

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

<b>Alberta Xpress and Lease Capacity</b>	)	<b>Docket No. CP20-484-000 &amp;</b>
<b>Abandonment Projects</b>	)	<b>CP20-486-000</b>
<b>Draft Environmental Impact Statement</b>	)	

**COMMENTS OF THE INSTITUTE FOR POLICY  
INTEGRITY AT NEW YORK UNIVERSITY SCHOOL OF LAW**

The Institute for Policy Integrity at New York University School of Law (Policy Integrity)<sup>1</sup> respectfully submits this comment letter on the Federal Energy Regulatory Commission’s (FERC or the Commission) draft environmental impact statement for the Alberta Xpress and Lease Capacity Abandonment Projects.<sup>2</sup> Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy. Policy Integrity frequently submits comments to federal agencies on the consideration of climate change impacts under the National Environmental Policy Act (NEPA) and the Natural Gas Act (NGA).

The Commission prepared the draft environmental impact statement to “provide[] additional discussion of climate change impacts in the region,” and to “disclose downstream greenhouse gas emissions for the projects.”<sup>3</sup> FERC implies that climate change impacts from the projects may be significant.<sup>4</sup> Yet while the environmental impact statement takes the helpful step of quantifying downstream greenhouse gas emissions, it concludes that “FERC staff continues to

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<sup>1</sup> This document does not purport to represent the views, if any, of New York University School of Law.

<sup>2</sup> Fed. Reg. Energy Comm’n, Alberta Express and Lease Capacity Abandonment Projects Draft Environmental Impact Statement (Docket No. CP20-484-000 & CP20-485-000) (July 2021) [hereinafter “DEIS”].

<sup>3</sup> *Id.* at 1.

<sup>4</sup> *Id.* (“With the exception of climate change impacts, the FERC staff concludes that approval of the proposed projects, with the mitigation measures recommended in the EIS, would not result in significant environmental impacts.”).

be unable to determine significance with regards to climate change impacts.”<sup>5</sup> The draft environmental impact statement also fails to quantify upstream emissions, assess the Project’s incremental climate harms, or consider avenues to mitigate its greenhouse gas contributions.

The Commission’s new approach to assessing climate impacts takes the legally required step of quantifying direct and downstream emissions using some reasonable assumptions.

However, the Commission’s new “eyeball test” fails to meet the Commission’s statutory mandate to adequately assess environmental impacts of natural gas projects that it certifies.

This comment letter offers the following points:

- The Commission should quantify upstream greenhouse gas emissions in addition to operational and downstream emissions.
- Application of the social cost of greenhouse gases would enable the Commission to assess the significance of the Project’s climate impacts and facilitate the careful balancing that the NGA requires. A Commission analysis was recently rejected by the U.S. Court of Appeals for the District of Columbia Circuit for failing to adequately justify its disregard for the social cost of greenhouse gases, and the Commission’s recent objections to the tool are unpersuasive.
- The Commission’s approach of comparing the Project’s emissions to national and state emission totals and targets does not facilitate meaningful review and can trivialize climate impacts if not properly contextualized.
- The Commission should consider mitigation measures for the Project’s greenhouse gas emissions, particularly since it cannot conclude that those emissions are insignificant.

These points amplify the arguments in two comment letters that Policy Integrity filed with the Commission in May 2021 in response to the Commission’s Notice of Inquiry regarding certification of new interstate natural gas facilities, one of which Policy Integrity filed alone (Solo Comments)<sup>6</sup> and the other it filed with seven other environmental groups (Joint

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<sup>5</sup> *Id.*

<sup>6</sup> Comments of the Inst. for Pol’y Integrity, *Certification of New Interstate Natural Gas Facilities*, Docket No. PL18-1 (May 26, 2021) [hereinafter Solo Comments on Notice of Inquiry] (attached).

Comments).<sup>7</sup> We attach those comments hereto, along with a 2019 report from Policy Integrity titled *Pipeline Approvals and Greenhouse Gas Emissions*.<sup>8</sup>

**A. The Commission Should Quantify the Project’s Upstream Greenhouse Gas Emissions**

Although the draft environmental impact statement takes the helpful step of quantifying both operational and downstream greenhouse gas emissions from the Project, the Commission’s analysis overlooks upstream greenhouse gas emissions. While no rationale was provided for the omission in this draft environmental impact statement, in another recent draft environmental impact statement, the Commission justified the same failure by arguing that “[b]ecause the source of the gas is unknown and may change throughout the life of the [Iroquois Compression] Project, analysis of specific environmental impacts of upstream natural gas production are not included.”<sup>9</sup> This justification for disregarding upstream emissions mirrors the Commission’s bygone justification from previous analyses for overlooking downstream emissions, in which the Commission claimed that it could not assess downstream emissions because it lacked precise end-use information. But like with downstream emissions, upstream emissions can also be estimated by applying reasonable default estimates.

For instance, the Environmental Protection Agency (EPA) provides a set of methods and emission factors that can be used to calculate the quantity of greenhouse gases emitted by oil and gas production wells, gathering lines, and processing facilities—which EPA advised the Commission about in 2018 comments to the Notice of Inquiry regarding the policy statement for

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<sup>7</sup> Comments of Env’t Def. Fund et al., *Certification of New Interstate Natural Gas Facilities*, Docket No. PL18-1 (May 27, 2021) [hereinafter Joint Comments on Notice of Inquiry] (attached). This comment letter corrected a prior submission that was timely filed to the same docket on May 26, 2021 (but failed to include one of the signatories, necessitating the correction).

<sup>8</sup> JAYNI HEIN ET AL., INST. FOR POL’Y INTEGRITY, PIPELINE APPROVALS AND GREENHOUSE GAS EMISSIONS (2019) (attached).

<sup>9</sup> Fed. Energy Reg. Comm’n, Enhancement by Compression Project Draft Environmental Impact Statement 14 (Docket No. CP20-48-000) (June 2021) [hereinafter Iroquois DEIS].

natural gas infrastructure.<sup>10</sup> Alternatively, and as the EPA recommended in its recent comments regarding the East Lateral Xpress Project draft environmental impact statement,<sup>11</sup> the Commission could return to its past practice of using generic estimates for upstream emissions from natural gas production developed by the Department of Energy’s National Energy Technology Laboratory and Energy Information Agency.<sup>12</sup> While there is some variation in emission rates among sources, production sources need not be known with certainty in order to be useful in a NEPA analysis or when making a determination that a project is required by the public convenience and necessity. And the Commission must engage in reasonable forecasting of emissions—including using national average or regional average emission rates—when tools are available.<sup>13</sup>

Indeed, other federal agencies have applied reasonable assumptions to assess the upstream emissions from fossil-fuel transmission and transportation projects. For instance, the State Department’s 2014 supplemental assessment of the Keystone XL pipeline included direct construction and operating emissions, including fugitive emissions, as well as indirect emissions from production, refining, and combustion of the oil transported by the pipeline.<sup>14</sup> Likewise, the Surface Transportation Board projects direct, upstream, and downstream greenhouse gas

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<sup>10</sup> Comments of the U.S. Env’t Prot. Agency on FERC NOI for Policy Statement on New Natural Gas Transportation Facilities at 2, *Certification of New Interstate Natural Gas Facilities*, Docket No. PL18-01 (June 21, 2018) (discussing EPA regulations at 40 C.F.R. Part 98 Subpart W).

<sup>11</sup> Comments of the U.S. Env’t Prot. Agency on the Draft Environmental Impact Statement for the East Lateral Xpress Project at 2, *Columbia Gulf Transmission, LLC*, Docket No. CP20-527 (Aug. 16, 2021) [hereinafter EPA East Lateral Xpress Project EIS Comments] (also noting that “[o]mitting such emissions would result in an underestimation of likely environmental effects”).

<sup>12</sup> New Market Project Rehearing Order, 163 FERC ¶ 61,128, at 2–3 & n. 5–6 (LaFleur, Comm’r, dissenting in part) (identifying available tools and previous Commission orders utilizing those tools).

<sup>13</sup> *Sierra Club v. FERC (Sabal Trail)*, 867 F.3d 1357, 1374 (D.C. Cir. 2017) (“NEPA analysis necessarily involves some reasonable forecasting, and that agencies may sometimes need to make educated assumptions about an uncertain future.”) (internal quotation marks omitted).

<sup>14</sup> U.S. State Dept., Final Supplemental Environmental Impact Statement for the Keystone XL Pipeline at 4.14-4 (2014), <https://2012-keystonepipeline-xl.state.gov/documents/organization/221190.pdf>.

emissions for rail lines that regularly transport coal.<sup>15</sup> Following this precedent, the Commission should assess the Project’s upstream greenhouse gas emissions and take those emissions into account when assessing whether and on what terms and conditions to approve the Project.

**B. The Commission Should Apply the Social Cost of Greenhouse Gases to Assess and Contextualize the Project’s Climate Impacts**

While the Commission asserts that “staff have not identified a methodology to attribute discrete, quantifiable, physical effects on the environment resulting from the Project’s incremental contribution to [greenhouse gases],”<sup>16</sup> the social cost of greenhouse gases offers precisely that tool. In fact, in the recent draft environmental impact statement for the Iroquois Compression Project, the Commission acknowledged that the social cost of greenhouse gases “constitute[s] a tool that can be used to estimate incremental physical climate change impacts, either on the national or global scale.”<sup>17</sup> And as Policy Integrity and numerous other groups explained in the Joint Comments to FERC’s Notice of Inquiry, the social cost of greenhouse gases can be applied to fulfill the Commission’s duty under the NGA and NEPA to meaningfully assess and weigh climate impacts.<sup>18</sup>

While the Commission does not address the social cost of greenhouse gases in this draft environmental impact statement, it recently raised several objections to the social cost of greenhouse gases methodology in the Iroquois Compression Project docket and several other dockets, arguing that the tool “does not meaningfully inform the Commission’s decision whether and how to authorize a proposed project under the NGA”; is not relevant because the Commission “does not use monetized cost-benefit analyses as part of the review”; and features

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<sup>15</sup> HEIN ET AL., *supra* note 8, at 17 (providing examples).

<sup>16</sup> DEIS, *supra* note 2, at 17.

<sup>17</sup> Iroquois DEIS, *supra* note 9, at 13.

<sup>18</sup> *See* Joint Comments on Notice of Inquiry, *supra* note 7, at 2–12.

“methodological limitations,” including “substantial variation in results and no basis . . . to designate a particular monetized value as significant.”<sup>19</sup> As detailed below, however, these arguments are also unpersuasive in the context of this Project.<sup>20</sup>

**1) The social cost of greenhouse gases contextualizes climate impacts and readily facilitates comparison to other project effects**

While the basis for the Commission’s first objection is not entirely clear, the social cost of greenhouse gases in fact can meaningfully inform the Commission’s decision as to whether and on what terms and conditions to authorize the Project.

For one, the social cost of greenhouse gases allows for a clearer understanding of a project’s climate impacts because it captures many important incremental climate impacts and presents them in the common metric of money. The relative significance of, for instance, 20,000 additional tons of carbon dioxide per year versus 2 million additional tons per year may be somewhat challenging to discern because such emission tallies may seem opaque and incommensurate with other project impacts. In contrast, the relative significance of \$1 million per year in climate damages versus \$100 million per year in climate damages is more salient and easier to discern because it is presented in the common metric of money—a metric that an economic regulator like the Commission is very familiar with and routinely uses to measure other project impacts. And because the social cost of greenhouse gases captures so many key climate impacts within a single metric, it allows the Commission (and, importantly, the affected public) to understand the scope of those impacts better than individualized projections of climate

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<sup>19</sup> Iroquois DEIS, *supra* note 9, at 3.

<sup>20</sup> For additional argument as to why the Commission should apply the social cost of greenhouse gases—including responses to other concerns that the Commission has previously expressed—see HEIN ET AL., *supra* note 8, at 37–51.

impacts (such as temperature increase or sea-level rise) or volumized greenhouse gas emissions standing alone, and can facilitate a more meaningful comparison to monetized project benefits.<sup>21</sup>

Use of the social cost of greenhouse gases can also help facilitate the “hard look” at climate impacts that NEPA requires.<sup>22</sup> Under NEPA, agencies must “consider and disclose the actual environmental effects” of a proposed project in a way that “brings those effects to bear on [the agency’s] decisions.”<sup>23</sup> As the Commission itself has acknowledged, the social cost of greenhouse gases can assess the actual climate change impacts of a project proposal.<sup>24</sup>

**2) The social cost of greenhouse gases is useful outside of formal cost-benefit analysis and can facilitate a rational balancing of beneficial and adverse impacts**

While the Commission does not apply formal cost-benefit analysis to assess the Project’s merit, it must broadly weigh beneficial and adverse impacts as part of its mandate to promote the “public convenience and necessity.”<sup>25</sup> As the U.S. Court of Appeals for the District of Columbia Circuit has explained, the Commission must “balance the public benefits against the adverse effects of the project . . . including adverse environmental effects”—requiring it to fully assess the “environmental effects of pipelines it approves,” including climate harms.<sup>26</sup> Because the social cost of greenhouse gases offers a simple and salient metric to comprehend the scope of the Project’s climate harms—and is presented in a unit (dollar values) that mirrors the unit used for

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<sup>21</sup> For further detail, see Joint Comments on Notice of Inquiry, *supra* note 7, at 8–12.

<sup>22</sup> *See generally* *Balt. Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 97 (1983) (mandating “hard look” assessment under NEPA).

<sup>23</sup> *Id.* at 96.

<sup>24</sup> *See supra* note 17 and accompanying text.

<sup>25</sup> 15 U.S.C. § 717f(e).

<sup>26</sup> *Sabal Trail*, 867 F.3d at 1373 (internal quotation marks omitted).

other economic considerations the Commission weighs—it can inform a determination of public convenience and necessity even if it is not incorporated into a formal cost-benefit analysis.<sup>27</sup>

Applicable NEPA regulations confirm that even if the Commission does not monetize all other Project impacts, the social cost of greenhouse gases can still constitute the best method to assess the significance of the Project’s climate-related impacts. Specifically, these regulations provide that when monetization of costs or benefits is “relevant to the choice among environmentally different alternatives,” that analysis can be presented alongside “any analyses of unquantified environmental impacts, values, and amenities.”<sup>28</sup> In other words, contrary to FERC’s suggestion, the inability or unwillingness to monetize some impacts does not preclude the monetization of other impacts—like climate damages—that can be readily monetized.

### **3) The social cost of greenhouse gases is rigorous and reliable**

While the Commission’s last objection to the social cost of greenhouse gases emphasizes supposed “methodological limitations” such as “substantial variation in results” depending on the discount rate and a lack of basis “to designate a particular monetized value as significant,”<sup>29</sup> this too misses the mark.

While it is true that different discount rates introduce the possibility of varying social cost values, the Interagency Working Group on the Social Cost of Greenhouse Gases (Working Group) has endorsed the use of a 3% discount rate as a central value, and agencies have frequently relied on that discount rate in assessing the climate cost or benefit of a proposed

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<sup>27</sup> *Accord* EPA East Lateral Xpress Project EIS Comments, *supra* note 11, at 3 (“[E]ven absent a full monetary benefit-cost analysis, SC-GHG estimates can be informative for project level analysis and are regularly used to inform decisions like those being considered by FERC by incorporating the impacts of GHG emissions.”).

<sup>28</sup> 40 C.F.R. § 1502.22.

<sup>29</sup> *Iroquois DEIS*, *supra* note 9, at 3.



action, including non-regulatory actions.<sup>30</sup> Thus, while the Commission could apply the Working Group’s full range of social cost values at different discount rates, it could alternatively conduct a single analysis using only the central value if it finds that approach more useful.<sup>31</sup> Note that the Working Group is currently in the process of updating its social cost of greenhouse gases valuations to incorporate the most up-to-date science and economics;<sup>32</sup> if it revises its recommended central discount rate as part of that update, the Commission and other agencies should follow suit.

While the Commission is also correct that the social cost of greenhouse gases does not itself “designate a particular monetized value as significant,” this is not a modeling limitation because assessing significance is a legal conclusion that requires reasoned judgment by the Commission.<sup>33</sup> All environmental and economic impacts present the same line-drawing challenge in this regard, yet this has not prevented the Commission from assessing the significance of non-monetized environmental impacts, nor has it prevented the Commission from assessing the significance of monetized values when it comes to a proposal’s beneficial economic impacts. To the contrary, on numerous occasions the Commission has labeled monetized economic impacts of roughly \$8–\$20 million as “significant,” despite the lack of

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<sup>30</sup> See, e.g., Bureau of Land Mgmt., Environmental Assessment for Little Willow Creek Protective Oil and Gas Leasing 81 (DOI-BLM-ID-B010-2014-0036-EA) (Feb. 10, 2015) (using central 3% value to calculate climate harms from oil and gas lease sale); see also Peter Howard & Jason A. Schwartz, *Think Global: International Reciprocity as Justification for a Global Social Cost of Carbon*, 42 COLUM. J. ENV’T L. 203, 270–84 (2017) (listing all uses of social cost of greenhouse gases by federal agencies through mid-2016, including eight assessments conducted under NEPA).

<sup>31</sup> See *Vecinos para el Bienestar de la Comunidad Costera v. FERC*, No. 20-1045, slip op. at 12 (D.C. Cir. Aug. 3, 2021) (explaining that FERC could “cho[ose] a discount rate according to recommendations by the Office of Management and Budget in 2013, see Office of Mgmt. & Budget, Office of the President, OMB Circular A–4, at 30–35, or else used a range of rates, and articulated its own criteria for assessing the significance of the projected costs of the projects’ greenhouse gas emissions.”).

<sup>32</sup> The Working Group is expected to release updated estimates by January 2022.

<sup>33</sup> *Spiller v. White*, 352 F.3d 235, 244 n.5 (5th Cir. 2003) (“[D]etermining whether significance exists inherently involves some sort of a subjective judgment call.”); see also 40 C.F.R. § 1501.3(b) (“In considering whether the effects of the proposed action are significant, agencies shall analyze the potentially affected environment and degree of the effects of the action.”).

either clear precedent or a purely objective basis for concluding as such.<sup>34</sup> To facilitate an evenhanded and consistent comparison, the Commission should do the same with monetized climate costs. Even smaller damage estimates could be relevant to assess whether and on what terms to approve a certificate application, particularly where estimated project benefits are relatively minor.<sup>35</sup>

In this case, the Project's climate impacts from operational and downstream emissions, assuming full burn (i.e., all the gas transported is eventually combusted),<sup>36</sup> total over \$185 million in climate damage costs per year, according to the Working Group's central estimate of the social cost of greenhouse gases<sup>37</sup>—meaning that the Project could cause at least \$3.33 billion

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<sup>34</sup> Joint Comments on Notice of Inquiry, *supra* note 7, at 14–15.

<sup>35</sup> For further detail, see *id.*

<sup>36</sup> Tennessee Gas recently argued in response to the Commission's draft environmental impact statement for the East 300 Upgrade Project that, rather than using a full burn assumption, the Commission should use the average utilization rate of the relevant market area. Comments of Tennessee Gas Pipeline Co. on Draft Environmental Impact Statement at 8, *Tennessee Gas Pipeline Co., L.L.C.*, Docket No. CP20-493 (Aug. 23, 2021). Policy Integrity agrees that where an applicant provides project-specific information that can facilitate a more precise and accurate calculation of downstream emissions, potentially including the utilization rate, the Commission should use that information in its environmental impact statement. However, the burden must be on the applicant to provide sufficient evidence of the utilization rate to be used and adequately justify its use in estimating emissions. In the absence of such information, a full burn assumption remains an appropriate upper-bound assumption.

Additionally, the Commission should be careful to scrutinize whether evidence that a fully subscribed pipeline will utilize less than 100% of its capacity, such that the environmental impacts of less than 100% utilization should be assessed under NEPA, is consistent with any justifications proffered in support of the need for the project under Section 7 of the NGA. Policy Integrity has previously argued that setting a lower-bound default emission estimate as a project's subscribed firm capacity can help counteract misaligned incentives that may cause an applicant to overstate the expected capacity demand when justifying the project for the purpose of the Commission's public need determination. Comments of the Inst. for Pol'y Integrity at 33, *Certification of New Interstate Pipeline Facilitates*, Docket No. PL18-1 (July 25, 2018). While stakeholders should have the opportunity to more accurately estimate the amount of gas that will be transported and the downstream emissions that will occur, information provided must align with information provided to justify project need. *Id.* at 32. In other words, if the project's emission impacts are limited, then its need may be, too.

<sup>37</sup> The Project will contribute up to 3.31 million metric tons of carbon dioxide equivalent per year in operational and downstream emissions, including for capacity destined for the domestic market. DEIS, *supra* note 2, at 16. According to the latest estimates from the Interagency Working Group on the Social Cost of Greenhouse Gases, the central value (i.e., using a 3% discount rate) of the social cost of carbon for 2025 emissions is \$56. INTERAGENCY WORKING GRP. ON THE SOC. COST OF GREENHOUSE GASES, TECHNICAL SUPPORT DOCUMENT: SOCIAL COST OF CARBON, METHANE, AND NITROUS OXIDE – INTERIM ESTIMATES UNDER EXECUTIVE ORDER 13,990, at 5 (2021) [hereinafter IWG TECHNICAL SUPPORT DOCUMENT]. \$56 multiplied by 3.31 million equals approximately \$185.43 million.

in climate costs over the twenty-one-year precedent agreement underlying it.<sup>38</sup> This includes over \$6.7 million of climate harm from annual operational emissions alone.<sup>39</sup> Accordingly, the Commission should strongly consider deeming the Project’s greenhouse gas emissions to be significant.

**4) The social cost of greenhouse gases is a research method generally accepted in the scientific community, thus meriting usage under 40 C.F.R. § 1502.21**

When an agency is unable to obtain sufficient “information relevant to” assess “reasonably foreseeable significant adverse impacts,” as the Commission believes may be the case here with climate impacts, it must perform an “evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community.”<sup>40</sup> The social cost of greenhouse gases, as a research method that is “generally accepted in the scientific community,” meets that standard and thus further merits use.

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<sup>38</sup> For simplicity, this calculation considers only the 21-year precedent agreement for 140,000 dekatherms per day of capacity. The application, however, specifies there are two precedent agreements underlying this project, a 21-year term for 140,000 dekatherms per day of capacity and an 11-year term for 25,000 dekatherms per day capacity. ANR Pipeline Co., Abbreviated Application for a Certificate of Public Convenience and Necessity and for Related Authorizations at 4 (June 22, 2020). According to the DEIS, 140,000 dekatherms per day is equivalent to 2.71 million metric tons per year of CO<sub>2</sub>e and 25,000 dekatherms per day is equivalent to 0.48 million metric tons per year of CO<sub>2</sub>e. DEIS, *supra* note 2, at 18. Using the social cost of greenhouse gases of \$56 per metric ton, we calculate that 2.71 million metric tons of CO<sub>2</sub>e per year of downstream emissions plus 121,252 metric tons of CO<sub>2</sub>e per year of operational emissions over 21 years would lead to \$3.33 billion in climate damages.

We further note that the social cost of carbon increases each year, so this is an underestimate and represents the climate damages the project would cause only if the social cost of carbon were worth \$56 every year from 2025 forward. However, for year 2045 emissions, for example, the social cost of carbon is \$79/metric ton. In a full cost-benefit analysis, the project lifetime climate damages total would be discounted back to present value.

<sup>39</sup> The Project will contribute an estimate 121,252 metric tons of carbon dioxide equivalent per year in operational emissions. DEIS, *supra* note 2, at 16. \$56 multiplied by 121,252 equals approximately \$6.79 million. To the extent any of the operational emissions are attributable to fugitive methane emissions, the Commission should also consider using the social cost of methane in its analysis for a more accurate estimate of the project’s climate damages. According to the latest estimates from the Interagency Working Group on the Social Cost of Greenhouse Gases, the central value of the social cost of methane for 2025 emissions is \$1,700 per metric ton. IWG TECHNICAL SUPPORT DOCUMENT, *supra* note 37, at 5.

We also note that FERC does not provide different operational emissions for each precedent agreement (i.e., for the 140,000 dekatherms of daily capacity over 21 years and the 25,000 dekatherms of daily capacity over 11 years), so these comments assume operational capacity is constant. If FERC anticipates that operational emissions would change after the termination of the shorter term (11-year) precedent agreement, it should specify in the final EIS.

<sup>40</sup> 40 C.F.R. § 1501.21(c)(4).

The Working Group’s methodology and valuations have been repeatedly endorsed by independent reviewers, demonstrating its general acceptance in the scientific community. A few examples are particularly notable. In 2014, the U.S. Government Accountability Office concluded that the Working Group had followed a “consensus-based” approach, relied on peer-reviewed academic literature, disclosed relevant limitations, and adequately planned to incorporate new information through public comments and updated research.<sup>41</sup> In 2016 and 2017, the National Academies of Sciences, Engineering, and Medicine issued two reports that, while recommending future improvements, supported continued agency use of the Working Group’s estimates.<sup>42</sup> Leading economists and climate policy experts have also endorsed the Working Group’s values as the best available estimates.<sup>43</sup> And the U.S. Court of Appeals for the Seventh Circuit has upheld agency reliance on the Working Group’s valuations.<sup>44</sup>

A ruling last month from the U.S. Court of Appeals for the District of Columbia Circuit further supports the applicability of this provision to the social cost of greenhouse gases.<sup>45</sup> As the Court explained, this regulation “appears applicable on its face” to the social cost methodology,<sup>46</sup> and may indeed “obligate[]” FERC “to use the social cost of carbon protocol” in its

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<sup>41</sup> GOV’T ACCOUNTABILITY OFF., GAO-14-663, REGULATORY IMPACT ANALYSIS: DEVELOPMENT OF SOCIAL COST OF CARBON ESTIMATES 12–19 (2014), <http://www.gao.gov/assets/670/665016.pdf>.

<sup>42</sup> NAT’L ACAD. SCI., ENGINEERING & MED., VALUING CLIMATE DAMAGES: UPDATING ESTIMATION OF THE SOCIAL COST OF CARBON DIOXIDE 3 (2017), <https://www.nap.edu/read/24651/chapter/1>; NAT’L ACAD. SCI., ENGINEERING & MED., ASSESSMENT OF APPROACHES TO UPDATING THE SOCIAL COST OF CARBON: PHASE I REPORT ON A NEAR-TERM UPDATE 1–2 (2016), <https://www.nap.edu/read/21898/chapter/1>.

<sup>43</sup> See, e.g., Richard Revesz et al., *Best Cost Estimate of Greenhouse Gases*, 357 SCIENCE 655 (2017); Michael Greenstone et al., *Developing a Social Cost of Carbon for U.S. Regulatory Analysis: A Methodology and Interpretation*, 7 REV. ENV’T ECON. & POL’Y 23, 42 (2013); Richard L. Revesz et al., *Global Warming: Improve Economic Models of Climate Change*, 508 NATURE 173 (2014) (co-authored with Nobel Prize winner Kenneth Arrow) (explaining that the Working Group’s values, though methodically rigorous and highly useful, are very likely underestimates).

<sup>44</sup> *Zero Zone v. Dept. of Energy*, 832 F.3d 654, 679 (7th Cir. 2016).

<sup>45</sup> *Vecinos para el Bienestar de la Comunidad Costera v. FERC*, No. 20-1045, slip op. at 9–13 (D.C. Cir. Aug. 3, 2021).

<sup>46</sup> *Id.* at 12.

environmental impact statements, notwithstanding the Commission’s various concerns about the methodology.<sup>47</sup> At the very least, the Commission should “explain whether 40 C.F.R. § 1502.21(c) calls for it to apply the social cost of carbon protocol or some other analytical framework, as ‘generally accepted in the scientific community’ within the meaning of the regulation, and if not, why not.”<sup>48</sup> The Commission has not done so here.

In light of the information in these comments and the attached documents—and the broad consensus that the Working Group’s social cost valuations offer a rigorous and reliable approach to assess a project’s incremental climate impacts—the Commission should now apply the social cost of greenhouse gases to assess the Project’s climate effects.

### **C. The Commission’s Approach of Comparing Project Emissions to Geographic Targets and Inventories Can Misleadingly Trivialize Climate Impacts if Not Properly Contextualized**

While the Commission attempts to contextualize the Project’s greenhouse gas emissions by comparing them to national and state emission totals and state emission targets,<sup>49</sup> this approach offers limited insights about the Project’s climate impacts (particularly compared to using the social cost of greenhouse gases) and can misleadingly trivialize those impacts.<sup>50</sup>

Comparing a project’s greenhouse gas emissions to geographic climate targets or inventories frequently makes large quantities of emissions from an individual project seem

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<sup>47</sup> *Id.* at 13.

<sup>48</sup> *Id.*

<sup>49</sup> DEIS, *supra* note 2, at 18.

<sup>50</sup> For further detail, see Joint Comments on Notice of Inquiry, *supra* note 7, at 9–11. The EPA likewise recommends the Commission follow the Council on Environmental Quality’s (rescinded but currently under review) 2016 guidance on the consideration of greenhouse gas emissions under NEPA, which states that agencies “should not limit themselves to calculating a proposed action’s emissions as a percentage of sector, nationwide, or global emissions,” and further recommends that any discussion of the project’s emissions in the context of national and state emission goals be expanded to “consider the U.S. 2030 GHG reduction target, 2050 net-zero pathway, and end date of the project’s expected lifetime.” EPA East Lateral Xpress Project EIS Comments, *supra* note 11, at 2 (citing Memorandum from Council on Env’t Quality, 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 11 (issued Aug. 1, 2016; withdrawn Apr. 5, 2017; under review Feb. 19, 2021, for revision and update)).

relatively small. As one federal court recently recognized, “[t]he global nature of climate change and greenhouse-gas emissions means that any single . . . project likely will make up a negligible percent of state and nation-wide greenhouse gas emissions.”<sup>51</sup> Yet while agencies assessing percentage comparisons of greenhouse gas emissions should recognize this phenomenon and adjust their standards accordingly, agencies in the past have frequently fallen victim to probability neglect—the cognitive tendency to improperly trivialize small probabilities.<sup>52</sup> In other words, agencies all too often fail to recognize, as one federal court explained, that even a seemingly “very small portion of a gargantuan source of . . . pollution” may “constitute[] a gargantuan source of . . . pollution on its own terms.”<sup>53</sup>

In the draft environmental impact statement, for instance, the Commission concludes that the Project’s operational and domestic-only downstream emissions<sup>54</sup> could increase national carbon dioxide emissions by up to 0.01% from 2019 levels.<sup>55</sup> However, the Commission does not include the Project’s full downstream emissions in the comparison to national emissions because the vast majority of the gas is destined for export.<sup>56</sup> These substantial downstream emissions that the Commission omits from its comparisons are more than four times greater than projected operational emissions and domestic downstream emissions combined, and should not be ignored. If all downstream emissions were considered in the comparison, they would

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<sup>51</sup> *WildEarth Guardians v. Bureau of Land Mgmt.*, 457 F. Supp. 3d 880, 894 (D. Mont. 2020).

<sup>52</sup> See Cass R. Sunstein, *Probability Neglect: Emotions, Worst Cases, and Law*, 112 YALE L.J. 61 (2002).

<sup>53</sup> *Sw. Elec. Power Co. v. EPA*, 920 F.3d 999, 1032 (5th Cir. 2019) (internal quotation marks omitted).

<sup>54</sup> FERC notes that 25,000 dekatherms per day of gas, equivalent to 0.48 million short tons of CO<sub>2</sub>e, are anticipated for delivery to the domestic market. DEIS, *supra* note 2, at 18.

<sup>55</sup> *Id.* The Commission misreports this percentage as 0.0001%. However, 0.61 million (the project’s annual direct and domestic downstream emissions combined, in metric tons) is roughly 0.01% of 5,769.1 million (or 5.769 billion), the metric tons of carbon dioxide equivalent emitted within the United States in 2019.

<sup>56</sup> *Id.* (“Our comparison here does not include the additional 2.71 million metric [tons per year] of CO<sub>2</sub>e emissions associated with the proposed volumes for export from the United States to unknown end users.”).

represent 0.055% of annual domestic emissions.<sup>57</sup> While this number may still seem like a negligible contribution at a quick glance, contextualizing the Project’s annual greenhouse gas emissions as contributing roughly \$185 million in annual climate damage costs—as application of the social cost of greenhouse gases would reveal<sup>58</sup>—demonstrates the fallacy of that conclusion.

The draft environmental impact statement also estimates that the Project’s construction and operational emissions would increase energy-related emissions in Louisiana by 0.003% and 0.057%, respectively.<sup>59</sup> The environmental impact statement goes on to note that the domestic downstream emissions from the project would increase emissions in the fifteen downstream states, collectively, by 0.019%. But, again, this analysis excludes most of the Project’s significant downstream emissions. If total downstream emissions are included, they would represent 2.16% and 3.11% of the Louisiana’s 2025 and 2030 greenhouse gas emissions goals, respectively.<sup>60</sup> These are larger percentages that should give the Commission pause. Yet when faced with a similar scenario recently of a pipeline project that would contribute up to 4.5% of Minnesota’s greenhouse gas emission goals by 2050, the Commission brushed aside those emissions as insignificant without explanation.<sup>61</sup>

Comparing project emissions to state and national totals and targets does not provide a clear picture of a pipeline’s climate impacts, and has been used by the Commission to trivialize

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<sup>57</sup> The DEIS reports U.S. national emissions as 5,769.1 million (or 5.769 billion) metric tons of carbon dioxide equivalent in 2019. *Id.* at 17. To calculate the percentage, we divide 3.19 million metric tons by 5,769.1 million metric tons, which equals 0.0005529, or 0.055%.

<sup>58</sup> *See supra* note 37 and accompanying text.

<sup>59</sup> DEIS, *supra* note 2, at 18.

<sup>60</sup> The DEIS assumes Louisiana’s 2025 greenhouse emissions in carbon dioxide equivalent will be 147.7 metric tons and the state’s 2030 emissions will be 102.6 metric tons (based on a 28 percent reduction in emissions from 2005 levels by 2025 and a 50 percent reduction by 2030). *Id.* at 18 n.24. To calculate the percentages, we divide the Project’s total 3.19 million metric tons of downstream emissions by 147.7 million metric tons for 2025 and 102.6 million metric tons for 2030, which equals 0.0216, or 2.16%, and 0.0311, or 3.11%, respectively.

<sup>61</sup> *Northern Natural Gas Co.*, 175 FERC ¶ 61,146, at PP 33–34 (May 20, 2021).

significant climate harms. The Commission also selectively applies this percentage-comparison approach to greenhouse gas emissions. Other quantified impacts, such as payroll or employment projections, could also be presented as miniscule percentages of global, national, or statewide totals. By presenting greenhouse gas emissions as small percentages of larger totals, while measuring other impacts without resorting to this misleading approach, the Commission makes it difficult to accurately balance project impacts. Use of a more objective standard to measure a project's climate impacts is preferable to the Commission's approach of eyeballing a project's significance through percentage comparison to geographic totals and targets.<sup>62</sup>

**D. The Commission Should Consider Measures to Mitigate the Project's Greenhouse Gas Emissions and Climate Impacts**

Despite failing to rule out the possibility that the Project will cause substantial harm by exacerbating climate change, the Commission does not consider any mitigation measures with respect to greenhouse gas emissions. The Commission should not approve the Project without first considering measures to mitigate its climate impacts.

There are many greenhouse gas mitigation measures that the Commission could implement through its power to impose certificate terms and conditions. As Policy Integrity previously explained, the Commission could require mitigation measures such as “minimizing leakage and mandating energy efficiency at natural gas facilities (for direct emissions) and attaching conditions that limit the quantity of gas transported through a pipeline or the time period over which the pipeline operates (for indirect emissions).”<sup>63</sup> For unavoidable emissions that remain after avoidance and minimization measures have been imposed, the Commission could require the applicant to offset the project's emissions as a form of compensatory

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<sup>62</sup> See *Freeport LNG Development, L.P.*, 175 FERC ¶ 61,237, at PP 1–2 (June 21, 2021) (Danly, Comm'r, concurring in part and dissenting in part).

<sup>63</sup> Solo Comments on Notice of Inquiry, *supra* note 6, at 15.



mitigation.<sup>64</sup> Other government agencies, including the California Air Resources Board and the Regional Greenhouse Gas Initiative, administer successful carbon offset programs to which the Commission could look for guidance.<sup>65</sup>

The Commission's failure to even consider mitigation measures for greenhouse gas emissions stands in stark contrast to its treatment of other potential adverse Project impacts. The draft environmental impact statement outlines dozens of mitigation measures that the Commission would impose for other Project impacts.<sup>66</sup> It is not clear why the Commission fails to consider similar mitigation measures with respect to climate change, particularly since climate impacts are the only environmental effects that the Commission does not conclude are insignificant.

## CONCLUSION

While the Commission's quantification of downstream emissions represents a step forward, the Commission continues to subject climate impacts to a different standard than other Project impacts by refusing to assess their significance, disregarding the best available tool to contextualize their impacts, and overlooking reasonable mitigation measures. The Commission should further assess the Project's climate impacts and carefully weigh those effects in assessing whether and on what terms and conditions to approve the Project.

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<sup>64</sup> For further detail on both the logistics of and legal precedent for carbon offsets, see *id.* at 14–27.

<sup>65</sup> See *Compliance Offset Protocols*, CAL. AIR RES. BD., <https://ww2.arb.ca.gov/our-work/programs/compliance-offset-program/compliance-offset-protocols>; *Offsets*, REGIONAL GREENHOUSE GAS INITIATIVE, <https://www.rggi.org/allowance-tracking/offsets>; see also U.S. GOV'T ACCOUNTABILITY OFF., GAO-11-345, CLIMATE CHANGE ISSUES: OPTIONS FOR ADDRESSING CHALLENGES TO CARBON OFFSET QUALITY 1–2 (2011), <https://perma.cc/QHN5-DYJ5> (discussing various types of offset projects including forestation, carbon capture, and installation of energy-efficient equipment).

<sup>66</sup> DEIS, *supra* note 2, at 21–25.

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Enclosed:

- 1) Env't Def. Fund et al., *New Information and Additional Perspectives on Using the Social Cost of Greenhouse Gases to Weigh Climate Impacts in the Certification of New Interstate Natural Gas Facilities* (May 27, 2021)
- 2) Inst. for Pol'y Integrity, *Comments on Certification of New Interstate Natural Gas Facilities* (May 26, 2021)
- 3) Jayni Hein et al., Inst. for Pol'y Integrity, *Pipeline Approvals and Greenhouse Gas Emissions* (2019)