# EXHIBIT D

# State Implementation of $CO_2$ Rules

***Institutional and Practical Issues with State and Multi-State Implementation and Enforcement***

**A White Paper**

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# Executive Summary

***The proposed rule implicates potentially impossible timelines.*** States have relatively little time to make crucial decisions regarding EPA's proposed rule, including whether to act individually or on a multi-state basis, which of four state plan pathways to take, what state agency(ies) should be responsible to implement a Carbon IRP-like process, how any ISOs or RTOs operating within the state will play a role, and what enforcement and corrective action measures are necessary to ensure compliance with the proposed rule.

***'Carbon IRPs' will require new institutional arrangements and state legislation.*** States will need to devise institutional arrangements, which almost certainly will require new legislation, between the state PUC and state environmental regulator to implement carbon-driven resource planning.

***All EGUs need to be in the room for a Carbon IRP process to be effective – including non-jurisdictional entities not traditionally subject to regulation.*** State plans will need to encompass all electric generation units, including those owned or operated by current non-state jurisdictional entities like rural cooperatives and municipal utilities. To the extent a state SIP relies on energy efficiency or demand response, all distribution utilities will need to be brought within carbon IRP planning as well.

***Carbon-driven planning may result in a soft reintegration of restructured markets.*** Restructured wholesale markets will require integrated carbon planning across the market areas to ensure adequate capacity and reliability.

***Multi-state SIPs are attractive based on market structure but area ccompanied by legal and practical peril.*** Multi-state plans may be attractive within many regions, particularly when coincident with ISO or RTO footprints.

***Multi-state SIPs may breed rivalrous scenarios, and EPA SIP approval criteria will require interstate enforcement mechanisms, which implicate the Compact Clause.*** Because state interests will be potentially rivalrous, multi-state SIPs will need an enforcement mechanism and may well require congressionally-approved interstate compacts to satisfy EPA requirements of enforceability.

***FIPs may put state regulators in awkward positions, including by forcing ultra vires actions.*** State SIPs that are adjudged by EPA to be inadequate in terms of enforceable, quantifiable and verifiable reductions of EGU CO2 emissions equivalent to EPA's goals, and implementation of corrective actions, if necessary, will result in a FIP. A FIP creates legal issues of whether EPA has the authority to force state officials to enforce obligations they do not have authority to enforce under state law, and to engage in resource planning and direct system dispatch.

## I. Overview

EPA's proposed rule to regulate carbon dioxide emissions ("Section 111(d)" or the "$CO_2$ Emission Guidelines") from electric generating units (EGUs), issued June 2, 2014, has triggered immediate analysis and commentary about the prudence and legality of EPA's approach under the Clean Air Act. This White Paper approaches the proposed rule from the perspective of states, and focuses in particular on the institutional and practical challenges that states face in implementing the proposed rule.[1]

To state our conclusion up front: There are manifold challenges and decisions for states, and between states, about how to implement the rule. In all conceivable scenarios, Section 111(d) implementation will require state legislation to erect new institutional arrangements for a state to consider a "Carbon Integrated Resource Plan" (Carbon IRP). In vertically-integrated states, non-jurisdictional generation and distribution operators like cooperatives and municipal utilities will need to be brought into the Carbon IRP process. Threshold institutional questions will also need to be answered. Will the Carbon IRP take place under the auspices of a public utilities commission or the state environmental regulator?[2] In states with restructured wholesale markets, there is a compelling rationale for states to enter into multi-state plans coincident with the wholesale market (RTO) territory. But even regionally, something resembling a Carbon IRP will be necessary, and adapting an "environmental dispatch" protocol will risk anointing winners and losers across states. Finally, the multi-state plan option implicates the need for interstate compacts, state legislation authorizing the compacts, and compliance with the Compact Clause of the U.S. Constitution.

Because it takes years for utilities and energy providers to plan and develop substantial changes to electricity generation portfolios - and additional time to obtain necessary state agency approval of these plans - EPA's Section 111(d) implementation timeline is very short indeed. States must submit their enforceable State Implementation Plans (SIPs) by June of 2016 (absent an EPA grant of a 1- or 2-year delay), and the SIPs must demonstrate considerable carbon reductions by 2020. Therefore, the issues that must be debated and decided among and between states *to determine what institutional structures must be in place to even begin deciding how the carbon reduction mandates will be reached* must occur over the next several months, not years. These political, logistical, and jurisdictional issues may well prove complex and intractable enough to undermine the foundation for EPA's Section 111(d) goals.

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States must formulate SIPs under the Section 111(d) implementing regulations. The $CO_2$ Emission Guidelines are accompanied by numerous legal and technical memoranda, including a memorandum that addresses state-level compliance "plan pathways." In its State Plan Considerations Technical Support Document, EPA proposes four "state plan pathways": (1) rate-based $CO_2$ emission limits; (2) mass-based $CO_2$ emission limits; (3) a state-driven portfolio approach; and (4) a utility-driven portfolio approach. A portfolio approach "would include emission limits for affected EGUs along with other enforceable end-use energy efficiency and renewable energy measures that avoid EGU $CO_2$ emissions."

EPA generally addresses the role of existing programs and processes in the $CO_2$ Emission Guidelines, including resource planning processes:

[1] For purposes of this analysis, we do not question EPA's legal authority to issue the rule, but rather what a state $CO_2$ regime will look like under Section 111(d) and the proposed implementing regulations.

[2] The U.S. Supreme Court recently denied a certiorari petition seeking review of a Missouri PSC decision denying Kansas City Power & Light cost recovery of FERC-approved transmission costs. Based on this, an investor-owned utility will likely insist on PUC involvement in Carbon IRP planning to ensure cost recovery of Carbon IRP planning decisions. *See State of Missouri ex. rel. KCP&L v. Missouri Public Service Commission*, 408 S.W. 3d 153 (Mo. App. 2013), *cert. denied*, 2014 WL 2921776 (June 30, 2014).

"States would be able to rely on and extend programs they may already have created to address the power sector. Those states committed to Integrated Resource Planning (IRP) would be able to establish their $CO_2$ reduction plans within that framework, while states with a more deregulated power sector system could develop $CO_2$ reduction plans within that specific framework." Here, then, is the crux of the institutional and practical questions states must confront with this rule.

This White Paper proceeds in five parts: overall considerations for SIP development, SIP implementation in vertically-integrated states, SIP implementation in restructured states and within RTOs, multi-state SIP considerations, and tentative conclusions.

At the outset, we want to emphasize that this "Release 1.0" of the White Paper is meant to be iterative, to provoke comment, correction and disputation. As we contemplate the practical implementation of the rule, we foresee the issues detailed below, but also emphasize that a rule this complex is difficult to get one's mind around. The issues we raise and conclusions we reach, therefore, should be regarded as tentative and partial. We welcome feedback because we envision iteratively focusing and improving this White Paper in future releases. For now, we see a daunting set of institutional challenges for the states that will profoundly affect the implementation and effectiveness of the rule, and its effect on the nation's electric system. These key issues and challenges include the need to:

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- Pass enabling legislation to implement the proposed rule at the state level.
- Construct institutional arrangements between the universe of regulators (public utility commissions (PUCs), environmental regulators, gubernatorial energy offices) in a state statutory and administrative context.
- Obtain and concentrate jurisdiction in the appropriate regulatory bodies over all affected entities, including current non-state jurisdictional entities like cooperatives and municipal utilities.
- Institute carbon-driven resource planning and dispatch in restructured markets to ensure adequate capacity and reliability.
- Structure enforceable and constitutional multi-state SIPs with interstate enforcement mechanisms, which may well require Congressionally-approved interstate compacts to satisfy EPA SIP approval criteria.

## II. The Structure of the $CO_2$ Emission Guidelines and Key EPA Assumptions

### *a. Building Blocks and Performance Goals under the $CO_2$ Emission Guidelines*

EPA's proposed $CO_2$ Emission Guidelines limit $CO_2$ emissions from EGUs in every state save Vermont and the District of Columbia. The proposed guidelines require each state to devise its own enforceable state implementation plan to meet the $CO_2$ performance goal, *i.e.*, emission limit, established by EPA for the state.[3]

[3] Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 79 Fed. Reg. 34,830 (June 18, 2014). In the proposed Table 1 to Subpart UUUU of 40 C.F.R. Part 60, EPA proposes interim and final goals for each state in pounds of $CO_2$ per net MWh. $CO_2$ Emission Guidelines at 643-645. The interim goals apply from 2020-2029, while the final goal applies in 2030. The interim goals as currently structured present a unique challenge for some utilities, as the 2020-2029 interim goal is "the simple average of the annual rates computed for each of the years from 2020 to 2029." $CO_2$ Emission Guidelines at 355. In addition, "[t]o be approvable, a state plan must demonstrate that the emission performance of affected EGUs will meet the interim emission performance level on average over the 2020-2029 period." $CO_2$ Emission Guidelines at 409. Part of the justification for the 2020-2029 interim goals is that "EPA recognizes the importance of ensuring that, during the proposed 10-year performance period (2020-2029) for the interim goal, a state is making steady progress toward achieving the required level of emission performance." $CO_2$ Emission Guidelines at 411. The need for *de facto* ongoing compliance on a trajectory could be difficult for utilities that may want to engage in long-term system planning such that it may miss interim goals in some years but would ultimately

A state is free to determine how it will achieve the EPA-set $CO_2$ performance goal, but EPA made certain general assumptions, applied to all states, to calculate each individual performance goal.

EPA calculated the $CO_2$ performance goal using four "building blocks": (1) assuming a six percent heat-rate efficiency improvement to each existing coal-fired EGU; (2) assuming a 70 percent capacity utilization rate for combined-cycle gas-fired EGUs; (3) calculating a renewable portfolio standard (RPS) based on the average RPS of states in the same region of the country, and assuming usage of nuclear power plants based on existing and expected nuclear units; and (4) assuming a one and one-half percent per year reduction in electric usage through demand-side management (DSM) measures.

*b. Illustrative Application of the Building Blocks*

EPA relied on the four building blocks in establishing the $CO_2$ performance goal for each state. For example, EPA calculated the $CO_2$ performance goal for Georgia as follows: (1) all coal-fired EGUs will improve their respective heat rate by six percent; (2) dispatch to gas combined cycle (CC) units can be increased to 70 percent; (3) the state can continue utilizing existing nuclear plants and Southern Company will complete construction of the Vogtle 3 and 4 nuclear units; (4) statewide renewable energy power generation can and will increase from three to ten percent; and (5) statewide DSM levels (demand reduction) will increase from 1.8 to 9.8 percent. The EPA's interim (2020-2029) mandate for Georgia is a $CO_2$ emission reduction from 1,534 to 891 pounds of $CO_2$ per megawatt hour ($CO_2$/MWh), which represents a reduction of 41 percent; and its final (by 2030) mandate is a reduction to 834 $CO_2$/MWh. This represents roughly a 46 percent reduction from 2012 baseline emissions.

*c. Must States Conform Resource Planning to Match the Building Blocks?*

States are *not* required to overhaul the generation fleet to adopt assumptions used in the four building blocks; in other words, states do not necessarily have to reduce the heat rate of all coal-fired EGUs by six percent or increase gas CC dispatch to 70 percent. However, each state is ultimately responsible for achievement of its performance goal or, as discussed in more detail later in this paper, an aggregated multi-state performance goal. This is where EPA's "flexibility" talking point comes in, as states technically have flexibility to meet the performance goal as they see fit.[4] States do not have "flexibility" to modify the $CO_2$ performance goal set by EPA.

## III. State Considerations in Formulating SIPs

> Each state is ultimately responsible for achievement of its performance goal or, as discussed in more detail later in this paper, an aggregated multi-state performance goal.

*a. State Primacy and EPA's Proposed "Plan Pathways"*

As referenced above, states have primacy and discretion in devising SIPs under the $CO_2$ Emission Guidelines.[5] For example, although the state-promulgated "emission standards" are to be "no less stringent than the corresponding emission guideline(s)" issued by EPA, states may make a case-by-case determination that a specific facility or class of facilities are subject to a less-stringent standard or longer compliance schedule due to: (1) cost of control; (2) a physical limitation of installing necessary control equipment; and (3) other factors making the less-stringent standard more reasonable.[6] State-level

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achieve compliance on average through specific actions taken all at one time or over a one- to two-year period just prior to the implementation of the final goal in 2030. This "less steady" strategy would still comply with the interim goals on average and utilities may wish to preserve this option.

[4] *See, e.g.*, EPA Administrator Gina McCarthy, *Remarks Announcing Clean Power Plan, As Prepared*, (June 2, 2014) *available at* http://yosemite.epa.gov/opa/admpress.nsf/8d49f7ad4bbcf4ef852573590040b7f6/c45baade030b640785257ceb003f3ac3!OpenDocument (mentioning the word "flexibility" eight times in speech announcing the $CO_2$ Emission Guidelines and stating "[t]his plan is all about flexibility. That's what makes it ambitious, but achievable. That's how we can keep our energy affordable and reliable. The glue that holds this plan together, and the key to making it work, is that each state's goal is tailored to its own circumstances, and states have the flexibility to reach their goal in whatever way works best for them.")

[5] *See generally* 40 C.F.R. Part 60, Subpart B.

[6] 40 C.F.R. § 60.24(f).

compliance "plan pathways" are discussed in a accompanying Technical Support Document (TSD) to the rule.[7] The TSD details the states' options:

- Rate-based $CO_2$ emission limits: "Rate-based emission limits would apply a lb $CO_2$/MWh emission limit to affected EGUs. Depending on a state's approach, compliance flexibility could be provided through different mechanisms, such as averaging among affected sources, or the use of tradable credits for avoided $CO_2$ emissions resulting from end-use energy efficiency and renewable energy measures …."[8]

- Mass-based $CO_2$ emission limits: "Mass-based emission limits would apply either an individual limit on $CO_2$ tons emitted from an affected EGU or establish a finite $CO_2$ emissions budget for a group of affected EGUs. The latter approach is typically implemented through a tradable allowance system. With mass-based emission limits, end-use energy efficiency measures that avoid EGU $CO_2$ emissions could be a major component of a state's overall strategy for cost-effectively reducing EGU $CO_2$ emissions, but would be complementary to the enforceable state plan (i.e., not included as enforceable measures in a state plan). These actions could be used to help a state cost-effectively achieve the $CO_2$ emissions limits, or to achieve other policy goals, but $CO_2$ emissions performance would be assured through the enforceable limit on mass emissions from affected EGUs."[9]

- Portfolio approach: "The second basic state plan approach uses a portfolio of actions, in which a state plan includes multiple programs and measures that are designed to achieve either a rate-based or mass-based emissions performance goal for affected EGUs …. [A] portfolio approach is distinguished from an emission limit approach by the fact that achievement of the full level of required emission performance for affected EGUs specified in the plan is not ensured through the application of direct emission limits that apply to affected EGUs …. [A] portfolio approach implemented in a restructured state with retail competition will likely look quite different from one implemented in a state with vertically integrated, regulated electric utilities. This includes the process for developing the portfolio approach, the mechanisms for implementing it, the responsible parties, and the regulatory and legal relationships among parties and state regulators."[10]

    - State-driven portfolio approach: "A state-driven portfolio approach – rather than a utility-driven approach – is more likely to be adopted in a state with a restructured electricity sector …. Under a state-driven portfolio approach a mix of entities might have enforceable obligations under a state plan. This includes owners and operators of affected EGUs subject to direct emission limits, as well as electric distribution utilities, private or public third-party entities, and state agencies or authorities that administer end-use energy efficiency and renewable energy deployment programs or are subject to portfolio requirements."[11]

    - Utility-driven portfolio approach: "Under a utility-driven portfolio approach, a vertically integrated utility would develop and implement a portfolio of measures designed to meet the rate-based or mass-based emission performance level for its affected EGUs specified in the state plan. This plan would likely be developed and approved through an IRP-like process overseen by the state public utility commission. If there is more than one rate-regulated electric utility in the state, the state might apportion the state emission performance level for affected EGUs among utilities …. Under a utility-driven portfolio approach, the entire suite of obligations under the plan would be enforceable against the utility company, which would also be an owner and operator of affected EGUs …. A similar approach could be taken by municipally owned utilities or utility cooperatives, which often

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[7] *See* EPA Office of Air and Radiation, *State Plan Considerations – Technical Support Document for Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units*, Docket ID No. EPA-HQ-OAR-2013-0602 (June 2014), *available at* http://www2.epa.gov/sites/production/files/2014-06/documents/20140602tsd-state-plan-considerations.pdf.
[8] *Id.* at 7.
[9] *Id.* at 8.
[10] *Id.* at 8-9.
[11] *Id.* at 9-10.

> also engage in an IRP process. However, state public utility commissions often do not regulate these utilities. As a result, implementation of a portfolio approach by these entities would introduce practical enforceability considerations under a state plan."[12]

According to EPA, "[s]tates would be able to rely on and extend programs they may already have created to address the power sector. Those states committed to Integrated Resource Planning would be able to establish their $CO_2$ reduction plans within that framework, while states with a more deregulated power sector system could develop $CO_2$ reduction plans within that specific framework."[13] However, this generic statement belies the myriad complexities associated with building a $CO_2$-driven regulatory regime into preexisting, state- or region-level resource planning architecture.

### b. *Enforcement as a Prerequisite for EPA Approval*

A SIP must be enforceable by a state or group of states as a prerequisite for EPA acceptance. Consistent with the history of the Clean Air Act and the SIP-driven compliance approach, EPA makes clear in the $CO_2$ Emission Guidelines that the ability to enforce emission standards is a key, if not the most important, element the agency will consider in evaluating SIPs. Enforcement is paramount under single state or multi-state SIPs, and applies across the board to any and all actions relied upon to achieve compliance with emission standards. EPA provides that:

> A state plan must include enforceable $CO_2$ emission limits that apply to affected EGUs. In doing so, a state plan may take a portfolio approach, which could include enforceable $CO_2$ emission limits that apply to affected EGUs as well as other enforceable measures, such as RE and demand-side EE measures, that avoid EGU $CO_2$ emissions and are implemented by the state or by another entity.
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> …
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> The EPA is proposing to evaluate and approve state plans based on four general criteria: 1) enforceable measures that reduce EGU $CO_2$ emissions; 2) projected achievement of emission performance equivalent to the goals established by the EPA, on a timeline equivalent to that in the emission guidelines; 3) quantifiable and verifiable emission reductions; and 4) a process for biennial reporting on plan implementation, progress toward achieving $CO_2$ goals, and implementation of corrective actions, if necessary.[14]

In vertically-integrated states, investor-owned utilities are regulated by state PUCs, generally through integrated resource planning processes. Municipal and rural electric cooperative utilities, by contrast, are often "self-regulating" and autonomously determine their resource portfolios, with exceptions.[15] In states that are all- or partially-restructured, independent system operators (ISOs) or RTOs help govern the electric system. However, generation in ISOs and RTOs is not subject to traditional IRP processes and can be owned by merchant generators or utilities.

### c. *The Need for New State-Level Regulatory Architecture*

In order for a state to devise an acceptable SIP, the necessary regulatory structures must be in place to enforce $CO_2$ reductions of EGUs. For a substantial percentage of EGUs across the U.S., these structures do not exist.

In order for a state to devise an acceptable SIP, the necessary regulatory structures must be in place to enforce $CO_2$ reductions of EGUs. For a substantial percentage of EGUs across the U.S., these structures do not exist. With the possible exception of California, no states have expressly delegated regulatory authority to implement and oversee carbon-based resource planning, including enforcement and corrective action

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[12] *Id.* at 11-12.
[13] $CO_2$ Emission Guidelines at 22.
[14] $CO_2$ Emission Guidelines at 43-44, 46.
[15] While many states exempt municipal utilities and cooperatives from PUC administrative regulation, others do not. For instance, Arkansas and Florida regulate cooperative utilities to a greater extent; other states have exempted their municipal and cooperative utilities from administrative regulation. It will be a state-by-state determination of the institutions which are authorized to regulate a given EGU or distribution utility.

authority. Therefore, states will likely need to pass legislation to enforce carbon reductions set forth in a SIP. This is not to say that all states will necessarily need legislation, but in particular to take advantage of the portfolio approaches detailed by EPA, a new institutional arrangement between PUCs and state environmental regulators will be necessary. By the same token, even for states adopting a source-based approach, the environmental regulator will likely need to coordinate with the PUCs to fully appreciate cost and reliability concerns.

Enacting legislation to create the new institutional arrangements may be difficult in vertically-integrated states. Generation & Transmission (G&T) organizations, rural electric cooperatives, and municipalities have traditionally been opposed to ceding generation planning to an outside regulatory agency (assuming, *arguendo*, that the outside agency has jurisdiction over these entities in the first instance). Municipal and public power utilities have always self-determined their resource plans. While G&Ts are required in some states to obtain approval to construct a new generation plant, they have not been required to obtain approval of their IRPs. In addition, the rivalrous nature of different utilities' interests threatens 'who's ox is being gored' rivalries, where the costs and pains will be difficult to apportion among utilities with dramatically different carbon profiles.

*d. What if a State Declines to Participate?*

A final option states might consider with carbon rule implementation would involve the affirmative refusal to participate in devising a SIP. This could occur through the failure of legislation creating the institutional administrative structure described earlier. Or, it could be conceived as an affirmative policy stance of the state to not submit a SIP.[16]

While a state may chart such a course, the outcome would be EPA implementing its own Federal Implementation Plan (FIP) and enforcement authority under the Clean Air Act. The FIP would, in essence, amount to EPA taking over resource planning in the given state and subsuming enforcement powers for carbon reductions to itself. Furthermore, EPA would take jurisdiction over where carbon reductions come from and what makes up an adequate portfolio of reductions — the 'right' combination of heat rate improvements, increased CT dispatch, and renewable and demand response. In short, a state would be handing over its Section 111(d) prerogatives to the federal agency, which has little to no experience with issues such as reliability, cost analysis or demand response verification. Thus, while defiance of EPA is certainly an option, the potential downside of such an approach could be precipitous for states electing such a path.[17]

## IV. $CO_2$ SIP Implementation in Vertically Integrated States

*a. General Resource Planning Issues*

In vertically-integrated states, modern IRPs look at issues that go well beyond a utility's self-build generation plans. Investor-owned utilities present estimates to state public utility commissions for future load, customer growth, fuel (gas and coal) prices, cost of renewables, resource margins, and other data to support proposed IRPs. In addition to any self-build proposals, these plans involve power purchases from independent power producers (IPPs), renewable energy portfolios, and DSM. Typically, state policy goals or mandates such as renewable energy penetration and DSM are overlaid onto a lowest cost portfolio approach.

While G&Ts, rural electric cooperatives, and municipalities have been subject to environmental regulation at the federal and state levels, including air quality regulation under the Clean Air Act, EPA's proposed $CO_2$ Emission Guidelines go beyond pollution control measures directed at EGUs. Perhaps recognizing that inside-the-fence, *i.e.*, implemented at the source, measures are insufficient to meet EPA's 30 percent carbon reduction goal by 2030, only one building block assumption - average heat rate improvement of six percent for coal-fired EGUs - is source-focused. Building blocks 2, 3 and 4 of the $CO_2$ Emission Guidelines assume that utilities can meet

[16] There are cooperative federalism schemes in the utility sphere where states have opted-out. Alaska and Hawaii, for instance, have not passed statutes to participate in the federal PHMSA program. Virginia, quite notably, refused to participate in implementation of the Telecommunications Act of 1996.

[17] EPA enforcement is not limited to imposition of a FIP. Under certain circumstances, EPA may (1) prohibit the approval by the U.S. Secretary of Transportation of state highway funding for the state or (2) increase the non-attainment area New Source Review emission offset ratio to at least two to one. 42 U.S.C. §§ 7509(a)(3), 7509(b).

certain outside-the-fence metrics. Although the proposed rule does not require states and utilities to actually implement these metrics, they are the root of each $CO_2$ performance goal.

*b. State PUC or Environmental Regulator as Lead Agency*

Portfolio-based metrics, *i.e.*, non-source-based emission limits, strongly resemble the resource planning function traditionally performed by state utility commissions: reliance on existing and under-construction natural gas CC units to up to 70 percent capacity factor; expansion of renewable generation; reliance on existing and under-construction nuclear facilities; and increase of demand-side energy efficiency to one and one-half percent annually. A state may choose to enforce the measures utilized by the EPA to determine carbon reduction amounts for the state. In the alternative, if these prove impracticable or unworkable, a state may order a variant of these measures or simply mandate closure of carbon-emitting EGUs.

Portfolio-based metrics, *i.e.*, non-source-based emission limits, strongly resemble the resource planning function traditionally performed by state utility commissions.

In any case, entities that own or dispatch EGUs - and that have not been subject to state authority - will inevitably find themselves under the umbrella of state $CO_2$ regulations by a designated agency. That agency could be the state PUC, or the state environmental agency, or some new hybrid of the two agencies.

With a portfolio compliance approach in particular, the state PUC makes the most sense based on its experience and expertise with Building Blocks 2, 3 and 4.[18] State environmental agencies may be given a consulting role similar to the process employed in the Clean Air-Clean Jobs Act in Colorado,[19] but the state PUC is much more likely to adjudicate the resource plan. In the alternative, with a pure source-based compliance plan, the environmental agency might be adequately suited to take the lead. However, the PUC would still need to be involved because the state will also have cost and system reliability concerns. In either case, states will be wrestling to create a new hybrid regulatory process that likely involves both the PUC and the environmental regulator.[20]

The state agency devising the Carbon IRP also will have to take on the role as $CO_2$ SIP enforcer. Normally, utilities present a resource plan to the state commission, and the commission may approve, deny or modify the plan. A utility gains a presumption of prudency by following the measures in the approved plan. A state agency enforcing the EPA Section 111(d) rule must be able to enforce "measures that reduce EGU $CO_2$ emissions" and implement "corrective actions, if necessary."[21] This changes the consequences of a 'missed' IRP decision: the state must be able to enforce the Carbon IRP, presumably by dictating and sanctioning all relevant EGUs or other participants in the carbon reduction portfolio under the state SIP. The corrective actions available to the state Carbon IRP-enforcer include those sanctions available under Section 113(a)-(f) of the Clean Air Act, including without limitation the issuance of administrative penalties of up to $37,500 per day[22] and instituting criminal proceedings against "[a]ny person who knowingly" violates relevant provisions of a SIP.[23] The "any person" language in the Clean Air Act can and does allow for enforcement against private parties.

[18] It could be argued that state environmental agencies should be given the authority to develop and impose carbon reductions on EGUs, as these agencies have traditionally been involved with implementation of EPA pollution reduction measures. However, given the IRP-like "building block" approach of EPA in its proposed rule, it appears more appropriate for state PUCs to have primary authority. Nevertheless, one of the political disputes that may develop is over which agency should be tasked with this important role.

[19] *See* Colorado PUC Docket No. 10M-245E; Colorado House Bill 10-1365.

[20] Tennessee and Nebraska, because they are exclusively served through public power, might either consider implementing the rule exclusively through the environmental regulator – a tall order if they are going to pursue a portfolio approach, especially involving the audit and verification burdens associated with DR. Alternatively, they could decide to confer the Nebraska PSC and the Tennessee Regulatory Authority (TRA), respectively, with new jurisdiction over the carbon IRP that they do not currently possess.

[21] $CO_2$ Emission Guidelines at 46.

[22] 42 U.S.C. § 7413(d). In late 2013, EPA made the default penalty up to $37,500 per day of violation. 78 Fed. Reg. 66,643 (Nov. 6, 2013).

[23] 42 U.S.C. § 7413(c).

*c. Timing Issues with State Enabling Legislation*

The need for state legislation in vertically integrated states creates a significant timing issue. The proposed $CO_2$ Emission Guidelines will not be finalized until June 2015 under EPA's current timeline, and (absent an EPA-granted extension of time) states must submit SIPs by June 2016. Most state legislative sessions are conducted in the early months of the calendar year, *e.g.*, January to April or May. In addition, some state legislatures do not meet every year. For example, the state legislative sessions of Montana, Nevada, North Dakota and Texas occur biennially, in odd-numbered years.

Many states may be reluctant to pass legislation granting $CO_2$ reduction enforcement authority to state PUCs or other agencies until the EPA rule is final. EPA has made clear that it is engaged in a "listening tour" to receive comments from the states and other stakeholders, and that it may change the proposed rule based on this feedback. Indeed, EPA's proposed rule poses numerous questions about whether certain provisions should be imposed, introducing a degree of uncertainty regarding the potential scope of the final rule.

Those states that wait until 2016 to pass legislation may find themselves in an unenviable position due to impossible time constraints (notably, Montana, Nevada, North Dakota and Texas will not have a 2016 legislative session unless a special session is called). Resource planning cases require substantial planning and development by utilities before they are filed. These cases are quasi-adjudicatory, involving interventions from various stakeholders, testimony, discovery, motions practice, briefing, and evidentiary hearings. This time crunch could become even more severe considering that many utilities, *e.g.*, non-jurisdictional municipal utilities and cooperatives, have never filed an integrated resource plan before, and multiple utilities would be making the filing at the same time.[24]

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The proposed $CO_2$ Emission Guidelines do include a one- or two-year extension provision that involves a two-phased SIP submittal process for state plans. If a state needs additional time to submit a complete plan, then it must tender an initial plan by June 30, 2016 that explains why the state needs more time and includes commitments to ensure that the state will submit a complete plan by June 30, 2017 or 2018, as appropriate.[25] To be approvable, the initial plan must include specific components, including a description of the plan approach, initial quantification of the level of emission performance that will be achieved in the plan, a commitment to maintain existing measures that limit $CO_2$ emissions, an explanation of the path to completion, and a summary of the state's response to any significant public comment on the approvability of the initial plan. If the initial plan is approved, the state would have until June 30, 2017 to submit a complete plan if the geographic scope of the plan is limited to that state. If the state develops a plan using multi-state approach, it would have until June 30, 2018 to submit a complete plan.

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[24] Any planning process necessarily involves the input of appropriate regulatory bodies at the state level as well as affected entities. This may require PUCs to open investigatory/miscellaneous dockets or their functional equivalent under state law to allow utilities and other affected entities to submit relevant data and preserve confidentiality protections, where necessary. Some utilities are already receiving informal "discovery requests" regarding $CO_2$ emissions data and other relevant information. To allow utilities to protect this information, PUCs should open investigatory/ miscellaneous dockets or a functional equivalent such that there is a level of administrative law formality to allow affected entities to protect confidential and proprietary information. In addition, affected entities, specifically jurisdictional and non-jurisdictional utilities as well as fuel supply, should be engaging with state regulators and pushing to begin the exploration of the structure of a Carbon IRP or similar process what legislative changes may be required.

[25] *See, e.g.*, 40 C.F.R. §§ 60.5755, 5760 (as proposed in the $CO_2$ Emission Guidelines at 618).

However, it is unclear whether the EPA would allow a one- or two-year delay for a state that has not both passed legislation effective before June 30, 2016 *and* have a state agency-determined initial plan approach with "quantification of the level of emission performance that will be achieved in the plan."[26] The language of the $CO_2$ Emission Guidelines appears to require a demonstration that the plan will meet the required carbon reductions and be enforceable, suggesting that the legislation and state agency determination must be complete for any initial plan and related extension of time to submit a complete plan to be approved.

## V. $CO_2$ SIP Implementation in Restructured States

### *a. Background on Restructured States and References in the $CO_2$ Emission Guidelines*

In restructured states, the wholesale market clears generation needs, and utilities either have spun-off their generation assets, or hold them in a separate subsidiary. Electric distribution utilities purchase electricity from competitive wholesale markets. There is no IRP process in these states, and therefore EPA takes the position that "[a] state-driven portfolio approach" is likely most suitable for restructured states. EPA envisions a regime where a wide variety of entities, ranging from generation owners to non-profit organizations, would be subject to an overarching regulatory scheme to achieve standards and $CO_2$ emission reductions set forth in the SIP. EPA provides an example for restructured states:

> One likely state plan scenario involves inclusion of enforceable obligations for state-regulated entities other than affected EGUs. An example of a state-regulated entity that is not an owner or operator of affected EGUs may be an electric distribution utility. These entities are typically regulated by a state public utility commission. An example of an enforceable state plan measure that might apply to an electric distribution utility is a compliance obligation under a state end-use energy efficiency resource standard (EERS) or renewable portfolio standard (RPS), or implementation of incentive programs for the deployment of end-use energy efficiency and renewable energy technologies.[27]

### *b. Practical Issues in Restructured States*

This creates numerous practical issues. Perhaps the paramount issue is that the regime outlined by EPA may ultimately result in a degree of soft reintegration of the utility function in restructured states. These states opted for competitive generation as a means to lower costs and achieve optimal resource mixes through competition instead of centralized resource planning by state utility commissions or similar entities. An equivalent Carbon IRP process necessarily reintroduces a central planning aspect to generation because allowable facilities must now be approved through the regulatory process and portfolios must be balanced by each state.

> Perhaps the paramount issue is that the regime outlined by EPA may ultimately result in a degree of soft reintegration of the utility function in restructured states.

There are other practical considerations in restructured states. First, as with vertically integrated states, regulation of such a diverse group of entities will almost certainly require new enabling legislation. This introduces all of the same timing considerations discussed above. It also creates overlapping regulator issues between state utility commissions and environmental regulators, as regulation of certain activities, *e.g.*, non-profits administering or implementing energy efficiency programs, may be done by one agency while merchant generators may be regulated separately by a another agency. In turn, this creates implementation difficulties for any SIP approved by EPA.

Finally, submission of a SIP premised upon a new regulatory scheme raises general compliance issues. SIPs must be enforceable by the states to be approved by EPA. If a state submits a SIP which it cannot enforce because it cannot convey legal authority and get itself organized, it opens itself up to a FIP and numerous other potential sanctions by EPA. The FIP

[26] $CO_2$ Emission Guidelines, at 48.

[27] *State Plan Considerations* at 14.

would create a host of legal issues, from potentially forcing state officials to enforce obligations they do not have authority to enforce under state law to EPA indirectly engaging in resource planning and directing system dispatch. Another concern in restructured states is that states would pass new legislation implementing a new regulatory paradigm to allow for enforcement against the relevant entities and actors. Once this avenue is created under state law, it creates an opportunity for EPA to come in and regulate these entities indirectly through the FIP under the new state laws. Indeed, the creation of new regulatory paradigms creates a similar issue in vertically-integrated states as well.

Another concern in restructured states is that states would pass new legislation implementing a new regulatory paradigm to allow for enforcement against the relevant entities and actors. Once this avenue is created under state law, it creates an opportunity for EPA to come in.

Restructured markets thus present a challenge to the state-by-state Carbon IRP model that seems to be contemplated by the EPA rule. To be sure, the most sensible course would appear to be for restructured states to engage in multi-state plans coincident with RTO boundaries. This creates its own problems, particularly in states like Missouri, Illinois, Indiana and Arkansas, where two separate RTOs operate within the state. Nevertheless, we turn to the institutional issues associated with multi-state plans below.

c. *Environmental Dispatch as a Compliance Strategy*

Environmental dispatch protocols have been referenced in the days following the issuance of the $CO_2$ Emission Guidelines as potential multi-state compliance strategies in states that participate in restructured wholesale markets. With environmental dispatch, speaking strictly in the $CO_2$ context, the RTO seeks to identify an optimal generation schedule that achieves appropriate power balance, satisfies unit operating limits, and minimizes both fuel cost *and* $CO_2$ emissions. Based upon our rudimentary understanding of environmental dispatch protocols, the use of a carbon imputation in bid pricing represents a clear way to implement an environmental dispatch strategy. However, the $CO_2$ Emission Guidelines do not appear to provide for such a compliance strategy in a SIP. In addition, it is unclear how a SIP, or a multi-state SIP for that matter, would be built around a dispatch protocol for an RTO. This would be novel to say the least, and also raises questions of enforcement, specifically whether the member states could enforce the dispatch protocols through the SIP and how corrective action might work in this context. Both enforcement and corrective action are mandated within EPA's SIP approval criteria.[28] While significant questions remain, EPA seeks comment on the roles of RTOs in implementing SIPs: "The ISO/RTO Council, an organization of electric grid operators, has suggested that ISOs and RTOs could play a facilitative role in developing and implementing region-wide, multi-state plans, or coordinated individual state plans. Existing ISOs and RTOs could provide a structure for achieving efficiencies by coordinating the state plan approaches applied throughout a grid region."[29] Needless to say, the roles of RTOs and environmental dispatch in effectuating $CO_2$ Emission Guidelines are an open question in this rulemaking.

It is unclear how a SIP, or a multi-state SIP for that matter, would be built around a dispatch protocol for an RTO … and also raises questions of enforcement.

The SIP modification process, as proposed, raises questions how a SIP premised on an "environmental dispatch" strategy would be modified if it were not achieving the intended results. When implementing an approved SIP, a state might find the need to update or alter one or more of the enforceable measures in the state plan, or even replace certain existing measures with new measures. The $CO_2$ Emission Guidelines provide:

[28] $CO_2$ Emission Guidelines at 46.
[29] *Id.* at 430.

The notion that states can jointly submit a SIP, and in turn rely on one another to effectuate compliance with an emission standard, is novel under the Clean Air Act.

> EPA proposes that the state may revise its state plan provided that the revision does not result in reducing the required emission performance for affected EGUs specified in the original approved plan. In other words, no "backsliding" on overall plan emission performance through a plan modification would be allowed.
>
> If the state wishes to revise enforceable measures in its approved state plan, EPA proposes that the state must submit the revised enforceable measures to the EPA and demonstrate that the revised set of enforceable measures in the modified plan will result in emission performance at affected EGUs that is equivalent to or better than the level of emission performance required by the original state plan.[30]

Accordingly, a SIP premised on environmental dispatch of generation would appear to require EPA approval before any material changes to dispatch protocol were made. EPA thus would become the approval authority for generation dispatch protocols under a mass emissions plan.[31]

## VI. Multi-State State SIP Considerations

### *a. EPA's Proposed Multi-State SIPs*

In the proposed $CO_2$ Emission Guidelines, EPA proposes a multi-state SIP compliance avenue, *i.e.*, two or more states can jointly submit a SIP with aggregated emission goals. EPA has implemented past air quality programs, such as the $NO_x$ Budget Trading Program, on a regional basis; however, the notion that states can jointly submit a SIP, and in turn rely on one another to effectuate compliance with an emission standard, is novel under the Clean Air Act.[32] EPA describes multi-state SIPs as follows:

States retain primacy under Section 111(d) to develop legally enforceable emission standards and compliance schedules, but states submitting a multi-state SIP would have a multi-state rather than single state $CO_2$ performance goal and would demonstrate emission performance "in aggregate with partner states."

> For states wishing to participate in a multi-state plan, the EPA is proposing that only one multi-state plan would be submitted on behalf of all participating states. The joint submittal would be signed by authorized officials for each of the states participating in the multi-state plan and would have the same legal effect as an individual submittal for each participating state. The joint submittal would adequately address plan components that apply jointly for all participating states and for each individual state in the multi-state plan, including necessary state legal authority to implement the plan, such as state regulations and statutes. Because the multi-state plan functions as a single plan, each of the required plan components … would be designed and implemented by the participating states on a multi-state basis.[33]

States retain primacy under Section 111(d) to develop legally enforceable emission standards and compliance schedules, but states submitting a multi-state SIP would have a multi-state rather than single state $CO_2$ performance goal and would demonstrate emission performance "in

[30] *Id.* at 468-69.

[31] "[A]ny person," including PUCs, would also likely be subject to novel Clean Air Act citizen suits during the pendency of its request to modify dispatch protocols. 42 U.S.C. § 7604. Certain special interest groups bring these suits with regularity.

[32] *See, e.g.*, EPA, *Guidance on Infrastructure State Implementation Plan (SIP) Elements under Clean Air Act Sections 110(a)(1) and 110(a)(2)*, at 1 (Sept. 13, 2013) (providing in part that "Under Clean Air Act (CAA) sections 110(a)(1) and 110(a)(2), *each state is required to submit a state implementation plan (SIP)* that provides for the implementation, maintenance, and enforcement of each primary or secondary national ambient air quality standard (NAAQS). Moreover, section 110(a)(1) and section 110(a)(2) require each state to make this new SIP submission within 3 years after promulgation of a new or revised NAAQS.") (emphasis added).

[33] $CO_2$ Emission Guidelines at 434.

aggregate with partner states."[34] This aggregation occurs notwithstanding whether states pursue a rate-based or mass-based compliance approach:

> [S]tates taking a rate-based approach would demonstrate that all affected EGUs subject to the multi-state plan achieve a weighted average $CO_2$ emission rate that is consistent, in aggregate, with an aggregation of the state-specific rate-based $CO_2$ emission performance goals established in the emission guidelines that apply to each of the participating states. If states were taking a mass-based approach, participating states would demonstrate that all affected EGUs subject to the multi-state plan emit a total tonnage of $CO_2$ emissions consistent with a translated multi-state mass-based goal. This multi-state mass-based goal would be based on translation of an aggregation of the state-specific rate-based $CO_2$ emission performance goals established in the emission guidelines that apply to each of the participating states.[35]

Accordingly, regardless of the emission calculation approach chosen, multi-state SIPs are submitted jointly and based upon aggregated performance goals. States would "rise and fall" together based on collective performance and compliance with the multi-state SIP.

EPA also may include state-specific requirements for multi-state plans. The proposed rule asks whether states submitting multi-state plans should also be required to provide individual submittals that: (1) provide state-specific elements of the multi-state plan; and (2) address all elements of the multi-state plan.

*b. RGGI as the Prototypical Multi-State SIP*

The $CO_2$ Emission Guidelines reference the Regional Greenhouse Gas Initiative (RGGI) on numerous occasions as an example of a regime that addresses $CO_2$ emissions on a multi-state, regional basis, and EPA cites RGGI as an example of a group of states that may submit a multi-state SIP.[36] Given EPA's understandable emphasis on enforceability, however, it is questionable whether RGGI as currently structured could submit a SIP that would satisfy EPA's four general criteria.

RGGI is a cap-and-trade system for $CO_2$ emissions from fossil-fuel fired EGUs with 25 MW or greater generating capacity. The following nine states currently participate: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. This regional $CO_2$ emissions reduction strategy began in 2005, when seven states signed a Memorandum of Understanding (MOU) committing the state to the "$CO_2$ Budget Trading Program." The MOU set an initial regional emission cap of 121.2 million short tons; this regional base annual $CO_2$ emissions budget was then apportioned to each state individually based on its specific emissions history. EPA explains that:

> The program works as a coordinated regional whole through a shared emission and allowance tracking system and allowance auction process, but is implemented in accordance with materially consistent, stand-alone state regulations and individual statutory authority. These regulations recognize $CO_2$ allowances issued by other participating states for use by affected EGUs when complying with each state's emission limitation, but contain all the necessary components to administer the program requirements on an individual state basis.[37]

As a result, each state develops its own individual regulatory and/or statutory structure based on an agreed-upon "Model Rule" that provides a framework for the development of individual state proposals.

[34] *Id.* at 116, 438.
[35] *Id.* at 438.
[36] *Id.* at 360 ("[T]he EPA's approach allows states to submit multi-state plans. The EPA expects this flexibility to reduce the cost of achieving the state goals and therefore expects it to be attractive to states. For example, the RGGI-participating states could choose to submit a multi-state mass-based plan that demonstrates emission performance by affected EGUs on a multi-state basis. Additional states may also choose to join a multi-state plan. The mechanics of translating rate-based goals into mass-based goals and considerations related to multi-state plans are discussed below in Section VIII on state plans.")
[37] *State Plan Considerations* at 18 (further providing that "[t]he emission limitation consists of a requirement to submit $CO_2$ allowances equal to reported $CO_2$ emissions during a compliance period. While states have individual emission budgets, representing the total number of allowances issued for a given year that are available for allocation, there are no individual state emission limits. The $CO_2$ emission constraint is regional, based on the sum of state $CO_2$ emission budgets.")

While this $CO_2$ budget trading program is enforceable at the state level, EPA admits that "enforceability would be contingent, in part, on states having comparable enforcement mechanisms."

Importantly, each member state, with one exception resulting in multi-year litigation, passed *new legislation* to implement the Model Rule in their respective states and facilitate participation in RGGI.[38] The Model Rule does not supplant state-developed rules, but rather, provides a general organizational structure for states to follow when implementing their own provisions. While this $CO_2$ budget trading program is enforceable at the state level, EPA admits that "enforceability would be contingent, in part, on states having comparable enforcement mechanisms."[39]

A regional organization (RO) facilitates the ongoing administration of RGGI. The RO (RGGI, Inc.) is a non-profit entity incorporated in Delaware that was created in 2007 to provide technical and administrative support to the member states.[40] It operates pursuant to by-laws agreed upon by the member states.[41] The RO is managed by its Board of Directors, which consists of two directors from each member state, (1) the chair of the state's energy regulatory agency, and (2) the chief executive of the state's environmental regulatory agency, unless the Governor determines that other state officials should act as the state's directors.[42]

### c. *RGGI Administration and Enforcement*

While each participating state is responsible for its own regulatory program, the RO serves as a "forum for collective deliberation and action" and provides technical assistance in implementing certain components of the program, such as auctions, offsets, emissions tracking, and market monitoring.[43] To be sure, Article XII of the RO's By-Laws explains that the RO is a technical assistance organization only, and "shall have no regulatory or enforcement authority with respect to any existing or future program of any Signatory State, and all such sovereign authority is reserved to each Signatory State."[44] In sum, with the technical assistance of the RO, each member state essentially adopts the Model Rule into its preexisting regulatory framework through new state legislation. Importantly, however, the Model Rule, as well as state legislation implementing the Model Rule as modified to a member state's satisfaction, is not enforceable as between the states because the structure lacks an interstate enforcement mechanism and state laws by their very nature cannot result in extraterritorial enforcement.

This calls into question EPA's ability to find that a multi-state SIP premised upon a RGGI-like structure, *i.e.*, a regional entity with mere "technical assistance" authority and a consortium of state laws implemented and enforced at the state level, could be approved under EPA's "general criteria" for SIP evaluation as set forth in the $CO_2$ Emission Guidelines.

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[38] *See* Connecticut (R.C.S.A 22a-174-31; Conn. Gen. Stat. Section 22a-200c); Delaware (7 DE Admin Code 1147; Title 7 Chapter 60 of the Delaware Code, Subchapter IIA, §6043); Maine (DEP Chapter 156-158; Maine Rev. Stat., Title 38, Chapter 3-B); Maryland (Department of Environment, Title 26, Subtitle 9; Environment Article, §§1-101, 1-404, 2-103, and 2-1002(g), Annotated Code of Maryland); Massachusetts (DEP Regulations 310 CMR 7.70; 225 CMR 13.00; M.G.L. c. 21A, §22); New Hampshire (NH Code of Admin. Rules, Chapter Env-A 4600; Chapter Env-A 4700; Chapter Env-A 4800; RSA 125-O:19-28p; RSA 125-O:8, I(c)-(g)); Rhode Island (Dept. of Environmental Management Office of Air Resources, Air Pollution Control Regulation No. 46 and 47; R.I. Gen. Laws §42-17.1-2(19), §23-23 and §23-82); Vermont (30 V.S.A. § 255; 30 V.S.A. § 209(d)(3); Agency of Natural Resources, Vermont CO2 Budget Trading Program 23-101 – 23-1007). New York did not pass legislation, which resulted in subsequent litigation. However, the court did not consider the merits of the claims because they were time-barred. *See Thrun v. Cuomo*, 112 A.D.3d 1038 (N.Y. App. Div. Dec. 5, 2013).

[39] *State Plan Considerations* at n.19.

[40] 2007 RGGI By-Laws, at Art. I, *available at* http://www.rggi.org/old/docs/rggi_bylaws_12_12_07.pdf.

[41] 2007 RGGI By-Laws, at Art. I.

[42] RGGI By-Laws, at Art. IV, § 1.

[43] RGGI By-Laws, at Art. I.

[44] RGGI By-Laws, at Art. XII.

in the $CO_2$ Emission Guidelines. States would not be able to enforce the terms of the joint, multi-state SIP *vis-à-vis* one another under a RGGI-like structure. This would likely render the SIP unenforceable, and thus not approvable by EPA, absent an interstate enforcement mechanism.

*d. Member State Rivalries and the Practical Need for Enforcement Authority*

From a practical standpoint, member states themselves may want interstate enforcement authority to ensure that all member states fulfill their obligations under a multi-state SIP. Member state interests could become rivalrous if and when a state does not fulfill its SIP obligations or through issues involving interstate capacity needs.[45] For instance, in many cases around the nation, electric capacity serving demand in one state comes from another state. A multi-state program makes sense to ensure that a given state's parochial carbon interests do not negatively affect another state's capacity needs.

Under any rivalrous scenario, states would want the ability to enforce the multi-state SIP provisions against the offending member state. While it is valid to point out that state rivalry has not been an issue in RGGI, there is no interstate enforcement provision in the RGGI structure. Moreover, and equally as important, the RGGI cap of allowed emissions from regulated power plants was 165 million tons in 2013, but actual 2012 emissions were only 91 million tons. Emissions were lower than previously anticipated due to low natural gas prices, energy conservation measures, and the struggling economy. Accordingly, with a cap that high, no member state was in severe danger of noncompliance; it is these potential noncompliance scenarios that would lead to an action by one state against another state. In February 2013, the RGGI cap was lowered to 91 million tons for 2014 with 2.5% annual reductions until 2020. Accordingly, the future may hold more rivalrous member state relationships in RGGI with a more restrictive cap.

*e. Enter the Interstate Compact*

The U.S. Constitution expressly addresses what amounts to contracts between individual states. Article I, section 10, clause 3 of the U.S. Constitution provides that "[n]o State shall, without the consent of Congress … enter into any Agreement or Compact with another State." Interstate compacts can create enforceable obligations between parties, and the U.S. Supreme Court has held for nearly 200 years that compacts are contracts between individual states.[46]

Courts have discussed "some of the indicia of compacts," specifically "establishment of a joint organization for regulatory purposes; conditional consent by member states in which each state is not free to modify or repeal its participation unilaterally; and state enactments which require reciprocal action for their effectiveness."[47] Whether Congressional approval of an interstate compact is required, however, depends upon the nature of the agreement:

> To form a compact, two or more states typically negotiate an agreement, and then each state legislature enacts a law that is identical to the agreement reached. Once all states specified in the compact have enacted such laws, the compact is formed. In some cases, if a compact affects the balance of power between the states and the federal government or affects a power constitutionally delegated to the federal government, it must also obtain congressional consent. In consenting to a compact, Congress may add certain conditions ….[48]

[45] For example, the Missouri Joint Municipal Electric Utility Commission (MJMEUC) is authorized by Missouri state law to operate as an electric utility for the benefit of the combined requirements of its members. MJMEUC has ownership interests in coal-fired generation units in Missouri, Arkansas, Illinois and Nebraska. Accordingly, MJMEUC customers are dependent upon out-of-state generation to meet its capacity needs. If one of these states decides to retire coal-fired generation to meet its single state or multi-state SIP obligations such that reliability and/or affordability is affected, one can easily foresee a rivalrous scenario. This interstate capacity issue exists in the western U.S. as well – the North Valmy Generating Station in Nevada serves Idaho customers (in addition to in-state customers), the Navajo Generating Station in Arizona serves customers in California and Nevada (as well as Arizona), and the Jim Bridger Power Plant in Wyoming serves customers in Idaho and Utah. These provide just a few examples of the widespread interstate capacity issues across the country necessarily implicated by the $CO_2$ Emission Guidelines.

[46] *Green v. Biddle*, 21 U.S. (8 Wheat.) 1, 92 (1823).

[47] *Seattle Master Builders Ass'n v. Pacific Northeast Electric Power & Conservation Planning Council*, 786 F.2d. 1359, 1363 (9th Cir. 1986).

[48] U.S. Government Accountability Office, *INTERSTATE COMPACTS: An Overview of the Structure and Governance*

For example, a 2007 Government Administrative Office (GAO) study identified 76 environmental and natural resources interstate compacts, and 59 required Congressional approval.[49] The U.S. Supreme Court has wrestled with the line of where Congressional approval of interstate compacts is needed and where it is not several times. In 1893, the Supreme Court held:

> Looking at the clause in which the terms "compact" or "agreement" appear, it is evident that the prohibition is directed to the formation of any combination tending to the increase of political power in the states, which may encroach upon or interfere with the just supremacy of the United States.[50]

Therefore, the Compact Clause applies to agreements directed to the formation of any unit that may increase states' political power encroaching on federal power.[51] Congressional consent is not required for joint state activity not affecting federal authority.[52]

The multi-state enforcement issues with RGGI lead to the conclusion that a contract, in the form of an interstate compact, would be necessary to implement an enforceable multi-state SIP.

According to the analysis developed by the Supreme Court, a court first evaluates whether the agreement or arrangement at issue constitutes a compact. The key component of this analysis involves looking at the "indicia" set forth by the Ninth Circuit in *Seattle Master Builders Association*. If a compact is in fact at issue, courts evaluate if the compact encroaches upon federal power, *i.e.*, whether it is "political." A compact is "political" if it (1) impacts the federal structure or (2) effects the interests of non-compacting sister states.[53] As to the first inquiry, in the words of the Supreme Court, "[t]he relevant inquiry must be one of impact on our federal structure."[54] Courts also consider whether the compact affects the interests of non-compacting sister states. Under either scenario, *i.e.*, impact on federal structure *or* effects on the interest of non-compacting sister states, Congressional approval is required for the compact.[55]

*f. Multi-State SIPs and the Compact Clause*

The multi-state enforcement issues with RGGI lead to the conclusion that a contract, in the form of an interstate compact, would be necessary to implement an enforceable multi-state SIP that would allow states to enforce rights against one another to achieve compliance with the multi-state performance goal.

Any such agreement would facially have all indicia of a compact: (1) a joint organization formed for regulatory purposes to effectuate compliance with the $CO_2$ Emission Guidelines; (2) conditional consent by each member state to have no right to modify or repeal its participation unilaterally as this consent would be required to submit an approvable multi-state SIP; and (3) state enactments requiring reciprocal action, as each member state would pass new legislation to allow for participation in the multi-state SIP and achievement of the multi-state performance goal would turn on each member state satisfying its obligations under the multi-state SIP. In fact, while some commentators have questioned whether RGGI was an interstate compact,[56] an agreement to implement multi-state SIPs would even more directly satisfy the *Seattle Master Builders*

*of Environment and Natural Resource Compacts*, at 1 (Apr. 2007), *available at* http://www.gao.gov/assets/260/258939.pdf.

[49] *Id.*

[50] *Virginia v. Tennessee*, 148 U.S. 503, 519 (1893).

[51] *Northeast Bancorp, Inc. v. Board of Governors of Federal Reserve System*, 472 U.S. 159 (1985).

[52] *Seattle Master Builders Ass'n v. Pacific Northwest Elec. Power and Conservation Planning Council*, 786 F.2d 1359 (9th Cir. 1986).

[53] *U. S. Steel Corp. v. Multistate Tax Comm'n*, 434 U.S. 452, 477 (1978).

[54] *Id.* at 471.

[55] *Id.* at 477. In both *U.S. Steel* and *Northeast Bancorp*, the Supreme Court applied a sister state interest analysis, suggesting that the sister state interest doctrine is in force despite being rejected as a justification for overturning the compacts in those particular cases.

[56] *See, e.g.*, Edison Electric Institute, *Comments to Regional Greenhouse Gas Initiative Memorandum of Understanding*, at 22-24 (Mar. 20, 2006), *available at* http://www.rggi.org/docs/rggi-eeimou_comments032006final.pdf. In addition, the New York state lawsuit regarding the lack of legislation also challenged RGGI in part on grounds that it violated the Compact Clause. However, this case was dismissed without considering the merits by the New York Supreme Court because the all claims were either time-barred or moot. *See Thrun v. Cuomo*, 112 A.D.3d 1038 (N.Y. App. Div. Dec. 5, 2013).

*Association* factors because states likely could not unilaterally withdraw as they can under RGGI. If member states could unilaterally withdraw, it would raise questions as to whether the multi-state SIP was enforceable between member states and could satisfy EPA's general criteria.

It would almost certainly appear that any interstate compact would require Congressional approval on the basis of effects upon non-compacting sister states.

Assuming an agreement or multi-state SIP is in fact a compact, the next question is whether the compact is "political." As to federal structure, a multi-state SIP would appear to impact the federal structure given that the Clean Air Act is a federal statute and the $CO_2$ Emission Guidelines are promulgated by EPA pursuant to Section 111(d) and its federal implementing regulations. Indeed, a counterargument exists that the Clean Air Act, through its purported embrace of cooperative federalism, actually involves states implementing state-specific programs through SIPs. In other words, it is technically a federal program but there is no federal structure because the states implement and enforce the requirements. However, the former argument would appear to be stronger and, at the very least, would potentially subject a multi-state SIP that did not receive Congressional approval for litigation. Moreover, there is also an argument that a multi-state SIP would interfere with federal authority by potentially affecting the grid reliability.

The potential need for Congressional approval injects additional political and timing elements into any multi-state SIP process.

Second, notwithstanding the analysis above regarding impact on the federal structure, it would almost certainly appear that any interstate compact would require Congressional approval on the basis of effects upon non-compacting sister states. As EPA notes in the $CO_2$ Emission Guidelines, "[t]he utility power sector is unique in that, unlike other sectors where the sources operate independently and on a local scale, power sources operate in a complex, interconnected grid system that typically is regional in scale."[57] Accordingly, if a subset of states in an interconnected regional grid system entered into a multi-state SIP and associated interstate compact, it would likely affect the interests of the non-compacting states in that region. While the Supreme Court has never rejected an interstate compact on the basis of effects on sister state interests, the multi-state SIP avenue raises a constitutional issue that has not been visited by the Supreme Court for many years. Accordingly, it provides an interesting academic question at a minimum and a likely litigation path for any party seeking to challenge the validity of a multi-state SIP.

*g. Congressional Approval and Timing Issues*

The potential need for Congressional approval injects additional political and timing elements into any multi-state SIP process. Indeed, political issues are beyond the scope of this paper but could certainly inject delay into the approval process, as Congressional approval for an interstate compact would likely need to precede EPA approval of any multi-state SIP tied to the interstate compact. In its report, the GAO discusses the process for Congressional approval:

> Congress generally gives its consent in one of three ways: (1) after the fact, by passing legislation that specifically recognizes and consents to the compact as enacted by the states; (2) in advance, by passing legislation encouraging states to enter into a specified compact or compacts for specified purposes; or (3) implied after the fact, when actions by the states and the federal government indicate that Congress has granted its consent even in the absence of a specific legislative act. In addition, Congress may impose conditions as part of granting its consent, and it typically reserves the right to alter, amend, or repeal its consent. Any proposed amendment to a compact must follow the compact approval process, unless the compact specifies otherwise.[58]

Advance approval is irrelevant with regard to Section 111(d) and the $CO_2$ Emission Guidelines. An example of a statute providing advance Congressional approval of an interstate compact is the Energy Policy Act of 2005, which provided advance Congressional approval

[57] $CO_2$ Emission Guidelines, at 72.

[58] *Interstate Compacts GAO Report* at 6.

for any interstate compact entered into to address the siting of transmission lines to deliver renewable energy.[59] The Clean Air Act contains no such provision. Accordingly, Congressional approval will come in either the form of express legislation or implication through the actions of states and the federal government. While the express approval avenue could decrease the likelihood of future litigation under the Compact Clause, it also injects significant timing risk into the process because any multi-state SIP would be contingent upon approval of legislation. The "implied consent" avenue mitigates the timing risks, but carries with it the possibility that litigation could be brought for violation of the Compact Clause since no express action occurred. Under these circumstances, the member states would have to establish that Congress did in fact provide implicit consent.

## VII. Initial Conclusions and Takeaways

We offer these tentative conclusions and takeaways based upon the above analysis and discussion:

- States have relatively little time to make crucial decisions regarding EPA's proposed rule, including whether to act individually or on a multi-state basis, which of four state plan pathways to take, what state agency(ies) should be responsible to implement a Carbon IRP-like process, how any ISOs or RTOs operating within the state will play a role, and what enforcement and corrective action measures are necessary to ensure compliance with the proposed rule.
- States will need to devise institutional arrangements, which almost certainly will require new legislation, between the state PUC and state environmental regulator to implement carbon-driven resource planning.
- State plans will need to encompass all electric generation units, including those owned or operated by current non-state jurisdictional entities like rural cooperatives and municipal utilities. To the extent a state SIP relies on energy efficiency or demand response, all distribution utilities will need to be brought within carbon IRP planning as well.
- Restructured wholesale markets will require integrated carbon planning across the market areas to ensure adequate capacity and reliability.
- Multi-state plans may be attractive within many regions, particularly when coincident with ISO or RTO footprints.
- Because state interests will be potentially rivalrous, multi-state SIPs will need an enforcement mechanism and may well require congressionally-approved interstate compacts to satisfy EPA requirements of enforceability.
- State SIPs that are adjudged by EPA to be inadequate in terms of enforceable, quantifiable and verifiable reductions of EGU $CO_2$ emissions equivalent to EPA's goals, and implementation of corrective actions, if necessary, will result in a FIP. A FIP creates legal issues of whether EPA has the authority to force state officials to enforce obligations they do not have authority to enforce under state law, and to engage in resource planning and direct system dispatch.

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[59] Energy Policy Act of 2005, Title XII, Subtitle B, Section 1221. The statutory section provides:

(i) INTERSTATE COMPACTS.—(1) The consent of Congress is given for three or more contiguous States to enter into an interstate compact, subject to approval by Congress, establishing regional transmission siting agencies to—

(A) facilitate siting of future electric energy transmission facilities within those States; and

(B) carry out the electric energy transmission siting responsibilities of those States.

(2) The Secretary may provide technical assistance to regional transmission siting agencies established under this subsection.

(3) The regional transmission siting agencies shall have the authority to review, certify, and permit siting of transmission facilities, including facilities in national interest electric transmission corridors (other than facilities on property owned by the United States).

To date, no interstate compacts have been entered into under the statute.

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