

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

In Reply Refer To:
OEP/DG2E/Gas Branch 3
Florida Southeast Connection,
LLC; Transcontinental Gas Pipe
Line Company, LLC; Sabal Trail
Transmission, LLC
Docket Nos. CP14-554-002;
CP15-16-003; CP15-17-002

TO THE PARTY ADDRESSED:

The staff of the Federal Energy Regulatory Commission (FERC or Commission) has prepared the enclosed draft supplemental environmental impact statement (SEIS) to address the August 22, 2017 Opinion issued by the United States Court of Appeals for the District of Columbia regarding the Commission's environmental review of the Southeast Market Pipelines (SMP) Project.

On December 18, 2015, the Commission issued the Final Environmental Impact Statement (FEIS) for the SMP Project. The enclosed draft SEIS incorporates by reference and expands the analysis contained within the FEIS. The draft SEIS estimates the greenhouse gas emissions generated by the SMP Project's customers' downstream facilities, describes the methodology used to determine these estimates, discusses context for understanding the magnitude of these emissions, and addresses the value of using the social cost of carbon tool.

Commission staff has mailed copies of the draft SEIS to federal, state, and local government representatives and agencies; elected officials; environmental and public interest groups; Native American tribes; potentially affected landowners and other interested individuals and groups; newspapers and libraries in the project area; and parties to this proceeding. Additionally, the draft SEIS is available for public viewing on the FERC's website (www.ferc.gov) using the eLibrary link. A limited number of copies are available for distribution and public inspection at:

Federal Energy Regulatory Commission
Public Reference Room
888 First Street NE, Room 2A
Washington, DC 20426
(202) 502-8371

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Any person wishing to comment on the draft SEIS may do so. The Commission will only consider comments on the draft SEIS, and not on the FEIS or the Commission's orders in this proceeding, on which the public has already been provided the opportunity to comment. Comments on the draft SEIS must be filed on or before **November 20, 2017**. While the Commission makes every effort to consider all comments, it cannot guarantee that late comments will be considered.

For your convenience, there are three methods you can use to submit your comments to the Commission. In all instances, please reference docket numbers CP14-554-002; CP15-16-003; and CP15-17-002 with your submission. The Commission encourages electronic filing of comments and has expert staff available to assist you at (202) 502-8258 or FercOnlineSupport@ferc.gov. Please carefully follow these instructions so that your comments are properly recorded.

- 1) You can file your comments electronically using the eComment feature on the Commission's website (www.ferc.gov) under the link to Documents and Filings. This is an easy method for submitting brief, text-only comments on a project;
- 2) You can file your comments electronically by using the eFiling feature on the Commission's website (www.ferc.gov) under the link to Documents and Filings. With eFiling, you can provide comments in a variety of formats by attaching them as a file with your submission. New eFiling users must first create an account by clicking on "eRegister." If you are filing a comment on a particular project, please select "Comment on a Filing" as the filing type; or
- 3) You can file a paper copy of your comments by mailing them to the following address. Be sure to reference the project docket numbers (CP14-554-002, CP15-16-003, and CP15-17-002) with your submission:

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

Questions?

Additional information about the SMP Project is available from the Commission's Office of External Affairs, at **(866) 208-FERC**, or on the FERC website (www.ferc.gov) using the eLibrary link. Click on the eLibrary link, click on "General Search," and enter the docket number excluding the last three digits in the Docket Number field (i.e., CP14-554, CP15-16, and CP15-17). Be sure you have selected an appropriate date range.

For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov or toll free at (866) 208-3676; for TTY, contact (202) 502-8659. The eLibrary link also provides access to the texts of formal documents issued by the Commission, such as orders, notices, and rulemakings.

In addition, the Commission offers a free service called eSubscription that allows you to keep track of all formal issuances and submittals in specific dockets. This can reduce the amount of time you spend researching proceedings by automatically providing you with notification of these filings, document summaries, and direct links to the documents. Go to www.ferc.gov/docs-filing/esubscription.asp.

SOUTHEAST MARKET PIPELINES PROJECT

Draft Supplemental Environmental Impact Statement

INTRODUCTION

The Southeast Market Pipelines Project (SMP Project) is composed of three separate, but related, interstate natural gas transmission pipeline projects subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC or Commission). These projects are: Transcontinental Gas Pipe Line Company, LLC's (Transco) Hillabee Expansion Project in Docket No. CP15-16-000; Sabal Trail Transmission, LLC's (Sabal Trail) Sabal Trail Project in Docket No. CP15-17-000; and Florida Southeast Connection, LLC's (FSC) Florida Southeast Connection Project in Docket No. CP14-554-000. Together, these projects involve the construction and operation of approximately 685 miles of pipeline and associated facilities including compressor stations, valves, and inspection equipment.

In compliance with the National Environmental Policy Act (NEPA), Commission staff prepared a draft and final environmental impact statement to identify and assess potential impacts on the natural and human environment resulting from construction and operation of the SMP Project; describe and evaluate reasonable alternatives to the SMP Project; identify and recommend specific mitigation measures to avoid or reduce/minimize environmental impacts; and encourage and facilitate involvement by the public and interested agencies in the environmental review process.

Commission staff issued the final environmental impact statement (FEIS) for the SMP Project in December 2015. The Commission issued an Order Issuing Certificates and Approving Abandonment (Order) in February 2016, and on September 7, 2016, an Order Denying Rehearing. Project construction began in August 2016, and in June and July 2017, Commission staff authorized the pipelines to commence service on completed facilities. In August 2017, the United States Court of Appeals for the District of Columbia Circuit remanded the Commission's orders for preparation of a supplemental environmental impact statement consistent with the court's opinion.

The analysis provided in this draft supplemental environmental impact statement (SEIS) was prepared to supplement the information and analyses contained within the December 2015 FEIS for the SMP Project, which discussed the direct greenhouse gas (GHG) emissions of the SMP Project and summarized climate change impacts on Florida. The cumulative impacts analysis presented in the FEIS included air emissions from the known power plants served by the SMP Project. However, GHG emissions; carbon dioxide (CO₂), methane, and nitrous oxide associated with use and combustion of

the natural gas to be transported by the SMP Project were excluded from that analysis. The analysis in this draft SEIS focuses on downstream GHG emissions and discusses the potential cumulative impacts of these emissions.

As described in the executive summary of the FEIS, and based on the environmental analysis section of the FEIS and this draft supplemental environmental impact statement (SEIS), we conclude that constructing and operating the SMP Project would result in temporary and permanent impacts on the environment. We also conclude that with the applicants' implementation of their respective impact avoidance, minimization, and mitigation measures, as well as their adherence to the measures we have required to further avoid, minimize, and mitigate these impacts, operating the SMP Project would not result in a significant impact on the environment.

GREENHOUSE GAS EMISSIONS

As of May 2017, natural gas represents Florida's largest electric generation source at 69 percent of total generation. Coal-fired and nuclear power represent 15 and 13 percent, respectively, and non-hydroelectric renewable generation represents 2 percent. Since 1980, electric generation has represented between 41 to 51 percent of total GHG emissions from Florida. Florida emissions of GHG as a whole and from the electric power sector peaked in 2006.¹

Over the next 5 years, available data indicates a Florida power generation trend toward retiring coal and oil facilities and replacing that capacity with natural gas and renewable energy. Florida is projected to retire 4,100 megawatts (MW) of power generation capacity, including 2,718 MW from coal, 1,348 MW from natural gas, and 34 MW from fuel oil. At the same time, 5,561 MW² of new generation capacity is projected to be added for a net increase of 1,461 MW. The new capacity is expected to be principally from natural gas (3,395 MW) and solar (1,846 MW), with biomass and landfill gas units making up an additional 320 MW.³

The SMP Project would have the potential to increase the flow of natural gas into Florida by 1.1 billion cubic feet per day (bcf/day). Three power plants have been specifically identified as end-use consumers of the SMP volumes: the new Florida Power and Light Company (FPL) Okeechobee Clean Energy Center; the Duke Energy Citrus County Combined Cycle Plant; and the existing FPL Martin County Power Plant. Service to these power plants was the primary purpose for which the SMP Project was

¹ Velocity Suite ABB.

² This estimate includes the Duke Energy, Citrus County Combined Cycle Plant but not the Martin County Power Plant nor Okeechobee Clean Energy Center as these are in operation.

³ Velocity Suite, ABB.

constructed. In addition, approximately 100 million cubic feet per day (MMcf/d) of the SMP Project capacity is unsubscribed.

We consider downstream GHG emissions to be a combination of potential-to-emit (PTE)⁴ GHG emissions from the three power plants plus an assumed full combustion of the remaining 100 MMcf/d of natural gas. Table 1 provides the PTE GHG emissions, as carbon dioxide equivalents⁵ (CO_{2e}), for the three power plants (as provided in the Florida Department of Environmental Protection air quality permits), quantifies the potential CO_{2e} emissions from consumption of the unsubscribed volume,⁶ and provides the known reductions in GHG emissions resulting from the projected displacement of coal or oil as the primary fuel.⁷

Facility	Annual CO_{2e} (million metric tons)¹
FPL Okeechobee Clean Energy Center	5.46
Duke Energy Citrus County Combined Cycle Plant	5.64
FPL Martin County Power Plant	1.40
Uncommitted capacity	2.0
Total Downstream CO₂ Emissions	14.5
Duke Energy Citrus County coal retirement change	-3.87
FPL Martin County change due to switch from oil/natural gas to only natural gas	-2.27
Net Increase in Downstream Permitted Emissions	8.36

¹Annual potential-to-emit emissions from Florida Department of Environmental Protection air quality permits.

We note that it is unlikely that the full capacity of the power plants would be utilized at all times. When the power plants are not running at full power, the gas could be sold to other customers. As the power plants' utilization of the SMP Project will vary, we also calculated the GHG emissions from combustion of the total pipeline capacity

⁴ PTE refers to the Permitted facility's operational emissions at 8,760 hours per year.

⁵ Emissions of GHGs are typically expressed in terms of CO_{2e}, where the potential of each gas to increase heating in the atmosphere is expressed as a multiple of the heating potential of CO₂ over a specific timeframe, or its global warming potential (GWP). The 100-year GWP of CO₂ is 1, CH₄ is 25 and N₂O is 298.

⁶ From https://www.eia.gov/totalenergy/data/monthly/pdf/sec13_4.pdf, and <https://www.epa.gov/sites/production/files/2016-04/documents/us-ghg-inventory-2016-annex-2-emissions-fossil-fuel-combustion.pdf>.

⁷ Derived from existing and proposed Florida Department of Environmental Protection air quality permits for each facility.

(full burn) and determined that such downstream consumption could produce up to a maximum of 22.1 million metric tons of CO_{2e} per year.

In an effort to provide some context to the GHG emissions from the SMP Project, we provide the GHG inventory for both the State of Florida and at a national level. We used 2014 GHG inventory data from the Energy Information Administration (EIA) for our analysis.⁸ The EIA inventory identified that fossil-fuel related sources emitted 228 million metric tons of GHGs in Florida in 2014. Table 2 compares the range of downstream emissions to this inventory and identifies the potential increase in relative GHG emissions in Florida as well as the 2015 National GHG inventory of 5.4 billion metric tons per year.⁹

Table 2			
	Net PTE Emissions¹	Gross PTE Emissions	Full Burn Emissions
GHG Volume (Million Metric tons per year)	8.36	14.5	22.1
Percentage of 2014 Florida Inventory	3.7	6.4	9.7
Percentage of 2015 National Inventory	0.02	0.27	0.41
¹ These projections account for the offset from coal retirement and oil to natural gas conversion.			

Based on this analysis, we estimate that the downstream use of the natural gas to be transported by the SMP Project would potentially increase the Florida GHG emission inventory between 3.7 and 9.7 percent. As previously indicated, we note that the latter figure represents an unlikely, upper bound scenario.

We could not find a suitable method to attribute discrete environmental effects to GHG emissions. The atmospheric modeling used by the Intergovernmental Panel on Climate Change, Environmental Protection Agency, National Aeronautics and Space Administration and others is not reasonable for project-level analysis for a number of reasons. For example, these global models are not suited to determine the incremental impact of individual projects, due both to scale and overwhelming complexity. We reviewed simpler models and mathematical techniques to determine global physical effects caused by GHG emissions, such as increases in global atmospheric CO₂ concentrations, atmospheric forcing, or ocean CO₂ absorption. We could not identify a reliable, less complex model for this task and we are not aware of a tool to meaningfully

⁸ Derived from existing and proposed Florida Department of Environmental Protection air quality permits for each facility.

⁹ https://www.epa.gov/sites/production/files/2017-02/documents/2017_complete_report.pdf

attribute specific increases in global CO₂ concentrations, heat forcing, or similar global impacts to SMP Project GHG emissions. Similarly, the ability to determine localized or regional impacts from GHGs by use of these models is not possible at this time.

SOCIAL COST OF CARBON

The Interagency Working Group on Social Cost of Greenhouse Gases¹⁰ developed a tool to estimate the social cost of carbon (SCC). The SCC tool attempts to quantify the comprehensive costs associated with a project's carbon dioxide emissions.¹¹ The SCC tool provides monetized values for addressing climate change impacts on a global level.

While we recognize the availability of this tool, it is not appropriate for use in any project-level NEPA review for the following reasons: (1) the U.S. Environmental Protection Agency (EPA) states that “no consensus exists on the appropriate [discount] rate to use for analyses spanning multiple generations”¹² and consequently, significant variation in output can result;¹³ (2) the tool does not measure the actual incremental impacts of a project on the environment; and (3) there are no established criteria identifying the monetized values that are to be considered significant for NEPA reviews. The SCC tool may be useful for rulemakings or comparing regulatory alternatives using cost-benefit analyses where the same discount rate is consistently applied; however, it is not appropriate for estimating a specific project's impacts or informing our analysis under NEPA.

¹⁰ Interagency Working Group on Social Cost of Carbon consisted of the Council of Economic Advisers, Council on Environmental Quality, Department of Agriculture, Department of Commerce, Department of Energy, Department of Transportation, Environmental Protection Agency, National Economic Council, Office of Energy and Climate Change, Office of Management and Budget, Office of Science and Technology Policy, and the Department of the Treasury.

¹¹ The social cost of carbon only addresses impacts from CO₂, not methane, N₂O or other GHGs.

¹² See Fact Sheet: Social Cost of Carbon issued by EPA in November 2013, available at <http://www.epa.gov/climatechange/Downloads/EPAactivities/scc-fact-sheet.pdf>.

¹³ Depending on the selected discount rate, the tool can project widely different present day cost to avoid future climate change impacts.