June 6, 2022

The Honorable Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street NE, Room 1A  
Washington, D.C. 20426

Re: EPA Comments on the Draft Environmental Impact Statement (DEIS) for the Henderson County Expansion Project, FERC CP21-467-000. CEQ No. 20220054

Dear Secretary Bose:

The U.S. Environmental Protection Agency has reviewed the Federal Energy Regulatory Commission’s DEIS for the Henderson County Expansion Project proposed by Texas Gas Transmission, LLC (Texas Gas). The DEIS was reviewed pursuant to the National Environmental Policy Act, the Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and the EPA’s authority under Section 309 of the Clean Air Act.

Texas Gas proposes to construct 23.5 miles of new 20-inch-diameter pipeline, a new tie-in facility, a mainline valve, and modifications to its existing Slaughters Compressor Station in Henderson County, Kentucky (KY). This project will provide 220,000 dekatherms per day to CenterPoint Energy Indiana South to service the proposed project¹ at AB Brown Generating Station in Posey County, Indiana (IN). Texas Gas also proposes to build a new 0.5-mile 16-inch-diameter pipeline between the AB Brown Meter and Regulating (M&R) Station to the Brown Power Plant and other appurtenant facilities in Posey County, IN. In addition to the proposed action alternative, the DEIS evaluates a no-action alternative, system alternatives, and other siting/route and design alternatives based on the purpose and need. It identifies the proposed action as the preferred alternative and analyzes the potential environmental impacts associated with constructing, modifying, operating, and maintaining pipeline and appurtenant facilities located in Kentucky and Indiana.

On November 9, 2021, the EPA submitted comments during the scoping period including concerns regarding purpose and need, climate change and greenhouse gas emissions, wetlands, air, environmental justice and public involvement, methane leakage and construction. On March 31, 2022, we submitted additional comments as a cooperating agency regarding purpose and need, alternatives, noise, safety, wetlands, environmental justice and socioeconomics, air, emissions, climate change, drilling.

¹ The CenterPoint proposed project entails two new natural gas units to be built at the A.B. Brown site. The proposed project is currently before the Indiana Utility Regulatory Commission (IURC). A similar previous project was denied by IURC in 2019.
greenhouse gas and energy efficiency. The EPA appreciates FERC’s responses to many of our recommendations such as construction safety, energy efficiency, emissions, and social cost.

Based on our assessment of the environmental analysis in the DEIS, the EPA has concerns related to the analysis of greenhouse gas emissions and climate, environmental justice, noise, alternatives, land assessment, air, emergency facility operation, and impacts analysis. These concerns and associated recommendations are detailed in the enclosure for your consideration.

We appreciate the opportunity to review this DEIS and to serve as a cooperating agency on the proposed project. If you have any questions regarding our comments, please contact Maria R. Clark at clark.maria@epa.gov or (404) 562-9513.

Sincerely,

MARK FITE

Mark J. Fite
Director
Strategic Programs Office

Enclosure
Based on our review of the Commission’s DEIS, the EPA provides the following detailed explanation of identified concerns and recommendations to ensure that potential impacts to public health and the environment are fully disclosed, assessed, and mitigated, where appropriate.

1.1 Purpose and Need: The purpose and need of the project are as follows: “Texas Gas states that its Project would support CenterPoint’s AB Brown Project, which would utilize flexible natural gas combustion turbines to support CenterPoint’s new intermittent renewable resources and to replace the retiring coal-fired units.” The DEIS also states that “The Commission’s role in reviewing the details of any project is to make a determination of whether the project is in the public convenience and necessity.” Further, the section concludes, “The Commission bases its decisions on both economic issues, including need, and environmental impacts, based on the Commission’s Policy Statement.”

The EPA understands that Indiana Utility Regulatory Commission (IURC) received a similar proposal in 2018, and it was disapproved in 2019. Also, CenterPoint completed a 7-year modernization plan resulting in an increase to base rates for customers at the end of 2021. Furthermore, CenterPoint stated that they would seek to recover funds for this proposal which would probably trigger another rate hike for customers.

Recommendation: The EPA suggests that FERC delay their determination of “whether the project is in the public convenience and necessity,” until the AB Brown Project obtains IURC’s approval. The DEIS’s description and purpose of the Henderson project indicates that the need for Henderson project is dependent upon the AB Brown Project’s approval and FERC should consider recent rate hikes and the impact that has had on consumers as part of the decision-making process.

2.1.4 Land Requirements: The DEIS describes the land requirements as follows: “The Project would temporarily disturb a total of about 390.5 acres of land during construction. Following construction, about 236.2 acres of temporary workspace would be restored to pre-construction conditions and uses, to the extent practicable. The remaining 154.3 acres would be retained for operation of the Project. Land requirements for the Project are provided in table 2.1.4-1 and are further discussed throughout section 4.0. Lands affected by operation of the Project are primarily classified as agricultural and open land (131.0 acres) but also include 8.2 acres of forested uplands, 2.6 acres of wetlands, and 2.7 acres of open water.” Based on our review of the DEIS and Table 2.1.4-1 Project Area Land Requirements, information is missing regarding land that will needed for future power lines.

Recommendation: Please estimate the land to be disturbed by the construction and maintenance of the electrical power lines needed for the project.

2.1.4.1 Pipeline Facilities: The DEIS describes the rights-of-way for the Henderson project as 90 feet wide in upland areas, including agricultural land, and 75 feet wide at wetland and waterbody crossings. We also noticed that the spacing category in Appendix E describes work areas to be disturbed as “varies”, which makes it difficult to evaluate impacts when the proposed project has the potential to affect sensitive resource areas.
**Recommendation:** The EPA recommends that the project utilize smaller rights-of-way especially in environmentally sensitive areas. We recommend minimizing impacts to no more than 50 feet in these areas, if possible. Also, we noticed the need for private storage facilities, and we suggest finding disturbed land for any additional temporary workspaces outside the construction right-of-way. Options could include renting parking areas or utilizing disturbed private land that could be ecological restored at the end of the Project.

**3.0 Alternatives:** The DEIS analyzed the EPA’s suggested system alternative as a collocation alternative and deemed it impractical (See Figure 3.6-1). The DEIS analyzes Texas Gas’ 8-inch-diameter Dogtown Lateral which extends over four miles to connect with the 8-inch-diameter Southwest Division lateral. During scoping, the EPA was unaware that the lateral was extended by another supplier all the way to the AB Brown Power Plant as the maps only show the Dogtown lateral and leaves out the 8-inch-diameter Southwest Division lateral. With additional research, we noticed that no map in the DEIS shows the correct number of laterals that already exist in the project area.

**Recommendation:** The EPA requests that the FEIS include at least one map containing all existing laterals. Furthermore, due to new data, EPA recommends analyzing a new system alternative. We suggest replacing the 8-inch-diameter pipelines (Dogtown Lateral and Southwest Division lateral) with a 12-inch-diameter lateral that can then be tie to the existing 12-inch-diameter (abandoned) Slaughters-Evansville pipeline owned by Texas Gas. The 12-inch-diameter pipeline could operate the proposed maximum operating pressure of 945 psi. This alternative would eliminate the need for the proposed Henderson Lateral, avoiding new land disruption, minimizing environmental impacts and eliminating the need for groundbed placement outside the right-of-way. Additionally, if FERC determines that the Slaughters-Evansville pipeline cannot be utilized, there are two other potential laterals, the Slaughters-Hymera 16-inch pipeline, and the Slaughters-Montezuma 20-inch pipeline owned by Texas Gas that could be tied into the new Dogtown lateral.

**4.4.2.3 Water Use and Hydrostatic Testing:** This section provides information on hydrostatic testing and identified water sources. Water sources are shown in table 4.4.2-3 and include the Ohio River, municipal water, and Pond Bayou.

**Recommendation:** The EPA has expressed concerns regarding the potential impacts of withdrawing water from Pond Bayou, and we recommended exploring other options for acquiring water, such as via truck. When testing, we recommend using filters/nets at the end of pipes prior to discharging hydrostatic water to avoid metal residues contamination into receiving waters. To reduce the amount of water required for hydrostatic testing, we recommend recycling the tested water.

**4.7.2.3 Impacts on Environmental Justice Communities:** The DEIS acknowledges and concludes that:

“Although impacts associated with construction of certain Project components may be predominantly borne by environmental justice communities, impacts on environmental justice communities from the Project as a whole would not be disproportionately high and adverse.”

The EPA previously recommended that FERC engage strongly/meaningfully in public outreach by conducting public meetings (in-person and virtual), visiting affected communities, etc., to help mitigate
potential impacts on communities with environmental justice concerns that would be affected by the proposed Project. We understand that Texas Gas has committed to a variety of mitigation measures, but this DEIS does not identify input received (aside from some local environmental organizations) from overburdened communities, nor how that input was used to develop potential mitigation options.

Recommendation: In the Final EIS, please describe the input and engagement from communities with environmental justice concerns and describe how that input has been used in the suite of proposed mitigation options or to further avoid or minimize impacts to human health and the environment.

**Noise:** The DEIS states that:

“Unmitigated sound from 24-hour HDD construction, if required, would result in as much as a 17.3 decibel increase over ambient levels, which would be perceived as more than a doubling of sound. However, Texas Gas’ proposed mitigation would reduce sound from HDD construction to below 55 decibels on the A-weighted scale (dBA) day-night sound level (Ldn).”

We understand that among several commitments by Texas Gas is the offer to relocate residents affected by nighttime construction. Although moving affected residents could be perceived as a viable remedy, relocating can cause an extreme burden on families. Additionally, please note that the Clean Air Act Title IV – Noise Pollution (42 U.S.C.§7641.(c) indicates that: “In any case where any Federal department or agency is carrying out or sponsoring any activity resulting in noise which the Administrator determines amounts to a public nuisance or is otherwise objectionable, such department or agency shall consult with the Administrator to determine possible means of abating such noise.”

Recommendation: The EPA strongly recommends avoiding 24-hour construction (nighttime construction) near residential areas and especially around overburdened communities. We also recommend that the final EIS discuss any targeted outreach to communities that may be impacted by excessive noise resulting from the construction of the proposed Project to identify concerns and document community-identified or supported mitigation options. Active and meaningfully engagement should occur throughout the planning and implementation phase of the Project as well as potential monitoring of noise levels to help ensure that communities are not impacted by objectionable noise levels during construction following Project mitigation.

**4.9.2.8 Methane Challenge Program/Leak Detection and Repair and 4.9.4 Operational Emissions and Mitigation:** The DEIS asserts that the Project would be required to comply with pending regulations applicable to the projected methane emissions. Table 4.9.4-1 shows the project’s calculated emissions including pigging activities. The EPA notes that pigging facilities are releasing methane or volatile organic compound (VOC) emissions.

Recommendation: The EPA recommends FERC include mitigation measures for pigging facilities associated with the Project to prevent unnecessary methane or VOC emissions and in anticipation of

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3 Overburdened Community - Minority, low-income, tribal, or indigenous populations or geographic locations in the United States that potentially experience disproportionate environmental harms and risks ([https://www.epa.gov/environmentaljustice/ej-2020-glossary](https://www.epa.gov/environmentaljustice/ej-2020-glossary)).
new requirements. We also suggest considering using pig ramp technologies, vacuum, and compression technology (for zero emissions), and inert gas to purge the pig launcher among other proven remedies.

**4.9.2.9 State Air Quality Regulations and 4.9.3 Construction Emissions Impacts and Mitigation:**

These sections discuss temporary construction emissions from the Project. Also included are open burning activities that may occur to clear vegetation and debris. The EPA previously commented on open burning activities.

**Recommendation:** This project is in a nonattainment area for sulfur dioxide and should avoid additional emissions. Additional restrictions should be considered to avoid any incremental emissions (even temporary), and open burning to clear vegetation in this area should be avoided.

**4.9.3 and 4.9.4 Construction & Operational Emissions Impacts and Mitigation:** The DEIS includes estimates of emissions from the Project’s construction and operation. Tables 4.9.3-1, 4.9.3-2 and 4.9.4-1 provide emissions from the modified Slaughter compressor station as well as new emissions from the new lateral and associated facilities. While we appreciate the quantification of potential construction and operational emissions from the Project described in the above tables, the EPA noticed that the emissions from the new AB Brown Power Plant are missing. The DEIS has emphasized that the Henderson project is projected to be a component of the AB Brown Power Plant modifications and as such, the EIS should estimate all emissions.

Additionally, the draft EIS does not present projected emissions of each individual GHG (CO$_2$, nitrous oxide, or methane); it only expresses GHG emissions in terms of CO$_2$ equivalent values. The damage of each individual gas varies over time, so it is important to have these disaggregated in a way that is transparent to the public.

**Recommendation:** Please include the estimated emissions from the new gas turbines shown in Table 4.9.4-2 and add them to the total emissions from the Henderson Project.

Additionally, the EPA reiterates the importance of minimizing fugitive emissions such as methane from these units. We strongly recommend adopting the many technologies available to address fugitive methane emissions from compressor stations (e.g., centrifugal and reciprocating). FERC should conduct technical evaluations for each type of emission source (i.e., compressor, pigging) and recommend the most appropriate technologies. We highly recommend exploring additional technologies such as:

• capture/recover/injection technologies,
• unit depressurization to allow for the capture of blowdown emissions,
• recompression that recovers leaks across seals and reinjects it back into the system.

Regarding individual GHGs, the EPA recommends reporting each of the gasses, by year. This will ensure that the subsequent analysis and valuation can be replicated, and that the public is aware of the location and timing of emissions.

**Greenhouse Gas Emissions and Climate-Related Impacts:** The DEIS expresses project-level emissions as a percentage of national or state emissions. Conveying the information in this way inappropriately diminishes the significance of project-level greenhouse gas (GHG) emissions.
Texas Gas has specific supply sources such as Gulf South’s Perryville Exchange, Lebanon, Henry Hub, and Carthage among others. Texas Gas should know where the present supply is coming from and could evaluate upstream emissions by considering present sources.

**Recommendation:** The EPA reaffirms the suggestion that the Commission avoid expressing project-level emissions as a percentage of national or state emissions. Instead, the EPA continues to recommend disclosing the increasing conflict between GHG emissions and national, state, and local GHG reduction policies and goals, and whether there are ways to address that conflict in projects that expand and lock-in fossil fuel consuming infrastructure. These disclosures should be complemented by evaluation of inconsistencies with policy and energy use trajectories that would achieve national 2030 and 2050 GHG reduction targets, for example those in the recently published Long Term Strategy of the United States. Further, EPA reaffirms the suggestion that the EIS quantify all upstream and downstream GHG emissions by activity associated with the proposed Henderson project, as supported by the Council on Environmental Quality’s preamble to the notice of proposed rulemaking.

To evaluate the emissions impacts, the EPA recommends conducting an analysis that captures the present gas supply from Texas Gas to the AB Brown Generating Station and demand responses in various related markets that would result from the project. Further, we suggest the assessment of downstream emissions account for market-induced changes in the amount of natural gas used for winter heating, while the upstream emissions assessment would account for the net change in the number of wells and their associated emissions. This analysis would be most useful if it is developed consistent with the assumptions and methods used to evaluate the benefits of the proposed Project required by the Certificate Policy under the Natural Gas Act.

**Upstream Emissions:** Regarding the missing upstream emissions, the DEIS notes that “the specific sources of natural gas to be transported by the Project are unknown and would likely change throughout the Project’s operational lifetime. Because the source of the gas is unknown and may change throughout the life of the Project, the environmental impacts and regulatory oversight of upstream natural gas production, including hydraulic fracturing activities, are outside the scope of this EIS.” However, even if this is the case, it should be possible to get a rough estimate of upstream impacts. Based on an estimate of 220,000 dekatherms per day, the EPA estimates an upper bound of 0.415 MMT of upstream CO₂ emissions and 0.01 MMT of CH₄ emissions. Note that this is based on data from the EPA’s GHG Inventory and national figures, so regional figures may vary, especially if upstream providers take efforts to reduce fugitive emissions, as suggested.

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5 “[A]ir pollution, including greenhouse gas emissions, released by fossil fuel combustion is often a reasonably foreseeable indirect effect of proposed fossil fuel extraction that agencies should evaluate in the NEPA process, even if the pollution is remote in time or geographically remote from a proposed action. And even where an agency does not exercise regulatory authority over all aspects of a project, it may be appropriate to consider and compare the air pollution and greenhouse gas emission effects that the proposal and the reasonable alternatives would have on the environment, even if the agency does not have control over all of the emissions that the alternatives would produce. The consideration of such effects can provide important information on the selection of a preferred alternative; for example, an agency decision maker might select the no action alternative, as opposed to a fossil fuel leasing alternative, on the basis that it best aligns with the agency’s statutory authorities and policies with respect to greenhouse gas emission mitigation.” 86 FR 55757, 55763 (2021).
Recommendation: The EPA recommends estimating upstream impacts and monetizing them using the social cost of GHGs (SC-GHG).

Social Cost of GHG: The EPA was unable to replicate the SC-GHG values in the DEIS at the different discount rates presented. While we appreciate that all four discount rates are presented, we need to ensure that these numbers are consistent with the currently accepted approach. It is not clear from the DEIS if the SC-GHG is applied to the individual gasses and then summed for each discount rate, or if the carbon value is applied to the CO\textsubscript{2} equivalent. It is also not clear what operational and construction emissions are going into the SC-GHG calculations, and the time path of the different emissions is unclear. The social costs of GHG emissions presented in the DEIS therefore cannot be verified. It should be possible to replicate the SC-GHG calculations, and the inputs to that calculation should be transparent and well-specified.

On a related note, it is not clear from the tables in section 4.9 what the marginal impacts of the proposed project are, in terms of net change in operational and construction emissions. In the text, construction emissions are assumed to take place in 2023 and 2024, and on page 4-116, the DEIS states “Construction of the Project may result in emissions of up to about 9,385.2 metric tons of CO\textsubscript{2}e.” From table 4.9.3-1, total project construction emissions are stated to be 10,347.68 tons, which equals 11382.448 metric tons. The EPA is not clear why these values do not match. We are also unclear about what values were used when calculating the SC-GHG.

Also, on page 4-116, the text states “Operation and downstream emissions based upon the combustion of all potential natural gas throughput would result in emissions of up to 4.3 million metric tpy of CO\textsubscript{2}e. Alternatively, operation of the new emission sources and downstream emissions from combustion of natural gas transported by the Project based upon the equipment specifications and potential emissions presented in table 4.9.4-2, above, would result in estimated emissions of up to 2.3 million metric tpy of CO\textsubscript{2}e.” It is not clear how these values are used to calculate the reported SC-GHG estimates. It is also not clear how the estimates in the tables were converted to 4.3 million metric tons. It would help to have a clearer statement of gross emissions per year and net emissions per year. Without these missing elements, the analysis lacks transparency and is not technically defensible. Without this information, the EPA finds it difficult to verify the accuracy and representativeness of the air quality modeling to fully support and inform decisions for this project.

Recommendation: The EPA recommends clarifying the information regarding the SC-GHG values and estimates that was not clearly described in DEIS (See paragraphs above). We also note that it would be helpful to include a clearer statement of gross emissions per year and net emission per year in the final EIS.

4.11.3 Emergencies: We appreciate FERC describing the emergency shutdown process in the DEIS. However, the DEIS does not describe the secondary shutdown process that will be used if remote shutdown by an operator fails, nor does it describe the procedure for manual shutdown if the primary and secondary shutdown processes fail.

Recommendation: The EPA understands the pipeline would be shut down remotely during emergencies, and we recommend explaining how the pipeline would be shut down if the remote shutdown were to malfunction.
Additional comments:

- The DEIS describes some issues regarding cathodic protection. The EPA noticed that the cathodic protection was only mentioned for the Henderson lateral in KY. We recommend extending this protection to Underwater Cathodic protection when installing pipe under the Ohio River.
- The EPA recommends planning for targeted-tree removal around the construction area, particularly near the Ohio River to lessen the possibility of bank erosion and in forested wetlands.