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Chapter 1

INTRODUCTION

CHAPTER ONE: INTRODUCTION

A. WHAT IS THIS GUIDE?

This is a guide for advocates who want to challenge the construction of LNG export terminals. LNG terminals are some of the largest pollution sources built in the US today. They are also among the more complex facility types to challenge because of the number of agencies involved and overlapping laws with which they must comply. The goal of this guide is to increase the number of advocates empowered to fight, stop, and police these facilities.

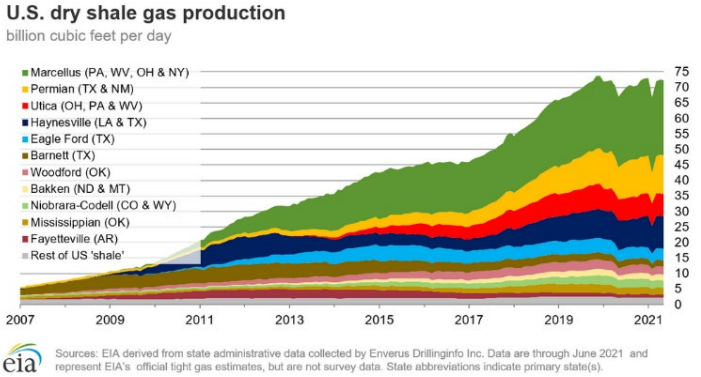
1. Who might benefit from this guide?

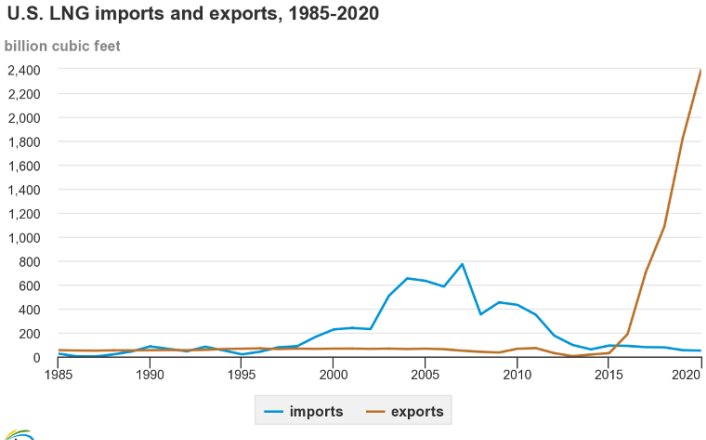
Advocates working in Texas and Louisiana in particular will benefit from this guide. This guide is geared toward legal practitioners, but a legal background is not necessary to understand this guide.

2. Why are we concerned about LNG export facilities now?

For many years, the U.S. was an importer of gas—the first major LNG facility was built in Massachusetts in 1971, and three others were built between then and 1982. Not until 2002 was another import facility (now known as Cameron LNG) permitted. During this time, only a single export facility was in operation, sending gas from Alaska to Japan.[1] And as recently as a decade ago, the Gulf of Mexico was being targeted as the ideal location for the construction of new facilities to import—not export—LNG.[2] In 2008 it was widely believed that "[t]he central issue in the development of LNG regasification [import] facilities in the U.S. is not *whether* these facilities will in fact be developed *but where and to what extent*."[3]

But the shale gas revolution[4] that was underway caused these predictions of import growth to fall flat (see right).





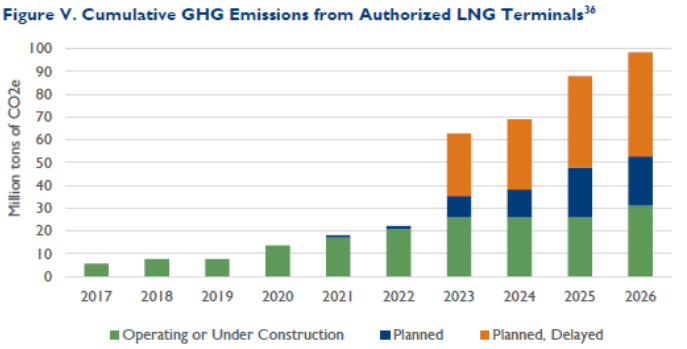
[1] David E. Dismukes, *Examination of the Development of Liquefied Natural Gas on the Gulf of Mexico*, U.S. DOI, Minerals Management Service, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study MMS 2008-017, 2008, 45. https://digital.library.unt.edu/ark:/67531/metadc955681/m2/1/high_res_d/4313.pdf (describing the ConocoPhillips LNG facility ("Kenai LNG"), a 68 Bcf per year liquefaction terminal located on the Kenai Peninsula of Alaska that has been under long-term contract with a Japanese company since 1969). *See also "ConocoPhilips and Japan mark 50 years of LNG."* Nov. 13, 2019. https://www.conocophillips.com/spiritnow/story/conocophillips-and-japan-mark-50-years-of-lng/.
[2] Dismukes, *supra* note 1, 1.
[3] *Supra* (emphasis added).
[4] U.S. Energy Information Administration (EIA), "Natural gas explained: Where our natural gas comes from," https://www.eia.gov/energyexplained/natural-gas/where-our-natural-gas-comes-from.php (last visited Mar. 31, 2022).

Instead, the glut of gas in the U.S. has caused the industry to look to overseas markets to consume production. Instead of import terminals, companies have turned their attention to building export facilities, in a process that has skyrocketed in the last decade (see right[5]):

Although approximately 55% of the total U.S. gas exports in 2020 were by pipeline,[6] the vast majority of the remainder is processed first in large LNG export terminals in which the gas is liquefied (cooled and compressed) for more dense storage and then exported in enormous LNG tanker ships. To keep up with the industry's expectations of the world's appetite for U.S. LNG, many applicants are currently seeking permits to expand the capacity of existing export terminals or to construct completely new export terminals.

If a significant number of the planned LNG export plants are constructed, the U.S. will be invested in a high-carbon, fossil-fuel energy infrastructure for decades to come. The recent explosion in LNG export permitting activities represents a unique moment for advocates to mount a concerted effort to push back against this expansion. Each facility has site-specific attributes that will make a regulatory challenge to it unique, but almost all will need the same suite of permits. And all will seek tax abatements from local and regional authorities to justify construction. This manual highlights the similarities among facilities, and ways to fight the permits, approvals, and tax abatements that will likely be sought.

Much like the fight to stop coal power plants from proliferating across America,[7] a concerted fight today will help stop the proliferation of gas from spreading across the globe. This is a unique opportunity to reduce reliance on fossil fuels and promote environmental justice here and abroad.



The anticipated increase in greenhouse gas emissions from the operation of these terminals is expected to dwarf that of terminals currently operating or under construction.[8] And the main component of gas is methane—one of the more potent greenhouse gases. This gas is notoriously leaky throughout the supply chain, and additional greenhouse gas emissions result from the fuel-intensive process of liquefying the gas for transport, as well as from transport and downstream uses. A 2020 study by the nonprofit Environmental Integrity Project (EIP) estimates that the 12 new terminals and 5 expansions that have construction authorization have the potential to emit over ***67 million tons of greenhouse gases per year***—"more climate-warming pollution than is released from

[5] "U.S. LNG imports and exports, 1985-2020," U.S. Energy Information Administration (May 2021) https://www.eia.gov/energyexplained/natural-gas/liquefied-natural-gas.php.
[6] U.S. Energy Information Administration, "Natural gas explained: Natural gas imports and exports," https://www.eia.gov/energyexplained/natural-gas/imports-and-exports.php.
[7] Michael Grunwald, "Inside the war on coal," *Politico*, May 26, 2015, https://www.politico.com/agenda/story/2015/05/inside-war-on-coal-000002/ (describing the history of the Beyond Coal campaign).
[8] Environmental Integrity Project, "Troubled Waters for LNG: The COVID-19 Recession and Overproduction Derail Dramatic Expansion of Liquefied Natural Gas Terminals" ("Troubled Waters"), Oct. 5, 2020, 15 (Fig. 5), https://environmentalintegrity.org/wp-content/uploads/2020/10/LNG-Report-10.5.20-updated.pdf.

16 coal-fired power plants operating around the clock."[9] These greenhouse gases associated with LNG will contribute to climate change that affects us no matter where the gas is ultimately consumed.

Unchecked, construction of new export capacity also will delay or interfere with the adoption of sustainable technologies for not just for the lifespan of a single twenty-year purchase agreement, but for decades to come. In fact, the lifespan of the Kenai terminal in Alaska[10] and the length of the lease agreements facilities enter into today[11] show that LNG export infrastructure can be kept alive and running for *over half a century*. That's fifty-plus years of greenhouse gas emissions that the planet simply cannot afford.

As for environmental justice, many of these facilities are sited in marginalized or low-income communities that already suffer disproportionately from industrial pollution. EIP's 2020 study estimates: "About 38 percent of the people living within three miles of proposed LNG facilities are people of color and Hispanics or Latinos, and 39 percent are low-income (defined as households earning less than $24,120 annually)."[12] It's no secret that these communities continue to be targets for the siting of highly polluting industrial sources,[13] and the agencies responsible for approving LNG terminals have historically failed to seriously scrutinize the potential effects of pollution on neighboring communities.[14]

Construction and operation of currently planned LNG terminals will substantially degrade local environmental quality, threatening the health of nearby residents and damaging sensitive marine and shoreline ecosystems. The non-greenhouse gas emissions from these facilities during operation are enormous: the 2020 EIP study estimates that if all projects authorized for construction but not yet built become operational, the projects could release up to 4,000 tons *per year* of particulate matter, as well as 17,900 tons of nitrogen oxides, 27,000 tons of volatile organic compounds, 1,200 tons of sulfur dioxide, and 42,300 tons of carbon monoxide.[15] And air pollution is not all—impacts from construction, operation, and maintenance of export terminals (e.g., filling wetlands, dredging shipping channels, dumping of ballast water) cause water pollution that can harm marine ecosystems. LNG tanker traffic lessens the ability of others to use and enjoy shipping channels and neighboring waterfront. And all of this can end up damaging local economies, especially those based on tourism and fisheries.

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[9] Environmental Integrity Project, "Troubled Waters," 5 (emphasis added).
[10] ConocoPhillips, "ConocoPhillips and Japan mark 50 years of LNG," Nov. 13, 2019, https://www.conocophillips.com/spiritnow/story/conocophillips-and-japan-mark-50-years-of-lng/.
[11] Texas LNG, "Texas LNG, Subsidiary of Glenfarne Group And Alder Midstream, Announces Long-Term Lease With The Port Of Brownsville," Global Newswire, Dec. 17, 2020, https://www.globenewswire.com/news-release/2020/12/18/2147496/0/en/TEXAS-LNG-SUBSIDIARY-OF-GLENFARNE-GROUP-AND-ALDER-MIDSTREAM-ANNOUNCES-LONG-TERM-LEASE-WITH-THE-PORT-OF-BROWNSVILLE.html (describing Texas LNG's 50-year lease agreement with the Port of Brownsville).
[12] Environmental Integrity Project, "Troubled Waters," 5.
[13] Clean Air Task Force, "Fumes Across the Fence-Line," Nov. 2017, 4, http://www.catf.us/wp-content/uploads/2017/11/CATF_Pub_FumesAcrossTheFenceLine.pdf.
[14] Maya Weber, "DC Circuit faults FERC's environmental analysis in two LNG project orders," S&P Global, Aug. 3, 2021, https://www.spglobal.com/platts/en/market-insights/latest-news/electric-power/080321-dc-circuit-faults-fercs-environmental-analysis-in-two-lng-project-orders (reporting on the D.C. Circuit's rejection and remand of FERC's 2019 approval of two Texas LNG terminals, in part because of FERC's faulty environmental justice analysis, which arbitrarily analyzed the impact on communities only within two miles of the projects, despite FERC's determination that environmental effects would extend well beyond two miles).
[15] Environmental Integrity Project, "Troubled Waters" at 5 (emphasis added).

Once facilities are permitted, it is basically impossible to put these harms to climate, communities, and the environment back in the box. Instead, these harms will be locked in for decades to come. With so many facilities seeking permits now, this is the moment for everyone to join in. Only by pooling resources and fighting these facilities on every front can success be possible.

B. What is an LNG terminal?

There are two main types of LNG terminals; export facilities and import facilities. Export facilities prepare gas for shipment by boat overseas. Import facilities receive LNG from boats and prepare it for distribution inside the United States. Some facilities, like Freeport LNG near Freeport, Texas, are capable of processing gas for both import and export in the same footprint. For both kinds of facilities there is some overlap between components, but some components are unique to each type.[16] In the United States the shift has been to build export—rather than import—terminals. This is because of the quantity of gas produced in the United States, and the demand abroad, as explained above.

A more in-depth discussion of the components of export terminals is found in Chapter 2. Also discussed in that chapter are the ancillary infrastructure and components that terminals depend on, such as pipelines and compressor stations.

C. How do I use this guide?

This guide is divided into chapters, the first being the one you are reading now. The second explains where the US LNG terminals are being located. Also included is a brief technical background of the components found in the typical export LNG terminals built, permitted, and proposed today. Each terminal is different, however, and when drafting comments advocates should rely on the proposals specific to the terminal they are challenging. Advocates familiar with the underlying technology should feel free to skip this chapter.

The third chapter provides a brief overview of the federal, state, and local laws that determine what permits, certifications, and approvals each terminal will need, as well as which agencies or actors are responsible for issuing permits, certifications, and approvals. This chapter strives to show the hierarchy of the laws so that an advocate can assess where resources are best allocated given potential goals (e.g., slow, stop, or police the facility).

The next six chapters (Chapters 4-9) are divided into the types of permits, approvals, and certifications that an LNG terminal typically seeks and needs to be built and operate:

- Chapter 4: Federal Energy Regulatory Commission (FERC) certification, as lead agency, of the environmental effects. FERC's documentation typically forms the basis for other federal agency's decisions
- Chapter 5: Department of Energy (DOE) certification, which approves the export of gas to specific nations

[16] Import terminals need equipment to regasify the LNG, which has typically been either via closed or open loop system. Open loop systems are especially dangerous for fish and other aquatic populations, a concern that resulted in intense opposition to these projects in South Louisiana. Dismukes, *supra* note 1, 4. But export terminal do not need this technology—instead the gas is liquefied for transport, not reheated. Unique concerns exist for export terminals, which this guide seeks to highlight.

- Chapter 6: U.S. Army Corps of Engineers (Corps) decisions and permits as to effects on the aquatic ecosystem and navigable waters (section 404, 10, 103 and 408 permits)
- Chapter 7: State water quality permits for each portion of the project and each federal license (Clean Water Act section 401)
- Chapter 8: Clean Air Act Permitting (focused on Texas and Louisiana)
- Chapter 9: Tax abatements (in particular those in Louisiana and Texas)

Chapter 10 highlights additional topics an advocate might be interested in, but that were not able to be covered in-depth in this guide: (1) coastal zone management permits and certifications; (2) easements and eminent domain; (3) the danger that certain state and local ordinances may be insufficient to stop projects because of the concept of preemption; (4) other agencies that play roles in the permitting process; and (5) permitting deepwater terminals.

Finally, the electronic appendix includes additional resources for advocates, such as previous comments, examples of filings, and other helpful documents.

D. What is not covered in this guide in-depth?

Not covered in depth are strategies specific to challenging LNG pipelines, or deepwater LNG terminals. The focus of this guide is on legal, not policy strategies. Coastal use permits are also not covered in depth, although they are discussed briefly in the last chapter, Chapter 10.

Even though this guide does not discuss pipelines in depth, it is important to look at LNG projects holistically. Sometimes it is easier to stop a project by challenging the pipeline. For example, if the project has a long pipeline, it may cross more wetlands and therefore have more hooks for challenging the Corps' section 404 permit (needed for dredging and filling aquatic ecosystems like wetlands). A pipeline also may impact more landowners and more environmental justice communities than a terminal, just based on its longer length. FERC also submits pipelines to a slightly different standard of review, as Chapter 4 discusses. FERC's approval of a pipeline also allows the developer to use eminent domain to seize land—a power not granted to terminal developers. The "Landowner's Rapid Response Guide," made available by the Property Rights and Pipeline Center at https://pipelinecenter.org/, offers step-by-step instructions, along with five videos, for challenging pipelines and their associated imminent domain claims.

Jordan Cove is a good example of why it is important to look at an LNG project holistically at the project and its location. With Jordan Cove, the pipeline was more vulnerable in part because its length increased the expected impact on nearby waters. In addition, Oregon law allowed for greater local input in the permitting process. There is no cookie-cutter approach to fighting an LNG terminal, and an advocate should collaborate with other advocates and attorneys knowledgeable in state and local law before tackling an LNG terminal challenge.

In the end, a successful campaign to stop an LNG project likely will entail engagement in many forums. When there are resources for multiple lines of attack, they should be deployed. Remember that for a new LNG project to proceed, its proponents must be successful in obtaining every required permit and approval. A successful LNG opponent only needs to block one of them.

E. What are other resources out there?

1. What resources on LNG and LNG regulation already exist?

This is by no means the only resource available for learning about LNG facilities and for challenging permits. Some other resources include:

- Regulatory and Permitting Database. OpenEI. https://openei.org/wiki/RAPID/Roadmap.

  A National Renewable Energy Laboratory collaborative website funded by the Department of Energy and others with summary pages and flowcharts for state and federal permits required for renewable energy projects—permitting requirements that overlap with LNG terminals. Use the search function on the RAPID page (above link) to search by permit (e.g., "404") or agency. Although the site is hosted by NREL, non-government entities and individuals may edit the site, so information should be crosschecked with the permitting agencies.

- EPA's Liquefied Natural Gas Regulatory Roadmap. https://www.epa.gov/sites/default/files/2015-08/documents/lng_regulatory_roadmap.pdf.

  This is EPA's 44-page general overview of the environmental laws and regulations applicable to LNG facilities. Note that it was published in 2006, and therefore is not as up to date as this Guide, but it may provide a helpful source for big-picture requirements.

- Troubled Waters for LNG: The COVID-19 Recession and Overproduction Derail Dramatic Expansion of Liquefied Natural Gas Terminals. Environmental Integrity Project. Oct. 5, 2020. https://environmentalintegrity.org/wp-content/uploads/2020/10/LNG-Report-10.5.20-updated.pdf.

- Global LNG Fundamentals, Department of Energy Award No. DE-FE0024160. Oct. 2017. https://www.energy.gov/sites/prod/files/2017/10/f37/Global%20LNG%20Fundamentals_0.pdf

  231-page handbook covering a broad spectrum of topics involved with developing and financing an LNG project, covering in depth the considerations for an LNG export project and development of a diverse domestic market. From the perspective of international countries interested in LNG. Good for understanding LNG from the importer's perspective, as well as a primer on LNG.

- Oil and Gas Watch. https://oilandgaswatch.org/.

  Oil and Gas Watch is a free, public inventory that tracks new and expanded oil, gas, and petrochemical infrastructure projects across the United States. Use the map to navigate to the facility of interest. Clicking on any facility will pull up a summary table of emissions information including current permit status. Clicking on the links in the table for more information opens a dropbox of folders organized by state and further subdivided by facility. Many permit documents are available this way, including those for LNG facilities.

- The Federal Government's Regulations Website, https://www.regulations.gov/.

  Some dockets are searchable on this website. Note that not all agencies update to this site, for example, EPA is much more consistent in updating than the EPA. For information on how to navigate this site, see the tutorial here: https://www.youtube.com/watch?v=29O-jouzwD

- The Federal Government's Freedom of Information Act (FOIA) Website, https://foiaonline.gov/foiaonline/action/public/home.

  A centralized location to track FOIA requests. Not all agencies participate—as relevant to LNG challenges, currently only the EPA and the Department of the Interior (which includes Fish & Wildlife Services) participate. One point of advocacy could be pushing FERC, the Army Corps of Engineers, and the Department of Energy to participate here too.

- Clean Air Task Force's Life Cycle Assessment Tool, Sept. 10, 2021.

  Clean Air Task Force has developed a Life Cycle Assessment Tool to address the variability and range of lifecycle emissions associated with generating power from either coal or LNG. "It is an interactive spreadsheet tool in which key parameters can be directly adjusted to specific local conditions, allowing the user to explore and compare different fuel options. This customizable model can be used to explore the range of lifecycle emissions associated with coal and gas power."

- BankTrack, https://www.banktrack.org/, is a group tracking the financing behind fossil fuel projects, including LNG export terminals. The information compiled here could be useful for public awareness campaigns.
- U.S. Climate Change Litigation: Columbia Law School and Arnold & Porter's free database of select cases related to environmental issues organized by the laws they address and jurisdiction. This should not be used as a substitute for a legal research database like Westlaw or Lexis, but it is a free compilation of major cases and some of the case briefing as well. http://climatecasechart.com/climate-change-litigation/us-climate-change-litigation/.
- Sailing to Nowhere: Liquefied Natural Gas Is Not an Effective Climate Strategy. NRDC Report. Dec. 2020. https://www.nrdc.org/sites/default/files/sailing-nowhere-liquefied-natural-gas-report.pdf.

2. What are examples of challenges that have been brought against LNG facilities before?

There have been numerous challenges to LNG export terminals. Where relevant this guide cites many of the comments, briefing, orders, and environmental documents from a diversity of projects. Many of these documents can be found directly in the Appendix. The following export terminal projects summarized below are highlighted for their uniqueness and the number of challenges brought against them. In addition, two stand-alone pipeline projects are highlighted for the parallels that can be drawn in challenges to terminals.

- Jordan Cove Energy Project (Oregon).[17] This combined terminal and pipeline project was defeated thanks to challenges on many fronts, including through avenues that are only available because of unique state and local laws that provide robust avenues for public participation. Because of advocates' efforts, the entire project was cancelled.[18] In 2011, ***the Department of Energy (DOE)*** granted the project a license to export gas to free-trade countries; in 2014 DOE granted conditional approval for exports to non-free-trade countries, finding that the exports were not inconsistent with the public interest. DOE made its conditional approval final in 2020. Advocates challenged the DOE approvals administratively. On the ***FERC*** front, in February 2012,

[17] Unless otherwise noted, the summary for this project is from: https://www.gem.wiki/Jordan_Cove_LNG_Terminal.
[18] Niina Farah, N., Miranda Willson, and Carlos Anchondo, "Jordan Cove project dies. What it means for FERC, gas," E&E News, Dec. 2, 2021, https://www.eenews.net/articles/jordan-cove-project-dies-what-it-means-for-ferc-gas/.

the project pre-filed its application with FERC. In 2016, FERC rejected the pipeline portion, a first for the agency (the company was allowed to refile). FERC approved the project in 2020, and advocates quickly requested rehearing. When FERC failed to withdraw its certification, the advocates appealed to the D.C. Circuit. That court evidenced skepticism about the project and in November 2021, gave FERC 90 days in which to reconsider whether a stay of its order is appropriate, given the circumstances.[19] As for ***state challenges***, in February 2020, Oregon found that the project was inconsistent with its coastal use plan under the Coastal Zone Management Act (the federal coastal consistency review). The state also denied the section 401 water quality permit and a state dredging permit. FERC upheld the state's denial of the water quality permit in January 2021. On December 1, 2021, the developers officially pulled the plug on the project, citing its inability to get state permits.[20]

- The three Brownsville terminals: Rio Grande LNG, Texas LNG, Annova LNG (Texas).[21] Advocates brought a variety of challenges to all three of the export terminals proposed next to and across from each other along the Brownsville Ship Channel in south Texas. Challenges focused on the approvals given by FERC and Fish & Wildlife Service's supporting analyses. For Rio Grande LNG, challenges were also brought to the Army Corps of Engineers permit and the state air permit. The Corps challenge is on-going. No challenges were brought to the DOE authorizations for any of the three facilities but local governments did attempt to challenge the lease agreements the terminals had with the Port of Brownsville.[22]

  Federal authorization for Rio Grande LNG, by far the largest of the three at 27 metric tons per annum (mtpa), is at this time being reconsidered by ***FERC***, after a successful challenge at the D.C. Circuit sent the certification back to FERC to fix its flawed environmental justice and climate-change analyses. FERC has been allowed to let its certification stand while it redoes those analyses, as the court found FERC "is likely to remedy any deficiencies." Towards the end of the permitting process, Rio Grande LNG revealed that it was changing its design from a six-train terminal to five. This derailed advocates' challenge to the facility's section 404 Clean Water Act permit from the ***Army Corps of Engineers***, which advocates had appealed to the Fifth Circuit. That court paused proceedings until the Corps issued a revised permit to reflect the changes in dimensions of the facility, which it did in September 2021.[23] As of December 2021, advocates are challenging the reissued permit in the Fifth Circuit.[24] Challenges to the biological opinions and incidental take statements issued by the ***U.S. Fish and Wildlife Service*** were ultimately

[19] Niina Farah, "Court grills FERC on climate, eminent domain review of gas project," Oct. 29, 2021, https://www.eenews.net/articles/court-grills-ferc-on-climate-eminent-domain-review-of-gas-project/; Mary B. Powers, "Court Pushes FERC to Reassess Its 2020 Signoff of $10B Jordan Cove LNG," Nov. 9, 2021, https://www.enr.com/articles/52921-court-pushes-ferc-to-reassess-its-2020-signoff-of-10b-jordan-cove-lng.
[20] Farah, "Jordan Cove project dies. What it means for FERC, gas."
[21] Unless noted, the summaries for these projects are from: https://www.gem.wiki/Rio_Grande_LNG_Terminal (Rio Grande LNG); https://www.gem.wiki/Annova_LNG_Terminal (Annova LNG); https://www.gem.wiki/Texas_LNG_Terminal (Texas LNG).
[22] Davila Gaige. "Rio Grande LNG and BND amend lease, amid global oil and gas market uncertainty," *Port Isabel-South Padre Press,* May 8, 2020, https://www.portisabelsouthpadre.com/2020/05/08/rio-grande-lng-and-bnd-amend-lease-amid-global-oil-and-gas-market-uncertainty/.
[23] Sierra Club, "Local Residents, Environmental Groups File Three New Lawsuits Challenging Rio Grande Valley LNG Export Terminals," Mar. 27, 2020, https://www.sierraclub.org/press-releases/2020/03/local-residents-environmental-groups-file-three-new-lawsuits-challenging-rio.
[24] Sebastien Malo, "Texas natural gas projects face fresh environmental challenge," *Reuters*, Nov. 19, 2021, https://www.reuters.com/legal/litigation/texas-natural-gas-projects-face-fresh-environmental-challenge-2021-11-19/.

unsuccessful.[25] (Overturning Fish and Wildlife Service's analyses would have severely weakened the legal support for FERC's certification, which relied on those analyses.) Advocates' Fifth Circuit challenge to the ***state air permit*** was denied on standing.[26] In 2021 Rio Grande LNG announced that it planned to incorporate carbon capture technology despite having argued against its feasibility in challenges to its state air permit.[27] As January 2022, opposition to the terminal is on-going.

Annova LNG, the second largest terminal of the three, at 6.5 mtpa and with six trains, was cancelled in March 2021 after it failed to secure any long-term offtake contracts or reach a final investment decision. Advocates believe that its difficulties were exacerbated by the number of challenges brought against the facility. For example, in 2020, advocates had challenged the ***FERC*** certification, which issued in 2019. A challenge to the biological opinions and incidental take statements issued by the ***U.S. Fish and Wildlife Service*** was ultimately unsuccessful.[28]

Texas LNG, the smallest terminal at 4 mtpa, also received an adverse ruling at the D.C. Circuit on its FERC certification. As with the Rio Grande LNG challenge, the court told ***FERC*** to remedy its climate change and environmental-justice analyses. As of January 2022, the opposition to this facility continues.

- Alaska LNG export terminal (Alaska).[29] DOE and FERC challenges are on-going. Planned to be located southwest of Anchorage in Nikiski, Alaska, the project is a three-train, 20.1 mtpa facility that would deliver 3.5 billion cubic feet of gas a day from Alaska's North Slope gas fields through the proposed 800-mile Alaska LNG Pipeline to the terminal, much of which destined for export to Asia. The proposal originally involved BP, ConocoPhillips, ExxonMobil, and the state-owned Alaska Gasline Development Corporation. But the private oil companies pulled out of the project as an LNG surplus shook gas prices. Alaska's Gasline Development Corporation submitted its application to FERC on April 17, 2017, which was approved in May 2020. In June 2020, advocates that had been ***challenging the FERC process*** filed a formal request for FERC to reconsider its approval. Filed by the Chickaloon Village Traditional Council, the Center for Biological Diversity, Earthjustice, the Northern Alaska Environmental Center and Sierra Club, the appeal charged that FERC's approval failed to consider the project's impacts on climate change and endangered species, including polar bears, Cook Inlet beluga whales and North Pacific right whales. There has also been a ***DOE challenge***. In August 2020, the US Department of Energy issued the project with a final authorization for LNG exports to all countries. In 2021, the DOE granted advocate's request for rehearing of DOE's export authorization and as of January 2022, DOE is conducting further studies as to whether exporting gas from Alaska is in the public interest. Specifically, DOE gave notice that it would be preparing to issue a supplemental Environmental Impact Statement for the project in July 2021 to analyze potential environmental impacts associated with gas

[25] Jamison Cocklin. "Fifth Circuit Finds Pipeline to Feed Rio Grande LNG Minor Threat to Wild Cats in South Texas," *Natural Gas Intelligence*, March 11, 2021, https://www.naturalgasintel.com/fifth-circuit-finds-pipeline-to-feed-rio-grande-lng-minor-threat-to-wild-cats-in-south-texas/.
[26] *Shrimpers and Fishermen of the RGV v. TCEQ*, No. 19-60558 (5th Cir. 2020) https://law.justia.com/cases/federal/appellate-courts/ca5/19-60558/19-60558-2020-07-31.html.
[27] "NextDecade proposes carbon capture for Texas Rio Grande LNG project," *Reuters*, Mar. 19, 2021, https://www.reuters.com/article/us-nextdecade-carboncapture/nextdecade-proposes-carbon-capture-for-texas-rio-grande-lng-project-idUSKBN2BB1DC.
[28] *Sierra Club v. Department of Interior*, No. 20-60319 (Mar. 10, 2021) https://law.justia.com/cases/federal/appellate-courts/ca5/20-60319/20-60319-2021-03-10.html.
[29] Unless otherwise noted, the summary for this project is from: https://www.gem.wiki/Alaska_LNG_Terminal.

production on the North Slope of Alaska and a life cycle analysis calculating the greenhouse gas emissions for LNG exported from the proposed Alaska LNG Project.[30]

- Pipelines. Although pipelines are reviewed under different legal standards than export terminals, there is some overlap on strategy and this guide mentions discusses pipelines in some chapters—specifically the Mountain Valley Gas Pipeline and the Atlantic Coast Pipeline. *Mountain Valley Pipeline* is a proposed gas pipeline system that spans approximately 300 miles from northwestern West Virginia to southern Virginia. It would be located on active seismic zones, impact water quality, and be visible from multiple iconic points along the Appalachian Trail, likely affecting tourism and local economies. Fierce challenges were brought against the initial Army Corps of Engineers permit that was granted that relied on a generic "nationwide permit" and insufficient Clean Water Act section 401 authority; thanks to advocates' efforts, the Corps is conducting its review under the more rigorous individual permitting system.[31] The FERC certification was also challenged including for its treatment of historical indigenous sites along the pipeline route.[32] Unfortunately, construction has been on-going during the legal challenges—according to the company, as of November 2021, only 20 miles were yet to be completed.[33] The construction has already caused stormwater runoff and impacts to water quality. The *Atlantic Coast Pipeline* was successfully defeated in July 2020, despite its proponents winning a Supreme Court victory on one aspect of one permit.[34] It would have affected environmental justice communities, Native American populations, and sensitive wildlife along the route. Among other challenges, advocates challenged the approvals issued by FERC and U.S. Forest Service, the latter of which was required because the pipeline was proposed on federal land.[35]

More details on the number of LNG export terminals that are operating or in the permitting process can be found in Chapter 2.

[30] Office of Fossil Energy, Department of Energy, "Notice of Intent to Prepare a Supplemental Environmental Impact Statement for the Alaska LNG Project," 86 Fed. Reg. 35280-81 (July 2, 2021), https://www.federalregister.gov/documents/2021/07/02/2021-14188/notice-of-intent-to-prepare-a-supplemental-environmental-impact-statement-for-the-alaska-lng-project.
[31] US Army Corps of Engineers Huntington District's Notice of Virtual Public Hearings for the MVP project, Sept. 30, 2021, https://www.lrh.usace.army.mil/Missions/Regulatory/Public-Notices/Article/2793909/lrh-2015-00592-gbr-lrp-2015-798-nao-2015-0898/.
[32] Kevin Ridder, "The Appalachian Pipeline Resistance Movement: 'We're Not Going Away,'" *The Appalachian Voice*, Oct. 28, 2020, https://appvoices.org/2020/10/28/the-appalachian-pipeline-resistance-movement/.
[33] Hammack, Laurence. "Mountain Valley Pipeline nears completion, but hurdles remain." The Roanoke Times. (Nov. 2, 2021). https://roanoke.com/news/local/mountain-valley-pipeline-nears-completion-but-hurdles-remain/article_e613a4f4-3c24-11ec-853d-1fe5c53e7132.html.
[34] Becky Sullivan and Laurel Wamsley, "Supreme Court Says Pipeline May Cross Underneath Appalachian Trail," *NPR*, June 15, 2020, https://www.npr.org/2020/06/15/877643195/supreme-court-says-pipeline-may-cross-underneath-appalachian-trail; Kevin Ridder, "The End of the Atlantic Coast Pipeline," *The Appalachian Voice*, July 21, 2020, https://appvoices.org/2020/07/21/the-end-of-the-atlantic-coast-pipeline/.
[35] Southern Environmental Law Center, "FERC Faces Legal Challenge Over ACP Decision: Coalition Sues the Agency," Jan. 30, 2018, https://www.southernenvironment.org/press-release/ferc-faces-legal-challenge-over-acp-decision/; Allegheny-Blue Ridge Alliance, "FERC and ACP, LLC File Response Briefs in Challenge to ACP Certificate," https://www.abralliance.org/2019/06/28/ferc-and-acp-llc-file-response-briefs-in-challenge-to-acp-certificate/.