

Evaluation of Jurisdictional and Constitutional Issues Arising from CAISO Expansion to include PacifiCorp Assets

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Introduction

The California Independent System Operator (CAISO) has asked us to provide our independent legal assessment of issues that could arise as a result of the potential addition of PacifiCorp as a participating transmission owner in CAISO. More specifically, we have evaluated whether the expansion of CAISO to include the PacifiCorp transmission assets:

- 1) would alter the Federal Energy Regulatory Commission's (FERC's) jurisdiction over CAISO, including FERC's authority to displace California's authority over environmental matters or its ability to affect state policies regarding both the building of generation facilities and the types of resources load serving entities should procure; or
- 2) would raise any concerns about the constitutionality of California environmental and clean energy laws under the Commerce Clause of the United States Constitution.

The straightforward answers to each of these questions are that the inclusion of PacifiCorp assets in CAISO:

- 1) would not alter FERC's jurisdiction and would not displace any existing state authority over environmental matters. CAISO is already subject to FERC jurisdiction and the inclusion of PacifiCorp in CAISO does not change this. FERC does not have jurisdiction over California's energy and environmental policies and this would not change because of the inclusion of PacifiCorp in CAISO;

*The contents of this report contain the views of the individual authors and do not reflect the views of the University of California or the University of Colorado.

- 2) would not alter the constitutionality of California's environmental and clean energy laws under the Commerce Clause of the United States Constitution because the policies are already subject to Commerce Clause scrutiny.

We analyze each of the issues below. Before doing so, we briefly describe CAISO and the proposed expansion to include PacifiCorp's transmission assets. We then describe the interstate nature of California's sources of electricity and the relationship between CAISO and the western regional interconnect, which covers the western United States. We also set forth those California clean energy and climate policies that apply to California's electricity sector.

CAISO currently operates the bulk transmission grid for 80 percent of California and a small part of western Nevada.¹ CAISO is a non-profit public benefit corporation that was established pursuant to AB 1890 in 1996 as part of California's electricity restructuring effort.² It is regulated by FERC as a "public utility" under the Federal Power Act.

In November 2014, CAISO established a real-time energy imbalance market (EIM) that PacifiCorp joined.³ Since that time several other utilities have joined or announced their intention to join the EIM, which now operates across six states in the western United States.

In April 2015, CAISO and PacifiCorp also executed a memorandum of understanding to explore adding PacifiCorp as a full participating transmission owner or PTO in CAISO.⁴ Under such an arrangement, CAISO would assume operational control over the transmission facilities of PacifiCorp, just as it does for its existing PTOs, and would administer these facilities in accordance with its FERC-approved Open Access Transmission Tariff. CAISO also operates day-ahead and real-time wholesale electricity markets as well as an ancillary services market, all according to rules embodied in its FERC-approved tariff.⁵ PTOs that serve end-use customers, a category that would

¹ See California ISO, *The ISO Grid*,

<https://www.aiso.com/about/Pages/OurBusiness/UnderstandingtheISO/The-ISO-grid.aspx>.

² AB 1890, Chapter 854 (approved by Governor, September 23, 1996).

³ The EIM automatically balances supply and demand for electricity every fifteen minutes, dispatching the least-cost resources every 5 minutes. In November 2014, this voluntary energy imbalance market service became available to other grids operating in the West in part as a way to integrate renewable resources across a larger geographic region reliably and efficiently. See CAISO, Energy Imbalance Market (EIM) Overview available at:

<https://www.aiso.com/informed/Pages/EIMOverview/Default.aspx>

⁴ See New Participating Transmission Owner Memorandum of Understanding, (April 13, 2015),

https://www.aiso.com/Documents/NewParticipatingTransmissionOwnerMemorandum_Understanding.pdf.

⁵ Ancillary services are those services necessary to support the transmission of electric power from seller to purchaser, given the obligations of control areas and transmitting utilities within those control areas, to maintain reliable operations of the interconnected transmission system. Ancillary services supplied with generation include load following, reactive power-voltage

include PacifiCorp if it joined CAISO, use these markets to procure the power they need to serve their end-use customers.

Expanding CAISO to include PacifiCorp would mean that PacifiCorp's transmission facilities would be added to the CAISO-controlled grid. This would expand CAISO's footprint into another five western states.⁶ The current CAISO system, as noted, already includes facilities that are outside of California. From a jurisdictional perspective, CAISO's operational control over PacifiCorp's transmission assets would be similar to CAISO's operational control over existing out-of-state facilities. Moreover, the CAISO system itself is connected to the larger regional grid in the western United States (the Western Interconnect). As a result, electric power that flows across the CAISO system already crosses state lines and therefore has and will continue to be traveling in interstate commerce. This is true regardless of whether CAISO operates wholly within the state of California or expands to include transmission facilities in other states.

California has a number of important clean energy and environmental policies that affect its electricity sector. The most relevant policies for purposes of our analysis include:

- The cap-and-trade program that the state's Air Resources Board has adopted as part of its implementation of AB 32, the Global Warming Solutions Act. All electricity generators located in California and all importers of electricity to California who emit 25,000 metric tons of CO₂ equivalent or more annually are included as covered entities under the cap and trade program.⁷
- The Renewable Portfolio Standard (RPS), which requires California's Investor Owned Utilities (IOU) and locally owned utilities to procure 33 percent of their electricity from eligible renewable sources by 2020 and 50 percent by 2030.⁸
- A greenhouse gas "performance standard" that prohibits California utilities from entering into long-term contracts for baseload electricity generation that exceeds a performance standard equivalent to that which can be met by an efficient, combined cycle natural gas plant ("the performance standard").⁹

regulation, system protective services, loss compensation service, system control, load dispatch services, and energy imbalance services. See FERC, Market Oversight Glossary available at: <http://www.ferc.gov/market-oversight/guide/glossary.asp>.

⁶ The five states are Oregon, Washington, Idaho, Utah, and Wyoming. For a map of the assets CAISO would manage with the PacifiCorp expansion, see RTO Insider, *Revised Western RTO Governance Plan Highlights State Authority*, <http://www.rtoinsider.com/wp-content/uploads/CAISO-plus-Pacifcorp-Map-CAISO-content-web.jpg> (July 21, 2016).

⁷ See 17 CCR § 95811, 95812(c)(1)(2).

⁸ See Cal Pub. Util. Code Sections 399.11-399.32.

⁹ See 11 CCR § 2900 *et. seq.*

- A Feed-in Tariff that requires California’s Investor Owned Utilities (IOUs) to purchase the electricity generated by small (below 20MW) combined heat and power facilities.¹⁰

We describe below how the Federal Power Act divides jurisdiction between FERC and the states and the relationship between California’s environmental and clean energy policies and federal authority. We then turn to an analysis of the constitutionality of those state policies that affect both in- and out-of-state electricity producers. We conclude that the inclusion of PacifiCorp’s transmission assets in CAISO does not change the legal analysis of either FERC’s jurisdiction and any associated risk of preemption or the constitutionality of the state’s environmental and clean energy policies.

1. Expansion of CAISO to include PacifiCorp does not affect FERC’s jurisdiction over CAISO and neither displaces state authority over environmental matters nor affects state policies regarding generation facilities or the procurement of particular types of resources by load serving entities

a. Expansion of CAISO to include PacifiCorp does not affect FERC’s jurisdiction over CAISO

FERC regulates CAISO as a “public utility” under the Federal Power Act (FPA).¹¹ Any future expansion of CAISO to include PacifiCorp assets would not affect FERC’s jurisdiction over CAISO. As long as CAISO continues to operate the bulk transmission grid on behalf of its member utilities and administer regional wholesale power markets, CAISO will be subject to FERC jurisdiction. It makes no difference whether CAISO operates wholly within a single state or across multiple states. It is the function that CAISO performs rather than its territorial footprint that determines FERC jurisdiction.

Under the Federal Power Act, FERC has jurisdiction over (a) transmission of electricity in interstate commerce; and (b) wholesale sales (sales for resale) of electricity in interstate commerce.¹² Because the California bulk transmission grid is connected to the larger Western Interconnect, all transmission and all wholesale sales of electricity in California that make use of that bulk transmission grid are interstate and thus subject to FERC jurisdiction.¹³ Adding PacifiCorp (or any other entity) to CAISO does not change this fact. By the same token, a decision by CAISO to shrink its footprint so that it operated wholly within California would not change this fact.

¹⁰ AB 1613, *Waste Heat and Carbon Emissions Reduction Act*, codified as amended at Cal. Pub. Util. Code §§ 2840 to 2845 (2016).

¹¹ 16 U.S.C. §824(e).

¹² 16 U.S.C. §824(b)(1); *FERC v. EPSA*, 577 U.S. ___ slip op. at 3 (2016).

¹³ *New York v. FERC*, 535 U.S. 1, 7 (2002); *FPC v. Florida Power & Light Co.*, 404 U.S. 453, 460-63 (1972).

FERC's jurisdiction over CAISO's operation of the bulk transmission system and the wholesale power markets is exclusive.¹⁴ The FPA established a system of dual regulation of the electricity sector, with federal and state jurisdiction confined to particular spheres of activity.¹⁵ While the line between state and federal jurisdiction under the FPA has been the subject of two high-profile Supreme Court cases this term,¹⁶ neither of these cases affects FERC's ongoing jurisdiction over CAISO (with or without the addition of PacifiCorp). Moreover, as discussed below, neither case appears to create any new risk of federal preemption for California's existing authority over environmental matters or policies affecting generation facilities, nor does either case interfere with the procurement of particular types of resources by California's Load Serving Entities (LSEs).

FERC has regulated CAISO since its inception in 1996, just as it regulates other Regional Transmission Organizations and Independent System Operators around the country. FERC's primary responsibilities in this respect are to ensure that the rates, terms, and conditions that CAISO adopts for transmission and for wholesale sales of electricity are "just and reasonable" and "nondiscriminatory."¹⁷ This includes "the authority—indeed, the duty—to ensure that rules or practices 'affecting' wholesale rates are just and reasonable."¹⁸ The Supreme Court has recently confirmed that FERC's "affecting" jurisdiction is limited to rules or practices that "*directly* affect the wholesale rate."¹⁹

Expansion of CAISO to include PacifiCorp will not change or enhance FERC's "affecting" jurisdiction. Just as before the expansion, FERC will continue to have jurisdiction only over rules or practices that "directly affect" wholesale rates in the CAISO region.²⁰ Among other things, the courts have expressly held that this authority

¹⁴ See, e.g., *Nantahala Power & Light Co. v. Thornburg*, 476 U.S. 953, 966 (1986). (confirming "the exclusive jurisdiction vested by Congress in FERC over the regulation of interstate wholesale utility rates"); *Miss Power & Light Co. v. Mississippi ex rel. Moore*, 487 U.S. 354, 377 (1988) (Scalia, J., concurring) ("It is common ground that if FERC has jurisdiction over a subject, the States cannot have jurisdiction over the same subject.").

¹⁵ 16 U.S.C. §824(b)(1); *FERC v. EPSA*, 577 U.S. ___ slip op at 26-27 ("The Act makes federal and state powers complementary and comprehensive so that there will be no gaps for private interests to subvert the public welfare") (internal quotation marks and citations omitted); *FPC v. Southern California Edison*, 376 U.S. 205, 215-16 (1964) ("Congress meant to draw a bright line easily ascertained, between state and federal jurisdiction. . .").

¹⁶ *FERC v. EPSA*, 577 U.S. ___ (2016); *Hughes v. Talen Energy Marketing LLC*, 578 U.S. ___ (2016).

¹⁷ 16 U.S.C. §824d(a).

¹⁸ *FERC v. EPSA*, 577 U.S. ___ slip op. at 15; 16 U.S.C. §824e(a).

¹⁹ *FERC v. EPSA*, 577 U.S. ___ slip op. at 15 (emphasis in original; citation omitted).

²⁰ *Id.* (citing *California Independent System Operator v. FERC*, 372 F.3d 395, 403 (D.C. Cir. 2004) (limiting practices "affecting" rates "to those methods or ways of doing things that directly affect the rate or are closely related to the rate, not all those remote things beyond the rate structure that might in some sense indirectly or ultimately do so").

does not permit FERC to dictate the specifics of an ISO's internal governance such as the selection and composition of the ISO's governing board.²¹

In sum adding PacifiCorp to CAISO as a participating transmission owner and changing CAISO's governance to accommodate this expansion cannot increase FERC's jurisdiction under the Federal Power Act, because that authority is already complete and exclusive with respect to CAISO's operation of the bulk transmission grid and the wholesale power markets.

b. Expansion of CAISO to include PacifiCorp does not displace state authority over environmental matters

Adding PacifiCorp to CAISO will not affect California's authority over environmental matters. Because FERC's jurisdiction over CAISO does not change as a result of the expansion of CAISO, California's authority over environmental matters will not be at increased risk of federal preemption as a result of the CAISO expansion. Put simply, the geographic expansion of CAISO to include PacifiCorp assets does not result in any concomitant expansion of FERC authority over state environmental matters; California will be able do anything it could do previously with respect to such environmental matters.

Because FERC is a creature of federal law, it has no authority beyond that granted to it by Congress.²² Other than some specific environmental requirements regarding hydroelectric licensing under Part I of the Federal Power Act, which are unrelated to the issues discussed in this memo, the FPA does not reach state environmental matters. Accordingly, FERC and the federal courts have long recognized that FERC cannot displace or preempt state environmental policies unless those policies directly intrude upon jurisdictional rates set by FERC.

To the extent that state environmental laws or policies directly intrude upon or seek to establish FERC jurisdictional rates, they would be vulnerable to a preemption challenge on those grounds. But this would be true irrespective of whether CAISO remains as it is or expands to include PacifiCorp assets and/or other entities in the future. Expanding the CAISO grid to include PacifiCorp assets does not change or expand FERC's authority over state environmental matters.

The Supreme Court's recent decision in *FERC v. EPSA*, 577 U.S. ___ (2016) does not change this conclusion. In that case, the Court upheld FERC regulations that allowed demand response to be aggregated and bid into the wholesale power markets on the grounds that the regulations were within the scope of FERC's authority to regulate

²¹ *California Independent System Operator v. FERC*, 372 F.3d 395, 398, 403 (D.C. Cir. 2004) (holding that FERC had no authority under its "affecting" jurisdiction to remove and replace the members of the CAISO board).

²² *California Independent System Operator Corp. v. FERC*, 372 F.3d 395, 398-99 (D.C. Cir. 2004).

practices affecting FERC jurisdictional rates. To the extent that a particular party or FERC seeks to argue in the future that certain state environmental laws or policies trigger or are somehow implicated by FERC's "affecting" jurisdiction, as clarified in the *EPSA* case, any such argument would be independent of the territorial footprint of CAISO and would turn on the question whether the practice in question "directly affects" a FERC jurisdictional rate.

Similarly, the Supreme Court's recent decision in *Hughes v. Talen Energy Marketing LLC*, 578 U.S. ___ (2016) does not create any new legal avenue for FERC to challenge state environmental laws as a result of an expanded CAISO. In that case, the Court held that the FPA preempted Maryland's efforts to encourage new generation by setting rates for capacity that was cleared through the FERC-regulated PJM capacity market. As the Court stressed in *Hughes*, its holding was "limited" and "[n]othing in [its] opinion should be read to foreclose Maryland and other States from encouraging production of new or clean generation through measures untethered to a generator's wholesale market participation."²³ The Court went out of its way, in other words, to stress that its decision was limited to the facts of the Maryland program and could not be interpreted as a basis for displacing or preempting state authority over environmental matters.

To conclude, expanding CAISO to include PacifiCorp as a participating transmission owner would not result in any new or expanded authority by FERC to displace state authority over environmental matters. With the addition of PacifiCorp, FERC would simply be regulating CAISO's operation of the bulk transmission grid and regional wholesale power markets over a larger area. FERC's authority under the Federal Power Act would remain unchanged.

c. Expansion of CAISO to include PacifiCorp does not affect state policies regarding generation facilities or the procurement of particular types of resources by load serving entities

The FPA expressly reserves to the states authority over generation facilities.²⁴ This includes the authority to determine what kind of generation will be built and what types of resources will be procured by load serving entities in the state. Adding PacifiCorp to CAISO does not affect this authority and does not create any new risk of federal

²³ *Hughes v. Talen Energy Marketing LLC*, 578 U.S. ___ slip op. at 15.

²⁴ 16 U.S.C. §824(b)(1); *Hughes v. Talen Energy Marketing LLC*, 578 U.S. ___ slip op at 2 (2016) ("The States' reserved authority includes control over in-state facilities used for the generation of electric energy.") (internal quotation marks and citations omitted); *FERC v. EPSA*, 577 U.S. ___ slip op. at 3 (2016) (noting that the FPA "also limits FERC's regulatory reach, and thereby maintains a zone of exclusive state jurisdiction"); *Connecticut Light & Power Co. v. FPC*, 324 U.S. 515, 525 (1945) (describing purpose of the FPA "to protect rather than to supervise authority of the states"); cf. *Oneok, Inc. v. Learjet, Inc.*, 575 U.S. ___, slip op. at 10 (2014) (stressing that "the Natural Gas Act was drawn with meticulous regard for the continued exercise of state power, not to handicap or dilute it in any way.").

preemption of California policies regarding generation facilities or the procurement of particular types of resources.

Congress, FERC, and the federal courts have long recognized the broad powers that states enjoy in directing the planning and resource decisions of utilities operating within their jurisdictions.²⁵ These powers are not diminished by the expansion of an ISO to encompass a broader, multi-state region, and both FERC and the courts have consistently reaffirmed these powers in various multi-state RTOs and ISOs. Such powers include, among other things, policies to promote procurement of particular types of resources, such as state Renewable Portfolio Standards; policies to incentivize construction of particular types of generation; bilateral contracting for future capacity; policies to require the retirement of existing facilities; administration of resource planning exercises; and policies to promote distributed energy resources and to allow demand response resources to be bid into wholesale power markets.²⁶

In fact, state policies to promote specific types of generation or encourage procurement of certain types of resources would only run afoul of FERC's jurisdiction under the Federal Power Act if they sought to establish or directly intruded upon a FERC jurisdictional rate. This issue arose in the context of California's feed-in tariff for combined heat and power facilities. As part of the state's efforts to reduce greenhouse gas emissions from the power sector, AB 1613 directed the California PUC (CPUC) to require California's Investor Owned Utilities (IOUs) to purchase, at a price set by the CPUC, the electricity generated by small (below 20 megawatts) combined heat and power facilities.²⁷ The three major California IOUs and the California PUC filed cross petitions at FERC seeking a declaratory order on whether the AB 1613 feed-in tariff constituted an effort to establish wholesale rates and thus intruded upon FERC's jurisdiction.²⁸ FERC found that the feed-

²⁵ See, e.g., *Entergy Nuclear Vermont Yankee LLC v. Shumlin*, 733 F.3d 393, 417 (2d Cir. 2013) ("States have broad powers under state law to direct the planning and resource decisions of utilities under their jurisdiction." (quoting *S. Cal Edison San Diego Gas & Elec. Co.*, 71 FERC ¶ 61,269 (1995))).

²⁶ See, e.g., *FERC v. EPSA*, 577 U.S. ___ slip op. at 25 (2016) (noting the FERC's demand response rules allowed states to determine whether their retail customers would be able to "make demand response bids in the wholesale market"); *Conn. Dept. Pub Util. v. FERC*, 569 F.3d 477, 481 (D.C. Cir. 2009) ("State and municipal authorities retain the right to forbid new entrants from providing new capacity, to require retirement of existing generators, to limit new construction to more expensive, environmentally-friendly units, or to take any other action in their role as regulators of generation facilities without direct interference from the Commission."); *Entergy Nuclear Vermont Yankee LLC v. Shumlin*, 733 F.3d 393, 417 (2d Cir. 2013) ("States may, for example, order utilities to build renewable generators themselves, or order utilities to purchase renewable generation.") (internal quotation marks, alterations, and citation omitted); *PPL EnergyPlus LLC v. Solomon*, 766 F.3d 241, 255 (3d Cir. 2014) ("The states may select the type of generation to be built—wind or solar, gas or coal—and where to build the facility. Or states may elect to build no electric generation facilities at all.").

²⁷ AB 1613, *Waste Heat and Carbon Emissions Reduction Act*, codified as amended at Cal. Pub. Util. Code §§ 2840 to 2845 (2016).

²⁸ *California Public Utilities Commission*, 132 FERC ¶ 61,047 (2010) (Initial Order)

in tariff would not be preempted by the Federal Power Act if the program could be tailored to fit within PURPA's provisions for qualifying facilities (QFs).²⁹ That is, as long as the combined heat and power facilities were QFs as defined under PURPA and as long as the feed-in tariff rates were consistent with California's avoided cost provisions for QFs, the feed-in tariff would not interfere with FERC's jurisdiction.³⁰ In a subsequent order, FERC clarified that PURPA did not prohibit the CPUC from setting the feed-in tariff rate based on a multi-tiered avoided cost rate structure that reflected specific resource procurement requirements for California IOUs (e.g., the state Renewable Portfolio Standard).³¹ FERC stressed here that while it has exclusive jurisdiction over wholesale *rates*, "it is the *states* that have the authority to dictate a utility's actual purchase decisions."³² Thus, the states are free to employ a whole range of policy instruments and supports to dictate or encourage utilities' decisions regarding generation and procurement as long as they refrain from setting wholesale rates. In the context of California and the proposed expansion of CAISO, moreover, such powers would not be affected in any way by the addition of PacifiCorp's transmission assets (or those of any other entity).

Consistent with this, FERC has also long recognized the states' historical role in ensuring resource adequacy, requiring that such efforts be "workable" in the context of FERC's duty to ensure overall reliability of the bulk power grid.³³ Adding PacifiCorp's transmission assets to CAISO would not change this dynamic. CAISO's resource adequacy program, as approved by FERC, is based on bilateral procurement by California LSEs.³⁴ The CPUC and local regulatory authorities direct the procurement decisions and practices of the LSEs, including the procurement of preferred resources pursuant to state clean energy policies (e.g., RPS, loading order, etc.).³⁵ CAISO does not operate a centralized capacity market and engages only in backstop procurement in a

²⁹ *Id.* at P. 64-65. *see also* Public Utility Regulatory Policies Act of 1978, Pub. L. No. 95-617, § 210, 92 Stat. 3117, 3144-47.

³⁰ *California Public Utilities Commission*, 132 FERC ¶ 61,047 at P 67 (2010) (finding that "the AB 1613 program will *not* be preempted by the FPA or PURPA as long as: (1) the [combined heat and power] generators from which the CPUC is requiring the Joint Utilities to purchase energy and capacity are QFs pursuant to PURPA; and (2) the rate established by the CPUC does not exceed the avoided cost of the purchasing utility").

³¹ *California Public Utilities Commission*, 133 FERC ¶ 61,059 at P 20 (2010) (clarifying order) (finding that "the concept of a multi-tiered avoided cost rate structure is consistent with the avoided cost requirements set forth in section 210 of PURPA and in the Commission's regulations"). *See also California Public Utilities Commission*, 134 FERC ¶ 61,044 at P 32 (2011) (order denying rehearing) ("[I]n determining the avoided cost rate, just as a state may take into account the cost of the next marginal unit of generation, so as well the state may take into account obligations imposed by the state that, for example, utilities purchase energy from particular sources of energy or for a long duration. Therefore, the CPUC may take into account actual procurement requirements, and resulting costs, imposed on utilities in California.")

³² *California Public Utilities Commission*, 134 FERC ¶ 61,044 at P. 28 (emphasis in original).

³³ *Calif. Ind. System Operator Corp.*, 116 FERC ¶ 61,274 at P 1117 (2006).

³⁴ *Id.* at PP 1117-18.

³⁵ *Id.*

limited number of defined circumstances in order to ensure reliability. Thus, the capacity that California LSEs procure through bilateral contracts in order to meet resource adequacy requirements does not clear through a centralized capacity market.

Adding PacifiCorp's transmission assets to CAISO would not increase the probability that FERC would require a centralized capacity market for CAISO in the future. FERC has declined to require centralized capacity markets in regions where vertically-integrated LSEs, state resource planning, and bilateral contracting predominate.³⁶ These conditions already exist in the CAISO footprint.³⁷ Adding PacifiCorp would not change this given that PacifiCorp is a vertically-integrated utility that relies on state resource planning.³⁸ If anything, therefore, adding PacifiCorp to CAISO would strengthen rather than diminish the existing CAISO approach to resource adequacy and, accordingly, make it less likely that FERC would mandate a centralized capacity market in the future. For its part, CAISO has also made clear in public documents that it has no intention of seeking to create a capacity market. Its July 2016 revised proposed principles for governance of a regional ISO, for example, include a provision prohibiting CAISO "from proposing or endorsing a centralized market for the forward procurement of electric capacity that would (1) require capacity to clear at a market clearing price in order to count for resource adequacy purposes absent the unanimous authorization of the Western States Committee or (2) allow the participation of load-serving utilities from a state without the authorization of the applicable state regulator or local regulatory authority."³⁹

Moreover, even if FERC decided in the future to require a centralized capacity market for CAISO, this would not preclude the state of California, or any other state in the CAISO

³⁶ *Midwest Independent Transmission System Operator, Inc.*, 153 FERC ¶61,229 at PP 46-52 (2015). See also *Midwest Independent Transmission System Operator, Inc.*, 139 FERC ¶61,199 at 40 (2012) (rejecting MISO's request to convert MISO's voluntary capacity market to a mandatory centralized capacity market); *Midwest Independent Transmission System Operator, Inc.*, 125 FERC ¶61,060 at P 39 (2008) ("We reject arguments that a mandatory auction or a mandatory centralized capacity market is necessary to ensure resource adequacy."), *order on reh'g and compliance*, 127 FERC ¶61,054 at PP 24-30 (2009) (confirming that a mandatory centralized capacity market is not necessary to ensure resource adequacy in the MISO region).

³⁷ As is the case with respect to Investor Owned Utilities in a number of the MISO states, California's Investor Owned Utilities operate under a hybrid regulatory model that combines competitive wholesale power markets with regulated retail monopoly franchises. In addition to procuring power from third-party wholesale power suppliers, the California Investor Owned Utilities also own or control generation, transmission, and distribution assets.

³⁸ See, e.g., *Midwest Independent Transmission System Operator, Inc.*, 153 FERC ¶61,229 at PP 52 (2015) (noting "the predominance of vertically-integrated LSEs and long-term bilateral arrangements for obtaining capacity" as "key MISO region characteristics"). All of the five non-California western states in which PacifiCorp and its affiliates operate (Oregon, Washington, Idaho, Utah, and Wyoming) are traditional cost-of-service states that engage in state resource planning exercises.

³⁹ See CAISO, *Revised Proposal Principles for Governance of a Regional ISO 3* (July 15, 2016), available at <http://www.caiso.com/Documents/RevisedProposedPrinciples-RegionalISOGovernance.pdf>.

footprint, from continuing with various policies to ensure resource adequacy and/or to promote construction and procurement of certain types of generation facilities. Nothing in the Supreme Court’s recent decision in *Hughes* suggests otherwise. In that case, Maryland’s mandatory contracts-for-differences approach to promoting new generation was struck down because it expressly disregarded the interstate wholesale rate approved by FERC and established through the PJM capacity market.⁴⁰ As the Supreme Court made clear in *Hughes*, “[s]o long as a State does not condition payment of funds on capacity clearing the auction, the State’s program would not suffer from the fatal defect that renders Maryland’s program unacceptable.”⁴¹ The longstanding practice of using bilateral contracts to secure capacity was explicitly identified by the Court as well within the bounds of state authority.⁴² As noted above, the Court also stressed that its holding was “limited,” concluding that “[n]othing in this opinion should be read to foreclose Maryland or other States from encouraging production of new or clean generation through measures untethered to a generator’s wholesale market participation.”⁴³

FERC has also repeatedly and consistently exempted renewable resources from the minimum offer price rule (MOPR) requirements in several existing capacity markets, allowing these resources to bid into the capacity markets as price-takers. These requirements were established to guard against the exercise of “buyer-side” market power to artificially depress prices in the capacity markets. In PJM, for example, FERC exempted wind and solar resources from the MOPR, a decision that was subsequently upheld by the Third Circuit.⁴⁴ Likewise, FERC also granted MOPR exemptions for

⁴⁰ *Hughes v. Talen Energy Marketing, LLC*, 578 U.S. ___ slip op. at 14-15 (2016); see also *PPL EnergyPlus, LLC v. Solomon*, 766 F. 3d 241, 250-52 (3rd Cir. 2014) (finding that New Jersey’s Long-Term Capacity Pilot Program Act, which, like the Maryland program, sought to guarantee long-term fixed price contracts for new generation in the State, intruded upon FERC’s jurisdiction over the PJM capacity market and was preempted), *cert. denied*, *Fiordaliso v. Talen Energy Marketing*, ___ S.Ct. ___, 2016 WL 1618368 (Mem).

⁴¹ *Hughes v. Talen Energy Marketing, LLC*, 578 U.S. ___ slip op. at 15.

⁴² *Id.*, at 14.

⁴³ *Id.* (international quotation marks and citation omitted); see also *PPL EnergyPlus, LLC v. Solomon*, 766 F. 3d at 255 (“When a state regulates within its sphere of authority, the regulation’s incidental effect on interstate commerce does not render the regulation invalid. . . . The states may select the type of generation to be built—wind or solar, gas or coal—and where to build the facility. Or states may elect to build no electric generation facilities at all. The state’s regulatory choices accumulate into the available supply transacted through the interstate market. The Federal Power Act grants FERC exclusive control over whether interstate rates are ‘just and reasonable,’ but FERC’s authority over interstate rates does not carry with it exclusive control over any and every force that influences interstate rates.”).

⁴⁴ See *PJM Interconnection, LLC*, 135 FERC ¶61,022 at P 152 (2011) (accepting PJM’s proposal to exempt wind and solar generation from the MOPR), *order on reh’g*, 137 FERC ¶61,145 at PP 109-10 (2011) (finding that PJM’s decision to exempt wind and solar resources from the MOPR was a “pragmatic and reasonable approach”). See also *New Jersey Board of Public Utilities v. FERC*, 744 F. 3d 74, 90, 106-07 (2014) (upholding FERC’s approval of PJM’s decision to exempt wind and solar resources from the PJM MOPR).

renewable resources in both the New York ISO and ISO New England.⁴⁵ Taken together, these recent decisions further support the conclusion that even if FERC decided to require CAISO to institute a mandatory capacity market, which seems unlikely, the Commission would be expected to grant some form of MOPR exemption for renewable resources.

In addition to these exemptions for renewable resources, FERC has also approved two additional MOPR exemptions in PJM that further support the efforts of states and LSEs to ensure resource adequacy without having their procurement decisions subject to a MOPR. Specifically, FERC has approved MOPR exemptions for (a) self-supply by LSEs that rely largely on self-supply arrangements and that are neither significantly net-short or net-long in terms of the capacity they clear through self-supply relative to what they buy in the capacity market, and (b) new resources that are procured through a state-sponsored procurement process that is competitive and non-discriminatory and whose costs are not being recovered through a bypassable surcharge linked to clearance in the capacity market or are not being subsidized by a government agency.⁴⁶ FERC has recently authorized similar MOPR exemptions for the New York ISO.⁴⁷

⁴⁵ See *NY Public Service Comm'n et al. v. New York Independent System Operator, Inc.*, 153 FERC ¶61,022 at PP 47-51 (2015) (finding that a properly constructed renewable resources exemption from the NY ISO capacity market, which exempts only those resources with limited or no incentive and ability to exercise buyer-side market power, is just and reasonable), *order on reh'g*, 154 FERC ¶61,088 at P 14 (2016) (affirming previous finding on renewable resource exemption); *ISO New England, Inc.*, 147 FERC ¶61,173 at P 81 (2014) (accepting ISO New England's proposal "to allow an exemption from the MOPR for resources that qualify as Renewable Technology Resources as just, reasonable, and not unduly discriminatory or preferential"), *order on reh'g*, 150 FERC ¶61,065 at P 16 (2015) (denying request for rehearing on renewable exemption), *order on remand*, 155 FERC ¶61,023 at P 2 (2016) (affirming "its finding that the renewables exemption from the minimum offer price rule is just and reasonable, and not unduly discriminatory or preferential"). In the ISO New England context, "Renewable Technology Resources" are defined as "those resources that qualify under state renewable or alternative energy portfolio standards (or, in states without a portfolio standard, qualify under the states' renewable energy goals as a renewable energy resource) and that are geographically located in a state in which they qualify." 147 FERC ¶61,173 at P 62, n. 65. It bears emphasizing here that in the NY ISO and ISO New England cases (in contrast to the PJM case), FERC approved a cap on the amount of renewables that would be eligible for the MOPR exemption, reasoning that because these markets are smaller than PJM's, the renewables exemption would have a greater impact on prices. Smaller markets, in other words, might need a cap on the exemption in order to avoid price distortions. Accordingly, based on this precedent, even if FERC did mandate a centralized capacity market in the CAISO region, a development that (again) seems very unlikely, a decision to expand CAISO by adding PacifiCorp would actually support more favorable treatment of renewables than might be accorded in a smaller ISO market.

⁴⁶ See *PJM Interconnection, LLC*, 143 FERC ¶61,090 at PP 24-25, 52, 107 (2013) (accepting PJM's proposed MOPR exemption for competitive entry and conditionally accepting PJM's proposed MOPR exemption for self-supply), *order on reh'g and compliance, PJM Interconnection, LLC*, 153 FERC ¶61,066 at PP 32, 52 (2015) (denying request for rehearing on competitive entry and self-supply exemptions).

⁴⁷ See *Consolidated Edison Company of New York, Inc., v. New York Independent System Operator, Inc.*, 150 FERC ¶61,139 PP 45-51 (2015) (directing NY ISO to create a competitive

In sum, these various FERC orders and judicial opinions make clear that FERC is regulating the existing capacity markets in a manner that minimizes market disruption but also respects state authority over resource adequacy and procurement decisions and, specifically, state policies to support renewable energy resources. In *Hughes*, and similarly in the Third Circuit’s *Solomon* decision striking down a New Jersey program that also interfered with PJM’s capacity market, the fatal flaw that led to preemption was the effort by these states to encourage the construction of new power generation facilities by *directly regulating* the rates that these facilities would receive for their capacity in the PJM capacity market. Going forward, these states and others remain free to seek to encourage new generation through other means, including traditional bilateral contracts such as those used by California LSEs under the state’s existing resource adequacy framework.

Finally, nothing in the Eight Circuit’s recent decision in *North Dakota v. Heydinger* changes any of this analysis.⁴⁸ In that case, the court struck down a Minnesota statute that prohibited electricity imports if the imports would result in an increase in the state’s greenhouse gas emissions. The three-judge panel agreed that the statute was invalid, but the judges could not agree on the legal basis for their ruling. Instead, each issued a separate opinion based on separate legal grounds, and each of them disagreed with the others regarding the basis for invalidating the statute.

The relevant portions of the Minnesota statute prohibited “any person” from “import[ing] or commit[ing] to import from outside the state power from a new large energy facility that would contribute to statewide power sector carbon dioxide emissions; or enter[ing] into a new long-term power purchase agreement that would increase statewide power sector carbon dioxide emissions.”⁴⁹ One judge found that the statute violated the dormant commerce clause. Another found that it was preempted by the Clean Air Act. And yet another found that it was preempted by the Federal Power Act (FPA). The dormant commerce clause and Clean Air Act preemption opinions are discussed in the next section.

With respect to FPA preemption, the concurring opinion by Judge Murphy found that, because the Minnesota statute operated as a complete ban on certain types of wholesale

entry exemption), order on clarification, reh’g, and compliance, 152 FERC ¶61,110 at P 39-45 (2015) (denying requests for rehearing on competitive entry exemption); *NY Public Service Comm’n et al. v. New York Independent System Operator, Inc.*, 153 FERC ¶61,022 at PP 10, 61-62 (2015) (directing New York ISO to design a self-supply exemption that included net-short and net-long thresholds similar to those used in PJM), *order on reh’g*, 154 FERC ¶61,088 at P 17-18 (2016) (denying requests for rehearing on New York ISO’s design of a self-supply exemption).

⁴⁸ *North Dakota v. Heydinger*, No. 14-2156 (8th Cir., 2016).

⁴⁹ Next Generation Energy Act, Minn. Stat. §216H, subd. 3. New facilities are defined as those built after 2007. If such a facility were to contribute to statewide carbon dioxide emissions, the facility could nevertheless export the electricity into Minnesota if it purchased carbon dioxide allowances from another state’s cap and trade system (such as California’s).

power contracts, it impermissibly intruded upon FERC’s jurisdiction over wholesale sales of electricity in interstate commerce.⁵⁰ But as Judge Colloton pointed out in his concurring opinion, the statute did not impose a “complete ban” on certain wholesale contracts. Rather, it allowed such contracts to proceed as long as they were accompanied by certain offset requirements. Thus, Judge Colloton argued (correctly in our view), the FPA does not preempt such contracts. We discuss Judge Colloton’s reasoning that the statute is problematic under the Clean Air Act in the Commerce Clause section below.⁵¹

Moreover, both FERC and the Supreme Court have long recognized that the states have authority to direct the procurement decisions of their regulated utilities (see discussion above). It therefore seems inconsistent, at best, to say that states are allowed to promote certain types of generation on the one hand (based on their emissions profile or other attributes) but cannot prohibit other types of generation (based on their emissions profile or other attributes), given that a decision to promote a particular type of generation could be viewed as tantamount to a decision to ban other types. In the Supreme Court’s *Hughes* decision, of course, the problem was that the means selected to promote new generation capacity *directly regulated* the rates that the facilities would receive in the PJM capacity market. That is far different from a state policy that seeks to ensure that the electricity its residents use has a particular emissions profile.

To be sure, by simply prohibiting any person from importing out-of-state power that would contribute to an increase in the state’s GHG profile, the Minnesota statute suffered from some imprecise drafting that may have made it more vulnerable to attack. In this respect, California’s greenhouse gas emissions performance standard (SB 1368) would appear to be on stronger ground if it were ever subject to an FPA preemption challenge along the lines of Judge Murphy’s opinion in *Heydinger*. Unlike the Minnesota statute, for example, California’s performance standard simply requires that any “baseload generation” supplied to a load serving entity or to a local publicly owned electric utility under any “long-term financial commitment” must comply with the greenhouse gas emissions performance standard as established in regulation.⁵² These regulations subsequently established a performance standard of 1100 pounds of carbon dioxide per megawatt hour (MWh) of electricity.⁵³ The California standard is thus more specific than the Minnesota statute in applying directly to load-serving entities and municipal utilities,

⁵⁰ *Heydinger* at 25-27.

⁵¹ *Heydinger* at 28-29. Judge Colloton found instead that the Minnesota statute was preempted by the Clean Air Act (discussed below).

⁵² See Cal Public Utilities Code §8341(a) (2016): “No load-serving entity or local publicly owned electric utility may enter into a long-term financial commitment unless any baseload generation supplied under the long-term financial commitment complies with the greenhouse gases emission performance standard established by the commission, pursuant to subdivision (d), for a load serving entity, or by the Energy Commission, pursuant to subdivision (e), for a local publicly owned electric utility.”

⁵³ Cal Code of Regs. Ch 11, Art 1, §§ 2901 *et seq.*; California Public Utilities Commission, Greenhouse Gas Performance Standard, <http://www.cpuc.ca.gov/General.aspx?id=5927>.

and it is not phrased as a flat prohibition on particular fuels but rather as a requirement that power procured under long-term contracts have certain environmental attributes.

Most importantly for the analysis here, however, is the fact that none of these policies are affected in any way by the proposed expansion of CAISO. That is, the proposal to include PacifiCorp's transmission assets in CAISO has no relevance to the legal analysis regarding FPA preemption in the *Heydinger* case. If applied to the California performance standard, the reasoning of the case would apply whether or not CAISO's footprint expands. Put another way, either the California performance standard is a legitimate exercise of state power or not under the *Heydinger* case, irrespective of the size of the CAISO footprint.

To conclude, a decision to expand CAISO to include PacifiCorp's transmission assets does not increase the preemption risk facing California's policies regarding generation facilities or the procurement of particular types of resources by load-serving entities. Those risks exist independently of any decision to expand CAISO and, as such, they are not relevant to the legal analysis provided here. Based on the Supreme Court's recent decision in *Hughes*, moreover, as long as California refrains from attempting to directly regulate or interfere with a FERC jurisdictional rate, it will continue to enjoy broad authority to direct the planning and resource decisions of utilities operating within its jurisdiction.

2. Expansion of CAISO to include PacifiCorp does not change any potential Commerce Clause claims under the U.S. Constitution

State regulation of goods and services that cross interstate boundaries, including the environmental regulation of energy markets, is subject to the Commerce Clause of the U.S. Constitution. The expansion of CAISO to include PacifiCorp does not alter the constitutional standards that apply to California clean energy and environmental policies. Electricity that flows across the CAISO system has and will continue to be traveling in interstate commerce over the Western Interconnect, regardless of whether CAISO operates wholly within the state of California or expands to include transmission facilities in other states.

The expansion of CAISO to include PacifiCorp as a participating transmission owner does not change the constitutionality of California policies that regulate the electricity sector, including the renewable portfolio standard, the state's performance standard, and the cap-and-trade program's inclusion of electricity imports, since those policies were already subject to the Commerce Clause. Expansion of CAISO to include PacifiCorp does not affect whether the state's electricity sector policies are valid under the Commerce Clause. We nevertheless explain the current status of Commerce Clause doctrine and evaluate the possibility of legal challenges to California policies on constitutional grounds.

States that regulate goods and products sold in interstate commerce are subject to what is known as the dormant Commerce Clause. The dormant Commerce Clause—so-called because it is a principle derived from the text of the Commerce Clause but is not explicitly set forth in it⁵⁴—is designed to prevent states from engaging in economic protectionism that favors their own economic interests at the expense of out-of-state interests. The most constitutionally suspect state policies are those that discriminate explicitly in favor of in-state economic interests or have a discriminatory purpose. These “facially discriminatory” policies, and those motivated by “economic protectionism,” are essentially *per se* unconstitutional unless a state can show that it has no other means to achieve a legitimate state purpose.⁵⁵

The constitutional analysis does not end, however, with policies that are facially discriminatory or have a discriminatory purpose. Even those policies that are not facially or purposely discriminatory but have effects on interstate commerce are subject to the Commerce Clause. The “Pike” balancing test applies to such policies and is far more deferential to states in analyzing non-discriminatory laws that are “directed to legitimate local concerns, with effects upon interstate commerce that are only incidental.”⁵⁶ A court will uphold a nondiscriminatory state statute that has an effect on interstate commerce “unless the burden imposed on interstate commerce is clearly excessive in relation to the putative local benefits.”⁵⁷ Because this inquiry is so dependent on the particular evidence about the costs and benefits of a particular regulation in future regulation, we do not analyze its potential application in this memorandum. It is worth stressing, however, that the test is very deferential to state regulation.

Some courts have imposed a third test on state laws under the dormant Commerce Clause. Known as the “extraterritoriality test,” these courts have held that “[t]he Commerce Clause precludes application of a state statute to commerce that takes place wholly outside of the state’s borders.”⁵⁸ Importantly, however, the Ninth Circuit Court of Appeals, which has jurisdiction over California, has limited the extraterritoriality test to laws that either “dictate the price of a product,” or “tie[] the price of its in-state products to out-of-state prices.”⁵⁹

⁵⁴ Section 8, clause 3 of Article 1 of the United States Constitution grants Congress the power to regulate commerce “among the several states.”

⁵⁵ *United Haulers Ass’n v. Oneida-Herkimer Solid Waste Management Authority*, 550 U.S. 330, 338-39 (2007) (“An ordinance may be valid even if it affects interstate commerce if it passes a two pronged inquiry: “first, whether the ordinance discriminates against interstate commerce, and second, whether the ordinance imposes a burden on interstate commerce that is clearly excessive in relation to the putative local benefits.”)

⁵⁶ *United Haulers*, 550 U.S. at 346.

⁵⁷ *United Haulers*, 550 U.S. at 346 (citations omitted).

⁵⁸ *Cotto Waxo Co.*, 46 F.3d at 793 (citing *Healy*, 491 U.S. at 336).

⁵⁹ *Assoc. des Eleveurs de Canards et d’Oies du Quebec v. Harris*, 729 F.3d 937, 951 (9th Cir. 2013).

To date, with one exception involving a Minnesota policy that we discuss below, challenges to state climate and energy policies on Commerce Clause grounds have met with failure. And importantly, in a Commerce Clause decision involving California's Low Carbon Fuel Standard (LCFS), the Ninth Circuit rejected a Dormant Commerce Clause claim. Although the LCFS involves fuels, not electricity, the court's reasoning in upholding the LCFS against constitutional challenge serves as an important precedent in evaluating the constitutionality of California climate policies involving the electricity sector.

Two categories of state climate policies regulating the electricity sector have faced dormant Commerce Clause challenges, one involving attempts to limit the carbon content of electricity imported into a state and another involving renewable portfolio standards. California has policies that do both and therefore both categories of cases are relevant to an analysis of their constitutionality.

a. The Expansion of CAISO to Include PacifiCorp Assets Does Not Change the Constitutionality of California's Regulation of Electricity Imports

California regulates imports of electricity to limit their carbon content in two ways. The performance standard, as described above, prohibits utilities from entering into long-term contracts for baseload electricity generation where the carbon content of the electricity generated exceeds 1100 pounds of carbon dioxide per megawatt hour of electricity. This policy applies to contracts with both in- and out-of-state generators.⁶⁰ The effect of the performance standard is to ban California LSEs from entering long-term contracts to import electricity generated from coal for baseline purposes since, at least to date, coal-fired power plants cannot meet the standard. California has no in-state coal-fired power plants.

The second California policy that regulates imports of electricity into the state is part of the state's cap-and-trade program. This policy is designed to ensure that the state's greenhouse gas emissions from the generation of electricity both in and out of state are captured in California's regulatory policies. In-state generation is regulated by measuring emissions from power plants within the state's borders. The regulation of greenhouse gas emissions from out-of-state generation that is imported into the state is more complex. It is not possible to track specific electricity flows into and out of a state. Electric power does not travel directly from a particular generation facility into a state; instead, the grid operates on a regional basis, with supply and demand constantly balanced and energy moving to those areas of high demand in the region that need it.⁶¹

⁶⁰ 20 CCR § 2902 (West 2016).

⁶¹ For an explanation of the interconnected nature of our electric grid, see BRIEF FOR AMICI CURIAE BENJAMIN F. HOBBS, et al. in *EME Homer Generation v. E.P.A.*, https://www.edf.org/sites/default/files/sites/default/files/content/12-1182_and_12-1183%20Benjamin_F_Hobbs_etc.pdf.

As a result of the way the grid operates, California’s Air Resources Board has developed regulations to attribute greenhouse gas emissions to approximate the greenhouse gas emissions Californians are responsible for in purchasing and using electricity generated out-of-state by imposing compliance obligations on the first deliverer of electricity into the state.⁶² Emissions are measured in one of two ways. Either the importer can use a facility-specific factor that requires the importer to demonstrate that the importer had the right to electricity from a specific plant that was actually being utilized at the time of the import.⁶³ If it cannot do so, the importer must use an “unspecified” default factor that measures the emissions of imported electricity at the rate that represents the most likely emissions factor associated with out-of-state electricity generation that will meet California electricity demand.⁶⁴ We refer to this set of regulations as the “first importer rules.”⁶⁵

These two policies—the performance standard and the first importer rules—have the potential to raise concerns under dormant Commerce Clause jurisdiction, though they have to date not been the object of lawsuits against them. Our analysis suggests that the California policies are likely to withstand any constitutional challenge. Importantly, however, the legal issues surrounding the constitutionality of the two policies do not change by virtue of the inclusion of PacifiCorp assets in the CAISO footprint. Any constitutional issues, in other words, exist independent of the CAISO expansion because they involve electricity moving in interstate commerce and are therefore already subject to the Commerce Clause.

The *Heydinger* case, as we explained earlier, involves a policy that is somewhat similar to, but distinguishable from, California’s performance standard. Indeed, the part of the Minnesota statute that caused one judge on the Eighth Circuit to strike the statute down

⁶² Cal. Code Regs. Title 17 § 95111(a)(2) (“*Delivered Electricity*. The electric power entity must report imported, exported, and wheeled electricity in MWh disaggregated by first point of receipt or final point of delivery, as applicable, and must also separately report imported and exported electricity from unspecified sources and from each specified source.”); *see also* Cal. Code Regs. Title 17 § 95852 (b) (describing compliance obligations of first deliverers of electricity).

⁶³ Cal Code Regs, Title 17§ 9511(a)(4) (defining imported electricity from specified facilities); §95852(B)(3) (setting forth criteria for specified sources); 9511(b)(2) (formula for specified emissions).

⁶⁴ Cal. Code Regs Title 17 § 95111 (b)(1) (formula for determining unspecified emissions). For an explanation of how the importer rules work, *see* J. Bushnell et al. / *Energy Policy* 64 (2014) 313–323.

⁶⁵ CARB is currently working with CAISO and considering changing the process by which electricity is tracked in order to measure GHGs associated with the California electricity market. *See* State of California, Air Resources Board, *Public Hearing to Consider the Proposed Amendments to the California Cap On Greenhouse Gas Emissions and Market Based Compliance Mechanisms, Draft Staff Report: Initial Statement of Reasons*, (July 12, 2016) at 50-51 (describing potential changes), http://www.arb.ca.gov/cc/capandtrade/draft-ct-reg_071216.pdf. This memo does not address any rule changes CARB might adopt to track out of state GHGs.

on Commerce Clause grounds *is not part of the California statute*. Thus the Commerce Clause analysis in the *Heydinger* case is not applicable to California’s provision. We explain why below.

As a reminder, the relevant provisions of Minnesota’s Next Generation Act prohibit any person from “. . . import[ing] or commit[ing] to import from outside the state power from a new large energy facility that would contribute to statewide power sector carbon dioxide emissions; or . . . enter[ing] into a new long-term power purchase agreement that would increase statewide power sector carbon dioxide emissions.”⁶⁶ Minnesota and North Dakota are both part of the Midcontinent Independent System Operator (MISO), which coordinates transmission for the Midwestern part of the country and parts of Canada and also operates an organized generation and capacity market.⁶⁷ In striking down the import and long-term power purchase agreement provisions, the Eighth Circuit panel issued three separate concurring opinions using three separate and distinct bases for the decision and disagreeing with one another’s legal reasoning. We have already described the concurring opinion that reasoned that the Minnesota provision is preempted by the Federal Power Act. Another judge struck the Minnesota provision down on the grounds that it violates the dormant Commerce Clause. The third judge struck the statute down on the ground that the Minnesota policy is preempted by the federal Clean Air Act. We address the latter two arguments below.

One judge, Judge Loken, reasoned that because electricity transmitted on the MISO system cannot be directed to a particular state or a particular end-user in a particular state, the Minnesota statute could apply to an electricity generator operating wholly outside the borders of Minnesota and not intending to export electricity to Minnesota.⁶⁸ The statute’s language applies to “any person” importing electricity into Minnesota (unlike the California statute, which applies specifically to California’s load-serving entities and publicly owned utilities). In Judge Loken’s view, electricity that is injected onto the MISO transmission lines might, in fact, wind up being imported into Minnesota even if the generator of the electricity does not intend for it to be. As a result, the court reasoned, such a generator—under the explicit terms of the statute—would need to seek regulatory approval from the state of Minnesota to demonstrate that it was complying with the statute. The Minnesota regulation therefore violated the Commerce Clause of the United States constitution because it regulated wholly out-of-state economic activity in violation of the extraterritoriality test.⁶⁹

We believe that Judge Loken’s opinion is based on an erroneous understanding of the way the electric grid works. We are joined in this belief by Judge Loken’s colleague on the case, Judge Murphy, who concurred in the result of the case on the grounds that the policy is preempted by the FPA (addressed above) but who disagreed that the policy

⁶⁶ *Heydinger* at 2.

⁶⁷ *Heydinger* at 4.

⁶⁸ *Heydinger* at 15.

⁶⁹ *Heydinger* at 17-18. Judge Leyder did not separately explain why he struck down subsection (3) of the Minnesota statute.

violates the Commerce Clause. Judge Murphy objected to Judge Loken’s characterization of how electrons “flow” over the MISO system. Judge Loken explained his belief that “when a non-Minnesota generating utility injects electricity into the MISO grid to meet its commitments to non-Minnesota customers, it cannot ensure that those electrons will not flow into and be consumed in Minnesota.”⁷⁰ Judge Murphy disputed this description. His description of the transmission of electricity is, in our view, the accurate one: “In the electricity transmission system, individual electrons do not actually ‘flow’ in the same sense as water in a pipe. Rather, the electrons oscillate in place, and it is electric energy which is transmitted through the propagation of an electromagnetic wave. Electricity on the grid behaves according to the laws of physics, and it cannot be dispatched from one particular place to another. Energy flowing onto a power grid energizes the entire grid, and consumers then draw undifferentiated energy from that grid.”⁷¹

This factual disagreement between Judge Loken and Judge Murphy is important from a legal perspective in the Minnesota case because of a dispute over how the Minnesota statute should be construed. Judge Loken construed the statute to apply to any generator injecting power onto the MISO grid regardless of whether it has a bilateral contract with a Minnesota utility or is participating in MISO short term energy markets. That is because, under Loken’s understanding of the way electricity works on the grid, electrons injected by a generator could accidentally flow into Minnesota and “any person” importing electricity into Minnesota could then be subject to the statute. Judge Murphy’s explanation, however, demonstrates that electrons don’t flow across state borders but instead “oscillate in place” and energize the grid. Thus Minnesota could not regulate the out-of-state generator with no connection to Minnesota who injects electrons into the MISO grid, because there is simply no way to track the flow of electrons into Minnesota. Judge Murphy’s opinion concludes that because of the way electricity energizes the grid, the only reasonable construction of the Minnesota statute is that it does not apply to such a generator, nor does it apply to MISO short-term energy markets. Instead, the statute should be construed to apply only to parties to bilateral contracts under which a Minnesota utility contracts with an out-of-state generator for long-term power.⁷² Those parties do not operate wholly outside Minnesota’s borders, and therefore the statute is sound under the Commerce Clause.⁷³

California’s performance standard regulation is on its face limited to bilateral contracts between in-state utilities and generators. Thus the concern that Judge Loken had about the Minnesota statute—and the basis for his opinion striking the statute down on Commerce Clause grounds—does not even apply to the California statute.

In addition to this important factual distinction, Judge Loken also relied on a test under the Commerce Clause, the “extraterritoriality test” that, as the Ninth and Tenth Circuits

⁷⁰ *Heydinger* at 15.

⁷¹ *Heydinger* at 22 (citations omitted).

⁷² *Heydinger* at 22-23.

⁷³ *Id.*

have explained, has never been used by the U.S. Supreme Court to invalidate policies that do not involve differential prices for in- and out-of-state products. The Ninth Circuit made that precedent clear in evaluating the constitutionality under the Commerce Clause of California’s ban on foie gras produced as the result of force-feeding a bird. As the Ninth Circuit explained:

The [Supreme Court has held that the extraterritoriality doctrine is] not applicable to a statute that does not dictate the price of a product and does not “[t]ie the price of its in-state products to out-of-state prices.” Here, [the foie gras ban does not impose any prices for duck liver products and does not tie prices for California liver products to out-of-state prices. [The extraterritoriality doctrine is] thus inapplicable in this case.⁷⁴

California’s first importer rules and its performance standard do not impose any prices for electricity and do not tie in-state prices for California electricity to out-of-state prices. The extraterritoriality test would not under the Ninth and Tenth Circuit reasoning, therefore, apply to determining their constitutionality.

Moreover, California’s policies regulate the purchasing decisions by entities doing business within the state and treat in-state and out-state purchases the same. They do not regulate wholly out-of-state behavior. The performance standard prohibits load-serving entities serving California end-use customers from entering into long-term contracts for generation that exceeds the performance standard, whether or not the generators are located in- or out-of-state. Minnesota’s statute—in Judge Loken’s view—does not limit its provisions to entities that are tied to the state but instead apply to “any person.” California’s first importer rules are also designed to apply only to electricity that can be attributed to California. The implementation of the rules is aided by extensive cooperation between CARB and CAISO that allows CAISO to distinguish between electricity generated out-of-state but deemed to be imported into California and electricity that is not, and a methodology that allows for the cost of California carbon compliance to be incorporated into wholesale bidding decisions.⁷⁵ Minnesota made no such efforts. As long as California continues to employ a methodology that reasonably

⁷⁴ *Association des Eleveurs de Canards et d'Oies du Quebec v. Harris*, 729 F.3d 937, (9th Cir. 2013). See also, *Energy and Environmental Legal Institute v. EPEL* 793 F.3d 1169, 1170-71 (10th Cir. 2015).

⁷⁵ CARB and CAISO have been working to clarify the tracking of these resources with the expansion of CAISO’s Energy Imbalance Market (EIM) and will need to continue to do so if CAISO expands to include the PacifiCorp assets. For guidance on the reporting requirements for electricity importers and exporters in light of the expansion of CAISO’s EIM, see State of California Air Resources Board, *ARB Energy Imbalance Market Reporting Transactions, Frequently Asked Questions (FAQs)*, <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep-power/eim-faqs.pdf>; see also State of California Air Resources Board, *Public Hearing to Consider the Proposed Amendments to the California Cap On Greenhouse Gas Emissions and Market Based Compliance Mechanisms, Draft Staff Report: Initial Statement of Reasons*, (July 12, 2016) at 50-51 (describing potential CAISO changes to calculating emissions), http://www.arb.ca.gov/cc/capandtrade/draft-ct-reg_071216.pdf.

attempts to attribute California's share of greenhouse gases to its electricity imports, and to measure the greenhouse gases of generators who are parties to long-term contracts with California's utilities, our view is that the state's policies should be able to withstand scrutiny under the Commerce Clause. The expansion of CAISO to include the PacifiCorp assets does not change this analysis.

The *Heydinger* case also included a concurring opinion from a third judge, Judge Colloton, who disagreed with his two colleague's opinions and offered a third rationale for striking down the Minnesota statute. He argued that the Minnesota provisions are preempted by the Clean Air Act. Because the Minnesota statute gives out-of-state generators the option of offsetting greenhouse gas emissions from power imported to Minnesota by purchasing allowances in another state's cap-and-trade program, Judge Colloton held that this was preempted by the Clean Air Act, which regulates greenhouse gases and grants states "primary responsibility for assuring air quality within [their] entire geographic region. § 7407(a); see also § 7401(a)(3)."⁷⁶ In his view, generators in one state should not have to answer both to the state in which they are located and a state to which they import electricity by potentially reducing emissions for each one. A coal-fired power plant in North Dakota, for example, could be required to reduce greenhouse gases in order to meet Minnesota's Next Generation Act requirements and could also be required to reduce emissions under North Dakota's implementation of the Clean Air Act. This, reasoned Colloton, is impermissible because "allowing 'a number of different states to have independent and plenary regulatory authority over a single discharge would lead to chaotic confrontation between sovereign states.'"⁷⁷ The logic of this argument seems peculiar, since the facility always has the option of declining to sell power to Minnesota entities. In any event, Colloton's analysis does not apply to California's performance standard. California's performance standard does not allow out-of-state generators that exceed the standard to offset their emissions either through the purchase of cap-and-trade allowances or through reducing their emissions. Instead, California's utilities cannot enter long-term contracts with such generators. Therefore, its performance standard appears not to raise Clean Air Act preemption issues of the sort with which Judge Colloton is concerned.

Not only are California's first importer and performance standard rules a) not subject to the extraterritoriality doctrine and b) distinguishable from the Minnesota Next Generation Act, but the Ninth Circuit Court of Appeals has issued a decision that provides a helpful precedent for any Commerce Clause challenge to California's climate policies. We next review the case, which upheld California's Low Carbon Fuel Standard, to demonstrate why the state's electricity import rules are likely to be upheld as constitutional if challenged.

In *Rocky Mountain Farmers Union v. Corey*,⁷⁸ the Ninth Circuit found that the state's Low Carbon Fuel Standard (LCFS) did not discriminate against interstate commerce

⁷⁶ *Heydinger* at 29.

⁷⁷ *Heydinger* at 29-30.

⁷⁸ 730 F.3d 1070 (9th Cir. 2013), *cert. denied*, 134 S. Ct. 2875 (2014).

under the “facially discriminatory” prong of the Commerce Clause doctrine. An explanation of the LCFS is necessary to describe the court’s ruling. The LCFS caps the average carbon intensity of transportation fuels in California’s market. Fuel blenders must either meet a specified annual carbon intensity in their fuels or use credits to comply with the standard if their intensity is too high. If their fuel is less carbon intensive than required, blenders can generate credits to sell to companies that need them to comply with the standard.

In order to capture the full measure of carbon intensity, the state uses a “life cycle analysis,” taking into account all of the carbon emissions that are generated in not only the production and refining of the fuel but also in transporting it to market. The state does so for obvious reasons: if it took into account only the emissions generated from, for example, production, overall emissions could increase if the emissions from transporting the fuel into the state were higher than fuel produced elsewhere, including within the state. The result is that a chemically identical gallon of gasoline blended to reduce the carbon intensity of the fuel with, say, ethanol, could have a higher carbon intensity depending on where and how the gasoline was produced, refined and shipped. North Dakota ethanol-blended gasoline, in other words, could have a different carbon intensity than Oregon ethanol-blended gasoline or California ethanol-blended gasoline. And one gallon of North Dakota ethanol could have a different carbon intensity than another North Dakota gallon if the production and refining of the gallon was done with different sources of energy (natural gas as opposed to coal, for example).⁷⁹ Opponents of the LCFS sued, arguing that this life cycle treatment—in treating what could be identical gallons of gasoline differently depending on where and how they were produced and transported—unconstitutionally discriminated against out-of-state producers.

A lower court had held that the LCFS “discriminates on the basis of origin.” The Ninth Circuit disagreed. Instead, the court found that the California methodology, in measuring a complex series of factors to determine carbon intensity, “is an average based on scientific data, not an ungrounded presumption that unfairly prejudices out-of-state ethanol.”⁸⁰ The court distinguished between unconstitutional discrimination intended to favor in-state businesses and treatment that may result in the unequal treatment of states but that is not facially discriminatory. As the court reasoned:

When it is relevant to that measurement [of overall carbon intensity], the Fuel Standard considers location, but only to the extent that location affects the actual GHG emissions attributable to a default pathway. Under dormant Commerce Clause precedent, if an out-of-state ethanol pathway does impose higher costs on California by virtue of its greater GHG emissions, *there is a nondiscriminatory reason for its higher carbon intensity value*. Stated another way, if producers of out-of-state ethanol actually cause more GHG emissions for each unit produced, because they use dirtier electricity or less efficient plants, CARB can base its regulatory treatment on these emissions. If California is to successfully promote

⁷⁹ *Rocky Mountain Farmers*, 730 F.3d at 1080-84 (describing program).

⁸⁰ 730 F.3d at 1089.

low carbon-intensity fuels, countering a trend towards increased GHG output and rising world temperatures, it cannot ignore the real factors behind GHG emissions.⁸¹

This language—rejecting the application of the “facially discriminatory” test for a policy that considers location as long as the reason for the consideration of location is non-discriminatory—is powerful for any analysis of the constitutionality of the first importer rules. The performance standard does not take location into account and thus is far less likely to face constitutional challenge. But the first importer rules apply to the place at which scheduled electricity first, in theory, crosses the California border and thus has a locational element. The reason that California has developed the electricity import rules is to ensure that California is accounting for and regulating all of the emissions associated with its in-state electricity use in order to reduce the state’s overall greenhouse gas emissions.⁸² Without such rules, the state’s electricity providers could simply import all of their electricity from out-of-state, avoid complying with the cap-and-trade program and actually *increase* the state’s overall greenhouse gas emissions from the electricity sector. Thus, as with the LCFS, California has a non-discriminatory reason for taking the location of electricity imports into account and thus is unlikely to have a facial Commerce Clause challenge against it succeed. The expansion of CAISO does not change this analysis.

Finally, the *Rocky Mountain* court also rejected arguments that the LCFS impermissibly regulated extraterritorial behavior. Although, as referenced above, the *Association des Eleveurs de Canards et d'Oies du Quebec* case (the foie gras case) rejects application of the extraterritorial doctrine altogether if a statute does not discriminate on the basis of price, the *Rocky Mountain* court also made clear that it is valid for California to “regulate commerce and contracts within their boundaries with the goal of influencing the out-of-state choices of market participants.”⁸³ The performance standard regulates contracts within the state of California—between its utilities and baseload generators. Such regulation is constitutionally permissible.

Although we believe that current Commerce Clause doctrine makes it highly unlikely that California’s electricity import rules would be struck down as unconstitutional, a court could, of course, disagree. The U.S. Supreme Court has not in recent years evaluated the constitutionality of clean energy policies and therefore could change the doctrinal landscape we have evaluated to be either more favorable to state policies or less. Nevertheless, the expansion of CAISO does not change our constitutional analysis. California is already subject to the Commerce Clause because it participates in a regional system of transmission; the CAISO expansion does not increase the likelihood that a constitutional challenge would succeed on Commerce Clause grounds.

⁸¹ 730 F.3d at 1090.

⁸² See ARB staff report, note 64 at 50-51 for support of the state’s reasoning in developing its rules.

⁸³ 793 F.3d 1103.

b. The Expansion of CAISO Does Not Affect the Constitutionality of California’s Renewable Portfolio Standard Requiring the Procurement of a Set Percentage of Renewable Resources

California’s RPS requires its Investor Owned Utilities (IOU) and publicly owned utilities to procure 33 percent of their electricity from renewable sources by 2020 and 50 percent by 2030. Although some state RPSs have faced constitutional challenge under the Commerce Clause, the only reported federal court decision to consider a broad-based challenge to an RPS—the State of Colorado’s—rejected the constitutional claim. Other Commerce Clause challenges have involved RPS policies that explicitly favor in-state renewable resources, but to date no court has issued a decision evaluating such a challenge.⁸⁴ Our view is that California’s general RPS is, similarly, likely to withstand constitutional challenge under the same reasoning as the 10th Circuit Court of Appeals decision upholding Colorado’s RPS. And, importantly, the expansion of CAISO to include the PacifiCorp assets would not change this constitutional analysis. California’s RPS is already subject to the Commerce Clause because electricity that serves California customers crosses state borders.

In *Energy and Environmental Legal Institute v. EPEL*,⁸⁵ out-of-state coal producers challenged Colorado’s RPS. Like California, Colorado is connected to the Western Interconnect and receives some of its power from out of state.⁸⁶ The coal producers argued that, because Colorado is a net importer of electricity, its RPS would mean that less coal would be sold overall on the grid of which Colorado is a part.⁸⁷ They contended that the RPS discriminated against out-of-state producers under the extraterritorial analysis applied in the *Heydiger* case described above involving Minnesota’s Next

⁸⁴ See State Power Project, *State Cases*, <http://statepowerproject.org/states/> for a summary of Commerce Clause cases. The 7th Circuit, in a case involving a FERC order about cost allocation and transmission lines, suggested in dicta that Michigan’s RPS, in favoring in-state renewable resources, might be constitutionally problematic. The court did not, however, actually rule on the constitutionality, nor did the parties brief the issue. See *Illinois Commerce Comm v. FERC*, No. 11-3421 (7th Cir., June 7, 2013). The California Public Utilities Commission heard and rejected a Commerce Clause challenge to California’s policies that establish which renewable resources qualify for the state’s RPS requirements. See Public Utilities Commission of the State of California, Decision 13-10-074, *Order Denying Applications for Rehearing of Decision (D.) 11-12-052* (Oct. 31, 2013). We do not evaluate these qualification standards here, but emphasize the more general point that general RPSs appear to be constitutional under the Commerce Clause.

⁸⁵ 793 F.3d 1169, 1170-71 (10th Cir. 2015).

⁸⁶ 793 F.3d 1171 (“Colorado consumers receive their electricity from an interconnected grid serving eleven states and portions of Canada and Mexico.”)

⁸⁷ 793 F.3d at 1171 (“Because electricity can go anywhere on the grid and come from anywhere on the grid, and because Colorado is a net importer of electricity, Colorado’s renewable energy mandate effectively means some out-of-state coal producers, like an EELI member, will lose business with out-of-state utilities who feed their power onto the grid. And this harm to out-of-state coal producers, EELI says, amounts to a violation of one of the three branches of dormant commerce clause jurisprudence.”)

Generation Act.⁸⁸ The Court of Appeals rejected the arguments, holding that the Colorado RPS did not discriminate against out-of-state producers and did not regulate extraterritorial prices.⁸⁹ California's RPS policy would likely similarly survive a general constitutional challenge.

To sum up, thus far, courts that have considered Commerce Clause challenges to state climate policies have generally upheld them, with the exception of the Eighth Circuit decision in *North Dakota v. Heydinger*. We do not believe that the *Heydinger* court's reasoning would extend to California's policies, as described above. California's policies appear to be well-insulated from constitutional challenge. Most important for this memo, the expansion of CAISO to include Pacific Corp does not change this analysis.

Conclusion

Although the questions involving state and federal jurisdiction over electricity markets and the constitutional validity under the Commerce Clause of state environmental regulation of electricity are complex, our bottom-line conclusion is straightforward: The expansion of CAISO to include PacifiCorp as a participating transmission owner does not change either California's authority over energy and environmental matters or the constitutionality of its energy and environmental policies. CAISO is already regulated by FERC as a public utility, and California's environmental and clean energy policies affecting the electricity sector are already subject to the Commerce Clause because the state's electricity crosses interstate borders. Adding PacifiCorp assets to CAISO will not create any new or additional risk of preemption for California's energy and environmental policies. Nor will it alter the constitutionality of those policies.

⁸⁸ 793 F.3d at 1172.

⁸⁹ 793 F.3d at 1174 (“But whatever doctrinal pigeonhole you choose to place them in, we don't see how *Baldwin*, *Healy*, and *Brown-Forman* require us to strike down Colorado's mandate. For that mandate just doesn't share any of the three essential characteristics that mark those cases: it isn't a price control statute, it doesn't link prices paid in Colorado with those paid out of state, and it does not discriminate against out-of-staters.”)