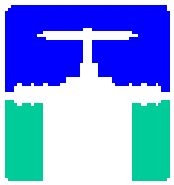


# REVIEW AND ANALYSIS OF THE FEDERAL ENERGY REGULATORY COMMISSION PRE-FILING AND TRADITIONAL FILING PROCESSES FOR NATURAL GAS ACT SECTION 7 APPLICATIONS

Prepared for The INGAA Foundation, Inc. by:

ENSR Corporation

F-2007-05
October 2007

# Executive Summary

Pipelines transport nearly all the natural gas used in the United States and pipelines will remain the only practical way of moving significant volumes of gas that will be required in the future. Pipeline capacity will have to be increased in the years ahead to keep up with the growing demand for natural gas.

In order to get an interstate natural gas pipeline approved for construction, the pipeline company must file a detailed project plan with the Federal Energy Regulatory Commission (FERC or Commission), including detailed reports that discuss the baseline environmental conditions and potential impacts to resources as a result of project implementation. FERC has the authority to approve the pipeline location and construction through the issuance of a Certificate of Public Convenience and Necessity (Certificate). Before the Commission will authorize construction, however, it reviews the project to determine if it is in the public interest. The Commission also conducts an environmental review to evaluate the project's anticipated impact on the public and the environment in compliance with the National Environmental Policy Act (NEPA).

The time required for the review process varies, based on the size and sensitivity of the project, but typically it takes 6 to 18 months from the time a pipeline company submits an application until the Commission renders its decision as to whether they will approve a Certificate for a project. Once the Certificate is issued, the Commission will authorize construction to begin after the conditions established in its Certificate Order are satisfied.

FERC currently employs two tracks for its NEPA environmental review of jurisdictional pipeline, liquefied natural gas (LNG), and other facility projects. The "traditional filing" process is an optional process for non-LNG-related pipeline (and other non-LNG-related facility) projects, in which FERC involvement starts at the time the applicant files its application for a Certificate. Alternatively, the "pre-filing process," which is currently required for LNG and LNG-related projects, involves FERC and other stakeholders prior to the time the applicant files its application for a Certificate.

The pre-filing process has been assumed by the FERC and others to be more efficient and cost-effective than the traditional filing process. Anecdotal information from many projects using the pre-filing process, both voluntarily and required, indicate that this assumption may not be correct. In order to resolve this issue, the Interstate Natural Gas Association of America (INGAA) Foundation commissioned a study to examine the attributes of the traditional and pre-filing processes. The study attempted to compare the two processes with regard to cost, length of schedule, efficacy of the environmental report(s) preparation, and contracting and materials ordering as a measure of financial risk. The information pertaining to these categories was derived from survey/interviews with natural gas industry companies and stakeholders (e.g., federal and state regulatory agency staff), as applicable.

Forty projects were chosen initially for the study pool for surveys, based on certain criteria intended to provide a consistent data set that represented the current industry projects. The study survey included interviews and data collected from a web-based project site run by FERC.[1] The final study results represent information from 13 pipeline company applicants for 19 traditional process projects and 14 pipeline company applicants for 18 pre-filing process projects. Seventeen stakeholders were interviewed, 11 for the traditional process and 6 for the pre-filing process.

The study yielded many interesting results, including some statistically significant differences between data sets. The analysis considered both factual data and perception data and in some cases drew conclusions

[1] FERC e-library database www.ferc.gov/docs-filing/elibrary.asp.

based on the comparative outcomes. The results were grouped into five main issue categories: choice of filing method, project schedules, project costs and contracts, process predictability, and process preference. Upon review and interpretation of the study results, recommendations and next steps were developed to address the relevant issues. These are presented as potential methods to improve the overall efficiency and effectiveness of the Environmental Report (ER) filing process, regardless of which filing process is utilized by applicants for future projects.

**Choice of Filing**. Those applicants using the pre-filing process were significantly more likely to have been asked by FERC to use the pre-filing process and were significantly more likely to feel obligated to follow FERC staff suggestions for using the pre-filing process. Most parties recognize that there are pros and cons to utilizing each of the filing processes. This study further illustrates the associated potential benefits and costs.

Recommendations:

1. FERC leadership should continue to allow pipeline companies to choose which filing method best suits the needs of the company and the project, unless mandated by Order 665.[2]

2. Pipeline company applicants should carefully weigh factors in terms of finances, schedule, and other project-specific factors in choosing the best filing process.

3. FERC staff should be aware of their influence in pressuring applicants into utilizing the pre-filing process, especially in cases where applicants may not have elected to utilize the pre-filing process for project-specific reasons. Unless mandated by Order 665, applicants who elect to use the traditional process, in spite of recommendations by FERC staff to use the pre-filing process should not be penalized.

4. FERC leadership should consider performing their own internal quantitative study and/or qualitative review to determine pre-filing project costs (e.g., in terms of FERC staff commitment) and benefits (e.g., in terms of raising issues earlier in the process that would not have been resolved in the traditional filing process timeframe resulting in quicker Certificate approval and construction start dates). The results of this study or review would help FERC staff to make better recommendations to potential applicants as to which process to use.

Next Steps for Implementation:

1. Applicants should obtain more information regarding their options for utilizing the two filing processes. Applicants should review studies, attend trainings and workshops, and read and understand their options and mandates per Order 665. In addition, applicants should hold “pre” pre-filing meetings with FERC staff to discuss project-specific filing options.

2. INGAA representatives should invite FERC staff to a conference or roundtable to discuss the results of this study. In this conference, discussions should include the obligation felt by applicants to utilize the pre-filing process.

[2] Regulations Implementing Energy Policy Act; Order 665. Final Rule issued October 7, 2005 (18 Code of Federal Regulations Parts 153, 157, and 375).

3. At the same proposed conference or roundtable, INGAA should recommend to the FERC staff that they perform an internal review, in order to provide better qualified and more consistent guidance to potential applicants.

**Project Schedules**. The filing process schedules provided by FERC staff in trainings and other guidance are not generally consistent with the experience of pipeline company applicants. The overall filing process timeframe is not significantly less for pre-filed projects compared to traditionally filed projects. In fact, pre-filed projects tend to take longer to get from pre-file request file date to Certification and from pre-file request file date to construction start date than the traditional projects take between comparable milestones. The environmental review period for the pre-filing process is compressed compared to that of the traditionally filed projects; however, its impact on the overall filing process length is not obvious and appears to more dramatically affect both applicants (responding to data requests and implementing project scope changes) and cooperating agencies (reviewing draft and final ER filings).

Additionally, the pre-filing process requires at least two, if not three rounds of ER reviews, including comments on the draft ER prior to filing or data requests after the filing) This either actually increases the time spent on this effort compared to the traditional process or gives applicants the impression that the pre-filing process is longer.

Recommendations:

1. All parties (i.e., applicant, FERC staff, cooperating agencies) should make efforts to establish and agree upon the expectations for the filing process schedule.

2. Applicants and FERC staff should work together to ensure the development draft ER and its review are effective and efficient. Extensive time and effort required to develop, review, and comment on multiple drafts of the ER should not be necessary for most projects. Applicants should ensure draft ERs meet minimum filing requirements to the maximum extent practical. FERC staff should ensure timely reviews.

3. FERC staff should consider eliminating the need for the second round of ER review prior to filing. If most pre-filing projects are experiencing data requests after filing, then the comments on the second draft of the ER could be more efficiently handled post-filing.

Next Steps for Implementation:

1. For pre-filed projects, all parties (i.e., applicant, FERC staff, cooperating agencies) should hold project-specific kick-off meetings to discuss expectations of each party regarding not only schedule, but also milestones, party roles, and promised deliverables.

2. For pre-filing projects, FERC staff and applicants should commit to a submittal and review schedule to the maximum extent practical (and encourage cooperating agencies to do the same).

3. FERC leadership should consider issuing additional guidance to both applicants and FERC environmental project management staff regarding ways to improve the efficiency and effectiveness of the draft ER review process.

4. FERC leadership should develop guidance for eliminating the second round of draft ER review, if warranted.

**Project Costs and Contracts**. The perception exists that the pre-filing process is more expensive than the traditional filing method. Data trends derived from actual project costs supports this notion, although the data sets were not statistically significant possibly due to the inability to collect accurate cost values from all

applicants. As a result of the apparent trends, however, it is recommended that both the FERC leadership and pipeline company applicants carefully consider the benefits of the pre-filing process relative to effects on project costs, understanding that the benefits of pre-filing might not be worth the additional cost for some projects.

The survey data, which show that the traditional filing method participants may utilize process milestones as cues for materials ordering more so than the pre-filing process participants, may indicate the need for additional education of all parties on the various filing process schedule milestones and the expectations of all parties.

**Filing Process Predictability**. Survey respondents noted that project location was the primary influence with regard to the predictability of the traditional filing process, followed by influences from the FERC environmental project manager. For the pre-filing process, "other" factors were the main influence on predictability, including issues raised by other stakeholders during the pre-filing process. As with the traditional filing process, the second-rated factor was the influence of the FERC environmental manager.

Recommendations:

1. All parties (i.e., applicant, FERC staff, cooperating agencies) should make efforts to increase the predictability of both filing processes by communicating and committing to their expectations clearly.

2. All parties (i.e., applicant, FERC staff, cooperating agencies) should increase the frequency and effectiveness of project communication (e.g., weekly conference calls).

3. Applicants should strive to reduce applicant or customer-driven scope changes after filing.

4. FERC leadership should consider relaxing the current *ex parte*[3] internal guidance to adhere to but not exceed the letter of the Administrative Procedures Act (APA). [4]

5. FERC staff should more assertively manage and foster communication and participation by other regulatory agencies (specifically federal agencies and state agencies with federal authorities) in both filing processes.

---

[3] *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] APA of 1946 (5 United States Code Subchapter II § 511-599). FERC's *ex parte* rules are consistent with the requirements of APA and have withstood several challenges, although they may be considered more stringent than required by the APA (Pierce, Richard J., Jr. 2006. FERC *ex parte* regulations and practices. www.ferc.gov/news/headlines/ 2006/2006-4/11-27-06.pdf.). FERC has gone beyond the requirements of the APA, because the APA bans *ex parte* communications in formal adjudications and formal rulemakings, but FERC's proceedings are considered "informal" for purposes of the law. In fact, case law and the courts often have suggested that *ex parte* communications are essential for the efficient discharge of permitting agency responsibilities to the public. It is interesting to note that for the most part, the many other federal agencies that complete NEPA requirements and issue a certificate, permit, or license of some sort on pipeline and other projects still have open communication with applicants after a filing is made. Elimination of *ex parte* requirements would require that the FERC change its rules with regard to *ex parte* communication, which is possible and under FERC's control, but unlikely, given the almost certain public pressure that would come to bear against such a change. Industry efforts to effect such a change certainly would require considerable effort and would be a long process with an uncertain outcome, even then.

6. FERC leadership and applicants should consider ways to improve predictability of the processes taking into account the influence of project location. Reducing the influence of project location may require better training of applicants and FERC managers, using FERC staff with location-specific experience, limiting local permitting challenges, and/or accounting for eco-regional differences in managing construction.

Next Steps for Implementation:

1. FERC leadership should consider holding additional external workshops, trainings, and/or round tables (non-project-specific) for pipeline company applicants, cooperating agencies, and other stakeholders to discuss expectations of each party regarding schedules, milestones, and deliverables.

2. FERC leadership should develop and deliver internal guidance to FERC environmental managers to encourage more consistent project management styles, expectations, and decisions. This guidance should include the continued use of the same FERC manager for the pre- and post-filing phases of projects. Leadership might consider assigning consistent

3. FERC leadership should assign FERC environmental project managers to specific regions to enhance their familiarity with regional management practices and permitting requirements.

4. FERC leadership should review opportunities for improvement in the current internal application of *ex parte* rules. If a change is warranted and additional revised guidance is issued, internal and external training should be provided.

5. For pre-filed projects, all parties (i.e., applicant, FERC staff, cooperating agencies) should hold project-specific kick-off meetings to discuss expectations of each party regarding not only schedule, but also milestones, party roles, and promised deliverables.

6. For pre-filed projects, all parties (i.e., applicant, FERC staff, cooperating agencies) should hold project-specific weekly conference calls during the pre-filing phase to take advantage of the open and effective dialogue permitted before the *ex parte* rules become applicable (after the filing).

7. For traditionally filed projects and pre-filed projects, the applicant and FERC staff should work together to determine a successful, project-specific venue to encourage “team permitting” among federal, state, and local permit regulators. This venue will supply FERC staff the platform needed to provide the necessary leadership to engage and manage regulatory participation and cooperation and will include appropriate, timely, and regularly scheduled calls or meetings to ensure progress.

**Filing Process Preference**. The majority of the survey respondents with experience with both filing processes indicated that their filing process preference would be influenced by project-specific characteristics. This finding further supports the recommendations and next steps intended to keep the filing method options truly open to the applicants. Keeping the options open will allow applicants to determine the filing process (based on various factors) that will best ensure a successful and efficient Section 7 filing.

# List of Acronyms and Abbreviations

| | |
|---|---|
| APA | Administrative Procedures Act |
| CEQ | Council on Environmental Quality |
| Certificate | Certificate of Public Convenience and Necessity |
| CFR | Code of Federal Regulations |
| Commission | Federal Energy Regulatory Commission |
| CP | Certificate Proceeding |
| EA | Environmental Assessment |
| EIS | Environmental Impact Statement |
| EPAct | Energy Policy Act |
| ER | Environmental Report |
| FERC | Federal Energy Regulatory Commission |
| IA | Interagency Agreement |
| INGAA | Interstate Natural Gas Association of America |
| LNG | Liquefied Natural Gas |
| NEPA | National Environmental Policy Act |
| NGA | Natural Gas Act |
| OEP | Federal Energy Regulatory Commission Office of Energy Projects |
| ROW | right-of-way |
| U.S. | United States |
| USC | United States Code |

# Table of Contents

**Executive Summary** ..... **ES-1**

**List of Acronyms and Abbreviations** ..... **i**

**List of Appendices** ..... **iii**

**List of Figures** ..... **iv**

**1.0 Introduction** ..... **1-1**

1.1 The Environmental Review Process ..... 1-2

1.2 FERC Traditional Filing Process ..... 1-4

1.3 FERC Pre-filing Process ..... 1-5

1.4 Project Scope ..... 1-7

**2.0 Study Methodology** ..... **2-1**

**3.0 Study Results** ..... **3-1**

3.1 General Study Pool Information, Stakeholder Involvement, and Choice of Filing Method ..... 3-1

3.1.1 Study Pool ..... 3-1

3.1.2 Stakeholder Involvement in the Study and in the Pre-filing Process ..... 3-1

3.1.3 Choice of Filing Method ..... 3-2

3.2 Questions Related to the Project Schedules ..... 3-4

3.2.1 Schedule Expectations and Measuring Schedule Milestones ..... 3-4

3.2.2 Environmental Report Reviews Effect on Schedule ..... 3-6

3.2.3 Project Scope Changes Effect on Schedule ..... 3-7

3.2.4 Comments from Cooperating Agencies and Other Stakeholders ..... 3-8

3.3 Questions Related to the Project Costs and Contracts ..... 3-8

3.3.1 Project Costs ..... 3-8

3.3.2 Project Contracts ..... 3-10

3.4 Questions Related to Filing Process Predictability ..... 3-11

3.5 Questions Related to Filing Process Preference ..... 3-14

**4.0 Recommendations and Steps Moving Forward** ..... **4-1**

4.1 Choice of Filing Method ..... 4-1

4.2 Project Schedules ..... 4-2

4.3 Project Costs and Contracts ..... 4-2

4.4 Filing Process Predictability ..... 4-3

4.5 Filing Process Preference ..... 4-4

# List of Appendices

Appendix A - Selected Representative Data for the Projects Chosen for Analysis

Appendix B - Detailed Study Methodology

Appendix C - Survey Given to the Applicant Study Pool that Used the Pre-filing Process

Appendix D - Survey Given to the Applicant Study Pool that Used the Traditional Filing Process

Appendix E - Survey Given to the Other Stakeholders/Cooperating Agencies

Appendix F - Technical Study Results

# List of Figures

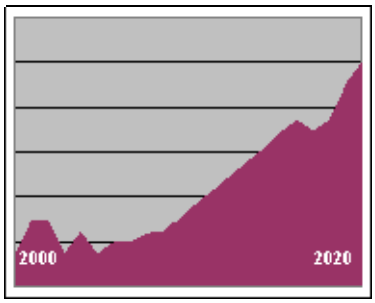
Figure 1-1 Overview of FERC's Traditional Filing Process Phases ..... 1-4
Figure 1-2 Overview of FERC's Pre-filing Process Phases ..... 1-6
Figure 2-1 Methodology Flow Chart ..... 2-1
Figure 3-1 Perception of Stakeholder Involvement ..... 3-2
Figure 3-2 Filing Method Suggestion by FERC ..... 3-3
Figure 3-3 Obligation of Applicant to Follow FERC's Filing Method Suggestion ..... 3-3
Figure 3-4 Filing Process Schedule Milestones ..... 3-4
Figure 3-5 Data Illustrating Which Process Takes the Most Time to Complete from Initial Filing to Certification and Construction Start ..... 3-5
Figure 3-6 Perception Relative to Which Process Generates the Most Total Data Requests ..... 3-6
Figure 3-7 Project Scope Changes after Filing That Resulted in Schedule Delays ..... 3-7
Figure 3-8 Total Pre-construction Environmental Cost Comparison ..... 3-8
Figure 3-9 Pre-construction Environmental Costs Prior to ER Filing ..... 3-9
Figure 3-10 Normalized Environmental Cost Comparison ..... 3-10
Figure 3-11 Project Contract Links to Filing Process Milestones ..... 3-11
Figure 3-12 Factors Influencing Predictability of the Traditional Filing Process ..... 3-12
Figure 3-13 Factors Influencing Predictability of the Pre-filing Process ..... 3-12
Figure 3-14 Perceived Variability among FERC Staff in Managing Projects ..... 3-13
Figure 3-15 Perceived Variability with Individual FERC Staff in Managing Projects ..... 3-13
Figure 3-16 Filing Process Preference ..... 3-14

# 1.0 Introduction

In 2007, 21.8 trillion cubic feet of natural gas were consumed in the United States (U.S.).[1] Nearly all of it[2] was used in American homes, schools, hospitals, office buildings, manufacturing plants and electric generating plants. Except for small volumes of liquefied natural gas (LNG) originating in foreign countries, all of the gas was produced from wells in the U.S. and Canada. Natural gas consumption in the U.S. is expected to grow to 25.3 trillion cubic feet by 2015 and much of the existing consumption will have to be met through the development of new supplies.

Pipelines transport nearly all the natural gas used in the U.S. and pipelines will remain the only practical way of moving significant volumes of gas that will be required in the future. Pipeline capacity will have to be increased in the years ahead to keep up with the growing demand for natural gas. Hence, it is critical that the approval process for proposed pipeline projects be efficient and particle.

In order for an interstate natural gas pipeline project to gain approval for construction, the pipeline company (or applicant) must file a detailed project plan with the Federal Energy Regulatory Commission (FERC or Commission). Among other things, this plan must include all permit application required data, including maps showing the preliminary pipeline route, a description of the proposed pipeline facilities, and up to 12 specific environmental resource reports. These resource reports collectively are referred to as the Environmental Report (ER) and cover the topics of project description and land requirements, water use and quality, vegetation and wildlife, cultural resources, socio-economics, geological resources, soils, land use, air and noise quality, project alternatives, safety and reliability, and polychlorinated biphenyls for projects involving older pipe or facilities.




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

FERC has the authority under the Natural Gas Act (NGA)[3] to approve the pipeline location and construction through the issuance of a Certificate of Public Convenience and Necessity (Certificate). The NGA authorized federal regulation of the natural gas industry by giving the Federal Power Commission (subsequently FERC) the authority to set "just and reasonable rates" for natural gas transmission or sale in interstate commerce. The Act also gave the agency the authority to grant Certificates allowing interstate gas transmission construction and facility operation and authorizing the provision of services under Section 7 of the NGA. The NGA also requires Commission approval prior to abandonment of any pipeline facility or services.

Before the Commission will authorize construction, however, it must review the project to determine if it is in the public interest. This review includes an evaluation of need for the project and the costs of

1 Annual Energy Outlook 2007 with Projections to 2030, Energy Information.

2 Small amounts of natural gas (about 8 percent of total U.S. consumption) are used as fuel at natural gas production well sites and to fuel compressors located along gas pipelines that push the gas through to the places where it is used.

3 NGA of 1938 (15 United States Code [USC] § 717 et seq.).

transporting natural gas by the pipeline. The Commission also conducts an environmental review through the preparation of an Environmental Assessment (EA) or an Environmental Impact Statement (EIS) to evaluate the project's anticipated impact on the public and the environment.

Part of the Commission's environmental review process includes scoping with project stakeholders to ensure relevant concerns are addressed. Scoping includes public meetings in the communities to be affected by the project and often included meetings with relevant resource protection agencies. Announcements of these public meetings are published in local newspapers. The meetings also provide a forum for the local community and other resource managers to ask questions and express any comments or concerns about the project.

The time required for the environmental review process varies, based on the size sensitivity of the project, but typically it takes 6 to 18 months from the time a company submits an application until the Commission renders its decision as to whether they will approve a Certificate for a project. Once the Certificate is issued, the Commission will authorize construction to begin after the conditions established in its Certificate Order are satisfied.

The FERC currently employs two environmental review processes, which both include consulting with stakeholders, identifying environmental issues through scoping, and preparing environmental review documents, such as EAs or EISs. These two review processes are known as the "traditional filing process" and the "pre-filing process." The process used for a particular project depends on project-specific factors. These two processes are described in more detail in the Sections 1.2 and 1.3, respectively, and are the subject of this study.

Although the pre-filing process was implemented to streamline the environmental review process, anecdotal information has accumulated over the years to indicate that pre-filing might not confer the advantages to projects (compared to utilizing the traditional filing process) as originally envisioned, especially for those projects that are not as controversial as LNG projects. For this reason the Interstate Natural Gas Association of America (INGAA) Foundation commissioned a study to review and analyze the two processes in order to determine if any differences exist between the traditional and pre-filing processes with regard to cost, length of schedule, efficacy of the application materials preparation, and contracting and materials ordering. More specifically, the focus of the study was to determine whether FERC's pre-filing process has been cost-effective and efficient in streamlining the permitting process and to recommend improvements to the pre-filing process.

This study took place between February and September 2007. The results of this study are applicable to pipeline company applicants, FERC staff, cooperating agency staff, and other stakeholders; the results are intended to improve efficiency of the filing process, as well as improve communication patterns among parties involved in the FERC certification process.

## 1.1 The Environmental Review Process

Any major action undertaken by the Commission in connection with a natural gas infrastructure project will implicate the National Environmental Policy Act (NEPA).[4] NEPA requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions.[5] NEPA requires that for every major federal action significantly affecting the quality of the human environment, the federal agencies must include a detailed statement of the environmental impact of the proposed action, any adverse environmental effects which

[4] NEPA of 1969 (42 USC § 4331 et seq.).

[5] http://www.epa.gov/compliance/nepa/index.html.

cannot be avoided should the proposal be implemented, and alternatives to the proposed action (42 USC § 4332). The primary purpose of the EIS is to serve as an "action-forcing" mechanism to ensure that policies and goals defined in NEPA are "infused into the ongoing programs and actions" of the Commission (40 Code of Federal Regulations [CFR] § 1502.1 [2006]). NEPA is intended to ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken by a federal agency (40 CFR § 1500.1[b]). The Council on Environmental Quality (CEQ) has promulgated NEPA implementing regulations applicable to and binding on all federal agencies (40 CFR § 1500.3) and the Commission has its own NEPA regulations, (18 CFR Part 380).

If the Commission anticipates that a proposed activity will significantly impact the human environment, the Commission may directly proceed to prepare an EIS. If the Commission is unsure of whether there are significant environmental impacts associated with the proposed activity, the Commission may first prepare a concise public document, known as an EA, which briefly provides sufficient evidence and analysis for determining whether the Commission must prepare an EIS (18 CFR § 380.2[d][1])). If the Commission concludes, based on the EA, that the action will not have a significant effect on the human environment, it will issue a document, known as a "finding of no significant impact," presenting the reasons why the action will not have such a significant effect, after which an EIS need not be prepared. In addition, the Commission has determined that certain activities do not have a significant effect on the human environment and therefore, are to be categorically excluded from the detailed environmental analysis required by NEPA (18 CFR §§ 380.2, 380.4).

The "heart" of the EIS is the discussion of alternatives to the proposed action (40 CFR § 1502.14 [2006]). The EIS is to "rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their being eliminated" (40 CFR § 1502.14[a]). The alternative of "no action" must be considered (40 CFR § 1502.14[d]). In order to conduct the alternatives analysis, the EIS must briefly specify the underlying "purpose and need" for the proposed action (40 CFR § 1502.13) and must discuss the environmental impacts of the proposed action and alternatives (40 CFR § 1502.16). The EIS also should include appropriate mitigation measures not already included in the proposed action (40 CFR § 1502.14[f]). After preparing a draft EIS and before preparing a final EIS, the Commission will seek comments from other agencies with jurisdiction over the proposed project, the applicant, and the public (40 CFR § 1503.1).

While NEPA is intended to ensure that federal agencies take environmental impacts into account when undertaking major federal actions, the U.S. Supreme Court has clarified that the NEPA is a procedural statute:

> *NEPA itself does not mandate particular results, but simply prescribes the necessary process. If the adverse environmental effects of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental costs . . . Other statutes may impose substantive environmental obligations on federal agencies, but NEPA merely prohibits uninformed - rather than unwise - agency action.*[6]

Over the past 25 years, the NEPA review process for pipeline and other natural gas projects has evolved from a relatively straightforward process for both applicant preparation and FERC staff review to a monumentally complex, analytical process requiring thousands of man-hours by the applicant and FERC staff spread over many months. This process now requires the applicant to provide environmental information to the FERC in the form of an ER, which consists of several resource reports that the FERC, with input from other federal and state agencies and other stakeholders, then uses to assess the project's environmental impacts and develop an EIS, if required. The resource reports are part of the application (referred to as Exhibit F-1) to the FERC by the applicant for a Certificate, which if granted permits the applicant to build the project.

---

[6] Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350-51 (1989) (internal citations omitted).

## 1.2 FERC Traditional Filing Process

In the traditional filing process, the applicant prepares the ER generally without FERC involvement during the applicant's planning phase, which is the first of the three commonly recognized phases in the traditional filing process. Following the applicant's planning phase is the traditional FERC scoping and environmental review phase, followed by the construction phase. Refer to **Figure 1-1** for an overview of the typical steps and timeframes for the traditional filing process for a larger project that would require an EIS. This figure illustrates the applicant planning phase and FERC's scoping and environmental review phase.

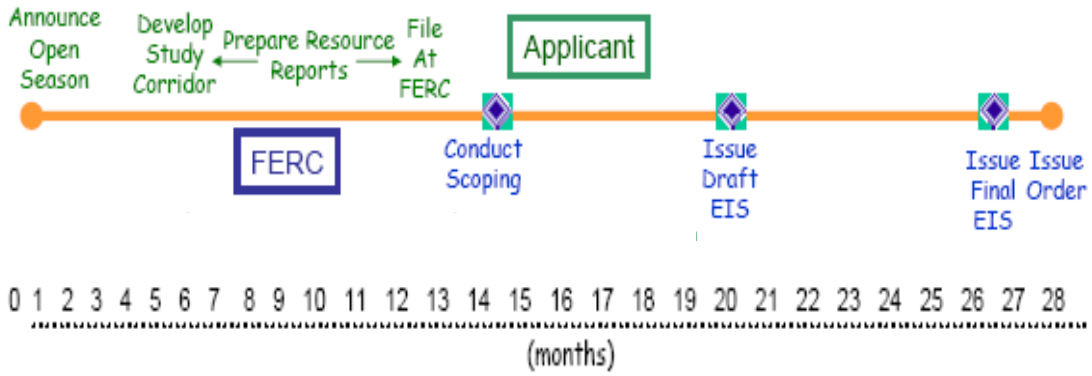



**Figure 1-1 Overview of FERC's Traditional Filing Process Phases**[7]

The applicant may or may not use "team permitting," which garners early input from other regulatory agencies and other stakeholders. This latter involvement can range widely, from "not-at-all" to extensive, depending on the project and company philosophy and issues of confidentiality. The FERC usually opts not to participate in the traditional process before filing. However, they have provided some applicants guidance prior to filing an application. Although the FERC usually knows (at least by word-of-mouth) that a project is pending, they usually don't know any details until the formal filing by the applicant.

FERC involvement begins on the date of the filing in an administrative forum initially and then in earnest with the application acceptance and the issuance of a Certificate Proceeding (CP) number. This issuance begins the second of the three phases for the traditional filing process, FERC's scoping and environmental review phase.

One risk of using this traditional process is that without FERC's early involvement, the applicant is unaware of FERC's information needs above and beyond the minimum filing requirements for the ER. In order to obtain complete information needed to produce an EA or EIS, FERC typically generates voluminous data requests to the applicant. Another risk of using this traditional process is that, depending somewhat on the level of involvement with the regulatory agencies and other stakeholders in the early stages, significant issues that can affect project cost and schedule are not identified or resolved until well after the initial application is made. Applicants usually are beginning to order materials and/or acquire right-of-way (ROW)[8] at this stage and late

---

[7] Hoffman, R. 2007. What's New at FERC: Recent Rulemakings. In: Regulatory Overview and Guidance Seminar Workbook. FERC, Office of Energy Projects (OEP). Washington D.C. Presented on January 9, 2007 in Denver, Colorado.

[8] A term which commonly refers to the corridor in which a pipeline project will be built; ROW is acquired "in fee," that is land purchase, or through easement negotiations with landowners.

changes to the project scope because of these issues have a profound impact on cost and schedule. A third risk is that once the application is filed with FERC, *ex parte* rules[9] apply, and communications to resolve issues that are identified late are severely restricted limiting the applicant's ability to assist the FERC in problem-solving. All of these risks have the potential to threaten the project budget and schedule.

## 1.3 FERC Pre-filing Process

The alternative filing track is the pre-filing process, in which the FERC is involved in the earliest stages of the project, several months before the application is filed. FERC staff and the natural gas pipeline industry both recognize the value of early involvement in the pipeline siting and construction process. Early involvement is a proactive tool that helps to identify stakeholders and their concerns earlier in the process. The rationale is that the sooner stakeholders become involved, the earlier potential issues can be identified and resolved, and the cost and time of addressing those issues sooner rather than later will be less.

Over six years ago, the FERC OEP established a pre-filing process by which applicants and FERC would become engaged with stakeholders, including state, local, and other federal agencies, prior to filing an application for a Certificate; thus identifying environmental issues before the applicant files its application. There was a demand for this process due in part to the increasing complexity of the NEPA review process and the need to streamline the overall process.[10] The objective of the pre-filing process was to facilitate communication among applicants, FERC, other federal and state agencies, and other stakeholders, in order to streamline and expedite the permitting process for energy projects, as directed in Executive Order 13212 (May 18, 2001) and Amendment dated May 15, 2003.[11] FERC issued additional guidance on utilizing the process on February 10, 2004.

The pre-filing process differs from the traditional filing process in that the applicant's planning phase overlaps and is combined with the FERC scoping and environmental review phase. The construction phase follows and is similar for both filing processes. Refer to **Figure 1-2** for the typical steps and timeframes of the pre-filing process for an EIS project.

Several regulations were developed in response to the Energy Policy Act of 2005 (EPAct). One of these regulations included the FERC's Pre-filing Procedures for Review of LNG Terminals and Other Natural Gas Facilities.[12] To comply with EPAct, the FERC made this pre-filing process mandatory in 2005 for LNG projects and LNG-related pipeline and facility projects. The pre-filing process is still voluntary for non-LNG-related projects, including non-LNG-related pipeline and facility projects. Until recently, applicants could use the

---

9 *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.

10 The FERC 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).

11 66 Federal Register (FR) 28357 (22 May 2001); 66 FR 28357 (15 May 2003).

12 Regulations Implementing EPAct; Order 665. Final Rule issued October 7, 2005 (18 CFR Parts 153, 157, and 375).

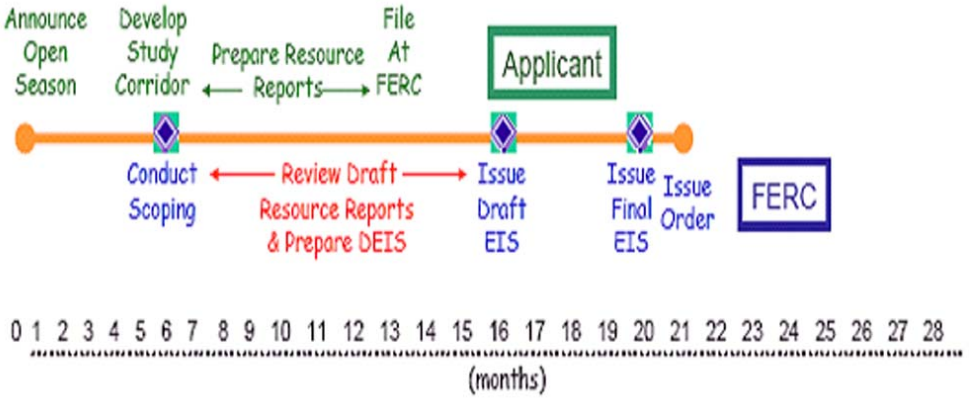



**Figure 1-2 Overview of FERC's Pre-filing Process Phases**[13]

traditional process, regardless of the project type; with the implementation of EPAct, only non-LNG and LNG-related related projects may utilize the traditional process.

The EPAct also amended the NGA to provide that the Commission shall act as the lead agency for purposes of complying with NEPA with respect to an application for a certificate of public convenience and necessity under Section 7 of the NGA (15 USC § 717n[b][1]). As the lead agency, the Commission is to supervise the preparation of the environmental review document if more than one federal agency is involved in the same action (40 CFR § 1501.5[a]). This designation provides the FERC more authority to encourage participation by interested agency parties in the pre-filing process.

Even prior to these regulations, FERC recognized the importance of encouraging cooperation among federal agencies in permitting pipeline projects. FERC entered into an Interagency Agreement (IA) to coordinate projects with the Bureau of Land Management, the Fish and Wildlife Service, the Environmental Protection Agency, the Forest Service, the Department of Transportation, the Army Corps of Engineers, the National Marine Fisheries Service, the Advisory Council on Historic Preservation, and the Department of Energy. This IA was created to streamline regulatory processes through early coordination to identify project purposes, needs and alternatives that each agency can use in carrying out its respective regulatory responsibilities.[14]

The establishment of the pre-filing process gained support from a recent INGAA Foundation study, which stated that the lack of streamlining at the regional, state, and local levels continues to impede the expeditious siting and permitting of natural gas infrastructure.[15] For the U.S. to meet the projected natural gas

---

[13] Hoffman, R. 2007.

[14] U.S. Department of the Army et al. 2002. Interagency 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 FERC.

[15] INGAA 2005 Foundation Study: "Avoiding and Resolving Intergovernmental Conflicts with Interstate Natural Gas Facility Siting, Construction, and Maintenance." The INGAA Foundation. F-2005-01. March 2005.

infrastructure demands for the next decade(s),[16] it is imperative that the industry and agencies acquire means to streamline the approval process. According to the study, coordinating permit approval processes among agencies and stakeholders is the primary major obstacle to growing natural gas supply in the U.S.

In contrast to the traditional process, the FERC's involvement in the early stages of a project using the pre-filing process theoretically allows FERC to encourage other agency and stakeholder involvement, help identify and resolve important environmental issues early, and help prepare a more complete ER, thus eliminating or at least minimizing the need for extensive data requests after the application is filed. All of this activity can occur without the hindrance of *ex parte* rules up to the point the CP Application is filed at the end of pre-filing. The FERC maintains that this process saves months of time over the traditional process. One risk involved in using this track is that often applicants must concentrate cost and effort on the front end of the project before detailed work is completed with shippers and customers.

## 1.4 Project Scope

The purpose of this study was to examine the facts and experiences related to using both the traditional and pre-filing processes and ascertain if there have been any discernable differences between the processes in the cost, length of schedule, efficacy of the ER preparation, and other key project parameters, such as construction contracting and materials ordering.

Every attempt was made to collect data that would be statistically representative in response to questions carefully designed to collect distinct quantitative data. Due to the inherent variability of pipeline projects and the fact that the pre-filing process has been available for a limited amount of time, only a limited number of traditional and pre-filing projects met the eligibility criteria for the study.[17] For this reason, the number of survey responses is lower than ideal and thus, caution must be taken while interpreting the findings of this survey. However, the study did reveal many trends suggesting opportunities to improve both the traditional filing and pre-filing processes. Most importantly, the study attempts to draw on the expertise of project applicants, construction and engineering company representatives, cooperating agencies, and other stakeholders associated with pipeline projects under FERC jurisdiction and offer recommendations and next steps for improving the process.

---

[16] 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.

[17] All projects reviewed must have been certificated by June 30, 2006 and initiated after January 1, 2001. A more detailed description of the project selection criteria is contained in Chapter 2 and Appendix B.

# 2.0 Study Methodology

The study was designed and conducted by ENSR under direction from a Steering Committee made up of INGAA Foundation representatives. The study was designed to collect, analyze, and compare data between projects that used the traditional filing process and those that used the pre-filing process. Those data included existing factual information in the FERC e-library database,[18] as well as factual and subjective data gathered from applicant project managers, and other stakeholders, including cooperating agency project managers. Limited data also was provided by FERC environmental project managers (e.g., confirmation of project data in the e-library database, contact information for other stakeholders).

Projects selected for study analysis are listed in **Appendix A**.[19] The detailed study methodology is described in detail in **Appendix B**. **Appendices C, D**, and **E** contain the survey questionnaires used for the study.

**Figure 2-1** illustrates how the study results were derived from the factual and experiential data collected by an impartial interviewer and analyzed by an independent statistician.

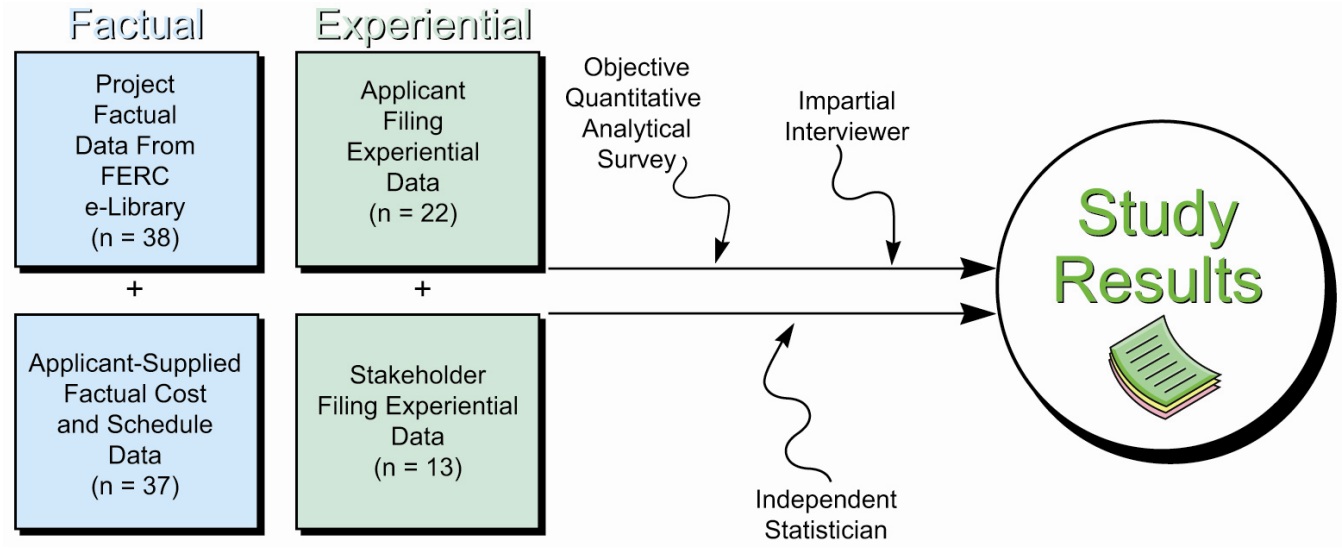



**Figure 2-1 Methodology Flow Chart**

[18] FERC e-library database www.ferc.gov/docs-filing/elibrary.asp.

[19] Identifying information has been removed in this presentation, in order to provide anonymity and confidentiality to those surveyed.

All communication with study participants was completed by a single interviewer; most surveys were completed over the telephone. Questions asked fell into three categories:

1) Project Managers and Stakeholders were asked for objective data regarding:
    a) Project cost
    b) Project schedule
    c) Report review time frames
    d) Project milestones
2) Experience with filing process
3) Suggestions for improvements

An independent statistician reviewed the survey questions to ensure valid statistical results and analyzed the data using Pearson Correlation Coefficients with a p-value of $p<0.05$.

# 3.0 Study Results

The more relevant and remarkable study results are summarized here in the five sections shown below. The full and detailed technical study results, including discussions of study pool participants, significant comparisons, trends, chart illustrations, and references are presented in **Appendix F**.

- Section 3.1, General Study Pool Information, Stakeholder Involvement, and Choice of Filing Method
- Section 3.2, Questions Related to the Project Schedules
- Section 3.3, Questions Related to the Project Costs and Contracts
- Section 3.4, Questions Related to Filing Process Predictability
- Section 3.5, Questions Related to Filing Process Preference

The study utilized both factual and experiential data in comparing the two filing processes. Questions were asked of respondents regarding both specific project-related experience and general experience utilizing both processes. The respondents included both pipeline company applicants and other stakeholders to the extent practical. These results include both statistically significant study findings and relevant trends that serve as a tool for better understanding the processes and suggesting ways to improve applicant, agency, and process efficiency and effectiveness.

## 3.1 General Study Pool Information, Stakeholder Involvement, and Choice of Filing Method

### 3.1.1 Study Pool

Survey responses were obtained from 13 pipeline company applicants (respondents) representing 19 projects where the traditional filing process was used to obtain NGA Section 7 Certification from FERC (14 pipeline and 4 LNG construction projects). Comparably, survey responses were obtained from 14 pipeline company applicants representing 18 projects that used the pre-filing process to obtain Certification (14 pipeline and 5 LNG construction projects).[20]

Eighty-nine percent of respondents in the entire pipeline company applicant group said that they had experience utilizing both the traditional filing process and the pre-filing process. For this group, questions were posed so as to compare the two processes.

### 3.1.2 Stakeholder Involvement in the Study and in the Pre-filing Process

The cooperating agency and other stakeholder study pool included 17 respondents, 6 of whom were involved in the pre-filing process and 11 of whom were involved in the traditional filing process for the pipeline projects chosen for the study.

One of the goals of the pre-filing process is to encourage input from all interested project stakeholders as early in the process as possible. To test whether this goal was being met, applicants familiar with both processes were asked which process involved more stakeholders. The respondents indicated that the projects using the pre-filing method had more stakeholders involved than the projects using the traditional filing method

[20] Some of the pipeline company applicants participated in the study as applicants for both traditional filing and pre-filing projects; a total of 22 applicant project managers participated in the study.

(**Figure 3-1**). This result supports the perception that, in fact, the pre-filing process, does involve more stakeholders as was its design intention.

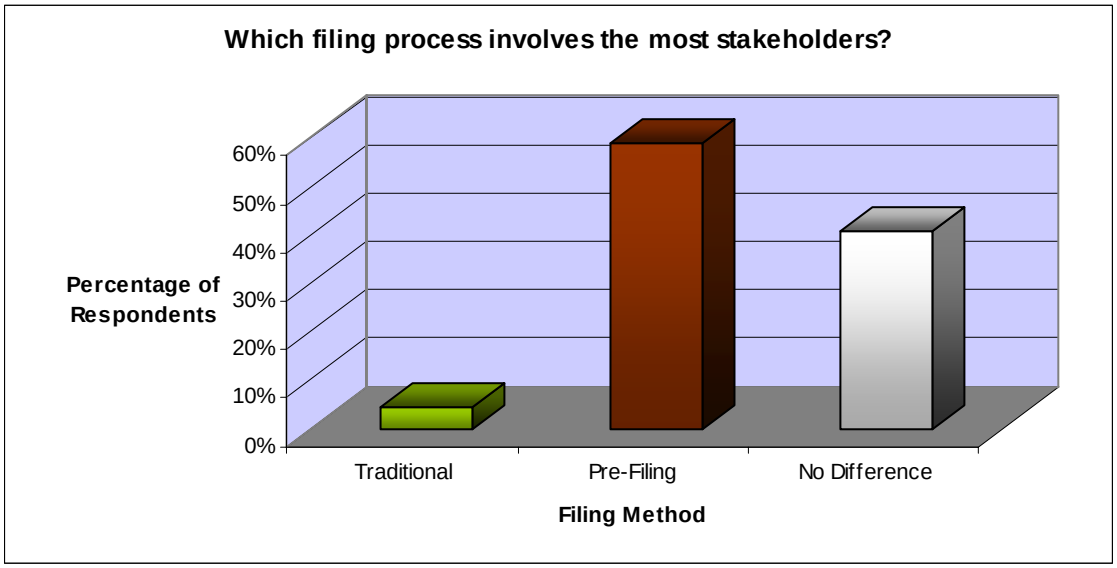



**Figure 3-1 Perception of Stakeholder Involvement**

Additionally, in exploring predictability of process under a separate line of questioning (refer to Section 3.4), respondents' volunteer information indicated that the higher number of stakeholders, and presumably the issues they raise, on pre-filing projects influenced how predictable the pre-filing process was compared to the traditional process. This finding further supports the notion that in fact, there are more stakeholders involved in the pre-filing process projects, as intended by the process.

### 3.1.3 Choice of Filing Method

As would be expected, compared to those using the pre-filing process, the respondents for the traditional filing process were significantly[21] less likely to have been asked by FERC to use one process over the other, indicating that if FERC did ask for one process that it would be the pre-filing process (**Figure 3-2**).

[21] Statistically significant at the p=0.002 level, using Pearson Chi-Square analysis.

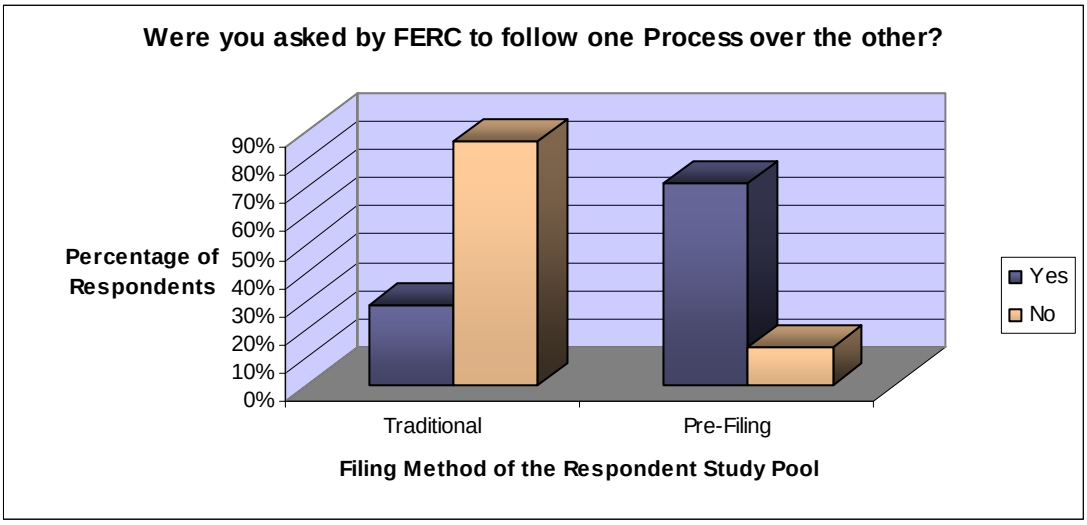



**Figure 3-2 Filing Method Suggestion by FERC**

Of the pipeline construction respondents who said that FERC did ask for a specific process, the pre-filing respondents were significantly[22] more likely to feel obligated to follow FERC staff suggestions for type of filing process (**Figure 3-3**).

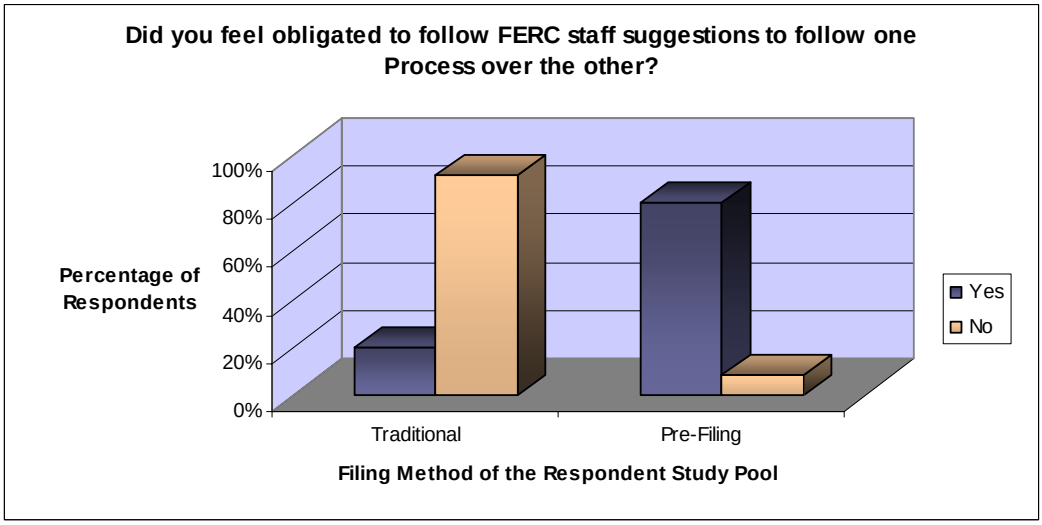



**Figure 3-3 Obligation of Applicant to Follow FERC's Filing Method Suggestion**

[22] Statistically significant at the p=0.003 level, using Pearson Chi-Square analysis.

## 3.2 Questions Related to the Project Schedules

Data gathered in this study relating to project schedules included both factual data taken from FERC's e-library site and perception data gathered directly from the pipeline company applicants. To investigate the cause of successes and opportunities for improvements with each filing process, it was necessary to ask respondents to review various phases of the process and react with their perception of whether or not the project held to the "originally intended schedule." It should be noted that the "originally intended schedule" was provided by the applicant. FERC typically does not predict or commit schedule goals for project reviews. However, in order to provide a measure of success in meeting schedules, the study compared actual schedule milestone data to schedule milestone examples presented by FERC in trainings (**Figures 1-1** and **1-2**). Refer also to **Figure 3-4** for a general overview of FERC filing process schedule milestones.

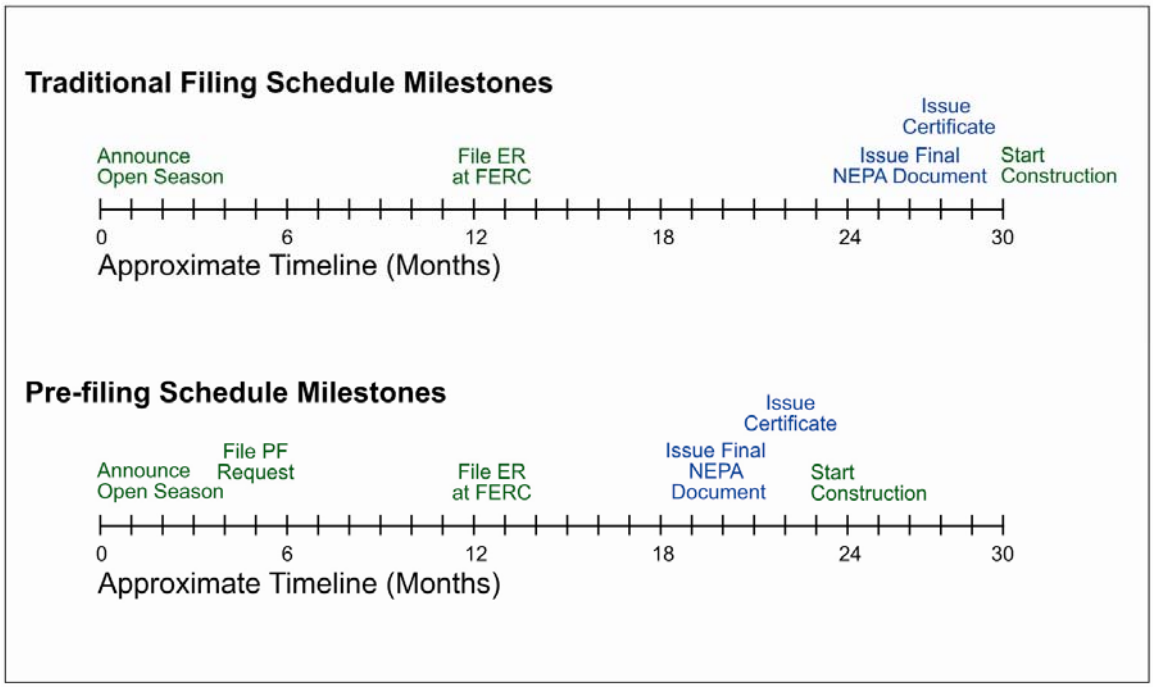



**Figure 3-4 Filing Process Schedule Milestones**

### 3.2.1 Schedule Expectations and Measuring Schedule Milestones

Expectations of the filing process schedule lengths may differ between the FERC staff and the pipeline company applicants. For all study respondents, 60 percent said the Certificate was issued within the originally intended project schedule (as given by the pipeline company).

**ER Filing through Certificate Issuance.** In past trainings, FERC staff has provided a schematic to illustrate the differences in the two processes promoting that up-front investment of time in the pre-filing process would result in a shorter NEPA review timeframe once the ER is filed with FERC. The traditional filing illustration indicates a general review timeframe of 14 months from the filing of the ER to the publication of the EIS (**Figure 1-1**). Comparably, the pre-filing illustration indicates a general review timeframe of 8 to 10 months

from the final filing of the ER to the publication of an EIS (**Figure 1-2**).[23] FERC staff has asserted that the general goal of the FERC environmental review staff is to complete EIS projects in less than 10 months for pre-filing projects and that the pre-filing figure schedule of 8 months may have been unintentionally optimistic.[24] The actual schedule data for the study pool of projects for the present study indicates the average time to prepare an EIS for traditionally filed pipeline projects has been 14.3 months and the average time to prepare an EIS for pre-filed pipeline projects has been 8.9 months.[25]

Schedule comparisons between the two processes are problematic in that there are not always clearly definable and recognized comparable milestone dates for both processes. However, since the NEPA preparation times as shown above do not allow for review of the entire process, additional data were collected and analyzed. The overall filing process timeframe is not significantly less for pre-filed projects compared to traditionally filed projects. In fact, pre-filed projects tend to take longer to get from pre-file request file date to Certification and from pre-file request file date to construction start date than the traditional projects take between comparable milestones (**Figure 3-5**). The pre-filing start date milestone for this measurement is the pre-filing request date, which typically precedes the filing of the ER date by at least 6 months. The environmental review period for the pre-filing process is compressed compared to that of the traditionally filed projects; however, its impact on the overall filing process length is not obvious

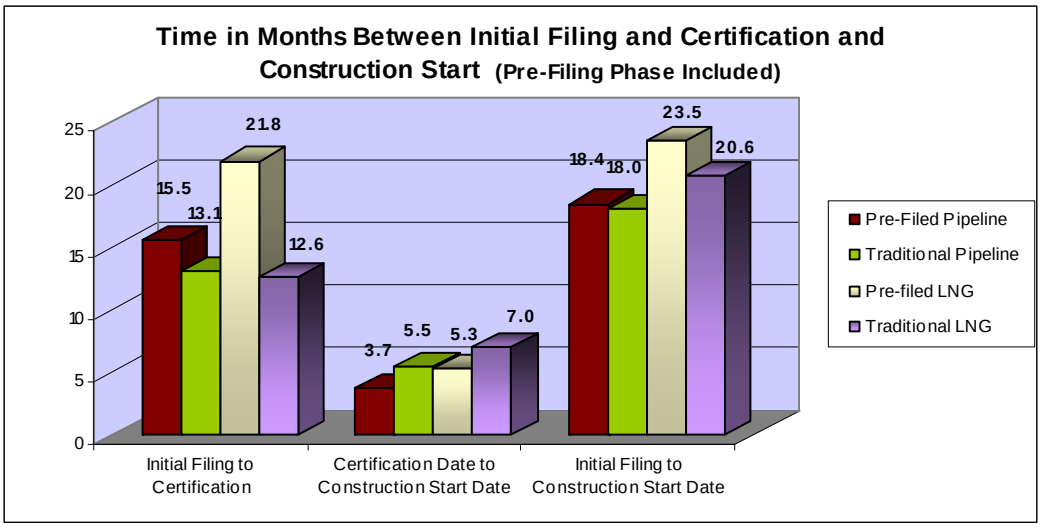



**Figure 3-5 Data Illustrating Which Process Takes the Most Time to Complete from Initial Filing to Certification and Construction Start [26]**

[23] Hoffman, R. 2007.

[24] Boyle, M. 2005. Southern Gas Association Environmental Construction Roundtable Discussion Related to FERC's Pre-filing Process. June 28, 2005.

[25] These schedule calculations included only pipeline projects in the data set since LNG projects tend to take longer to process due to their complexity and other issues.

[26] "Initial filing" is the pre-filing request date for the pre-filing process numbers and the ER filing date for the traditional process numbers.

**Certificate Issuance to Construction Start Date.** The length of time between the certification date and construction start date for the two groups was similar, but traditional filed projects tend to take slightly longer. While this data is not statistically significant, it is important since one of the purported benefits[27] of utilizing the pre-filing process was to resolve issues sooner, specifically those not within FERC's control and which often delay construction, even when a project has a Certificate in hand from FERC. If in fact the effects of the pre-filing process is helping the applicant to commence construction sooner than with using the traditional process, the schedule comparisons should consider the end milestone as construction start date.

### 3.2.2 Environmental Report Reviews Effect on Schedule

There was no clear agreement between the study pool respondents about which filing method involves the most ER data requests, counting both the pre- and post-filing comments or requests combined (**Figure 3-6**), but there was general agreement that the traditional filing process produced more data requests after filing. This suggested trend would be expected, since the pre-filing method was designed to handle data requests earlier in the process (i.e., before the filing date). That is, data requests during pre-filing (also called comments on the draft ER) are part of the iterative data gathering designed into the pre-filing process and by design should lead to fewer and less involved data requests after filing, if any.

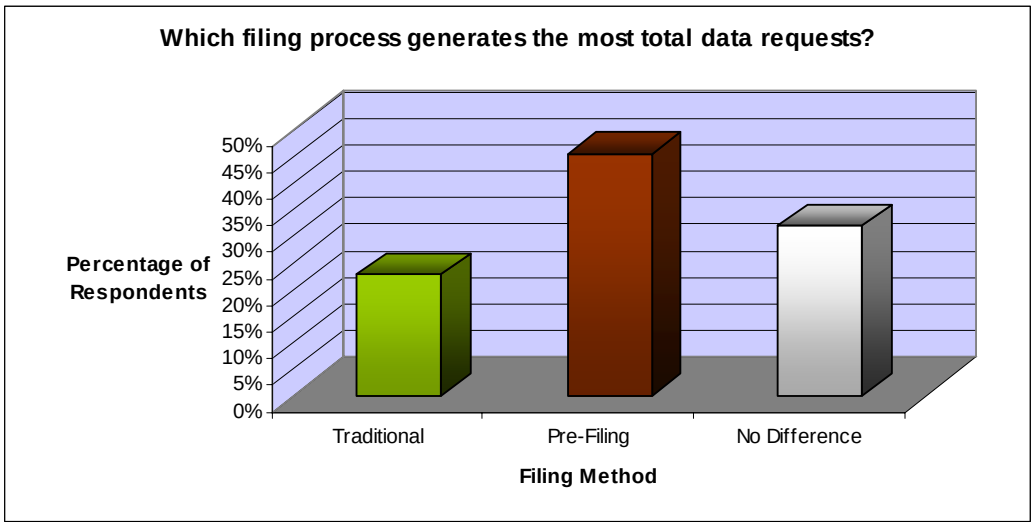



**Figure 3-6 Perception Relative to Which Process Generates the Most Total Data Requests**

A majority (78 percent) of respondents interviewed about pre-filing process projects in the data set said that FERC did request additional data after the formal final application and ER filing. This result indicates that the pre-filing process is not meeting one of its advertised goals of resolving most, if not all, issues prior to the filing, essentially negating the need for data requests after the filing altogether. Some pre-filing respondents indicated that post-filing requests were extraordinary and resulted in schedule delays. While traditional filers reported extraordinary post-filing requests, these requests did not result in schedule delays.

[27] Boyle, M. 2005.

### 3.2.3 Project Scope Changes Effect on Schedule

Regardless of filing method, most respondents (73 percent) indicated that there were no major changes to the project scope (re-route, footprint changes, etc.) after filing. However, for the approximately one-quarter of applicants in each study pool who admitted these project scope changes, the resulting impact on the project schedule was very different. Only 10 percent of traditional filers indicated that the change in project scope resulted in delays, while 80 percent of the pre-filers indicated that a delay resulted from project scope changes (**Figure 3-7**). This may be due to the fact that the reduced timeframe after filing is reduced in the pre-filing process and therefore, less forgiving. The respondents were not asked to clarify if the change in project scope was initiated by the applicant (for customer connection or other reasons) or by other stakeholders (e.g., to avoid or minimize impacts to landowner holdings or sensitive areas).

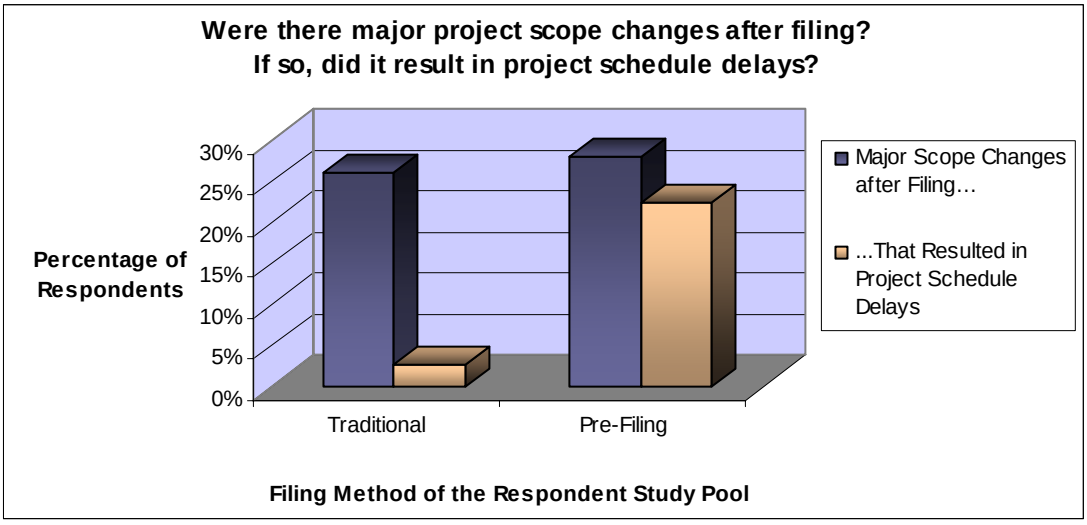



**Figure 3-7 Project Scope Changes after Filing That Resulted in Schedule Delays**

The implication of this result is that applicants have an opportunity to help reduce project delays by defining the project clearly and consistently to the permitting agencies as early as possible. This "best practice" was recommended in a recent INGAA report, an example of an applicant "best practice" is to define the project clearly and consistently to the permitting agency(ies).[28] Notably, another survey completed in 2003 of NEPA practitioners for Department of Defense projects supports this best practice measure in order to streamline NEPA processing. This study found that approximately 43 percent of the Department of Defense projects were delayed relative to the originally intended schedule. 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).[29]

---

[28] INGAA 2005 foundation Study. March 2005.

[29] 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.

### 3.2.4 Comments from Cooperating Agencies and Other Stakeholders

While the study pool was too small to analyze statistically, there appeared to be a trend with the responses of those agency staff and other stakeholders familiar with the pre-filing process indicating insufficiently scheduled time for due process. This perception may be due, in part, to the intended expedited NEPA process for the pre-filing method. It also could be a result of the additional administrative burden on the agency staff to review draft versions of the ER in addition to final submittals.

## 3.3 Questions Related to the Project Costs and Contracts

### 3.3.1 Project Costs

Project-specific cost data were collected in an effort to evaluate the costs and benefits of using one filing process over another. Data collected included overall project costs, pre- and post-filing environmental costs, total environmental costs, and construction costs. Environmental costs commonly are expressed as a percentage of construction costs, thus normalizing the varied project scopes within the data set. Use of this normalized data set allowed for comparable analysis between the two filing process data sets.

Total pre-construction environmental costs of the projects tended to be higher overall for the pre-filing process respondents, though this difference was not statistically significant (**Figure 3-8**). Pre-construction environmental costs of the project before the FERC filing appear to be generally higher overall for the pre-filing process; however, the difference was not statistically significant (**Figure 3-9**).

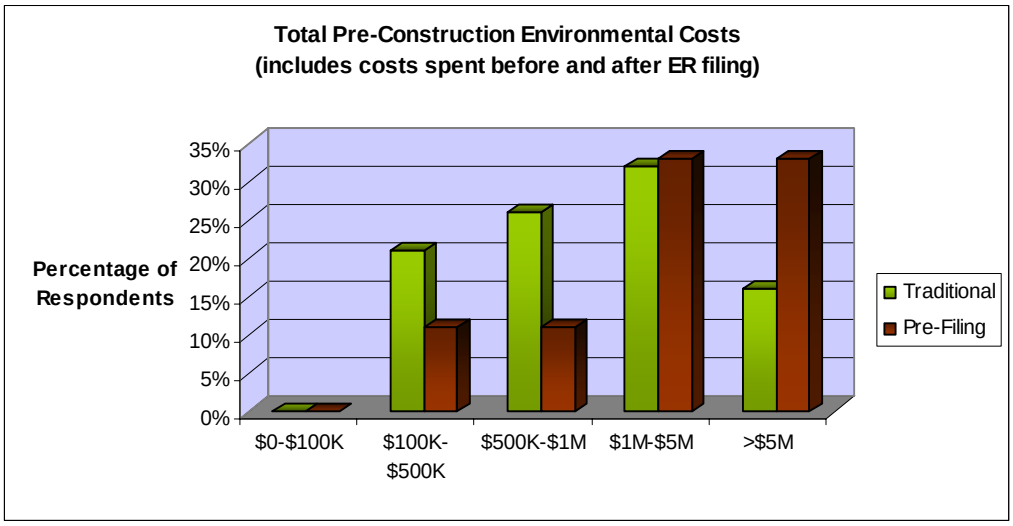



**Figure 3-8 Total Pre-construction Environmental Cost Comparison**

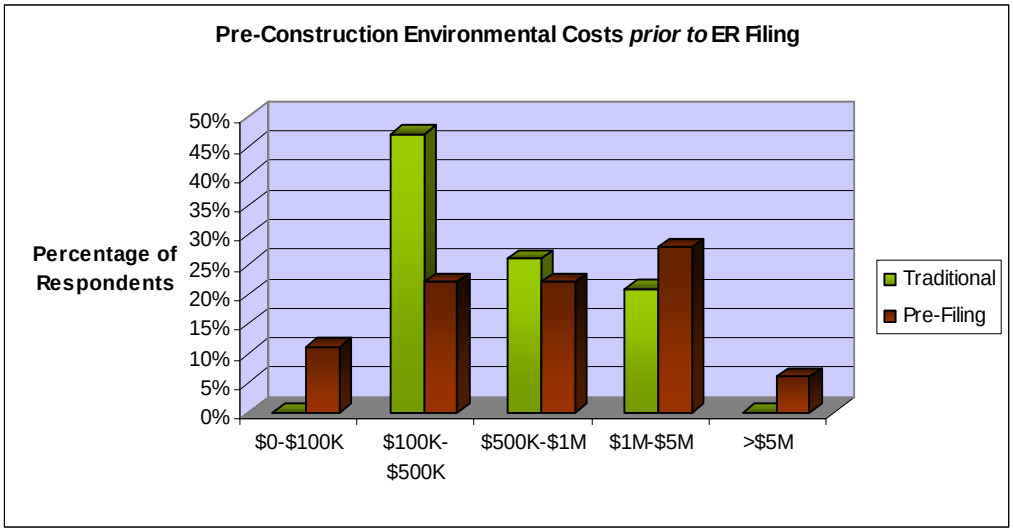



**Figure 3-9 Pre-construction Environmental Costs Prior to ER Filing**

When the combined study pool of applicants with experience with both filing processes was asked which process is more expensive, 55 percent said the pre-filing was more expensive. An additional 39 percent said that there was no difference between the costs for the two filing processes.

In order to further explore the trend initially seen in **Figures 3-8** and **3-9**, normalized environmental costs for the two filing processes were compared using combined LNG and pipeline project data. In this projection, environmental costs tended to be two to three times higher for pre-filed projects than for traditional filing projects (**Figure 3-10**).[30]

[30] The independent statistician noted that it would not be possible to run statistical significance on these data given the way they were collected (i.e., inability to collect accurate cost values from all applicants). Because most respondents were not able to provide exact cost data for analysis, ranges of data were used for reporting. This particular projection was derived using the minimum value for each cost range response normalized against construction costs and averaged for each data set.

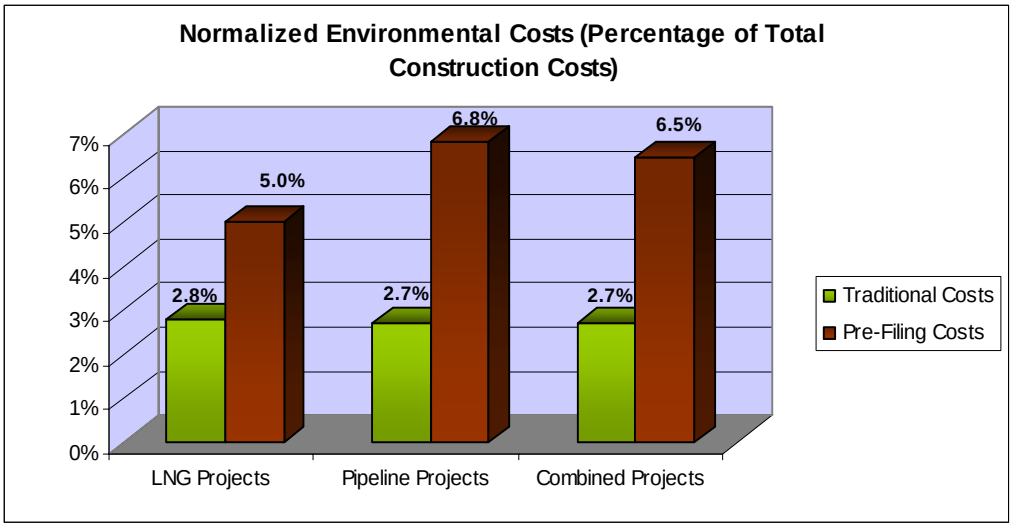



**Figure 3-10 Normalized Environmental Cost Comparison**

### 3.3.2 Project Contracts

Project-specific contract-related questions were posed to the applicants to determine if various milestones were tied to the either process and to investigate if either process held more financial risk for the applicant. Overall, ordering of construction materials was not linked to FERC milestones for 62 percent of the projects. However, when linkage tended to occur, ordering of construction materials was linked to FERC milestones more frequently for traditional filing projects than for pre-filing projects (**Figure 3-11**), and this difference was statistically significant.[31] While this data are interesting, it is difficult to draw any inferences regarding this result without knowing the cause and effect relationship. One possible explanation of why this difference exists may be related to the relative newness of the pre-filing process; applicants may recognize the milestones in the traditional filing process more readily and schedule accordingly.

[31] Statistically significant at the p=0.02 level, using Pearson Chi-Square analysis.

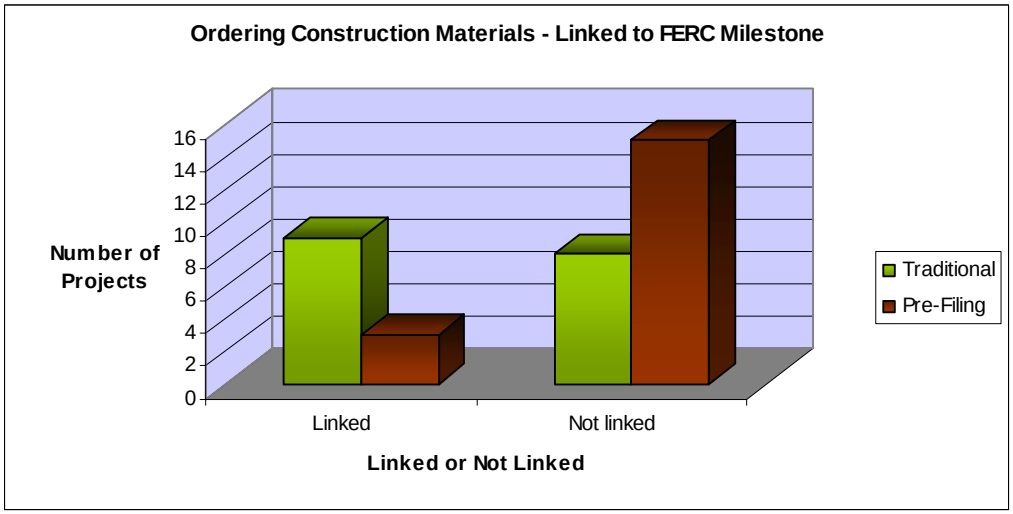



**Figure 3-11 Project Contract Links to Filing Process Milestones**

## 3.4 Questions Related to Filing Process Predictability

A predictable process with regard to project milestones and data required of the applicant allows pipeline company project managers to control costs and maintain schedules. While the amount of work required to conduct an adequate NEPA review has grown monumentally over the years, applicants and agencies alike can manage this effort with a predictable process.

In an attempt to determine which filing method allowed for more predictability, respondents with experience using both processes were asked to assess the two filing methods on a scale from 1 to 7 (1 being never predictable and 7 being always predictable). The study pool of respondents for these questions included individuals who had experience with both processes and were interviewed for project-specific information for both the traditional filing and pre-filing processes.

There appears to be more variability in the responses with the pre-filing process. However, once the data are combined, the predictability "score" is nearly the same for both filing processes. While the results of the group as a whole did not show any remarkable trends, it was interesting that the group that was interviewed regarding a specific recent traditional filing project tended to rate the pre-filing process as more predictable, and the group that was interviewed regarding a specific recent pre-filing project tended to rate the traditional filing process as more predictable. This result may be a factor of the tendency to remember negative experiences with the process closest to memory and, thus, rank the "other" process as more favorable (in this case, more predictable).

In order to further explore process predictability, respondents were asked about the factors that influence predictability of projects.[32] Of the choices, project location was the primary influence with regard to the predictability of the traditional filing process, followed by the influence of the FERC environmental project manager (**Figure 3-12**).

[32] **Figures 3-12** and **3-13** show number of responses, rather than percent of respondents, because respondents were allowed to select more than one factor.

For the pre-filing process, "other" factors were the main influence on predictability (**Figure 3-13**). Some volunteer clarifications for the "other" factors included issues raised by other stakeholders during the pre-filing process. As indicated in **Figure 3-1**, there appears to be more stakeholder involvement in the pre-filing process (a goal of the process).

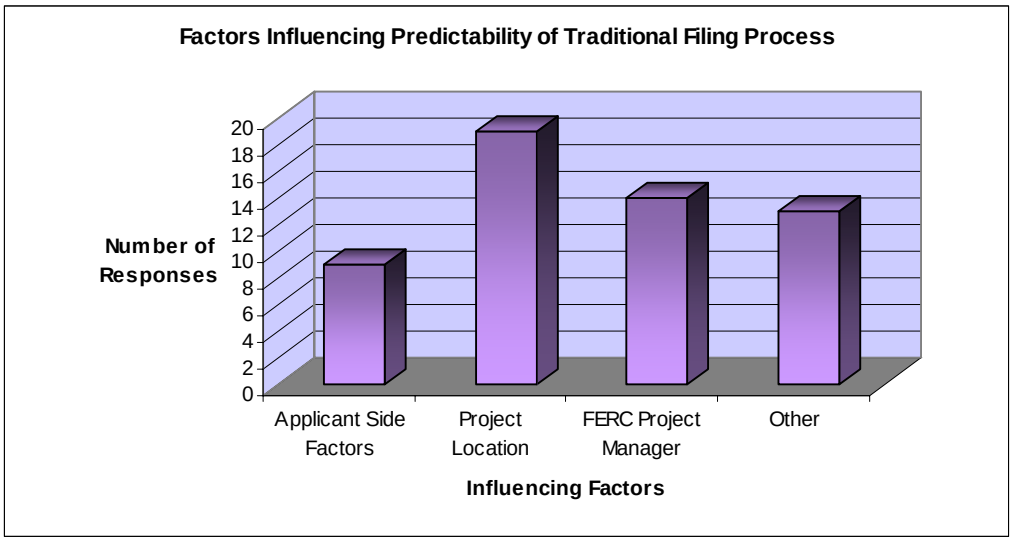



**Figure 3-12 Factors Influencing Predictability of the Traditional Filing Process**

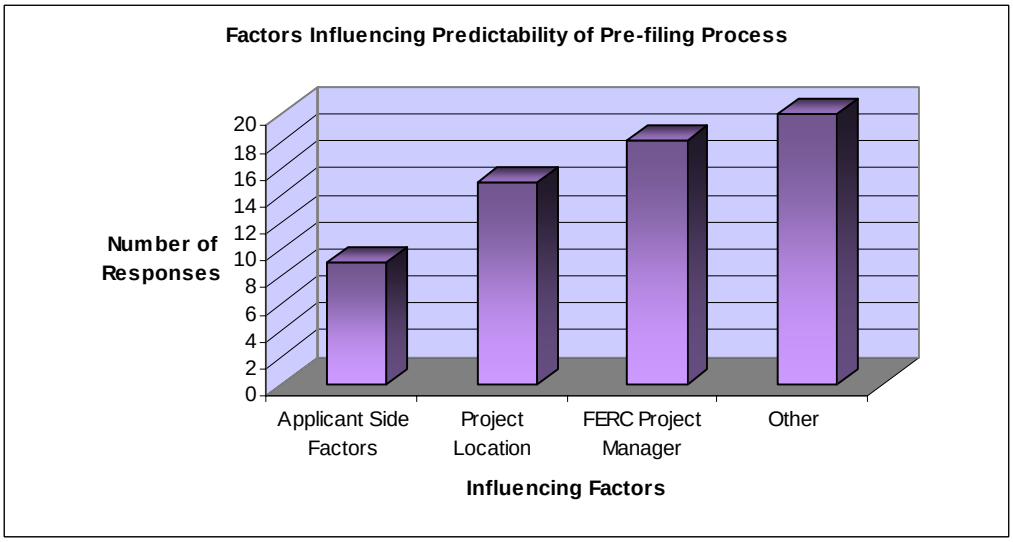



**Figure 3-13 Factors Influencing Predictability of the Pre-filing Process**

As with was seen with the traditional filing process, the second-rated factor for the pre-filing process was the influence of the FERC environmental manager. It is expected that from the influence of the FERC environmental managers will continue to be an important factor affecting the predictability of both processes particularly the pre-filing process, as the FERC makes efforts to more pro-actively drive the project schedules as part of its efforts to comply with EPAct.

To further explore the effect of the FERC environmental managers on both processes, the respondents were asked about how much variability they had experienced from project to project in the way different FERC environmental project managers have managed the projects. Most respondents indicated that there was at least some variability in how FERC staff manages projects (**Figure 3-14**). In order to ensure the response was more likely manager-specific versus project-specific, respondents were asked to measure variability seen on various projects with the same managers. The results show there was very low variability in how the same FERC project manager manages different projects (**Figure 3-15**).

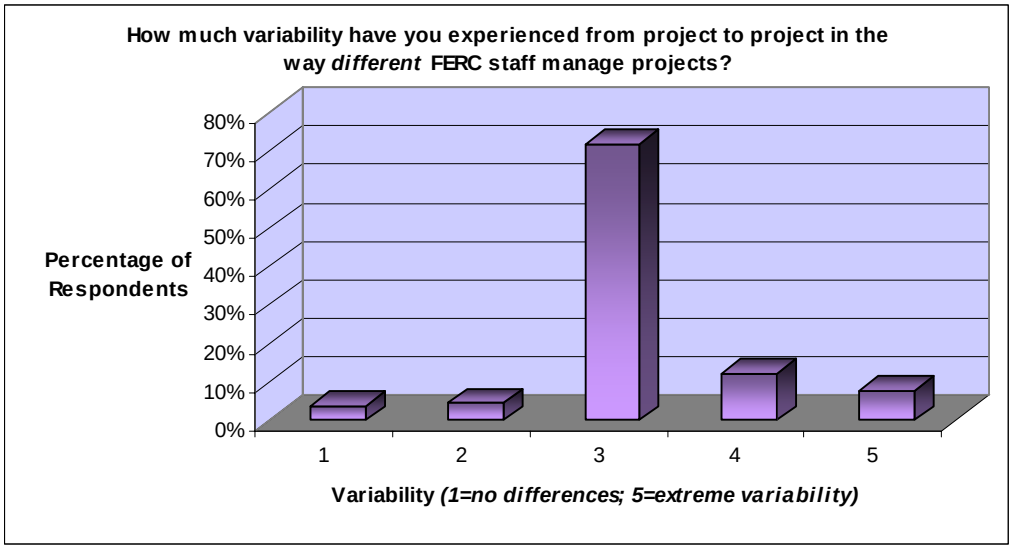



**Figure 3-14 Perceived Variability among FERC Staff in Managing Projects**

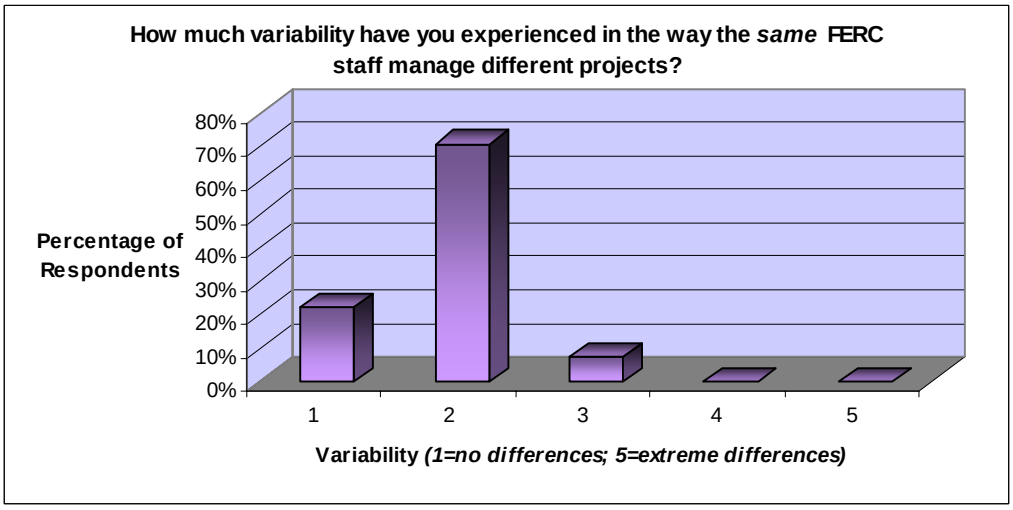



**Figure 3-15 Perceived Variability with Individual FERC Staff in Managing Projects**

## 3.5 Questions Related to Filing Process Preference

Survey respondents were asked about their preference for the next project as a partial measure of how satisfied they were with the comparable processes. While the majority of respondents indicated that their preference would be influenced by project-specific characteristics, it is interesting to note that of the remaining respondents, more chose the pre-filing process over the traditional process (**Figure 3-16**).

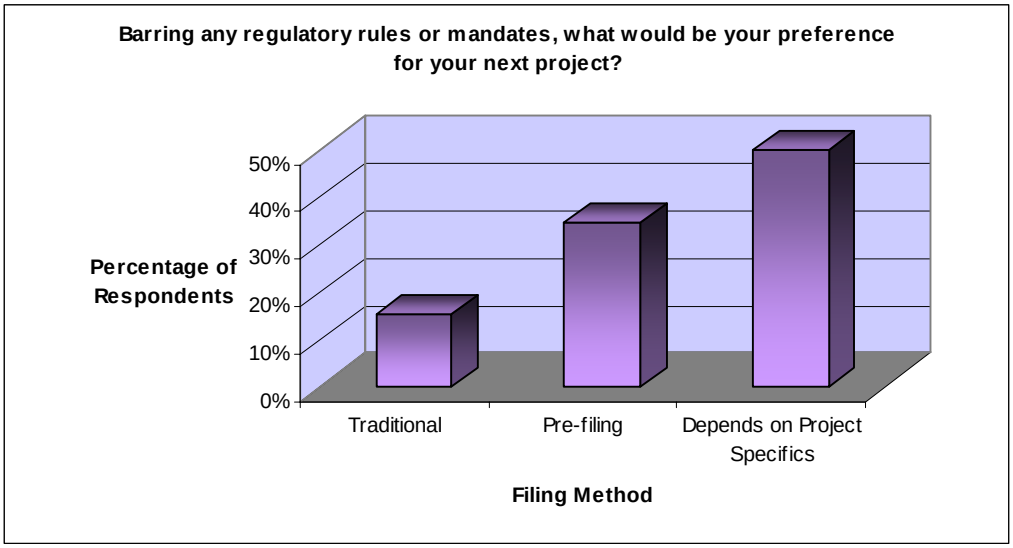



**Figure 3-16 Filing Process Preference**

# 4.0 Recommendations and Steps Moving Forward

The following recommendations and suggestions for next steps are presented as methods to improve the overall efficiency and effectiveness of the ER filing process, regardless of which filing process is utilized by applicants for future projects. The specific relevant study results addressed in the following sections provide opportunities to better understand and improve upon particular aspects of the filing processes. This chapter also incorporates some of the open-ended qualitative, feedback suggestions received by study participants, noting that the respondents made insightful and positive recommendations for process improvement.

## 4.1 Choice of Filing Method

Those applicants using the pre-filing process were significantly more likely to have been asked by FERC to use the pre-filing process and were significantly more likely to feel obligated to follow FERC staff suggestions for using the pre-filing process. Most parties recognize that there are pros and cons to utilizing each of the filing processes. This study further illustrates the associated potential benefits and costs.

Recommendations:

1. FERC leadership should continue to allow pipeline companies to choose which filing method best suits the needs of the company and the project, unless mandated by Order 665.

2. Pipeline company applicants should carefully weigh factors in terms of finances, schedule, and other project-specific factors in choosing the best filing process.

3. FERC staff should be aware of their influence in pressuring applicants into utilizing the pre-filing process, especially in cases where applicants may not have elected to utilize the pre-filing process for project-specific reasons. Unless mandated by Order 665, applicants who elect to use the traditional process, in spite of recommendations by FERC staff to use the pre-filing process should not be penalized.

4. FERC leadership should consider performing their own internal quantitative study and/or qualitative review to determine pre-filing project costs (e.g., in terms of FERC staff commitment) and benefits (e.g., in terms of raising issues earlier in the process that would not have been resolved in the traditional filing process timeframe resulting in quicker Certificate approval and construction start dates). The results of this study or review would help FERC staff to make better recommendations to potential applicants as to which process to use.

Next Steps for Implementation:

1. Applicants should obtain more information regarding their options for utilizing the two filing processes. Applicants should review studies, attend trainings and workshops, and read and understand their options and mandates per Order 665. In addition, applicants should hold “pre” pre-filing meetings with FERC staff to discuss project-specific filing options.

2. INGAA representatives should invite FERC staff to a conference or roundtable to discuss the results of this study. In this conference, discussions should include the obligation felt by applicants to utilize the pre-filing process.

3. At the same proposed conference or roundtable, INGAA should recommend to the FERC staff that they perform an internal review, in order to provide better qualified and more consistent guidance to potential applicants.

## 4.2 Project Schedules

The filing process schedules provided by FERC staff in trainings and other guidance are not generally consistent with the experience of pipeline company applicants. The overall filing process timeframe is not significantly less for pre-filed projects compared to traditionally filed projects. In fact, pre-filed projects tend to take longer to get from pre-file request file date to Certification and from pre-file request file date to construction start date than the traditional projects take between comparable milestones. The environmental review period for the pre-filing process is compressed compared to that of the traditionally filed projects; however, its impact on the overall filing process length is not obvious and appears to more dramatically affect both applicants (responding to data requests and implementing project scope changes) and cooperating agencies (reviewing draft and final ER filings).

Additionally, the pre-filing process requires at least two, if not three rounds of ER reviews, including comments on the draft ER prior to filing or data requests after the filing) This either actually increases the time spent on this effort compared to the traditional process or gives applicants the impression that the pre-filing process is longer.

Recommendations:

1. All parties (i.e., applicant, FERC staff, cooperating agencies) should make efforts to establish and agree upon the expectations for the filing process schedule.

2. Applicants and FERC staff should work together to ensure the development draft ER and its review are effective and efficient. Extensive time and effort required to develop, review, and comment on multiple drafts of the ER should not be necessary for most projects. Applicants should ensure draft ERs meet minimum filing requirements to the maximum extent practical. FERC staff should ensure timely reviews.

3. FERC staff should consider eliminating the need for the second round of ER review prior to filing. If most pre-filing projects are experiencing data requests after filing, then the comments on the second draft of the ER could be more efficiently handled post-filing.

Next Steps for Implementation:

1. For pre-filed projects, all parties (i.e., applicant, FERC staff, cooperating agencies) should hold project-specific kick-off meetings to discuss expectations of each party regarding not only schedule, but also milestones, party roles, and promised deliverables.

2. For pre-filing projects, FERC staff and applicants should commit to a submittal and review schedule to the maximum extent practical (and encourage cooperating agencies to do the same).

3. FERC leadership should consider issuing additional guidance to both applicants and FERC environmental project management staff regarding ways to improve the efficiency and effectiveness of the draft ER review process.

4. FERC leadership should develop guidance for eliminating the second round of draft ER review, if warranted.

## 4.3 Project Costs and Contracts

The perception exists that the pre-filing process is more expensive than the traditional filing method. Data trends derived from actual project costs supports this notion, although the data sets were not statistically significant possibly due to the inability to collect accurate cost values from all applicants. As a result of the

apparent trends, however, it is recommended that both the FERC leadership and pipeline company applicants carefully consider the benefits of the pre-filing process relative to effects on project costs, understanding that the benefits of pre-filing might not be worth the additional cost for some projects. Refer to Section, 4.1, Choice of Filing Method, for a list of next steps

The survey data, which show that the traditional filing method participants may utilize process milestones as cues for materials ordering more so than the pre-filing process participants, may indicate the need for additional education of all parties on the various filing process schedule milestones and the expectations of all parties. Again, refer to Section 4.1, Choice of Filing Method, and Section 4.2, Project Schedules, for a list of recommendations and next steps to address this issue.

## 4.4 Filing Process Predictability

Survey respondents noted that project location was the primary influence with regard to the predictability of the traditional filing process, followed by influences from the FERC environmental project manager. For the pre-filing process, "other" factors were the main influence on predictability, including issues raised by other stakeholders during the pre-filing process. As with the traditional filing process, the second-rated factor was the influence of the FERC environmental manager.

1. All parties (i.e., applicant, FERC staff, cooperating agencies) should make efforts to increase the predictability of both filing processes by communicating and committing to their expectations clearly.

2. All parties (i.e., applicant, FERC staff, cooperating agencies) should increase the frequency and effectiveness of project communication (e.g., weekly conference calls).

3. Applicants should strive to reduce applicant or customer-driven scope changes after filing.

4. FERC leadership should consider relaxing the current *ex parte* internal guidance to adhere to but not exceed the letter of the Administrative Procedures Act. [33]

5. FERC staff should more assertively manage and foster communication and participation by other regulatory agencies (specifically federal agencies and state agencies with federal authorities) in both filing processes.

6. FERC leadership and applicants should consider ways to improve predictability of the processes taking into account the influence of project location. Reducing the influence of project location may require better training of applicants and FERC managers, using FERC staff with location-specific

[33] APA of 1946 (5 USC Subchapter II § 511-599). FERC's *ex parte* rules are consistent with the requirements of APA and have withstood several challenges, although they may be considered more stringent than required by the APA (Pierce, Richard J., Jr. 2006. FERC *ex parte* regulations and practices. www.ferc.gov/news/headlines/ 2006/2006-4/11-27-06.pdf.). FERC has gone beyond the requirements of the APA, because the APA bans *ex parte* communications in formal adjudications and formal rulemakings, but FERC's proceedings are considered "informal" for purposes of the law. In fact, case law and the courts often have suggested that *ex parte* communications are essential for the efficient discharge of permitting agency responsibilities to the public. It is interesting to note that for the most part, the many other federal agencies that complete NEPA requirements and issue a certificate, permit, or license of some sort on pipeline and other projects still have open communication with applicants after a filing is made. Elimination of *ex parte* requirements would require that the FERC change its rules with regard to *ex parte* communication, which is possible and under FERC's control, but unlikely, given the almost certain public pressure that would come to bear against such a change. Industry efforts to effect such a change certainly would require considerable effort and would be a long process with an uncertain outcome, even then.

experience, limiting local permitting challenges, and/or accounting for eco-regional differences in managing construction.

Next Steps for Implementation:

1. FERC leadership should consider holding additional external workshops, trainings, and/or round tables (non-project-specific) for pipeline company applicants, cooperating agencies, and other stakeholders to discuss expectations of each party regarding schedules, milestones, and deliverables.

2. FERC leadership should develop and deliver internal guidance to FERC environmental managers to encourage more consistent project management styles, expectations, and decisions. This guidance should include the continued use of the same FERC manager for the pre- and post-filing phases of projects. Leadership might consider assigning consistent.

3. FERC leadership should assign FERC environmental project managers to specific regions to enhance their familiarity with regional management practices and permitting requirements.

4. FERC leadership should review opportunities for improvement in the current internal application of *ex parte* rules. If a change is warranted and additional revised guidance is issued, internal and external training should be provided.

5. For pre-filed projects, all parties (i.e., applicant, FERC staff, cooperating agencies) should hold project-specific kick-off meetings to discuss expectations of each party regarding not only schedule, but also milestones, party roles, and promised deliverables.

6. For pre-filed projects, all parties (i.e., applicant, FERC staff, cooperating agencies) should hold project-specific weekly conference calls during the pre-filing phase to take advantage of the open and effective dialogue permitted before the *ex parte* rules become applicable (after the filing).

7. For traditionally filed projects and pre-filed projects, the applicant and FERC staff should work together to determine a successful, project-specific venue to encourage “team permitting” among federal, state, and local permit regulators. This venue will supply FERC staff the platform needed to provide the necessary leadership to engage and manage regulatory participation and cooperation and will include appropriate, timely, and regularly scheduled calls or meetings to ensure progress.

## 4.5 Filing Process Preference

The majority of the survey respondents with experience with both filing processes indicated that their filing process preference would be influenced by project-specific characteristics. This finding further supports the recommendations and next steps intended to keep the filing method options truly open to the applicants. Keeping the options open will allow applicants to determine the filing process (based on various factors) that will best ensure a successful and efficient Section 7 filing.

# Appendix A

# Selected Representative Data for the Projects Chosen for Analysis

**Selected Representative Data for the Projects Chosen for Analysis**

| Project Number | Filing Process | Project Type | Year CP Application Filed | Type of NEPA Document | Months from CP Filing to Certificate |
|---|---|---|---|---|---|
| 1 | Traditional | LNG | 2001 | EA | 8.5 |
| 2 | Traditional | LNG | 2001 | EA | 12.0 |
| 3 | Traditional | LNG | 2003 | EIS | 14.7 |
| 4 | Traditional | LNG | 2003 | EIS | 15.7 |
| 5 | Traditional | LNG | 2003 | EIS | 12.0 |
| 6 | Traditional | Pipeline | 2000 | EA | 24.5 |
| 7 | Traditional | Pipeline | 2001 | EA | 9.5 |
| 8 | Traditional | Pipeline | 2001 | EA | 13.0 |
| 9 | Traditional | Pipeline | 2001 | EA | 13.0 |
| 10 | Traditional | Pipeline | 2001 | EA | 9.0 |
| 11 | Traditional | Pipeline | 2002 | EA | 8.0 |
| 12 | Traditional | Pipeline | 2003 | EA | 6.0 |
| 13 | Traditional | Pipeline | 2005 | EA | 12.0 |
| 14 | Traditional | Pipeline | 2006 | EA | 1.5 |
| 15 | Traditional | Pipeline | 2000 | EIS | 14.4 |
| 16 | Traditional | Pipeline | 2001 | EIS | 17.0 |
| 17 | Traditional | Pipeline | 2001 | EIS | 22.0 |
| 18 | Traditional | Pipeline | 2001 | EIS | 16.0 |
| 19 | Traditional | Pipeline | 2001 | EIS | 18.0 |
| 20 | Pre-Filing | LNG | 2004 | EIS | 11.0 |
| 21 | Pre-Filing | LNG | 2004 | EIS | 21.0 |
| 22 | Pre-Filing | LNG | 2004 | EIS | 10.7 |
| 23 | Pre-Filing | LNG | 2005 | EIS | 15.5 |
| 24 | Pre-Filing | LNG | 2005 | EIS | 12.8 |
| 25 | Pre-Filing | Pipeline | 2004 | EA | 4.0 |
| 26 | Pre-Filing | Pipeline | 2005 | EA | 6.8 |
| 27 | Pre-Filing | Pipeline | 2005 | EA | 5.0 |
| 28 | Pre-Filing | Pipeline | 2005 | EA | 9.1 |
| 29 | Pre-Filing | Pipeline | 2005 | EA | 5.2 |
| 30 | Pre-Filing | Pipeline | 2005 | EIA | 14.0 |
| 31 | Pre-Filing | Pipeline | 2002 | EIS | 9.3 |
| 32 | Pre-Filing | Pipeline | 2003 | EIS | 10.0 |
| 33 | Pre-Filing | Pipeline | 2004 | EIS | 10.7 |
| 34 | Pre-Filing | Pipeline | 2004 | EIS | 9.0 |
| 35 | Pre-Filing | Pipeline | 2004 | EIS | 10.0 |
| 36 | Pre-Filing | Pipeline | 2005 | EIS | 8.0 |
| 37 | Pre-Filing | Pipeline | 2005 | EIS | 11.5 |
| 38 | Pre-Filing | Pipeline | 2005 | EIS | 8.3 |

# Appendix B

# Detailed Study Methodology

# Study Methodology

## 1.0 Study Design

The study design used both existing data from the FERC e-library database[1] and survey interviews with pipeline industry representatives, regulatory agencies, and other stakeholders. **Figure B-1** illustrates a flowchart of the factual and experiential data collected by an impartial interviewer, and analyzed by an independent statistician, which yielded the study results. All NGA Section 7 applications submitted to the FERC between 2001 and 2006 were initially considered for the study. This data set was then narrowed according to certain criteria leaving the projects used for this study.[2] These criteria ensured that a range of project parameters (e.g., size, duration of project, and financial obligation) was represented in the sample.

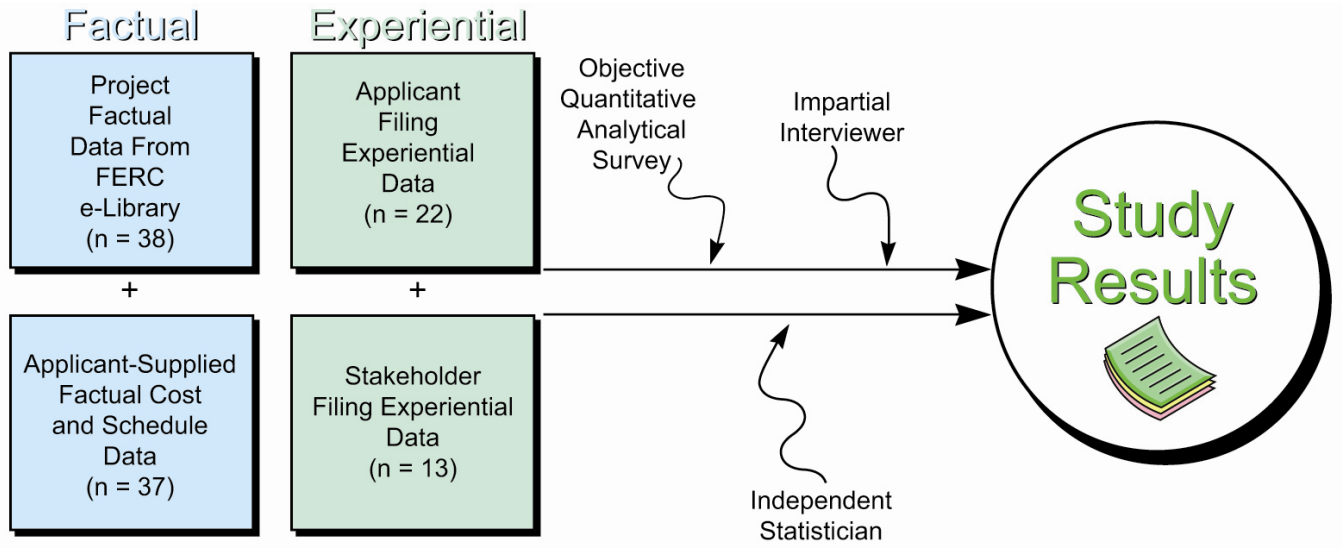



**Figure B-1 Methodology Flow Chart**

Project data were compiled from the FERC database for 38 projects. Both pipeline projects and LNG projects were represented equally. Existing FERC data were compiled to provide historical project information including project scope, type of project, and schedule milestone dates. These factual data were used to develop a baseline for conducting a comparative analysis between FERC pre-filing and traditional filing processes. **Appendix A** lists information from the data set in masked form.[3]

---

[1] FERC e-library database www.ferc.gov/docs-filing/elibrary.asp.

[2] Forty projects were initially chosen for the study; half represented pre-filing projects and half represented traditional filing projects. Thirty pipeline projects met the following criteria: initiated after January 1, 2001; certificated by June 30, 2006; were linear in nature; at least 25 miles in length; and were not offshore, subsea, or storage only projects. Ten LNG projects met the following criteria: initiated after January 1, 2001; certificated by June 30, 2006; and were initial LNG terminal permitting only (no upgrades or additions).

[3] Identifying information has been removed in this presentation in order to provide anonymity and confidentiality to those surveyed.

In addition to the data available from the FERC e-library, surveys were conducted to collect additional factual data as well as opinions related to specific projects (i.e., those chosen for analysis) and to general filing experience. Approximately 22 applicant environmental project managers were interviewed based on the project managing responsibility with the selected project. Some applicant project managers had worked on several projects chosen for analysis. Their project specific data were taken for each of the projects, but their perception data regarding improvements that could be made and their other subjective input were entered into the database only once for analysis.

**Appendices C** and **D** includes the Survey given to the Applicant study pool whose responsibility was to manage projects that underwent the pre-filing and traditional filing processes, respectively. Other stakeholders (non-FERC, regulatory staff) were surveyed as well. This included a smaller but relevant pool of participants related to the projects chosen for analysis. **Appendix E** includes the survey given to the other stakeholders.

An independent statistician was hired to review the survey questions to elicit the objective and subjective information in a way that would allow for valid statistical analysis. The survey goal was to provide valid comparisons among the survey groups (i.e., industry representatives and other stakeholders who participated in the traditional filing process versus the pre-filing process).

Not all Applicant project managers that were chosen for the study were able to participate. Reasons given for not participating included not having enough time to find the answers to the questions, not having permission from their legal departments to answer questions, and lack of availability due to retirement or other career changes.

# 2.0 Survey Data Collection

All communication with study participants was done by an impartial interviewer unfamiliar and therefore, unbiased regarding the pipeline permitting process. At the outset, study participants were contacted by ENSR via email to introduce the study and request their willingness and availability to participate in the study. After agreeing to participate in the study, the survey form was emailed for their input. If it was more convenient for the study participant, the surveys were completed over the telephone.

Applicant project managers were contacted first. Stakeholders that worked on the selected projects were contacted in the second round of surveys. FERC regulatory staff would have been interviewed during the third round, but the FERC project managers were not available to participate in the study.

In addition to the opinion-based experiential questions, objective data were collected to compare cost and benefits between FERC's pre-filing and the traditional filing processes. Typical data collected from project applicants included:

- Project cost information;
- Project schedule information and expectations;
- Timeframes of the draft resource report review process (for pre-filing) and overall filing process; and
- Project milestones required before ordering materials and meeting contract obligations.

The respondents also were asked a few open-ended questions, including suggestions for process improvement.

## 3.0 Data Entry and Validation

The responses from the survey were compiled and entered into a database, with individual project manager and project names replaced by numbers to ensure anonymity and confidentiality. All project-identifying information also was removed from the responses. The data underwent quality review by an additional impartial third party to ensure accurate entry before they were sent to the statistician for analysis.

## 4.0 Data Analysis

Data analysis was performed using Statistical Program for Social Sciences (SPSS), software commonly used for survey analysis. Statistical measures used included frequencies, counts, averages, and cross-tabs. Cross-tabs allow determination of correlation coefficients, usually expressed as Pearson Correlation Coefficients. Anything with a p-value of $p<.05$ was considered significant, unless it was predetermined more certainty was needed in conclusions, in which case a $p<.02$ or even $p<.01$ was used. Due to the low number of participants for this study, $p<.05$ was used.

Although many efforts were made to collect a sufficient, similar project data pool for quantitative comparison, survey responses were lower than ideal for some questions. As is the case for many studies, not all findings were significant. In these cases, we endeavored to present the trends in data if present. The significant results and the trends lend learning opportunities.

## 5.0 Study Management

Prior to beginning the study, representatives from INGAA, FERC, pipeline construction companies, and ENSR Corporation met to formulate and approve study objectives. The study was designed and conducted by ENSR Corporation under the direction of a Steering Committee made up of INGAA Foundation representatives. Likewise, the Steering Committee collaborated with ENSR to analyze study results, develop study recommendations and next steps, and finalize the study report.

# Appendix C

# Survey Given to the Applicant Study Pool that Used the Pre-filing Process

***INGAA STUDY SURVEY APPLICANT SURVEY QUESTIONS FOR APPLICANTS WHO USED THE PRE-FILING PROCESS***

Project Name/Docket No.:_____

1. Was a cooperating agency or other significant stakeholder involved?

   ☐ No

   ☐ Yes Agency _____
   Name _____
   Phone Number _____
   Email address_____

2. What was your construction start date?_____

3. Who was primarily responsible for the majority of the Applicant's regulatory work (i.e. Filing preparation and data responses)?

   ☐ Internal employees with multiple prior experiences

   ☐ Internal employees with few or no prior experiences

   ☐ External consultants specializing in FERC Certificate preparation

   ☐ Other external resources (explain briefly)

4. Were you required by regulatory rule to file using the Pre-Filing Process?

   ☐ Yes *(Skip to #7)*

   ☐ No

   ☐ Don't know (explain briefly)

5. If you were not required by rule to use the Pre-Filing Process, were you asked by FERC staff to consider using one Process over the other?

   ☐ Yes

   ☐ No *(Skip to #7)*

   ☐ Don't know *(Skip to #7)*

6. Did you feel obligated to follow FERC staff's suggestion to follow one Process over the other?

   ☐ Yes

   ☐ No

   ☐ Don't know (explain briefly)

**Questions Related to Schedule for the Project Named Above**

7. Was the Certificate issued within the originally intended project schedule?

   ☐ Yes *(Skip to #10)*
   ☐ No
   ☐ Don't know *(Skip to #10)*

8. Was construction start-up delayed from the original project schedule as a result of the delayed FERC Certificate issuance date?

   ☐ Yes
   ☐ No *(Skip to #10)*
   ☐ Don't know *(Skip to #10)*

9. How much did the delay in issuing the Certificate delay the original construction start-up date?

   ☐ <2 weeks
   ☐ 2 weeks to 1 month
   ☐ 1 month to 3 months
   ☐ 3 months to 6 months
   ☐ 6 months to 12 months
   ☐ 12 months to 18 months
   ☐ >18 months

10. Was construction start-up delayed from the original project schedule as a result of factors other than the issuance date of the FERC Certificate?

    ☐ Yes
    ☐ No *(Skip to #13)*
    ☐ Don't know *(Skip to #13)*

11. The construction delay was related to (indicate all that apply):

    ☐ Other Federal Permits
    ☐ State Permits
    ☐ Local Permits
    ☐ Tribal Negotiations
    ☐ Changes by the Applicant
    ☐ Other_____(specify)

12. How much did the delay by factors other than the issuance of the Certificate delay the original construction start-up date?

- ☐ <2 weeks
- ☐ 2 weeks to 1 month
- ☐ 1 month to 3 months
- ☐ 3 months to 6 months
- ☐ 6 months to 12 months
- ☐ 12 months to 18 months
- ☐ >18 months

13. Within the Pre-Filing Process, was the review of the Draft Resource Reports conducted within the originally intended time frame?

- ☐ Yes
- ☐ No
- ☐ Don't know (explain briefly)

14. Did the Draft Resource Report review process result in overall project schedule delays?

- ☐ Yes
- ☐ No
- ☐ Don't know (explain briefly)

15. Within the Pre-Filing process, was the review of the "Final Filed Resource Reports" conducted within the originally intended time frame?

- ☐ Yes
- ☐ No
- ☐ Don't know (explain briefly)

16. Did the Final Filed Resource Reports review process result in overall project schedule delays?

- ☐ Yes
- ☐ No
- ☐ Don't know (explain briefly)

17. Were there data requests from FERC after Filing?

- ☐ Yes
- ☐ No
- ☐ Don't know (explain briefly)

18. Did additional environmental information requests by FERC beyond minimum Filing requirements (either before or after Filing) result in overall project schedule delays?

☐ Yes

☐ No *(Skip to #23)*

☐ Don't know *(Skip to #23)*

19. If additional requests for environmental information beyond minimum Filing requirements caused project delays, would you consider those requests to be "ordinary" (significant request, but seen on previous or other projects) or "extraordinary" (new, significant, and not seen on previous or other projects)?

☐ Ordinary *(Skip to #22)*

☐ Extraordinary

20. If additional requests were "extraordinary," was the Applicant's response time responsible for the project schedule delay?

☐ Yes

☐ No

☐ Don't know (explain briefly)

21. What was the Applicant's response time to the "extraordinary" requests?

☐ 1 day, or less

☐ 2 days to 1 week

☐ 1 week to 2 weeks

☐ 2 weeks to 1 month

☐ 1 month to 2 months

☐ 2 months to 3 months

☐ >3 months

22. Did additional issues (non-environmental) raised outside of the original scope of the environmental review process result in project schedule delays?

☐ Yes

☐ No

☐ Don't know (explain briefly)

23. Were there major changes to the project scope after Filing during FERC's Pre-Filing Process (anything that added complexity to the project, such as a longer pipeline, addition of a compressor station, addition of another leg to go to a late customer, or any other change that would significantly change [increase, mostly] the cost, footprint, and/or impact of the project)?

☐ Yes

☐ No *(Skip to #25)*

☐ Don't know *(Skip to #25)*

24. Following the Pre-Filing Process, did changes to the project scope after Filing result in project schedule delays?

☐ Yes

☐ No

☐ Don't know

**Questions Related to Costs for the Project Named Above**

25. What was the overall cost of the project (from project inception through in-service, including materials, environmental costs, construction costs, etc.)?

☐ $0 - $10M

☐ $10M - $50M

☐ $50M - $100M

☐ >$100M

26. What were the construction costs of the project (including materials and environmental costs during construction)?

☐ $0 - $10M

☐ $10M - $50M

☐ $50M - $100M

☐ >$100M

27. What were the total pre-construction environmental costs of the project?

☐ $0 -$100K

☐ $100K - $500K

☐ $500K - $1M

☐ $1M - $5M

☐ >$5M

Note: Response to #26 plus response to #27 must be less than response to #25.

28. What were the pre-construction environmental costs of the project before the FERC filing?

- ☐ $0 -$100K
- ☐ $100K - $500K
- ☐ $500K - $1M
- ☐ $1M - $5M
- ☐ >$5M

29. What were the pre-construction environmental costs of the project after the FERC filing?

- ☐ $0 - $50K
- ☐ $50K - $100K
- ☐ $100K - $500K
- ☐ $500K - $1M
- ☐ $1M - $5M
- ☐ >$5M

Note: Response to #28 plus response to #29 must equal response to #27.

30. If there were project schedule delays, what were the costs associated with these delays?

- ☐ $0 -$100K
- ☐ $100K - $500K
- ☐ $500K - $1M
- ☐ $1M - $5M
- ☐ >$5M

31. If there were schedule delays, and they resulted in additional cost, what percentage of the cost increase was attributable to additional environmental requests by FERC?

- ☐ 0%
- ☐ 1 – 5%
- ☐ 6 – 10%
- ☐ 11 – 15%
- ☐ 16 – 20%
- ☐ >20%

32. Was ordering of construction materials linked to a certain milestone in the FERC process?

☐ Yes
☐ No *(Skip to #34)*
☐ Don't know *(Skip to #34)*

33. At what point in the process did ordering of construction materials occur (select most specific answer)?

☐ Before the Pre-Filing Request
☐ After the Pre-Filing Request and before Filing
☐ After Filing and before Certificate
☐ After Certificate
☐ Other _____(specify)

34. Was right-of-way acquisition linked to a certain milestone in the FERC process?

☐ Yes
☐ No *(Skip to #36)*
☐ Don't know *(Skip to #36)*

35. At what point in the process did right-of-way acquisition occur (select most specific answer)?

☐ Before the Pre-Filing Request
☐ After the Pre-Filing Request and before Filing
☐ After Filing and before Certificate
☐ After Certificate
☐ Other _____(specify)

36. Was commitment of the project to construction contractors linked to a certain milestone in the FERC process?

☐ Yes
☐ No *(Skip to #38)*
☐ Don't know *(Skip to #38)*

37. At what point in the process did commitment of the project to construction contractors occur (select most specific answer)?

- ☐ Before the Pre-Filing Request
- ☐ After the Pre-Filing Request and before Filing
- ☐ After Filing and before Certificate
- ☐ After Certificate
- ☐ Other _____(specify)

38. When was or were open season(s) conducted for the project?

- ☐ 1) Before Pre-Filing Request
- ☐ 2) After Pre-Filing Request, but before FERC Filing
- ☐ 3) After FERC Filing
- ☐ 1) and 2)
- ☐ 1) and 3)
- ☐ 2) and 3)
- ☐ 1), 2), and 3)

39. When was or were commercial (market) contracts signed for the project?

- ☐ 1) Before Pre-Filing Request
- ☐ 2) After Pre-Filing Request, but before FERC Filing
- ☐ 3) After FERC Filing
- ☐ 1) and 2)
- ☐ 1) and 3)
- ☐ 2) and 3)
- ☐ 1), 2), and 3)

40. Did the project have a "foundation" or "anchor" shipper?

- ☐ Yes
- ☐ No
- ☐ Don't know

41. Were commercial (market) contracts linked in some way to FERC review milestones?

- ☐ Yes
- ☐ No *(Skip to #43)*
- ☐ Don't know *(Skip to #43)*

42. To which FERC review milestones were commercial (market) contracts linked?

☐ FERC Acceptance of the Pre-Filing Request and designation of a PF docket number

☐ FERC Filing

☐ FERC Acceptance of the Application and designation of a CP docket number

☐ Publication of the EA or EIS

☐ Certificate Issuance

☐ Other _____

**Questions NOT Related to the Project Named Above**

43. Have you had experience with projects that have utilized the Traditional Filing Process AND projects that have utilized the Pre-Filing Process?

☐ Yes

☐ No *(Skip to #52)*

☐ Don't know *(Skip to #52)*

44. For projects of similar type, size, geographic area, etc., which process has been more expensive?

☐ Traditional Filing Process

☐ Pre-Filing Process

☐ No difference

45. For projects of similar type, size, geographic area, etc., which process has taken the most time to complete from Filing to Certification (in terms of calendar days)?

☐ Traditional Filing Process

☐ Pre-Filing Process

☐ No difference

46. For projects of similar type, size, geographic area, etc., which process has been more efficient?

☐ Traditional Filing Process

☐ Pre-Filing Process

☐ No difference

47. For projects of similar type, size, geographic area, etc., which process had the most total data requests and/or comments (requiring additions/revisions) for the Resource Reports (including both before and after Filing)?

- ☐ Traditional Filing Process
- ☐ Pre-Filing Process
- ☐ No difference

48. For projects of similar type, size, geographic area, etc., which process had the most data requests after Filing?

- ☐ Traditional Filing Process
- ☐ Pre-Filing Process
- ☐ No difference

49. For projects of similar type, size, geographic area, etc., which process had the most stakeholders involved?

- ☐ Traditional Filing Process
- ☐ Pre-Filing Process
- ☐ No difference

50. On a scale of 1 to 7, with 1 being "Never Predictable", and 7 being "Always Predictable", how predictable would you say the Traditional Filing Process is with regard to impacts on schedule? (1 = Never Predictable; 7 = Always Predictable)

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7

51. In your experience, what factor influences Traditional Filing Process predictability the most for projects with similar scopes?

- ☐ Applicant-side factors (i.e. business development, engineering, etc.)
- ☐ Project location
- ☐ FERC project manager
- ☐ Other factors (explain briefly)

52. On a scale of 1 to 7, with 1 being "Never Predictable", and 7 being "Always Predictable", how predictable would you say the Pre-Filing Process is with regard to impacts on schedule? (1 = Never Predictable; 7 = Always Predictable)

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7

53. In your experience, what factor influences Pre-Filing Process predictability the most for projects with similar scopes?

- ☐ Applicant-side factors (business development, engineering, etc.)
- ☐ Project location
- ☐ FERC project manager
- ☐ Other factors (explain briefly)

54. If given the choice, what would be your preference for your next project (barring any regulatory rules or mandates)?

- ☐ Traditional Filing Process
- ☐ Pre-Filing Process
- ☐ Depends on project characteristics
- ☐ No opinion

55. How much variability have you experienced from project to project in the way different FERC project managers manage the projects? (1 = No Differences; 5 = Extreme Variability)

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ Not Applicable (experience limited to one project)

56. How much variability have you experienced in the way the same FERC project manager manages different projects? (1 = No Differences; 5 = Extreme Variability)

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ Not Applicable (experience limited to one project)

57. How could the Traditional Filing Process be improved?

58. How could the Pre-Filing Process be improved?

59. Do you have any other comments you would like considered as part of this survey?

# Appendix D

# Survey Given to the Applicant Study Pool that Used the Traditional Filing Process

***INGAA STUDY SURVEY QUESTIONS FOR APPLICANTS WHO USED THE TRADITIONAL FILING PROCESS***

Project Name/Docket No.:_____

1. Was a cooperating agency or other significant stakeholder involved?

   ☐ No

   ☐ Yes Agency _____
   Name_____
   Phone Number _____
   Email address_____

2. What was your construction start date?_____

3. Who was primarily responsible for the majority of the Applicant's regulatory work (i.e. Filing preparation and data responses)?

   ☐ Internal employees with multiple prior experiences

   ☐ Internal employees with few or no prior experiences

   ☐ External consultants specializing in FERC Certificate preparation

   ☐ Other external resources (explain briefly)

4. Were you required by regulatory rule to file using the Pre-Filing Process?

   ☐ Yes *(Skip to #7)*

   ☐ No

   ☐ Don't know

5. If you were not required by rule to use the Pre-Filing Process, were you asked by FERC staff to consider using one Process over the other?

   ☐ Yes

   ☐ No *(Skip to #7)*

   ☐ Don't know *(Skip to #7)*

6. Did you feel obligated to follow FERC staff's suggestion to follow one Process over the other?

   ☐ Yes

   ☐ No

   ☐ Don't know (explain briefly)

**Questions Related to Schedule for Project Named Above**

7. Was the Certificate issued within the originally intended project schedule?

   ☐ Yes *(Skip to #10)*

   ☐ No

   ☐ Don't know *(Skip to #10)*

8. Was construction start-up delayed from the original project schedule as a result of the delayed FERC Certificate issuance date?

   ☐ Yes

   ☐ No *(Skip to #10)*

   ☐ Don't know *(Skip to #10)*

9. How much did the delay in issuing the Certificate delay the original construction start-up date?

   ☐ <2 weeks

   ☐ 2 weeks to 1 month

   ☐ 1 month to 3 months

   ☐ 3 months to 6 months

   ☐ 6 months to 12 months

   ☐ 12 months to 18 months

   ☐ >18 months

10. Was construction start-up delayed from the original project schedule as a result of factors other than the issuance date of the FERC Certificate?

    ☐ Yes

    ☐ No *(Skip to #13)*

    ☐ Don't know *(Skip to #13)*

11. The construction delay was related to (indicate all that apply):

    ☐ Other Federal Permits

    ☐ State Permits

    ☐ Local Permits

    ☐ Tribal Negotiations

    ☐ Changes by the Applicant

    ☐ Other_____(specify)

12. How much did the delay by factors other than the issuance of the Certificate delay the original construction start-up date?

- ☐ <2 weeks
- ☐ 2 weeks to 1 month
- ☐ 1 month to 3 months
- ☐ 3 months to 6 months
- ☐ 6 months to 12 months
- ☐ 12 months to 18 months
- ☐ >18 months

13. Within the Traditional Filing Process, was the review of the Final Filed Resource Reports conducted within the originally intended time frame?

- ☐ Yes *(Skip to #18)*
- ☐ No
- ☐ Don't know *(Skip to #18)*

14. Did the Resource Report review process result in overall project schedule delays?

- ☐ Yes
- ☐ No
- ☐ Don't know

15. Were there data requests from FERC after Filing?

- ☐ Yes
- ☐ No *(Skip to #21)*
- ☐ Don't know *(Skip to #21)*

16. During FERC's Traditional Filing Process, did additional environmental information requests by FERC <u>beyond minimum Filing requirements</u> result in overall project schedule delays?

- ☐ Yes
- ☐ No *(Skip to #21)*
- ☐ Don't know *(Skip to #21)*

17. If additional requests for environmental information beyond minimum Filing requirements caused project delays, would you consider those requests to be "ordinary" (significant request, but seen on previous or other projects) or "extraordinary" (new, significant, and not seen on previous or other projects)?

- ☐ Ordinary *(Skip to #20)*
- ☐ Extraordinary

18. If additional requests were "extraordinary," was the Applicant's response time responsible for the project schedule delay?

- ☐ Yes
- ☐ No
- ☐ Don't know (explain briefly)

19. What was the Applicant's response time to the "extraordinary" requests?

- ☐ 1 day, or less
- ☐ 2 days to 1 week
- ☐ 1 week to 2 weeks
- ☐ 2 weeks to 1 month
- ☐ 1 month to 2 months
- ☐ 2 months to 3 months
- ☐ >3 months

20. Did additional issues (non-environmental) raised outside of the original scope of the environmental review process result in project schedule delays?

- ☐ Yes
- ☐ No
- ☐ Don't know (explain briefly)

21. Were there major changes to the project scope after Filing during FERC's Traditional Filing Process (anything that added complexity to the project, such as a longer pipeline, addition of a compressor station, addition of another leg to go to a late customer, or any other change that would significantly change [increase, mostly] the cost, footprint, and/or impact of the project)?

- ☐ Yes
- ☐ No *(Skip to #23)*
- ☐ Don't know *(Skip to #23)*

22. Did changes to the project scope during FERC's Traditional Filing Process (i.e. after filing) result in project schedule delays?

☐ Yes

☐ No

☐ Don't know (explain briefly)

**Questions Related to Costs for Project Named Above**

23. What was the overall cost of the project through in-service (including materials)?

☐ $0 - $10M

☐ $10M - $50M

☐ $50M - $100M

☐ >$100M

24. What were the construction costs of the project (from project inception through in-service, including materials, environmental, construction costs, etc.)?

☐ $0 - $10M

☐ $10M - $50M

☐ $50M - $100M

☐ >$100M

25. What were the total pre-construction environmental costs of the project (including materials and environmental during construction)?

☐ $0 -$100K

☐ $100K - $500K

☐ $500K - $1M

☐ $1M - $5M

☐ >$5M

Note: Response to #24 plus response to #25 must be less than response to #23.

26. What were the pre-construction environmental costs of the project before the FERC Filing?

☐ $0 -$100K

☐ $100K - $500K

☐ $500K - $1M

☐ $1M - $5M

☐ >$5M

27. What were the pre-construction environmental costs of the project after the FERC Filing?

- ☐ $0 - $50K
- ☐ $50K - $100K
- ☐ $100K - $500K
- ☐ $500K - $1M
- ☐ $1M - $5M
- ☐ >$5M

Note: Response to #26 plus response to #27 must equal response to #25.

28. If there were project schedule delays, what were the costs associated with these delays?

- ☐ $0 -$100K
- ☐ $100K - $500K
- ☐ $500K - $1M
- ☐ $1M - $5M
- ☐ >$5M

29. If there were schedule delays, and they resulted in additional cost, what percentage of the cost increase was attributable to additional environmental requests by FERC?

- ☐ 0%
- ☐ 1 – 5%
- ☐ 6 – 10%
- ☐ 11 – 15%
- ☐ 16 – 20%
- ☐ >20%

30. Was ordering of construction materials linked to a certain milestone in the FERC process?

- ☐ Yes
- ☐ No *(Skip to #32)*
- ☐ Don't know *(Skip to #32)*

31. At what point in the process did ordering of construction materials occur (select most specific answer)?

- ☐ Before Filing
- ☐ After Filing and before issuance of Pre-Determination
- ☐ After Issuance of Pre-Determination and before Certificate
- ☐ After Certificate
- ☐ Other _____(specify)

32. Was right-of-way acquisition linked to a certain milestone in the FERC process?

- ☐ Yes
- ☐ No *(Skip to #34)*
- ☐ Don't know *(Skip to #34)*

33. At what point in the process did right-of-way acquisition occur (select most specific answer)?

- ☐ Before Filing
- ☐ After Filing and before issuance of Pre-Determination
- ☐ After Issuance of Pre-Determination and before Certificate
- ☐ After Certificate
- ☐ Other _____(specify)

34. Was commitment of the project to construction contractors linked to a certain milestone in the FERC process?

- ☐ Yes
- ☐ No *(Skip to #36)*
- ☐ Don't know *(Skip to #36)*

35. At what point in the process did commitment of the project to construction contractors occur (select most specific answer)?

- ☐ Before Filing
- ☐ After Filing and before issuance of Pre-Determination
- ☐ After Issuance of Pre-Determination and before Certificate
- ☐ After Certificate
- ☐ Other _____(specify)

36. When was or were open season(s) conducted for the project?

- ☐ Before FERC Filing
- ☐ After FERC Filing
- ☐ Both

37. When was or were commercial (market) contracts signed for the project?

- ☐ Before FERC Filing
- ☐ After FERC Filing
- ☐ Both

38. Did the project have a "foundation" or "anchor" shipper?

- ☐ Yes
- ☐ No
- ☐ Don't know

39. Were commercial (market) contracts linked in some way to FERC review milestones?

- ☐ Yes
- ☐ No *(Skip to #41)*
- ☐ Don't know *(Skip to #41)*

40. To which FERC review milestones were the commercial (market) contracts linked?

- ☐ FERC Filing
- ☐ FERC Acceptance of the Application and designation of a docket number
- ☐ Preliminary Determination
- ☐ Publication of the EA or EIS
- ☐ Certificate Issuance
- ☐ Other _____

**Questions NOT Related to Project Named Above**

41. Have you had experience with projects that have utilized the Traditional Filing Process AND projects that have utilized the Pre-Filing Process?

☐ Yes

☐ No *(Skip to #50)*

☐ Don't know *(Skip to #50)*

42. For projects of similar type, size, geographic area, etc., which process has been more expensive?

☐ Traditional Filing Process

☐ Pre-Filing Process

☐ No difference

43. For projects of similar type, size, geographic area, etc., which process has taken the most time to complete from Filing to Certification (in terms of calendar days)?

☐ Traditional Filing Process

☐ Pre-Filing Process

☐ No difference

44. For projects of similar type, size, geographic area, etc., which process has been more efficient?

☐ Traditional Filing Process

☐ Pre-Filing Process

☐ No difference

45. For projects of similar type, size, geographic area, etc., which process had the most total data requests and/or comments (requiring additions/revisions) for the Resource Reports (including both before and after Filing)?

☐ Traditional Filing Process

☐ Pre-Filing Process

☐ No difference

46. For projects of similar type, size, geographic area, etc., which process had the most data requests after Filing?

☐ Traditional Filing Process

☐ Pre-Filing Process

☐ No difference

47. For projects of similar type, size, geographic area, etc., which process had the most stakeholders involved?

- ☐ Traditional Filing Process
- ☐ Pre-Filing Process
- ☐ No difference

48. On a scale of 1 to 7, with 1 being "Never Predictable", and 7 being "Always Predictable", how predictable would you say the Pre-Filing Process is with regard to impacts on schedule? (1 = Never Predictable; 7 = Always Predictable)

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7

49. In your experience, what factor influences Pre-Filing Process predictability the most for projects with similar scopes?

- ☐ Applicant-side factors (i.e. business development, engineering, etc.)
- ☐ Project location
- ☐ FERC project manager
- ☐ Other factors (specify briefly)

50. On a scale of 1 to 7, with 1 being "Never Predictable", and 7 being "Always Predictable", how predictable would you say the Traditional Filing Process is with regard to impacts on schedule? (1 = Never Predictable; 7 = Always Predictable)

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7

51. In your experience, what factor influences Traditional Filing Process predictability the most for projects with similar scopes?

- ☐ Applicant-side factors (business development, engineering, etc.)
- ☐ Project location
- ☐ FERC project manager
- ☐ Other factors (specify briefly)

52. If given the choice, what would be your preference for your next project (barring any regulatory rules or mandates)?

- ☐ Traditional Filing Process
- ☐ Pre-Filing Process
- ☐ Depends on project characteristics
- ☐ No opinion

53. How much variability have you experienced from project to project in the way different FERC project managers manage the projects? (1 = No Differences; 5 = Extreme Variability)

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ Not Applicable (experience limited to one project)

54. How much variability have you experienced in the way the same FERC project manager manages different projects? (1 = No Differences; 5 = Extreme Variability)

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ Not Applicable (experience limited to one project)

55. How could the Pre-Filing Process be improved?

56. How could the Traditional Filing Process be improved?

57. Do you have any other comments you would like considered as part of this survey?

# Appendix E

# Survey Given to the Other Stakeholders/Cooperating Agencies

## *INGAA STUDY SURVEY QUESTIONS FOR REGULATORY AGENCY STAFF*

Project Name/Docket No.:_____
Pre-Filing Process_____ Traditional Filing Process_____

1. What was your role in the above project? _____

2. Did you cooperate in the NEPA document preparation?_____

3. What date did you become involved in the Project named above?_____

4. Were you aware of the Applicant schedule?
   - ☐ Yes
   - ☐ No *(Skip to #6)*
   - ☐ Don't know *(Skip to #6)*

5. Did the Applicant have a reasonable schedule?
   - ☐ Yes
   - ☐ No
   - ☐ Don't know

6. Did FERC give you a review time schedule?
   - ☐ Yes
   - ☐ No *(Skip to #8)*
   - ☐ Don't know *(Skip to #8)*

7. Was the FERC review schedule reasonable?
   - ☐ Yes
   - ☐ No
   - ☐ Don't know

8. Was construction start-up delayed from the original Applicant project schedule as a result of factors other than the issuance date of the FERC certificate?
   - ☐ Yes
   - ☐ No *(Skip to #11)*
   - ☐ Don't know *(Skip to #11)*

9. The construction delay was related to (indicate all that apply):

- ☐ Other Federal Permits
- ☐ State Permits
- ☐ Local Permits
- ☐ Tribal Negotiations
- ☐ Changes by the Applicant
- ☐ Other_____(specify)

10. How much did the delay by factors other than the issuance of the Certificate delay the Applicant's original construction start-up date?

- ☐ <2 weeks
- ☐ 2 weeks to 1 month
- ☐ 1 month to 3 months
- ☐ 3 months to 6 months
- ☐ 6 months to 12 months
- ☐ 12 months to 18 months
- ☐ >18 months
- ☐ Don't know

11. If you reviewed the Applicant's Filed Resource Reports, did you find it beneficial?

- ☐ Yes
- ☐ No
- ☐ Don't know

12. Were there data requests after Filing?

- ☐ Yes
- ☐ No *(Skip to #14)*
- ☐ Don't know *(Skip to #14)*

13. Did additional environmental information requests by FERC <u>beyond minimum Filing requirements</u> result in overall Applicant project schedule delays?

- ☐ Yes
- ☐ No
- ☐ Don't know

14. Was the preparation of the EA/EIS conducted within the Applicant's originally intended time frame?

☐ Yes *(Skip to #16)*

☐ No

15. Did the preparation of the EA/EIS result in overall Applicant project schedule delays?

☐ Yes

☐ No

16. Were there major changes to the project scope after Filing (anything that added complexity to the project, such as a longer pipeline, addition of a compressor station, addition of another leg to go to a late customer, or any other change that would significantly change [increase, mostly] the cost, footprint, and/or impact of the project)?

☐ Yes

☐ No *(Skip to #18)*

☐ Don't know *(Skip to #18)*

17. Did the changes to the project scope after Filing result in overall Applicant project schedule delays?

☐ Yes

☐ No

☐ Don't know (please specify)

18. Overall, were there any Applicant schedule delays related to FERC's Filing Process?

☐ Yes

☐ No

☐ Don't know

19. Have you had experience with projects that have utilized the Traditional Filing Process AND projects that have utilized the Pre-Filing Process?

☐ Yes

☐ No *(Skip to #25)*

☐ Don't know *(Skip to #25)*

20. For projects of similar type, size, geographic area, etc., which process has taken the most time to complete from Filing to Certification (in terms of calendar days)?

☐ Traditional Filing Process

☐ Pre-Filing Process

☐ No difference

21. For projects of similar type, size, geographic area, etc., which process has been more efficient?

☐ Traditional Filing Process

☐ Pre-Filing Process

☐ No difference

22. For projects of similar type, size, geographic area, etc., which process had the most total data requests and/or comments (requiring additions/revisions) issued by FERC for the Resource Reports (including both before and after Filing)?

☐ Traditional Filing Process

☐ Pre-Filing Process

☐ No difference

23. For projects of similar type, size, geographic area, etc., which process had the most data requests after Filing?

☐ Traditional Filing Process

☐ Pre-Filing Process

☐ No difference

24. For projects of similar type, size, geographic area, etc., which process had the most stakeholders involved?

☐ Traditional Filing Process

☐ Pre-Filing Process

☐ No Difference

25. On a scale of 1 to 7, with 1 being "Never Predictable", and 7 being "Always Predictable", how predictable would you say the Pre-Filing Process is with regard to impacts on Applicant's schedule? (1 = Never Predictable; 7 = Always Predictable)

☐ 1
☐ 2
☐ 3
☐ 4
☐ 5
☐ 6
☐ 7

26. In your experience, what factor influences Pre-Filing Process predictability the most for projects with similar scopes?

☐ Applicant-side factors (business development, engineering, etc.)
☐ Project location
☐ FERC Project Manager
☐ Other factors (please specify)

27. On a scale of 1 to 7, with 1 being "Never Predictable", and 7 being "Always Predictable", how predictable would you say the Traditional Filing Process is with regard to impacts on Applicant's schedule? (1 = Never Predictable; 7 = Always Predictable)

☐ 1
☐ 2
☐ 3
☐ 4
☐ 5
☐ 6
☐ 7

28. In your experience, what factor influences Traditional Process predictability the most for projects with similar scopes?

- ☐ Applicant-side factors (business development, engineering, etc.)
- ☐ Project location
- ☐ FERC Project Manager
- ☐ Other factors

29. If given the choice, what would be your preference for your next project (barring any regulatory rules or mandates)?

- ☐ Traditional Filing Process
- ☐ Pre-Filing Process
- ☐ Depends on project characteristics
- ☐ No opinion

30. How could the Traditional Filing Process be improved?

31. How could the Pre-Filing Process be improved?

32. Do you have any other comments you would like considered as part of this survey?

# Appendix F

# Technical Study Results

# Technical Study Results

# Table of Contents


**1.0 General Study Pool Information and Choice of Filing Method ..... F-1**

1.1 Pipeline Company Applicants Responding to Specifics for Traditionally Filed Projects ..... F-1

1.2 Pipeline Company Applicants Responding to Specifics for Pre-Filed Projects ..... F-3

1.3 Combined Study Pool of Applicants with Experience Utilizing Both Processes ..... F-3

1.4 Cooperating Agencies and Stakeholders ..... F-5

1.5 Comparisons and Discussion ..... F-5

**2.0 Questions Related to Project Schedules ..... F-6**

2.1 Pipeline Company Applicants Responding to Specifics for Traditionally Filed Projects ..... F-6

2.2 Pipeline Company Applicants Responding to Specifics for Pre-Filed Projects ..... F-7

2.3 Combined Applicant Study Pool with Experience Utilizing Both Filing Processes ..... F-7

2.4 Cooperating Agencies and Stakeholders ..... F-7

2.5 Comparisons and Discussion ..... F-8

2.5.1 Schedule Expectations and Measuring Schedule Milestones ..... F-8

2.5.2 Environmental Report Reviews Effect on Schedule ..... F-11

2.5.3 Project Scope Changes Effect on Schedule ..... F-13

2.5.4 Measuring Efficiency ..... F-13

**3.0 Questions Related to Project Costs and Contracts ..... F-14**

3.1 Pipeline Company Applicants Responding to Specifics for Traditionally Filed Projects ..... F-14

3.2 Pipeline Company Applicants Responding to Specifics for Pre-Filed Projects ..... F-15

3.3 Comparisons and Discussion ..... F-16

3.3.1 Comparable Environmental Cost Expenditures ..... F-16

3.3.2 Cost of Project Delays ..... F-20

3.3.3 Project Contracts and other Linkages ..... F-20

**4.0 Questions Related to Filing Process Predictability ..... F-22**

**5.0 Questions Related to Filing Process Preference ..... F-26**

# List of Figures


Figure F-1 Party Responsible for ER Filing ..... 2
Figure F-2 Filing Method Suggestion by FERC ..... 2
Figure F-3 Obligation of Applicant to Follow FERC's Filing Method Suggestion ..... 3
Figure F-4 Applicants' Experience with Both Types of Filing ..... 4
Figure F-5 Perception of Stakeholder Involvement ..... 4
Figure F-6 Comparable Schedule Milestones for Each Filing Process ..... 8
Figure F-7 Perception of Which Process Takes the Most Time to Complete from ER Filing to Certification ..... 9
Figure F-8 Data Illustrating Which Process Takes the Most Time to Complete from ER Filing to Certification ..... 9
Figure F-9 Data Illustrating Which Process Takes the Most Time to Complete from Initial Filing to Certification and Construction Start. ..... 10
Figure F-10 Perception Relative to Which Process Generates the Most Total Data Requests ..... 12
Figure F-11 Perception Relative to Which Process Generates the Most Data Requests after ER Filing ..... 12
Figure F-12 Project Scope Changes after Filing That Resulted in Schedule Delays ..... 13
Figure F-13 Perception of the More Efficient Filing Method ..... 14
Figure F-14 Overall Project Cost Comparison ..... 17
Figure F-15 Construction Only Cost Comparison ..... 17
Figure F-16 Total Pre-Construction Environmental Cost Comparison ..... 18
Figure F-17 Pre-Construction Environmental Costs Prior to ER Filing ..... 18
Figure F-18 Pre-Construction Environmental Costs After ER Filing ..... 19
Figure F-19 Perception Relative to the More Expensive Filing Process ..... 19
Figure F-20 Normalized Environmental Cost Comparison ..... 20
Figure F-21 Costs Attributed to Project Delays ..... 21
Figure F-22 Costs Attributed to ER Data Requests Which Caused Delays ..... 21
Figure F-23 Project Contract Links to Filing Process Milestones ..... 22
Figure F-24 Perceived Predictability of the Traditional Filing Process ..... 23
Figure F-25 Perceived Predictability of the Pre-fling Process ..... 23
Figure F-26 Factors Influencing Predictability of the Traditional Filing Process ..... 24
Figure F-27 Factors Influencing Predictability of the Pre-filing Process ..... 25
Figure F-28 Perceived Variability Between FERC Staff in Managing Projects ..... 25
Figure F-29 Perceived Variability with Individual FERC Staff in Managing Projects ..... 26
Figure F-30 Filing Process Preference ..... 26

# Technical Study Results

The results are divided into five sections. In each section, this report presents survey information representing the traditional filing method, followed by information indicative of the pre-filing process, then a comparison of the two data sets. Where appropriate, response information from the cooperating agencies and/ or other stakeholders will be included, as well. The presentation of the results is:

- Section 1.0, General Study Pool Information and Choice of Filing Method
- Section 2.0, Questions Related to the Project Schedules
- Section 3.0, Questions Related to the Project Costs and Contracts
- Section 4.0, Questions Related to Filing Process Predictability
- Section 5.0, Questions Related to Filing Process Preference

# 1.0 General Study Pool Information and Choice of Filing Method

## 1.1 Pipeline Company Applicants Responding to Specifics for Traditionally Filed Projects

Survey responses were obtained from 13 pipeline company applicants (respondents) representing 19 projects where the traditional filing process was used to obtain NGA Section 7 Certification from FERC (14 pipeline and four LNG construction projects).[1]

Twelve of the traditionally filed projects (63 percent) involved a cooperating agency or other significant stakeholder. Responsibility for the preparation of the FERC ER and supporting environmental materials was completed by internal employees with multiple prior filing experiences (14 responses; 74 percent) and/or external consultants specializing in FERC Certificate preparation (10 responses; 53 percent).[2] Five of the 19 projects (26 percent) were done with primary responsibility falling to internal employees with multiple prior filing experiences. Less than one-half of the projects (7) were done by external specialty consultants without internal employees. Less than one-half of the projects (7) were done by a combination of external consultants and internal employees. No one indicated that primary responsibility was held by inexperienced internal employees (Figure F-1).

No respondents said they were required by regulatory rule to file using the pre-filing process. However, 21 percent were asked by FERC staff to consider using one process over the other (Figure F-2). Only five percent felt obligated, however, to follow the FERC suggestion. The other 16 percent said they did not feel obligated. One respondent stated that although FERC pushed for the pre-filing process, the FERC manager understood the company's need for using the traditional filing process (Figure F-3).

---

[1] Some of the pipeline company applicants participated in the study as applicants for both traditional filing and pre-filing projects; a total of 22 applicant project managers participated in the study.

[2] Because some respondents gave more than one answer, sum of responses may exceed 100 percent.

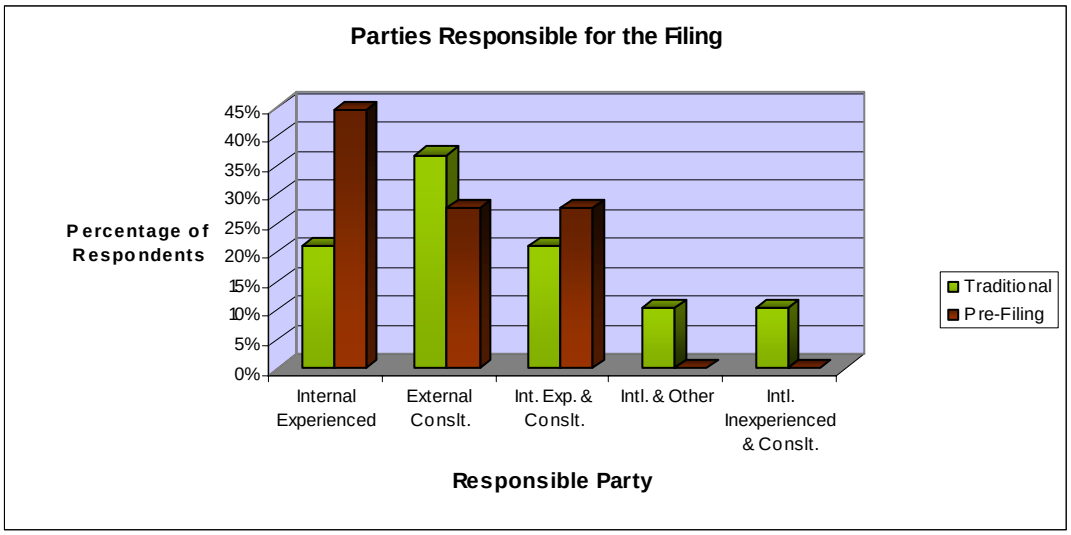



**Figure F-1 Party Responsible for ER Filing**

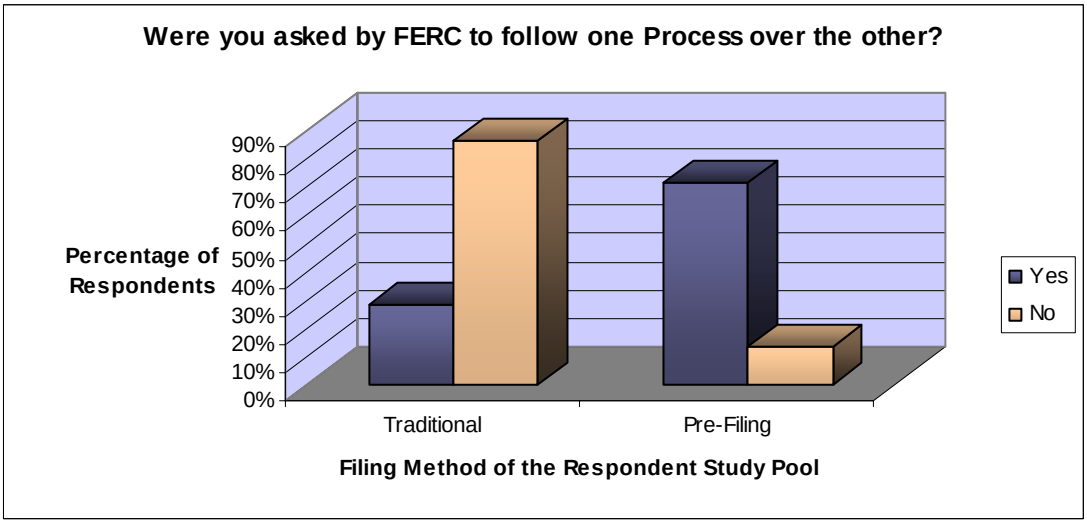



**Figure F-2 Filing Method Suggestion by FERC**

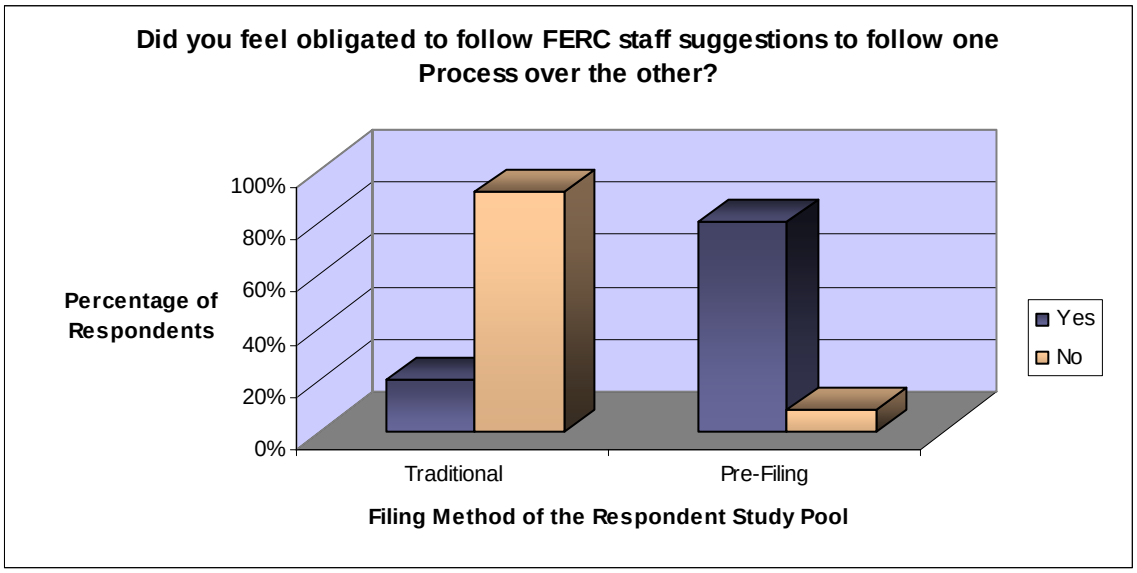



**Figure F-3 Obligation of Applicant to Follow FERC's Filing Method Suggestion**

## 1.2 Pipeline Company Applicants Responding to Specifics for Pre-Filed Projects

Survey responses were obtained from 14 pipeline company applicants (respondents) representing 18 projects that used the pre-filing process to obtain NGA Section 7 Certification from FERC (14 pipeline and five LNG construction projects).[3]

Fifteen of the pre-filed projects involved a cooperating agency or other significant stakeholder (83 percent). Responsibility for preparation of the FERC ER and supporting environmental materials was completed by internal employees with multiple prior filing experiences (13 responses; 72 percent) and/or external consultants who specialize in FERC Certificate preparation (10 responses; 56 percent).4 As with the traditional process, some companies used both internal and external consultants to be responsible for the Applicant's regulatory work. Seven of the 18 projects (39 percent) were managed entirely by experienced internal employees. No one indicated that responsibility was held by inexperienced internal employees (Figure F-1).

Three projects (17 percent) were required by regulatory rule to file using the pre-filing process. Fifteen projects (83 percent) were not required to pre-file; 13 projects (72 percent) were asked by FERC staff the pre-filing process and a majority of these respondents said that they felt obligated to follow FERC staff suggestions (10 projects; 77 percent). Refer to Figures F-2 and F-3.

## 1.3 Combined Study Pool of Applicants with Experience Utilizing Both Processes

Eighty-nine percent of respondents in the entire pipeline company applicant group said that they had experience utilizing both the traditional filing process and the pre-filing process (Figure F-4). For this group, questions were posed which compared the two processes. These results are presented in upcoming sections.

---

[3] Some of the pipeline company applicants participated in the study as applicants for both traditional filing and pre-filing projects; a total of 22 applicant project managers participated in the study.

[4] Because some respondents gave more than one answer, sum of responses may exceed 100 percent.

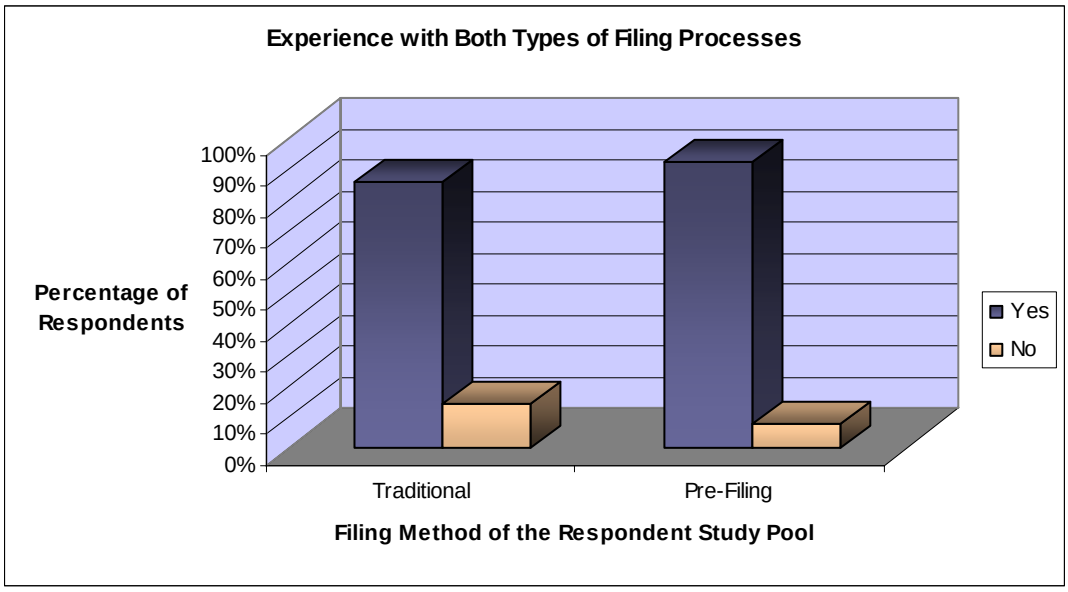



**Figure F-4 Applicants' Experience with Both Types of Filing**

One of the goals of the pre-filing process is to encourage input from all interested project stakeholders as early in the process as possible. To test whether this goal was being met, we posed the basic question to applicants familiar with both processes, which process involved more stakeholders. The respondents indicated that the projects using the pre-filing method had more stakeholders involved than the projects using the traditional filing method (Figure F-5). This result supports the perception that in fact, the pre-filing process, does involve more stakeholders as was its design intention.

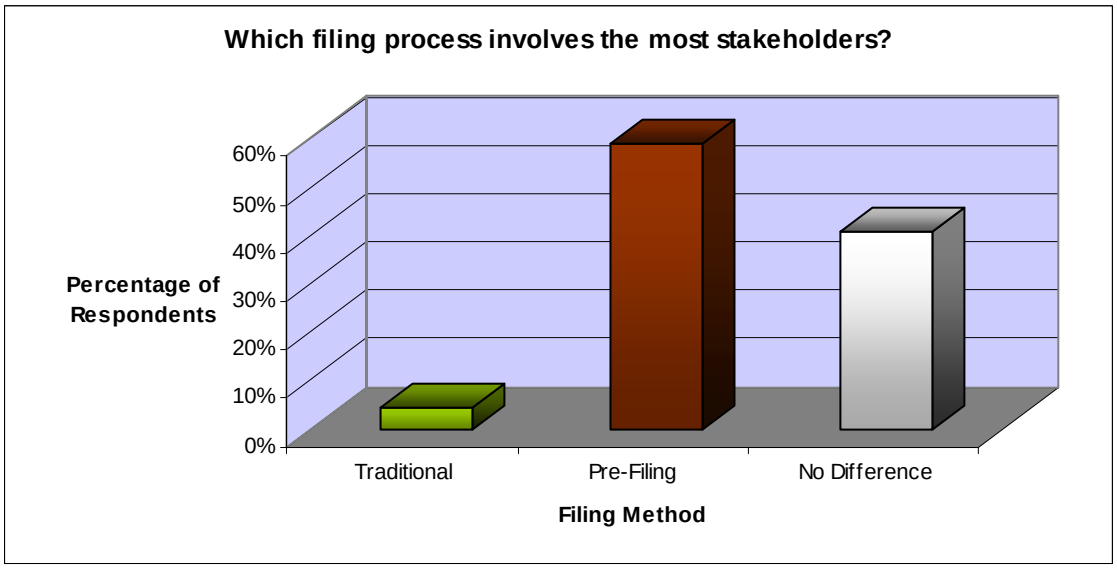



**Figure F-5 Perception of Stakeholder Involvement**

Some respondents, however, did not see a difference in number of stakeholders involved, regardless of filing method. This perception could be related to a tendency in recent years to use a team permitting approach with the traditional filing method, which essentially mimics the pre-filing steps driven by the applicant without FERC's formal involvement.

## 1.4 Cooperating Agencies and Stakeholders

The roles of the cooperating agencies and stakeholders who were surveyed for this project varied greatly. There were 17 respondents, 6 of whom were involved in the pre-filing process and 11 of whom were involved in the traditional filing process for the pipeline projects chosen for the study. The study pool of cooperating agency and stakeholder representatives was strictly opportunistic and resulted from references given by pipeline company applicants surveyed in the first round. The representation of traditionally filed projects versus pre-filing projects should not be interpreted as representing how often these individuals participate in one process over the other. For all those interviewed, they confirmed that they acted as either "full cooperators"[5] in the NEPA document preparation or they "cooperated" with the NEPA document preparation in some way.

Analysis of the responses from the cooperating agencies and stakeholders was not always possible if the predominant answer was "don't know," indicating unfamiliarity with the process and/or the specific projects in question. One respondent from this group commented that he had "limited project experience and activity to judge the process or make recommendations." However, whatever information was collected is presented herein, but should be treated as a potential for further investigation only.

## 1.5 Comparisons and Discussion

FERC filing responsibilities generally are carried out by the pipeline company applicant by use of either experienced internal employees or experienced employees with the assistance of outside specialty consultants (i.e., projects are not entrusted to inexperienced personnel). Those using the pre-filing process are more likely to use experienced personnel (internal and/or external), while those using the traditional process are slightly more likely to use primarily external resources (Figure F-1).

As would be expected, compared to those using the pre-filing process, the respondents for the traditional filing process were significantly[6] less likely to have been asked by FERC to use one process over the other, assuming that if FERC did ask for one process that it would be the pre-filing process (Figure F-2).

Of the pipeline construction respondents who said that FERC did ask for a specific process, the pre-filing respondents were significantly[7] more likely to feel obligated to follow FERC staff suggestions for type of filing process (Figure F-3).

Anecdotal information not part of the survey suggests that this reaction may be due to applicants succumbing to pressure (real and implied) from FERC, due to the fact that FERC is the lead agency and ultimately controls the schedule for NEPA review. Opposing FERC's suggestion for the NEPA review process to be used generally would not be seen as conducive to promoting a cooperative environment. FERC has endorsed the pre-filing process as being more efficient and more beneficial to project schedules. Under this scenario, the applicants in this study may have felt pressured to use the pre-filing process over the traditional filing process

---

[5] Full cooperators receive a copy of the pre-draft EA/EIS documents; are included in the comment/response review cycles; and are often shown in the document in the "List of Preparers" section.

[6] Statistically significant at the p=.002 level, using Pearson Chi-Square analysis.

[7] Statistically significant at the p=.003 level, using Pearson Chi-Square analysis.

in order to protect their project schedules. Many of the applicants voiced concern that the pre-filing process was presented as a choice four years ago when it was presented by FERC, but now feel it has become an obligation.

# 2.0 Questions Related to Project Schedules

Data gathered in this study relating to project schedules included both factual data taken from FERC's e-library site and perception data gathered directly from the pipeline company applicants. To investigate the cause of successes and opportunities for improvements with each filing process, it was necessary to ask respondents to review various phases of the process and react with their perception of whether or not the project held to the "originally intended schedule." It should be noted that the "originally intended schedule" is provided by the applicant. FERC does not predict or commit schedule goals for project reviews. However, some analysis herein compares actual schedule milestone data to schedule milestone examples presented by FERC in trainings (Figures 1-1 and 1-2) in order to measure success.

## 2.1 Pipeline Company Applicants Responding to Specifics for Traditionally Filed Projects

**Issuance of Certificate**. A little over half of the respondents using the traditional filing process reported that the Certificate was issued within the originally intended project schedule; seven respondents said that the Certificate was not issued on schedule. Twenty-six percent of the study pool indicated a delay in Certificate issuance caused eventual construction delays. The reported delays varied widely, ranging from 2 weeks to 18 months.

**Reasons for Construction Delays**. There were other reasons for construction delays, reported by over half of the respondents, including requirements to obtain other permits (Federal, State, local), the need to engage in Tribal negotiations, and/or project changes by the Applicant. The most commonly reported cause of delays was the necessity to obtain other Federal permits. There was a wide variance on how long these factors delayed start-up of construction, ranging from less than 1 month to more than 18 months.

**Reviews of Final Filed Resource Reports**. Almost all respondents (90 percent) indicated that reviews of the Final Filed Resource Reports were conducted within the originally intended time frame. As such, this does not appear to be a cause for perceived delays in the overall process.

**FERC Data Requests after Filing**. As expected, because of the traditional filing process, a majority (79 percent) of respondents said that FERC did request data after the filing. However, of those reporting additional data requests, 58 percent said the requests did not result in overall project schedule delays. Of the three respondents reporting schedule delays, two said the additional requests were "extraordinary" and that their response times were not responsible for the delays. All three respondents said they were able to respond to the FERC requests within 1 month.

**Non-environmental Issues**. Few respondents (11 percent) said that non-environmental issues outside of the original scope of the review process resulted in project delays; most respondents did not know if delays occurred because of non-environmental issues.

**Major Changes in Project Scope**. Twenty-six percent of the respondents said that there were major changes to the project scope after formal filing of the application. However, only 10 percent of these respondents said project scope changes resulted in project schedule delays.

## 2.2 Pipeline Company Applicants Responding to Specifics for Pre-Filed Projects

**Issuance of Certificate**. For most (67 percent) of respondents using the pre-filing process, the Certificate was issued within the originally intended project schedule; the remaining 33 percent said that the Certificate was not issued on schedule. Seventeen percent of the study pool indicated a delay in Certificate issuance caused eventual construction delays, ranging from approximately 1 to 3 months.

**Reasons for Construction Delays**. Over half of the respondents reported that there were reasons for construction delays other than delays associated with the FERC certification process. These other reasons included requirements to obtain other permits (Federal, State) and changes to the project by the applicant. Other delays listed included primarily changes due to market conditions. No one in this data pool indicated local permitting requirements or tribal negotiations as a reason for delays. There was a wide variance on how long these factors delayed start-up of construction, ranging from less than 1 month to more than 18 months.

**Reviews of Resource Reports**. A majority (72 percent) of respondents indicated that the reviews of the Draft Resource Reports were conducted within the original time frame. Only one respondent (6 percent) said the delay in review of Draft Resource Reports caused a project delay. Furthermore, most (72 percent) indicated that the reviews of the Final Filed Resource Reports were completed within the original time frame, and only two respondents (11 percent) reported overall project delays for reasons besides resource report review.

**FERC Data Requests after Filing**. A majority (78 percent) of respondents said that FERC did request additional data after the formal final application and ER filing. However, of those reporting additional data requests, 78 percent said the requests did not result in overall project schedule delays. Of the respondents reporting schedule delays, one-half said the additional requests were "extraordinary," and that their (the Applicants') response times were responsible for the delays. All respondents with schedule delays said they were able to respond to the FERC requests within 1 to 3 months.

**Non-environmental Issues**. Only one respondent said that non-environmental issues outside of the original scope of the review process resulted in project delays.

**Major Changes in Project Scope**. Twenty-eight percent of the respondents said that there were major changes to the project scope after filing. Most of those (80 percent) with changes in scope said that these project scope changes resulted in project schedule delays.

## 2.3 Combined Applicant Study Pool with Experience Utilizing Both Filing Processes

This combined study pool was asked to compare their experiences with the amount of data requests received in the comparable processes and to give their opinions on which process was more efficient. Respondents were not asked what they felt contributed to "efficiency" although the study intended the word "efficiency" to be a comparable, but less inflammatory measure of schedule progress.

## 2.4 Cooperating Agencies and Stakeholders

Almost all cooperating agencies/stakeholders were aware of the applicant's intended overall project schedule (88 percent). For those involved with a traditional filing project, most said the schedule was reasonable (75 percent). For the pre-filing projects, only 25 percent stakeholders felt the schedule was reasonable. Several stakeholders in both groups, however, did not know if the schedule was reasonable, either because they were not aware of the schedule or because they did not remember.

Almost all respondents, regardless of filing type, said that FERC did give them a review time schedule. The responses regarding whether this schedule was reasonable varied: one-half of those involved with a pre-filing project said the review schedule was reasonable, while the others said it was not reasonable. For those involved with traditional filing projects, most (71 percent) said the review schedule was reasonable.

Thirteen of the 17 respondents said that they reviewed the Applicants' Filed Resource Reports and found them to be beneficial. Most respondents (70 percent) said that there were data requests after filing; this provides validation for the same question posed to the applicants.

For the remaining survey questions posed to this study pool, the predominant answer was "don't know," indicating that these stakeholder respondents did not know enough about the projects relative to the FERC filing processes to provide meaningful answers.

## 2.5 Comparisons and Discussion

For discussion purposes, refer to Figure F-6 for a general overview of filing process milestones.

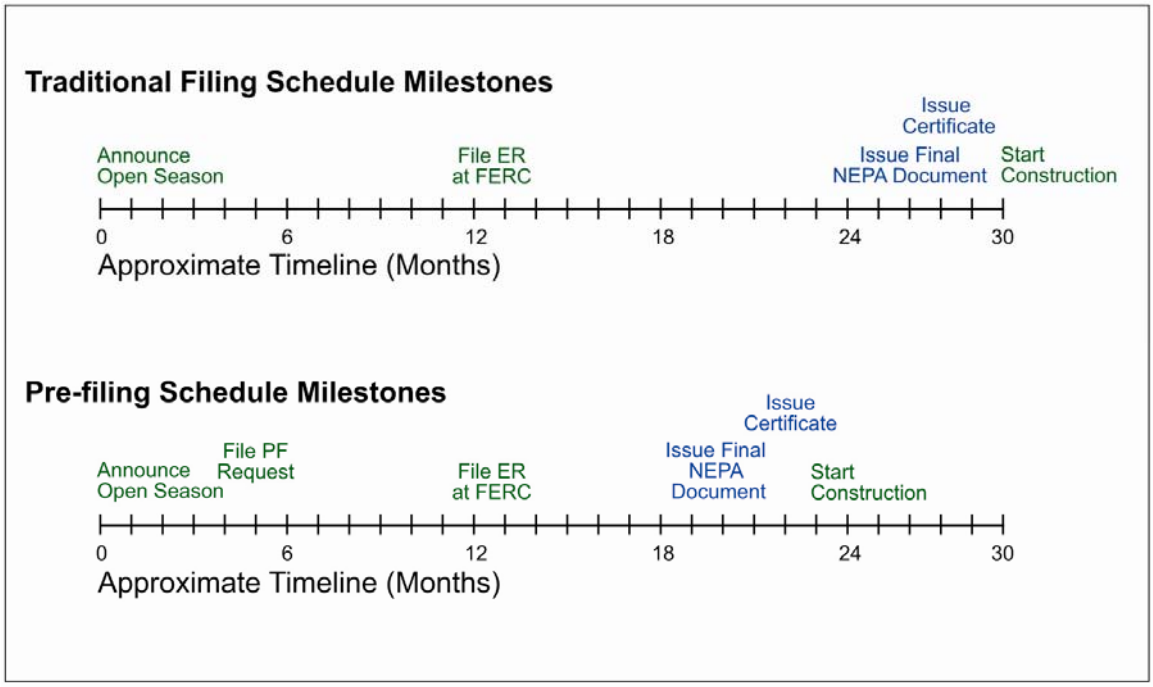



**Figure F-6 Comparable Schedule Milestones for Each Filing Process**

### 2.5.1 Schedule Expectations and Measuring Schedule Milestones

There were no significant differences between the filing process methods regarding the respondents' perceptions of whether or not the Certificate was issued within the originally intended project schedule. For all respondents, 60 percent said the Certificate was issued on schedule. This result is noteworthy, because some applicants had commented at the end of the survey that it appears that FERC does not head the applicant's intended schedule and causes delays to the schedule for a variety of reasons (e.g., lax review timeframes and not more strictly managing and encouraging the cooperating agencies to adhere to the schedule).

**ER Filing to Certificate Issuance.** A comparison was made between actual schedule data and the study pool perception. When asked which process takes longer from final ER filing to Certification, just under 35 percent recognized that the traditional process takes longer than the pre-filing process (Figure F-7). In fact, actual data shows clearly that the FERC environmental review period from the final ER filing to the issuance of the Certificate is much longer for the traditionally filed projects (Figure F-8).

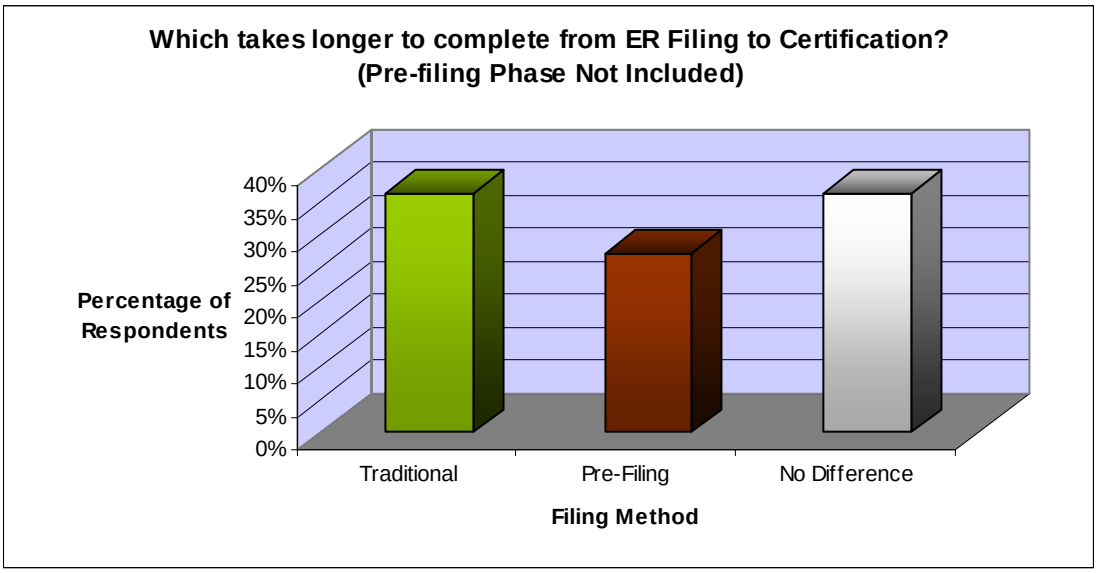



**Figure F-7 Perception of Which Process Takes the Most Time to Complete from ER Filing to Certification**

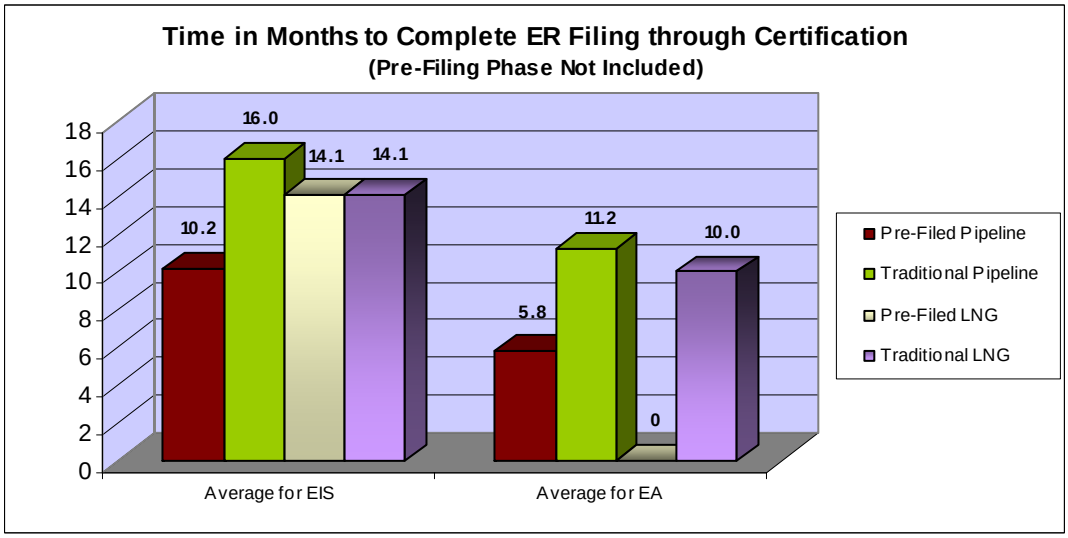
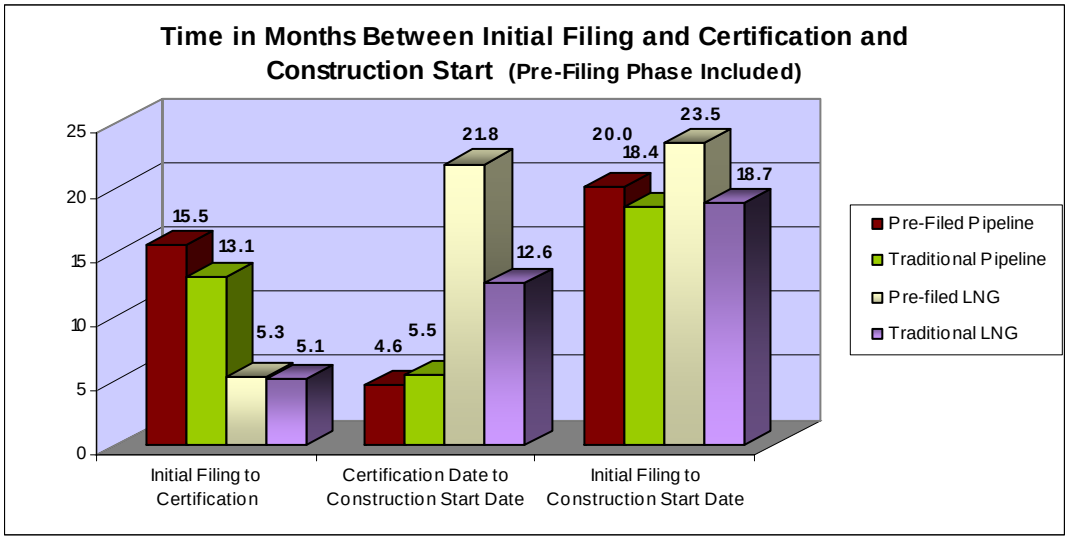



**Figure F-8 Data Illustrating Which Process Takes the Most Time to Complete from ER Filing to Certification**

One explanation for this apparent misperception is that although carefully worded, the applicants may have misunderstood the question and responded with their perception relating to the overall process (including pre-filing phases of the process) instead of in reaction to the specific milestones mentioned (i.e., ER filing to Certificate issuance). The beginning and end of each respective process is less clearly defined for the applicants because they are involved throughout both processes, in contrast to the FERC staff and other

stakeholders who become involved in the process on the day of filing for the traditional process and on the day of the pre-filing request for the pre-filing process.

**Initial Filing to Certificate Issuance and Construction Start.** Although not statistically significant, pre-filed projects tend to take longer to get from pre-file request file date to Certification and from pre-file request file date to construction start date than the traditional projects take between comparable milestones (Figure F-9). The start and end milestones for this measurement is the pre-filing request date, which typically precedes the filing of the ER date by 6 months. The expedited environmental NEPA review timeframe does not offset this initial investment enough to equate the two process overall timeframes.




NOTE: "Initial filing" is the Pre-Filing Request date for the Pre-Filing Process and the ER filing date for the Traditional Process.

**Figure F-9 Data Illustrating Which Process Takes the Most Time to Complete from Initial Filing to Certification and Construction Start.**

These results seem to be more comparable to the perception data collected and presented in Figure F-7. However, it should be noted that there was not consistently available, measurable milestones for traditionally filed projects for use in comparison to the pre-file request date; in this example, the formal ER filing date was used.

Expectations of the Filing Process schedule lengths may differ between the FERC staff and the pipeline company applicants. In past trainings, FERC staff have provided a schematic to illustrate the differences in the two processes promoting that up-front investment of time in the pre-filing process would result in a shorter NEPA review timeframe once the ER is filed with FERC. The traditional filing illustration indicates a general review timeframe of 14 months from the filing of the ER to the publication of the EIS (Figure 1-1). Comparably, the pre-filing illustration indicates a general review timeframe of 8 to 10 months from the filing to the publication of an EIS (Figure 1-2).[8] At a Southern Gas Association conference, FERC staff asserted the general goal of the FERC environmental review staff is to complete EIS projects in less than 10 months for pre-filing projects

[8] Hoffman, R. 2007. What's New at FERC: Recent Rulemakings. In Regulatory Overview and Guidance Seminar Workbook. Federal Energy Regulatory Commission, Office of Energy Projects. Washington D.C. Presented on January 9, 2007 in Denver, Colorado.

and that the pre-filing figure schedule of 8 months may have been unintentionally optimistic.[9] In comparing actual schedule data for the project study pool of projects, the average time to prepare an EIS for traditionally filed pipeline projects was 14.3 months and the average time to prepare an EIS for pre-filed pipeline projects was 8.9 months.[10]

**Certificate to Construction.** The length of time between the certification date and construction start date for the two groups was similar, but traditional filed projects tend to take slightly longer. While this data is not statistically significant, it is important since one of the purported benefits[11] of utilizing the pre-filing process was to resolve issues sooner, specifically those not within FERC's control and which often delay construction, even when a project has a Certificate in hand from FERC. If in fact the effects of the pre-filing process is helping the applicant to commence construction sooner than with using the traditional process, the schedule comparisons should consider the end milestone as construction start.

### 2.5.2 Environmental Report Reviews Effect on Schedule

Overall, it appears that draft resource reports for the pre-filing process (collectively referred to as the ER) and/or the final filed resource reports for traditional filers are completed within the originally intended time frame, as indicated by 81 percent of all respondents. This result is interesting, because 78 percent of all respondents indicated that there were additional data requests from FERC after filings were made, indicating that regardless of the filing process used, the resource reports have not addressed or resolved all issues by the time they are filed. Anecdotal information, however, indicates that the types of issues appearing in the post-filing data requests may differ between the traditional and pre-filing processes. In any event, a majority of all the respondents (68 percent) said that additional environmental information requests by FERC beyond the minimum filing requirements did not result in overall project schedule delays.

It was interesting that the same percentage (78 percent and 79 percent, respectively) of respondents said that there were data requests from FERC after filing, with more pre-filers indicating that these additional requests did not cause project delays (78 percent) than traditional filers (58 percent). This result may be showing that the pre-filing process is beneficial in resolving issues early that can interfere with project schedules where the traditional filing process is used.

There was no clear agreement about which filing method involves the most data requests, counting both the pre- and post-filing requests combined for the pre-filing process (Figure F-10). It appears that most respondents feel that the pre-filing method involves more data requests; however, several respondents said that there was no difference between the two filing methods.

Respondents were asked which method involved the most data requests after the final filing (Figure F-11). Again, there were no significant differences between the two respondent categories, but most respondents indicated that the traditional filing method involved more data requests after filing. This suggested trend would be expected, since the pre-filing method was designed to handle data requests earlier in the process (i.e., before the filing date). However, this also indicates that the pre-filing process is not meeting one of it's advertised goals of resolving most, if not all, issues prior to the filing, essentially negating the need for data requests after the filing altogether. Some pre-filing respondents indicated that post-filing requests were

---

[9] Boyle, M., 2005. Southern Gas Association Environmental Construction Roundtable Discussion Related to FERC[s Pre-filing Process. June 28, 2005.

[10] These schedule calculations included only pipeline projects in the data set since LNG projects tend to take longer to process due to their complexity and other issues.

[11] Boyle, M., 2005. Southern Gas Association Environmental Construction Roundtable Discussion Related to FERC's Pre-filing Process. June 28, 2005.

extraordinary and resulted in schedule delays. While traditional filers purported extraordinary post-filing requests, these requests did not result in schedule delays. Again, this may be a factor of the expedited and therefore, unforgiving, pre-filing environmental review timeframe after filing. It appears more work is necessary to realize this goal, likely in cooperation by both FERC staff and the applicants.

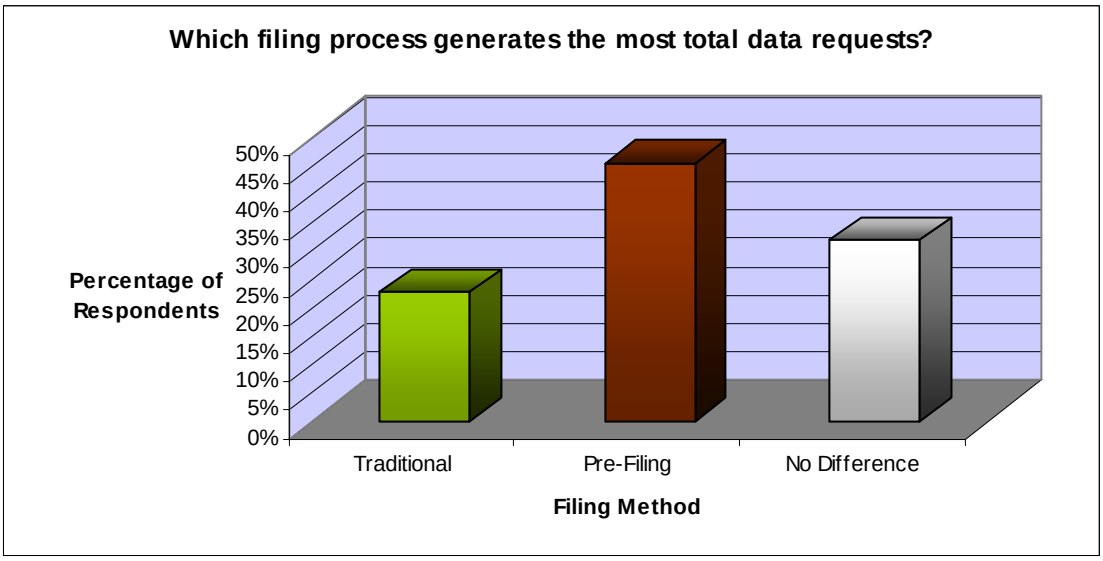



**Figure F-10 Perception Relative to Which Process Generates the Most Total Data Requests**

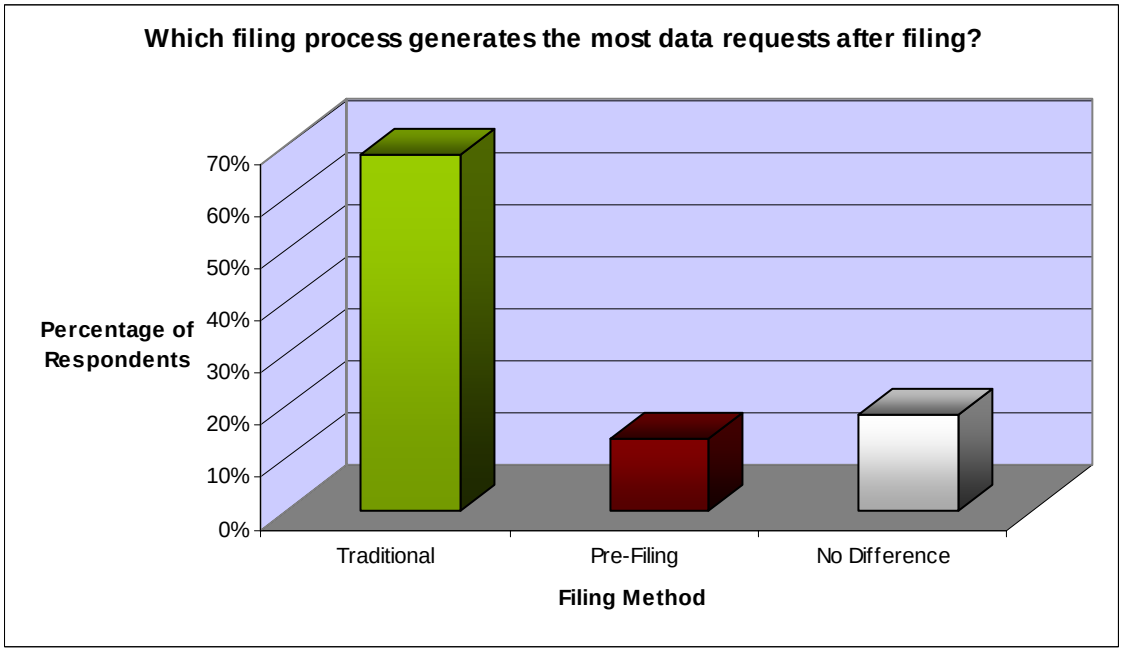



**Figure F-11 Perception Relative to Which Process Generates the Most Data Requests after ER Filing**

### 2.5.3 Project Scope Changes Effect on Schedule

Regardless of filing method, most respondents (73 percent) indicated that there were no major changes to the project scope (re-route, footprint changes, etc.) during the filing process. However, for the approximately one-quarter of applicants in each study pool who admitted these project delays, the resulting impact on the project schedule was vastly different. Only 10 percent of traditional filers indicated that the change in project scope resulted in delays, while 80 percent of the pre-filers indicated that a delay resulted from project scope changes (Figure F-12). This may be due to the fact that the reduced timeframe after filing is reduced in the pre-filing process and therefore, less forgiving.

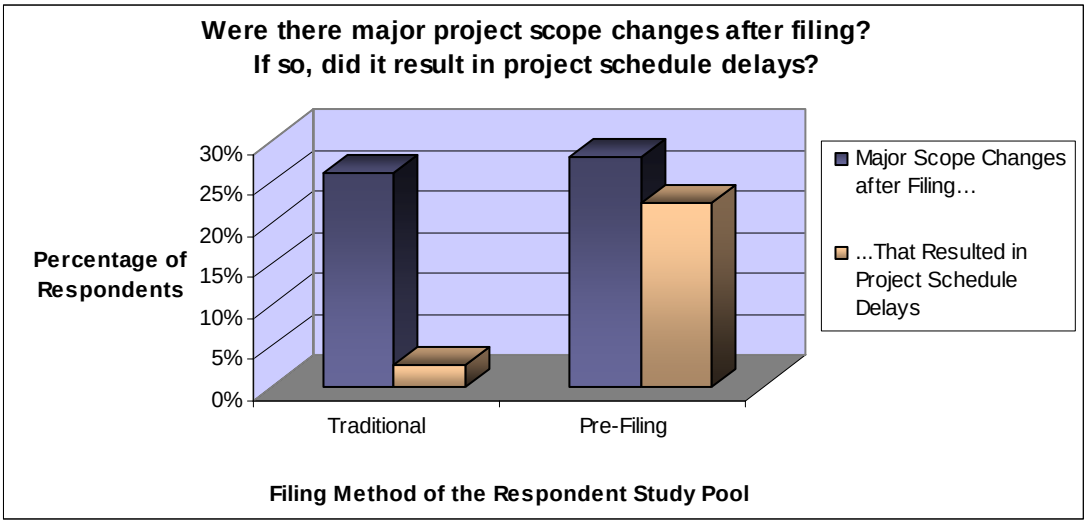



**Figure F-12 Project Scope Changes after Filing That Resulted in Schedule Delays**

As recommended in a prior recent INGAA report, an example of an applicant "best practice" is to define the project clearly and consistently to the permitting agency(ies).[12] Another survey completed in 2003 of NEPA practitioners for Department of Defense projects supports this best practice measure in order to streamline NEPA processing. This study found that approximately 43 percent of the Department of Defense projects were delayed fro the originally intended schedule. 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).[13]

### 2.5.4 Measuring Efficiency

There was no clear agreement (statistically) about which filing method is most efficient. However, most respondents offered that the pre-filing method is more efficient, or that the filing method does not make any difference in efficiency (Figure F-13).

---

[12] Interstate Natural Gas Association of America (INGAA) 2005 Foundation Study: "Avoiding and Resolving Intergovernmental Conflicts with Interstate Natural Gas Facility Siting, Construction, and Maintenance." The INGAA Foundation. F-2005-01. March 2005.

[13] 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.

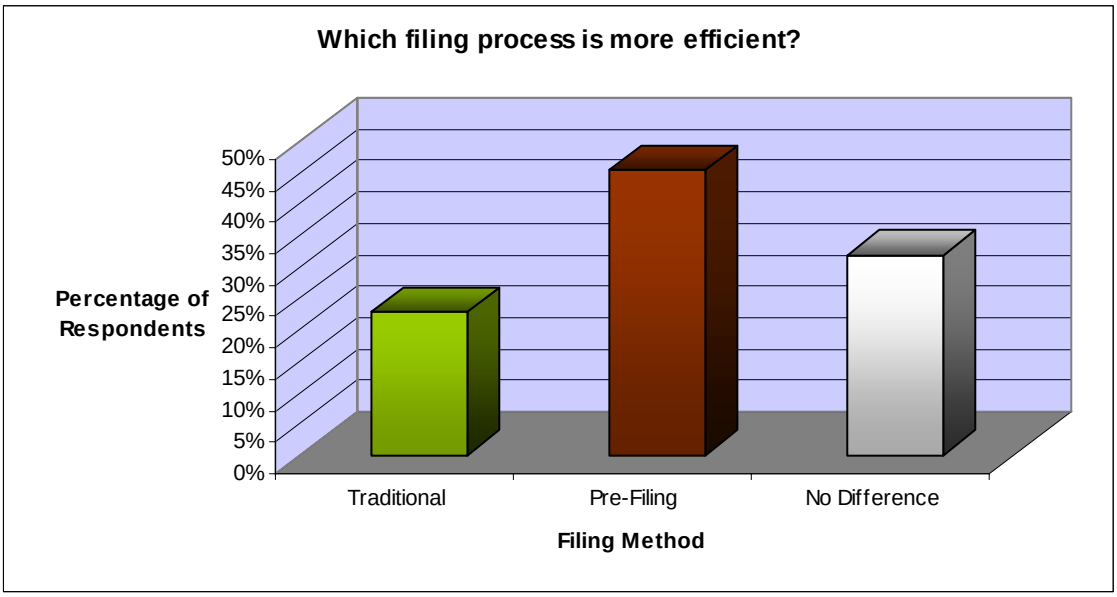



**Figure F-13 Perception of the More Efficient Filing Method**

**Cooperating Agency and Other Stakeholder Observations.** While the study pool was too small to analyze statistically, there appeared to be a trend with the responses of those familiar with the pre-filing process indicating insufficiently scheduled time for due process. This may be in part due to the intended expedited NEPA process for the pre-filing method. It also could be a result of the additional administrative burden on the agency staff to review draft versions of the ER in addition to final submittals.

# 3.0 Questions Related to Project Costs and Contracts

Project-specific cost data was collected in an effort to evaluate the costs and benefits of using one filing process over another. Data collected included overall project costs, pre- and post-filing environmental costs, total environmental costs, and construction costs. Environmental costs are commonly expressed as a fairly consistent percentage of overall project costs or construction costs. Interpretation of this data allows environmental costs to be expressed as a percentage, thus normalizing the varied project scopes within the data set.

Project-specific contract-related questions were posed to the applicants to determine if various milestones were inexplicably tied to the either process.

Cooperating agencies and other stakeholders were not asked cost-related information. As such, no applicable results are presented.

## 3.1 Pipeline Company Applicants Responding to Specifics for Traditionally Filed Projects

**Project Costs.** The overall costs of most projects (66 percent) were greater than $100M (one traditional respondent did not disclose their costs). None of the projects cost less than $10M. Forty-four percent of the

projects had construction costs exceeding $100M. There were no projects with construction costs less than $10M.[14]

One-third (33 percent) of the projects had total pre-construction environmental costs in the $1 to $5M range, with 17 percent of projects having costs over $5M. No projects had total pre-construction environmental costs less than $100K. If respondents did not disclose costs, they are listed as "DK" in the figures.

Pre-construction costs before FERC filing varied greatly; however, most (47 percent) fell within the $100K to $500K range, with none costing less than $100K and none costing more than $5M. Pre-construction costs of the project after the FERC filing were higher with 72 percent respondents saying that the costs were $500K or higher. Five projects had costs exceeding $5M.

**Delays Resulting in Costs.** Costs attributed to overall project delays varied greatly, from less than $100K to over $5M. Many respondents (42 percent) did not answer this question or responded that the question was not applicable because they did not experience project delays.

Respondents also were asked whether project cost increases could be attributed to the additional environmental requests by FERC. Responses to this question were one extreme or the other. Almost one-half (eight) of respondents said that additional costs due to schedule delays from additional environmental requests were not at all attributable to FERC's additional requests. However, two respondents attributed at least 16 percent of cost increases to FERC's additional environmental requests. One-third (six respondents) said that the question was not applicable, because they did not experience project delays.

**Project Contracts.** Ordering of construction materials was linked to a milestone in the FERC process for nearly half (47 percent) of respondents' projects. For these respondents, ordering of construction materials occurred at varied points: 1) after filing and before issuance of the Preliminary Determination (preliminary determination of need based on non-environmental factors), 2) after issuance of the Preliminary Determination and before the Certificate, and 3) after the Certificate. None reported ordering construction materials before filing. Likewise, right-of-way (ROW) acquisition was linked to FERC milestones for almost one-half (eight) of the projects. ROW acquisition occurred at varied points: 1) after filing and before issuance of the Preliminary Determination, 2) after issuance of Preliminary Determination and before the Certificate, and 3) after the Certificate (the predominant point in time). None reported ordering ROW acquisition before filing.

Commitment to construction contractors was linked to FERC process milestones for almost half (47 percent) of the projects. Three projects committed to construction contractors after FERC reviewed and determined the business and rate case (Preliminary Determination), but before the Certificate was issued. Five projects committed after the Certificate was issued, and one project committed to contractors after the Draft EIS was released.

Most respondents (79 percent) said that open season(s) were conducted before the FERC filing. For 60 percent of the respondents, commercial contracts were signed before FERC filing. Also, most (60 percent) of the projects had "foundation" or "anchor" shippers. It is noteworthy that there were a lot of non-responders to these questions about open seasons and anchor shippers. It is possible that the respondents did not have that information. For this reason, any conclusions drawn from these results should be viewed with caution.

## 3.2 Pipeline Company Applicants Responding to Specifics for Pre-Filed Projects

**Project Costs.** The overall costs of most projects (69 percent) were greater than $100M. None of the projects costs less than $10M. Over one-half of the projects had construction costs exceeding $100M. There was only one project with construction costs less than $10M.

[14] Projects within this cost range likely would be Blanket Certificate projects.

Nearly three quarters of the projects had pre-construction environmental costs exceeding $1M, with 38 percent of projects having costs over $5M. No projects had total pre-construction environmental costs less than $100K.

Pre-construction costs before FERC filing varied greatly. Pre-construction costs of the project after the FERC filing tended to be higher, with one-half of the projects (50 percent) costing over $1M.

**Project Delay Costs.** Costs attributed to overall project delays varied greatly, from less than $100K to over $5M. Half of the respondents did not answer this question or responded that the question was not applicable.

Respondents also were asked whether project cost increases could be attributed to the additional environmental requests by FERC. Responses to this question were one extreme or the other. Thirty-nine percent of respondents said that additional costs due to schedule delays from additional environmental requests were not at all attributable to FERC's additional requests. However, four respondents attributed at least 16 percent of cost increases to FERC's additional environmental requests. Again, several respondents (39 percent) did not answer or said that the question was not applicable.

**Project Contacts.** Ordering of construction materials was linked to a milestone in the FERC process for only 17 percent (three) of respondents' projects. For these three respondents, two said that ordering of construction materials occurred after filing but before the Certificate. The others said that materials were ordered after the Certificate. Likewise, ROW acquisition was linked to FERC milestones for only six (33 percent) of the projects. For those six respondents, one project did ROW acquisition after the pre-filing request and before filing. One project did ROW acquisition after filing and before the Certificate, and the remaining four respondents did ROW acquisition after the Certificate was issued.

Commitment to construction contractors was linked to FERC process milestones for only six (33 percent) of the projects. One project committed to construction contractors after the pre-filing request and before the filing. The other five projects did not commit to construction contractors until after the Certificate was issued.

Most respondents (61 percent) said that open season(s) were conducted before the pre-filing request. Commercial contracts were signed at all time points in the process, with no apparent pattern among the projects. Many (44 percent) of the projects had "foundation" or "anchor" shippers. Again, as with the traditional process, it is noteworthy that there were a lot of non-responders to these questions about open seasons and anchor shippers. It is possible that the respondents may not have known that information. For this reason, any conclusions drawn from these results should be viewed with caution.

## 3.3 Comparisons and Discussion

### 3.3.1 Comparable Environmental Cost Expenditures

The overall project costs for the traditional filing process respondents and the pre-filing process respondents were nearly identical (Figure F-14). The majority of all projects (68 percent) cost more than $100 million. When comparing comparative construction costs for the two types of filings, there are no statistically significant differences (Figure F-15). Again, the largest cost category for the projects (46 percent) had construction costs over $100 million.

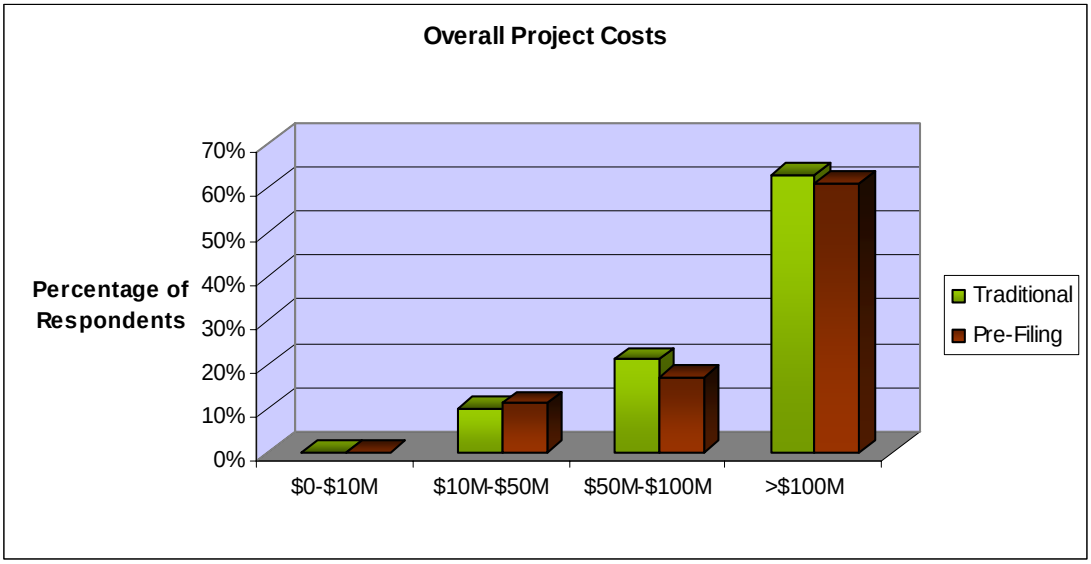



**Figure F-14 Overall Project Cost Comparison**

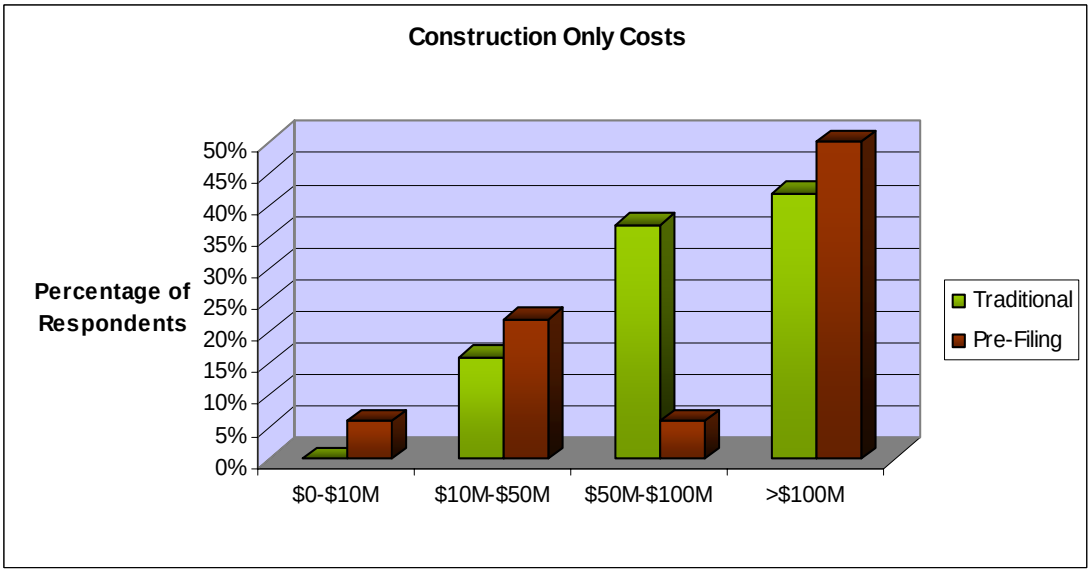



**Figure F-15 Construction Only Cost Comparison**

Total pre-construction environmental costs of the projects tended to be higher for the pre-filing process respondents, though this difference was not statistically significant (Figure F-16). Pre-construction environmental costs of the project before the FERC filing appear to be generally higher for the pre-filing process; however, the difference is not statistically significant (Figure F-17). Pre-construction environmental costs after FERC filing do not differ by filing method (Figure F-18).

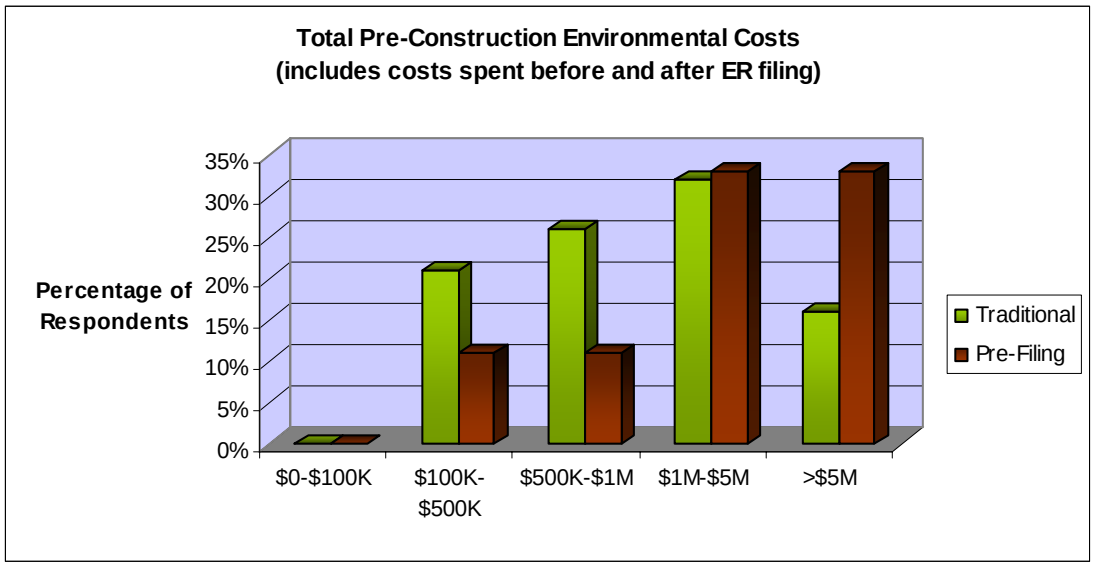



**Figure F-16 Total Pre-Construction Environmental Cost Comparison**

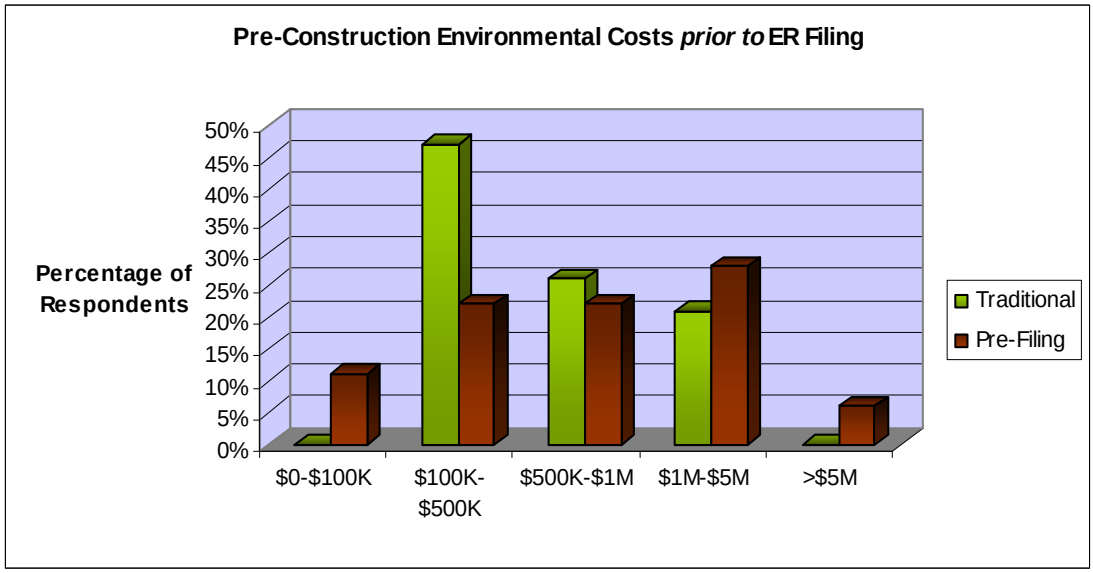



**Figure F-17 Pre-Construction Environmental Costs Prior to ER Filing**

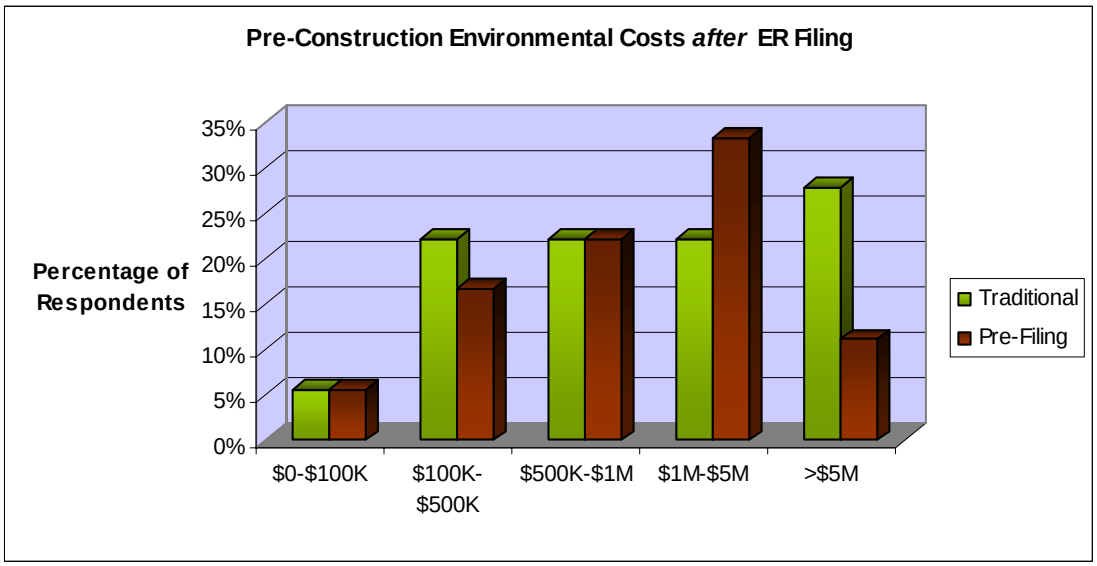



**Figure F-18 Pre-Construction Environmental Costs After ER Filing**

When the combined study pool of applicants with experience with both filing processes was asked which process is more expensive, 55 percent said the pre-filing was more expensive. An additional 39 percent said that there was no difference between the costs for the two filing processes (Figure F-19).

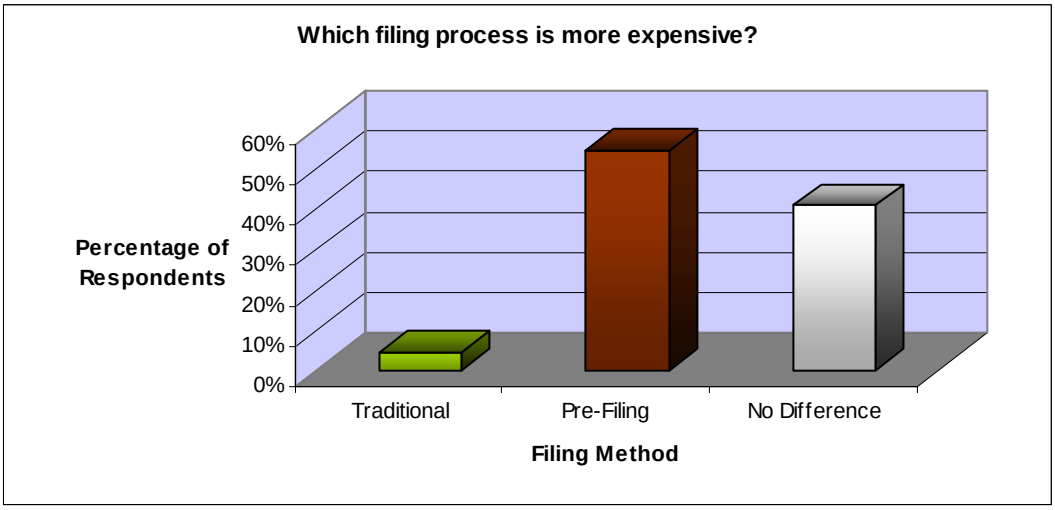



**Figure F-19 Perception Relative to the More Expensive Filing Process**

In order to further explore the trend initially seen in Figures F-16 and F-17, actual environmental costs were expressed as a percentage of the total construction costs in order to normalize the various project scopes within the data set. Once normalized, the two filing process sets were compared for both LNG projects and for

pipeline projects. In this projection, environmental costs tend to be two to three times higher for pre-filed projects than traditional filing projects for both types of projects (Figure F-20).[15]

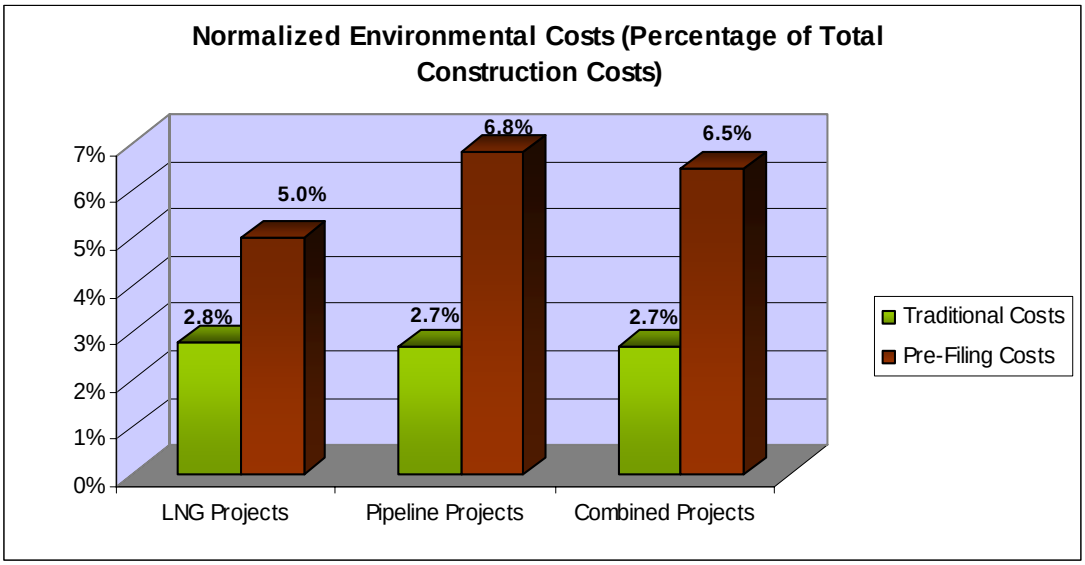



**Figure F-20 Normalized Environmental Cost Comparison**

### 3.3.2 Cost of Project Delays

Costs associated with project delays are shown in Figure F-21; they do not differ significantly by type of filing process. For those respondents who stated that FERC requests resulted in project delays, attribution of additional project costs to additional FERC requests was nearly identical for both traditional and pre-filing process respondents. It appears, however, that the percentages of the project cost increases attributable to FERC requests is reasonably low (see Figure F-22), with 40 percent of all respondents saying that none of the costs were attributable to additional FERC requests.

### 3.3.3 Project Contracts and other Linkages

Respondents were asked several questions about linkages of their project timelines to various milestones in the FERC process. Overall, ordering of construction materials was not linked to FERC milestones for 62 percent of the projects. However, ordering of construction materials was linked to FERC milestones more frequently for traditional filing projects than for pre-filing projects (Figure F-23), and this difference was statistically significant (p=.02).

ROW acquisition was not linked to FERC milestones for 60 percent of all the projects. There were no differences between the two filing methods. Whether or not commitment of project to construction contractors was linked to FERC milestones did not differ by filing method. Linkages of FERC milestones to commitment to construction contractors was about evenly divided (40 percent linked; 55 percent not linked) for all the projects.

---

[15] The independent statistician noted that it would not be possible to run statistical significance on this data given the way it was collected. Because most respondents were not able to provide exact cost data for analysis, ranges of data was used for reporting. This particular projection assumes the minimum value for each cost range response, was normalized against construction costs, and was then averaged for each data set.

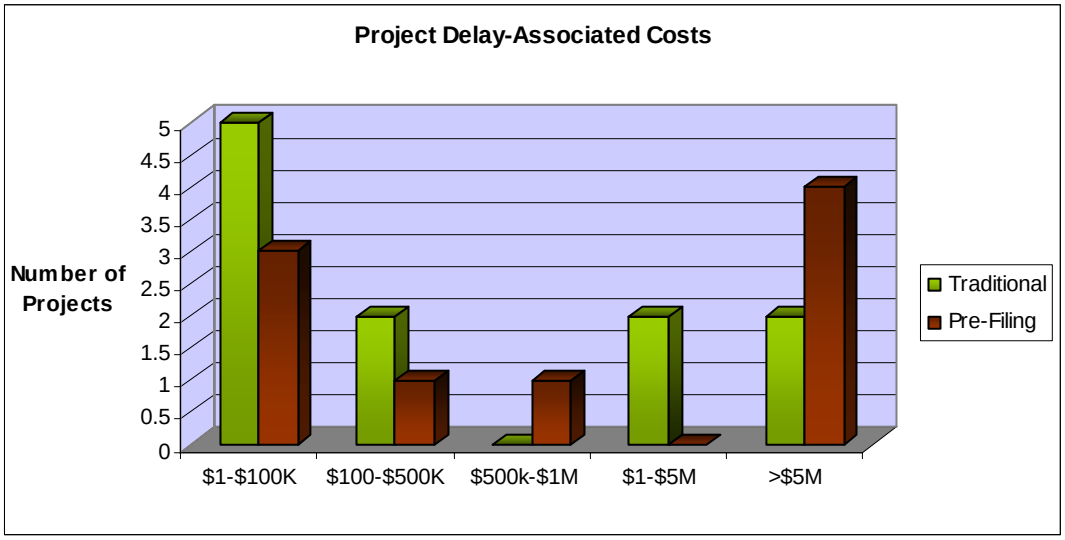



**Figure F-21 Costs Attributed to Project Delays**

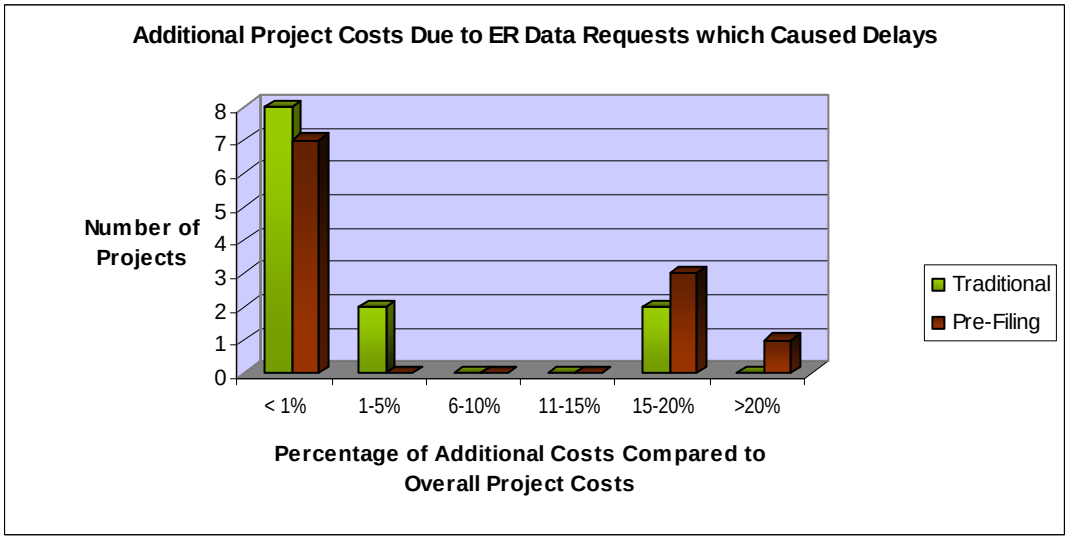



**Figure F-22 Costs Attributed to ER Data Requests Which Caused Delays**

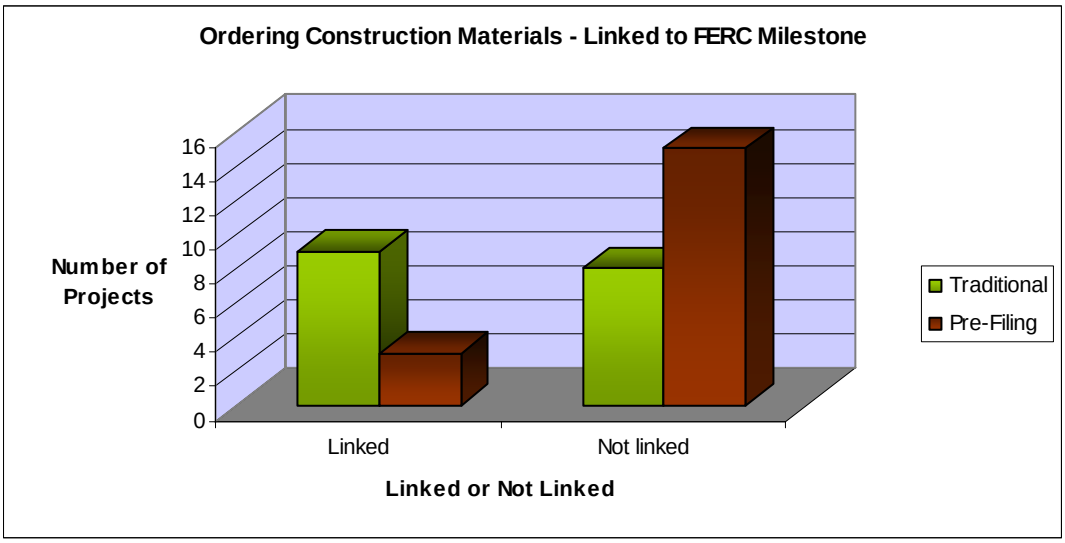



**Figure F-23 Project Contract Links to Filing Process Milestones**

Open season was conducted early in the process for both filing methods. For traditional filing projects, 79 percent were conducted before the FERC filing. For pre-filing projects, 50 percent were conducted before the pre-filing request.

Commercial market contracts were more likely to be signed before FERC filing for the traditional filing projects. pre-filing and traditional filing projects were equally likely to have an anchor shipper, with 51 percent of the respondents indicating an anchor shipper. It was interesting that 30 percent of the respondents did not know whether there was an anchor shipper. There was no difference between filing processes as to whether there were commercial contracts linked to FERC review milestones.

# 4.0 Questions Related to Filing Process Predictability

A predictable process with regard to project milestones and data required of the applicant allows pipeline company project managers to control costs and maintain schedules. While the amount of work required to produce an adequate NEPA review has grown monumentally over the years, applicants and agencies alike can manage this effort with a predictable process.

In an attempt to determine which filing method allowed for more predictability, respondents with experience using both processes were asked to assess the two filing methods on a scale from 1 to 7 (1 being never predictable and 7 being always predictable). The results are illustrated in Figures F-24 for the predictability of the traditional filing process and on Figure F-25 for the predictability of the pre-filing process. There appears to be more variability in the responses with the pre-filing process. However, once the data is combined, the predictability "score" is nearly the same for both filing processes.

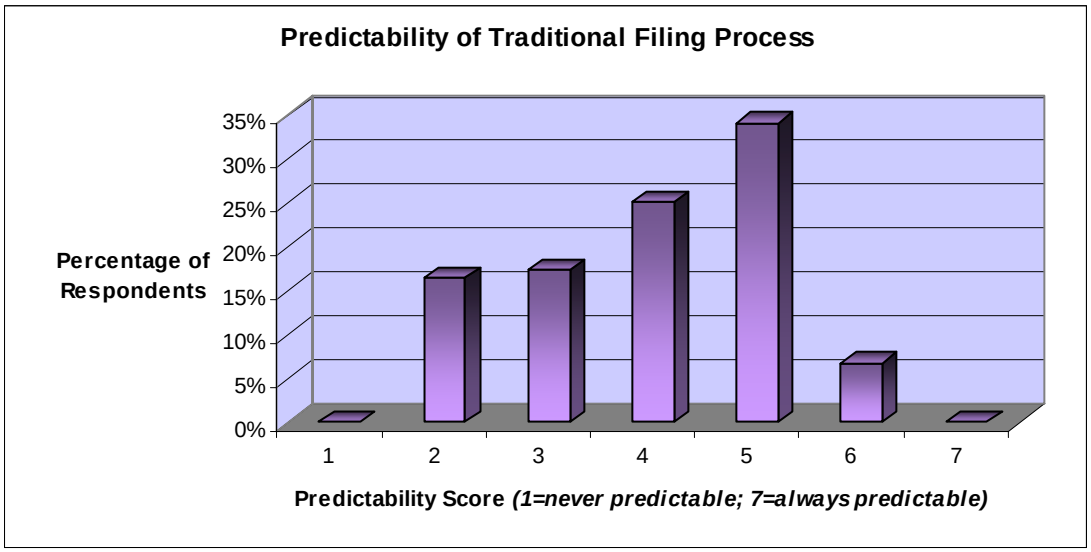



**Figure F-24 Perceived Predictability of the Traditional Filing Process**

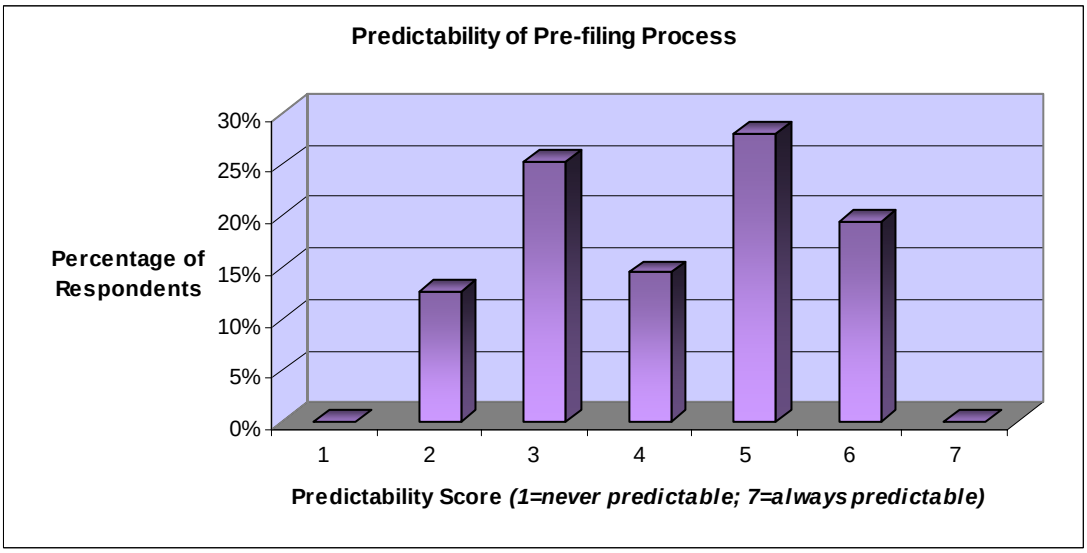



**Figure F-25 Perceived Predictability of the Pre-fling Process**

The study pool of respondents for these questions included individuals who had experience with both processes and were interviewed for project-specific information for both the traditional filing and pre-filing processes. While the results of the group as a whole do not show any remarkable trends, it was interesting that the group that was recently interviewed regarding a specific traditional filing project tended to rate the pre-filing process as more predictable and the group that was recently interviewed regarding a specific pre-filing project tended to rate the traditional filing process as more predictable. This may be a factor of the tendency to remember negative experiences with the process closest to memory and thus, ranking the “other” process as more favorable (in this case, more predictable).

In order to further explore process predictability, respondents were asked about the factors that influence predictability of projects.[16] Of the choices, project location was the primary influence with regard to the predictability of the traditional filing process, followed by influences from the FERC environmental project manager (Figure F-26).

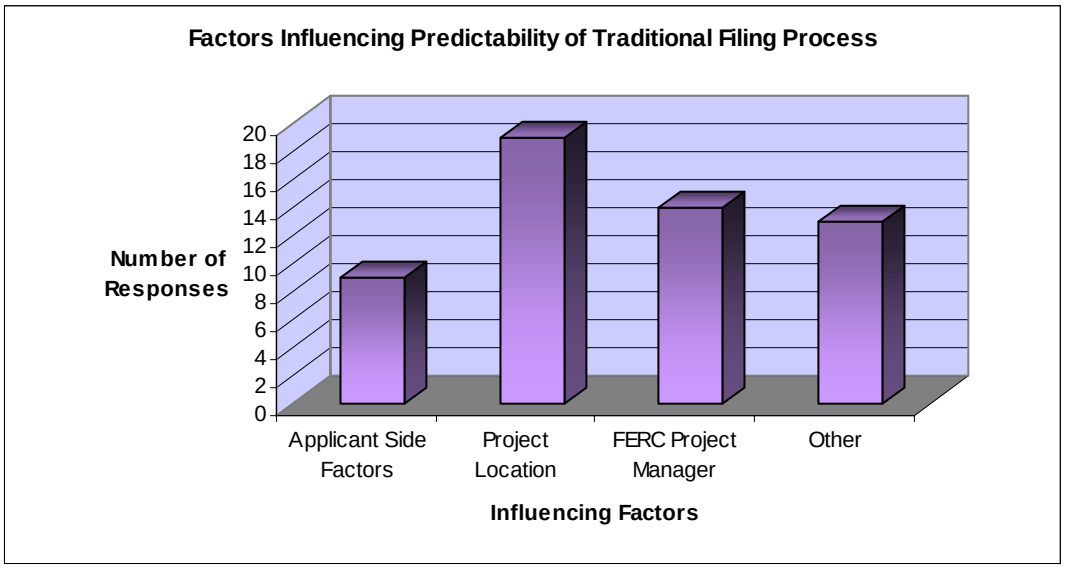



**Figure F-26 Factors Influencing Predictability of the Traditional Filing Process**

For the pre-filing process, "other" factors were the main influence on predictability (Figure F-27). Some volunteer clarifications for the "other" factors included issues raised by other stakeholders during the pre-filing process. As indicated in Figure F-5, there appears to be more stakeholder involvement in the pre-filing process as is the goal of the process.

As with was seen with the traditional filing process, the second-rated influencing factor was the weight of the FERC environmental manager. It is expected that input from the FERC environmental managers will weigh more heavily on both processes, but particularly the pre-filing process, as FERC makes efforts to more pro-actively drive the project schedules in compliance with EPAct.

To further explore the secondary influence seen above in both processes, the respondents were asked about how much variability they had experienced from project to project in the way different FERC environmental project managers manage the projects (Figure F-28). Most respondents indicated that there was at least some variability in how FERC staff manages projects.

On order to ensure the response was more likely manager-specific versus project-specific, respondents were asked to measure variability seen on various projects with the same managers. The results show there was very low variability in how the same FERC Project Manager manages different projects (Figure F-29). Given that project variables are always changing, this result is a positive influence on predictability.

---

[16] Figures F-26 and F-27 show number of responses, rather than percent of respondents, because respondents were allowed to select more than one factor.

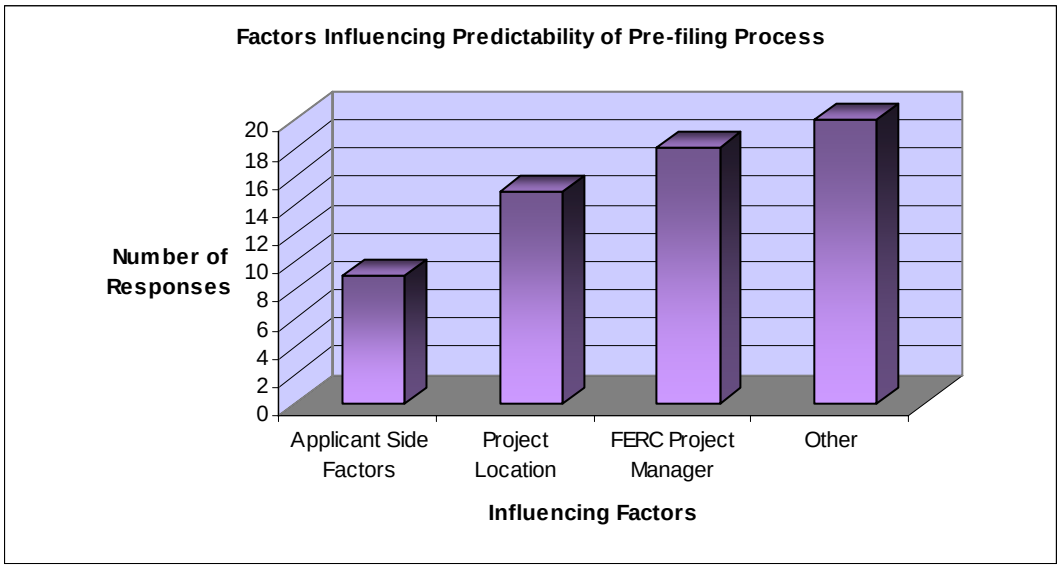



**Figure F-27 Factors Influencing Predictability of the Pre-filing Process**

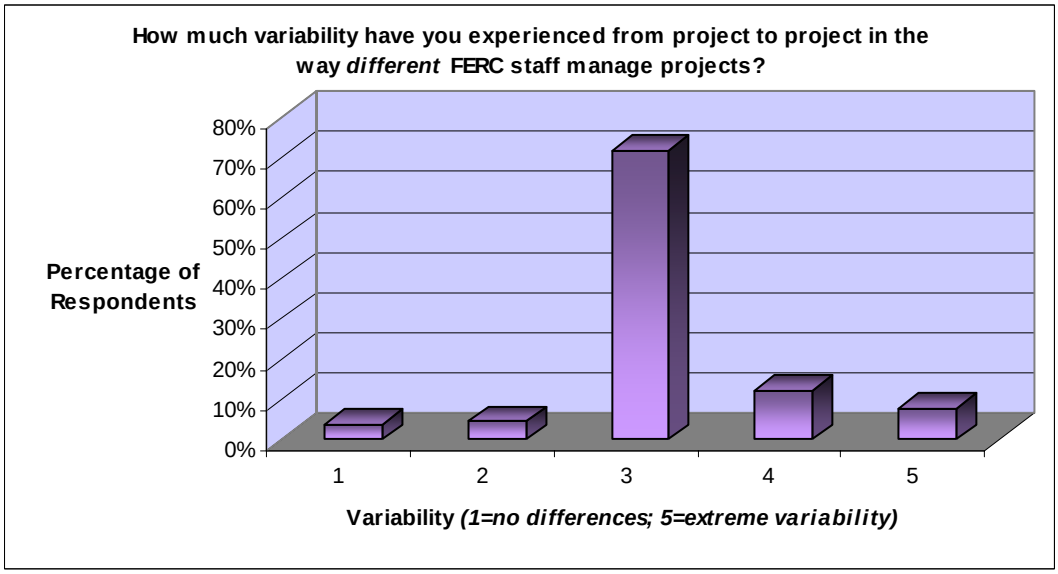



**Figure F-28 Perceived Variability Between FERC Staff in Managing Projects**

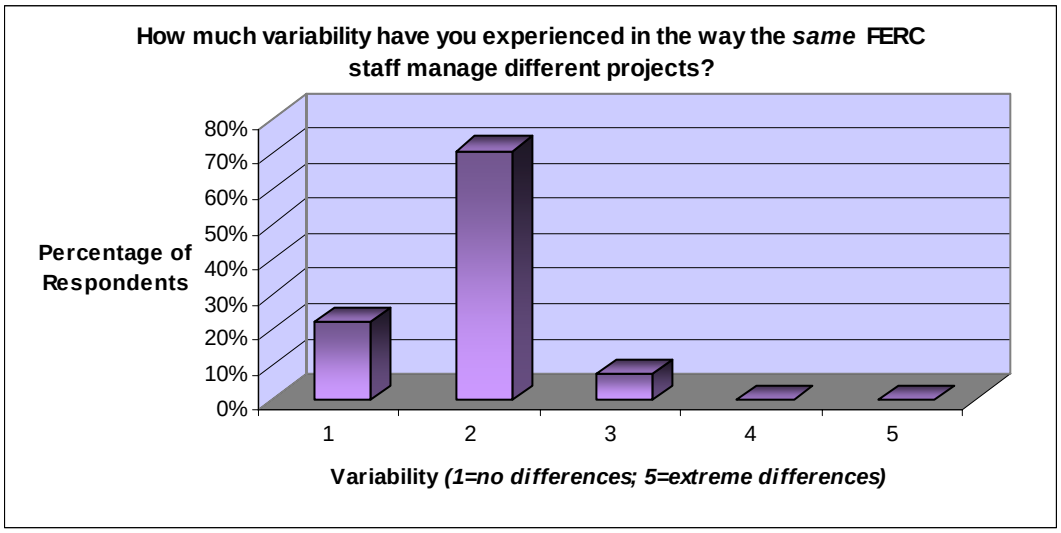



**Figure F-29 Perceived Variability with Individual FERC Staff in Managing Projects**

# 5.0 Questions Related to Filing Process Preference

Survey respondents were asked about their preference for the next project (Figure F-30). Specifically, the question was "If given the choice, what would be your preference for your next project (barring any regulatory rules or mandates)?" While the majority of respondents indicated that their preference would be influenced by project-specific characteristics, it is interesting to note that of the remaining respondents, more chose the pre-filing process over the traditional process.

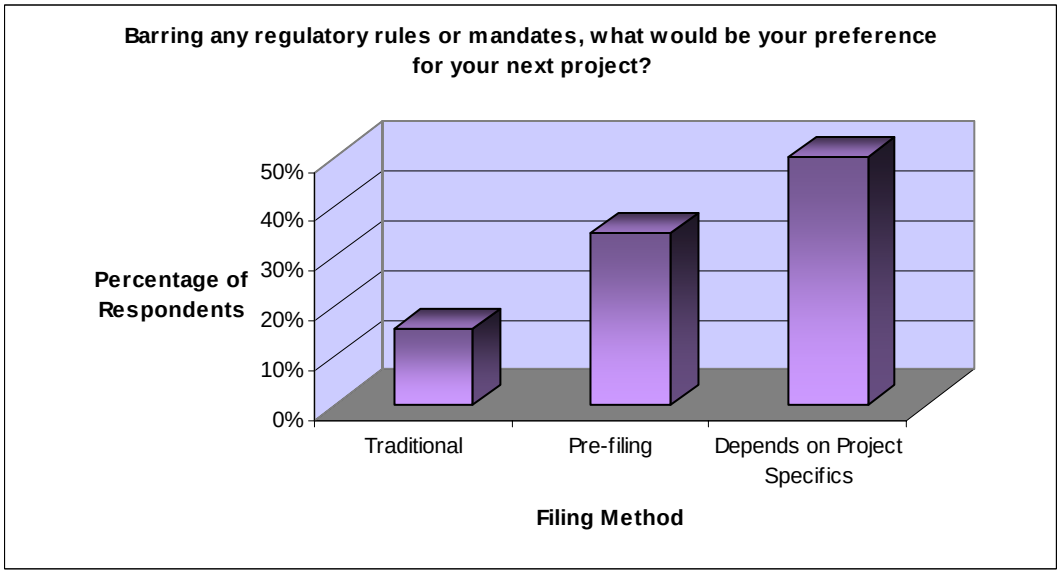



**Figure F-30 Filing Process Preference**