acres of upland forests and two acres of wetland forest during construction." The FEIS does not include a Migratory Bird Conservation Plan with forest compensation mitigation commitments recommended and approved by the U.S. Fish and Wildlife Service.

Recommendation: EPA recommends FERC's determination regarding issuance or denial of a Certificate include consideration of the Final Migratory Bird Conservation Plan that includes forest compensation mitigation approved and agreed to by the U.S. Fish and Wildlife Service.

FA2-59. EPA recommended the FEIS include the project proponents' Invasive Species Management Plans for LX and RXE Projects. FERC responds that an Invasive Species Management Plan will be developed as part of the final wetland compensation management plan.

Recommendation: We recommend that the Invasive Species Management Plan include upland as well as wetland areas.

FA2-61. EPA recommended the FEIS include documentation that demonstrates that the project proponents commit to applying seed mixes that contain native pollinator plant species so as to benefit pollinating insect, bird and bat species. We appreciate that FERC responds they "will make a recommendation that Columbia Gas provide a revised ECS (environmental construction standards) with provisions for use of native pollinator plant species seed mix."

Recommendation: EPA recommends FERC receive Columbia Gas' revised ECS with provisions for use of native pollinator plant species seed mix for FERC consideration and prior to FERC Certificate determination.
Cumulative Impacts (FA2-77 – FA2-84)
We appreciate that FERC expanded the cumulative impact analysis to include non-jurisdictional projects.

Climate Change
FA2-84. EPA recommended the FEIS discuss the Projects Proponents’ and FERC’s consideration of the Projects’ susceptibility to impacts associated with climate change and identify mitigation measures. For example, discuss the risk of the Projects’ pipelines being exposed due to increases in flooding, scouring, and/or upland erosion due to expected heavy precipitation events associated with climate change. FERC responds “Section 4.13.5.11 of the EIS will be updated to include this information.” “Pipelines are routinely exposed to heavy rainfall events and flooding. During operation of pipelines, pipeline operators conduct routine monitoring of the right-of-way to ensure the integrity of their pipelines.” EPA’s review of the FEIS finds that there is no Section 4.13.5.11 in the FEIS and FEIS Section 4.13.6.11 – Climate Change (pages, 4-234 – 4-235) does not discuss the Projects Proponents’ and FERC’s consideration of the Projects’ susceptibility to impacts associated with climate change nor identify mitigation measures in order to help insure human life and the environment are protected. In addition, there is no information in the FEIS that shows that FERC’s and the Project Proponents “routine monitoring” protocols have incorporated climate change factors.

Recommendation: EPA recommends FERC substantiate that the applicant’s design, construction and “routine monitoring” plans have incorporated measures to address the expected increased heavy rainfall events and flooding due to climate change for this and future natural gas pipelines.

FEIS 5.0 CONCLUSIONS AND RECOMMENDATIONS

Water Resources – Surface Waters
FEIS (page 5-3) states of the FEIS states “Additional measures outlined in the ECSs would aid in the effective avoidance or minimization of impacts on surface waterbodies. Activities associated with crossing West Virginia state-designated high quality waters would be covered under the WVDNR Stream Activity Permit for Marshall and Wayne Counties, West Virginia. Columbia Gas intends to request a waiver from the fish spawning season timing restriction prior to construction. Because these time windows may differ from the time windows required by section V.B.1 of our Procedures, we require evidence of the state agency’s approval for the proposed time windows. Because Columbia Gas has not yet received its WVDNR Stream Activity Permit for the LX Project, we are unable to verify these WVDNR recommended instream work windows. Impacts associated with hydrostatic testing on public and municipal water supplies would be minimized through control measures established by Columbia Gas and Columbia Gulf in accordance with state recommendations. Accidental spills during construction and operation would be avoided through implementation of the SPCC Plan. Due to the measures discussed above, we conclude impacts on waterbodies would be adequately minimized during construction of the Projects.”
Recommendation: EPA is concerned that a waiver is being sought and recommend that FERC request that the applicant work during specified instream windows and do not request a waiver. It is unclear, as it is uncertain if a waiver will be granted, if the conclusion that impacts to waterbodies would be adequately minimized is supported.

**Surface Water Uses during Construction**

FEIS (page 5-4) states “All water used for hydrostatic testing for the LX Project would be obtained from local surface waters and municipal sources. Columbia Gas would require 42 million gallons of test water for pipeline facilities and 1 million gallons of test water for aboveground facilities. The RXE Project would obtain water from municipal sources.” No conclusions were presented for the possible combined effects of water withdrawal, instream construction, reduction of riparian areas, and changes to groundwater flow/recharge as a result of blasting.

Recommendations: EPA is concerned by potential complex impacts resulting from a combination of activities, including water withdrawals, blasting, and vegetation removal. We recommend the combination of impacts from these activities be considered, especially for sensitive resources. For the LX and RXE Projects and future pipeline projects, please include appropriate conditions to ensure continuous flow of water downstream of withdrawal zones, and any conditions to minimize or avoid loss of habitat, change in water temperature and dissolved oxygen levels, and entrainment or impingement of fish or other aquatic organisms.

**Additional Comments**

FA2-53, FA2-65. EPA recommended, in part, that FERC include the Resource Report that identifies the existing wetland conditions as an FEIS appendix and/or provide the web address as a direct link to the wetlands Resource Report. We also recommended FERC provide a direct link to the detailed emission calculations in the file on record for the construction activities identified in Table 4.11.1-6. The FEIS does not provide direct links nor include appendices with this information.

Recommendation: EPA continues to recommend FERC NEPA documents provide direct links to specific file on record information that FERC refers the reader to for further information if that information is not included in the FEIS. Providing a direct link to the specific information would save the public and regulatory agencies time when reviewing FERC’s NEPA documents.