May 23, 2022

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

Re: Docket No. CP19-502-000 and 001: Commonwealth LNG Project Draft Environmental Impact Statement, Cameron Parish, Louisiana

Dear Secretary Bose:

The Region 6 office of the U.S. Environmental Protection Agency (EPA) has reviewed the Federal Energy Regulatory Commission (FERC) Draft Environmental Impact Statement (EIS) (CEQ Number 20220044) for the Commonwealth LNG Project. The draft EIS was reviewed pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality regulations (40 CFR Parts 1500 – 1508), and by our NEPA review authority under Section 309 of the Clean Air Act.

Commonwealth LNG, LLC (Commonwealth) requests authorization to site, construct, and operate a natural gas liquefaction and export terminal and an integrated Natural Gas Act (NGA) Section 3 natural gas pipeline, in Cameron Parish, Louisiana. The FERC Commonwealth LNG Project consists of two main components: 1) construction and operation of the LNG export terminal, which includes six LNG plant facilities to liquefy natural gas, six tanks to store the LNG, an LNG carrier loading/berthing facility (marine facility), and other appurtenant facilities; and 2) construction and operation of 3.0 miles of 42-inch diameter pipeline and one new meter station to deliver natural gas to the Terminal. The Project would produce 8.4 million metric tonnes per annum (MTPA) of LNG for export on an average of 156 LNG carriers per year. Commonwealth proposes to use modular techniques to construct the liquefaction plants and portions of the LNG storage tanks off-site in combination with traditional on-site construction practices for other terminal and pipeline components.

The EPA’s primary concerns are with the offshore disposal of dredged material, disclosure and assessment of Greenhouse Gas Emissions and Air Quality impacts, and committing to mitigation for the potential impacts on the adjacent environmental justice community. We provide the following detailed comments for your consideration.

**Marine, Coastal and Nonpoint Source**

The EIS states, “Commonwealth would transport dredge slurry through a floating slurry pipe from the marine facility area to an approximately 1,100-acre DMPA about 500 feet offshore of the Gulf of Mexico shoreline directly south of the Terminal (west of the Calcasieu Bar Channel jetty and east of Holly Beach).” The EPA Ocean Dumping Program has previously requested “documentation to be provided that demonstrates that this material would actually deposit onto Holly Beach via new modeling efforts and/or documentation from the Venture Global LNG project which previously utilized beach nourishment for Holly Beach” during the comment...
period for the Administrative Draft Environmental Impact Statement (EIS). EPA has not received such documentation, and again requests this information to determine if the actions proposed are regulated under the Marine Protection, Research, and Sanctuaries Act (MPRSA) (also known as the Ocean Dumping Act).

**Climate Change**

EPA’s detailed comments include recommendations for consistent disclosure and consideration of upstream and downstream emissions, and analyzing greenhouse gas (GHG) emissions in the context of national GHG reduction policies and state reduction targets. Our comments also disclose the climate impacts by using the estimated social cost of GHGs, improving the application of mitigation measures, incorporating climate adaptation, and considering climate-related environmental justice.

**Greenhouse Gas Emissions and Climate-Related Impacts**

- EPA recommends that FERC avoid solely expressing project-level emissions as a fractional percentage of national or state emissions or reduction targets. This approach trivializes substantial project-scale GHG emissions and is also misleading given the nature of the climate policy challenge to reduce GHG emissions from a multitude of sources, each making relatively small individual contributions to overall GHG emissions. For example, the EIS indicates that direct emissions of the Terminal would represent 2.3 percent and 3.3 percent of Louisiana’s 2025 and 2030 reductions targets to reduce net GHG emissions 26 to 28 percent by 2025 and 40 to 50 percent by 2030 (compared to 2005 levels) and net-zero GHG emissions by 2050. However, there is no discussion whether this increase conflicts with the State reduction targets. While 2.3-3.3 percent seems like a small number, it appears substantial for a single project. EPA recommends that the EIS include a discussion of whether these increases are consistent with the State plan and in conjunction with the cumulative impacts of the numerous other LNG and pipeline development projects in the State. EPA recommends that NEPA documents discuss the conflict between GHG emissions and national, state, and local GHG reduction policies and goals, and ways that these contributions can potentially be mitigated.

- The draft EIS does not quantify the upstream and downstream emissions associated with natural gas production and use. Both upstream and downstream GHG emissions are clearly reasonably foreseeable indirect impacts for NGA section 3 projects. Whether downstream GHG emissions occur within the United States or outside of the United States is not relevant in assessing their climate impacts, given that GHGs have impacts that are global in scale. Whether a project serves domestic consumption or export would not meaningfully affect the location of upstream GHG emissions, which in most cases would be from domestic sources. Given the reasonably close causal relationship between upstream and downstream emissions and FERC’s authorization role under the NGA for section 3 projects, FERC should usefully disclose and consider, in its NEPA and NGA analyses, the often large-scale upstream and downstream emission impacts of NGA section 3 projects. Additionally, because the expected life of the Terminal and pipeline facilities is decades long, this project would effectively lock-in the production of the gas needed to support operation at the facility’s certificated capacity. In other words, the purpose of the proposed project is to liquify natural gas for transport and consumption, and that natural gas must be produced and will presumably be used.
**Adaptation and Resiliency of Project to Climate Impacts**

- EPA recommends the EIS consider and disclose climate resilience and adaption planning in the project design, including measures to be taken to ensure resilience to protect the infrastructure investment from the effects of climate change (on the project). The long-lived nature of LNG infrastructure and coastal location, makes consideration of the ongoing and projected impacts of climate change even more important. Considering potential climate change impacts helps ensure that investments made today continue to function and provide benefits, even as the climate changes. EPA recommends that the EIS specifically discuss how climate resiliency has been considered in the design of the proposed action and alternatives, and any related measures to protect against impacts from increased flooding, etc., should be discussed and included, as appropriate, in the conclusion and recommendations section, as well as any impacts these measures could have on surrounding communities. Consideration of these impacts might help avoid infrastructure investments in vulnerable locations, and unintended impacts on local communities.

**Social Cost of Greenhouse Gases – SC-GHG**

- To more fully assess climate impacts and help weigh their significance in cost-benefit balancing for a proposed project, EPA strongly recommends FERC disclose climate damages and benefits through the use of the Social Cost of GHG (SC-GHG). Such estimates reflect the best available science and methodologies to monetize the value of net changes in direct and indirect GHG emissions resulting from a proposed action to society. The estimates provide the decisionmakers and public meaningful information on the impacts of the project’s GHG emissions for NEPA purposes including disclosing GHG impacts and benefits of mitigation and for comparison across alternatives. The draft EIS reports direct annual operational CO2e emissions of about 3,382,954 metric tons CO2e/yr. Based on these estimates and the current interim SC-CO2, the present estimated monetized value of climate impacts associated with the operational emissions (over 2025 to 2050) would be approximately 4.3 billion (2020 dollars). While FERC did not provide estimates for the reasonably foreseeable indirect emissions from upstream natural gas production and downstream natural gas production, EPA notes that those emissions may be significant, and should be estimated and their impacts monetized using the SC-GHG.

**GHG and Air Quality Mitigation**

- The draft EIS only mentions carbon sequestration as a possible mitigation for the project’s GHG emissions. The EIS indicates that “Commonwealth states that carbon capture technologies are not technically feasible for the project, primarily due to the lack of existing sequestration infrastructure.” However, the draft EIS indicates that “other

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1 The interim SC-CO2 estimates are presented and described in detail in the Interagency Working Group on the Social Cost of Greenhouse Gases (IWG) February 2021 Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990, available at: https://www.whitehouse.gov/wpcontent/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf. For the calculations presented in this letter, the SC-CO2 is applied to all CO2e emissions changes because the draft EIS does not provide the emissions for each GHG separately. It would be more appropriate to apply the gas-specific social cost estimate to emissions changes of each GHG (i.e., use SC-CO2 to monetize CO2 emissions changes, and use SC-CH4 to monetize CH4 emissions changes).
LNG projects in the general Project vicinity, such as Rio Grande LNG, LLC (Docket No. CP22-17) and Venture Global’s CP2 LNG project (Docket No. CP22-21), which would be constructed about 1.5 miles from the proposed Commonwealth LNG terminal, have found that carbon capture and sequestration would be feasible for their projects and have proposed to implement it as part of their projects” (p.4-364). Hence, the statement regarding lack of infrastructure does not seem supported. EPA recommends that the EIS clarify this inconsistency, and consider adoption of all reasonably feasibly mitigation, as required under NEPA.

- The draft EIS indicates that to “identify leaking equipment such as valves, flanges, and seals, Commonwealth would use a site-specific program using a combination of design and auditory/visual/olfactory leak detection methods. Auditory/visual/olfactory leak detection would involve control system monitoring and routine visual inspections and observations (such as fluids dripping, spraying, misting, or clouding from or around components), sound (such as hissing), and smell.” EPA suggests that auditory, visual and olfactory leak detection may be inadequate for a facility of this size and the proposed quantity of methane emissions. More appropriate commercially available technologies would include optical gas imaging, point concentration sensors, hyperspectral cameras, differential absorption Lidar, and drone mounted TDLAS systems. These technologies can then be supplemented by the auditory, visual, and olfactory detection and inspection methods discussed.

- EPA encourages FERC to routinely adopt all practicable GHG mitigation measures, even where project benefits outweigh adverse environmental impacts, given the reasonableness of such measures from a public interest and necessity standpoint. We recommend that FERC consider practicable mitigation measures from Natural Gas STAR and Methane Challenge programs to reduce any potential GHG emissions attributable to the project. EPA also recommends that FERC incorporate such mitigation measures into the proposed terms and conditions required as part of certificate issuance. Potential mitigation options for FERC to consider for this proposed action include, but are not limited to, methane reduction activities to reduce emissions through several technologies and practices such as:
  - Route gas to a compressor or capture system for beneficial use; including routine venting from condensate storage tanks;
  - Using work practice standards and equipment types that minimize leaks and venting, including ultrasonic flow meters and low bleed pneumatic devices;
  - Operate storage wells below fracture pressure;
  - Perform routine leak detection at all compressor seals and wellhead components; and
  - Utilize hot tapping, a procedure that makes a new pipeline connection while the pipeline remains in service, flowing natural gas under pressure, to avoid the need to blow down gas.

More information on these and other potential mitigation measures may be found at https://www.epa.gov/natural-gas-star-program/recommended-technologies-reduce-methane-emissions
Environmental Justice

Disproportionate Impact Factors

The EIS cites the Promising Practices for EJ Methodologies in NEPA Reviews report (see Section 4.9.12.3 at p.4-171, FN65) for its decision to limit the identification of potential disproportionately high and adverse impacts to a single factor for consideration (i.e., whether the impact is predominantly borne by the community with EJ concerns). While the selected factor can play an important role in informing whether a disproportionately high and adverse impact may exist, and agencies have wide discretion regarding their environmental justice analysis methods, the rationale for limiting the analysis to this single factor is unclear. For instance, the Promising Practices report lists six factors, any of which, if met, could indicate a potential disproportionately high and adverse impact.

Visual Resource EJ Impacts

CEQ’s Environmental Justice Guidance Under the National Environmental Policy Act (1997) lists several factors for agencies to consider (three focused on human health effects and three on environmental effects) regarding disproportionately high and adverse impacts. CEQ’s environmental effects-related factors focus on whether the impacts are: 1) significant, per NEPA; 2) appreciably exceed those to the general population; or 3) occur in a community affected by cumulative or multiple exposures. Based on information provided in the EIS, the proposed project appears to meet all three of these factors for visual resources impacts to the town of Cameron and other residents of Census Tract 9702.01, Block Group 3. Therefore, EPA suggests this likely represents a disproportionately high and adverse impact.

Supplemental Analysis Supporting Visual Resource EJ Impacts

The first CEQ factor listed for considering disproportionately high and adverse impacts is whether there is a significant (per NEPA) impact to a community with EJ concerns. The EIS identifies the town of Cameron as a community with EJ concerns in the project area (p.4-179). The EIS states the “proposed Terminal would be visible to…residents of Holly Beach and Cameron” (p.4-154). The EIS concludes “the permanent changes in the viewshed, would have a permanent and significant adverse effect on those environmental justice communities near the Project” (p.4-180). This information appears to potentially meet the first factor listed in CEQ’s EJ guidance.

The second CEQ factor speaks to whether the impact to the community with EJ concerns appreciably exceeds that of the general population. The EIS states flares, lighting, and storage tanks from the project may be visible for several miles (p. 4-346) and “in general, the magnitude and intensity of the aforementioned impacts would be greater for individuals and residences closest to the Project’s facilities and would diminish with distance” (p.4-178). Cameron appears to be the town in closest proximity to the proposed project, with the nearest residence in this environmental justice Census Block Group approximately 3,300 feet away (p. ES-8). This appears to indicate the visual impacts from the project to Cameron residents may appreciably exceed those of the general population, particularly compared with block groups at the outer boundaries of the project’s 23-mile EJ analysis buffer area.

The third CEQ factor is whether the community with EJ concerns experiences cumulative or multiple impacts. The EIS states the “construction of Commonwealth, Calcasieu Pass, and CP2 would result in several industrial sites in a concentrated area” and motorists travelling “the 2.5-miles between the Cameron Ferry East Landing through the town of Cameron would have direct
views of all three facilities and associated structures” (p.4-346). “The terminals and all associated structures and buildings would be highly visible from…the town of Cameron” (p.4-352). The EIS concludes the project would result in significant cumulative visual impacts (p. 4-346). This information appears to indicate the residents of Cameron may be affected by considerable cumulative visual impacts, which would meet the third CEQ disproportionate impact factor.

We appreciate the opportunity to review the draft EIS and are available to discuss our comments. Please send our office an electronic copy of the Final EIS when it is electronically filed with the Office of Federal Activities using the following link: https://www.epa.gov/nepa/e-nepa-guide-registration-and-preparing-eis-electronic-submission. If you have any questions, please contact Gabe Gruta, project review lead at 214-665-2174 or gruta.gabriel@epa.gov.

Sincerely,

WILLIAM
HAYDEN
for Robert Houston
Staff Director
Office of Communities, Tribes and Environmental assessment