

UNITED STATES OF AMERICA  
DEPARTMENT OF ENERGY  
FEDERAL ENERGY REGULATORY COMMISSION

IN THE MATTER OF	)	
	)	
Rio Grande LNG, LLC	)	Docket Nos. CP16-454-000
Rio Bravo Pipeline Company, LLC	)	CP16-455
	)	PF15-20-000
	)	

**PROTEST OF SIERRA CLUB AND DEFENDERS OF WILDLIFE**

**I. Introduction**

In Dockets CP16-454 and PF15-20, Rio Grande LNG, LLC (“Rio Grande”) seeks authorization under section 3(a) of the Natural Gas Act, 15 U.S.C. § 717b(a), to site, construct and operate a new liquefied natural gas export and truck loading terminal near Brownsville, Texas, with a nameplate capacity of 3.6 billion cubic feet per day (bcf/d). In Dockets CP16-455 and PF15-20, Rio Bravo Pipeline Company, LLC (“Rio Bravo”) proposes to site, construct, and operate infrastructure necessary to deliver natural gas feedstock to this export facility: two 140 mile, 42 inch pipelines, each with a capacity of 2.25 bcf/d, together with related compressor stations and other facilities.

Sierra Club and Defenders of Wildlife protest this application. Rio Grande seeks to site one of the largest proposed LNG export facilities<sup>1</sup> in one of the most sensitive proposed sites, adjacent to multiple wildlife refuges and important migration corridors. The proposed terminal and pipelines will have extensive harmful direct, indirect, and cumulative impacts. The proposed facilities are contrary to the public interest, and the application should therefore be denied. In separate documents, Sierra Club and Defenders of Wildlife also move to intervene.

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<sup>1</sup> Rio Grande is surpassed only by the Sabine Pass, Louisiana export project, which reached a combined 4.125 bcf/d approved capacity after numerous expansions.

## II. Protest

### A. The Natural Gas Act's Public Interest Standards

Pursuant to Section 3(a) of the Natural Gas Act and subsequent delegation orders, FERC must determine whether the siting, construction, and operation of Rio Grande's proposed terminal facilities are "consistent with the public interest." 15 U.S.C. § 717b(a), DOE Delegation Order No. 00-044.00A at 1.21(A) (effective May 16, 2006).<sup>2</sup> This same provision applies to DOE/FE's review of Rio Grande's related application for export authorization. *Id.* Courts, FERC, and DOE/FE have all interpreted the "public interest" at issue in these provisions as including environmental impacts.

Similarly, under Section 7(c) of the Natural Gas Act, 15 U.S.C. § 717f(c) FERC must make a related determination as to whether Rio Bravo's proposed pipeline facilities are consistent with the public convenience and necessity.

Both the Supreme Court and the D.C. Circuit Court of Appeals have indicated that these Natural Gas Act provisions encompass environmental concerns. While the public interest inquiry is rooted in the Natural Gas Act's "fundamental purpose [of] assur[ing] the public a reliable supply of gas at reasonable prices," *United Gas Pipe Line Co v. McCombs*, 442 U.S. 529 (1979), the Natural Gas Act also grants FERC and DOE/FE "authority to consider conservation, environmental, and antitrust questions." *Nat'l Ass'n for the Advancement of Colored People v. Federal Power Commission*, 425 U.S. 662, 670 n.4 (1976) (citing 15 U.S.C. § 717b as an example of a public interest provision); n.6 (explaining that the "public interest" referred to in § 717b includes

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<sup>2</sup> The statute vests authority in the "Federal Power Commission," which has been dissolved. DOE/FE has been delegated the former Federal Power Commission's authority to authorize natural gas exports. Department of Energy Redelelegation Order No. 00-002.04E (Apr. 29, 2011). The Federal Energy Regulatory Commission has separately been delegated authority regarding the permitting, siting, construction and operation of export facilities. Department of Energy Delegation Order No. 00-004.00A. *See also* Executive Orders 12038 & 10485 (vesting any executive authority to allow construction of export facility in the Federal Power Commission and its successors).

environmental considerations). In interpreting an analogous public interest provision applicable to hydroelectric power and dams, the Court has explained that the public interest determination “can be made only after an exploration of all issues relevant to the ‘public interest,’ including future power demand and supply, alternate sources of power, the public interest in preserving reaches of wild rivers and wilderness areas, the preservation of anadromous fish for commercial and recreational purposes, and the protection of wildlife.” *Udall v. Fed. Power Comm’n*, 387 U.S. 428, 450 (1967) (interpreting § 7(b) of the Federal Water Power Act of 1920, as amended by the Federal Power Act, 49 Stat. 842, 16 U.S.C. § 800(b)). Other courts have applied this *Udall* holding to the Natural Gas Act. *See, e.g., N. Natural Gas Co. v. Fed. Power Comm’n*, 399 F.2d 953, 973 (D.C. Cir. 1968) (interpreting section 7 of the Natural Gas Act).<sup>3</sup>

## **B. Adverse Effects of the Proposed Project**

Sierra Club, Defenders of Wildlife, and numerous other citizen groups and federal agencies have previously filed comments in these dockets identifying some of the significant adverse environmental and economic impacts of the proposed Rio Grande terminal and Rio Bravo pipelines. We reiterate here that these impacts must be considered in the Natural Gas Act section 3 and 7 analyses, and that FERC should deny the applications on the basis of these impacts.

FERC must address those impacts as part of the NEPA review for the projects, and we anticipate further discussing these impacts as part of that process. Here, we respond to arguments made in Rio Grande and Rio Bravo’s application.

### **1. Output of the Proposed Facility**

Rio Grande proposes to construct six “C3MR” liquefaction trains, each with a nominal capacity of 0.6 bcf/d. Application at 9. This same liquefaction design is being used at the Freeport, Texas, LNG export facility, where three such trains have already been approved and are currently under construction.<sup>4</sup>

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<sup>3</sup> Further support for the inclusion of environmental factors in the public interest analysis is provided by NEPA, which declares that all federal agencies must seek to protect the environment and avoid “undesirable and unintended consequences.” 42 U.S.C. 4331(b)(3).

<sup>4</sup> *See* [http://www.freeportlng.com/The\\_Project.asp](http://www.freeportlng.com/The_Project.asp)

Although Freeport, like Rio Grande, initially sought FERC authorization to operate each of C3MR trains at 0.6 bcf/d of capacity (Freeport proposed to use three, rather than six, for a combined output of 1.8 bcf/d), Freeport subsequently determined that these trains were capable of producing roughly 19% more LNG; Freeport consequently sought authorization to increase output from these three trains to 2.14 bcf/d. *See* Freeport LNG Development, et al., Application, CP15-518 (June 15, 2015), FERC Accession No. 20150615-5291.<sup>5</sup> Similarly, the Sabine Pass, Louisiana project has determined that its proposed liquefaction trains (which use a different design) will also be able to operate at higher than nominal capacity. FERC Docket CP14-12.

Here, although Rio Grande's pending application only seeks authorization to export LNG equivalent to 3.6 bcf/d of natural gas, FERC must consider the possibility that Rio Grande will subsequently seek to increase its authorization as other facilities have done. Assuming that the C3MR trains used here perform similarly to those in Freeport, the potential output for the Rio Grande facility would be 4.28 bcf/d – the largest proposed export facility in the United States. The proposed Rio Bravo pipelines have apparently been designed to facilitate this level of operation, as they have a combined capacity of 4.5 bcf/d, far exceeding the level of feed and fuel gas needed to produce 3.6 bcf/d worth of LNG.

Increasing the output of the project will increase many of the environmental impacts. Increasing output will likely increase emissions from pipeline gas pretreatment facility: sulfur and carbon dioxide must be removed from pipeline gas prior to liquefaction, so increasing the quantity of feed gas increases the quantity of impurities to be removed. Increased output will also likely increase LNG tanker traffic, and associated impacts on air quality, wildlife, and aquatic resources, beyond the 312 carriers assumed in the resource reports. *See* Resource Report 9.C-10 (Dec. 23, 2015).<sup>6</sup> Finally, increasing the output will commensurately increase indirect effects associated with sourcing natural gas and with use of LNG once it is exported.

## **2. Design of the Proposed Liquefaction Facility**

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<sup>5</sup> Available at <http://elibrary.ferc.gov/IDMWS/common/opennat.asp?fileID=13907165>

<sup>6</sup> Available at <http://elibrary.ferc.gov/IDMWS/common/opennat.asp?fileID=14081283>

The Freeport, Texas facility's use of C3MR trains also demonstrates the viability of a design alternative that must be considered here: use of electric power taken from the grid, rather than on-site GE Frame 7 gas turbines, to power the liquefaction trains. Because these turbines are the primary source of direct air pollution for the project, replacing them with electric motors would drastically reduce direct air emissions. This reduction would, of course, be offset to some degree by the emissions associated with generation of the electricity consumed. However, the electric grid in Texas currently generates a large percentage of its power through wind, and the proportion of Texas power generated by wind is expected to increase substantially during the 20-year authorization period for the Rio Grande project.<sup>7</sup> Accordingly, FERC must take a hard look at the potential benefits of a design alternative that, like the Freeport facility, uses C3MR liquefaction trains powered by the electric grid rather than on-site gas turbines.

### 3. Effects of Increased Gas Production

The primary purpose of the proposed Rio Grande facility is to enable the exports of LNG. Exporting LNG is almost certain to increase domestic natural gas production. Rio Grande argues that the project will provide "indirect benefits due to enhanced natural gas exploration and production." Application at 26. The Rio Bravo pipelines will allow "the physical delivery of natural gas produced in Texas' natural gas producing regions," as well as, more broadly, other gas producing regions. *Id.* at 22. The Application relies on an economic report that extensively discusses, and attempts to quantify, the economic impact of this additional production. The Perryman Group, "*The Potential Impact of the Proposed Rio Grande Liquefied Natural Gas (LNG) and Rio Bravo Pipeline Facilities on Business Activity in Cameron County, Texas, and the United States*" (Dec. 2015) (attached at Resource Report 5.B).<sup>8</sup> The Perryman Report argues that the Rio Grande facility will "support[] the development of natural gas reserves," *id.* at 2; that "The Rio Grande LNG project would help ensure the ongoing maintenance and development of US natural gas resources by providing access to world markets. ... The ability to export domestic gas as LNG greatly expands the market scope and access for domestic natural gas producers, encouraging domestic production at times when US market prices might not otherwise be favorable," *id.* at 6; that the benefits of the project include "enhanced exploration and production of natural gas," *id.* at 7; and that, without expanded LNG exports, domestic gas

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<sup>7</sup>See, e.g., <https://www.eia.gov/todayinenergy/detail.cfm?id=23632>

<sup>8</sup> Available at <http://elibrary.ferc.gov/IDMWS/common/opennat.asp?fileID=14070242>

production may decrease, *id.* at 5. The Energy Information Administration, Environmental Protection Agency, Department of Energy, and every private consultant that has considered the issue all agree that LNG exports, which expand the connection between U.S. natural gas supplies and otherwise inaccessible sources of foreign gas demand, will stimulate increases in domestic gas prices and, relatedly, increases in domestic gas production.

This additional gas production will have foreseeable and severe environmental consequences. Sierra Club has described these impacts, and the tools that can be used to foresee them, in numerous other FERC dockets. We anticipate providing additional information, if necessary, as part of the environmental review of this project.

At this stage, we note, however, that Rio Grande's assertion that this production will produce economic benefits fails to consider the whole picture. Rio Grande refers to DOE's most recent study of the macroeconomic impacts of LNG exports: A. Cooper, K. Medlock III, *et al.*, *The Macroeconomic Impact Of Increasing U.S. LNG Exports* (Oct. 29, 2015).<sup>9</sup> This study concludes that increasing exports to levels between 12 and 20 billion cubic feet per day (bcf/d) will create a minuscule increase in gross domestic product (GDP), but this small net change masks much larger, and opposing, distributional effects. *Id.* at 15, Figure ES3. The Study indicates that in the reference case, going from 12 to 20 bcf/d will increase GDP by \$3.8 billion, or 0.02%. *Id.* at C-1. However, gas consumers will suffer a loss of roughly seven times this amount (0.15% of GDP, or roughly \$26 billion) as a result of increased gas prices. *Id.* As Sierra Club explained in comments on the earlier NERA macroeconomic study,<sup>10</sup> most Americans will suffer the downside of increased gas prices without sharing in the benefits of exports. Simply moving money from gas consumers – including households that rely on gas for heat and cooking, or that will face higher electric bills because of increased gas prices paid by electricity generators – to gas producers is not an effect that furthers the public interest. Neither Rio Grande's Application nor the studies Rio Grande cites address the effects of this transfer on ordinary households.

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<sup>9</sup> Cited by the Application at 5 and available at [http://energy.gov/sites/prod/files/2015/12/f27/20151113\\_macro\\_impact\\_of\\_lng\\_exports\\_0.pdf](http://energy.gov/sites/prod/files/2015/12/f27/20151113_macro_impact_of_lng_exports_0.pdf)

<sup>10</sup> [http://www.fossil.energy.gov/programs/gasregulation/authorizations/export\\_study/Sierra\\_Club01\\_24\\_13.pdf](http://www.fossil.energy.gov/programs/gasregulation/authorizations/export_study/Sierra_Club01_24_13.pdf) at 6-22, *see also* Exhibit 5 thereto, [http://www.fossil.energy.gov/programs/gasregulation/authorizations/export\\_study/Exhibits\\_1-20.pdf](http://www.fossil.energy.gov/programs/gasregulation/authorizations/export_study/Exhibits_1-20.pdf)

More broadly, none of these economic assessments accounts for the environmental harm caused by increased gas production. Absent a careful consideration of that harm, the assessments cannot support a determination that exports provide a net public benefit.

#### **4. Effects on Implementation of the Clean Power Plan and the Electric Sector**

Rio Grande also argues that expanding natural gas infrastructure will benefit the environment because “[n]atural gas ... will likely serve as an important energy source given efforts to reduce carbon dioxide emissions.” Perryman Report at 5. We agree that FERC must consider the proposed Project’s impact on efforts to reduce greenhouse gas emissions, such as implementation of the Clean Power Plan. Available evidence, however, indicates that LNG exports will increase domestic natural gas prices, and that these price increases may cause an increase in coal use in the electric sector despite the Clean Power Plan and related federal regulations. In 2014, the Energy Information Administration (EIA) predicted that increasing natural gas exports would decrease domestic gas consumption in addition to increasing domestic gas production, and that this demand shift will occur primarily in the electric sector. EIA, *Effect of Increased Levels of Liquefied Natural Gas Exports on U.S. Energy Markets* at 5, Table B5 (Oct. 2014).<sup>11</sup> Specifically, this study predicts that exports will cause some electricity generators to shift from gas to coal. *Id.* The study predicted that such a shift will occur even if federal regulations were adopted to limit coal use, based on EIA’s “accelerated coal retirement” scenario. *Id.* The 2015 macroeconomic study discussed above also concluded that domestic natural gas consumption would decrease in almost all cases considered. *See* 2015 LNG Export Study at C-1.

As Sierra Club has repeatedly explained, and as EIA, EPA, and other federal agencies have recognized, any such shift from gas to coal has significant environmental consequences. EIA’s initial export study provided quantitative estimates of some of these consequences, modeling changes in greenhouse gas emissions from domestic combustion (but not production) across scenarios. EIA, *Effect of Increased Natural Gas Exports on Domestic Energy Markets*, at 19, Table 2 (Jan. 2012).<sup>12</sup>

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<sup>11</sup> <https://www.eia.gov/analysis/requests/fe/pdf/lng.pdf>

<sup>12</sup> [http://energy.gov/sites/prod/files/2013/04/f0/fe\\_eia\\_lng.pdf](http://energy.gov/sites/prod/files/2013/04/f0/fe_eia_lng.pdf)

## 5. Effects on Global Greenhouse Gas Emissions

Finally, we agree with the Applicants' assertion, in the Perryman Report, that FERC must consider the effect of the Projects on global energy consumption and associated climate impacts. Perryman Report at 5. However, contrary to the Perryman Report's suggestion that the Projects will provide a climate benefit, available evidence indicates that the Projects will impede both the U.S.'s ability to meet its obligations and global efforts to reduce emissions.

As to the U.S.'s commitments, the U.S. has committed to significantly reducing greenhouse gas emissions. The emissions associated with additional gas production induced by the Projects, emissions from the facility itself, and the cumulative effects (direct and indirect) of other LNG export proposals will seriously hinder the U.S.'s ability to satisfy these obligations.

Globally, limiting warming to 1.5° C (the target announced at the recent Paris climate conference) will require transitioning away from all fossil fuels as quickly as possible. Increasing LNG exports (and, correspondingly, other countries' imports), which would require construction of multi-billion dollar infrastructure projects that would be used for decades, will hinder, rather than facilitate, this transition. Notably, the submissions likely LNG importers have made regarding their emission reduction commitments do not envision increased reliance on LNG.<sup>13</sup>

FERC must take a hard look at the environmental impact of exports on global greenhouse gas emissions; as Sierra Club has explained in other FERC dockets, this hard look must go beyond the analysis provided by the Department of Energy's Environmental Addendum to LNG export applications.

## III. Conclusion

For the reasons stated above, and which will be further demonstrated during environmental review, the Rio Grande and Rio Bravo projects are contrary to the public interest. Accordingly, the pending applications should be denied.

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<sup>13</sup> See, e.g. <http://www.carbonbrief.org/japans-2030-climate-pledge-leaves-room-for-coal-expansion>



Respectfully submitted,



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## CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Oakland, CA this 9<sup>th</sup> day of June, 2016.



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