EISPC

EASTERN INTERCONNECTION STATES' PLANNING COUNCIL

Multistate Coordination Resources for Clean Power Plan Compliance

Sample Documents for Consideration

The National Association of
Regulatory Utility Commissioners
(NARUC)

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SUMMARY:

The Eastern Interconnection States Planning Council (EISPC) has begun a project to facilitate interstate communication on energy-environmental issues affecting the Eastern Interconnection and the country. The workgroup engaged in this effort is creating resources that State agencies can choose to consider as a starting point for coordinating States' implementation plans for the EPA's Clean Power Plan. This document compiles resources and ideas from this working group's efforts.

Three documents are included: a multistate planning checklist, a legislative language examples checklist, and a sample memorandum of understanding for multistate coordination.

BACKGROUND:

The proposed Clean Power Plan regulates the emissions of greenhouse gases on a State-by-State basis. However, unlike criteria pollutants regulated by the EPA, the location where the greenhouse gas emissions happen is somewhat irrelevant: emission reductions anywhere lead to benefits everywhere. This couples with the interstate nature of the power grid to strengthen the case for economic benefits from interstate coordination, and to weaken the case for a "go it alone" approach. Although regional effects are almost certain, multistate governance of an emissions regime is difficult. Agencies may benefit from institutional structures that enable them to coordinate on the writing of this plan. Outside of the Regional Greenhouse Gas Initiative (RGGI), to date these kinds of institutional arrangements remain elusive, and States may wish to coordinate even if they do not wish to enter into as sophisticated and interdependent an agreement structure as that used in RGGI. In fact, simply providing an instrument that bridges the States as they are writing their plans may create visibility that enables States to avoid plans that are counterproductive to each other.

This project aims to lower barriers to coordination between states, particularly between public utility commissions, governors energy advisors, and the lead agencies (generally, the state air pollution control agencies) responsible for the creation and filing of state implementation plans for the EPA's Clean Power Plan regulations of greenhouse gases from existing stationary sources under Section 111d of the Clean Air Act.

States do not need to enter into a multi-state compliance plan with a joint target to benefit from talking and coordinating. A range of interactions is possible, from simple awareness of each others' plans to the transfer of emissions reductions between states that have individual-state plans and targets (not a multi-state plan to meet a joint target) when states have "common elements" in their compliance plans.

A number of tools are being developed to help States construct their compliance plans. For example, organizations like the Midcontinent States Environmental and Energy Regulators (MSEER) and the Nicholas Institute at Duke University are developing modeling and conceptual multistate compliance pathways for adoption by the states, and the National Association of Clean Air Agencies (NACAA) is developing a model compliance plan that States can customize to their own needs. Unlike those resources, this document does not seek to develop resources that would go into the plans themselves, but rather to create institutional

bridges that help States in "getting out from behind your desks" and engage with other States with a minimum of effort and political risk exposure.

A workgroup has been formed to create sample working documents that States can use as a conversation-starter and first point of reference if States decide to engage with one another. These sample documents would serve as a beginning-point that helps States build structures and ask questions that are useful to them, not prescribe or guide coordination. The consideration, modification, and /or use of these documents shall be entirely voluntary and their development in no way endorses the Clean Power Plan.

This project has developed two of three "conversation-starter" documents that are intended to provide States with a starting point for convening and coordination, lowering the barriers to states working together. The documents are as follows:

1. **A sample memorandum of cooperation** between States describing the purpose, outlining the parties involved, the method and schedule of interaction driving coordination, the process by which input will be offered and disputes resolved, and stating the responsibilities of the participating agencies.

2. **A checklist of examples of legislative language (under development)** that impedes or encourages interstate cooperation. State agencies can use this checklist to peruse their own state statutes and discover whether language exists in state law that makes multistate cooperation possible or more difficult.

3. **A planning checklist** that States can use to organize their decisions to assess the benefits of a multi-state approach versus a "go-it-alone" approach, and to organize the multi-state interaction with another state or states. It includes a working list of questions for coordinating States to consider together as these states create their plans that will help assure that their own plans are designed with interstate implications in mind at the beginning, instead of at the end of the compilation of this plan.

More information about this set of discussion documents is available from Miles Keogh, Director of Grants & Research at NARUC, mkeogh@naruc.org, 202-898-2217. It is important to note that the documents are the product of a conversation among a number of stakeholders in a workgroup that helped develop these resources.

Although these documents are not reflective of any State agency's position, nor represent a statement of position or opinion by the participants, the ideas arose from a dialogue among the following participants:
David Littell (Maine PUC), David Thornton (Minnesota DEP), Kim Jones (North Carolina Utilities Commission), Vince Hellwig (Michigan DEP), Justin Green (Florida DEP), Al Freeman (Michigan PSC), Hisham Choueiki (Ohio PUC), Mike Dowd (Virginia DEQ), Ann McCabe and Nicole Luckey (Illinois Commerce Commission), Talina Matthews (Kentucky Office of the Governor), Marcus Hawkins and Elise Nelson (Wisconsin PSC), Eddie Terrill (Oklahoma DEQ); Scott Morris and Luke Bentley (Alabama PSC), Phil Assmus (NACAA), Tom Tyler (ECOS), Robert Kenney (Missouri PSC) and Kerry Worthington (EISPC / NARUC staff).

Convening States for Multistate Coordination on the Clean Power Plan: A Checklist

Each step is described in more detail in the accompanying memo.

Have you...

- ☑ Found a small group of champions who will form the backbone of this initiative?
- ☑ Involved the air regulator?
- ☑ Made initial contact within your state?
- ☑ Set a broad objective (such as a multi-state commitment plan or one that is stand-alone but leverages "common elements"? Or simply awareness of other states' plans for potential ideas for your own?)
- ☑ Explored legal authorities that affect what kinds of actions you take (see Appendix A)?
- ☑ Reached out to lead participants in other states?
- ☑ Engaged for a first meeting exploring potential paths for working together?
- ☑ Explored online and disparate tools that may help working together in different places?
- ☑ Begun to articulate an agreement using existing templates or the sample MOU included in Appendix B?
- ☑ Exchanged the basics of your plans?
- ☑ Asked key questions for interstate communication and coordination? (Appendix C may help here.)
- ☑ Taken on ongoing institutional coordination?
- ☑ Reviewed your coordination to decide if you will renew it or sunset it?

Getting Together with Other States: A "Wedding Planner's Guide" for catalyzing multistate Section 111d plan development.

Interstate cooperation on implementation of the Clean Power Plan may take a number of forms, ranging from simple awareness of the structure and measures incorporated into one another's' plans, to mutually dependent state 111d compliance plans. Intuitively, interstate communication will be important so as not to ignore the interstate nature of most of the power grid, and early modeling seems to indicate that profound economic and program benefits result from states working together.

If you are in a State agency, this brief is intended to give you a starting point for coordinating.

Who goes first?

If you're reading this and you're the Governor of a state, you don't need ideas for who should take the first step: it's you. If you're not the State's top executive, you can still get the coordination ball rolling. Organizational theory describes three types of leadership design approaches to linking decision-making communities: top-down, bottom-up, and partnership-based models. Each has their advantages. Top-down approaches leverage a small group of people make decisions and share those with a larger group for implementation. This approach tends to leave responsibility for the plan design with leadership, even if input is solicited from a wider group. Its advantage is the speed of development and ability to direct participation by affected groups.

Bottom up approaches convene those at the practice level and with expertise in the problem being addressed. A slower approach, this nonetheless can yield natural support for the solutions created, and solutions that have been developed by those closest to the problem at the practice level.

Partnership-based approaches attempt to take advantage of the benefits of both approaches by combining those with authority and those with expertise to identify and implement the path forward. They require trust from the top and a high level of proactivity from the bottom, but robust and sustainable processes often result from this type of approach.

Any of these approaches can be successful and the model you use can change over time. You don't need to wait to get started. Get going: coalesce around the issue, and recruit relevant participation.

STEP 1:
Start with your process leaders and establish a planning team

Identify and connect with the agency filing the plan. Someone will need to organize the first participants and start work on the plan. You may want to explore who else in your agency or state is interested in exploring a multi-state approach. One essential agency in this case is your air pollution control agency. The state officials who develop and file these plans for other air pollution control programs may find the Clean Power Plan unique in two respects. First, although other air emission programs have interstate aspects as pollution in "upwind" states affects those in "downwind" states, in the case of greenhouse gases, everyone is equally

upwind and downwind, making emissions five hundred miles away and next door equally impactful on the overall environment. State boundaries become unusually irrelevant. Second, the degree to which State compliance plans involve planning of the overall electric system goes well beyond the usual realm of expertise of these agencies. Public Utility Commissions and State Energy Offices are likely to have indispensable expertise and linked authority, and as soon as multiple state agencies are involved and a multistate conversation is engaged, at a minimum the Governor's advisors will need to have awareness of the effort.

As for how to connect? The usual ways will work. Pick up the phone or send an email.

Some potential steps to consider at the start:

- Reach out to these key partners with the idea of multi-state awareness / coordination (see .
- Get leadership buy-in at your state agency
- Leverage other multi-state connections at your state

Other processes that may be useful are interstate conversations on transmission planning (such as the Regional State Committees in Eastern RTO areas and CREPC in the West), interagency siting boards and councils in states like Massachusetts, Oregon, and others, national organizations like NARUC, AAPCA, NACAA, and the National Council on Electricity Policy, and others.

STEP 2:
Set a broad objective

Do you want to explore a multi-state commitment plan? A plan that is stand-alone but leverages "common elements"? Or simply awareness of other states' plans for potential ideas for your own? A "go it alone" approach has the benefits of simplicity in determining the ingredients for compliance but may be much more expensive than taking advantage of cheaper reductions available in other states, or making income from selling reductions to states with higher per-ton compliance costs. A multistate plan with a joint target may be time consuming to negotiate and difficult to find consensus over. Finally, "common elements" approaches that allow for interstate transactions will need strong ownership assurance and tracking mechanisms to be possible and effective. However, they blend the economic benefits of multistate reductions with the simplicity, revisability, flexibility and political durability of in-state systems.

Other forms of interstate coordination are possible: a 2013 MJ Bradley paper on multi-state compliance focuses on robust programs that use linked targets for multistate compliance. Great River Energy and the Brattle Group have proposed a fee system that would be implemented by ISOs/RTOs. In this proposal, the ISO would impose a carbon price which would increase the cost of higher emitting resources relative to lower emitting alternatives. Existing multi-state trading models, such as RGGI, might slot neatly into a 111(d) program and RGGI expansion may be one path forward. A State "SIP-Swap" would enable elements of one State's SIP to occur in another State through individual bilateral agreements, assuming mutual agreement. An October 2013 NARUC memorandum explores these and other multistate program designs is available online: http://www.naruc.org/Grants/Documents/KEOGH%20NARUC%20Section%20111d%20brief%

STEP 3:
Explore legal authorities that may help or impede working together

Some states may have enabled or bound your ability to work together. Run the checklist in Appendix A, against your state statutes and see if something analogous exists that helps or hinders your ability to think outside your borders. Before starting, you may want to review your own state laws to see if multistate coordination is impeded or encouraged by the existing body of your state's statutes.

STEP 4:
Reach out to lead participants

There's no substitute for reaching out by phone, email, at a conference, etc. If you wrote down a purpose and objective as Step 1, this is when that will come in handy as it may serve as a basis for connecting with the right agencies.

If you're at a PUC or energy office, the analogous agency in another State may be a starting point.
The air agencies that file the plan are natural first points of coordination as well, since eventually they will be responsible for filing the plan.

It is worthwhile to ask the following questions to help identify participants. What agencies and stakeholders are:

- Relevant?
- Representative?
- Purposeful?
- Knowledgeable?
- Influential?

STEP 5:
Get to work on how you might work together

At some point, you'll need a way to work together. In-person meetings with a regular schedule have a lot of advantages but may be politically, monetarily, or pragmatically impossible. Groups convene regularly and inserting this conversation into the agendas of these convenings may be effective to leverage their convening power. The kinds of meetings you may want to explore adding on to include the meetings of the national associations: NARUC, NACAA, AAPCA, ECOS, NASEO, and NGA.

Meetings convened between the states on a regional basis may also be a place to get together. It doesn't take getting on the main agenda – arranging for side meetings may be useful. Informal outreach may work

equally well. Identifying opportunities such as the meetings of regional state committees (such as the SPP RSC), multi-state transmission groups (such as CREPC), meetings of regional group like the Western Interstate Energy Board, EISPC, or the National Council on Electricity Policy, and meetings between organizations such as the "3N" meetings that convene NASEO, NACAA, and NARUC are prime opportunities to meet your colleagues and connect with them to establish coordination.

Online tools to facilitate workgroup activities that are disparate, like document sharing and teleconferencing, may be able to carry much of the load. Many of these tools are free, offered by national associations, or already available to the State.

STEP 6:
Articulate an understanding

To assure top-level buy-in by both parties, and to build institutional bridges that survive changes in individuals, an MOU may be helpful to hold parties together and to smooth out the practical elements of interacting and agreeing and coordinating. See Appendix B, the Draft MOU.

The Southern States Energy Board released a memo to its members articulating three timeframes where multistate action is possible:

- Before rule finalization
- From rule finalization to Day 1 of implementation
- From Day 1 of implementation on.

Exchanging information and exploring multistate aspects of state plans may be very important. An MOU that accommodates these timeframes may best enable interaction that brings together states during the timeframe that best meets the goals of the participating States.

STEP 7:
Exchange the basics of your plan

In Step 2 you set a goal for the objective of the process; what you decided there affects the direction you'll take in this step. For example:

- Is coordination and information exchange the objective? If so, the exchange of information about baselines and measures makes sense.
- Is your path going to be linked into a proposed multistate goal and compliance path? Shared baseline information, articulation of the allocation of resources, and agreement on program design will be essential here.
- Are you using a common elements approach? Convening and agreeing to common definitions of compliance, potentially tradable currencies, ownership assurance and tracking will be on your shared agenda.

Many elements of the baseline and measures may need explanation, so gather supporting documentation ahead of time. Also, some information may be for official use only or otherwise unavailable for distribution. Confidentiality agreements may help in this area. A section on language protecting sensitive information from distribution and other confidentiality resources is included in the Sample MOU document that follows this guide.

STEP 8:
Ask key questions for interstate communication and coordination

Building on the structure of the proposed rule, this guide includes a checklist of questions to ask yourself and your neighbors to identify points of in-state and multi-state coordination as **Appendix C**. As with previous areas explored in this document, the degree to which your states have articulated an objective and strategy that defines the level of integration between state plans will help determine the kinds of questions states might want to ask each other and ask together. Following rule finalization, States may wish to collaborate to understand the final rule and jointly ask questions in common.

If States convene to understand each others' plans or coordinate on implementation, key areas that may be worth exploring together include:

- What key stakeholders need to be included?
- What outreach strategy should be used to engage these stakeholders?
- Where are existing evaluation and analytic capabilities available?
- What analytical methodology and assumptions should be used for reference planning?
- What does the reference case look like?
- What are potential scenarios or key uncertainties that create changes to the reference case?
- Do participating states intend to focus on measures that include market-based and trading-oriented approaches or unit-specific approaches, in different combinations? How will those interact?.
- What broad compliance strategy underpins each state's specific measures? Rate-based, or mass-based?
- What non-traditional (typically explored in Building Blocks 3 and 4 of the proposed Rule) are under consideration?
- What joint activities or transfer options exist as solutions?
- What collaboration strategy makes sense for participating states?
- Are other market-based systems in place or coming into place for any participating state?
- Identification of Least-Cost, Most Effective, Most Robust Strategy
- How does the state guarantee enforceability?

STEP 9:
Ongoing institutional coordination as described in the MOU

The MOU described in **Appendix B** of this document should describe the ways that States will continue to work together. This function is important as circumstances will change, plans will need updates and revisions, and even perfect plans for compliance will need to be returned to in order to accomplish reporting and updates.

STEP 10:
Review and coordination on plan implementation/sunset

An interstate agreement should have a date embedded in it to assure that the need for coordination is examined periodically and the this coordination is made more robust in the future, expanded to include new parties or contracted to revise participation if needed, and ultimately discontinued when superseded by new rules, changes in the real world, or other events that make communication and coordination unnecessary.

Appendix A: Sample Legislative Authorities and Checklist Developed by the National Conference of State Legislatures (NCSL)

The Legislative Role in Potential Interstate Collaboration on the Clean Power Plan

This brief explores the implications of state legislation as foundational to multistate compliance approaches for the U.S. Environmental Protection Agency's (EPA) proposed Clean Power Plan. It examines the role played by state legislatures and offers a checklist of questions about legislative authorities that can be used by policymakers seeking interstate coordination. This document provides examples of "where to look" language in different state statutes that may guide policymakers interested in exploring the potential for interstate collaboration.

State policymakers—driven by the desire to make the electric grid reliable, cost-effective and efficient—have acted on a number of fronts to promote interstate collaboration on energy resource planning and infrastructure development. Since state efforts to reduce carbon emissions are likely to have infrastructure and operational impacts beyond state borders, states may wish to consider a number of existing state policies as a jumping off point for creating a multi-state approach to EPA Clean Power Plan compliance.

Most legislative examples of interstate activity in this area have involved renewable energy credit trading and carbon emissions trading. States have chosen multi-state approaches since they allow states to meet their policy goals at lower costs. States that can cheaply reduce emissions or build renewable energy can sell their credits to states with higher compliance costs. These states can, in turn, attain credits for less than it would cost them to reduce emissions or build renewable generation themselves. As mentioned earlier, economic modelling has demonstrated that, for most states, a regional approach to the Clean Power Plan will also result in economic benefits and lower compliance costs.

States have created multistate programs either through a formal interstate agreement or by coordinating less formal stakeholder agreements. States can utilize existing multistate programs to meet Clean Power Plan requirements at lower cost. Any degree of collaboration requires planning to reach a consensus or develop common components and tracking systems across participating states. Following are several examples of state policies that could be harnessed to facilitate multi-state coordination for Clean Power Plan compliance.

The Legislative Role and Authority

The compliance plans that states will propose for the Clean Power Plan will be submitted by state air agencies and environmental regulators with significant input from state public utility commissions and energy offices. While the role of state legislatures in this process is critical, even though it may not be obvious. State legislatures across the nation are taking a more active role in shaping state and regional energy systems affecting energy generation, efficiency and grid infrastructure. They create the regulatory framework and enforcement authority for public utility commissions, air offices and other state agencies. Legislative action will likely be required to effectively meet Clean Power Plan requirements and to engage in multi-state compliance efforts.

Legislatures in nine states review their air offices' section 110 of the Clean Air Act state implementation plans (SIPs) and an additional two legislatures review section 110 SIPs only in certain instances. As detailed in "Recent State Legislative Action," several states have recently enacted legislation ensuring legislative review or involvement in the Clean Power Plan state plan process.

Legislatures are determining their role in the Clean Power Plan but face challenges due to the legislative calendar. When EPA releases finalized carbon dioxide emissions regulations under section 111(d) in the summer of 2015, a majority of state legislatures will already have adjourned for the year. Next year in 2016, the Montana, Nevada, North Dakota and Texas legislatures will not meet while legislatures in six states—Arkansas, Connecticut, Maine, New Mexico, North Carolina and Wyoming[i] will have limited sessions.[ii]

Approaches for Collaboration

State entities can review the Legislative Action Checklist below to assess potential policy needs in their states. Following the checklist, these topics—along with state legislative examples—are explored in greater depth in this Appendix.

Legislative Authorities Checklist

1. Does your state have legislation enabling multistate efforts for:
    a. Trading of renewable energy credits for renewable energy standard compliance?
    b. Cap and trade participation and tracking of carbon credits?
2. Can the existing systems above accommodate greenhouse gas emissions reductions or be modified to accommodate reductions?
3. Will these systems comply with EPA's evaluation, measurement and verification (EM&V) protocols and what changes might be needed to enable compliance?
4. How were these systems created? What legislation might be needed to tailor these systems for 111(d) compliance?
5. Does your state engage in regional activities for:
    a. Fulfilling Clean Air Act requirements?
    b. Comprehensive state energy planning activities?
    c. Integrated Resource Planning or other utility generation and transmission planning?

    If yes, how will they be involved in state efforts to comply with 111(d)? All regional energy planning entities should have some involvement in state 111(d) discussions.
6. What legislation might your state need to accommodate compliance with EPA greenhouse gas reduction regulations?
    a. Designation of authority for plan implementation.
    b. Policies that create energy efficiency or renewable resource standards, or policies that increase these standards.
7. Policies that promote interstate planning and credit trading, or allow for future collaboration if a state does not include multistate efforts in its initial plan?
8. Will policies name specific groups of states to collaborate with or allow this to be open-ended?
9. Does your state have shared policy definitions and programs with potential collaborators?
10. Does your state have legislation in place that places specific requirements on 111(d) compliance, such as adherence to a rate-based standard, requirements to consider multistate collaboration, etc.?
11. Will partner states be required to meet certain criteria? Must they have equivalent or stricter enforcement approaches? Does each state maintain enforcement authority over regulated state entities? Do any agreements specify liabilities that may or may not exist for failures that might occur within the partnership?

Examples of Legislative Components for Collaboration

Regardless of the form, successful interstate collaboration includes several components. For example, a state entity must be authorized to engage in interstate collaboration, whether through emissions trading, renewable energy credit trading or other mechanisms. Authorization will likely come from the legislative branch but may originate in the executive branch as well. The framework for the collaboration, whether it be for renewable energy or carbon credit trading, and shared definitions of trading units must also be established. For example, renewable energy credit (REC) trading programs set one REC equal to one megawatt-hour of renewable energy; carbon markets set units at one ton of carbon dioxide emissions. Lastly, EPA requires state plans to be legally enforceable and states must ensure all emissions reductions—intrastate or interstate—meet EPA's requirements for evaluation, measurement and verification (EM&V). States may develop their own methodologies, modify existing systems or use a federal system, such as the Avoided Emissions and Generation Tool (AVERT). Adopting standard elements will allow states to collaborate more easily, either immediately or down the road.

Existing state legislation that speaks directly to Clean Power Plan compliance may not exist. However, state laws establishing interstate coordination on cap-and-trade programs, renewable energy credit trading, renewable portfolio standard resource definitions, transmission and generation planning, and participation in regional compacts may provide the foundation for coordination moving forward. The sections below provide legislative examples exploring these concepts.

Cap and Trade Programs

Cap and trade programs establish a cap on emissions and either provide an allotment of emissions credits to regulated entities, or simply require all entities to buy credits on a market that was created to trade these credits. Cap and trade programs put a price on each unit of emissions. Emitters will either reduce emissions or buy credits from entities that can reduce emissions at a lower cost. Emitters are required to measure and report emissions and are penalized for non-compliance. Cap and trade policies encourage regional collaboration and often result in lower compliance costs, efficiency, innovation and advanced action.

Multiple cap and trade programs exist at the federal and state levels. For example, EPA has implemented cap and trade programs for sulfur dioxide, oxides of nitrogen (NOx) and other emissions through the Clean Air Interstate Rule, the Clean Air Visibility Rule, the Acid Rain Program and the NOx Budget Trading Program. State-level cap and trade programs have been developed through the nine-state Regional Greenhouse Gas Initiative in the northeast and mid-Atlantic, California's Assembly Bill 32 program and the Western Climate Initiative.

Regional Greenhouse Gas Initiative

The Regional Greenhouse Gas Initiative (RGGI) is the oldest mandatory, market-based carbon dioxide emissions reduction program in the country. RGGI is a multi-state approach to carbon dioxide emissions reductions that uses a shared tracking system and allowance process, facilitating cross-state recognition of emissions reductions efforts. Program administration, however, operates largely on the state level through individual state carbon dioxide budget trading programs. As detailed below, participating states have adopted or developed legislation and regulations enforcing their participation in the regional strategy. Since the adoption proceeded on a state-by-state basis with a memorandum of understanding, rather than through an interstate compact, the initiative did not require Congressional approval.

RGGI was developed in 2003 by governors in Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont. Seven governors signed a memorandum of understanding in 2005, which outlined the program and established a framework for a model rule. Beginning in 2006, all nine states, with Maryland joining, adopted the model rule by legislation and regulation.[iii] Legislation was enacted in Vermont in 2006; Connecticut, Maine, New Jersey and Rhode Island in 2007; and Connecticut, Delaware, Maryland, Massachusetts and New Hampshire in 2008. Only regulations were adopted in New York; no legislation was enacted. In 2011, New Jersey withdrew from the memorandum of understanding.

States' rulemaking processes included adopting legislation, except in New York, that created commonalities between state programs. State legislation or regulations defined RGGI or state-specific budget trading programs, as well as defining other participating members in the initiative. For example:

"CO_2 Budget Trading Program" means the multi-state CO_2 air pollution control and emissions reduction program established pursuant to this section and corresponding regulations in other states as a means of reducing emissions of CO_2 from CO_2 budget sources (Conn. State Agencies Reg. §22a-174-31). "Participating state" means a state that has established a regulation implementing a CO_2 Budget Trading Program consistent with the Regional Greenhouse as Initiative model rule (Conn. State Agencies Reg. §22a-174-31).

"Regional greenhouse gas initiative" means the initiative referred to in the Memorandum of Understanding and the corresponding model rule that memorializes the ongoing cooperative effort by the State and other states to design and implement a regional carbon dioxide cap-and-trade program covering carbon dioxide emissions from electrical generating units in the signatory states (Me. Rev. Stat. Ann. tit. 38, §580a).

Included in RGGI statutes is enabling legislation for states to participate in RGGI and engage in a cap and trade program. For example in Delaware and Massachusetts:

Representatives of the RGGI states have formed a nonprofit corporation called "RGGI Inc." to assist in the development of the regional program for reducing CO_2 emissions. The General Assembly explicitly authorizes and sanctions the prior and ongoing participation in RGGI Inc. by the Secretary of the Department of Natural Resources and Environmental Control, and the Chair of the Public Service Commission, and their duly authorized representatives, as part of their official duties. The State may contract with RGGI Inc, pay dues to RGGI Inc, and transfer funds to RGGI Inc. to facilitate implementation of the RGGI program (Del. Code Ann. tit. 7, §6044).

The department shall monitor and regulate emissions of greenhouse gases with the goal of reducing those emissions. The department shall adopt regulations to require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with this chapter (Mass. Gen. Laws Ann. ch. 21N, §2).

Lastly, states have explicitly authorized interstate collaboration and coordination through the RGGI program. Statutes from Massachusetts and New Hampshire are included below.

The executive office and the department may work with the participating regional greenhouse gas initiative states and other interested states and Canadian Provinces to develop a plan to expand market-based compliance mechanisms such as the regional greenhouse gas initiative to other sources and sectors necessary or desirable to facilitate the achievement of the greenhouse gas emissions limits (Mass. Gen. Laws Ann. ch. 21N, §7).

California and the Western Climate Initiative

California enacted Assembly Bill 32 (AB32), "The California Global Warming Solutions Act," in 2006, requiring the state to reduce greenhouse gas emissions to 1990 levels by 2020 through a cap and trade program.[iv] The legislation required the state to "*adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit GHG emissions*." This system took effect in 2012. The act required the state air regulator, the California Air Resources Board, to develop reporting and verification mechanisms and authorized enforcement authority through civil and criminal penalties.

California participates in the Western Climate Initiative currently, along with the Canadian provinces of British Columbia, Manitoba, Ontario and Quebec. The goal of the initiative is to implement a multi-state and multi-province regional emissions trading program. The initiative was launched in 2007 as a collaboration between governors of five western states and grew to encompass seven western states and four Canadian provinces. The 11 partner states and provinces collaborated in developing program design documents for a regional trading program, which were released in 2008 and 2010.[v] In 2011, six states—Arizona, Montana, New Mexico, Oregon, Utah and Washington—formally left the Western Climate Initiative.

The Western Climate Initiative includes emissions from the electricity, transportation and residential and commercial fuel sectors. Before successfully joining the initiative, states or provinces must adopt an economy-wide greenhouse gas reduction goal for 2020 that is at least as stringent as the current Western Climate Initiative regional goal. The Western Climate Initiative currently uses the **Compliance Instrument Tracking System Services for carbon credit monitoring.**

To clarify participation in multistate agreements on trading, the California Legislature enacted Senate Bill 1018 in 2012.[vi] The legislation declared that "*a state agency, including, but not limited to, the State Air Resources Board, shall not link a market-based compliance mechanism… with any other state, province, or country unless the state agency notifies the Governor that the agency intends to take such action.*" Additionally, the governor must determine that 1) the linked entity's greenhouse gas emission reductions are equivalent or stricter than California's requirements, 2) California maintains enforcement authority over entities regulated by the program in California and in the linked jurisdiction, 3) the linkage maintains equivalent or stricter enforcement authority as California law, and 4) the proposed linkage will not impose any significant liability on the state for any failure associated with the linkage (Cal. Government Code §12894). This legislation provided the basis for California and Quebec to successfully link their cap and trade programs in 2013. In April 2015, Ontario announced it plans to link their carbon market with California's and Quebec's markets.

Renewable Energy Credit Trading

States track the generation of renewable energy with sophisticated tracking mechanisms. All 48 contiguous states and Washington, D.C. fall within 10 renewable energy credit (REC) trading markets. States that participate in these markets benefit from buying and selling RECs and may fulfill state mandates for renewable generation.

Twenty-eight states and Washington, D.C. have renewable energy mandates and an additional nine states have set renewable energy goals. The mandates—also referred to as renewable portfolio standards or an RPS—require utilities to sell a specified percentage or amount of renewable electricity. In many states, standards are measured by percentages of kilowatt-hours of retail electric sales. Iowa and Texas, however, require specific amounts of renewable energy capacity rather than percentages, and Kansas requires a percentage of peak demand.

Successful components of—or barriers to—interstate interactions include definitions of renewable energy and credits, as well as the tracking systems themselves. Uniform definitions and practices between states encourage greater interstate collaboration; on the other hand, states that define renewable energy and RECs differently may experience more complications in interstate trading. States with variations in definitions do currently participate in interstate REC tracking.[vii] Although many states currently coordinate renewable energy credit transfers across state boundaries, the incorporation of carbon dioxide emission tracking in these systems may be further complicated by variances in definitions and systems. Consistency and clarity across states is important for accurate measurement and verification to avoid double counting credit for generation, a requirement for Clean Power Plan compliance. It is possible that EPA may release guidance or instructions regarding renewable energy and credit definitions.

Renewable Energy Definitions

While states' definitions of renewable energy include common technologies (such as solar photovoltaic, solar thermal or wind energy), state statutes are not uniform. Differences in renewable energy definitions have implications for interstate trading of renewable energy. A renewable energy technology recognized by two states, such as wind energy, could be generated in State 1 and sold to meet a requirement in State 2 for renewable energy. However, if a resource is considered renewable in State 1, such as animal waste, and not considered as a renewable resource in State 2, credit for energy from that generation source would not be recognized as renewable energy in State 2. While states currently buy and sell credit for renewable energy based on differing definitions, if EPA designates a definition for renewable energy compatible for section 111(d) of the Clean Air Act compliance, this could impact both intrastate and interstate renewable energy markets.

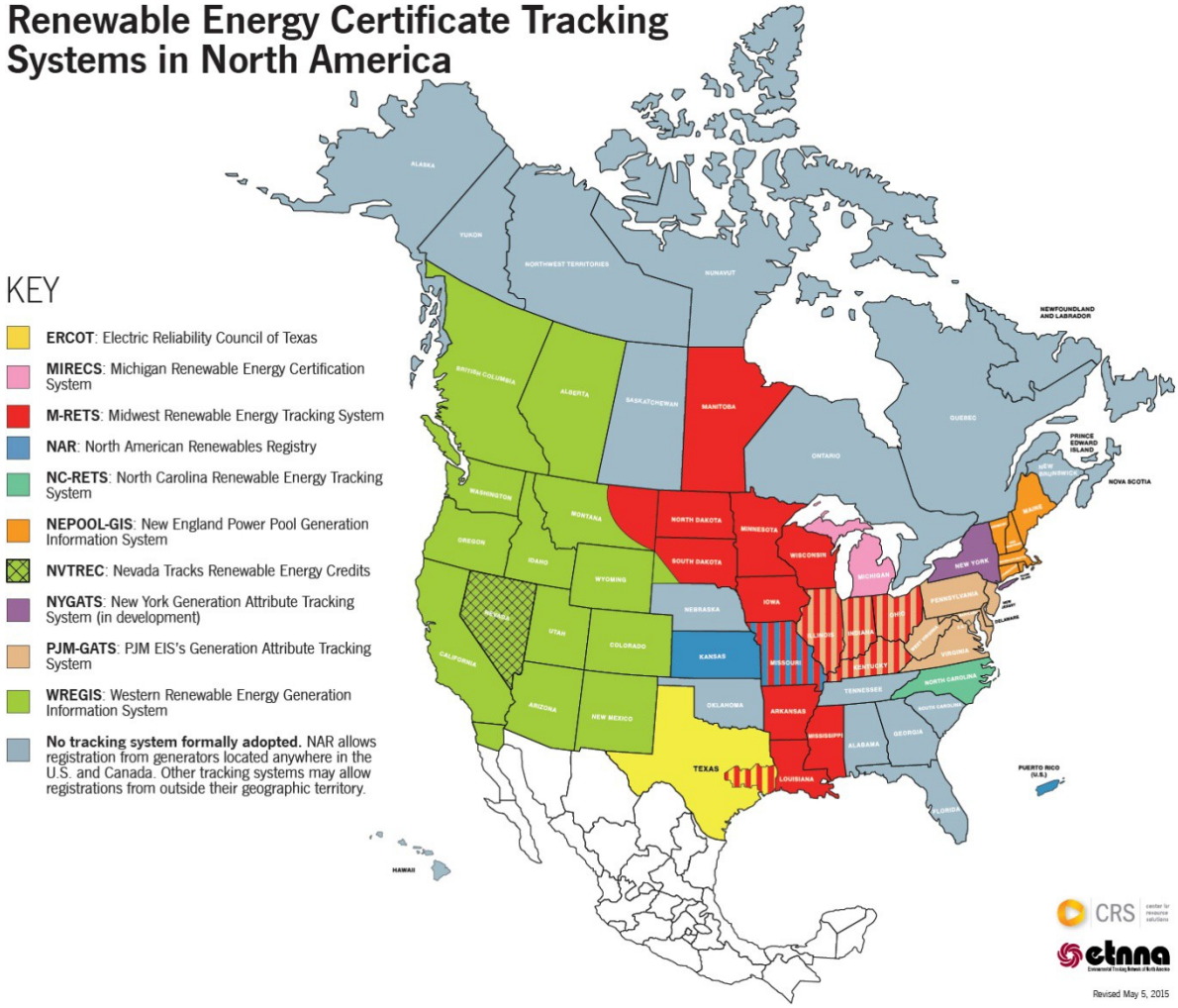
Renewable Energy Certificates and Tracking Systems

Renewable energy generation includes two components: the physical electricity generated and a credit of the environmental, social and other non-power attributes of renewable energy. When entities purchase renewable energy for renewable portfolio standards they are purchasing the property rights to the credit for generation, known as a renewable energy credit or REC.[viii] RECs serve as a means of verifying renewable energy purchases or generation. Most sources consider one REC equivalent to one megawatt-hour of renewable energy generation, or 1000 kilowatt-hours. However, Arizona (Ariz. Admin. Code §14-21803) and Nevada (Nev. Rev. Stat. §704.78215) authorize one renewable energy credit as equivalent to one kilowatt-hour.[ix]

If states are adapting renewable energy tracking systems for 111(d) compliance, clarity on how states address environmental attributes—such as CO_2 emissions—will be required for successful interstate trading and Clean Power Plan compliance. Several states describe a REC as generally containing all environmental attributes, including Montana: "*a tradable certificate of proof of 1 megawatt-hour of electricity generated by an eligible renewable resource that is tracked and verified by the commission and includes all of the environmental attributes associated with that 1 megawatt-hour unit of electricity production*" (Mont. §69-3-2003). However, some states place restrictions on which environmental attributes are included in RECs. For instance, California excludes solid waste treatment benefits of biomass or biogas (Cal. Public Utilities Code §399.11). By contrast, several state REC definitions do not mention whether environmental attributes are included. States may find it helpful to review or modify REC definitions depending on their approach since environmental attributes may have to be incorporated or altered. For example, a state that does not include environmental attributes in a REC would not be able to use the REC for Clean Power Plan compliance.[x] Including CO_2 emissions in REC definitions would be an important step in including renewable energy standards as part of an enforceable Clean Power Plan compliance plan.

RECs are subject to the interconnected nature of the electric transmission grid. Many states accept RECs generated in other states, especially if a state is in the service territory or REC trading system. For example, Minnesota statutes (Minn. Stat. §216B.1691) require all renewable energy credits to be recorded and tracked through the Midwest Renewable Energy Tracking System (M-RETS) for compliance. M-RETS is implemented in Illinois, Indiana, Iowa, Minnesota, Montana, North Dakota, Ohio, South Dakota, Wisconsin and the Canadian province of Manitoba.

Although state definitions of renewable energy and RECs differ, these differences are often small enough not to interfere with cross-state tracking or collaboration. However, these differences may have more significant impacts when accounting for interstate and intrastate greenhouse gas emission tracking. Currently, states fall into 10 different renewable tracking system regions, except Hawaii which does not use a tracking system or have a definition for a REC (see map below). These tracking systems serve as flexible, market-based trading mechanisms for RECs. Tracking systems account for individual RECs through unique certificate numbers, facilitate REC trading, retire used RECs to avoid double counting or resale, and verify RPS compliance. Using existing tracking systems for Clean Power Plan compliance could be beneficial to states as these systems already have mechanisms to avoid double counting. Additionally, five existing tracking systems currently serve multiple states, allowing for a degree of interstate coordination without requiring a formal joint emissions goal or compliance plan. Cost allocation for these systems is currently shared, which can lower compliance costs for individual states.



Several states operate individual state programs, including Michigan (Mich. Comp. Law. §460.1043), Nevada (Nev. Rev. Stat. §704.7821), New York (in development), North Carolina (N.C. Gen Stat. §62-133.8) and Texas (Tex. Cod Ann. §39.904). Several states, such as Nevada and North Carolina, implement both a state tracking system and participate in a larger regional system for REC tracking outside of RPS obligations. Some states, including Illinois (Ill. Rev. Stat. ch. 20 §3855/1-56), Montana (Mont. Code Ann. §69-3-2006) and Ohio (Ohio Rev. Code Ann. §4928.645) fall within the boundaries of multiple REC tracking systems, often because these states fall within different generation control areas. [xi] In these states, statutes defer tracking system designation or development to the public utility commission, which can develop a state-specific system, determine use of an existing tracking system or systems, or allow for multiple third party organizations to administrator credit tracking and aggregation. Individual states and groups of states have developed these tracking systems; the North American Renewables Registry (NARR) is an available tracking mechanism if states do not participate in a regional or state tracking systems.

Currently, tracking systems do not incorporate greenhouse gas emission tracking. However, NARR announced in May 2015 that they will be adding functionality to support Clean Power Plan implementation.[xii] Two other tracking systems used in RGGI states, the PJM General Attributes Tracking System and the New England Power Pool General Information System, track emissions data for other attributes, such as **sulfur dioxide and nitrogen oxides.**[xiii] **REC tracking systems that overlap with cap and trade program states already have experience in coordinating renewable energy and** CO_2 **emissions reduction program data.**

Interstate Generation and Transmission Planning

Regional planning takes place on multiple levels. Large multi-state utilities plan for generation and transmission needs across their territories, while Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs) coordinate transmission across large regions to ensure a balance between energy supply and demand. Since federal, regional, state and local entities are all involved in the development of transmission, states have made efforts to coordinate on a multistate level to streamline planning, siting and building of transmission lines and energy generation.

Rhode Island empowers its office of energy resources to coordinate with other states and regional entities, including the New England States' Committee on Electricity and ISO-New England Inc., in the development of transmission, generation and gas pipelines (R.I. Gen. Laws §39-31-4 through §39-31-7). The Alabama state energy office also coordinates regionally, and is empowered to enter into interstate agreements for energy research or planning (Ala. Code §41-6A-4). Michigan requires its public utility commission to "*[e]ngage in regional load management efforts to reduce the annual demand for energy whenever possible*" (Mich. Comp. Laws §460.1095).

Many states have statutes requiring utilities to create integrated resource plans (IRPs), which emphasize evaluating generation and efficiency options while encouraging choices that promote reliability and minimize cost. Some of these plans reference a regional approach and encourage interstate cooperation during plan development. South Carolina's plan (S.C. Code Ann. §58-37-40), for example, requires the State Energy Office to coordinate with regional groups, including the Southern States Energy Board, when preparing the integrated resource plan. Nebraska legislation (Legislative Bill 469) enacted this spring requiring the state energy office to develop a state energy plan and that the plan must include an "*analysis of other state energy plans and regional energy activities that identify opportunities for streamlining and partnerships*."

Interstate Compacts

States have the ability to formally coordinate policy efforts through interstate compacts, which require congressional approval. Interstate compacts allow states to partner in developing a collaborative strategy for addressing a shared, broad concern, such as oil and gas conservation or interstate transmission siting. Compacts can either be initiated by Congress or proposed by a select group of states. Stakeholders define powers and duties, definitions, organization, oversight, enforcement and withdrawal procedures that member states must in turn adopt via legislation.

Several interstate compacts relating to energy have received Congressional approval and state participation. For example, the Western Interstate Nuclear Compact formed the basis for the Western Interstate Energy Board (WIEB) in 1969. WIEB serves to coordinate energy resources, development and exchange between 11 states and three Canadian provinces. Ten states enacted legislation adopting the compact between 1963 and 1977; one state participates in WIEB but has not enacted legislation. Another example, the Interstate Compact to Conserve Oil and Gas was established in 1935 and includes 30 member states, eight associate states and 10 international affiliates. All member states adopted the compact between 1935 and 1982.

In the Energy Policy Act of 2005, Congress authorized three or more contiguous states to enter into an interstate electric transmission siting compact without the need to receive Congressional approval for future compacts. While two states—Kansas and Washington —have considered legislation to adopt an interstate transmission siting compact, no state has actually adopted the compact.

Other Regional Actions

Agencies in 15 states have the legal authority to participate in the Western Regional Air Partnership, a voluntary agreement between EPA, federal land managers and state, local and tribal entities concerning regional haze. The partnership offers access to data tracking and technical resources.[xiv] Other executive-branch regional agreements include the Transportation & Climate Initiative in northeast and mid-Atlantic states and the Pacific Coast Collaborative.

Legislative Action on the Clean Power Plan

In the 2014 and 2015 sessions, state legislatures are considering a number of bills that would affect a state's compliance with the Clean Power Plan. In the 2014 legislative session, 23 states introduced bills or resolutions that related to the Clean Power Plan and 32 states did so in 2015.[xv] A number of enacted and pending bills would effect a state's compliance options and pathways. A common theme explored by many state legislatures is requiring approval of a state plan by the legislature or a portion thereof. These compliance requirements should be factored into multi-state coordination. Examples are included below.

Legislation enacted in Arizona (Senate Bill 1007**, 2015)** establishes a Joint Legislative Review Committee. The committee is tasked with reviewing a proposed state plan, receiving public comment and to "*consider whether submission of the plan…is in the public interest.*" Additionally, the legislation authorizes the director of the Department of Environmental Quality "*may participate in one or more full or partial multijurisdictional plans or agreements, including plans or agreements with Indian Tribes, for the purposes of complying with this section.*"

Legislation enacted in **Arkansas** (Senate Bill 183, 2015) states that the "*submission of a state plan is the preferred method of compliance with federal emission guidelines*." The legislation requires approval of a state plan by the governor and the legislative council, a decision-making body of legislators that meets between legislative sessions. Also contained in the bill is the text stating, "*the Arkansas Department of Environmental Quality shall not submit a state plan to the United States Environmental Protection Agency… if the state plan: (1) Results in a significant rate increase annually for any rate class of the total delivered electricity cost per kilowatt hour or of the total natural gas cost per thousand cubic feet; or (2) Results in unreasonable reliability risks*."

A **Kansas** bill enacted in 2014 (House Bill 2636) authorizes the Secretary of Health and Environment to establish separate standards of performance for carbon dioxide emissions based on adequately demonstrated technology, cost, efficiency and other measures that can be undertaken without requirements for fuel switching, co-firing or limiting the utilization of the unit. The bill also authorizes the secretary to "*implement such [performance] standards through flexible regulatory mechanisms, including the averaging of emissions, emissions trading or other alternative implementation measures that the secretary determines to be in the interest of Kansas*." Legislation enacted in 2015 (House Bill 2233) establishes additional requirements for compliance plans.

Legislation in **Kentucky** (House Bill 388, 2014) requires separate standards of performance for coal-fired and gas-fired units on a unit-by-unit basis through measures that can be undertaken without requirements for fuel switching, co-firing or limiting the utilization of the unit.

Louisiana legislation (Senate Bill 650, 2014) requires separate standards of performance for coal-fired and gas-fired units and measures that can be undertaken without requirements for fuel switching, co-firing or limiting the utilization of the unit. The bill also authorizes the Department of Environmental Quality to implement "*regulatory mechanisms that provide flexibility in complying with such standards, including the averaging of emissions, emissions trading, or other alternative implementation measures that are determined to further the interests of Louisiana and its citizens*."

Enacted legislation in **Missouri** (House Bill 1631 and Senate Bill 664, 2014) authorizes the Air Conservation Commission to develop emissions standards for generating plants on a unit-by-unit basis. Legislation also requires that "*[t]he commission shall not establish the following compliance actions in any state implementation plan: (1) An allowance system or any other system based in any way upon an emission baseline or cap and trade system; or (2) Any system that requires emission reductions of a fixed percentage on a local or statewide basis."*

Pennsylvania legislation (House Bill 2354, 2014) requires the Department of Environmental Protection to consider "*whether the Commonwealth should participate in multistate programs that already exist, or whether a new multistate carbon dioxide reduction program should be created*," whether the state should "*work in partnership*" with other states or whether market-based trading programs should be included in the state plan. The bill also requires the legislature's approval of a state plan, except in one specific series of events.

Legislation in **West Virginia** (House Bill 4346, 2014) states "[*t]he Department of Environmental Protection may implement, to the extent permissible, the standards of performance established under subsection (a) through regulatory mechanisms that provide flexibility in complying with the standards (of performance), including averaging of emissions, emissions trading, or other alternative implementation measures that are determined to further the interests of West Virginia and its citizens*." The bill also requires separate standards of performance for coal-fired and gas-fired units that do not require switching from coal to other fuels or limiting the economic utilization of the unit. Another bill (House Bill 2004, 2015) reiterates the establishment separate performance standards and requires the legislature's approval of a state plan.

Wyoming legislation (Senate File 75, 2014) authorizes the attorney general to take action to stop the enforcement, administration or implementation of Clean Power Plan regulations, following approval by the governor.

As of mid-June 2015, legislation remains pending in a number of states that has impacts on possible multi-state coordination.

- Pending legislation in Illinois (House Bill 2607 and Senate Bill 1485) would establish a market-based or cap-andinvest program for reducing carbon dioxide emissions. Legislation in North Carolina (House Bill 571) would require the Department of Environment and Natural Resources to consider market-based trading in a state plan.
- Another pending Illinois bill (House Bill 3293) would establish a low carbon portfolio standard and allow for out of state generation to qualify for credits.
- Pending legislation in South Carolina (House Bill 3707) would prohibit state agencies from develop a compliance plan until all legal challenges are resolved.
- Legislation sent to the governor in Missouri (Senate Bill 142) and pending legislation in North Carolina (House Bill 571) would require the state to take into account how other states are formulating state plans or opportunities for partnerships.

Legislation has been introduced in a number of states that would increase greenhouse gas emission goals or establish taxes or fees for fossil fuels, carbon reduction bonds, carbon credits programs, cap and trade or cap and dividend programs, or other financial incentives for carbon reductions.

In addition to legislation, **Oklahoma** Governor Mary Fallin issued Executive Order 2015-22 in April 2015 barring the state from submitting a 111(d) state plan and possibly hindering or delaying multi-state compliance options.

Conclusion

State legislatures have a large role to play in creating Clean Power Plan compliance plans that address the regional nature of the nation's electric grid. State policymakers have been the catalyst for the creation of a number of existing systems, including renewable energy credit trading and cap and trade, which could be tailored to help with multi-state compliance efforts. Many of the challenges posed by the creation of these systems, including the operation of credit trading markets and coordination of state partnerships, have been addressed as these existing systems have been refined. While further legislative action may be needed in order for existing programs to help with 111(d) compliance, they provide an excellent foundation for states wishing to take advantage of the economic benefits that can result from a multistate compliance approach.

[i] *Legislative Sessions with Limited Scope* (Denver, Colo.: National Conference of State Legislatures, n.d.), http://www.ncsl.org/default.aspx?tabid=23727; Debbie Smith and Curt Bramble, *Comments on EPA Docket ID No. EPA-HQ-OAR-2013-0602* (Washington, D.C.: National Conference of State Legislatures, 2014), http://www.ncsl.org/documents/standcomm/scnri/NCSL_111_D_Comments.pdf.

[ii] *Legislative Sessions with Limited Scope* (Denver, Colo.: National Conference of State Legislatures, n.d.), http://www.ncsl.org/default.aspx?tabid=23727; Debbie Smith and Curt Bramble, *Comments on EPA Docket ID No. EPA-HQ-OAR-2013-0602* (Washington, D.C.: National Conference of State Legislatures, 2014), http://www.ncsl.org/documents/standcomm/scnri/NCSL_111_D_Comments.pdf.

[iii] RGGI, Inc., *Program Design* (New York, NY: RGGI, Inc., n.d.), http://www.rggi.org/design.

[iv] California Air Resources Board, *Assembly Bill 32 Overview* (Sacramento, CA: California Environmental Protection Agency, 2015), http://www.arb.ca.gov/cc/ab32/ab32.htm.

[v] Western Climate Initiative, *History* (Sacramento, CA: Western Climate Initiative, 2013), http://www.westernclimateinitiative.org/history.

[vi] California Air Resources Board, *Linkage* (Sacramento, CA: California Environmental Protection Agency, 2015), http://www.arb.ca.gov/cc/capandtrade/linkage/linkage.htm.

[vii] The Cadmus Group, *Exploring and Evaluating Modular Approaches to Multi-State Compliance with EPA's Clean Power Plan in the West* (Denver, Colo.: The Cadmus Group, 2015), http://www.cadmusgroup.com/papers-reports/clean-power-plan-west/.

[viii] U.S. Environmental Protection Agency, *Renewable Energy Certificates (RECs)* (Washington, D.C.: U.S. EPA, 2015), http://www.epa.gov/greenpower/gpmarket/rec.htm.

[ix] Jan Hamrin, *REC Definitions and Tracking Mechanisms Used by State RPS Programs* (Montpelier, VT: Clean Energy States Alliance, 2014), http://www.cesa.org/assets/2014-Files/RECs-Attribute-Definitions-Hamrin-June-2014.pdf.

[x] Ibid.

[xi] Jan Hamrin, *REC Definitions and Tracking Mechanisms Used by State RPS Programs* (Montpelier, VT: Clean Energy States Alliance, 2014), http://www.cesa.org/assets/2014-Files/RECs-Attribute-Definitions-Hamrin-June-2014.pdf.

[xii] APX, *The North American Renewables Registry Adds Functionality to Support Clean Power Plan Implementation* (New York, NY: APX, 2015), http://www.narecs.com/2015/05/13/the-north-american-renewables-registry-adds-functionality-to-support-clean-power-plan-implementation/.

[xiii] Jan Hamrin, *REC Definitions and Tracking Mechanisms Used by State RPS Programs* (Montpelier, VT: Clean Energy States Alliance, 2014), http://www.cesa.org/assets/2014-Files/RECs-Attribute-Definitions-Hamrin-June-2014.pdf.

[xiv] Western Regional Air Partnership, *Regional Emissions Data and Analyses* (Denver, Colo.: Western Governors' Association, 2010), http://www.wrapair2.org/emissions.aspx.

[xv] Melanie Condon and Jocelyn Durkay, *States' Reactions to Proposed EPA Greenhouse Gas Emissions Standards* (Denver, Colo.: National Conference of State Legislatures, 2015), http://www.ncsl.org/default.aspx?tabid=28051.

Appendix B: Sample MOU template for States considering interaction on Clean Power Plan State Compliance Plans

Memorandum of Understanding

THIS WORKING DOCUMENT IS INTENDED TO CATALYZE DISCUSSION, AND IS NOT AN ENDORSED PRODUCT.

This Memorandum of Understanding (MOU) has been executed by and between (Participant Agencies)

WHEREAS, *explanation of the driver: the Clean Power Plan and the final rule once issued by EPA*

WHEREAS, *explanation of the emissions role played by the power sector*

WHEREAS, *explanation of the role of States in the prevention and control of air pollution at its source;*

WHEREAS, *explanation of how states file plans governing CPP compliance and the boundaries of power flow and market economic boundaries driving the electric grid do not conform to those state boundaries*

WHEREAS, *underpinning legal authority of the states to take action*

WHEREAS, *ref with language authorizing interstate consultation by participating agencies using power to "advise, consult, contract, and cooperate with …other states;" and*

WHEREAS, *explanation of the purpose and objective of this MOU – perhaps an intent to gain visibility into or to coordinate on the development of each others' CPP compliance plans*

WHEREAS, *other terms that may be needed explaining the background and setting the stage,*
NOW, THEREFORE, THE PARTIES AGREE TO THE FOLLOWING:

Scope of the MOU

a. What emissions are covered?

b. What types of activities are covered?

c. What tracking mechanisms, ownership agreements, or other issues should be considered for discussion?

d. What definitions exist for tons?

e. Does it only apply to Clean Power Plan compliance?

f. Any exclusions?

g. Timeframe covered by the MOU.

Parties to the MOU

h. States affected

i. Lead state agencies affected

j. Additional state agencies affected

k. Additional state and non-state organizations party to the MOU

l. Other entities and 3rd-party providers essential to compliance, such as registries or entities providing ownership assurance, verification, or tracking

Responsibilities of the Parties

m. State 1's development plan

1. Points of coordination

n. State 2's development plan

2. Points of coordination

o. Timing of coordination / harmonization

Methods of coordination

a. Convening organizations

b. Dates for conferring and finalization

c. Methods for providing input

d. Methods for dispute resolution

Amendments to this Agreement

a. Ways that the parties can take action to change this agreement – who must agree, and how.

b. Dissolution of the agreement

Term of this Agreement

a. This MOU shall remain in effect until such date as / conditions occur:

Enforcement

a. Notwithstanding any term in this MOU, parties may enforce their respective state environmental laws, regulations and orders separate and apart from the other states.

b. Nothing in this MOU shall affect the rights, duties and authority of any of the parties under the law. The agencies reserve their authority and rights to take any enforcement action that they deem necessary to fulfill their duties and responsibilities under the law.

c. The terms of this MOU shall be enforced pursuant to authority under *explanation of relevant authorities*

Confidential Information

a. The parties acknowledge and understand that the right of access by the public to information under applicable state law is not affected by this MOU.

b. Other questions governing the exchange of sensitive or confidential information.

Signatories

The undersigned hereby acknowledge the foregoing as the terms and conditions of their understanding and execute this MOU on behalf of their parties. The MOU takes effect when signed by all parties.

FOR STATE 1

_____
Name / Title / Agency

DATE: _____

FOR STATE 2

_____
Name / Title / Agency

DATE: _____

Attachment to MOU

Definitions

1. "BTU" means British Thermal Units.

2. "Emission averaging" means an activity in which 2 or more existing sources, Units, or processes in the same source category that may be subject to reasonably available control technology or other emission reduction requirements compensate for overages in emissions by contemporaneous reductions in emissions, which results in equivalent or reduced emissions as compared to the individually allowable emission rate applied separately to each source, unit, process, or process equipment.

3. "Emission Reduction Credits" means the unit of reduction in actual emissions of a pollutant which is ex pressed in tons of pollutant reduced during a specified calendar year or ozone season.

4. "Enforceable" means any standard, requirement, limitation, or condition which is established by an applicable federal or state regulation, which is specified in a permit issued or an order entered under state or federal regulation, or which is contained in a state implementation plan approved by the Administrator of the U.S. EPA and which can be enforced by STATE 1, STATE 2, or U.S. EPA.

5. "Fossil fuel" means natural gas, petroleum, coal and any form of solid, liquid, or gaseous fuel derived from such material.

6. "Fossil fuel-fired unit" includes any new or existing unit that either currently burns or burned as of the date of this MOU, fossil fuel, alone or in combination with any other fuel, where the fossil fuel actually combusted comprises more than 50% of the annual heat input on a BTU basis. This term includes (1) any new fossil fuel-fired units constructed after the date of this MOU; (2) any unit that has been converted from a fossil fuel-fired unit to a unit that burns a non-fossil fuel; and (2) any unit that has been converted from a coal-burning unit to a unit that burns fuel oil and/or natural gas.

7. "CO2" means Carbon Dioxide

8. "NOx" means nitrogen oxides.

9. "Permanent" means the relevant change in operating procedures, control equipment, or other source of emission reduction shall be continuous for the period during which emission reductions are made for the purpose of generating emission reduction credits.

"Real" means a change in the operation or control of a source, process, or process equipment that results in a reduction in actual emissions.

"Surplus" means the emission reductions made below an established source baseline that are not required in any of the following and that are not mandated by any applicable requirement:

i. The state implementation plan
ii. An applicable federal implementation plan
iii. An applicable attainment demonstration
iv. A reasonable further progress plan
v. A maintenance plan.

Appendix C: Questions to ask yourself and your neighbors to identify points of in-state and multi-state coordination

States may be considering whether it makes sense early in the process of developing an interstate plan to ask who needs to be involved. Is there a multi-agency aspect to each element? Is there a multi-state element? Beginning with the question of whether a multi-state implication exists may be helpful.
The proposed Clean Power Plan rule outlines a structure for plan development, using a twelve step program. Inserted for each step are questions that States might want to ask themselves to identify multi-agency and multistate aspects.

12 Steps for CPP Plan Development

1. Identify the affected generating units. Provide the most recent available inventory of CO_2 emissions from those affected generators. Identify any other affected entities responsible for implementation of enforceable obligations.

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

2. Describe the plan's approach and geographic scope.

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

3. Explain the State's emission performance level – either the rate established by the EPA or its translation into a mass-based goal (cap).

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

4. Demonstrate that the plan is projected to achieve the State's required emission performance level.

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

5. Provide a plan for periodic program milestones (with dates) to show the trajectory of emissions improvement. Beginning in 2022, the State must compare emissions from the previous two years with the plan's projections. Performance must be within 10% of projections. By July 1 each year, the State must file an explanation of deviations and planned corrective actions.

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

6. Plans for corrective measures, should they be necessary.

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

7. Identify the affected entities (individual affected generators, groups of affected generators, and other affected entities) to which each emission standard applies, and implementing and enforcing measures for each. "Describe each emission standard and the process for demonstrating compliance with it pursuant to State regulations or another legal instrument, including the schedule for compliance for each affected entity."

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

8. Demonstrate that each emission standard is quantifiable, non-duplicative, verifiable and enforceable with respect to an affected entity. In multi-State plans, a specific mitigating resource can only count once. However, a specific mitigating resource could count toward both 111(d) compliance and a State's portfolio standard.

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

9. Describe the CO_2 emissions monitoring, reporting and recordkeeping for all affected generators, including their hourly energy output. If the State plan includes other standards such as energy efficiency or REC purchases, include reporting and recordkeeping requirements for those measures. Retain records for 10 years.

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

10. Describe the process, timing (probably every two years), and content of State reporting.

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

11. Certify that a hearing on the State plan was held. List the witnesses who appeared and summarize the presentations and submissions.

(N/A)

12. Provide supporting documentation. Demonstrate the State has legal authority for each implementation and enforcement component of the plan "as part of a federally enforceable emission standard." Provide "statutes, regulations, public utility commission orders, and any other applicable legal documents."

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

2. Beyond-The-Fenceline Approaches

Because the 12-step approach above feels like it lends itself to unit-based improvement approaches to compliance, States may also want to ask the same questions using Kentucky's proposed bullets from their 2014 white paper on CPP compliance options, with the same effect to explore system-wide approaches:

Kentucky's hypothetical proposed structure for establishing an implementation plan responsive to the Clean Power Plan describes this as a potential process:

1. Establish a statewide baseline CO2 level using the CO2 emission from fossil fueled electric generating units from 2005.

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

2. Establish the following baseline CO2 reduction targets for 2020 (17 percent reduction), 2025 (28 percent reduction), and 2030 (38 percent reduction). Beyond 2020, state-specific data as well as energy portfolio trends would be used to set additional reductions beyond 2020 achievable through:
    a. demand-side and supply-side efficiencies,
    b. renewable and other low-carbon energy potential,
    c. offsets, and
    d. any control technology gains.

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

3. Obtain credit for CO2 reductions that have occurred from the baseline established in item 1, thereby allowing states to comply with baseline reduction targets established in item 2.

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

4. Allow a suite of compliance options that would enable Kentucky to implement the least-cost method of meeting reduction targets. These compliance options would include, but not be limited to:
    - Demand-side energy efficiency
    - Supply-side conservation or efficiency programs
    - Transmission upgrades
    - Renewable and other low-carbon energy projects at the affected source or at the
    - consumer level
    - Carbon Capture and Sequestration (CCS) technology
    - Fuel switching to lower emitting fuels
    - Quantifiable and verifiable offsets
    - Participation in regional or national market-based CO2 credit-trading programs

Does in-state expertise beyond the air division need to be involved in developing each of these steps?
Is there a multi-state component to this?

5. Establish an enforcement and monitoring mechanism whereby the state would be responsible for review, verification of emission estimates and reductions, and approval of the compliance options above. In addition, the state would be responsible for tracking statewide trends and projects.

Does in-state expertise beyond the air division need to be involved in developing this step?
Is there a multi-state component to this?

Kentucky's white paper: http://eec.ky.gov/Documents/GHG%20Policy%20Report%20with%20Gina%20McCarthy%20letter.pdf

Acknowledgements and Disclaimers

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