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ENERGY INFRASTRUCTURE PERMITTING

Factors Affecting Timeliness and Efficiency

Statement of Frank Rusco, Director, Natural Resources and Environment

GAO Highlights

Highlights of GAO-18-693T, a testimony before the Subcommittees on Intergovernmental Affairs and the Interior, Energy, and the Environment, Committee on Oversight and Government Reform, House of Representatives

Why GAO Did This Study

Congress recognizes the harmful effects of permitting delays on infrastructure projects and has passed legislation to streamline project reviews and hold agencies accountable. For example, in 2015 Congress passed the Fixing America's Surface Transportation Act, which included provisions streamlining the permitting process. Federal agencies, including the Department of the Interior and FERC, play a critical role by reviewing energy infrastructure projects to ensure they comply with federal statutes and regulations.

This testimony discusses factors GAO found that can affect energy infrastructure permitting timeliness and efficiency. To do this work, GAO drew on reports issued from July 2012 to December 2017. GAO reviewed relevant federal laws, regulations, and policies; reviewed and analyzed federal data; and interviewed tribal, federal, state and industry officials, among others.

What GAO Recommends

GAO has made numerous recommendations about ways to improve energy infrastructure permitting processes. Federal agencies have implemented a number of GAO's recommendations and taken steps to implement more efficient permitting, but several of GAO's recommendations remain open, presenting opportunities to continue to improve permitting processes.

View GAO-18-693T. For more information, contact Frank Rusco at (202) 512-3841 or RuscoF@gao.gov.

ENERGY INFRASTRUCTURE PERMITTING

Factors Affecting Timeliness and Efficiency

What GAO Found

GAO's prior work has found that the timeliness and efficiency of permit reviews may be affected by a range of factors. For the purposes of this testimony, GAO categorized these factors into five categories.

- Coordination and Communication. GAO found that better coordination between agencies and applicants is a factor that could result in more efficient permitting. Coordination practices that agencies can use to streamline the permitting process include the following:
 - Designating a Lead Coordinating Agency. GAO found having a lead agency to coordinate the efforts of federal, state, and local stakeholders is beneficial to permitting processes. For example, in a February 2013 report on natural gas pipeline permitting, industry representatives and public interest groups told GAO that the interstate process was more efficient than the intrastate process because in the interstate process the Federal Energy Regulatory Commission (FERC) was lead agency for the environmental review.
 - Establishing Coordinating Agreements among Agencies. In the February 2013 report, GAO reported that FERC and nine other agencies signed an interagency agreement for early coordination of required environmental and historic preservation reviews to encourage the timely development of pipeline projects.
- Human Capital. Agency and industry representatives cited human capital factors as affecting the length of permitting reviews. Such factors include having a sufficient number of experts to review applications. GAO reported in November 2016 on long-standing workforce challenges at the Department of the Interior's Bureau of Indian Affairs (BIA), such as inadequate staff resources and staff at some offices without the skills to effectively conduct such reviews. GAO recommended that Interior incorporate effective workforce planning standards by assessing critical skills and competencies needed to fulfill its responsibilities related to energy development. Interior agreed with this recommendation, and BIA stated that its goal is to develop such standards by the end of fiscal year 2018.
- Collecting and Analyzing Accurate Milestone Information. GAO's work has shown that a factor that hinders efficiency and timeliness is that agencies often do not track when permitting milestones are achieved, such as the date a project application is submitted or receives final agency approval. Having quality information on permitting milestones can help agencies better analyze process deficiencies and implement improvements.
- **Incomplete Applications.** Agency officials and agency documents cited incomplete applications as affecting the duration of reviews. For example, in a 2014 budget document, BLM reported that—due to personnel turnover in the oil and gas industry—operators were submitting inconsistent and incomplete applications for drilling permits, delaying permit approvals.
- Significant Policy Changes. Policy changes unrelated to permitting can affect permitting time frames. For example, after the 2010 Deepwater Horizon incident and oil spill, Interior issued new safety requirements for offshore drilling. GAO found that review times for offshore oil and gas drilling permits increased after these safety requirements were implemented.

United States Government Accountability Office

Chairmen Palmer and Gianforte, Ranking Members Raskin and Plaskett, and Members of the Subcommittees:

I am pleased to be here today to discuss our work on the role of federal agencies in the permitting processes for energy infrastructure projects.

Federal agencies, including the Department of the Interior and the Federal Energy Regulatory Commission (FERC), play a critical role in ensuring that energy infrastructure projects developed in the United States comply with a wide range of federal statutes and regulations. Perhaps the most notable is the National Environmental Policy Act (NEPA), which requires federal agencies to evaluate the potential environmental effects of actions they propose to carry out, fund, or approve, such as by permit.¹

Over the years, we have issued numerous reports describing the role of federal agencies in permitting various types of energy infrastructure, including onshore and offshore oil and gas projects, natural gas pipelines, and liquefied natural gas (LNG) export facilities. Two common themes emerge from these reports. First, permitting processes are varied and complex, often requiring an applicant to comply with a range of federal, state, and local laws and regulations. Second, permitting processes can involve several federal and state agencies, as well as other stakeholders, many of whom have approval responsibilities. For example, to construct an LNG export facility, an applicant must coordinate with federal agencies such as FERC-the lead agency responsible for the environmental and safety review—as well as the U.S. Coast Guard—which assesses waterway suitability; the applicant may also need permits from, among others, the U.S. Army Corps of Engineers for dredging activities and the U.S. Environmental Protection Agency for permits under the Clean Air Act.² In addition to federal permits and consultations, applicants may also be required to obtain other permits under state and local law. Because of

²GAO, *Natural Gas: Federal Approval Process for Liquefied Natural Gas Exports,* GAO-14-762, (Washington, D.C.: Sept. 26, 2014)

¹Enacted in 1970, NEPA has as its purpose, among others, to promote efforts to prevent or eliminate damage to the environment. NEPA requires an agency to prepare a detailed statement on the environmental effects of any "major federal action" significantly affecting the environment. Regulations promulgated by the Council on Environmental Quality implementing NEPA generally require an agency to prepare either an environmental assessment or an environmental impact statement, depending on whether a proposed federal action could significantly affect the environment.

the wide variety of projects, locations, and state and local laws, permitting requirements vary by project. Public interest groups and the public also contribute to the process.

We have found that inefficiencies in the permitting process can have real world effects. For example, in a June 2015 report on Indian energy development, we reported that a review by the Bureau of Indian Affairs (BIA) could be a lengthy process and increase development costs and project development times, resulting in missed development opportunities and lost revenue and jeopardizing the viability of projects.³ As we reported then, the Acting Chairman for the Southern Ute Indian Tribe reported in 2014 that BIA's review of some of its energy-related documents took as long as 8 years, and during that time the tribe estimated it lost \$95 million in revenues.

Congress has recognized the harmful effects of permitting delays and passed legislation to streamline permitting and to hold agencies accountable, including Fixing America's Surface Transportation Act.⁴ When Congress passed this act in 2015, it included provisions for streamlining the infrastructure permitting process and codified into law the use of a permitting dashboard to track project timelines.

This testimony discusses factors that can affect permitting timeliness and efficiency. This statement draws on findings from our reports issued from July 2012 to December 2017. In conducting that work, we reviewed relevant federal laws, regulations, and policies; reviewed and analyzed federal data; and interviewed tribal, federal, state and industry officials,

³GAO, *Indian Energy Development: Poor Management by BIA Has Hindered Energy Development on Indian Lands*, GAO-15-502 (Washington, D.C.: June 8, 2015).

⁴Pub. L. No. 114-94, 129 Stat. 1312 (2015).

	among others. More detailed information on our scope and methodology can be found in each of the cited reports. ⁵
	We conducted the work on which this testimony is based in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions.
Factors Affecting Federal Infrastructure Permitting	In our prior work, we identified a range of factors that can affect permitting timeliness and efficiency. For the purposes of this statement, we have categorized the factors into five broad categories: 1) coordination and communication, 2) human capital, 3) collecting and analyzing accurate milestone information, 4) incomplete applications, and 5) significant policy changes.
Coordination and Communication	Effective coordination and communication between agencies and applicants is a critical factor in an efficient and timely permitting process. Standards for internal control in the federal government call for management to externally communicate the necessary quality information to achieve the entity's objectives, including by communicating with and obtaining quality information from external parties. ⁶ We found that better coordination between agencies and applicants could result in more efficient permitting. For example, in our February 2013 review of natural gas pipeline permitting, we reported that virtually all applications for
	⁵ GAO, Offshore Seismic Surveys: Additional Guidance Needed to Help Ensure Timely Reviews, GAO-18-60, (Washington D.C.: Dec. 11, 2017).; Indian Energy Development, Additional Actions by Federal Agencies Are Needed to Overcome Factors Hindering Development, GAO-17-43, (Washington, D.C.: Nov. 10, 2016).; Indian Energy Development: Poor Management by BIA Has Hindered Energy Development on Indian Lands, GAO-15-502, (Washington, D.C.: June 8, 2015).; Natural Gas: Federal Approval Process for Liquefied Natural Gas Exports, GAO-14-762, (Washington, D.C.: Sept. 26, 2014); Oil And Gas Development: BLM Needs Better Data to Track Permit Processing Times and Prioritize Inspections, GAO-13-572, (Washington, D.C.: Aug. 23, 2013).; Pipeline Permitting: Interstate and Intrastate Natural Gas Permitting Processes Include Multiple Steps, and Time Frames Vary, GAO-13-221, (Washington, D.C.: Feb. 15, 2013); Oil And Gas Management: Interior's Reorganization Complete, but Challenges Remain in Implementing New Requirements, GAO-12-423, (Washington, D.C.: July 30, 2012).
	⁶ GAO, Standards for Internal Control in the Federal Government, GAO-14-704G

(Washington, D.C.: September 2014).

	pipeline projects require some level of coordination with one or more federal agencies, as well as others, to satisfy requirements for environmental review. ⁷ For example, BIA is responsible for, among other things, approving rights of way across lands held in trust for an Indian or Indian tribe and must consult and coordinate with any affected tribe.
	We have reported on coordination practices that agencies use to streamline the permitting process, including the following.
Designating a Lead Coordinating Agency	We have found that having a lead agency coordinate efforts of federal, state, and local stakeholders is beneficial to permitting processes. For example, in our February 2013 review on natural gas pipeline permitting, industry representatives and public interest groups told us that the interstate process was more efficient than the intrastate process because in the interstate process FERC was designated the lead agency for the environmental review. ⁸ Other agencies may also designate lead entities for coordination. For example, in a November 2016 report, we described how BIA had taken steps to form an Indian Energy Service Center that was intended to, among other things, help expedite the permitting process associated with Indian energy development. ⁹ We recommended that BIA involve other key regulatory agencies in the service center so that it could more effectively act as a lead agency. ¹⁰
Establishing Coordinating Agreements among Agencies	Establishing coordinating agreements among agencies can streamline the permitting process and reduce time required by routine processes. For example, in our February 2013 review of natural gas pipeline permitting, we reported that FERC and nine other agencies signed an interagency agreement for early coordination of required environmental and historic preservation reviews to encourage the timely development of pipeline projects. ¹¹
Using Mechanisms to Expedite Routine or Less Risky Reviews	Agencies can also use mechanisms to streamline reviews of projects that are routine or less environmentally risky. For example, under NEPA,
	⁷ GAO-13-221.
	⁸ GAO-13-221.
	⁹ GAO-17-43.
	¹⁰ Interior agreed with this recommendation and, as of September 2017, BIA was in discussions with other agencies to establish formal agreements.

¹¹GAO-13-221.

agencies may categorically exclude actions that an agency has found—in NEPA procedures adopted by the agency—do not individually or cumulatively have a significant effect on the human environment and for which, therefore, neither an environmental assessment nor an environmental impact statement is required.¹² Also under NEPA, agencies may rely on "tiering," in which broader, earlier NEPA reviews are incorporated into subsequent site-specific analyses. Tiering is used to avoid duplication of analysis as a proposed activity moves through the NEPA process, from a broad assessment to a site-specific analysis.¹³ Such a mechanism can reduce the number of required agency reviews and shorten the permitting process.

Human Capital

Agency and industry representatives cited human capital factors as affecting the length of permitting reviews. Such factors include having a sufficient number of experts to review applications. Some examples include:

- In June 2015 and in November 2016, we reported concerns associated with BIA's long-standing workforce challenges, such as inadequate staff resources and staff at some offices without the skills needed to effectively review energy-related documents.¹⁴ In November 2016 we recommended that Interior direct BIA to incorporate effective workforce planning standards by assessing critical skills and competencies needed to fulfill BIA's responsibilities related to energy development.¹⁵
- For a September 2014 report, representatives of companies applying for permits to construct LNG export facilities told us that staff shortages at the Pipeline and Hazardous Safety Materials

¹³GAO-18-60.

¹⁴GAO-15-502; GAO-17-43.

¹²40 C.F.R. § 1508.4. Any such procedures must provide for extraordinary circumstances in which a normally excluded action may have a significant environmental effect. Id.

¹⁵GAO-17-43. Interior agreed with this recommendation and stated the Indian Energy Service Center would identify and implement a workforce plan for the participating agencies regarding positions associated with the development of Indian energy and minerals on trust lands. According to June 2018 testimony by the Acting Director of BIA, BIA's goal is to develop workforce standards by the end of fiscal year 2018.

	Administration delayed spill modeling necessary for LNG facility reviews. ¹⁶
	 In an August 2013 review of Interior's Bureau of Land Management (BLM) and oil and gas development, industry representatives told us that BLM offices process applications for permit to drill at different rates, and inadequate BLM staffing in offices with large application workloads are one of the reasons for these different rates.¹⁷
	Agencies have taken some actions to mitigate human capital issues. For example, we reported in August 2013 that BLM had created special response teams of 10 to 12 oil and gas staff from across BLM field offices to help process applications for permits to drill in locations that were experiencing dramatic increases in submitted applications. ¹⁸ In July 2012, we recommended that Interior instruct two of its bureaus to develop human capital plans to help manage and prepare for human capital issues, such as gaps in critical skills and competencies. ¹⁹
Collecting and Analyzing Accurate Milestone Information	Our work has shown that a factor that hinders efficiency and timeliness is that agencies often do not track when permitting milestones are achieved, such as the date a project application is submitted or receives final agency approval to determine if they are achieving planned or expected results. In addition, our work has shown that agencies often do not collect accurate information, which prevents them from analyzing their processes in order to improve and streamline them. The following are examples of reports in which we discussed the importance of collecting accurate milestone information:
	Service and the U.S. Fish and Wildlife Service were not recording accurate permit milestone dates, so it was not possible to
	¹⁶ GAO-14-762.
	¹⁷ GAO-13-572.
	¹⁸ GAO-13-572.
	¹⁹ GAO-12-423. Interior neither agreed nor disagreed with our recommendation. According to Interior, the Bureau of Safety and Environmental Enforcement and the Bureau of Ocean Energy Management completed human capital plans in 2013 and 2016, respectively.

determine whether agencies met statutory review time frames.²⁰ We recommended that these agencies clarify how and when staff should record review dates so that the agencies could assess the timeliness of reviews.²¹

- We found in June 2015 that BIA did not have a documented process or the data needed to track its review and response times; to improve the efficiency and transparency of BIA's review process, we recommended that the agency develop a process to track its review and response times and improve efforts to collect accurate review and response time information.²²
- We found in an August 2013 report that BLM did not have complete data on applications for permits to drill, and without accurate data on the time it took to process applications, BLM did not have the information it needed to improve its operations. We recommended that BLM ensure that all key dates associated with the processing of applications for permits to drill are completely and accurately entered into its system to improve the efficiency of the review process.²³

Standards for internal control in the federal government call for management to design control activities to achieve objectives and respond to risks, including by comparing actual performance with planned or expected results and analyzing significant differences. Without tracking performance over time, agencies cannot do so. The standards also call for agency management to use quality information to achieve agency objectives; such information is appropriate, current, complete, accurate, accessible, and provided on a timely basis. As we have found, having

²⁰GAO-18-60.

²¹The National Marine Fisheries Service agreed with the recommendation and said it planned to implement the recommendation. The U.S. Fish and Wildlife Service partially agreed with the recommendation but did not indicate whether it planned to implement the recommendation.

²²GAO-15-502. Interior did not agree with the recommendation, but in May 2017 Interior stated that BIA subject matter experts were working to improve data fields necessary to track and monitor review and response times for oil and gas leases and agreements.

²³GAO-13-572. Interior generally agreed with this and other recommendations in this report. According to BLM, it redesigned its system to improve the accuracy and completeness of applications in the system, and in February 2017 began requiring operators to use the system, which BLM believes will help reduce application processing times.

quality information on permitting milestones can help agencies identify the duration of the permitting process, analyze process deficiencies, and implement improvements.
According to agency officials we spoke with and agency documents we reviewed, incomplete applications are a factor that can affect the duration of reviews. For example, in a 2014 BLM budget document, BLM reported that—due to personnel turnover in the oil and gas industry—operators were submitting inconsistent and incomplete applications for permits to drill, which was delaying the approval of permits. ²⁴ In a February 2013 report, officials we spoke with from Army Corps of Engineers district offices said that incomplete applications may delay their review because applicants are given time to revise their application information. ²⁵ Deficiencies within agency IT systems may also result in incomplete applications. As we noted in a July 2012 report, Interior officials told us that their review of oil and gas exploration and development plans was hindered by limitations in its IT system that allowed operators to submit inaccurate or incomplete plans, after which plans were returned to operators for revision or completion. ²⁶
Agencies can reduce the possibility of incomplete applications by encouraging early coordination between the prospective applicant and the permitting agency. According to agency and industry officials we spoke with, early coordination can make the permitting process more efficient. One example of early coordination is FERC's pre-filing process, in which an applicant may communicate with FERC staff to ensure an application is complete before formally submitting it to the commission. ²⁷
²⁴ GAO-13-572.
²⁵ GAO-13-221. ²⁶ GAO-12-423.
²⁷ This process may be mandatory—such as for liquefied natural gas export facilities—or voluntary—such as for pipelines. For example, liquefied natural gas export facility applicants are required to spend at least 6 months in the pre-filing process before formally submitting an application. According to FERC officials we spoke with, the pre-filing process is intended to allow applicants to communicate freely with FERC staff and stakeholders to identify and resolve issues before the applicant formally files an application with FERC.

Significant Policy Changes

Changes in U.S. policy unrelated to permitting are a factor that can also affect the duration of federal permitting reviews. For example, in September 2014, we reported that the Department of Energy did not approve liquefied natural gas exports to countries without free-trade agreements with the United States for a period of 16 months.²⁸ We found that the Department stopped approving applications while it conducted a study of the effect of liquefied natural gas exports on the U.S. economy and the national interest. Exporting liquefied natural gas was an economic reversal from the previous decade in which the United States was expected to become an importer of liquefied natural gas.

Policy changes can result from unforeseen events. After the Deepwater Horizon incident and oil spill in 2010, Interior strengthened many of its safety requirements and policies to prevent another offshore incident. For example, Interior put new safety requirements in place related to well control, well casing and cementing, and blowout preventers, among other things. In a July 2012 report, we found that after the new safety requirements went into effect, review times for offshore oil and gas drilling permits increased, as did the number of times that Interior returned a permit to an operator.²⁹

In conclusion, our past reports have identified varied factors that affect the timeliness and efficiencies of federal energy infrastructure permitting reviews. Federal agencies have implemented a number of our recommendations and taken steps to implement more efficient permitting, but several of our recommendations remain open, presenting opportunities to continue to improve permitting processes.

Chairmen Palmer and Gianforte, Ranking Members Raskin and Plaskett, and Members of the Subcommittees, this concludes my prepared statement. I would be pleased to answer any questions that you may have at this time.

²⁸GAO-14-762.

²⁹GAO-12-423.

GAO Contacts and Staff Acknowledgments	If you or your staff members have any questions concerning this testimony, please contact Frank Rusco, Director, Natural Resources and Environment, who may be reached at (202) 512-3841 or RuscoF@gao.gov. Contact points for our Office of Congressional Relations and Public Affairs may be found on the last page of this statement. Key contributors to this testimony include Christine Kehr (Assistant Director), Dave Messman (Analyst-in-Charge), Patrick Bernard, Marissa Dondoe, Quindi Franco, William Gerard, Rich Johnson, Gwen Kirby, Rebecca Makar, Tahra Nichols, Holly Sasso, and Kiki Theodoropoulos.

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