Mini Guide on Transmission Siting: State Agency Decision Making

Prepared for the National Council on Electricity Policy, administered by the National Association of Regulatory Utility Commissioners Center for Partnerships & Innovation

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Decisions on where to site transmission lines must balance the needs of the electric system with other uses of land. States have evolved several ways to organize this important decision-making process.[1] This mini guide outlines the interests that must be balanced, organizational approaches being used, and insights into different state processes. Interviews with key agency leads and staff involved in the day-to-day work of siting transmission lines offer observations about the relative consistency in responsibilities and approaches across different institutional structures.

Transmission Lines as One Land-Use Option

Major electricity facilities, both generating plants and transmission lines, require long-term commitments of land and capital. Each new project requires substantial planning and engineering to meet the needs of the electricity system at reasonable cost. But the dedication of land to electricity uses, especially the ribbons of land needed for transmission line right-of-way, can be in tension with other demands on that land. Transmission facilities are typically above ground and highly visible, making the decisions on where they will be located of significant public interest. Other land uses that may compete with the electricity system include:

- Agriculture and forests
- Parks, recreation, tourism, historic and cultural sites, and scenic interest
- Natural resources and environmental concerns, such as wildlife, wetlands, and watercourses
- Transportation—road, rail, and air
- Housing
- Economic development

These competing land-use interests are represented by individuals, private and nonprofit groups, local governments, or by other state or federal agencies. Landowners along the route may be impacted by the construction and operation of a transmission line. States generally require an applicant for a transmission line to notify the public of the proposed route and invite and receive comments from those affected by a proposed project. Often the decision maker hears public input directly.

> *Our siting committee is booked pretty solidly through the first part of next year. What's driving the flood of cases is solar plants and battery storage units. But our statutes were written before solar and wind became a significant priority for utility companies.*
>
> *—Paul Katz, Chair, Arizona Power Plant and Transmission Line Siting Committee*

1 The U.S. Department of Energy has compiled a resource detailing the bulk transmission regulations and permitting processes by state in the Regulatory and Permitting Information Desktop Toolbox, available at https://openei.org/wiki/RAPID/BulkTransmission/Jurisdictions.

About the NCEP Mini Guide Series

The National Council on Electricity Policy (NCEP) is a platform for all state-level electricity decision makers to share and learn from diverse perspectives on the evolving electricity sector. The NCEP mini guide series promotes this dialogue by highlighting examples of successful engagement across its members. Each mini guide features collaborative approaches, lessons learned, and interviews with leading state and local decision makers.

Looking ahead, the number of proposals for new transmission lines is expected to increase. Decarbonizing the U.S. electricity system depends on replacing existing fossil-fueled generation with renewable generation—primarily solar and wind. A substantial amount of new transmission construction is expected to connect generation resources in remote locations to load centers.

With an increase in the siting caseload, and more public concern about transmission lines, states may see both challenges and opportunities for improving their siting procedures.

> *Plans to build a lot of inter-RTO[2] transmission connections could bog down if siting isn't consistent. That's what you should be watching out for.*
>
> *—Leo Haynos, Chief Engineer, Kansas Corporation Commission*

Entities Responsible for Siting Decisions

Considering public objections and preserving other land-use interests may require modification of a proposed transmission path. Deviations from the optimum engineering transmission design usually come with trade-offs of cost and efficiency for the electric system. Therefore, balancing these interests are consequential decisions.

In each state, the agency making the decision to approve and locate a transmission line is charged with balancing all aspects of the public interest in its decision. Approval may have several legal consequences. It usually constitutes a finding of public need that would support acquisition of land interests for the right-of-way through negotiation or condemnation. It may authorize access to public land necessary for construction of the project. And it may permit the costs of the project to be recovered from electricity customers in subsequent rate cases.

Most states historically gave the task of approving the need for major transmission facilities and the choice of route to their utility regulatory agency—the Public Service Commission, Public Utility Commission, Commerce Commission, or Corporation Commission (referred to here as the Commission).

For decades, however, other concerns, and often other agencies of state or local government, have sought to enlarge consideration of a transmission line to take into account some of the factors that may be affected by construction and operation of a transmission line.

> *Back in the 1970s, when there were major power plants being built, people wanted a process to engage with the decision makers on siting transmission and power plants.*
>
> *—Zach Branum, Engineer, Arizona Corporation Commission*

Occasionally decisions of local government agencies may conflict with overall state energy needs, policies, and objectives. Like many states, Massachusetts in the early 1970s experienced frequent opposition by local government agencies to proposed generation and transmission facilities deemed necessary to maintain the reliability of the state's electric system, and it created a new siting agency to unify and improve the siting process.

> *The genesis of the Siting Council, now renamed the Energy Facilities Siting Board, was to create a state siting body that could balance important overall objectives—reliability, environmental impact, and cost—and to do that in a manner that would provide new state authority to overcome some of the obstacles that could hinder important energy projects the state needed to ensure reliability. The Siting Board possesses the authority, when necessary, to issue all state and local permits that may be required to approve and build a jurisdictional energy facility.*
>
> *—Andrew Greene, Director, Massachusetts Energy Facilities Siting Board*

In other words, the balancing act often requires multidimensional consideration.

Some states vary their approval processes depending on other factors. Most states, for instance, exempt lower voltage lines and shorter lines from the need for approval by a state agency. Lines proposed by a regulated utility may follow a different approval path than merchant lines or lines constructed outside a utility's service area. Additionally, several states do not require state-level approval of lines within a municipality.

2 Regional Transmission Organizations (RTOs) conduct region-wide transmission planning in the geographic areas where they operate but do not have a role in siting decisions.

Despite the differences in the composition of the decision-making entity, the criteria for approval of a transmission line are relatively consistent. The need for the line must be demonstrated through analysis of the electrical system. The cost of the project compared to its benefits is usually considered.

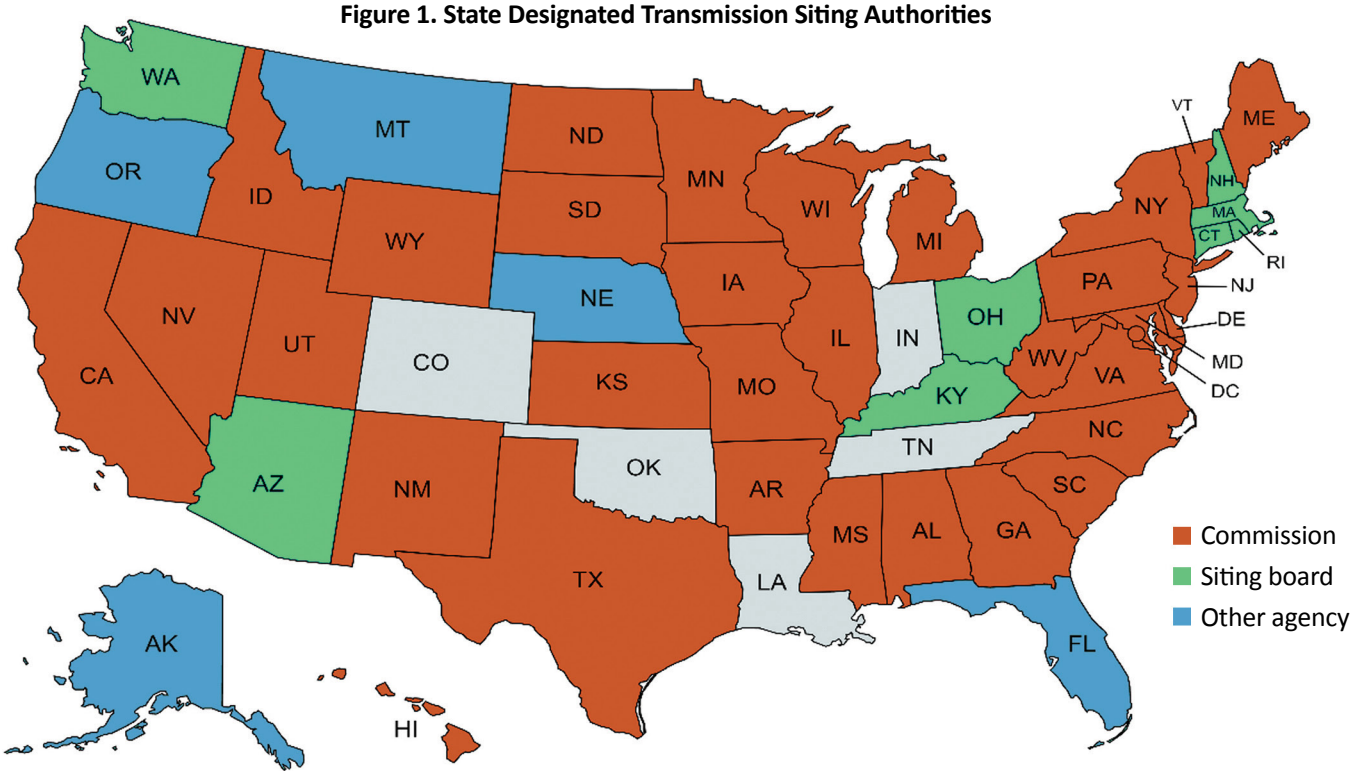
Siting decisions typically analyze land use effects along the line's right-of-way (e.g., agricultural, recreational, scenic impacts). Proximity to railways, roadways, and airports is sometimes a factor. Environmental effects are regularly considered, including geology, wetlands, wildlife, forestry, and historic or cultural features.

> *The committee is trying to weigh the environmental impact with the economic supply of power in the state. Then the Commission can take the environmental consideration from the record and weigh that against the financial impact and economic needs of the state.*
>
> *—Zach Branum, Engineer, Arizona Corporation Commission*

> *The board is charged with three objectives: ensuring a reliable supply of energy, minimizing environmental impacts, and obtaining energy resources at the lowest possible cost. The statute contemplates that you can achieve all three of those objectives simultaneously, but not surprisingly there can sometimes be trade-offs involved in trying to achieve all three objectives.*
>
> *—Andrew Greene, Director, Massachusetts Energy Facilities Siting Board*

Legislatures have set out several ways for these interests to be coordinated by designated transmission siting authorities that produce final decisions. Review of siting authorities across the United States reflects four broad patterns of decisional process for siting electric transmission lines (see Figure 1). Not surprisingly, almost every state adds its own features.

Figure 1. State Designated Transmission Siting Authorities



Public Utility Commissions

By far the most common approach assigns primary responsibility to the Commission. This method is used by approximately 33 states. A Commission often has staff specialists in electric system design, land use, environmental issues, and other subjects that support its consideration.

Within this group of states, two approaches are used. In one, the Commission acts as a lead agency to solicit and coordinate input from other affected agencies. Alternatively, the utility proposing the transmission line will coordinate with the public and

with interested agencies, sometimes make requested modifications to the project, and report that coordination in its application to the Commission.

Siting Boards
About eight states[3] have created special decisional entities, referred to here as Siting Boards (though other names are used) with responsibility for approval and siting of proposed transmission lines. The membership of the Siting Boards is set by statute, often including the heads of state agencies that may be affected by new transmission construction or their designees, such as the directors of Environmental Protection, Natural Resources, Agriculture, Energy, Wildlife, and Transportation Departments, along with the Commission.

In some states, legislators and members of the public also serve on the Siting Board. For instance, the Arizona Power Plant and Transmission Line Siting Committee includes public members representing municipalities, counties, and agriculture. The Massachusetts Energy Facilities Siting Board includes six statutorily designated agency officials as well as three public members (appointed by the governor) with expertise in energy, environmental issues, and labor.

> *The committee serves as an Administrative Law Judge [ALJ]—it puts forward a recommended order that the Commission will ultimately approve or deny or amend, just like any other matter that comes before the Commission—but it is made up of a range of members with viewpoints that can capture the issues in a way that a single ALJ couldn't quite do.*
>
> *—Zach Branum, Engineer, Arizona Corporation Commission*

> *The Siting Board members have a broad spectrum of expertise and focus on areas that are relevant to the board's jurisdictional responsibilities, which in sum is, to provide a reliable energy supply for the commonwealth, with a minimum impact on the environment, at the lowest possible cost.*
>
> *—Andrew Greene, Director, Massachusetts Energy Facilities Siting Board*

The diversity of membership in multi-agency Siting Boards broadens the decisional perspective and sensitivities, and importantly, signals that perspective to the public.

> *Arizona's statutes were written before solar and wind became a significant priority for utility companies; as a result solar power plants and wind plants are not regulated. And that sometimes presents us with a problem because there's no real oversight.*
>
> *—Paul Katz, Chair, Arizona Power Plant and Transmission Line Siting Committee*

Other Agencies
Four states have assigned the primary role to a state agency other than Commission or a Siting Board. Montana assigns this task to the Environmental Department. Oregon houses its Energy Facilities Siting Council within its Department of Energy. Florida's Department of Environmental Protection acts as lead agency and makes a recommendation to the governor and cabinet who make the final decision. In Alaska, the Department of Natural Resources acts on requested easements for transmission lines over the extensive state-owned land.

Local Government or Publicly Owned Utilities
A few states (Colorado, Indiana, Louisiana, and Oklahoma) leave most siting decisions to applicable local governments such as county zoning boards. Guam, Tennessee, and the Virgin Islands have exclusively publicly owned utility systems[4] and lodge siting responsibility within those entities.

Additional Differences among State Approaches

In some states (Florida, Louisiana, and New Hampshire), decisions about need and cost elements of the proposed project are decided by the Commission even where another agency or a Siting Board decides the locational aspects of the proposal.

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3 Arizona (Power Plant and Transmission Line Siting Committee), Connecticut (Siting Council), Kentucky (Electric Generation and Transmission Siting Board), Massachusetts (Energy Facilities Siting Board), New Hampshire (Site Evaluation Committee), Ohio (Power Siting Board), Rhode Island (Energy Facility Siting Board), and Washington (Energy Facility Site Evaluation Council).

4 Nebraska is also exclusively served by publicly owned utilities, but the Power Review Board oversees major transmission facility additions. Puerto Rico uses a similar approach.

Even among states that place authority with agencies of the same name, the exact scope of the siting authority and the processes are not consistent from one state to another. As mentioned, most states exempt low voltage and short distance lines from siting requirements. Some require the applicant to become a public utility. Some states' siting requirements treat generator tie lines as transmission projects; others consider them as part of the generation facility.

In turn, some states' siting requirements for transmission to connect generators only apply to fossil fuel or nuclear plants, thus leaving transmission facilities that serve solar and wind facilities well below the thresholds of the siting requirements. And transmission facilities that cross state lines can expect a slightly different process in each affected state.

> *We have a limited scope that the Commission is authorized to site: at least five miles long and 230 kV or larger. So, for 115 kV and 138 kV, which are common in Kansas, we do not have siting authority. The applicant has to be a public utility also, so we have no siting authority for tie lines coming off wind farms.*
>
> *—Leo Haynos, Chief Engineer, Kansas Corporation Commission*

With an increase in the siting caseload, and more public concern about transmission lines, states may see both challenges and opportunities for improving their siting procedures.

> *Siting remains a very challenging activity for the state and for all parties concerned. Technology is changing quite rapidly as we evolve from a fossil-dependent energy system to a renewable and clean energy-based system. Expectations for the public's participation in the siting process have changed to include a more accessible, open, and responsive process. Be it language access, environmental justice, or the role of local government, public expectations and actual siting practices are changing.*
>
> *It's been said, "never let a crisis go to waste" in terms of analyzing a system and making necessary reforms. That's true in the aworld of energy siting too; we often learn critical lessons and make necessary improvements in response to challenges and project controversies.*
>
> *—Andrew Greene, Director, Massachusetts Energy Facilities Siting Board*
>
> *One of the problems I see that we're going to run into is that if the hearing load increases, it's going to become a burden on the public members, many of whom have their own full-time employment.*
>
> *—Paul Katz, Chair, Arizona Power Plant and Transmission Line Siting Committee*

REFLECTIONS OF PRACTITIONERS

This mini guide series looks to active practitioners to describe how these conceptual models influence their day-to-day work. For this guide, four states—Arizona, Massachusetts, South Carolina, and Kansas---were selected to represent the major approaches to siting. Despite their organizational differences, several common experiences emerged from interviews with the representatives.

Table 1. Mini Guide Interviews

Name	Position	Organization	Organization Type
Paul Katz	Assistant Attorney General and Chair	Arizona Power Plant and Transmission Line Siting Committee	Siting Board
Zach Branum	Engineer	Arizona Corporation Commission	Siting Board
Andrew Greene	Director	Siting Division, Massachusetts Department of Public Utilities and the Energy Facilities Siting Board	Siting Board
Dawn Hipp	Chief Operating Officer	South Carolina Office of Regulatory Staff	Public Utility Commission
Leo Haynos	Chief Engineer	Kansas Corporation Commission	Public Utility Commission

Each person interviewed expressed his or her own opinions. Inclusion in this document does not indicate an author's or organization's endorsement of any statement or suggestion.

Arizona and Massachusetts use decisional bodies outside their Commissions, but which are linked with them in important ways. The Arizona Corporation Commission, for instance, appoints the committee's public members to represent municipalities, counties, and agricultural interests, and the decisions of the committee are reviewed by the Commission. The Massachusetts Department of Public Utilities has two members of the nine-member Energy Facilities Siting Board and provides administrative support to the Siting Board and its staff.

South Carolina and Kansas place their siting responsibility in their Commissions. The Public Service Commission of South Carolina maintains a careful judicial independence but is committed to receiving input on all relevant issues from potentially affected members of the public; the coordinating role is carried out by the South Carolina Office of Regulatory Staff, a separate organizational body. The Kansas Corporation Commission works within short statutory deadlines and therefore places the burden on siting applicants to gather public input before a formal filing is made.

Perhaps surprisingly, the organizational model does not seem to be a determinant in an agency's view of its responsibilities and general approaches. Commissions make serious efforts to bring a spectrum of viewpoints into their consideration of transmission line siting cases, just as Siting Boards do by their composition. Institutions are successful when their stakeholders want them to work, and conversely, any model will be ineffective if stakeholders are fundamentally at odds with each other or the process. Many factors go into fully considered siting decisions, including committed people, open agency culture, and information processes that provide solid decisional foundations.

Elements of Siting Decisions

Despite the apparent structural differences among these examples, several themes seem consistent.

- Integrity of the process is highly valued, and participants are intent on preserving its independence.
- Effective decisions depend on good input from a range of participants and viewpoints, especially when they are controversial.
- Virtual hearings, made necessary during the COVID pandemic, can bring broader participation to inform decision makers.

Independence of the Process

All participants recognize the need for the siting process to be independent and that its independence be visible to the public. Independence means that decisions are based on the factual record related to the particular application, consistent with state policies, and not unfairly or unduly influenced by any particular applicant or participant.

Siting cases are decided on the record. Specifics of a case are not discussed outside the decisional body, sometimes even within the home agency of members of a Siting Board.

Whether made by the Commission or a Siting Board, hearings and decisions are subject to Open Meeting laws. These laws basically require that decisions be made in open sessions and that the public be notified of decisional meetings. They preclude off-record discussion by a quorum of the deciding body.

> *I have to separate myself out of the Commission so there's no ex parte violation when a case is heard before the committee. The Commission staff will give the committee its position on a filing; that goes to the committee and not to me. I'm isolated and in exile as soon as these siting applications are filed.*
>
> *—Zach Branum, Arizona Corporation Commission*

> *The Commission will act as a judicial body in a siting case. The General Assembly changed some of the ways that the Commission looks at things. They changed the Office of Regulatory Staff's mission to focus on high quality, reliable service. They created the Consumer Advocate, which is another party that looks out for the consumer. And they transferred to the Commission this duty to be transparent, and the Commission takes that very seriously.*
>
> *—Dawn Hipp, Chief Operating Officer, South Carolina Office of Regulatory Staff*

The role of chair of the Siting Board is a key factor in its independence. The Massachusetts Board is chaired by the secretary of the Executive Office of Energy and Environmental Affairs. The Arizona Committee is chaired by the Attorney General's designee. Leadership outside the Commission gives a degree of independence from the Commission.

The South Carolina model took its present form after controversies surrounding a nuclear plant abandonment that led to legislation in 2017.

Siting Boards often receive administrative support from the Commission—issuance of public notices, booking hearing rooms and court reporters, and personnel, budget, and payroll functions.

Siting Boards can sometimes access Commission siting staff with pertinent expertise, and the staff responses are put into the public record of the case.

The Siting Board's staff reflects a variety of expertise including managers, economists, environmental analysts, lawyers, public health specialists, engineers, geologists, and so forth. That's a fairly broad set of skills within a group of 12 people. When necessary and appropriate, we seek out additional knowledge and general information from other agencies, and benefit from that knowledge.

—Andrew Greene, Massachusetts Energy Facilities Siting Board

One of the things that's difficult because of ex parte is that our commissioners and their staff are unable to participate in stakeholder engagement.

—Dawn Hipp, Chief Operating Officer, South Carolina Office of Regulatory Staff

Coordination among Interests

The goal of coordinating the expertise of multiple agencies is often in conflict with the independence elements just discussed. Off-record conversations with other agencies can violate Open Meeting laws and be seen as providing inappropriate ex parte information to influence a decision. This problem is present no matter whether the decisions are made by a Commission or by a Siting Board.

Given these restrictions, it is an ongoing challenge to the Commission or Siting Board staff to bring relevant information into the decisional record in ways that respect the requirement of independence and record-based decisions. The South Carolina Office of Regulatory Staff uses one formula that identifies issues and elicits participants and testimony that will give the Commission a basis to make an informed decision. All the interviewed states put a priority on public input that identifies these parties and their issues.

We don't require the applicant to give us the record of their contacts, but typically they have provided the list of who they've contacted, why, and what their answer was.

—Leo Haynos, Chief Engineer, Kansas Corporation Commission

Mandatory notifications go to the Office of Regulatory Staff; the Department of Health and Environmental Control; the Department of Natural Resources; and the Department of Parks, Recreation, and Tourism. Mandatory notifications also go to each municipality or government agency that is within the construction footprint. And there are requirements to notify nonprofits who protect the environment, historic sites, and consumer interests; we commonly see the Southern Environmental Law Center or the Sierra Club. The other agency that would be notified as part of the consumer interest is the Department of Consumer Affairs.

—Dawn Hipp, South Carolina Office of Regulatory Staff

Early Engagement with the Public

Controversy over transmission line siting usually involves the public. Commissions and Siting Boards work to bring information to the public as early as possible.

We strive to demystify a lot of complicated things, so the public can understand what's going on and what opportunities they have to participate. The applicant is required to set up public meetings in at least one affected county, and the Commission and staff attend those sessions as well. We all show up to listen to any public comments. Sometimes the proposals are a little bit alarming to the public. The public meetings can be set up almost like a trade fair, you would have tables set up around a room, different stations that have engineers and right of way agents to talk to people, and they can show individual customers their facilities. The staff can ask questions that the landowner may not be thinking of. So, it's a pretty transparent process.

—Leo Haynos, Chief Engineer, Kansas Corporation Commission

Early engagement and good information to landowners and members of the public sometimes may help to reduce opposition. Utilities planning to build a transmission line try to provide public information well ahead of a filing. Public engagement and outreach is often required, but applicants sometimes exceed such requirements because it may help address public concerns and assure siting officials that there has been effective public information sharing and engagement. Good public engagement can narrow issues and may lead to workable compromises.

Any input is good input; it shows people care. And usually when people are commenting, they're talking about the issues that are near and dear to them. The committee is the last stop on the road, and anything that wasn't caught before, I want to hear about it at this forum. Of course, when it goes to the Commission, people can show up and plead their case, but if the process works the way it should, that should be ironed out before. So, casting a wider net is always going to be a good thing.

—Zach Branum, Engineer, Arizona Corporation Commission

Educating the Ultimate Decision Makers

Especially in multi-agency Siting Boards, but sometimes in Commissions also, new members need familiarization with some of the engineering, system planning, and other topics where expertise is needed to consider the technical information included in a transmission line siting application.

The staff of the Siting Board has an ongoing responsibility to provide background information and assistance to new members to orient them and provide necessary understanding and information as quickly as possible so that they can to exercise their responsibilities in a well-informed manner.

—Andrew Greene, Director, Massachusetts Energy Facilities Siting Board

South Carolina has a procedure to enable "allowable ex parte" presentations to the Commission. These are not case specific, are noticed and conducted in public, and permit responses for opposing viewpoints.

It's an opportunity for parties to educate the Commission on their perspective, whether it be the low-income perspective, energy efficiency promotion, vegetation management, solar development. We've seen folks provide a more basic education to the Commission. And our Commission is very receptive to that. It's good for them to receive their education when they aren't in the position of making a decision. The Commission cannot consider any of that as evidence in a proceeding unless somebody moves it into evidence.

—Dawn Hipp, Chief Operating Officer, South Carolina Office of Regulatory Staff

Parties can also educate the Commission or Siting Board through written or oral comments in a specific case, of course. Written comments become part of the decisional record, and other parties can respond to them.

New members also need to be briefed on the legal requirements of the agency.

Any state board or committee that has a new member must provide that new member with a program about the Open Meeting Law and Public Records Law. We go through it to explain to them the do's and don'ts and the things that they shouldn't be doing like using personal email, because that becomes a public record. If they're already in an agency, they already know those rules. If they're new members from the public, we may need to make sure that they are tutored in the ways of Arizona Open Meeting Law and Public Records Law.

—Paul Katz, Chair, Arizona Power Plant and Transmission Line Siting Committee

Quality Information in the Record

The quality of a siting decision is largely determined by the quality of the information presented to the decision maker. Staff has an important role in assuring that all issues are addressed in the record. An incomplete record creates several risks. It can be challenged in court, which may delay construction of a necessary project. It may lead to uncertainty during construction or operation of the project—what exactly was approved or what conditions were imposed?

Staff as Mediator—Before, During, and After Construction

Staff plays a significant role in working with landowners and other members of the public during the approval phase of a transmission project and continuing through construction and operation. Many people have not dealt with utilities in this way before and can be confused by the kinds of technical issues and authorities associated with transmission siting. Staff members are often in the best position to explain the process and options.

Landowners need to understand what exactly the utility is going to do across their property. Our role in these things is almost like mediation. Often it's not about the right to be there, it's about how they treat them when they're there.

—Leo Haynos, Kansas Corporation Commission

We have some ongoing responsibilities even after a facility is commissioned. Typically, our decisions will include quite a few conditions, not just for construction of the facility, but also its expected operational performance, and those conditions extend past the completion of construction. So, if a facility has represented that it will achieve a certain level of noise mitigation or control of emissions or traffic during its operational phase, and the Siting Board determines that those conditions are not being met, that could precipitate compliance action by the Board. The Siting Board has the statutory authority to assess financial penalties for significant noncompliance with its decisions.

We stay abreast of whether facilities are operating in a compliant manner through two mechanisms. One, is when a project is completed and it enters commercial operation, we require an attestation by the applicant that it has met all of the conditions of the Board's approval. Second, because we've had engagement with the community from the very beginning of our review process, if there are concerns from the community during construction or operation of a project, we will sometimes receive communications: emails, letters, phone calls, regarding complaints or concerns about construction-related impacts or operation of the facility. Based on those communications, the Siting Board will look into any areas of potential noncompliance with approval conditions and take appropriate action. So, the public also plays an important role as "eyes and ears" to help ensure compliance with Siting Board approval conditions.

—Andrew Greene, Director, Massachusetts Energy Facilities Siting Board

Cases are often resolved by settlement agreements or by partial agreements. Staff is often in the best position to broker these arrangements and to advise parties on how to present a settlement to the Commission or Siting Board. The South Carolina Commission, for instance, welcomes settlements but expects to have a full record so that it can approve any settlement with full understanding.

We prefer to have the record and all the testimony filed with the Commission, so they can see all of the information, and then present a settlement agreement. The Commission has all of it in front of them, plus the settlement agreement, which lists why parties compromised to a certain outcome.

—Dawn Hipp, Chief Operating Officer, South Carolina Office of Regulatory Staff

Agency Culture

Veterans of the siting process were able to identify several characteristics that help them approach their work: they absorb and sift a lot of information, much of it highly technical. They need to make fair and balanced decisions based on evidence in the record. They need to be cautious to preserve the integrity of their institutions.

> *My advice to fellow siting officials is that it's not an easy ride; it's a difficult job, but it's critical. In exercising our responsibility, the details matter, the policy matters, and diligence and persistence are very important.*
>
> *—Andrew Greene, Director, Massachusetts Energy Facilities Siting Board*
>
> *My advice to a siting committee member would be to read. Read a lot. Read the records. Read what's been filed, and don't be afraid to ask questions. Good committee members—their job really is to sit there and just listen to everything and then make the best, most informed decision they can. A judge is there to make a judgement, and first and foremost, their most valuable skill is their decision making. Trying to make the best decision, based on the information that's been given, that's all you can do. And if that's what you're doing each and every case, at the end of the day, I think you're successful.*
>
> *—Zach Branum, Engineer, Arizona Corporation Commission*

Siting Boards have an additional requirement. They need to be able to draw people from other agencies to perform what may seem like an additional job. The balance between their siting assignment and their "day job" requires some accommodation from their home agency. The home agencies need be generous in assigning skilled and well-experienced people to the Siting Boards..

Virtual Hearings and Public Engagement

Siting activity, like everything else that went online during the pandemic, had to be reevaluated to accommodate challenges and restrictions to the existing processes. Interviewees noted pluses and minuses in several respects, and some changes that seem likely to continue.

Participation

Participation became easier for many people. Some members of the public had not participated in the past and found the virtual process enabled them to express their views. Those same online meeting methods presented limitations for others who lacked a certain level of computer skill or technology.

> *The public has generally become quite well versed in participating in siting proceedings on virtual platforms such as Zoom. Many folks have commented that it's easier to participate virtually: it doesn't require leaving the house, missing dinner, or needing a babysitter for young kids, and it has increased their opportunity for public comment and participation. We've also heard the opposite, that participation requires a certain level of technical knowledge and equipment and is a barrier to participation by some members of the community. We've tried to make access as convenient and easy as possible, by offering not just video access on the Zoom platform itself, but also having dial-in access to enhance and facilitate broad public participation.*
>
> *—Andrew Greene, Director, Massachusetts Energy Facilities Siting Board*

Online participation may have benefits for the content of presentations as well.

> *Traveling and sitting in a hearing room for weeks, sometimes, takes a toll, and it shows in your presentation of your case, both from your witnesses and your attorneys. When you factor that out, people who have slept in their own bed the night before can be bright-eyed and bushy-tailed to present to the Commission, and you see the arguments are more sophisticated. People sitting comfortably at their own desk can provide a better level of explanation to the Commission than if they were sitting nervously on the witness stand in front of the Commission. Now, I will tell you the downside of that is that people take lots of liberties when they're not sitting face-to-face with their adversary, and so there is a negative consequence. But I think the positives of accessibility and transparency outweigh the negative.*
>
> *—Dawn Hipp, Chief Operating Officer, South Carolina Office of Regulatory Staff*

Accommodation

There have been pluses and minuses, but certainly one of the pluses is that it has made public access and accommodations easier instead of more difficult. For example, with virtual platforms, it's often easier to provide language interpretation services than for in-person hearings. In-person interpretation can sometimes require sound booths, almost like a recording studio, and the wiring and logistical effort is complex. It's actually much easier when you're working on a video conference platform like Zoom—especially if multiple languages are being interpreted. We had one proceeding where Chinese, Portuguese, and Spanish were being interpreted simultaneously to and from English. It really is a brave new world in terms of having that capability using Zoom.

—Andrew Greene, Director, Massachusetts Energy Facilities Siting Board

Open Houses and Site Visits

In addition to increasing participation, video-based technology allows the project sponsor to conduct virtual tours of the proposed project, visualize the right-of-way and alternate routes, and track participation metrics..

We've seen that a lot of utilities or companies have gone the extra mile to develop virtual open houses for people who can't show up in person or who don't want to drive out to attend an actual in-person open house. With a virtual open house and website hosting information, they're able to track how many unique visitors they've had. These innovative digital ways of allowing people to see projects yields more participation, more viewpoints, more considerations being presented, and that's a good thing.

—Zach Branum, Engineer, Arizona Corporation Commission

With Covid, we have made greater use of virtual site visits instead of boots-on-the-ground site visits for proposed transmission lines, power plants, or storage facilities. Using virtual tools such as Google Earth and site tours with video-enabled drones, we are able to conduct the site visits virtually. That's quite a different experience than spending all day driving around looking at a 20-mile transmission corridor and alternative routes. It's certainly more time efficient to do this on a video platform, but it's a different experience, with pluses and minuses.

—Andrew Greene, Director, Massachusetts Energy Facilities Siting Board

Hybrid Considerations

Commissions and Siting Boards are returning to in-person work, wanting to regain the collegiality that helps bridge differences and the ability to use presence and demeanor to evaluate testimony and presentations. But some of the elements of virtual hearings will be retained with hybrid formats. Online presentations provide a video record as well as a transcript.

We're back in the Commission hearing room, by choice, but still running hybrid hearings virtually. Our Commission and their staff have done just an amazing job in getting up and running and making it go as smoothly as it possibly can. And I think it has opened the accessibility and the transparency. Everything is livestreamed, so you better look good when you get on the camera. Everything is archived. Now I could go back and watch. It helps me with writing proposed orders and briefs.

—Dawn Hipp, Chief Operating Officer, South Carolina Office of Regulatory Staff

This material was authored by William H. Smith Jr. on behalf of the National Association of Regulatory Utility Commissioners Center for Partnerships & Innovation and is based on work supported by the U.S. Department of Energy under award number DE-OE0000818.

Acknowledgments
The author wishes to thank the following individuals for contributing their time and expertise to the development of this paper:

- Zach Branum, Engineer, Arizona Corporation Commission
- Elizabeth "Lib" Fleming
- Commissioner Sarah Freeman, Indiana Utility Regulatory Commission
- Andrew Greene, Director, Siting Division, Massachusetts Department of Public Utilities and the Energy Facilities Siting Board
- Meredith Hatfield, New England Conference of Public Utilities Commissioners
- Leo Haynos, Chief Engineer, Kansas Corporation Commission
- Dawn Hipp, Chief Operating Officer, South Carolina Office of Regulatory Staff
- Paul Katz, Assistant Attorney General and Chair, Arizona Power Plant and Transmission Line Siting Committee
- Tanya Paslawski, NARUC CPI
- Danielle Sass Byrnett, NARUC CPI

NATIONAL COUNCIL ON ELECTRICITY POLICY

About the National Council on Electricity Policy
NCEP is a platform for all state level electricity decision makers to share and learn from diverse perspectives on the evolving electricity sector. The community includes representatives from state public utility commissions, air and environmental regulatory agencies, governors' staffs and energy offices, legislatures, and consumer advocates. NCEP is administered by the National Association of Regulatory Utility Commissioners (NARUC) Center for Partnerships and Innovation (CPI).

NCEP serves as a forum for collaboration around grid-related topics at state, regional, and national levels, offering a unique opportunity for state electricity decision makers throughout the country to examine the ways new technologies, policies, regulations, and markets impact state resources and the bulk power system.

NARUC
National Association of Regulatory Utility Commissioners

About the NARUC Center for Partnerships & Innovation
NARUC CPI identifies emerging challenges and connects state utility commissions with expertise and strategies to navigate their complex decision-making. We accomplish this goal by building relationships, developing resources, and delivering training that provides answers to state commissioners' questions. CPI works across four key areas on a wide range of projects: energy infrastructure modernization; electricity system transition; critical infrastructure, cybersecurity, resilience; and emerging issues. CPI is funded by cooperative agreements with the U.S. Department of Energy (DOE), the National Institute of Standards and Technology (NIST), and charitable sources.