Avoiding and Resolving Intergovernmental Conflicts with Interstate Natural Gas Facility Siting, Construction, and Maintenance

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Executive Summary

The INGAA Foundation Inc. commissioned ENSR International (ENSR), an environmental consulting firm, to undertake a study to identify potential solutions to conflicts that sometimes arise between regional, federal, state, local, and/or tribal governing entities when siting, constructing, and maintaining interstate natural gas pipelines.[1] This study was conducted between March and December 2004.

According to a recent INGAA Foundation Study, United States (U.S.) natural gas consumption should approach 30 Trillion cubic feet by the end of the next decade if the supply of gas is developed. If this growth in consumption is to occur, however, large amounts of infrastructure, including pipeline capacity, storage capacity, and liquified natural gas terminal capacity, must be built in the U.S. and Canada.[2]

The Federal Energy Regulatory Commission (FERC) must approve all new interstate natural gas pipelines and any expansions to existing interstate natural gas systems, including storage fields and liquid natural gas (LNG) import facilities. The FERC approval process includes the appropriate National Environmental Policy Act (NEPA) review as well as verification that applicants obtain permits from numerous federal, state and local agencies before construction may begin. However, coordinating agency efforts has remained a significant challenge to the project approval process; consumers and pipeline project sponsors alike have benefited from streamlining initiatives that have occurred in the past couple of years. Still, more improvements on this front could even further streamline project permitting and reduce unnecessary project delays without compromising existing environmental review and compliance.

In this study, "intergovernmental conflicts" were defined as disagreements encountered between two or more regulatory or permitting agencies or entities when reviewing a proposed natural gas infrastructure project. This study focused primarily on intergovernmental conflicts between federal, state, local, or tribal permitting entities (also referred to in this report as Federal versus state conflicts, state versus state, Federal versus tribal, et cetera). These disagreements were as simple as conflicting permit review timeframes or as complicated as what specific mitigation was required when the project encountered highly erodible soils during construction.

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[1] This study applies to interstate natural gas pipelines, governed by the Federal Energy Regulatory Commission, which can be defined as natural gas pipelines which cross state lines.

[2] Interstate Natural Gas Association of America (INGAA). 2004. Foundation Study: "An Updated Assessment of Pipeline and Storage Infrastructure for the North American Gas Market: Adverse Consequences of Delays in the Construction of Natural Gas Infrastructure." The INGAA Foundation. F-2004-01. July 2004.

The scope of work for the study included four steps: preliminary issue identification by evaluating project case studies; a comparison of the permitting process for interstate natural gas pipelines against other similar industries; a literature review for previously stated solutions and existing legislation, and finally, recommended solutions or strategies for conflict avoidance and resolution.

This study began with an examination of the nature and extent of conflicts that arose between the FERC and other agency jurisdictions relative to both new capital projects and existing systems' maintenance projects. The study reviewed natural gas pipeline projects planned and/or constructed over the past decade to determine the nature of any intergovernmental conflicts and their effect on the projects, as well as identify successful permitting strategies.

Various impediments were encountered by the proposed pipelines in the case studies. The impediments included resource constraints at the state agency level; resistance by state or local agency staff to performing a concurrent review with the federal permit review; differences in the allowed resource impacts and required mitigation for a project; intragency conflicts, wherein various staff within an agency disagreed and caused impediments to the process; and purposeful delay by agency staff for reasons other than related to the permit (i.e., political reaction to public or personal opposition to the project). For projects that crossed tribal lands, the negotiations with the tribal entities required more time, more attention, and more costly lease arrangements than anticipated.

The effects of the permitting conflicts studied invariably increased the costs of the project, often delayed the construction schedule, and/or affected the eventual success or failure of the project (i.e., whether or not the project was built). Furthermore, the permitting conflicts affected not only the proposed projects, but also negatively affected the siting of future pipeline projects. For example, project proponents that encountered project "failures" (i.e., projects that were cancelled due to permitting conflicts) on one project were discouraged from siting a future project in the same region, fearing similar permitting failures.

If project proponents continue to avoid siting projects in a certain region of the country due to contentious permitting issues, the result could be a lack of pipeline infrastructure in a particular region, constraining the ability of supply to reach markets. This will impede the industry's ability to supply demand and lead to higher prices borne by the end user.[3]

Suggestions for addressing these conflicts included additional funding to augment staff needs from either cost recovery programs or third-party funding; permit process and industry training programs, development of both project-specific and industry-wide public outreach programs, awareness by the applicants when proposing projects in states that require more attention and commitment than the

[3] An analysis of the effects of a failure to build adequate infrastructure is contained in INGAA. 2004. Foundation Study: "An Updated Assessment of Pipeline and Storage Infrastructure for the North American Gas Market: Adverse Consequences of Delays in the Construction of Natural Gas Infrastructure."

federal permitting process; and employing as many other strategies as possible to speed the overall permitting process.

The second step of the study summarized lessons learned outside the natural gas industry. This step reviewed permitting timeframes, intergovernmental conflict potential, and permitting processes (i.e., permit streamlining techniques) in other kinds of infrastructure projects, including wind energy, electric transmission, liquids pipelines, power plants, oil and gas development, and telecommunications. There was a similar amount of regulatory review overlap for these other industries as for the natural gas pipeline industry, since compliance with NEPA is common among them. As such, many of the same permitting impediments occurred in these projects as were encountered with natural gas pipeline projects. These included inadequate staffing at the agency for processing permit applications and lack of knowledge by the agency staff regarding the federal permitting process and/or the industry needs and constraints. Additionally, the other industries encountered communication difficulties between the agencies and the applicant, a lack of communication and coordination between the agencies; misunderstanding regarding what defines a complete application; lack of knowledge by the project applicant regarding the permit process; inconsistent application steps; and permit requirements across agencies or offices within an agency, deadlines and timeframes that were not properly communicated to the applicant, and deadlines and timeframes which differ by agency.

There were many suggestions for addressing these conflicts, employed by both the natural gas pipeline industry and the other industries. These included the establishment and use of predesignated utility corridors; specific review timeframes for completeness and for approval or denial of permit; minimum filing checklists or content rules for applications; use of third-parties to prepare permits or NEPA documents; project-specific resources cost-recovery programs; and project management by a designated lead staff member. Some additional solutions or strategies that appeared to be specific to the natural gas pipeline industry included reference to and implementation of easily recognized best management practices or resource protection documents; use of the FERC pre-filing process; use of third-party compliance monitors for construction; process and application-specific training workshops; and development of a federal interagency memorandum of understanding for interstate natural gas pipeline projects.

The third step of the study involved a literature review to identify permit streamlining strategies and solutions currently in practice and to review relevant federal and state statutes and regulations that attempt to facilitate permitting processes. Of particular note should be the strides that the Federal Highway Administration has made in streamlining their permitting processes within the U.S. Permitting large highway transportation projects is similar to permitting large interstate natural gas pipeline transportation projects in many ways. Provisions[4] in existing Federal Highway Administration legislation could serve as a model for a similar piece of legislation for natural gas pipeline projects in order to address coordinated and concurrent federal and state agency environmental review processes, to create a dispute resolution process, and provide states with the authority to request funds to reimburse affected agencies for expenses.

[4] Federal Transportation Act for the 21st Century (TEA, P.L. 105-178).

The study concluded with a comprehensive evaluation of various permit streamlining strategies that attempt to avoid or address intergovernmental conflicts. Recommendations for using these strategies follow the evaluations. These solutions and strategies were organized in the framework of four categories: federal programs, state programs, tribal processes, and applicant practices. The solutions were intended to be fully sustainable (economically viable, environmentally sound, and socially acceptable). These strategies potentially can be employed by both the industry and the regulatory agencies when siting, constructing, and maintaining interstate natural gas pipeline infrastructure. **Tables ES-1** through **ES-4** summarize the recommended strategies and solutions.

Table ES-1
Summary of Recommended Federal Process Solutions and Strategies

Federal Process Solution or Strategy	Recommendations
Memorandums of Agreement (MOAs) and Memorandums of Understanding (MOUs)	1. MOUs should be prepared at the field office level on a programmatic level to address all types of projects and at a project level to address specific requirements of a given project. This would result in MOUs that are more directly useful and ready to implement.
	2. Agreements that are prepared on a local level should identify and list specific agency responsibilities for specific environmental elements.
	3. Agreements should be reached among cooperating agencies regarding the content of environmental documents and permits so that they can be prepared to meet all agency requirements.
	4. MOU implementation should be specifically detailed and communicated to agency staff. For example, the Bureau of Land Management (BLM) uses Instructional Memorandums and the U.S. Forest Service uses Director's Orders to instruct agency staff on policy changes.
	5. The concept of compiling best management practices and use of an ombudsman as stated in the Pipeline Safety Improvement Act of 2002, should be carried forward at an agency level. The concept is also recommended at the local level to address differences in land use, environmental conditions, and local regulations in order to adequately address relevant mitigation needs.
	6. Develop a MOU, similar to the Western Governors' Association MOU (U. S. Department of Energy et al. 2001), between the federal agencies and the National Governors' Association. The agreement could educate governors about the Industry and permitting process, allowing them to better address constituent concerns.
	7. Build upon the existing Western Governors' Association MOU to include each state's respective resource protection agency(ies) in order to capture the state level of agency cooperation.
Early Project Scoping and Continued Stakeholder Education and Involvement	8. Applicants, Federal Energy Regulatory Commission (FERC) staff, and cooperating agencies are encouraged to continue using the FERC Pre-filing process, where appropriate.
	9. Applicants and the FERC staff are encouraged to promote public education by actively pursuing effective strategies (e.g., conducting workshops, the media, visiting schools) to inform the public about the industry, projects, and the NEPA process. FERC staff already act in this regard to some extent in the pre-filing process by acting as a process advocate (not a project advocate).
	10. Applicants and the FERC staff are encouraged to promote an understanding and confidence in the comprehensive FERC environmental permit review process. The more confident the public and local agencies feel in the FERC process, the more likely these stakeholders are to contribute to the process and subsequently, support the project decisions made by the FERC staff.
National Project Manager Programs	11. Involve U.S. Department of Transportation (USDOT), Community Assistance and Technical Services liaisons to the maximum extent practical for obtaining permits and approvals required in order to perform the USDOT mandated maintenance, inspection, and repair work under the 2004 integrity rule (USDOT 2004a).
	12. The BLM National Project Manager program should be expanded to the extent practicable to accommodate large, complex projects.
	13. There appears to be the ability in the program for BLM National Project Managers to work for other Department of Interior entities in the National Environmental Policy Act (NEPA) project manager role, if needed (e.g., U.S. Fish and Wildlife Service [USFWS]). While filling these positions in the sister agencies, the National Project Manager could share invaluable knowledge about the NEPA process and managing large-scale pipeline projects. To a lesser degree, the National Project Manager could offer mentoring assistance to these agencies.

Federal Process Solution or Strategy	Recommendations
	14. Other agencies (e.g., USFWS, U.S. Army Corps of Engineers) should have a process similar to the BLM National Project Manager Program for large, multi-office, multi-state natural gas pipeline projects. Preferably, individuals employed as project managers for these other agencies should be specialists in NEPA analysis and knowledgeable about natural gas pipelines.
Account Cost Recovery Programs and Third-party Permitting	15. Voluntary cost recovery programs should be explored for federal agencies that do not currently have these programs in place. However, applicants should only be required to pay for costs that are incurred above and beyond the typical project review. Additionally, in exchange for applicant payments, a defined permit process review schedule should be outlined.
	16. The use of third-party contractors should be explored for federal agencies that do not currently have these programs in place. Examples include: USFWS for processing Section 7 Consultation and the State Historic Preservation Officers (SHPOs) for review of the Section 106 – National Historic Preservation Act (NHPA) Consultation process. These two consultation processes account for many project schedule delays on pipeline projects.
	17. The use of account cost recovery programs and third-party contractors should be a voluntary decision on the part of the applicant and the agency and should be dependant upon the size of the project and the required permitting timeframe.
Training and Public Outreach	18. Encourage participation in the BLM Training Program so that agency staff is knowledgeable about the Industry and project limitations.
	19. Encourage all stakeholders, including other agency and industry personnel, to participate in the FERC training program in order to understand the application processes better.
	20. Encourage industry to offer training to agency staff. The more agency staff understand pipeline projects, the more constructive their input is likely to be.
	21. FERC should provide training for topics as suggested by industry: LNG Permitting, Blanket Certificate (i.e., maintenance filings), Endangered Species Act (ESA) Consultation, and Preparation of Applicant-prepared EAs and third-party EISs.
	22. Maximize the use of the outreach materials developed in the ongoing INGAA Study to broadcast key messages related to natural gas pipeline infrastructure to the public and policy makers (INGAA In Progress 2004-2005).
Concurrent Review Process	23. Encourage "team permitting" among the involved agencies. Agencies would need to gain consensus on project schedule and coordinate reviews.
	24. Combine all environmental review documents into one comprehensive environmental document. Note: to avoid conflicts when creating one environmental document, agencies would need to develop a consistent set of definitions for significant resource impacts (preferably the federal definitions would be used).
Primacy	25. Where primacy of federal programs does not add a significant length of time to the permitting process, it should be continued in an effort to streamline the permit process and help to avoid conflicts by avoiding duplicate resource impact reviews.
	26. State permit application and mitigation requirements should be aligned with federal programs.
Federal Eminent Domain and Condemnation	27. Work with land owners to avoid eminent domain proceedings if possible.
	28. Utilize and reference relevant case law on a project-specific basis to expedite the federal eminent domain process when necessary.
Section 106 Compliance	29. Applicants should work together with the relevant state agencies to develop Programmatic Agreements to help expedite project reviews under the purview of the state historic preservation office.

Federal Process Solution or Strategy	Recommendations
Canada's Smart Regulations	30. Continue to solicit input from all stakeholders (e.g., industry, other agencies) when developing strategies for implementing Smart Regulation.
	31. Continue to follow the progress of Smart Regulations for possible modeling of future U.S. Regulations.

Table ES-2
Summary of Recommended State Process Solutions and Strategies

State Process Solution or Strategy	Recommendations
Permitting Timeframes	1. Continued use of permitting timeframes is encouraged for determination of complete applications and permit approval or denial. Even if a permit is not granted within this timeframe, the expectation of closure as of a certain date contributes a working factor for predictable project planning.
	2. Applicants should not rely on automatic approvals as valid authorizations, especially for state programs that have assumed authority for federal programs.
Permitting Facilitators	3. Continued use of these programs is encouraged. Any assistance from the agency in coordinating the overall permit process is beneficial to the applicant.
	4. Applicants should request a "single point of contact" in many states where multiple permitting efforts are required. This single point of contact is the designated responsible person for the project and can help to disseminate identical information to all contributing parties.
	5. Successful MOAs should be mimicked by permitting agencies that are involved in natural gas infrastructure permitting. The intent of joint hearings (one of the strategies in an MOA between the New Hampshire Departments of Transportation and Environmental Services) is to facilitate, improve, and expedite permitting decisions and the public participation process.
Internet Information and Application Sites, Project Websites, Centralized Data Repositories, and Information Clearinghouses	6. Where available, Applicants should utilize Permit Application websites to expedite submittal and review timeframes and to ensure that all required permits are obtained for a project.
	7. Applicants should be encouraged to create or assist in the population of a project website so that the public and agency can view of the status of the project permitting process. Information posted to a website is easily accessible to the public and easy to maintain compared to multiple stakeholder mailings.
	8. If the use of a centralized data repository is successful in encouraging agency cooperation and streamlining the permit application process, it should be continued to be utilized.
	9. Applicants should be encouraged to "donate" the data collected during their project's baseline studies for future project use. This community approach to resource protection will help to strengthen the industry's relationship overall with the data collecting agency.
Application of Environmental Preference Standards for the Protection of Environmental Resources	10. The industry should create, adopt and utilize as many standard best management practice (BMP) documents as possible. Agencies, such as the USFWS, are more likely to approve a project that has demonstrated it has made efforts to avoid, minimize, and mitigate resource impacts to the maximum extent practical while still maintaining the project purpose. By utilizing and referring to BMP documents, the applicant is committing to minimizing and mitigating resource impacts.
	11. These BMP documents should be disseminated to agencies for their reference. Consistent use of documents such as the FERC Plan and Procedures will expedite review timeframes, negating the need for agency staff to re-read a document they are familiar with from a previous project.
Natural Resource Performance Bonds	12. If the use of performance bonds gives permitting agencies a feeling of confidence regarding resource protection that results in a quicker permit review phase, this practice should be continued.

State Process Solution or Strategy	Recommendations
Account Cost Recovery Programs, Third-party Permitting, and Permit Fees	13. Voluntary cost recovery programs should be explored for state agencies that do not currently have these programs in place. However, applicants should only be required to pay for costs that are incurred above and beyond the typical project review. Additionally, in exchange for applicant payments, a defined permit process review schedule should be established.
	14. The use of third-party contractors should be explored for state agencies that do not currently have these programs in place. One example would include the State Historic Preservation Officers (SHPOs) for review of the Section 106 – National Historic Preservation Act (NHPA) Consultation process.
	15. Federal legislation could authorize states to request cost recovery for projects, similar to the provisions in the Federal Transportation Equity Act for the 21st Century (TEA 21) P.L. 105-178, Section 1309, Environmental Provisions. This model would provide the legislative framework for making this change.

Table ES-3
Summary of Recommended Native American and Tribal Process Solutions and Strategies

Native American and Tribal Process Solution or Strategy	Recommendations
Internal Agency Guidance Documents	1. Ensure that agency consultation guidance documents are introduced and made available to all staff. Staff tends to be more successful when given the proper tools. If an agency does not have their own guidance document, they should refer to those prepared by the ACHP available online.
	2. Encourage implementation of the guidance in these documents by holding consultation training for agency staff on a regular basis. Educated staff will be more efficient in administering the review process.
Tribal Energy Program	3. In line with the initiatives of the USDOE's Tribal Energy Program, stakeholders should explore opportunities to work with tribes on projects that benefit both the tribal community, U.S. government, and the applicant. For example, when siting new pipeline projects, applicants should consider the benefits that a tribal community can offer (e.g., tribal communities can offer a local labor pool on a construction project located in a remote area; this labor pool would otherwise be unavailable to the project).
Education	4. Agencies should consider formal training for agency staff about Native American culture and tribal organization. A better understanding by agency staff will help to guide the consultation process for a project.
	5. Applicants should continue building understanding and relationships with tribal representatives, whether at workshops or at meetings with tribal representatives on whose Reservation land the applicant's pipeline system may cross.
	6. Industry should explore opportunities to educate tribal communities about specific projects and the industry in general. Information provided in these sessions might help to address some of the common requests and questions posed by tribal members when projects are proposed across their Reservation land.
Negotiated Mitigation	7. Be willing to create innovative implementation plans for large-scale projects that address the specific needs of the community or communities that will be affected by the project. Use the Trans-Alaska Pipeline project Utilization Agreement and Implementation Plan as a template for negotiation with tribal communities affected by the project (BLM 2002).
USFWS Native American Relations/Endangered Species Act Compliance	8. Applicants should participate in the USFWS/Native American working relationship to offer assistance and to develop a better understanding of the sensitivities and issues associated with tribal lands and directives under ESA.

Native American and Tribal Process Solution or Strategy	Recommendations
Memorandums of Understanding Between Applicants and Native American Tribes	9. Applicants should consider establishing MOUs with tribes with whom they need to consult on a frequent basis. The MOU itself will help to lend predictability to Section 106 compliance in a timely manner. Additionally, the act of negotiating an MOU has the fringe benefit of building relationships with tribal members, which might assist in future ROW negotiations.

Table ES-4
Summary of Recommended Applicant Best Practices Solutions and Strategies

Applicant Best Practices Solution or Strategy	Recommendations
	1. Make efforts to refine the project description and alternatives as early in the process as reasonably possible. Frequent changes in the project description tend to cause delays in the permitting process.
	2. Continue to submit effective applicant-prepared draft documents for federal agency use, including Environmental Assessments, Biological Assessments, Biological Evaluations, Biological Opinions, et cetera. Any work that can be borne by the applicant will help to expedite the agency's review timeframe, as long as the documents address the agency's concerns.
	3. Identify all potentially required permits through early agency scoping to allow for concurrent permitting review. Processing permits concurrently, rather than sequentially, will save time.
	4. During the pre-construction permitting phase, continue to be aware of and plan for some of the state permitting processes that require more attention and commitment than the Federal permitting process. Being educated and aware of the state's permit process is a considerable first step. Pre-filing meetings are encouraged for significant applications to encourage consensus with the state agency on the permitting plan of action for the project.
	5. Likewise, be cognizant of the environmental reviews that might be required during the construction phase of the project (e.g., endangered species clearances for a variance needed from the original construction plan). If variances are anticipated and likely, plan accordingly. For example, one successful approach to ensure timely review of project variances is to develop a Programmatic Agreement that includes an agency point of contact, the conditions under which agency review is required, information to be submitted to the agency, communication methods, and a predictable review timeframe.
	6. Engage and educate stakeholders early and often; excellent best practice references and examples can be found in the *INGAA Foundation Study: Natural gas Pipelines Making the Connection-Communications Support for the Siting Process* (Wirthlin 2002). Up front expenditures on stakeholder involvement will pay back returns throughout the project approval process.
	7. Explore avenues to ease state agency staff resource constraints by offering to assist in data acquisition or compilation; determine if additional funding for staff from either cost recovery programs or third-party funding is allowable within the state agency framework.
	8. Be willing to educate agency staff and/or Native Americans communities on natural gas construction and the overall process required for a successful project. Many delays in permitting processes can be attributed to disagreements or confusion about the "next step" in the permitting process. Laying the framework and ensuring that everyone involved is educated about the process will help to ensure all the steps are followed.

Applicant Best Practices Solution or Strategy	Recommendations
	9. Be willing to attend trainings to learn more about agency protocol and Native American governing infrastructure. Aside from the potential to learn something new, this time investment in training will at least result in strengthening long-term relationships with agency staff or tribal members or representatives.
	10. Create, fund, and support industry-wide public outreach programs. This type of non-project investment will help to educate the public without the notion of a specific hidden project agenda. If successful, this program could aspire to also address and reverse some of the unrealistic fears held by the public regarding safety issues associated with natural gas pipeline facilities.
	11. Be aware of recent case law and utilize and reference it as appropriate on a project specific basis (e.g., condemnation and "quick-take"). Applicants should strive to address contentious legal issues consistently. A periodic newsletter of relevant cases might help to educate the industry; likewise, a periodic report by appropriate counsel at INGAA meetings might be another appropriate forum.
	12. For projects that cross Reservation land consider hiring a tribal liaison to assist in negotiations with the Reservation governing infrastructure and to work with the federal permitting agency's designated tribal liaison. Applicants should accept assistance from appropriate parties if the result is a time saving and helps to invest in long-term relationships.

ACRONYMS AND ABBREVIATIONS

ACHP	U.S. Advisory Council on Historic Preservation
BLM	Bureau of Land Management
BMP	Best Management Practices
CalGOLD	California Government Online to Desktops
CATS	Community Assistance Technical Services
CECA	Connecticut Energy Coordinating Authority
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
EA	Environmental Assessment
EIS	Environmental Impact Statement
ENSR	ENSR International
EO	Executive Order
ESA	Endangered Species Act
FERC	Federal Energy Regulatory Commission
FHA	Federal Highway Administration
INGAA	Interstate Natural Gas Association of America
LNG	Liquefied natural gas
MMS	Minerals Management Service
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NEB	National Energy Board
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPS	National Park Service
ROW	Right-of-way
SHPO	State Historic Preservation Officers
Tcf	Trillion cubic feet
U.S.	United States
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USDOA	U.S. Department of the Army
USDOE	U.S. Department of Energy
USDOI	U.S. Department of the Interior
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service

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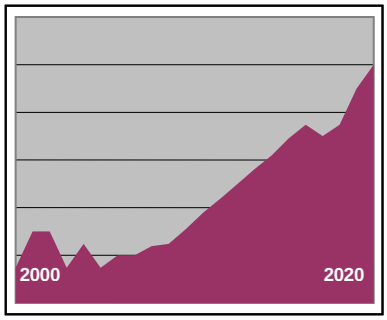
1.0 STUDY PURPOSE AND NEED

1.1 Background on the Need for Pipeline Infrastructure

Natural gas plays a prominent role in our nation's energy mix and interstate natural gas transmission pipelines (pipelines) are an integral part of our energy infrastructure. Natural gas currently constitutes approximately 25% of energy consumption in the U.S. In addition to being a competitive source of energy than coal, natural gas is also a cleaner energy source than coal, making it a more viable option to the public and industry. According to government and industry analysts, natural gas consumption has remained relatively flat between 1998 and 2003 at 22 - 23 Trillion cubic feet (Tcf) per year.[5] Over this period, natural gas supply available to the U.S. has not grown in a manner that would allow for increases in gas consumption. At the same time, the underlying drivers for gas consumption – including a rapidly increasing need for gas fired electricity generation – have continued. Extended periods of high gas prices and increases in price volatility have been a direct result of the lack of development of new sources of gas supply sufficient to meet the market's desire for more natural gas.



U.S. natural gas consumption is expected to reach 30 Tcf by 2020, requiring an increase in supporting infrastructure.

According to a recent INGAA Foundation Study,[6] U.S. natural gas consumption should approach 30 Tcf by the end of the next decade if the supply of gas is developed. If this growth in consumption is to occur, however, large amounts of infrastructure including pipeline capacity, storage capacity, and liquefied natural gas (LNG) terminal capacity must be built in the U.S. and Canada. It is estimated that by the year 2015 the natural gas industry will require $61 billion (in constant 2003 dollars) of investment in pipeline transmission and storage infrastructure in the United States and Canada. Delays in constructing cumulative natural gas infrastructure can be costly to consumers. The study estimates that only a two year delay translates into a cost of approximately $200 billion (in constant 2003 dollars) to U.S. gas consumers by 2020.

Natural gas is transported from producing areas to consumers through an interconnected system of underground pipelines that crisscross North America. Relatively invisible, these pipelines provide a constant, reliable energy supply to power our economy. This pipeline system is composed of many facilities, such as line pipe, compressor stations, metering stations, and storage fields, which are all critical to the safe and efficient operation of nearly 212,000 miles of pipeline.[7] The Federal Energy

[5] INGAA. 2004. Foundation Study.

[6] Ibid.

[7] At the close of 2002, the 85 companies that make up the U.S. interstate natural gas mainline transportation network operated about 212,000 miles of pipeline and had the capability to deliver

Regulatory Commission (FERC) must approve all new interstate natural gas pipelines, and any expansions to existing interstate natural gas systems, including storage fields and LNG import facilities. The FERC approval process includes the appropriate National Environmental Policy Act (NEPA) review. Obtaining approval from FERC for actions solely under its jurisdiction is a relatively prescribed and predictable process. Streamlining initiatives, industry training, and staffing have helped to reduce significantly the application review timeframes in recent years, despite an increase in the number of certificate applications filed with FERC.

Historically, the FERC held a pre-eminent role in certificating natural gas facilities. However, many states, local agencies, and tribal organizations now have responsibility for review and/or permit approval of aspects of proposed pipeline projects. As a result, FERC certificates of public convenience and necessity (certificate) often include conditions which require that applicants obtain the required permits from numerous other federal, state, tribal, and/or local agencies before construction may begin. The time required to obtain these numerous approvals and the time required to coordinate the various agencies has increased in recent years, undermining the efficacy of the FERC's pre-eminent role and the predictability and timeliness in the overall pipeline permitting process.

Federal agencies involved in pipeline approvals include: U.S. Forest Service (USFS), U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), Environmental Protection Agency (EPA), U.S. Advisory Council on Historic Preservation (ACHP), Bureau of Land Management (BLM), and others. Coordinating agency efforts is often a challenge. In recent years, consumers and pipeline project sponsors alike have benefited from streamlining initiatives spearheaded by the FERC such as the FERC pre-filing process[8] and issuance of a Memorandum of Understanding (MOU) to coordinate federal agency processes.[9]

Building an interstate natural gas pipeline requires careful review of the public need for the activity and whether the construction, operation and maintenance of the facility will affect water quality, cultural and historic resources, air quality, threatened and endangered species, and many other aspects of the human environment. Numerous local, state, and tribal agencies are involved in these reviews, and some agencies are called upon to issue permits or clearances in their areas of expertise. These local,

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more than 133 Bcf/d of gas. http://www.eia.doe.gov/pub/oil_gas/_natural_gas/feature_articles/2003/Pipenet03/pipenet03.html

[8] The Federal Energy Regulatory Commission's pre-filing process seeks to enhance and streamline the current certification process by engaging all stakeholders earlier in the process, which provides an opportunity for all parties to identify and address potential issues sooner in the process (Docket No. RM98-16-000).

[9] U.S. Department of the Army (USDOA) et al. 2002. Intragency Agreement on Early Coordination of Required Environmental and Historic Preservation Reviews Conducted in Conjunction with the Issuance of Authorizations to Construct and Operate Interstate Natural Gas Pipelines Certificated by the Federal Energy Regulatory Commission.

state, and tribal entities are also involved in the Environmental Assessment (EA) or Environmental Impact Statement (EIS) prepared for the proposed pipeline project under NEPA.

Although Federal agencies continue to improve the pipeline certification process in order to reduce unnecessary delays, state and local agencies and tribal authorities involved in pipeline certificates have an equal interest in working to approve permits in a timely manner. Better coordination among these entities would speed pipeline approvals, without compromising existing environmental review and compliance.

1.2 Streamlining State, Local, and Tribal Reviews

The lack of streamlining at the regional, state, and local levels continues to impede the expeditious siting and permitting of natural gas infrastructure. About a decade ago, the International Association of Fish and Wildlife Agencies surveyed all states and Canadian provinces regarding their pipeline corridor policies and practices. The survey found that states and provinces were divided nearly equally among those that possess and those that did not possess an official policy document addressing pipeline right-of-way (ROW) easements, alignment, and maintenance.[10] This continues to be a huge impediment hindering the ability to permit pipelines.

If the U.S. is going to meet the projected natural gas infrastructure demands for the next decade(s) as projected in the INGAA Foundation 2004 study, it is imperative that the industry and agencies acquire means to streamline the approval processes. The three major obstacles to growing our natural gas supply noted by the Foundation infrastructure study include coordinating permit approval processes between agencies and stakeholders, access restrictions, and environmental and siting issues.[11]

The preponderance of intergovernmental conflicts slowing down the permitting process is especially troublesome now when the 2004 Office of Pipeline Safety Pipeline Integrity Rules are likely to trigger a flood of coordination and consultation requests related to existing pipeline testing and repair work.[12] Pipeline integrity workshops held in 2004 stressed the need for permit streamlining relative to the planning, coordination, and execution phases of their time-sensitive projects.[13]

Some progress has been made on this front, specifically as a result of the efforts directed by Executive Order (EO) 13212 (May 18, 2001) and Amendment dated May 15, 2003. This EO, as amended, detailed steps to be taken to expedite the increased production, transmission, or conservation of energy, and strengthen pipeline safety. The EO stated that agencies shall expedite their review of

[10] Hay, K.G. 1994. Greenways, wildlife and natural gas pipeline corridors: new partnerships for multiple use. Conservation Fund Publishing, Arlington, Virginia.

[11] INGAA 2004 Foundation Study.

[12] U.S. Department of Transportation (USDOT). 2004a. Office of Pipeline Safety, Research and Special Programs Administration. Pipeline Safety: Passage of Internal Inspection Devices.

[13] INGAA 2004 Foundation Study.

permits or take other actions necessary to accelerate the completion of such projects, including pipeline safety projects. The EO also established an Interagency Task Force to assist agencies in their efforts to expedite their review of permits or similar actions related to energy related projects, including pipeline safety projects. The Task Force also monitors and assists agencies in setting up appropriate mechanisms (e.g., memorandums of understanding) to coordinate federal, state, tribal, and local permitting in geographic areas where increased permitting activity is expected. The Task Force is comprised of representatives from numerous agencies.[14] The results of the Task Force efforts are discussed in more detail in Section 4.1.1.

In addition to the solutions put forth as a result of the EO 13212 efforts, there were numerous successful examples of "conflict avoidance and resolution" strategies from practical project experiences that were employed when interagency issues arose. Likewise, many other successful permit streamlining strategies employed by applicants were identified. The goal of this study is to evaluate these and other creative solutions for the industry's use and benefit when permitting natural gas infrastructure to ensure the expeditious licensing and construction of projects.

Executive Order 13212, as amended, detailed steps to expedite increased energy:

- *production,*
- *transmission,*
- *conservation, and*
- *safety.*

[14] According to Amendments to Executive Order 13212, Section 3 (b)(i) (A), the Task Force shall consist exclusively of the following members: the Secretaries of State, the Treasury, Defense, Agriculture, Housing and Urban Development, Commerce, Transportation, the Interior, Labor, Education, Health and Human Services, Energy, and Veterans Affairs, the Attorney General, the Administrator of the Environmental Protection Agency, the Director of Central Intelligence, the Administrator of General Services, the Director of the Office of Management and Budget, the Chairman of the Council of Economic Advisers, the Assistant to the President for Domestic Policy, the Assistant to the President for Economic Policy, and such other heads of agencies as the Chairman of the Council on Environmental Quality may designate.

2.0 STUDY SCOPE

2.1 Study Steps

This study involved four steps. The first step of the study was to identify the primary issues that required further assessment. To do this, recently proposed or recently constructed interstate natural gas pipeline projects in North America were evaluated. All of the projects required regulatory agency approvals (e.g., permits) from more than one governing agency; some of the projects encountered intergovernmental conflicts (i.e., conflicts between two or more regulatory agencies) while some did not encounter these conflicts. For the projects that encountered setbacks in the permitting process, the goal of this first study step was to determine the impediment in the permitting process and the underlying cause for the resulting impediment. For example, one impediment in the permitting process was a delay to the project schedule resulting from conflicts between federal and state agencies. Projects that successfully avoided any major disagreement between permitting agencies were evaluated to define the successful strategy or strategies employed for avoiding conflict.

The second study step evaluated the permitting processes for other kinds of infrastructure projects in comparison to natural gas pipeline permitting. The evaluation considered the typical timeframe for permitting a project (time between application submittal by the project proponent and application approval or denial by the permitting agency) and permitting "lessons learned" (i.e., permit streamlining techniques employed by the applicant or the agency). Ten infrastructure siting processes were reviewed, including wind energy, electric transmission, mining, liquids pipelines, power plants, oil and gas development, intrastate natural gas pipelines, and LNG terminals. Other non-energy sectors such as telecommunications lines were included in the evaluation because of the similarity in the permitting processes for most linear projects.

The third study step included the evaluation of federal and state legal statutes and/or regulations currently in place, as they relate to interagency coordination. Many of these agency initiatives were focused on streamlining the permit process for the permit applicant and addressed the need for cooperation between multiple permitting offices or agencies. One example included encouraging open communication between permitting parties by meeting monthly to discuss active projects. This study step also involved a literature review for previously documented, effective intergovernmental conflict avoidance or resolution strategies. This review encompassed strategies employed by federal regulatory staff, by state agencies, by tribal (i.e., Native American or Aboriginal) governing entities, and by applicants of interstate natural gas pipeline or LNG projects.

The final and predominant step of the study resulted in a comprehensive list of recommendations for conflict avoidance and/or resolution. The list included the continued use of proven successful strategies, the use of underutilized strategies currently in place, and the exploration of strategies for future development and implementation. For example, when coordinating multiple agency comments into an overall permit process it is helpful to designate a single point of contact or responsible party within each regulatory agency. The responsible party coordinates internal agency comments and is the

main communicator to and from that particular agency. This is a fairly simple, but very successful strategy employed by some agencies that helps to avoid conflicts between agencies by presenting one "voice" per agency. The list of recommended strategies for intergovernmental conflict avoidance or resolution was organized within the framework of the entity that would be responsible for implementing that strategy (i.e., federal governing agency, state governing agency, tribal governing agency, or project proponent/ applicant) of these strategies. Proposed or existing strategies were evaluated and recommendations for further use and improvement were included in the study results.

2.2 Defining Intergovernmental Conflicts

In this study, "intergovernmental conflicts" were defined as disagreements between two or more regulatory or permitting agencies or entities when reviewing a proposed natural gas pipeline or LNG project. This study focused primarily on intergovernmental conflicts that arose between federal, state, local, or tribal permitting entities (also referred to in this report as federal versus state conflicts, state versus state, federal versus tribal, et cetera). These disagreements were as simple as conflicting permit review timeframes or as complicated as what specific mitigation was required when the project encountered highly erodible soils during construction. The study did not focus on conflicts that arose between two or more federal agencies in the permitting process, because these "Federal versus federal" conflicts have been greatly reduced (though not eliminated) in recent years as a result of the previously mentioned FERC initiatives (e.g., Federal agency MOU and the pre-filing process).

The Natural Gas Act (NGA) of 1938 grants the FERC exclusive federal jurisdiction with regard to the authorization, siting, and construction of interstate natural gas pipelines. Historically, the decision-making process which the FERC employs in approving or rejecting an application for a Certificate has amounted, in practice, to a preemption of contrary permitting decisions by other state or federal agencies. However, permitting decisions made on recent projects have seen an apparent erosion of this view of the FERC as a final decision-making authority for certificated projects. The impact of this potential conflict of law between the FERC and other permitting agencies has prompted the need for this study in order to present potential solutions for avoiding and/or resolving conflicts between agencies that arise during project permitting.

Unprecedented conflicts have been widely publicized of late relative to U.S. Department of Commerce's Coastal Zone Management Act (CZMA) Appeal rulings for two FERC Certificated projects. In both instances, the state agency with federally delegated coastal zone management authority issued a determination finding the project was inconsistent with the state's Coastal Management Program. Without a favorable consistency determination, neither project could proceed with construction. Both projects appealed the respective state ruling to the U.S. Department of Commerce. One project received an unfavorable decision from the U.S. Secretary of Commerce upholding the state's CZMA consistency determination, and is currently appealing the Commerce

decision in a U.S. District Court. The other project received a favorable ruling, although that project has still not begun construction based on complications with obtaining another required federal permit.[15]

Based on these outcomes, there appears to be a need to assign clear and final decision-making authority to the designated federal lead agency to deter dissenting opinions from non-lead federal and state agencies. Two provisions in the proposed comprehensive energy legislation address this need. One of the provisions[16] essentially eliminates the potential for *de novo* review of projects by federal and state agencies that do not participate in the FERC NEPA review process. The provision clarifies that any Federal administrative agency appeal that is, (1) an appeal pursuant to the CZMA, and (2) that involves the construction of interstate natural gas facilities approved by the FERC under sections 3 or 7 of the Natural Gas Act, shall use as the exclusive record for review the record compiled by the FERC in its section 3 or 7 proceedings. If passed, the benefits of this provision are two-fold. First, this provision will encourage federal and state agencies to contribute to the FERC's review of the proposed project before the issuance of a certificate, thus building consensus among the permitting parties relative to the approval or denial of a project application. The provision's second benefit is that it will deter purposeful political delays by agencies.

Another provision in the proposed Energy Bill allows for an expedited federal appeals process for project proponents who have already received their FERC certificate, but have been denied (or otherwise not issued) a permit by a Federal or state agency which is responsible for implementing federal law (e.g., some states have assumed authority for issuing permits under the Clean Water Act). Under this provision, the project sponsor could petition for immediate review by the US Court of Appeals, District of Columbia Circuit (an appellate court that frequently hears Natural Gas Act cases) in order to review whether or not the permitting action, inaction (i.e., delay), or permit conditioning is unreasonable. If found to be unreasonable or running counter to serving in the public convenience and necessity, the court can overrule the agency, determine the proponent in compliance with said law, and allow the proponent to move forward without further consultation with the agency.[17]

While "intragovernmental conflicts" (i.e., conflicts encountered between staff members within a single regulatory or permitting agency) were not originally considered in the scope of this study, these conflicts were encountered in all phases of the study and thus, addressed where appropriate. Often large linear pipeline projects cross lands with multiple agency jurisdictions and often with multiple office

[15] Recent examples of conflict between the FERC and the Department of Commerce and other legal challenges will be further explored in an upcoming INGAA Foundation Study. INGAA. (In Progress). 2005. Foundation Study: "Resolving Conflicts of Federal Law Related to Construction Projects." The INGAA Foundation. 2005 Study in Progress.

[16] Section 330, the Conference Report (House Report 108-375) to accompany H.R. 6, the Energy Policy Act of 2003.

[17] Section 1442, the Conference Report (House Report 108-375) to accompany H.R. 6, the Energy Policy Act of 2003.

jurisdictions within one agency. For example, a pipeline project that crossed two BLM district regions, required input from both BLM districts and multiple BLM field offices. In this instance, conflicts that arose between different offices were similar to those encountered between different agencies. Therefore, solutions or strategies for intergovernmental conflict avoidance and resolution were often applicable to intragovernmental conflict avoidance and resolution, and vice versa.

Some other intragovernmental challenges were consistently encountered during the issue identification phase of the project. For example, resource constraints (e.g., lack of staff or time available) at the state and local levels were often cited as a reason for the extended time required to process project reviews and approvals. In some cases, this caused a conflict with the originally proposed project schedule and further contributed to conflicts between agencies. Therefore, this issue and other similar intragovernmental issues were addressed in this study.

The majority of the recommended intergovernmental conflict resolution strategies were developed by building upon historical information. Since permitted projects in the natural-gas pipeline industry or other energy-related industries were studied, a strong indication of the potential for success of conflict strategies was presented. A few recommendations or strategies that have not been previously used also have been presented to encourage all stakeholders to consider creative and uncommon solutions to common problems.

3.0 INTERGOVERNMENTAL CONFLICTS DEFINED BY CASE STUDIES AND LITERATURE REVIEW

The scope of work for the study included four steps: preliminary issue identification by evaluating project case studies, a comparison of the permitting process for natural gas pipelines against other similar industries, a literature review for previously stated solutions and existing laws, and finally, recommended solutions or strategies for conflict avoidance and resolution. Section 3.1 details the results of a natural gas pipeline case studies review; Section 3.2 compares the permitting process for natural gas pipelines with other energy and linear project industries; Section 3.3 summarizes the results of the study literature review.

3.1 Permitting Process for Natural Gas Industry Siting, Construction, and Maintenance Projects

Thirteen natural gas project case studies were evaluated to determine the relevance of impediments in the permitting process that result from intergovernmental conflicts. In projects where conflicts were encountered, it was necessary to determine the underlying cause of the conflict and strategies employed to resolve the conflict(s). In cases where no conflict was encountered, it was necessary to identify the successful strategy for avoiding conflicts. This step allowed us to identify the primary issues for further evaluation in the study.

Table 1 presents the data collected for each of the natural gas project case studies. The following data was collected for each project: geographic location, type of project (e.g., new pipeline, conversion of an existing pipeline, maintenance of an existing facility, new LNG facility siting), permitting timeframe (number of months from project initiation through project approval by the lead regulatory agency), NEPA lead and cooperating agenc(ies); whether or not the FERC pre-filing process was used, conflicting agencies encountered; impediments or successes encountered in the permitting process, reasons behind the impediment or success; and the eventual effects on the siting, construction, or maintenance project.

3.1.1 Impediment or Successful Process Identification

Ten of the 13 projects encountered significant impediments during the FERC permitting process (as noted by the project proponent or applicant). An impediment was defined as any obstruction in the typical permitting process or an unexpected barrier to allowing the proponent to move forward with the approval of their project by a particular regulatory entity. Some of these impediments resulted from interagency conflicts.

For projects that required coordination with or permits from state entities, the impediments encountered included resource constraints at the state level impacting the ability of the agency to adhere to the NEPA schedule set by the applicant and/or the FERC. Many of the states did not have a program in place to expedite permits for the applicant in exchange for a fee or other justifiable reason.

Table 1
Permitting Process Case Studies of Natural Gas Infrastructure Siting, Construction, and Maintenance Projects

Type of Project	*Geographic Location*	*Approximate Permitting Timeframe (Months from Initial Outreach to Construction Approval)*	*Lead Agency (Main Cooperator)*	*Pre-filing Used?*	*Conflicting Agencies*	*Impediment or Success*	*Reason Behind Impediment or Success*	*Effect on Siting, Construction, Maintenance*
Greenfield (150 miles)	CT, NY	48	FERC	Pre-dated the formal "pre-filing" process, but the techniques were used	Federal v. State (CT); Federal v. Federal	Public Opposition; USACE disagrees with FERC on permitting issues; CT DEP withholding approval	Timing of Project (followed a cable project); Agency resource constraints	Delays; Litigation resulted in the Dept. of Commerce ruling in favor of the project (CZMA)
Greenfield (175 miles)	IL, WI	37	FERC	Pre-dated the formal "pre-filing" process, but the techniques were used	Federal v. State (WI)	Wisc. DNR did not begin review until Easement group finished their work (even with Sect. 8 Collaborative approach); Wisc. DNR repealed their permit; Public opposition	Personal opinions of permit agents hampered the process; Timing of Project (Followed Liquids pipeline project) -public felt it could stop the project	Delays in construction and in-service; costly move-arounds; unreasonable construction inspection and non-compliance fines; Litigation resulted in the Dept. of Commerce ruling against the project (CZMA)
Greenfield (350 miles)	IL, IN, MI, Ontario	24	FERC and NEB	Pre-dated the formal "pre-filing" process, but the techniques were used	Federal v. State (IN)	Public Opposition	Resource Constraints at the state agencies (esp. IN SHPO); Ex parte communication strained information exchange	Difficulties in ROW acquisition; Agricultural mitigation
Greenfield (400 miles)	CO, WY, KS	14	FERC	Yes	None	Met Permitting Schedule	Fairly simple issues; a lot of up front coordination and effort by the applicant; avoided impacts by delaying construction season	Predictable Process
Greenfield (750 miles onshore and offshore)	MS, AL. FL, Gulf of Mexico	16	FERC	Pre-dated the formal "pre-filing" process, but the techniques were used	None	Met Permitting Schedule	Large applicant up-front investment; successful team-permitting" monthly meetings	Met intended schedule
Greenfield (2500 miles)	BC, AB, SK, ND, MN, IA, IL	24	FERC and NEB	Pre-dated the formal "pre-filing" process, but the techniques were used	Federal v. States; State v. State; Tribal Negotiations	Agencies Ignorant of Pipeline Construction Local Permit Requirements Supercede Federal Process Inconsistent Agency Reviews	FERC encourages compliance with local, state permits Inadequate State Resources	Expensive move-arounds Employment of Local Aboriginal personnel Construction delays
Conversion (800 miles)	AZ, NM, TX	24	FERC (BLM)	Pre-dated the formal "pre-filing" process, but the techniques were used	Federal v. State (NM); Federal v. Federal	Consultation regarding cultural resource issues	A need for a lead PM to coordinate various BLM offices	Delayed construction
Looping (75 miles)	CO, NM, TX	12	FERC (Navajo Nation EPA, DFW, and HPO)	Yes	None	Extensive Tribal Negotitations	Successful Cooperation between all parties helped keep the project on schedule	ROW acquisition costs were more than usually encountered
Looping (100 miles)	NJ	36	FERC	Pre-dated the formal "pre-filing" process, but the techniques were used	Federal v. State (NJ)	NJDEP wetland permits held up for political agenda	Public opposition	Court case wherein the Federal judge instructed the Governor's Office to issue the permits
Looping/ Replacement (450 miles)	ONT, NY	50	FERC and NEB	Pre-dated the formal "pre-filing" process, but the techniques were used	Federal v. State (NY)	Inconsistent review from various agencies (i.e. NOAA, USFWS, NY, FERC) for the Hudson River Crossing (CZMA law)	Politically motivated staff want to thwart the project for procedural and scientific reasons; however, it appears that these are simply the tools being used to stop the project)	Significant delays; not able to build the original project
Looping (720 miles)	CA, NV, UT, WY	16	FERC (BLM, CA)	Pre-dated the formal "pre-filing" process, but the techniques were used	Federal v. State (CA)	State overstepping their review jurisdiction (i.e. CA reviewing mitigation on BLM land); differences in "significance" definitions	California process becomes locked in minutia; process is too encompassing and not focused or defined	Delayed project schedule by 2 months; however, vigilant persistence by the Applicant helped move the process along
Maintenance, part filed as Section 7c	PA	14	FERC and OPS	No	Federal v. Local; Federal v. State (PA); Federal v. Federal	Conflicting Agency Mitigation (construction restriction dates); Not possible to meet timeframe	Current process not structured to be responsive (SHPO and County EC agencies); Inconsistent responses (USFWS); Swank decision (isolated wetlands are not jurisdictional) has slowed down the JD process (USACE)	Not able to meet OPS timeframes
LNG Deepwater Port License Application	Offshore, CA	24	USCG and FERC (NOAA, MMS, USACE, USEPA, CA)	Yes	None	Challenging and time-consuming application process	Team Permitting approach helps to create a complete application; USCG is resource constrained	Application was deemed complete and the 365-day timeframe was not hindered

Source: Some of these case studies are currently in litigation and are therefore, presented in an anonymous fashion. Contributing companies include: Duke Energy, El Paso Corporation, Enbridge, ENRON, NiSource, Kern River, and Williams Companies.

In those cases, the applicant was dependent on the resources available and the queue order in which their permit application was submitted and accepted. Due to these staff constraints, some state agencies were also unwilling to perform a concurrent review with the federal permit review and preferred to perform their review only once the federal agency (i.e., FERC) approved the applicant's project.

Often, information requirements for state permit applications were more complex than those required by the FERC for NEPA analysis. This more complex permit application required more scrutiny by the state agencies, further aggravating the typical state resource constraint issues. Where state and federal permit requirements differed, so did the allowed resource impacts and required mitigation for a project. In this event, an eventual conflict between the state and federal agency needed to be addressed.

In some instances, intragency conflicts occurred in the case studies, wherein various staff within a single agency disagreed and caused impediments to the process. This occurred at both the state and federal levels.

In a few case studies, it appeared that the state or local regulatory office purposely delayed the issuance of permits for reasons other than related to the permit. These "political" actions were usually the result of agency staff's personal opinions or the reaction of a politically appointed figure in response to public opposition to the project.

For projects that crossed tribal lands, the negotiations with the tribal entities required more time than anticipated, required more attention than anticipated, and required more costly lease arrangements than anticipated. In summary, crossing tribal land was usually the most significant labor and fee-intense factor for these projects.

The three projects that did not encounter significant impediments in permitting employed extensive agency and public outreach programs. One project planned their construction schedule such that many of the sensitive issues (i.e., impacts to protected species) would be categorically avoided from the onset of the project planning phase. The other project employed a team permitting approach wherein the multiple agencies involved in the project met at least monthly to discuss the project and their status in the permitting review process.

The reasons behind the impediments encountered included agency staff resource constraints, unawareness on the part of agency staff and/or tribal governing entity members regarding the natural gas pipeline construction needs and constraints, unawareness on the part of applicants regarding the details of the application process, unawareness on the part of the applicant regarding tribal consultation and addressing identified concerns, political pressure on agency staff from vocal public opposition groups, and state or tribal permitting processes that required much more attention and commitment than the federal permitting process.

3.1.2 Impediment Effects Analysis

The effects of the permitting conflicts studied invariably increased the costs of the project, often delayed the construction schedule, and/or affected the eventual success or failure of the project (i.e., whether or not the project was built). This was true for all of the case studies where an impediment was encountered during the permitting process.

The permitting conflicts not only affected the proposed projects, but also negatively affected the siting of future pipeline projects. For example, project proponents that encountered project "failures" (i.e., projects that were cancelled due to permitting conflicts) on one project were discouraged from siting a future project in the same region, fearing similar permitting failures. As an industry, justifiable routing considerations have always included project market (that is, project start, end, and other delivery points), avoidance of sensitive environmental resources, constructability across challenging geologic features, and other state- or region-specific rate structure considerations. Of late, however, pipeline routing considerations have included ease of permit and ROW acquisition. By default, this translates into project proponents avoiding certain states, tribal reservation lands, and other preservation-oriented public lands when siting and building natural gas pipelines. A continued lack of infrastructure in certain regions may constrain the ability of supply to reach markets, thus impeding the industry's ability to supply demand and leading to higher prices borne by the end user.

3.1.3 Conflict Avoidance and Resolution Strategies

To address the reasons behind the interagency conflict impediments, a number of strategies were suggested as detailed below. These suggestions were communicated as a result of the interviews with the case study project managers.

To address agency staff resource constraints, a possible solution is additional funding for staff from either cost recovery programs or third-party funding. The justification for this payment would be for the expeditious review of the applicant's permit.

To address unfamiliarity on the part of agency staff, Native Americans communities, and applicants relative to each other's processes or industry, a potential solution is for more training programs to address these inadequacies. These training classes could be sponsored by any of the parties.

To address pressure on agency staff from vocal public opposition groups, both project-specific and industry-wide public outreach programs could be employed by the applicant. It appears that the earlier in the process project-specific outreach programs are held, the more successful they are in terms of educating the public. Broad-based public outreach programs would potentially educate the public on natural gas infrastructure needs and construction issues before any particular project is proposed.

To address state permitting processes that require more attention and commitment than the federal permitting process, it is in the applicant's best interest to be aware of this fact, plan for this time-consuming process, and employ as many other strategies as possible to speed the process.

Supplying the agency with all the "tools" necessary to process the application will also help to speed the process.

These strategies include action on the part of both the applicant and the agencies. These items are discussed in more detail in Section 4.0.

3.2 Permitting Processes for Energy Sector and Linear Facility Industry Siting, Construction, and Maintenance Projects

Permitting timeframes, intergovernmental conflict potential, and permitting "lessons learned" (i.e., permit streamlining techniques) were evaluated for ten other types of infrastructure facilities siting processes and compared to the interstate natural gas pipeline siting process. These other industries included wind energy, electric transmission, mining, liquids pipelines, power plants, oil and gas development, intrastate natural gas pipelines, LNG terminals, and telecommunications.

In order to perform this evaluation, information was collected for each of the industry sectors. **Table 2** presents the comprehensive data collected for this step of the study. The time required in months to receive a typical permit approval was collected. If NEPA analysis was required, then the common trigger for the NEPA analysis (e.g., crossing federal lands requiring a ROW grant or individual Section 404 Permit from the USCOE) and the typical lead and cooperating agencies were recorded. The more significant siting requirements considered by the applicant were noted. These siting requirements included environmental permitting requirements per federal programs, federal programs delegated to the states, state programs, and local or regional programs. Commonly perceived bottlenecks in the permitting processes also were collected for each industry sector. Finally, agency and applicant streamlining techniques were collected for each industry sector.

3.2.1 Impediment Identification

Federal, state, and local programs that govern the siting of other infrastructure projects were examined to determine if overlap occurs between the policies, procedures, and laws of each governmental agency as occurs with natural gas pipeline projects. As expected, there was a similar amount of overlap of regulatory review for these other industries as there was for the natural gas pipeline industry, since compliance with NEPA is common between these industries.

Where regulatory overlap was encountered in the other industries, many of the same permitting impediments occurred as were discussed in Section 3.1.1 for the interstate natural gas pipeline projects. These included inadequate staffing at the agency for processing permit applications, lack of knowledge by the applicant regarding the details of the permit process, and lack of knowledge by the agency staff regarding the federal permitting process and/or the industry needs and constraints. Additionally, these other industries encountered communication difficulties between the agencies and the applicant; a lack of communication and coordination between the agencies; misunderstanding

Table 2
Permitting Processes for Energy Sector and Linear Facility Industry Siting, Construction, and Maintenance Projects

				Common Potential Siting Requirements to Consider						
Industry / Sector	**Typical Permits Approval Timeframe**	**NEPA Process Required? If "yes, " Trigger for NEPA**	**If Required, Likely NEPA Lead/ Cooperators**	**Federal Programs**	**Federal Programs Commonly Delegated to State**	**State Programs (Examples from a few States)**	**Local**	**Perceived Common Bottlenecks**	**Agency Streamlining Techniques (Examples)**	**Applicant Streamlining Techniques**
Electric Transmission Lines	24 - 72 months	• Yes, when a Federal permit is required for crossing federal-managed land (BLM/ USFS) • Exception: not always for a USACE permit or NPDES permit • Yes, when interconnection with Federal transmission system	• BLM, USFS, USFWS, BOR, BIA, NPS, other (ROW Grant for crossing federal lands) • Bonneville Power Administration, Western Area Power Administration (WAPA), others for interconnections • State leads may be various Public Service Commission, Public Utilities Commission, EPA, DEQ, DNR, etc.	• CWA Section 404 Permit (USACE, Wetlands and Waters of the US impacts) • CWA Section 10 (USACE, Navigable Waters Crossings) • ESA Section 7 and/or 10 (USFWS, Threatened and Endangered Species Consultation) • MBTA (USFWS, Migratory Bird Protection) • Sensitive Species Consultation (BLM, USFS) • Federal Land Crossing ROW Grants (BLM, BIA) • Special Use Permits (USFS) • Encroachment Permits (FHWA) • Explosives (BATF)	• CWA Section 402 (NPDES Compliance) • CWA Section 401 (Clean Water Certification) • NHPA Section 106 Compliance (Cultural Resources Protection) • NHPA Section 106 Compliance (Native American consultation) • CAA Air Quality SIP-approved and EPA-delegated Programs (construction and operation impacts)	• State-similar "NEPA" Process (e.g., CA CEQA, MA MEPA) • Corridor Siting Permit (SD, ND) • Route Siting Permit (SD, ND) • EIA (WA, MT, CA, WI) • Content Rules for siting application (OR) • Site Certification (OR,MT) • 10 Year Plan updated annually (ND, MT) or biannually (SD) • Public and Contested Case Hearings (OR) • Needs Evaluation (certificate of public convenience, etc.) (OR, MT, CA) • Wetlands, Waters, Floodplain Permits (many states) • State Threatened and Endangered Species Consultation or Endangered Resource Review (most states) • Sovereign Lands Construction Permit (IA) • Bonding for Mitigation (many states)	• Land Use and Zoning compliance • Construction Permits • Building Permits • Road Crossing Permits • Special and Conditional Use Permits (e.g., dewatering, floodplain construction, discharge of test water, etc.) • Solid waste disposal	• Public opposition • Lack of coordination between federal and state facility siting • EIS requirements can be unpredictable depending on the lead agency's experience level with NEPA	• Pre-designated Utility Corridors (WUG) • Consolidated State Programs (OR, WA, MT, CA,NH, etc.) • Content Rules for applications (OR) • Standard-based Decision Process, rather than NEPA or State EPA Process (OR) • Specified Review Times (MT, AZ, many states) • Statewide Programmatic General Permit (SPGP) (i.e., State-delegated 404 Permit) in 14 States (ME, CN, NH, MA, VT, RI, MD, PA, NJ, VA, DE, MN, WI, LA, OR) • Regional General Permits for Sections 404 and 401 (IN) • Third-party state permit review (some states) • State permitting ombudsman (CT)	• Trigger both the Federal and state environmental processes at the same time to ensure concurrent review, rather than sequential review.
Fiber Optic Lines	12 - 18 months	• Yes, when a Federal permit is required for crossing federal-managed land (BLM/ USFS) • Exception: not always for a USACE permit or NPDES permit	• BLM, USFS, USFWS, BOR, BIA, NPS, other (ROW Grant for crossing federal lands) • USACE (Section 404 Permit) • EPA (NPDES, Clean Water Act issues)	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	• Cultural Resource Surveys • Threatened and Endangered Species Consultations • Native American Consultations • Ethnographic Report	Same as listed for Electric Transmission Lines	• Plan route to avoid impacts to threatened or endangered species or critical habitat • Establish a survey and mitigation MOA for cultural resources early in project
Wind Energy Facility Siting	12 - 24 months	Same as listed for Fiber Optic Lines	Same as listed for Fiber Optic Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines, plus • State Energy Project Siting (Most States)	Same as listed for Electric Transmission Lines	• If not a federal or state permitted project, the local agencies timeframes can be unpredictable	Same as listed for Electric Transmission Lines	
Thermal Power Plant Siting	18 - 24 months	Same as listed for Fiber Optic Lines	Same as listed for Fiber Optic Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines, plus • State Energy Project Siting (Most States) • Conformance with an approved demand forecast (CA);	Same as listed for Electric Transmission Lines	• Cultural Resource Surveys • Threatened and Endangered Species Consultations • Native American Consultations • NEPA Process can be very costly	Same as listed for Electric Transmission Lines	
Oil and Gas Development	• 1 -3 months or more for Individual Applications to Drill (APDs) • 3 + months for large multi-well APDs • 24- 36 months if NEPA is required	• No, for Individual APDs (categorical exclusion) • Yes, for large multi-well projects not previously addressed in RMP • Yes, when a Federal permit is required for crossing federal-managed land (BLM/ USFS) • Exception: not always for a USACE permit or NPDES permit	Same as listed for Fiber Optic Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines, plus State oil and gas regulatory agency (most states) manage siting, safety, well construction, environmental, measurement, and many other aspects of oil and gas exploration and production.	Same as listed for Electric Transmission Lines	• Inconsistencies between BLM Field Offices' reviews and processes • NEPA process can be very costly • Lack of resource staff at federal offices • Lawsuit potential can block projects (County Commissioners sue for right to regulate)	• BLM Buffalo FO requires that multiple individual coalbed natural gas APDs be combined into a single Plan of Development (POD) document review. Once the POD is approved, results in expedited approval of individual APDs. • BLM Pinedale, Wyoming FO uses a minimum filing checklist for applications • Colorado Oil and Gas Commission has revised rules to allow more input by counties to avoid lawsuits • BMP document available: International Association of Fish and Wildlife Agencies (IAFWA) "Guidelines for Protecting Fish and Wildlife Resources in Areas of Oil and Gas Development"	• Encourage BLM to adequately staff FOs with trained personnel to handle permitting load in areas of heavy oil and gas drilling activity. • Establish effective communication between industry and local inhabitants regarding the benefits of the projects (taxes, employment).
Mining	18 - 24 months	Same as listed for Fiber Optic Lines	Same as listed for Fiber Optic Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	• Public opposition • Cultural Resource Surveys • Threatened and Endangered Species Consultations • Native American Consultations • NEPA Process can be very costly • Inadequate baseline studies	Same as listed for Electric Transmission Lines	• Establish a survey and mitigation MOA for cultural resources early in project. • Perform comprehensive baseline studies (early coordination with agencies relative to information needs).
Intrastate Natural Gas Pipelines	12 - 36 months	• Yes, when a Federal permit is required for crossing federal-managed land (BLM/ USFS) • Exception: not always for a USACE permit or NPDES permit • Possible for International boundary crossing	Same as listed for Fiber Optic Lines	Same as listed for Electric Transmission Lines, plus • Pipeline Safety (USDOT OPS)	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as Liquid Pipelines	Same as listed for Electric Transmission Lines	•Encourage early and frequent coordination among Federal, state, and local agencies during early stages of a project.

Table 2
Permitting Processes for Energy Sector and Linear Facility Industry Siting, Construction, and Maintenance Projects

				Common Potential Siting Requirements to Consider						
Industry / Sector	**Typical Permits Approval Timeframe**	**NEPA Process Required? If "yes, " Trigger for NEPA**	**If Required, Likely NEPA Lead/ Cooperators**	**Federal Programs**	**Federal Programs Commonly Delegated to State**	**State Programs (Examples from a few States)**	**Local**	**Perceived Common Bottlenecks**	**Agency Streamlining Techniques (Examples)**	**Applicant Streamlining Techniques**
Liquids Pipelines	14 - 18 months	• Yes, when a Federal permit is required for crossing federal-managed land (BLM/ USFS) • Not always for a USACE permit or NPDES permit • Possible for International boundary crossing • Possible if high public concern (safety, clean water issues)	Same as listed for Fiber Optic Lines	Same as listed for Electric Transmission Lines, plus • Pipeline Safety (USDOT OPS)	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	• Sufficient site/route-specific information early in the planning process • Inadequate Plan of Development for construction and operation (required for impact analysis) • Cultural Resource Surveys and SHPO approvals • Threatened and Endangered Species Consultation • Development of alternative routes for analysis • Public opposition and lawsuits, intervener comments • Native American Consultations • Lack of local and state agency staff resources to permit project • State and Local agencies may have unrealistic expectations regarding facility local, design, or construction • Underestimation of resources needed to address environmental issues during construction	Same as listed for Electric Transmission Lines	• Encourage early involvement of DOT Office of Pipeline Safety in review of project description and proposed safety measures. • Promote the selection of an independent technical panel to review pipeline safety issues.
Hydroelectric	• 36 months (Pre-filing process) PLUS 12 - 60 months (For licensing process)	• Yes, FERC regulated industry	• Most often, FERC as a lead with multiple cooperators • Sometimes other federal agencies (BLM, USFS, USFWS, USACE, BoR, BIA) or State agencies may take the lead instead	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	• Threatened and Endangered Species Consultations • NEPA Process can be very costly • Other environmental issues (impacts, mitigation)	Same as listed for Electric Transmission Lines, plus • Standardized BMP Documents: "Procedures" (Wetlands), "Plan" (Uplands), and "Guidelines" (Cultural Resources) • Third-party EIS Preparation • Third Party Compliance Monitoring • Memorandum of Understanding (MOU) directing FERC and Federal Agency Cooperation • Preliminary Submission adopted as standard practice by National Energy Board (NEB) of Canada • "Minimum Filing Requirements for Environmental Reports" Guidance Document for FERC filings • FERC Pre-filing Process	•Encourage early and frequent coordination among Federal, state, and local agencies during early stages of a project.
Liquid Natural Gas Facility (including pipeline)	12 - 36 months	• Yes, FERC regulated industry	Same as listed for Hydroelectric	Same as listed for Electric Transmission Lines, plus • Pipeline Safety (USDOT OPS)	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as Liquid Pipelines	Same as listed for Electric Transmission Lines, plus • Standardized BMP Documents: "Procedures" (Wetlands), "Plan" (Uplands), and "Guidelines" (Cultural Resources) • Third-party EIS Preparation • Third Party Compliance Monitoring • Memorandum of Understanding (MOU) directing FERC and Federal Agency Cooperation • Preliminary Submission adopted as standard practice by National Energy Board (NEB) of Canada • "Minimum Filing Requirements for Environmental Reports" Guidance Document for FERC filings • FERC Pre-filing Process	•Encourage early and frequent coordination among Federal, state, and local agencies during early stages of a project
TO COMPARE: Interstate Natural Gas Pipelines	12 - 24 months	• Yes, FERC regulated industry	Same as listed for Hydroelectric	Same as listed for Electric Transmission Lines, plus • Pipeline Safety (USDOT OPS)	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as listed for Electric Transmission Lines	Same as Liquid Pipelines	Same as listed for Electric Transmission Lines, plus • Standardized BMP Documents: "Procedures" (Wetlands), "Plan" (Uplands), and "Guidelines" (Cultural Resources) • Third-party EIS Preparation • Third Party Compliance Monitoring • Memorandum of Understanding (MOU) directing FERC and Federal Agency Cooperation • Preliminary Submission adopted as standard practice by National Energy Board (NEB) of Canada • "Minimum Filing Requirements for Environmental Reports" Guidance Document for FERC filings • FERC Pre-filing Process	•Encourage early and frequent coordination among Federal, state, and local agencies during early stages of a project.

regarding what defined a complete application; inconsistent application steps and permit requirements across agencies or offices within an agency; deadlines and timeframes that were not properly communicated to the applicant; and deadlines and timeframes which differed by agency.

3.2.2 Impediment Effects Analysis

In review, the effects of the impediments encountered with other industries' permitting were similar for those identified for interstate natural gas projects. For example, the effects of permitting conflicts inevitably affected the costs of the project, the construction schedule, and/or the eventual success or failure of the project (i.e., whether or not the project was built). This is not surprising because many of the federal and state laws that affect interstate natural gas pipeline construction, also apply to these other energy or linear facility industries.

It was noted that the effects felt by many of the other industries appeared more extreme than the effects felt by the interstate natural gas industry. The reasons for this were two-fold. The first was that many of these other industries did not have the benefit of a process-supporting federal lead agency such as the FERC to shepherd the project process. Additional impediments seen with these other industry projects (e.g., lack of communication, misunderstandings, inconsistent requirements) appeared to be a result of an unclear permitting framework. For example, until a project was properly scoped with the agencies and some investment was made by the applicant, it was unclear whether the proposed project would require NEPA analysis and, if so, what agency would take the lead role.

Reasons why interstate natural gas projects succeed where other energy projects fail:

1. *FERC, the default lead agency for NEPA analysis, is a knowledgeable process advocate, which results in a streamlined permit review.*
2. *Once the project is permitted, federal eminent domain can be a tool used for land acquisition.*

A second reason that natural gas projects tended to be more successful (i.e., constructed) was that federal eminent domain allowed them to navigate land acquisition. The lack of such authority put other types of infrastructure projects at a disadvantage. This step was a critical flaw for other industry projects.[18]

It was clear that other industries were not immune to interagency conflicts and the resulting delays in permitting processes. A well-publicized example in the western U.S. was a debate between the U.S. Environmental Protection Agency (USEPA) and the BLM regarding the environmental trust fund required to cover potential remediation costs of a gold mine in Nevada. The BLM agreed with the applicant that a $408,000 trust fund and $1 million surety bond was sufficient; the USEPA estimated

[18] Congress recognized the need for natural gas pipelines as a public good, and as such, under Section 7 (h) of the Natural Gas Act of 1938, eminent domain may be used to acquire a right-of-way easement if negotiations fail with a landowner.

the possible future contamination clean-up around $33 million and preferred a trust fund in this amount instead.[19] Because this interagency conflict was not resolved quickly, the overall permitting process was delayed and the applicant and the agencies suffered negative publicity.

3.2.3 Conflict Avoidance and Resolution Strategies

Both the agencies and many of the industry sectors, including the natural gas industry, appeared to employ numerous techniques that attempted to avoid interagency conflicts, avoid duplication of review, and/or streamline the overall permitting process. These techniques included the designation and use of predesignated utility corridors, specific review timeframes for completeness and for approval or denial of permit, minimum filing checklists or content rules for applications, use of third-parties to prepare permits or NEPA documents, project-specific resources cost-recovery programs, and project management by a designated lead staff member.

While interstate natural gas pipeline projects utilized the above strategies where appropriate, there were some additional strategies that appeared to be unique to the interstate natural gas pipeline industry. Most of these were initiated by the FERC and were nearly consistently employed by the industry. These included reference to and implementation of easily recognized best management practice (BMP) documents such as the Upland Erosion Control, Revegetation, and Maintenance Plan and the Wetland and Waterbody Construction and Mitigation Procedures;[20] use of the FERC pre-filing process; use of third-party compliance monitors for construction; Environmental Report Filing and Construction Compliance training workshops; and Implementation of the Federal Interagency MOU.[21]

The continued use of these strategies appears to prove their potential for success. Still, changes could always be made to improve or expand on these existing programs.

Average Timeframe for NEPA Review:

Interstate Natural Gas Pipeline Project: 12-24 months →

Other Energy or Linear Project: 12-72 months →

In summary, the interstate natural gas pipeline permitting process appeared to take less time than most other energy facility and linear facility permitting processes that were required to comply with NEPA (which ranged from 12 to 24 months and 12 to 72 months, respectively). These other industries encountered the same frustrations with the permitting process felt by the natural gas industry. The

[19] Associated Press. 2004. Gold Mine Plan Raises Prospect of Polluting in Perpetuity. March 15, 2004.

[20] Federal Energy Regulatory Commission (FERC). 2003. Upland Erosion Control, Revegetation, and Maintenance Plan and Wetland and Waterbody Construction and Mitigation Procedures. Revised January 17, 2003.

[21] USDOA et al. 2002.

interstate natural gas pipeline industry, however, appeared to employ as many, if not more, techniques intended to streamline the permitting process and avoid intergovernmental conflicts.

3.3 Literature Review

A literature search was completed for previously documented, effective intergovernmental conflict resolution strategies. The documents reviewed included NEPA process studies (including a study titled *Streamlining NEPA's Environmental Review Process – Suggestions from Reform*),[22] federal agency Instruction Bulletins, state reports evaluating energy resources and infrastructure (including *Comprehensive Assessment and Report for Energy Resources and Infrastructure of Southwest Connecticut*),[23] successful tribal negotiation documents (including the *Trans-Alaska Pipeline System Renewal Final EIS*),[24] and existing MOUs and Memorandum of Agreements (MOAs) (including MOU on *Coordination of Environmental Reviews for Pipeline Repair Projects*).[25]

These documents suggested one or more potentially useful strategies to avoid or resolve conflict in the permitting process. Section 4.0 briefly discusses each of these promising programs or processes, and includes an evaluation of the program or process, and recommendations for increased effectiveness.

3.4 Existing Statutes and Regulations

Statutes and/or regulations currently in place were reviewed as they relate to intergovernmental conflict avoidance and resolution. Federal and state statutes applicable to other types of infrastructure were evaluated as potential models for interstate natural gas pipeline projects. Refer to Sections 4.1 and 4.2, respectively, for federal and state programs or processes that result from executive orders, memorandums of agreement, and regulations specific to natural gas pipeline permitting.

The strides that the Federal Highway Administration (FHA) has made in streamlining its permitting processes within the U.S. stood out as a potential model for the pipeline industry. Upon examination, permitting large highway transportation projects was similar to permitting large interstate natural gas pipeline projects in many ways. Both types of projects often crossed multiple governing entities (including tribal entities) requiring close interagency coordination; both types of projects have federal

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[22] Tripp and Alley. 2004. Streamlining NEPA's Environmental Review Process: Suggestions for Agency Reform.

[23] Working Group on Southwest Connecticut and the Task Force on Long Island Sound (Working Group). 2003. Comprehensive Assessment and Report for Energy Resources and Infrastructure of Southwest Connecticut. Pursuant to Public Act 02-95 and EO No. 26. January 1, 2003.

[24] U.S. Bureau of Land Management (BLM). 2002. Trans-Alaska Pipeline System Renewal Final EIS. 2002. Appendix F: Alaska Native Utilization Agreement and Implementation Plan. http://tapseis.anl.gov/documents/eis/index.cfm Reviewed August 26, 2004.

[25] Council on Environmental Quality (CEQ) et al. 2004. Memorandum of Understanding on Coordination of Environmental Reviews for Pipeline Repair Work.

eminent domain authority when approved; and both types of projects often encounter local public opposition sparking political reactions.

Numerous provisions in the FHA law are intended to streamline the permitting of federal highway projects. The Federal Transportation Equity Act for the 21st Century (TEA-21, P.L. 105-178), which reauthorized the federal surface transportation program, included Section 1309, an environmental streamlining provision. Section 1309 addressed coordinated and concurrent federal and state agency environmental review processes, created a dispute resolution process, and provided states with the authority to request funds to reimburse affected agencies for expenses. This allowance for financial re-imbursement to the agencies helped to address resource constraint issues that often delayed the permitting process. These provisions could be considered for inclusion in similar legislation for natural gas pipeline projects.

Upon review of state legislation, it appeared that many states had addressed the need for permit streamlining and some even acknowledged the need to work with other agencies in the permitting process. Permit streamlining efforts in many states resulted in the establishment of permitting timeframes for application completeness and/or application review (e.g., California, Michigan, Wisconsin). Some of these timeframe rules granted automatic approvals for permits if the timeframe for agency review expired without any decision action by the agency. It should be noted, however, that some of these automatic approvals have been legally challenged and reversed, specifically in cases where the states have assumed permitting authority for a federal agency (e.g., implementation of the Nationwide Permit Program under the Clean Water Act as administered by the USEPA).

Again, looking to highway transportation projects as an example, it appeared that at least one state followed the federal lead by enacting legislation to streamline the permitting of intrastate road transportation projects. Washington State had a very progressive bill that related specifically to road transportation projects, but could be used as model for natural gas projects. The Transportation Permit Efficiency and Accountability Committee was appointed to further the efforts of one-stop permitting, programmatic agreements, common mitigation, delegation of federal programs, and use of BMPs as an avenue to quicken local permit approval processes (Washington State Engrossed Senate Bill 5279).

Other efforts proposed by the states to improve the permitting process and specifically to address potential interagency conflicts include the appointment of a permitting ombudsman or facilitator (e.g., Rhode Island, California), a technical advisory committee, working group, or task force (e.g., Connecticut, New Hampshire, Oregon), or an office of permit assistance (e.g., California). Some states assist and encourage applicants to employ strategies readily recognized in our current industry best practices, including early scoping (e.g., Vermont) and concurrent permit review processes (e.g., Pennsylvania). More details on these programs are discussed in Section 4.2.

4.0 SOLUTIONS AND STRATEGIES FOR AVOIDING OR RESOLVING INTERGOVERNMENTAL CONFLICTS

This section addresses solutions and strategies for avoiding or resolving intergovernmental conflicts at the federal, state, and tribal regulatory review level (Sections 4.1, 4.2, and 4.3, respectively). Additionally, applicant strategies that have proven successful in avoiding or resolving permitting conflicts are presented in Section 4.4.

4.1 Federal Process Solutions and Strategies

This section includes solutions and strategies that relate to existing or proposed federal processes or programs. Each process or program is introduced briefly and an evaluation of the effectiveness of the process or program follows. Recommendations for improving the effectiveness of or expanding the program are suggested following the evaluation.

4.1.1 Memorandums of Understanding or Agreement

Introduction and Evaluation

A MOU (or a MOA, used interchangeably) is an agreement between agencies, or divisions/units within an agency or department, which delineates tasks, jurisdiction, standard operating procedures, or other matters that the agencies or units are duly authorized and directed to conduct. A MOU or MOA typically establishes the roles and responsibilities of each agency and may set forth the expectations of the agencies about each others' performance. There is no set formula for MOUs; they address whatever project-related issues the agencies involved seek agreement on. The effectiveness of a MOU is a function of how well it is designed, the prescriptiveness of its terms, the level of commitment on the part of the agencies involved, and numerous other factors.

While all of the MOUs evaluated in this study directed agency cooperation to streamline the permitting process, only a few provided detailed implementation procedures. Some of the MOUs identified primary agency responsibility in an effort to avoid duplication; still, only one MOU clearly designated the lead agency in conflict resolution efforts. The MOUs summarized below were reviewed and analyzed for this study to evaluate their effectiveness in avoiding and resolving interagency conflicts.

Successful MOUs clearly define:

1. *Signature party responsibilities*
2. *Action item timeframes*
3. *Conflict resolution guidance*

1. *Interagency Agreement on Early Coordination or Required Environmental and Historic Preservation Reviews Conducted in Conjunction with the Issuance of Authorizations to Construct and Operate Interstate Natural Gas Pipelines Certificated by the FERC*[26]

The Interagency Agreement committed the Department of the Army (USDOA), the Department of Commerce, the U.S. Department of the Interior (USDOI), the USDOT, the U.S. Department of Energy (USDOE), the ACHP, the FERC, the CEQ, and the USEPA to actions that would streamline the environmental review and permitting process for interstate natural gas pipeline projects. This MOU was developed in response to EO 13212, in which federal agencies entered into agreements to streamline the environmental review and permitting processes collaboratively. Major points included in the MOU were early involvement by cooperating agencies to identify regional, local or stakeholders of special interest, early identification of issues and concerns, establishing a schedule for concurrent project activities, identifying agency responsibilities, and consulting with FERC utilizing its pre-filing process.

2. *MOU among the USDOE, USDOI, U.S. Department of Agriculture (USDA), USEPA, CEQ, and the Members of the Western Governors' Association Regarding Energy Development and Conservation in the Western U.S.*[27]

This MOU also was a result of EO 13212. It established cooperation between states and federal government to address energy problems in the western U.S. A provision of the MOU covered collaboration among the signatories to develop work plans and reports to address immediate energy needs in the western U.S.

3. *MOU on Coordination of Environmental Reviews for Pipeline Repair Projects*[28]

This third MOU also was a result of EO 13212 and relevant provisions in the Pipeline Safety Improvement Act of 2002 directed agencies with jurisdiction over pipeline repair permitting work to establish a coordinated and expedited review process. The participating agencies entered into this agreement in recognition of the fact that the timely repair of both natural gas and hazardous liquid pipelines is essential to facilitate the nation's ability to meet the goal of sufficient availability and use of natural gas and liquid fuels. They agreed to work with each other, and with other entities as appropriate (e.g., state agencies), to ensure that timely decisions are made to enable pipeline repairs

[26] USDOA et al. 2002.

[27] U.S. Department of Energy (USDOE) et al. 2001. Memorandum of Understanding Among the U.S. Department of Energy, U.S. Department of the Interior, U.S. Department of Agriculture, U.S. Environmental Protection Agency, Council on Environmental Quality, and the Members of the Western Governor's Association Regarding Energy Development and Conservation in the Western United States.

[28] CEQ et al. 2004.

within the time periods specified by the 2004 rule[29] while ensuring that the environmental review and permitting responsibilities of each agency are met.

4. MOU between the National Energy Board (NEB) and FERC[30]

The MOU between the NEB (Canada) and the FERC memorialized the two agencies' commitment to expedite the permitting process for large energy projects with appropriate coordination, including the review process and timing of project-related decision-making. The MOU was signed in 2004 and established for a 10 year term.

5. MOU Among the Secretary of the Interior, Secretary of Transportation, and Administrator of the Environmental Protection Agency[31]

The MOU among the USDOI, USDOT, and USEPA implements the jurisdictional responsibilities for offshore facilities, including pipelines, pursuant to the Clean Water Act, as amended by the Oil Pollution Act of 1990. The signing parties agreed to a division of responsibilities in regulating spill prevention and control, response planning, and equipment inspection activities pursuant to the Clean Water Act and the Oil Pollution Act. According to the MOU, the USDOI redelegated responsibility for transportation-related facilities, including pipelines, located landward of the coast line to the USDOT. The USDOT retained jurisdiction for deepwater ports and their associated seaward pipelines, as delegated by EO 12777. The USDOI retained jurisdiction over facilities, including pipelines, located seaward of the coast line, except for deepwater ports and associated seaward pipelines delegated by EO 12777 to USDOT. This MOU resolved jurisdictional confusion caused by multiple rulemakings and helped to further clarify the definition of offshore activities.

[29] U.S. Department of Transportation (USDOT). 2004a. Office of Pipeline Safety, Research and Special Programs Administration. Pipeline Safety: Passage of Internal Inspection Devices.

[30] National Energy Board (NEB) et al. 2004. Memorandum of Understanding Between National Energy Board and Federal Regulatory Commission. Effective May 10, 2004 through May 10, 2014.

[31] U.S. Department of the Interior et al. 1994. Memorandum of Understanding Among the Secretary of the Interior, Secretary of Transportation, and Administrator of the Environmental Protection Agency. Effective February 3, 1994. At the time of this MOU publication, USCG was a branch of the USDOT. It is now a new part of the Department of Homeland Security (DHS).

6. MOU between the Minerals Management Service (MMS) (an office of the USDOI) and U.S. Coast Guard (USCG) (a branch of the USDOT)[32]

The MOU between the MMS and the USCG identified agency responsibilities for oil and gas activities occurring in the Outer Continental Shelf. This MOU was a follow-up to the MOU discussed above. Oil-spill preparedness for facilities located seaward of the coastline is also covered under this MOU. The MOU was developed to provide consistent regulation for facilities (fixed and floating mobile offshore drilling units) under the jurisdiction of both agencies and assigns the lead agency responsible for a specific system. The MOU required that the MMS and USCG develop standards to implement the MOU and, where overlapping responsibilities occur, that the agencies work together to avoid duplication.

Recommendations

While the above MOUs stress cooperation among agencies in reviewing environmental documents and permits, the following elements should be explored to achieve this purpose effectively.

1. MOUs should be prepared at the field office level on a programmatic level to address all types of projects and at a project level to address specific requirements of a given project. This would result in MOUs that are more directly useful and ready to implement.

2. Agreements that are prepared on a local level should identify and list specific agency responsibilities for specific environmental elements.

3. Agreements should be reached among cooperating agencies regarding the content of environmental documents and permits so that they can be prepared to meet all agency requirements.

4. MOU implementation should be specifically detailed and communicated to agency staff. For example, BLM uses Instructional Memorandums and the USFS uses Director's Orders to instruct agency staff on policy changes.

5. The concept of compiling BMPs and use of an ombudsman as stated in the Pipeline Safety Improvement Act of 2002, should be carried forward at an agency level. The concept is also recommended at the local level to address differences in land use, environmental conditions, and local regulations in order to address relevant mitigation needs adequately.

[32] U.S. Department of the Interior, Minerals Management Service and U.S. Department of Transportation, United States Coast Guard. 1998. Memorandum of Understanding Between Minerals Management Service, U.S. Department of the Interior, United States Coast Guard, and U.S. Department of Transportation.

6. Develop a MOU, similar to the Western Governors' Association MOU,[33] between the federal agencies and the National Governors' Association. The agreement could educate all governors about the industry and the permitting process, making it possible for them to address constituent concerns better.

7. Build upon the existing Western Governors' Association MOU to include each respective state's resource protection agency(ies) in order to capture the state level of agency cooperation.

4.1.2 Early Project Scoping and Continued Stakeholder Education and Involvement

Introduction and Evaluation

Numerous studies of permit streamlining[34] have identified early agency and public involvement as a key factor in expediting the permitting process. As proposed in the report, *Streamlining NEPA's Environmental Review Process: Suggestions for Agency Reform,*[35] the project scoping process should begin early in the planning process in order to identify agency issues and public concerns upfront. The benefit of this strategy is that it begins building consensus with the project stakeholders. Stakeholders are defined as any interested party that seeks input into the project planning or permitting process (e.g., affected landowners, agency representatives, non-governmental organizations).

FERC NEPA Pre-Filing Process Facts

First Official Project: Greenbriar Pipeline Project (2001)
Projects to Use the Process to Date: More than 30
Goal of the Process: To identify and resolve public and agency environmental issues early in the scoping process

In recent years, the FERC has developed a new program referred to as the NEPA Pre-filing Process for Natural Gas Projects. One of the goals of the program is to establish "positive and open dialogue…that may help other state and federal agencies to coordinate the exercise of their regulatory mandates with the Commission's and will foster the resolution of disputed issues and the submission of offers of settlement."[36] FERC staff are encouraging all LNG project applicants and applicants with projects that will likely require an EIS to engage in the Pre-filing Process.[37] Since the introduction of the pre-filing program, there has been a steady rise in the use of this program (one project used the process in 2001, two projects in 2002, eight projects in 2003, 19 projects used the process in 2004).

[33] USDOE et al. 2001.
[34] Batts and King. 2004, Tripp and Alley. 2004.
[35] Tripp and Alley. 2004.
[36] FERC Voluntary Collaborative Pre-filing Process for Natural Gas Pipelines (Docket No. RM98-16-000), which discusses the program that eventually led to the NEPA Pre-filing Process for Natural Gas Project currently being utilized by FERC staff and applicants.
[37] FERC. 2003. Office of Energy Projects. Guidance Manual for Environmental Report Preparation. Training Seminar. Las Vegas.

Although FERC has been unable to evaluate the efficacy of the program, the general consensus is that the Pre-filing Process aids in resolving intergovernmental conflicts by helping to identify potentially contentious issues early in the process.[38] The process does not appear to eliminate conflict altogether, but allows more time to address conflict resolution and creates a forum for dispute resolution. Likewise, early scoping with agencies and landowners improves the quality of the NEPA process and project schedule by allowing the time required to address the issues adequately. While the process does not necessarily reduce the overall timeline for project authorization, it does reduce the time required by the FERC staff for permit review by moving much of the scoping efforts to the pre-filing phase of the project.

One of the additional benefits to the pre-filing process is the elimination of the *ex parte* rules,[39] which govern communication between the applicant and the FERC staff once a certificate application is filed. Although significant communications between the applicant and the FERC staff are still made part of the written public record during the pre-filing phase of the project, the freedom of verbal communication during the pre-filing phase allows for more effective communication between the parties, resulting in a more meaningful and complete application at the time of filing.

Recommendations

1. Applicants, FERC staff, and cooperating agencies are encouraged to continue using the FERC pre-filing process, where appropriate.

2. Applicants and the FERC staff are encouraged to promote public education by actively pursuing effective strategies (e.g., conducting workshops, the media, visiting schools) to inform the public about the industry, projects, and the NEPA process. To some extent FERC staff already act in this regard in the pre-filing process by acting as a process advocate (not a project advocate).

3. Applicants and the FERC staff are encouraged to promote an understanding and confidence in the comprehensive FERC environmental permit review process. The more confident the public and local agencies feel in with FERC process, the more likely these stakeholders are to contribute to the process and, subsequently, support the project decisions made by the FERC staff.

[38] FERC. 2004a. FERC personnel relate that anecdotal evidence supports this conclusion.

[39] *Ex parte* rules govern communication between FERC employees and persons outside the FERC. In Order No. 607 (issued September 15, 1999), the FERC revised its rules concerning *ex parte* communications in an effort to provide better guidance on what communications to and from the FERC are permissible and what communications are prohibited. For more information, refer to http://www.ferc.gov/legal/ferc-regs/land-docs/exparte.asp.

4.1.3 National Project Manager Programs

Introduction and Evaluation

Two federal agencies employ staff as national project managers or regional liaisons for large natural gas pipeline projects. The USDOT Office of Pipeline Safety (OPS) employs five Community Assistance and Technical Services (CATS) representatives. The BLM employs three national project managers.

CATS representatives are a team of five individuals employed by the OPS (representing five regions within the U.S.) that act as liaisons between the OPS and state and local agency representatives. The mission of these representatives is focused on improving pipeline communications at the state and local levels, and expediting permit processes that enhance pipeline safety.[40]

The BLM ROW Project Manager Pilot Program was approved by the BLM's Executive Leadership Team in July 1999, and implemented in March 2000.[41] This program represented a new way of doing business for the BLM with respect to processing ROW applications. The pilot project was intended to allow the BLM to be responsive to demands of ROW customers by exploring new techniques for processing major category ROW applications more efficiently, while maintaining the BLM's stewardship responsibilities for public lands management. The pilot program involved hiring and training four Project Mangers to process ROW applications (often referred to as "National Project Managers"). These positions were utilized Bureau-wide for processing major category ROW applications and reported to the Washington Office Lands and Realty Group. The ROW Project Managers were selected based on demonstrated abilities and enthusiasm for processing major category ROW applications. These Project Manager positions were funded with cost recovery funds generated by the major category ROW applications.

This program is still in use. In collaboration with a project applicant, the duties of the Project Manager are to select the NEPA contractor for the ROW project and to establish working relationships with BLM, other federal, state and local agencies, governmental bodies, and with the public as needed to complete the NEPA documentation and associated processes. When processing of a major project ROW application is complete, the ROW Project Manager prepares the Record of Decision and ROW Grant for authorization.

[40] Additional information on the CATS mission, manager's responsibilities, and locations, can be found at http://primis.rspa.dot.gov/cats/.

[41] BLM. 2000. Informational Bulletin No. 2000-082. Deployment of the Right-of-Way (ROW) Project Manager Proposal to Process Major Category ROW Applications.

In June 2003, the Washington Office conducted an internal and external survey of the Bureau-wide Rights-of-Way Project Manager Pilot Program.[42] The overall response from both the internal and external surveys was very positive, with the consensus being the program was beneficial for expediting large major category ROW projects, and, in particular, interstate ROW projects.[43] The few areas identified for improvement could be addressed through improved communications between project managers and Field Office managers, additional clarification of roles and responsibilities, and the future selection of the best candidates for project manager vacant positions.

The conclusion reached by the BLM, based on the responses that were received during the survey as well as comments provided by agency representatives from FERC and USFS, was that the National Project Manager Pilot Program was successful in fulfilling the need for a cadre of highly experienced ROW Project Managers to oversee large ROW projects. Another goal of the Project Manager Program was to free-up the field office and state office realty specialists so they could continue processing other realty case work when a large project involved their jurisdiction. This goal also was achieved. Utilizing National Project Managers to oversee large complex interstate energy projects was demonstrated as being a valuable and cost effective way of doing business. Because the project managers were funded with cost recovery money[44] when they were working on ROW projects, the cost to the BLM for having this program in place was minimal. The BLM's recommendation was to continue the program permanently with a minimum staff of four National Project Managers.

Recommendations

1. Involve the CATS liaisons to the maximum extent practical for obtaining permits and approvals required in order to perform the USDOT mandated maintenance, inspection, and repair work under the 2004 integrity rule.[45]

2. The BLM National Project Manager program should be expanded to the extent practicable to accommodate large, complex projects.

3. There appears to be the ability in the program for BLM National Project Managers to work for other Department of Interior entities in the NEPA project manager role, if needed (e.g., USFWS). While filling these positions in the sister agencies, the National Project Manager could share invaluable knowledge about the NEPA process and managing large-scale pipeline projects. The National Project Manager also could mentor these agencies.

[42] BLM. 2003a. Informational Bulletin No. 2003-104. Bureauwide Right-of-Way Project Manager Survey.

[43] BLM. 2004a. Informational Bulletin No. 2004-050. Bureauwide Rights-of-Way Project Manager Survey Results.

[44] The BLM cost recovery program allows the project applicant the opportunity to reimburse the agency for existing staff labor and other costs associated with the permitting process.

[45] USDOT. 2004a.

4. Other agencies (e.g., USFWS, USCOE) should have a process similar to the BLM National Project Manager Program for large, multi-office, multi-state natural gas pipeline projects. Preferably, individuals employed as project managers for these other agencies should be specialists in NEPA analysis and knowledgeable about natural gas pipelines.

4.1.4 Account Cost Recovery Programs and Third-Party Permitting

Introduction and Evaluation

An account cost recovery program allows the project applicant the opportunity to reimburse the agency for existing staff labor and other costs associated with the permitting process. As a result, agencies can dedicate greater numbers of staff to handle project loads. Other agencies can recoup costs from other agencies for work on the same project. The BLM and other federal agencies employ these programs. An account cost recovery program can be thought of as a project specific fee to process a permit.

The BLM's Account Cost Recovery Program is an effective program currently used for permitting large natural gas and other major projects. As previously discussed, the Federal Highway Administration's TEA-21 program's cost recovery provision has been effective in reimbursing agencies for expenses associated with environmental review.

Third-party permitting is another approach to permit processing and NEPA documentation, particularly with BLM, USFS, and FERC. Under the concept, an independent contractor is selected to prepare the necessary permitting documentation. The contractor works under the direction of the agency, but is fully reimbursed under contract from the applicant.

The third-party permitting process allows a diversity and depth of staff resources to be applied to the NEPA documentation/permitting process. The third-party contractor reduces the burden on agency staff and generally acts as an independent party. The contractor also acts as a resource that can coordinate and streamline the process. Third-party contractors that specialize in NEPA process and document preparation may be particularly valuable on projects where permitting agency personnel are not as familiar with the requirements of NEPA.

Third-party NEPA Contractors:

- *Reduce burden on agency staff*
- *Specialize in NEPA documentation*
- *Serve to streamline and coordinate the NEPA process*
- *Act as an independent party in conflict resolution efforts*
- *Are paid for by the Project applicant*

Recommendations

1. Voluntary cost recovery programs should be explored for federal agencies that do not currently have these programs in place. Still, applicants should only be required to pay for costs that are

incurred above and beyond the typical project review. Additionally, in exchange for applicant payments, a defined permit process review schedule should be outlined.

2. The use of third-party contractors should be explored for federal agencies that do not currently have these programs in place. Examples where this could be productive include the USFWS for processing Section 7 Consultation and State Historic Preservation Officers (SHPOs) review under the Section 106 – National Historic Preservation Act (NHPA) Consultation process. These two consultation processes account for many project schedule delays on pipeline projects.

3. The use of account cost recovery programs and third-party contractors should be a voluntary decision by the applicant and the agency and should be dependant upon the size of the project and the required permitting timeframe.

4.1.5 Training and Public Outreach

Introduction and Evaluation

Several federal agencies provide intragency training for their staff and in some instances, for other agencies and the public. The BLM's Training Program is extensive and includes training for internal BLM staff on various industries (including natural gas pipeline construction).[46] The training includes internal policies, permitting processes (ROW grants), and NEPA document preparation. Such training is particularly important offices with limited staff resources. The BLM's National Training Center is located in Phoenix, Arizona and offers online courses, broadcast courses, land classroom training and workshops. Other agencies, such as the National Park Service (NPS), U.S. Geological Survey, and Office of Surface Mining provide training courses; however, not to the extent of the BLM's program. The USFWS offers lecture series and distance learning courses from its training center in Shepherdstown, West Virginia. FERC offers free training and workshops for all interested parties and stakeholders throughout the year. Topics include application preparation, construction compliance, stakeholder involvement, and Section 106 compliance.

Training for agency staff and the applicant is effective in streamlining the permitting process. It allows for better understanding of both the requirements of the agency and the limitations of the applicant. Training that is offered to multiple agencies encourages relationship-building that encourages teamwork on future combined endeavors.

Educating the public (often referred to as public outreach) is as important to the permitting process as training for the applicant and agency staff. Project stakeholders are first informed about the natural gas pipeline industry and environmental review processes through pipeline company outreach, public

[46] BLM. 2003b. Instructional Memorandum No. 2003-197, Right-of-Way Management, Interstate Natural Gas Pipeline Projects.

project scoping meetings, the media, and communications with public officials and staff of state, federal and tribal environmental resource protection agencies. The INGAA Foundation is currently working on an initiative to develop comprehensive and consistent media outreach materials for use in communicating key messages to key public officials and policy makers with an aim toward raising pipeline and energy demand awareness. These key messages would address more common public concerns, including pipeline safety, energy supply and demand, and issues with ensuring a safe and reliable North American energy infrastructure.[47]

Recommendations

1. Encourage participation in the BLM Training Program so that agency staff is knowledgeable about the industry and project limitations.

2. Encourage all stakeholders, including other agency and industry personnel, to participate in the FERC training program in order to understand the application processes better.

3. Encourage industry to offer training to agency staff. The more agency staff understand pipeline projects, the more constructive their input is likely to be.

4. FERC should provide training for topics as suggested by industry: LNG Permitting, Blanket Certificate (i.e., maintenance filings), Endangered Species Act (ESA) Consultation, and preparation of applicant-prepared EAs and third-party EISs.[48]

5. Maximize the use of the outreach materials developed in the ongoing INGAA Study to broadcast key messages related to natural gas pipeline infrastructure to the public and policy makers.[49]

4.1.6 Concurrent Review Process

Introduction and Evaluation

Concurrent review allows for the review of all permits while the NEPA process is underway. For example, the USCOE would review the 404 permit, while USFWS conducts ESA compliance

[47] INGAA. (In Progress). 2005. Foundation Study: "Media Outreach Materials." The INGAA Foundation. 2005 Study in Progress.

[48] FERC. 2004b. Results from Information Survey of Training Participants: Other Suggested Classes. Collected from 2002 through 2004 Trainings.

[49] INGAA (In Progress). 2005. Foundation Study. "Media Outreach Materials."

concurrently with the NEPA process. The concept of concurrent review is supported in the report *Streamlining NEPA's Environmental Review Process: Suggestions for Agency Reform.*[50]

Concurrent review also can streamline the process when both a NEPA document and a state document are required by combining data collection and analysis activities. The following states require state environmental documentation similar to the federal NEPA process: Arkansas, California Connecticut, District of Columbia, Florida, Hawaii, Indiana, Maryland, Massachusetts, Minnesota, Montana, New York, North Carolina, Puerto Rico, South Dakota, Virginia, Washington, and Wisconsin. In most instances, the documents can be prepared under similar schedules.

Concurrent Review Process on a Recent Natural Gas Pipeline Project:

Type of Project: Florida on-shore/ off-shore
Regulatory Agency Personnel: 100 +
Timeframe to Complete Federal and State Permitting Work: less than 12 months

Concurrent review is particularly effective in streamlining the permitting process where two required environmental documents can be combined. For example, an Environmental Impact Report in California could be prepared simultaneously with the federal EIS document required by FERC and/or the BLM. While the preparation of one document that satisfies both federal and state requirements can be challenging from a coordination perspective, the resulting document is likely to be a much more streamlined, defensible, environmental review and mitigation plan report.

Coordinating multiple agencies may be challenging, but if done well can lead to the issuance of permits in an accelerated fashion. A recent pipeline project in Florida coordinated seven specialty subcontractors and over 100 regulatory personnel for the route development, public outreach program, field surveys, and permitting phases of a combined on-shore and off-shore natural gas pipeline project. All federal and state permitting work was completed in 12 months time.

Recommendations

1. Encourage "team permitting" among the involved agencies. Agencies would require consensus on project schedule and coordinated reviews.

2. Combine all environmental review documents into one comprehensive environmental document. Note: to avoid conflicts when creating one environmental document, agencies would need to develop a consistent set of definitions for significant resource impacts (preferably the federal definitions would be used).

[50] Tripp and Alley. 2004.

4.1.7 Primacy

Introduction and Evaluation

Federal programs may be administered and enforced at the state or local level through a delegation process called “primary enforcement authority” or “primacy.” This concept provides for closer communication between the regulatory agency and the regulated community than is possible when the administration is strictly at the federal level. In addition, federal review of permit applications is often waived which can decrease the time for approval. The federal programs that are “assumed” by states most commonly include implementation programs under the Clean Water Act (e.g., Section 402, National Pollutant Discharge Elimination System; and Sections 10 and 404, Navigable Water Crossing and Wetlands and Waters Nationwide Permits) and the Clean Air Act (e.g., Air Quality State Implementation Plans). States often assume permitting authority for federal resource protection regulations that are less stringent than the state laws and regulations protecting a particular resource.

The primacy concept is effective in avoiding the need for duplicate permit application and review and prevents the potential for inconsistent approvals. Concerns regarding state implementation assumption are that state permit application tend to be more involved than those for federal programs alone; state required mitigation is often more stringent than federal mitigation requirements; and the review under the state process is often more lengthy than for the federal program alone.

Recommendations

1. Where primacy of federal programs does not add a significant length of time to the permitting process, it should be continued in an effort to streamline the permit process and help to avoid conflicts by avoiding duplicate resource impact reviews.

2. State permit application and mitigation requirements should be aligned with federal programs.

4.1.8 Federal Eminent Domain and Condemnation

Introduction and Evaluation

The law of "eminent domain" (also called "condemnation") is summed up in the last phrase of the Fifth Amendment, “Nor shall private property be taken for public use without just compensation.” This provision of the Bill of Rights is interpreted and applied by judges as the power of government agencies to acquire property for "public use" so long as the government pays "just compensation." Recognized public uses for which the power of eminent domain may be used include, among other things, schools, parks, roads, highways, subways, fire and police stations, and public buildings. Section 7 (h) of the Natural Gas Act of 1938 makes the law of eminent domain expressly applicable to interstate natural gas pipelines if conferring the right of eminent domain on an interstate pipeline to which the FERC has granted a certificate of public convenience and necessity. A key attribute of

eminent domain is that the government can exercise its power even if the owner does not wish to sell his or her property. Should an applicant not be successful in obtaining a lease agreement for right-of-way with a landowner, and the FERC deems the project approved by issuing a certificate of public convenience and necessity, the right of eminent domain may be invoked to “take” the landowners property for the installation and operation of the pipeline.

In some of the cases studied (Section 3.1), pipeline projects encountered delays where condemnation proceedings became necessary. Undue delays resulted when the interstate pipeline company was not granted immediate possession of properties upon the issuance of the FERC certificate of convenience and necessity. Immediate possession allows for the completion of biological and cultural resource surveys and consultation (required for compliance with Section 106 of the Historic Preservation Act and Section 7 of the ESA) in time to meet the planned project construction schedule.

A recent decision by the U.S. Court of Appeals for the Fourth Circuit[51] regarding the timing of possession of property acquired through the eminent domain process will greatly expedite the condemnation process. In this decision, the court affirmed a lower court ruling that gave a private natural gas company with federal power of eminent domain the authority to take possession of properties that they had sought to condemn prior to the completion of compensation hearings. Prior to taking possession, a court must rule that the company has the right to condemn the property and that the circumstances warrant granting possession to the company sooner rather than after valuation is determined. Although many district courts have permitted immediate possession or "quick-take," this is the first federal appellate court opinion to permit immediate possession. This decision is the leading authority on the issue of immediate possession and should provide all interstate pipelines a solid basis for seeking similar treatment when circumstances warrant.[52]

In general, the federal eminent domain process works effectively, but delays in proceedings still affect construction. Still, the recent decision will add weight to arguments for more immediate decisions regarding going forward under eminent domain, thereby, reducing construction delays.

Recommendations

1. Work with land owners to avoid eminent domain proceedings if possible.

2. Utilize and reference relevant case law on a project-specific basis to expedite the federal eminent domain process when necessary.

[51] East Tennessee Natural Gas Company versus John S. Sage, Case No. 03-1708, 361 F.3d 808 (4th Circuit 2004).

[52] Waller Landsen. 2004. News Bulletin: Waller Lansden Obtains Crucial Federal Appellate Ruling for Energy Client, March 2004. http://www.wallerlaw.com. August 23, 2004.

4.1.9 Section 106 Compliance

Introduction and Evaluation

Section 106 of the NHPA and its implementing regulations (36 Code of Federal Regulations [CFR] 800) require federal agencies to take into account the effects of their undertakings on historic properties and to afford the ACHP an opportunity to comment. The statute and the regulations also require federal agencies to consult with the appropriate SHPOs, federal land management agencies, federally recognized Indian tribes, and other parties (as defined by 36 CFR 800.2(c)(5)) for undertakings with the potential to cause effects to historic properties. Because natural gas pipelines are under the jurisdiction of the FERC, a federal agency, they subject to review under the NHPA.

Conflicts tend to arise when the various coordinating agencies fail to agree on a schedule for document and project review or fail to agree on which agency will lead the project review. One project team, which avoided such conflicts, was recognized for "excellence in environmental streamlining" for their Programmatic Agreement and manual on the Section 106 review process for federally aided highway projects. The project team included the ACHP, the Vermont Agency of Transportation, the Vermont Division of Historic Preservation, and the Vermont Division of Federal Highway Administration. The programmatic agreement and manual streamline the review of impacts of transportation projects on historic and archeological resources, as well as protect those resources better. Many states have already requested a copy of the Programmatic Agreement and manual to consider developing similar programs.

Example of a Successful Project Specific Programmatic Agreement for Section 106 Review:

- *Signatories: ACHP, Vermont Agency of Transportation, Vermont Division of Historic Preservation, Vermont Division of Federal Highway Administration*
- *Streamlines the review of impacts of transportation projects on historic and archeological resources*
- *Serves as an example for other states*

Recommendation

1. Applicants should work together with the relevant state agencies to develop Programmatic Agreements to help expedite project reviews under the purview of the state historic preservation office.

4.1.10 Canada's Smart Regulations

Introduction and Evaluation

In 2002, the Prime Minister of Canada identified "smart regulation" as a priority to reduce the administrative burden placed on industry to permit projects, including energy projects. The goal of smart regulation includes development of a goal-oriented regulatory framework, clear and predictable

regulatory process and decisions, and a diminished regulatory burden achieved through effective cooperation agreements and partnerships with other agencies.[53]

The recent revision to the Canadian Environmental Assessment Act is one example of regulation that is line with the initiatives of Smart Regulation.[54] The amended law will deliver environmental assessments in a more certain, predictable, and timely manner. A provision of the Act establishes the role of a Federal Environmental Assessment Coordinator who will be the principal point of contact for federal authorities during the assessment process. Among other responsibilities, the coordinator will help to avoid and resolve conflicts between cooperating agencies by (1) bringing together all federal authorities that may need to be involved in the assessment, (2) consolidating information requirements, (3) coordinating the actions of federal authorities with those of provincial or local governments in the case of joint assessments, and (4) establishing timelines for joint environmental assessment reviews.

The establishment of bilateral agreements is a second example wherein the Canadian Environmental Assessment Agency is contributing to the goals of Smart Regulation. The Agency has been working with provincial and territorial governments to develop bilateral agreements that would contribute to a more efficient and timely environmental assessment process. The goal of these agreements is to eliminate duplication and overlap, where both federal and provincial assessment processes apply, through a single review process. Currently there are numerous agreements in place, including federal-provincial/territorial agreements, project agreements, federal-Aboriginal agreements, and International agreements.

Recommendations

1. Continue soliciting input from all stakeholders (e.g., industry, other agencies) when developing strategies for implementing Smart Regulation.

2. Continue to follow the progress of Smart Regulations for possible modeling of future U.S. regulations.

[53] External Advisory Committee of Smart Regulation (EACSR) was established to provide external advice to the federal government on how the government could redesign its regulatory system to better serve the needs of Canadians and Canada in the 21st century. The first report of EACSR was presented to the Prime Minister on September 23, 2004 and included numerous recommendations for regulatory reform. http://www.pco-bcp.gc.ca/smartreg-regint/

[54] Bill C-9; Canadian Environmental Assessment Act Amendments to strengthen the federal environmental assessment process came into force on October 30, 2003.

4.2 State Process Solutions and Strategies

This section includes solutions and strategies that relate to state processes or programs. Each process or program is introduced briefly and an evaluation of its effectiveness follows. Recommendations for improving the effectiveness of the program or expanding its scope are suggested following the evaluation.

4.2.1 Permitting Timeframes

Introduction and Evaluation

Many states have enacted permitting timeframes in which agency staff must deem applications administratively complete (or not) within a certain time period (e.g., 30 days). Some state programs also deem an application approved or denied within another specified time period.

Permitting timeframes provide applicants a rough estimate of the expected duration of the overall permitting process. Still incomplete applications or repeated requests for additional information negate the efficacy of permitting timeframes. Automatic approvals (i.e., approvals granted when the time period has expired for agency review without a decision) have been contested widely and should not be considered.

Recommendations

1. Continued use of permitting timeframes is encouraged for determination of complete applications and permit approval or denial. Even if a permit is not granted within this timeframe, the expectation of closure as of a certain date contributes to predictable project planning.

2. Applicants should not rely on automatic approvals as valid authorizations, especially when granted by states that have assumed authority for federal programs.

4.2.2 Permitting Facilitators

Introduction and Evaluation

In an effort to shepherd applicants through a complicated state permitting process, many states have employed permitting ombudsmen, facilitators, advisory committees, working groups, offices that provide permit assistance, task forces, and the like. The goal of these appointees is to assist the applicant in the permit review process while avoiding or resolving conflicts between the permitting agencies.

Some state appointees facilitate permitting between various state agencies within one state. For example, the New Hampshire Department of Transportation and New Hampshire Department of

Environmental Services have a MOA establishing a joint hearing process to review the environmental effects for proposed transportation projects. The intent of the process is to facilitate, improve, and expedite wetland permitting decisions and the public participation process.[55] Other appointees might facilitate permitting between two or more states that share jurisdiction of a particular area (e.g., Connecticut and New York's shared jurisdiction over Long Island Sound crossing projects).The Connecticut Substitute House Bill No. 5643 and the Connecticut Substitute House Bill No. 5609, Public Act No. 02-95 were enacted to encourage interstate cooperation for cross Long Island Sound projects. These laws direct the Connecticut Energy Coordinating Authority (CECA) to coordinate and facilitate communication with counterparts in New York and Rhode Island that share an interest in interstate energy and telecommunications infrastructure projects. The CECA and its counterparts in neighboring states may consider mechanisms for coordination, including but not limited to, undertaking a MOU that seeks: consistent and compatible standards to determine public need and environmental preference standards for the protection of Long Island Sound; consideration of benefits and alternative solutions for energy reliability and energy facilities of regional significance; to set goals and encourage the collection of marine and coastal resource data; and to interact with the FERC and other agencies.

The effectiveness of these appointees or processes varies and is highly dependent upon the willingness of the parties involved to embrace the process and/or respect the decisions of the appointees. Still, a single point of contact within any state organization that is responsible for coordinating the overall permitting process helps to address any conflicting agency issues. Likewise, an impartial ombudsman would be valuable in resolving conflict that may arise between permitting agencies.

There appears to be a lack of appointees or processes at the state level that address coordination between federal and state permitting agencies. Many of the examples in place are restricted to coordination between state agencies.

Recommendations

1. Continued use of these programs is encouraged. Any assistance from an agency in coordinating the overall permit process is beneficial to the applicant.

2. Applicants should request a "single point of contact" in states where multiple permitting efforts are required. This single point of contact is the person designated responsible for the project and can help to disseminate consistent information to all contributing parties.

[55] USDOT. 2004b. Federal Highway Administration. State Streamlining Practices: MEMORANDUM OF AGREEMENT - New Hampshire Department of Transportation and New Hampshire Department of Environmental Services - JOINT PUBLIC HEARINGS. http://environment.fhwa.dot.gov/strmlng/jphmoa.htm. Reviewed July 28, 2004.

3. Successful MOAs, such as the one cited above in New Hampshire, should be mimicked by other permitting agencies that are involved in natural gas infrastructure permitting. Joint hearings (one of the strategies in the MOA) facilitate, improve, and expedite permitting decisions and the public participation process.

4.2.3 Internet Information and Application Sites, Project Websites, Centralized Data Repositories, and Information Clearinghouses

Introduction and Evaluation

The internet has become an important mechanism for disseminating information. Many agencies have websites that provide information, outline the permit process, and even allow an applicant to complete and submit the application on-line. On-line information provides a single point of contact for the applicant, resulting in consistent and timely information delivery. For example, the State of California recently replaced their Office of Permit Assistance with the California Environmental Protection Agency's California Government Online to Desktops (CalGOLD) Website at www.calgold.ca.gov. Websites can be designed to reject applications that are not complete by prompting for the missing information. The prompts identify each incomplete component and allow the applicant to clearly identify missing information.

Internet sites also can be used for disseminating project-specific information. Project websites would be helpful in engaging project stakeholders and for coordinating the various permitting agencies working on a project.

Where available, non-internet data repositories and information clearinghouses provide consistent and readily accepted technical information to all applicants and permitting agencies in the baseline review phase of a project. For example, the Connecticut Task Force has designated a location for its Geographic Information System (energy and environment) database, and other Long Island Sound information as it is developed. This information is shared with all relevant applicants and federal and state permitting agencies, as necessary, to evaluate impacts to and protect sensitive environmental resources.

Depending on the ease of use and reliability, application websites can successfully disseminate and collect information to/from multiple parties efficiently (perhaps more efficiently than a staff of permit assistants). Still, there is no replacement for personal assistance with complicated project issues. Similar to the evaluation of application websites, the usefulness of internet or other repositories depends on the quality and readily-available nature of the data. Where successful, these repositories help to encourage multiple agency cooperation, information sharing, and may encourage compromise.

Recommendations

1. Where available, applicants should utilize permit application websites to expedite submittal and review timeframes and to ensure that all required permits are obtained for a project.

2. Applicants should be encouraged to create or assist in populating a project website so that the public and agency can view of the status of the project permitting process. Information posted to a website is easily accessible to the public and easy to maintain compared to multiple stakeholder mailings.

3. If the use of a centralized data repository is successful in encouraging agency cooperation and streamlining the permit application process, it should continue to be utilized.

4. Applicants should be encouraged to "donate" the data collected during their project's baseline studies for future project use. This community approach to resource protection will help to strengthen the industry's overall relationship with the data collecting agency.

4.2.4 Application of Environmental Preference Standards for the Protection of Environmental Resources

Introduction and Evaluation

Many state agencies recognize BMPs or environmental preference standards as a way to expedite permit review and avoid conflicts with agencies that may have differing opinions relative to mitigation. Applicants can incorporate readily recognized environmental preference standards when reviewing and evaluating the environmental impacts of a project; the concepts of avoidance, minimization, mitigation, and compensation should be taken into account in that respective order.

Readily Recognized Best Management Practice Documents Commonly Used for Natural Gas Pipeline Projects:

- *Upland Erosion Control, Revegetation, and Maintenance Plan*
- *Wetland and Waterbody Construction and Mitigation Procedures*

The effectiveness of BMP documents or environmental preference standards can be measured by how readily recognized and accepted they are. The *Upland Erosion Control, Revegetation, and Maintenance Plan* and *Wetland and Waterbody Construction and Mitigation Procedures* documents[56] are excellent examples of BMP documents that are increasingly recognized and accepted by state agencies.

[56] FERC. 2003.

Recommendations

1. The industry should create, adopt and utilize as many standard BMP documents as possible. Agencies, such as the USFWS, are more likely to approve a project that has demonstrated efforts to avoid, minimize, and mitigate resource impacts to the maximum extent practical while still maintaining the project purpose. By utilizing and referring to BMP documents, the applicant is committing to minimizing and mitigating resource impacts.

2. These BMP documents should be disseminated to agencies for their reference. Consistent use of documents such as the FERC Plan and Procedures will expedite review timeframes, by negating the need for agency staff to re-read a document they are familiar with from a previous project.

4.2.5 Natural Resource Performance Bonds

Introduction and Evaluation

Some regulatory agencies require performance bonds for projects that may affect sensitive resources. Performance bond levels are presently, and should continue to be, based on a site-specific and project-specific estimation of potential damage, remediation, and monitoring.

Recommendation

1. Performance bonds give permitting agencies a feeling of confidence regarding resource protection that results in a quicker permit review phase; this practice should be continued.

4.2.6 Account Cost Recovery Programs, Third-party Permitting, and Permit Fees

Introduction and Evaluation

Although cost recovery programs and the use of third-party contractors are common for federal agencies (refer to Section 4.1.4), they are less common for state agencies. Although many states may charge applicants a permit fee or charge for resource data, it appears that only California employs a third-party contractor program for implementing its California Environmental Quality Act. The difference between a permit fee and a cost recovery program or third-party contractor is that the former is a flat fee, whereas the latter is a project (i.e., effort) specific fee.

A cost recovery program for agency staff or a third-party contractor almost always results in a more meaningful and schedule-conscious permitting process. Another advantage of using third-party contractors is that the contractors are dedicated to the applicant's project and, therefore, are more accountable and available to the project.

Recommendations

1. Voluntary cost recovery programs should be explored for state agencies that do not currently have these programs in place. Applicants, however, should only be required to pay for costs that are incurred above and beyond the typical project review. Additionally, in exchange for applicant payments, a defined permit process review schedule should be established.

2. The use of third-party contractors should be explored for state agencies that do not currently have these programs in place. An example is the State Historic Preservation Officers (SHPOs) for review of the Section 106 – National Historic Preservation Act (NHPA) Consultation process.

3. Federal legislation could authorize states to request cost recovery for projects, similar to the provisions in TEA-21.[57] This model would provide the legislative framework for making this change.

4.3 Tribal Process Solutions and Strategies

Historically in the U.S., agency coordination with Native American tribes has presented unique challenges sometimes resulting in costly project permitting delays. Pipeline projects are required to comply with the National Historic Preservation Act of 1966, as amended, the Native American Graves Protection and Repatriation Act of 1990, as amended, the American Indian Religious Freedom Act of 1978, and EO 13007 – Indian Sacred Sites. These laws require applicants to consult with all Native American tribes who might claim ancestral ties to, or traditional cultural use of, the lands included in a proposed project area. The consultation informs the tribes of the proposed undertaking and invites the tribes to be a consulting party and to assist in the identification, evaluation, and decision on protection or treatment of sites or other cultural resources that may be of particular interest to the tribe, especially those of religious or cultural significance.

Furthermore, EO 13175, issued in November 2000,[58] directed agencies to "establish regular and meaningful consultation and collaboration with tribal officials in the development of federal policies that have tribal implications" and to "strengthen the U.S. government-to-government relationships with Indian tribes, and reduce the imposition of unfair mandates with Indian tribes…" Under EO 13175, agencies were ordered to designate officials whose principal responsibility is to develop and implement a consultation program. As a result, federal agencies have developed consultation programs to address government-to-government relations between the U.S. and Indian tribes. Programs include federal agency support with mutual benefits, negotiated mitigation programs, internal agency education, and development of consultation guidance documents.

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[57] Federal Transportation Equity Act for the 21st Century (TEA-21) P.L. 105-178, Section 1309, Environmental Provisions.

[58] Executive Order 13175. 2000 (November). Consultation and Coordination with Indian Tribal Governments. Volume 65, Number 218.

In addition to the Native American consultation requirements for projects that do not cross tribal reservation land, there are additional coordination efforts required for projects that do cross these designated sovereign lands. In this event, the applicant must comply with all regulations set forth by the governing tribe (i.e., here the tribe acts as a governing authority), as well as negotiate ROW easements (i.e., here the tribe acts as a landowner). It is important to note that federal eminent domain does not apply to tribal reservation lands. Therefore, the applicant cannot rely on the eminent domain and subsequent condemnation process to force the taking of lands across a reservation if ROW agreements are not successfully negotiated with the tribe.

While this study did not focus on consultation with Aboriginal peoples as recognized in Canada, many of the challenges with relationship and coordination issues were common between the Native Americans in the U.S. and the Aboriginal peoples of Canada. The document "Gathering Strength: Canada's Aboriginal Action Plan" addressed the need for renewed coordination with Aboriginal peoples and cited examples of how governments and Aboriginal people can act co-operatively to address Aboriginal issues.[59] Although the programs and examples noted below in this study focused on efforts in the U.S, the recommended solutions or strategies likewise would appear to be applicable to Aboriginal coordination in Canada.

4.3.1 Internal Agency Guidance Documents

Introduction and Evaluation

Several agencies, including the ACHP, USFWS, BLM, NPS, and the USFS offer agency guidance documents for developing government-to-government relationships.[60] The guidance documents provide education on tribal perspectives such as Indian self-determination and tribal self-governance and how to address issues such as Native American traditional beliefs and practices. Approaches and strategies for developing successful government-to-government relations include tribal outreach, communication, technical assistance, and education.

The guidance documents reviewed were comprehensive. It is unknown, however, whether agency staff are aware of the guidelines or to what extent the guidelines have been fully implemented.

[59] Minister of Public Works and Government Services Canada. 1997. Gathering Strength: Canada's Aboriginal Action Plan. Ottawa. http://www.ainc-inac.gc.ca/gs/chg_e.html.

[60] BLM. 2004b. General Procedural Guidance for Native American Consultation. http://www.blm.gov/heritage/docum/manual/81601x.pdf. Reviewed August 24, 2004; U.S. Forest Service. 2004 Forest Service National Resource Guide to American Indian and Alaska Native Relations. http://www.fs.fed.us/ people/tribal/tribint.pdf. Reviewed August 24, 2004; National Park Service, American Indian Liaison Office. 2004. http://www.cr.nps.gov/ailo/. Reviewed August 23, 2004.

Recommendations

1. Ensure that agency consultation guidance documents are introduced and made available to all staff. Staff tends to be more successful when given the proper tools. If an agency does not have its own guidance document, the agency should refer to those prepared by the ACHP available online.

2. Encourage implementation of the guidance in these documents by holding consultation training for agency staff on a regular basis. Educated staff will be more efficient in administering the review process.

4.3.2 Tribal Energy Program

Introduction and Evaluation

The USDOE supports several programs focused on tribal relations; the largest and most successful is the USDOE Tribal Energy Program. Authorized under Title XXVI of the Energy Policy Act of 1992, the Tribal Energy Program promotes tribal energy self-sufficiency, technical assistance, employment and economic development, and financial support for renewable and energy efficiency projects on tribal land. The program implements USDOE's mission to promote clean energy technology projects and benefits the Native American community. In collaboration with the Council of Energy Resources,[61] USDOE's Tribal Energy educates tribal leaders with information to make energy-related decisions for the Native American community through workshops.

The USDOE's Tribal Energy Program has benefited both governmental entities. It is unknown, however, whether a successful program could be implemented effectively for pipeline transmission projects.

Recommendation

1. In line with the initiatives of the USDOE's Tribal Energy Program, stakeholders should explore opportunities to work with tribes on projects that mutually benefit the tribal community, the U.S. government, and the applicant. For example, when siting new pipeline projects, applicants should

[61] Founded in 1975 and comprising 29 U.S. federally recognized American Indian Tribes and four Canadian First Nations, the Council of Energy Resource Tribes (CERT) is dedicated to assisting Tribes developing and managing natural resources on their lands, including control of energy resources. Today, CERT often works with political leaders to develop legislation friendly to Native American interests and to educate mainstream Americans on issues of Tribal sovereignty and economic development. For more information http:www.certredearth.com/About/about.html.

consider the benefits that a tribal entity can offer (e.g., tribal communities can offer a local labor pool on a construction project in remote areas that would otherwise be unavailable to the project).

4.3.3 Education

Introduction and Evaluation

Education is key to effective government-to-government relations. There are three aspects to education: (1) educating agency staff on how to develop government-to-government relationships effectively, (2) educating applicants on Native American culture and the tribal governing entity organization, and (3) educating tribal officials about energy projects and the industry.

Most federal agencies (e.g., USDOE, BLM, NPS, etc.) have developed guidance documents for agency staff to follow when consulting with Native American tribes; guidance documents, however, may not be enough. As mentioned above, USDOE's program of educating tribal leaders on energy-related matters has proven to be successful.

Workshops are frequently held and attended by applicants and tribal representatives, which give suggestions on leading a successful Native American consultation program.[62] Likewise, any effort to personalize a relationship further and understand each other's goals helps when a project reaches the negotiation phase.

Recommendations

1. Agencies should consider formal training for agency staff about Native American culture and tribal organization. A better understanding by agency staff will help to guide the consultation process for a project.

2. Applicants should continue building understanding and relationships with tribal representatives, whether at workshops or at meetings with tribal representatives on whose Reservation land the applicant's pipeline system may cross.

3. Industry should explore opportunities to educate tribal communities about specific projects and the industry in general. Information provided in these sessions could address some of the common requests and questions posed by tribal members when projects are proposed across their Reservation land.

[62] Workshops in recent years have been hosted by the FERC (August 2004), the National Preservation Institute (May 2003), and the University of Nevada's Heritage Resources Management Program (July 2000).

4.3.4 Negotiated Mitigation

Introduction and Evaluation

Negotiated mitigation describes the consultation and compensation determination process between a project proponent or applicant and the Native Americans that would be affected by the proposed project. The process addresses the individuals or communities that would be affected by the project and how the applicant can offset these effects. Mitigation examples range from monetary compensation and copies of resource information to employment on the project and educational assistance.

An example of a fairly extensive negotiated mitigation process was the Renewal of the Right-of-Way Grant for the Trans-Alaska Pipeline System project. Through extensive negotiation between the applicants, the USDOI, and the Alaska Native Americans, a comprehensive Utilization Agreement and Implementation Plan was developed. The Utilization Agreement provides for employment of Alaska Natives for project construction, thereby allowing Alaska Natives to realize benefit from the economic development opportunities associated with the project. The applicants agreed to provide pre-employment and on-the-job training programs, education assistance, job counseling and mentoring programs for Alaska Natives during the construction and operation of the project. A detailed implementation plan was part of the agreement outlining the scope, schedule, and responsibilities of the agreement.[63] Negotiated mitigation between the applicants and the Alaska Native Americans is a good example of government-to-government cooperation that has resulted in mutual benefit.

Recommendation

1. Be willing to create innovative implementation plans for large-scale projects that address the specific needs of the community or communities that will be affected by the project. Use the Trans-Alaska Pipeline Utilization Agreement and Implementation Plan as a template for negotiating with tribal communities affected by a project.[64]

[63] BLM. 2002.
[64] Ibid.

4.3.5 USFWS Native American Relations/ESA Compliance

Introduction and Evaluation

Under the directive of Secretarial Order #3206,[65] the USFWS has entered a working relationship with Native American tribes to promote the conservation of sensitive species and maintain healthy ecosystems as directed under the ESA, as amended. The program operates under the agency's Office of Native American Liaison, which is represented in each USFWS region.[66] The program includes consultation, coordination of service initiatives, training efforts, public relations events, technical assistance to tribes, cooperative agreements and partnerships, and development of national policy and regulations.

Successful implementation of the Secretarial Order had unique challenges. Consideration had to be given to Native Americans' use of listed species for cultural, religious, or medicinal purposes and the effects on actions under the ESA. Another consideration is respect for tribal sovereignty over the management of Native American's land. Despite the challenges, USFWS successfully implemented the Order and developed an effective, cooperative relationship while respecting the interests of both the tribes and the agency.

Recommendation

1. Applicants should participate in the USFWS/Native American working relationship to offer assistance and to develop a better understanding of the sensitivities and issues associated with tribal lands and directives under ESA.

4.3.6 MOUs between Applicants and Native American Tribes

Introduction and Evaluation

At least one project sponsor currently uses MOUs with Native American Tribes with whom they frequently must consult for proposed construction or maintenance projects. These MOUs propose a streamlined compliance process that is appropriate for activities that involve numerous small and

An Effective MOU Between the Project Applicant and Native American Tribe Will Clearly Dictate:

1. *Signature party responsibilities*
2. *Predictable review timeframes*
3. *Dispute resolution guidance*

[65] U.S. Fish and Wildlife Service (USFWS). 2004. Secretarial Order #3206 American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act. http://www.nwifc.wa.gov/esa/ sec_order.html. Reviewed August 24, 2004.

[66] USFWS. 1999. Annual Report of the Native American Liaison. http://nativeamerican.fws.gov/fy99anrep.html. Reviewed August 24, 2004.

repetitive undertakings located within the existing ROW on land claimed by the tribe. The MOU is intended to establish an agreement between the applicant and the tribe regarding the cultural resource review procedures to be followed on all "undertakings", as defined under Section 7 Part 157 Subpart F of the Natural Gas Act. The applicant and the tribe agree that the applicant will account for the effects of all undertakings on tribal cultural and historic properties, and the tribe will comment on those undertakings as stipulated in the agreement.

One of the more detailed MOUs describes the tribe's responsibilities to include a commitment to review each undertaking prior to implementation to provide a determination of effect for the undertaking and to complete this review and effect determination within fifteen (15) days of receipt of the applicant's consultation packet. The MOU also includes a dispute resolution clause. One of the less detailed MOUs stipulates that, under certain conditions, a simple notification from the applicant to the tribe is sufficient to comply with consultation requirements. Both of these MOUs help to add predictability to an often time-consuming and unpredictable consultation process.

Recommendation

1. Applicants should consider establishing MOUs with tribes with whom they must consult on a frequent basis. The MOU itself will help to lend predictability to Section 106 compliance. Additionally, the act of negotiating an MOU has the fringe benefit of building relationships with tribal members, which might assist in future ROW negotiations.

4.4 Applicant Best Practices Solutions and Strategies

4.4.1 Current Practice and Future Suggestions

Although the main focus of this study has been to identify and evaluate potential solutions for changing governmental behavior, the study uncovered many ways in which the industry could contribute to conflict avoidance and resolution by changing its own behavior. As a result, the study includes a list of applicant "best practices."

Results of a Department of Defense Study of NEPA Project Reviews:

- *43% of projects encountered delays*
- *#1 reason for the delay was due to a change to the project scope*

Lesson Learned for all NEPA Projects:
Clearly define the project scope at the onset of the NEPA analysis and resist changes to the scope thereafter.

An example of an applicant "best practice" is to define the project clearly and consistently to the permitting agency(ies). A survey completed in 2003 of NEPA practitioners for Department of Defense projects found that approximately 43 percent of their projects were delayed. Among the projects that were delayed, the top ranked reason was that decision-makers changed the project description or scope of the project (e.g., the number of acres affected by construction, location of proposed facilities). The third ranked reason for NEPA process delays was multiple

changes or additions to the alternatives analysis.[67] Although the NEPA study did not specifically address natural gas projects, there are parallels between the types of projects analyzed that make these results worth mentioning. In reviewing the natural gas pipeline case studies discussed in 3.1, it was common for a pipeline project description to change during the NEPA process. Therefore, the industry should acknowledge that a "moving target" project description slows down the overall permitting process, causes confusion with the permitting parties, and results in schedule conflicts.

4.4.2 Recommendations

Many of the common best practices currently being employed by applicants appear to be moderately to highly successful in avoiding intergovernmental conflicts and streamlining the overall permitting process. Some less utilized best practices that appear successful in streamlining the permitting process should be considered by all applicants.

1. Make efforts to refine the project description and alternatives as early in the process as reasonably possible. Frequent changes in the project description tend to cause delays in the permitting process.

2. Submit effective applicant-prepared draft documents for federal agency use, including Environmental Assessments, Biological Assessments, Biological Evaluations, Biological Opinions, et cetera. Any work that can be borne by the applicant will help to expedite the agency's review timeframe, as long as the documents address the agency's concerns.

3. Identify all potentially required permits through early agency scoping to allow for concurrent permitting review. Processing permits concurrently, rather than sequentially, will save time.

4. During the pre-construction permitting phase, continue to be aware of and plan for some of the state permitting processes that require more attention and commitment than the Federal permitting process. Being educated and aware of the state's permit process is a considerable first step. Pre-filing meetings are encouraged for significant applications to encourage consensus with the state agency on the permitting plan of action for the project.

5. Likewise, be cognizant of the environmental reviews that might be required during the construction phase of the project (e.g., endangered species clearances for a variance needed from the original construction plan). If variances are anticipated and likely, plan accordingly. For example, one successful approach to ensure timely review of project variances is a Programmatic Agreement that includes an agency point of contact, the conditions under which agency review is

[67] Batts, D. and J. King. 2004. Presentation: *Fast-tracking NEPA Documents within the Department of Defense*. 29th Environmental and Energy Symposium & Exhibition. April 7-10, 2003. http://www.dtic.mil/ndia/2003environ/. August 20, 2004.

required, information to be submitted to the agency, communication methods, and a predictable review timeframe.

6. Engage and educate stakeholders early and often; excellent best practice references and examples can be found in the INGAA Foundation Study "*Natural gas Pipelines Making the Connection: Communications Support for the Siting Process.*"[68] Up front expenditures on stakeholder involvement will pay back returns throughout the project approval process.

7. Explore avenues to ease state agency staff resource constraints by offering to assist in data acquisition or compilation; determine if additional funding for staff from either cost recovery programs or third-party funding is allowable within the state agency framework.

8. Be willing to educate agency staff and/or Native Americans communities on natural gas construction and the overall process for a successful project. Many delays in permitting processes can be attributed to disagreements or confusion about the "next step" in the permitting process. Laying the framework and ensuring that everyone involved is educated about the process will help to ensure all the steps are followed.

9. Attend trainings to learn more about agency protocol and Native American governing infrastructure. Aside from the potential to learn something new, this time investment in training will strengthen long-term relationships with agency staff or tribal members or representatives.

10. Create, fund, and support industry-wide public outreach programs. This type of non-project investment will help to educate the public without the notion of a specific hidden project agenda. If successful, this program also could aspire to address and reverse some of the unrealistic fears held by the public regarding safety issues associated with natural gas pipeline facilities.

11. Be aware of recent case law and utilize and reference it as appropriate on a project specific basis (e.g., condemnation and "quick-take"). Applicants should strive to address contentious legal issues consistently. A periodic newsletter of relevant cases might help to educate the industry; likewise, a periodic report by appropriate counsel at INGAA meetings might be another appropriate forum.

12. For projects that cross Reservation land, consider hiring a tribal liaison to assist in negotiations with the Reservation governing infrastructure and to work with the federal permitting agency's designated tribal liaison. Applicants should accept assistance from appropriate parties if the result saves time and invests in long-term relationships.

[68] INGAA. 2002. Foundation Study: "Natural Gas Pipelines Making the Connection: Communications Support for the Siting Process." The INGAA Foundation. F-2002-06.

Interstate natural gas infrastructure will need to expand for the natural gas industry to meet the growing demand for natural gas in North America. It is clear that an ever increasing need to accommodate regional, federal, state, local and tribal government interests with respect to the siting and construction of natural gas pipeline projects has resulted in a complex and sometimes redundant process that has led to significant delays in constructing needed infrastructure. Future delays of even a short timeframe in siting and construction of needed infrastructure could result in significant negative economic impacts for natural gas consumers and the general economy. It is imperative that all affected interests work together to avoid unnecessary delays in siting natural gas infrastructure projects.

To that end, this study combined an extensive review of literature resources and information gathered from staff of regulatory agencies and project applicants to identify numerous solutions and strategies for avoiding conflicts that arise in the siting and construction of natural gas infrastructure projects. From permitting to post construction monitoring and mitigation, the potential for conflict exists. There are proven strategies, however, that can reduce the likelihood that such conflicts will result in delay of needed infrastructure. This report does not suggest that all of these strategies are appropriate for all projects. In some cases, conflict will occur. This analysis argues strongly, however, that there are proactive strategies that policy makers, regulators, and project proponents can take to streamline and improve the process to the betterment of all involved.

The recommendations encompass not only strategies that are currently in use, but also suggest ways to further advance conflict avoidance and resolution strategies. Hopefully, these recommendations will contribute to streamlining the natural gas permitting and construction process at all levels of government. This will require that project applicants and agency project managers view these recommendations not as an academic compendium, but as real world solutions to be used in addressing the different issues that currently confront project development.