INTERSTATE STRATEGIES
FOR TRANSMISSION PLANNING
AND EXPANSION

A Report of the NGA Task Force on Electricity Infrastructure
PREFACE

The NGA Task Force on Electricity Infrastructure was formed in the fall of 2001 to develop recommendations for revitalizing the nation’s electricity infrastructure. Task Force members were charged with examining policy challenges in three areas: generation capacity, transmission capacity, and the growth of regional electricity markets.

Reflecting the rapid changes that are occurring in interstate transmission policies and industry formations, the Task Force examined this area first. The Task Force prepared this report to provide the nation’s governors with timely recommendations on interstate transmission planning and expansion.

The Task Force on Electricity Infrastructure is a two-year project funded through a Cooperative Agreement between the National Governors Association Center for Best Practices and the U.S. Department of Energy. Governors’ appointees from sixteen states serve on the Task Force. A Steering Committee consisting of four governors provides broad direction for Task Force activities.

The recommendations in this report should not be considered NGA policy. Task Force on Electricity Infrastructure recommendations may be considered for adoption as NGA policy by the NGA Natural Resources Committee.
ACKNOWLEDGEMENTS

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EXECUTIVE SUMMARY

The U.S. electricity sector has traditionally consisted of regulated monopolies that produced and transmitted power to local customers within given service territories. While this industry structure remains largely intact in some areas of the country (e.g., the Southeastern United States) and continues to work effectively, others have seen dramatic changes in the electric power sector. Today, more than half of the electricity generated in the U.S. is traded in regional wholesale markets before being delivered to the end-use customer. ¹ In this new landscape, generation and transmission are increasingly provided by different companies.

Where it is occurring, this shift—local to regional, monopoly supply to wholesale competition—complicates how states plan for, certify, and site transmission infrastructure. There are four primary challenges.

• Clarifying the State Role in Regional Transmission Planning
  According to Federal Energy Regulatory Commission’s (FERC) Order 2000, Regional Transmission Organizations (RTOs) will have ultimate responsibility for transmission planning and expansion at a regional level. Because transmission decisions will affect many areas that fall under the jurisdiction of state regulators and agencies—and because infrastructure expansions proposed in the RTO plan cannot be implemented without state approval—clarifying what authority and input the states will have in the RTO planning and decision-making process is important.

• Determining Need for New Transmission Infrastructure
  The interstate and regional nature of electric supply markets means that state siting authorities may increasingly be asked to approve transmission upgrades or lines that serve regional—not necessarily local—needs. The growth of regional markets challenges states to develop criteria and practices for need certification that reflect the interdependent, and interstate, nature of today’s electric systems.

• Allocating the Costs of New Transmission Lines
  Transmission lines have direct economic costs—i.e., how will the line affect consumers’ electric bills—and indirect or external costs—principally land use and environmental burdens. Addressing how the costs of interstate transmission lines are borne by individual states within a regional market is of critical importance to future electric system development.

• Coordinating the Review and Permitting of Interstate Transmission Lines
  There is enormous variety among state siting and certification processes. This diversity, along with additional sets of siting policies on federal lands, can lead to coordination difficulties when siting interstate facilities. Identifying ways to improve multi-state and federal-state coordination on interstate project review and approval is a critical policy challenge facing governors and the federal government.

¹ There has not been commensurate change at the retail level. In approximately two-thirds of the states, traditionally regulated monopolies continue to deliver electricity—whether purchased in the wholesale market or produced by their own generation facilities—to end-use customers.
**A Framework for Interstate Strategies**

Responding to these challenges, the NGA Task Force on Electricity Infrastructure offers the following recommendations.

1. Governors should form Multi-State Entities (MSEs) to facilitate state coordination on transmission planning, certification, and siting at the regional level. The MSE should reflect the boundaries of regional electricity markets as defined by participating states. For areas where a regional coordinating body already exists—such as the Committee on Regional Electric Power Cooperation in the West—governors should empower this body to serve as the MSE. Appendix I provides a schematic overview of the MSE role in regional transmission planning and expansion.

2. The MSE should be established through a Memorandum of Understanding (MOU) to be signed by governors and, where relevant, federal (land management) agencies and public power authorities, tribal authorities, and border countries.

3. Governors should designate a state official to serve on the MSE as the state’s lead contact. This official will coordinate the input of the state regulatory commission, siting council or equivalent, environmental agency, and other relevant offices with the MSE.

4. The MSE should facilitate a strong state role in RTO planning. The MSE role in RTO planning will not require changes to existing FERC and state jurisdiction, but should simply reflect the authority that states have to approve or deny the construction of facilities proposed in RTO plans. The MSE should provide the RTO with transmission planning guidelines and establish procedures that promote the exchange of necessary information (preferred/problematic corridors for transmission lines, etc.) between states and the RTO.

5. The MSE should establish an Interstate Protocol to coordinate the review and permitting of interstate transmission facilities. The protocol should describe how all of the states in the region will coordinate their reviews of industry transmission applications; establish timelines for review and decisions-making by each state; and provide guidelines for the sharing of information. The objective of this coordination effort is a “one-stop” application process for interstate lines. The “one-stop” process should consolidate and harmonize, to the greatest degree possible, all application procedures of relevant state and federal agencies.

6. The MSE should form Project Teams comprising states that will be affected by interstate transmission projects proposed by RTO plans. The Project Teams, by unanimous vote, should issue or deny a Regional Need Finding for all or part of the RTO plan. If a Regional Need Finding is issued for the RTO plan, industry applications that are consistent with the plan should be exempt from any state need certification processes. Project Teams should then use the Interstate Protocol to coordinate the review and permitting of industry applications to construct transmission facilities.
7. The MSE should endorse a set of best practices for state transmission planning, siting, and permit activities; work with member states on the adoption of best practices; and integrate these best practices with the Interstate Protocol.

8. To promote voluntary cooperation and reduce the probability of impasse among states, the MSE should:

   • facilitate regional negotiation and conflict resolution processes;
   • actively encourage the use of new low-impact technologies and existing corridors to enhance or expand the grid in ways that minimize environmental and land-use burdens;
   • explore tools that may be used to mitigate the inequitable distribution of costs that can accompany an interstate transmission line, including an impact fund that would be available to disproportionately impacted states for use toward energy related projects or the purchase of open space (to compensate for affected lands);
   • evaluate ways to bar states that do not participate or that block important regional projects from obtaining benefits otherwise available through regional efforts; and
   • promote the view of electricity (and electricity pricing and reliability) as a regional "common good" rather than a differentiating factor to be used in competition with neighboring states for economic development opportunities.

   If over time, it becomes apparent that voluntary cooperation is not effective within a given region, the Task Force recommends that the MSE evaluate options for making decisions binding on member states.

9. The MSE should be governed by a set of by-laws, to be specified in the MOU. At a minimum, these bylaws should:

   • identify and define the role of the MSE;
   • outline the relationship between the MSE and, if operational, the RTO;
   • describe the Project Team process for affected states;
   • define “regional need”;
   • establish rules for the Project Teams’ Regional Finding of Need;
   • create a framework for collaborating with neighboring MSEs on projects that bridge MSE regions;
   • describe the Interstate Protocol; and
   • address administrative and funding issues.

The Task Force recommends the MSE framework described in this paper as a general approach, not a “one-size-fits-all” model. Many specific MSE parameters are best addressed at the regional level. Accordingly, the Task Force has identified a number of key questions that states should consider when establishing an MSE for their region.
I. POLICY CHALLENGES

Traditionally, regulated monopolies provided bundled electric generation, transmission, and distribution services to customers within their service territory. While this industry structure remains largely intact in certain parts of the country (e.g., the Southeastern United States) and continues to function effectively, much of the nation has seen dramatic changes in the electric power sector. More than half of all electricity now generated in the U.S. is traded in regional wholesale markets before being delivered to the end-use customer. Generation and transmission are increasingly provided by different companies.

The growth of wholesale markets has changed how the nation’s transmission infrastructure is used. The U.S. transmission system was built by vertically integrated utilities to deliver power produced at their generation facilities to local ratepayers. Over time, interconnections between utility service territories were constructed to improve reliability and intermittently share excess generation capacity. Spurred by federal and state regulatory changes in the past decade, utilities, independent producers, and marketers now use these interconnected transmission systems to buy and sell wholesale power in robust regional wholesale markets. The transmission system was not designed for this new and critical use.

This new role for transmission infrastructure—along with the Federal Energy Regulatory Commission’s (FERC) efforts to consolidate transmission management at the regional level—challenges how states plan for, certify, and site transmission infrastructure. There are four primary challenges.

| Figure 1: Transitions in the Electricity Sector |
| Change in the electricity sector is not occurring uniformly nationwide.² The diversity is apparent in both wholesale and retail activity. The Southeastern United States has less wholesale activity relative to other regions and no retail competition. Electric generation, transmission, and distribution services continue to be largely provided by vertically integrated monopolies. Conversely, retail choice is available throughout the Mid-Atlantic and Northeast regions and wholesale markets are well established. Texas has both retail and wholesale markets. Ohio, Michigan, and Illinois in the Midwest have retail competition and the region’s wholesale market continues to evolve. Retail choice is limited to two states (Montana and Arizona) in the West, yet the Western Interconnection has a history of bulk power transfers and a competitive wholesale marketplace. The diversity of change across the country means that states and regions face the challenges outlined herein to differing degrees. States may favor the framework outlined here for different reasons and use it in different ways. For example, in the Southeast, where the traditional industry structure remains the norm, there may be less of a need to coordinate transmission development regionally. However, if the FERC succeeds in consolidating transmission management in one or more Southeastern RTOs, Southeastern states can use the paper’s recommended framework to ensure that the RTO process serves the unique needs and conditions of their region. |

Policy Challenge #1: 
Clarifying the State Role in Regional Transmission Planning

Utilities historically have performed generation and/or transmission planning to serve the needs of their own customers within a defined service territory. These regulated monopolies not only had the information (electricity trends and forecasts), but the assets (generation, transmission, and distribution facilities) to manage transmission constraints.

In many regions generation and transmission investment are made by different players, operating across regional wholesale markets. Yet in some cases there is no planning entity that fulfills at a regional level the planning functions performed by regulated utilities at the state level. In response to this void, in 1999, FERC called for the establishment of Regional Transmission Organizations, assigning them major transmission planning responsibilities. In its Order 2000, the FERC sketched the regional planning role it expects the RTO to assume:

The RTO must have ultimate responsibility for transmission planning and expansion within its region that will enable it to provide efficient, reliable and non-discriminatory service...the rationale for this requirement is that the single entity must coordinate these actions to ensure a least cost outcome that maintains and improves existing reliability levels. In the absence of a single entity performing these functions, there is a danger that separate transmission investments will work at cross-purposes and possibly even hurt reliability.³

Because of the central role played by transmission in the electric system, RTO planning activities will consider and may affect areas that fall under the jurisdiction of state regulators and agencies. These areas include:

System Planning Objectives: Ratepayers expect affordable and reliable electricity, and they expect state regulators to avert service disruptions and price spikes. Depending on how the RTO defines the primary objectives of transmission planning—reliability, commerce, or both—RTO planning could either enhance or diminish the ability of state regulators to fulfill their statutory obligations to ratepayers. For example, an RTO will take a system wide approach to planning in order to optimize operations and regional economic benefits. This could result in one state bearing the social, environmental, and economic costs for transmission facilities that convey greater benefits to other states.

Land Use and Environmental Considerations: Decisions regarding transmission expansion can have direct and indirect environmental impacts, detrimental or beneficial. Obvious land use implications accompany a newly sited line. Yet decisions not to build also have environmental consequences. For example, a decision to substitute generation for additional transmission to resolve a bottleneck carries not only land use but also air and water quality implications. Alternatively, a decision to pursue demand management strategies or use new technologies to upgrade existing transmission systems instead of constructing new lines can confer environmental benefits, including

a reduction in power plant emissions and land-use burdens. These and other environmental concerns fall directly under the regulatory purview of state siting councils, public utility commissions, environmental agencies, and local governments.

**Economic Development:** Transmission expansion, by providing access to cheaper power sources and improving reliability, can be an important economic development tool. State economic development agencies will continue to consider the impact of transmission expansion on regional and state economic development strategies.

*Because transmission serves such a vital role in regional energy markets, and therefore regional and local land use, environmental, and economic growth concerns, clarifying the state role in the RTO planning process is a critical policy challenge.*

**Policy Challenge #2: Determining if a New Transmission Line is Needed**

Most states require utilities to demonstrate that a proposed facility meets a public need. Ratepayers are required to pay the costs of new transmission facilities and, as a result, regulators seek to ensure that the investment is—in fact—needed by native load ratepayers. When utilities propose new lines to serve local customers, this determination can be relatively straightforward. However, as electric supply markets become increasingly regional, state siting authorities are more likely to be asked to approve transmission lines that serve regional—not necessarily local—needs.

Most state statutes do not clearly address how regional electricity markets should be factored into decision-making. Many restrict the relevant need to that of the in-state ratepayer. Others fail to define whose need should be evaluated, causing siting authorities to consider only in-state ratepayers so as to minimize the risk of their decision being challenged and overturned in court. At least one statute expressly prohibits the consideration of regional benefits in the need determination process.

*The growth of regional markets, and the corresponding emergence of regional planning, challenges states to develop criteria and practices for need certification that reflect the interdependent, and interstate, nature of today’s electric system.*

**Policy Challenge #3: Allocating the Costs of New Transmission Lines**

Transmission lines have direct economic costs (i.e., how will the line affect ratepayer electric bills?) and indirect or external costs—principally the aforementioned land use and environmental burdens. The allocation of internal and external costs raises equity concerns. That is, the costs and benefits of interstate transmission lines are usually not distributed evenly among ratepayers in a given region.

**Direct Economic Costs: The Cost Recovery Issue**

In the traditional industry structure, state regulators evaluate the economic costs of a new transmission line against its projected benefits to determine if the proposal would be in the best interest of the ratepayer. If this review is favorable, the state allows these costs to be recovered in the rate base. When generation, transmission, and distribution are all housed within vertically integrated
utilities that serve a group of in-state ratepayers, the process of identifying potential benefits and assigning costs can be—though is not always—straightforward.

In the context of established and emerging wholesale electricity markets, the transmission system facilitates trading across regional markets. This new use complicates how state regulators assess benefits and assign costs of new transmission in at least four ways. First, the benefits of new interstate transmission lines are likely to be more diffuse than those conferred to ratepayers within the vertically integrated structure. Second, determining the distribution of costs and benefits associated with a new line is an increasingly complex task. For example, a line built from Ohio to Virginia can affect the wholesale price of electricity in Wisconsin. How these prices are impacted will vary under different modeling scenarios. Third, the primary beneficiaries of a new line may be located outside the state where most of a new project is to be constructed. Fourth, who benefits most from the new line can change as markets evolve.

In this environment, state regulators may be reluctant to add the costs of a new transmission project to the rate base within their jurisdiction. But then, who pays?

Collectively, through the National Association of Regulatory Utility Commissioners (NARUC), the states have urged the FERC to set a pricing policy that provides for costs to be borne by the “cost-causer” in those instances in which the upgrade or expansion does not benefit the public interest as defined by the state regulatory body. More broadly, state regulators, industry, and the FERC are evaluating alternative approaches to transmission cost recovery. There are five primary alternatives, including the “cost-causer” approach.

(1) *Merchant Direct Current (DC) Transmission Projects*
A developer builds a DC line with its own capital, and sells or leases shares of the line’s capacity to interested parties, either distributors or generators.

(2) *Merchant Alternative Current (AC) Transmission Projects Using Location Marginal Pricing*
This approach builds upon the “Location Marginal Pricing,” or LMP system currently in use in the Pennsylvania-New Jersey-Maryland Interconnection (PJM). LMP informs market participants how much electricity will cost at a particular location at a given time. By studying LMP trends, market participants can determine where transmission congestion is driving up the price of wholesale power and where new transmission lines or upgrades can effectively reduce costs. Companies that build new lines or perform upgrades to reduce congestion and costs would acquire financial transmission rights (FTRs). They could hold the FTRs for their own use or sell them to other market participants.

(3) *Traditional Cost Recovery, Using Rolled-In Allocation*
Recognizing that the benefits of new transmission lines can often be diffuse, this approach seeks to distribute associated costs across all users in a given market. The approach has been used in the New England regional power pool (NEPOOL). Specifically, the costs of

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4 The line’s DC configuration allows the operator to restrict usage to parties who have bought/leased shares of its capacity. Such a restriction is not possible on AC lines, through which electricity flows over a regional network to equilibrate the level of electrical resistance across the network.
regionally significant transmission lines have been rolled in, or allocated, to the rate base of consumers across the New England region.

(4) Traditional Cost Recovery, Using Cost-Causation Allocation
In contrast to the rolled-in allocation described above, cost-causation allocation seeks to narrowly assign costs to a specific group. This approach might be applied in cases where a new transmission line or upgrade clearly confers a majority of the benefits to a specific set of consumers and/or generators.

(5) Traditional Cost Recovery, Using a combination of Rolled-In and Cost-Causation Allocation
The rolled-in and cost-causation allocation approaches speak to different cost-benefit scenarios. The rolled-in approach seeks to socialize costs when benefits are diffuse. The cost-causation approach aims to narrowly assign costs when benefits accrue to a distinct set of market participants. Some may therefore support both approaches, with the use of one over the other being dependent on the context of the line or upgrade.

External Costs: Land Use, Social, and Environmental Burdens
Land use, social, and environmental burdens associated with the siting of a new interstate transmission facility may be distributed inequitably across states. For example, a transmission line that facilitates the export of power from one state to a major metropolitan area in another may run through yet a third state that sees little direct economic benefit from the line. However, this so-called “pass-through” state may incur the majority of the line’s non-economic costs.

Addressing how the costs of interstate transmission lines are borne by individual states within a regional market represents a major policy challenge for governors, the FERC, and RTOs.

Policy Challenge #4: Coordinating the Review/Permitting of Interstate Transmission Lines
There is enormous variety among state siting and certification processes. This diversity, along with additional sets of siting policies on federal lands, can lead to coordination difficulties when siting interstate facilities. For example, in the oft-cited American Electric Power (AEP) transmission project in West Virginia and Virginia, coordination problems among multiple state and federal agencies caused considerable delays.

AEP first proposed the 765-kV line, which would have run from Wyoming County, West Virginia to Cloverdale, Virginia, in 1991. The purpose of the 113-mile project was to maintain reliability within the two states. Approval was needed not only from Virginia and West Virginia, but also from the U.S. Forest Service, the National Park Service, and the U.S. Army Corp. of Engineers. The line had the potential for adverse impacts on populated areas, and would cross ecologically sensitive areas in the New River, the Appalachian Trail and the Jefferson National Forest. As a result, it faced controversy from the onset.

Following a re-routing process that consumed the ensuing decade, the AEP line awaits final approval from the U.S. Forest Service. Poor communication between the Forest Service and AEP
regarding alternative routes, sequential rather than concurrent reviews by some agencies, a tendency by the two states to focus on routes that minimized adverse impacts to each without regard for the other, and the lack of a regional review forum for review were major sources of delays.  

Identifying mechanisms to improve multi-state and federal-state coordination on interstate project review and approval is an important policy challenge facing governors and the federal government.

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II. INTERSTATE STRATEGIES FOR REGIONAL TRANSMISSION PLANNING AND EXPANSION

In response to these challenges, the NGA Task Force on Electricity Infrastructure met (February 7-8, 2002) for an Executive Policy Forum in Washington, D.C., to discuss potential strategies for improving the review and siting process for interstate transmission lines. Joining the Task Force in the policy forum were other state officials from non-Task Force states as well as representatives from industry, non-governmental organizations, and federal agencies.

During the forum, the Task Force considered cooperative forums, interstate compacts, and FERC-state joint boards as vehicles for state coordination on regional transmission planning and expansion. They also evaluated the use of a “FERC backstop” with each strategy. In a “backstop” capacity, the FERC would make siting decisions, enforceable through the use of eminent domain, if states prove unable to reach a decision on an interstate transmission application within a specified time period.

Subsequent to the February 7-8, 2002, Executive Policy Forum, the Task Force developed a set of principles to guide gubernatorial policymaking on regional transmission planning and expansion. The principles, enumerated in Figure III, also serve as parameters to guide the formation of potential interstate strategies for interstate transmission planning and expansion.

Figure 2: Task Force Principles on Interstate Transmission Planning and Expansion

I. States should retain authority over the siting of transmission lines.

II. There should be no federal preemption of state siting authority, including the use of a FERC backstop.

III. Neither Congress nor the FERC should inhibit regional approaches undertaken by states to address their transmission needs, including the voluntary adoption of interstate protocols, compacts, and regional regulatory authorities.

IV. State certification processes should consider regional need, which will require some states to change certificate of need and/or siting statutes.

V. Transmission planning, including the consideration of alternatives to new transmission lines, should occur at a regional level with states’ participation. Regional Transmission Organizations should not be considered the only appropriate forum for transmission planning and the evaluation of non-transmission alternatives at a regional level.

VI. State certification and siting processes should assure timely resolution of transmission proposals and offer certainty to all parties.
### VII.
States should voluntarily adopt interstate protocols or form multi-state associations, such as compacts and regional (or sub-regional) regulatory authorities to achieve interstate transmission objectives. These multi-state associations may certify need and have limited enforcement power to overcome obstacles to the siting of transmission projects.

### VIII.
States favor the use of incentives to offset disproportionate impacts that some states may bear from interstate transmission lines.

### IX.
Procedures for siting transmission lines on federal land should be improved, particularly with regard to timeliness; such procedures should be undertaken concurrently with activities of individual states, and any relevant regional association of states.

Recognizing regional variations in how states view interstate transmission challenges and their solutions, the Task Force next formed regional working groups. Each group was given the task of developing a “straw man” strategy for improving interstate transmission planning and expansion. The only requirement was that each strategy be consistent with the Task Force principles.

While some important regional variations were identified, the working groups also endorsed many common parameters. These commonalities form the basis for the Task Force’s recommended framework for interstate cooperation and coordination on transmission planning and expansion.

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6 Because the Western Governors Association’s Interstate Protocol approach was already far along in its development, their regional working group’s communications with NGA Center staff consisted primarily of clarifying components of this strategy.
III. RECOMMENDED FRAMEWORK

To address the four principal challenges identified in Section I—(1) the state role in regional transmission planning; (2) need determination at a regional level; (3) cost allocation at a regional level; and (4) the coordination of state, and federal (land management agency) review and permitting of proposed transmission facilities—the Task Force recommends that governors pursue the framework outlined below. Recognizing that there is no “one-size-fits-all” approach, the Task Force presents this as a broad framework within which states can tailor regionally appropriate strategies.

Multi-State Entities
States should form (or use existing) multi-state entities (MSEs) to improve interstate coordination on transmission planning and expansion. The MSE is intended to:

- establish a framework for state input into RTO planning;
- facilitate a “one-stop” application process that consolidates relevant regulatory activities of affected states, including a “Regional Need Finding”; and
- provide a forum in which states, federal (land management) agencies, and, where relevant, tribal authorities and border countries (Canada and Mexico), can resolve siting disputes and otherwise address issues relating to transmission expansion.

The formation of MSEs should follow the footprints of regional electricity markets. In some regions, states may choose to use or develop a regional coordinating body that corresponds to an area that is larger than a single RTO. For example, in the West, states are coordinating an interconnection-wide basis that encompasses more than one (proposed) RTO. In other regions, states may elect to form MSEs at a sub-RTO level.

Uncertainties regarding RTO formation, changing RTO boundaries, the prospect that some RTO/market boundaries may not be consistent with state boundaries, and the likelihood that market geography will evolve over time, complicate MSE membership decisions. States and the FERC will need to address these uncertainties and/or establish procedures for addressing changes in RTO configuration when forming MSEs.

The MSE Framework and Process Explained

(1) Establishing Multi-State Entities
The MSE should be established through a Memorandum of Understanding (MOU) signed by governors and, where relevant, federal (land management) agencies and public power authorities, tribal authorities, and border countries. Governors should designate a senior state official to serve on the MSE as the state’s lead contact. This official will be the liaison between the MSE and the individual state, coordinating the input and participation of the state regulatory commission, siting councils, environmental agencies, and other relevant offices.
For those regions of the country where a regional coordinating body already exists, the MOU should simply reference this existing organization as the MSE. For example, the Committee for Regional Electric Power Cooperation (CREPC) is considered to be the principal coordinating entity for the Western Interconnection and is charged with implementing the Interstate Protocol approach developed by the western states.

**Key Issues for Regional Consideration**

(a) Some states fall within two markets or RTO configurations. Most of Texas encompasses the entire ERCOT interconnect. Where certain states fit within a regional grouping is not immediately clear and will require regional discussions to tackle these membership issues early on.

(b) Markets and/or RTOs may change in geographic scope. The MSE should be designed in a way that accommodates changes in market and/or RTO size and shape.

**(2) Minimum Parameters of the Memorandum of Understanding**

At a minimum, the MOU should: (1) clearly define the role of the MSE; (2) outline the relationship between the MSE and the RTO, and include a commitment to work collaboratively, whenever possible, with the FERC on areas of mutual concern; (3) define “regional need” and outline the process through which affected states collectively issue a “Regional Finding of Need”; (4) establish an Interstate Protocol that coordinates the review, certification, and permitting of interstate transmission infrastructure; and (5) address procedural and administrative issues, including structure and governance, decision rules (consensus, majority, etc.), staffing, funding, and the amendment process, among others.

**Key Issues for Regional Consideration**

(a) What parameters are necessary to ensure that the interests of smaller states (i.e., a lesser share of market activity) are not sacrificed for those of larger MSE members?

(b) Parameters that maximize the preservation of state independence may lead to “lowest common denominator” results. Conversely, parameters that maximize the regional good may threaten state sovereignty. What’s the appropriate balance?

**(3) An Early State Role in the RTO Planning Process**

FERC Order 2000 envisions that the RTO will be the primary organization responsible for regional transmission planning. However, several factors point to the need for a strong state role in the RTO planning process. These include:

- the necessity that Regional Transmission Organizations fairly evaluate non-transmission solutions to regional capacity deficiencies;
- the importance of transmission planning to areas that fall under state jurisdiction, such as the siting and permitting of generation facilities, and demand management and energy efficiency programs;
- the allocation of both direct economic and external costs associated with new transmission lines; and
- the economic development aspects of new electricity infrastructure.
The MSE should assume a strong role in the RTO planning process that reflects the authority that states have to approve or deny the construction of facilities proposed in RTO plans. The MSE should provide planning guidelines and ensure that non-transmission alternatives are fairly evaluated. This MSE role should be consistent with existing delineation of authority among federal and state regulatory bodies. To facilitate coordination, the MSE and RTO should establish procedures that promote the exchange of necessary information (preferred/problematic corridors etc.) between states and the RTO.

In those parts of the country where RTOs are further along, this cooperation is already underway. For example, PJM Interconnection and the Mid-Atlantic Conference of Regulatory Utility Commissions (MACRUC) have signed an MOU that defines an organizational structure to facilitate communication and cooperative action among the PJM Board of Directors and the member state commissioners of the MACRUC. This MOU, while far from a comprehensive framework, offers a promising starting point for how the MSE and RTOs might coordinate on issues of mutual concern.

**Key Issues for Regional Consideration**

(a) Some states may have a higher level of comfort with RTO planning, and the ability of RTOs to fairly consider non-transmission alternatives. These states may favor a more laissez-faire approach to oversight and involvement in RTO processes. Other states may pursue a more active role in the planning process. Early in the process, the MSE, RTO, and the FERC should identify key roles and clarify authority with respect to regional transmission planning.

(b) The composition of state regulatory bodies changes frequently. How can state involvement in the RTO planning process be structured so as to minimize uncertainties that may result from changing priorities and personnel at the state level?

(4) Regional Need Finding for RTO Plan

Today, individual utilities plan and submit applications for new transmission facilities. The receipt of the application by siting authorities starts the review process, including the consideration of whether the facility is needed. If the reviewing agency determines that the facility is in the best interest of the ratepayer, they will issue what is typically called a Certificate of Public Need and Convenience.

In the future, the RTO plan is expected to identify transmission needs and propose solutions. The opportunity therefore exists for the MSE to provide prospective transmission applicants with an indication of the states’ position on whether the transmission facilities proposed in the RTO plan are needed. The MSE can provide a clear signal by issuing a Regional Need Finding that endorses some, or all, of the RTO plan for transmission expansion.

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8 The Memorandum of Understanding between PJM Interconnection L.L.C. and Mid-Atlantic Conference of Regulatory Utilities Commissions, Inc., 1998, was signed by the President of PJM and commission chair in each of the following states: Pennsylvania, New Jersey, Maryland, Delaware, Virginia, and the District of Columbia.
The Task Force envisions the need finding occurring in the following manner. Concurrent with releasing its transmission plan, the RTO issues a grid study identifying which states are affected by interstate transmission lines proposed in the plan. Responding to this plan, the MSE forms a Project Team of representatives from each potentially affected state, including the governors’ designated MSE lead contact. The Project Team evaluates the proposed interstate line(s) and, depending on their findings, issues a Regional Need Finding for all or part of the RTO-proposed transmission infrastructure. In effect, the Project Team “blesses” or denies all or some of the RTO transmission expansion plan.9

When the Regional Need Finding for the RTO plan is reached through a unanimous decision-making process among Project Team states, industry applications that are consistent with the MSE-approved RTO plan should be exempt from the need certification process at the individual state level.

**Key Issue for Regional Consideration**

How can the MSE review process avoid introducing unwarranted delays into the transmission planning and construction process?

**(5) Interstate Protocol: Coordinating Review and Permitting**

Once the Project Team has issued the Regional Need Finding, industry submits applications to construct the new transmission facilities to each Project Team state. The Project Team coordinates the review and permit process through the Interstate Protocol10 outlined in the MOU. The Interstate Protocol should be designed to support, among others, the following parameters:

(i) **Joint Timelines, Decisions, Activities, and Records:** The Interstate Protocol should outline the use of joint timelines, decisions, activities, and records to facilitate a streamlined interstate regulatory process.

(ii) **Consolidated Environmental Review:** The Interstate Protocol should specify an environmental review process through which Project Team states jointly prepare environmental assessments (EAs) and environmental impact statements (EIAs).

(iii) **Clearinghouse for Information:** The Interstate Protocol should outline procedures for the management of information (including that which pertains to necessary permits, licenses, approvals, processes, and other requirements) at a regional level.

The objective of this coordination should be to create a “one-stop” application process for interstate lines. The “one-stop” process should consolidate and harmonize, to the greatest degree possible, all aspects of relevant state and federal agencies application procedures.

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9 Note that in those regions where RTOs are not yet established, the Regional Need Finding for the RTO plan is not applicable. In the West, where the RTO-West/Transconnect is not expected to be operational until 2004, the CREPC Interstate Protocol will coordinate the need certification processes of individual states but will not facilitate a collective Regional Need Finding.

10 This list has been adapted from Western Governors Association’s “Protocol Among Western States Governing the Siting and Permitting of Interstate Transmission Lines.” Western Governors Association, Draft 3/07/02.
### Key Issue for Regional Consideration
The success of the Interstate Protocol will depend largely on the ability of participating states to harmonize review and permitting procedures. Fundamental differences in statutes and practices may impede this effort. How should the MSE respond to states that retain laws and/or regulations that impede the use of the Interstate Protocol?

### Figure 3: Protecting State Interests
The MSE protects the interests of “pass-through” states (i.e. states located in between generation and markets that need it) in three ways.

#### Project Team:
The MSE establishes an Interstate Protocol at a regional level, but the majority of decision-making occurs at a sub-regional level through the Project Team. Each state on the Project Team has the ability to veto a Regional Need Finding for an RTO plan. Moreover, each state on the Project Team retains its individual siting authority.

#### Negotiation:
The MSE provides a forum for Project Team states to formally negotiate with one another at a regional level. To overcome stalemates that have derailed projects in the past, the MSE can use a negotiation process with both “carrots” (e.g. incentives and other mechanisms that distribute benefits in an equitable way) and "sticks" (e.g. barring states that block important regional projects from obtaining benefits otherwise available through regional efforts) to win the cooperation of each Project Team state.

#### State Control:
In Order 2000, the FERC envisioned the RTO as having “ultimate responsibility for transmission planning and expansion within its region.” Yet the states’ current role in the RTO process is largely advisory. The MSE framework provides all states greater control over important RTO decisions that will impact their region.

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#### (6) Transmission Planning, Siting, and Permitting: Best Practices Criteria

The Task Force believes that the MSE should endorse a set of best practices for state transmission planning, siting, and permitting. These best practices should be adopted by states within the MSE, and be integrated with the Interstate Protocol. As a starting point, the MSE should consider state statutes and processes that are consistent with parameters listed below.

### (i) Public Involvement
The public should be involved in the siting process as early as possible as well as throughout the notification, application, study, administrative decision-making and administrative/judicial review stages.

### (ii) Decisions: Criteria and Process
State statutes and/or regulations should specify how cost and environmental impacts will be considered by the siting agency, define public need, and clearly state what the siting agency must find to determine the public need has been met. They should require decision-makers to consider regional need when making their determination, and specify how regional and local concerns are to be balanced. The statute and/or regulation should establish procedures to harmonize and coordinate determinations.

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12 The Keystone Center held an extensive dialogue about a broad spectrum of interests among states involved in the certification and siting of transmission facilities in the early 1990s. The Task Force used the model code that was developed from this dialogue as a starting point for the best practices criteria outlined in this paper. In many cases, the Model Code remained relevant. In some cases, modification was required to reflect changes in industry structure. See Model State Certification and Siting Code for Electric Transmission Facilities, Keystone Center, Washington, D.C., March 1994.
concerning alternatives to new transmission lines—including generation, transmission
technologies that enhance existing capacity, and demand reductions—with the
transmission approval process. Lastly, they should specify that security issues and costs
should be considered when deciding among alternatives.

(iii) Reasonable Timeframe
The statute and/or regulations should specify reasonable time limits for each step in the
application, review, and decision processes.

(iv) Local Laws
The statute and/or regulations should contain a “supercedes” clause overriding local
laws. This clause should be balanced with: (a) service and notification requirements to
local jurisdictions that provide them with the opportunity to participate in all phases of
the siting process; and (b) a requirement that the siting authority consider consistency
with local plans, regulations, and ordinances as a decision factor.

(v) Eminent Domain
In those states where the power of eminent domain can be used to acquire property,
state statutes and/or regulations should provide that, where a regional need has been
shown and local considerations taken into account, this power can be used to secure
property needed to complete the project.

(vi) Low Impact Projects
The statute and/or regulations should encourage the use of new low-impact
technologies and existing corridors. The statute and/or regulations should specify that
“low-impact” transmission projects should be subject to a simplified/expedited
permitting process or in certain cases exempted. The statute and/or regulations should
clearly define “low-impact” and the decision criteria for determining if a project’s
impact is consistent with that definition. Examples of “low-impact” transmission
enhancement projects that might be eligible for expedited review or exemption include
the following:

- overhead projects that make more intensive use of existing
electrical rights-of-way;

- certain underground projects that avoid long-term disruptive effects by
making use of electrical or other existing corridors (e.g., highways and other
roadways; railways; abandoned gas and oil pipelines); and

- projects that are located entirely within substations.

(vii) A Lead Agency
The statute and/or regulations should specify a “one-stop” permitting process that
allows applicants to obtain environmental and other permits from a lead agency.
Planning
The statute and/or regulations should:

- require/encourage the siting agency to identify problematic siting areas (schools, hospitals, wildlife refuges) as well as preferred siting areas (e.g., existing corridors) and make this information available to potential applicants;
- require potential applicants to regularly report the results of their transmission planning efforts to the state and the relevant RTO;
- specify how non-transmission alternatives are to be (generation, DSM, advanced technology) considered in the planning process, and what priority are to be assigned to these alternatives; and
- clearly identify the objectives (e.g., reliability, commerce, local, regional) of the planning process.

The Task Force is currently identifying state statutes and regulations that are consistent with one or more of the parameters identified above,\textsuperscript{12} and will summarize these best practices for state consideration.

Key Issue for Regional Consideration
How active should the MSE be in promoting the use of best practices by its membership?

THE IMPASSE ISSUE
While a majority of the NGA Task Force opposes the use of federal preemption as a way to enforce regionally significant transmission projects on individual states, the Task Force does foresee the possibility of a “recalcitrant state” frustrating the development of important regional transmission infrastructure.

To reduce the probability of impasse, the MSE should pursue the following steps.

Regional Negotiation Forum. The MSE should establish and facilitate a regional negotiation and conflict resolution process.

Low-Impact Technologies and Existing Corridors. The MSE should actively promote the use of new low-impact technologies and existing corridors to enhance or expand the grid in ways that minimize environmental and land-use burdens that can otherwise lead to impasse.

Incentives for Cooperation. The MSE should also explore the use of tools that can be used to resolve impasse among MSE members, including "carrots" (e.g. mechanisms to offset inequitable burdens) and "sticks" (e.g. barring states that do not participate or who block important regional projects from obtaining benefits otherwise available through regional efforts). Under the existing process, utilities have sometimes sought to expand the pool of benefits in order to win cooperation from opposing parties. For example, transmission project sponsors have voluntarily proposed to establish an “impact fund” for affected communities, or to buy and donate parcels of land to state or
local governments for use as parks. The MSE should evaluate whether this concept can be formally incorporated into a regional negotiation process. Consideration will need to be given to whether such a system can be adopted in a way that does not encourage states to game the system.

**Electricity as a Regional Good.** The MSE should encourage the view of electricity (and electricity pricing and reliability) as a regional "common good" rather than a differentiating factor to be used in competition with neighboring states for economic development opportunities.

Should it become apparent that voluntary cooperation is not effective in the context of a given region, the Task Force recommends that the states evaluate empowering the MSE with enforcement authority.
IV. CONCLUSIONS AND RECOMMENDATIONS

The growth of regional markets and the onset of competition raise four principal transmission infrastructure challenges:

- the state’s role in transmission planning for regional competitive wholesale markets;
- determining the need for new transmission infrastructure in a regional context;
- the equitable distribution of costs and benefits accompanying transmission expansion; and
- the coordination of state, as well as federal (land management agencies) review and permitting activities for regional lines.

In response to these challenges, the NGA Task Force on Electricity Infrastructure offers governors the following recommendations.

1. Governors should form Multi-State Entities (MSEs) to facilitate state coordination on transmission planning, certification, and siting at the regional level. The MSE should reflect the boundaries of regional electricity markets as defined by participating states. For areas where a regional coordinating body already exists—such as the Committee on Regional Electric Power Cooperation in the West—governors should empower this body to serve as the MSE. Figure I provides a schematic overview of the MSE role in regional transmission planning and expansion.

2. The MSE should be established through a Memorandum of Understanding (MOU) to be signed by governors and, where relevant, federal (land management) agencies and public power authorities, tribal authorities, and border countries.

3. Governors should designate a state official to serve on the MSE as the state’s lead contact. This official will coordinate the input of the state regulatory commission, siting council or equivalent, environmental agency, and other relevant offices with the MSE.

4. The MSE should facilitate a strong state role in RTO planning. The MSE role in RTO planning will not require changes to existing FERC and state jurisdiction, but should simply reflect the authority that states have to approve or deny the construction of facilities proposed in RTO plans. The MSE should provide the RTO with transmission planning guidelines and establish procedures that promote the exchange of necessary information (preferred/problematic corridors for transmission lines, etc.) between states and the RTO.

5. The MSE should establish an Interstate Protocol to coordinate the review and permitting of interstate transmission facilities. The protocol should describe how all of the states in the region will coordinate their reviews of industry transmission applications; establish timelines for review and decisions-making by each state; and provide guidelines for the sharing of information. The objective of this coordination effort is a “one-stop” application process for interstate lines. The “one-stop” process should consolidate and harmonize, to the greatest degree possible, all application procedures of relevant state and federal agencies.
6. The MSE should form Project Teams comprising states that will be affected by interstate transmission projects proposed by RTO plans. The Project Teams, by unanimous vote, should issue or deny a Regional Need Finding for all or part of the RTO plan. If a Regional Need Finding is issued for the RTO plan, industry applications that are consistent with the plan should be exempt from any state need certification processes. Project Teams should then use the Interstate Protocol to coordinate the review and permitting of industry applications to construct transmission facilities.

7. The MSE should endorse a set of best practices for state transmission planning, siting, and permit activities; work with member states on the adoption of best practices; and integrate these best practices with the Interstate Protocol.

8. To promote voluntary cooperation and reduce the probability of impasse among states, the MSE should:
   - facilitate regional negotiation and conflict resolution processes;
   - actively encourage the use of new low-impact technologies and existing corridors to enhance or expand the grid in ways that minimize environmental and land-use burdens;
   - explore tools that may be used to mitigate the inequitable distribution of costs that can accompany an interstate transmission line, including an impact fund that would be available to disproportionately impacted states for use toward energy related projects or the purchase of open space (to compensate for affected lands);
   - evaluate ways to bar states that do not participate or that block important regional projects from obtaining benefits otherwise available through regional efforts; and
   - promote the view of electricity (and electricity pricing and reliability) as a regional "common good" rather than a differentiating factor to be used in competition with neighboring states for economic development opportunities.

If over time, it becomes apparent that voluntary cooperation is not effective within a given region, the Task Force recommends that the MSE evaluate options for making decisions binding on member states.

9. The MSE should be governed by a set of by-laws, to be specified in the MOU. At a minimum, these bylaws should:
   - identify and define the role of the MSE;
   - outline the relationship between the MSE and, if operational, the RTO;
   - describe the Project Team process for affected states;
   - define “regional need”;
   - establish rules for the Project Teams’ Regional Finding of Need;
   - create a framework for collaborating with neighboring MSEs on projects that bridge MSE regions;
• describe the Interstate Protocol; and
• address administrative and funding issues.
Appendix I: Multi-State Entity (MSE) Process

Governors

MSE

RTO

input
plan
grid study

Project Team

Regional Need Finding

Yes

Project Team states accept industry applications

& use

Interstate Protocol

Coordinate Review & Permitting of Interstate Line

No

appointees goals

governors

Finding

issues

Appendices

coordinate review & permitting of interstate line

input
plan
