

THE WASHINGTON REPORT

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Energy regulatory developments in the United States influence numerous sectors of the energy industry and address a wide range of issues. We report on key federal and state energy and environmental regulatory and litigation developments in the United States from 2018 through mid-2019, which should be of interest to readers of the *ERQ*.

I. GAS & ELECTRIC INFRASTRUCTURE

(A) FERC Gas Pipeline Certificates & GHG Emissions

FERC's 20-year old policy on the certification of interstate natural gas pipelines and LNG import/export facilities continues to foster both natural gas infrastructure development and litigation related thereto. In April 2018, FERC issued a Notice of Inquiry on whether changes to its 1999 policy statement were necessary or appropriate.¹ The comment deadline in that proceeding was in July 2018, and thousands of comments were submitted, but thus far FERC has taken no action in response to those comments.² Whether it will do so remains uncertain. In the meantime, there has been no shortage of FERC activity concerning the certification of natural gas pipeline infrastructure.

Over the past two years, FERC has continued to approve interstate natural gas pipeline infrastructure at a robust rate. However, those approvals have not been business-as-usual. Nearly all of FERC's certificate orders have been beset by controversy among the Commissioners concerning the scope of FERC's obligations under the *National Environmental Policy Act (NEPA)* to consider the indirect and cumulative effects of upstream and downstream greenhouse gas emissions associated with the proposed natural gas pipeline infrastructure. Although a majority of FERC Commissioners have consistently voted to approve certificate applications, the climate change issue has produced numerous split decisions from FERC, accompanied by separate statements from two Commissioners who are seeking to expand FERC's climate change analysis.³

The main source of the disagreement at FERC appears to be over the scope of the agency's *NEPA* obligations following the D.C. Circuit's August 2017 decision in *Sierra Club v. FERC (Sabal Trail)*, which vacated and remanded a FERC certificate order for failing to consider in its *NEPA* analysis the downstream, indirect greenhouse gas emissions associated with combustion of the delivered gas.⁴ That case

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¹ *Certification of New Interstate Natural Gas Facilities*, 163 FERC ¶ 61,042 (2018).

² See generally FERC Docket No PL18-1-000; Order Extending Time for Comments, 163 FERC ¶ 61,138 (2018).

³ See e.g. *PennEast Pipeline Co., LLC*, 164 FERC ¶ 61,098 (2018) (including separate statements from Commissioners Glick and LaFleur).

⁴ *Sierra Club v FERC*, 867 F.3d 1357 (D.C. Cir. 2017) [*Saba Trail*].

involved a 685.5 mile pipeline being constructed to deliver natural gas to certain power plants in Florida.⁵ FERC's unanimous order approved the pipeline certificate, based on a *NEPA* analysis that did not consider the downstream, indirect effects of the greenhouse gas emissions from the combustion of the natural gas at the power plants.⁶ The court found that FERC was required to analyze those downstream, indirect effects because they were a reasonably foreseeable result of approving the certificate.⁷ On remand, FERC analyzed the downstream, indirect greenhouse gas emissions and reissued the certificate based on that supplemental analysis.⁸ However, FERC declined to take the additional step of quantifying the climate change impacts associated with those indirect emissions, explaining that it lacked a reliable method of converting the emissions into environmental impacts.⁹ FERC's order on remand was not appealed.

The litigation over the issue did not end, however, with FERC's remand order in the *Sabal Trail* case. The issue has been raised in numerous other FERC certificate proceedings over the past two years and several of the related FERC orders have been appealed to the D.C. Circuit. Thus far, those appeals have not settled the issue, because they have been dismissed on jurisdictional grounds. Specifically, in May 2019, the D.C. Circuit dismissed one case — *Otsego 2000, et al. v. FERC*¹⁰ — without reaching the merits, because the court found that the petitioner did not have standing. Then, in June 2019, the D.C. Circuit denied a petition for review in another case — *Birckhead, et al. v. FERC*¹¹ after finding that the court lacked jurisdiction because the petitioner failed to first raise the downstream greenhouse gas arguments in the FERC proceeding. However, in *Birckhead*, the

court leveled unsparing criticism of the merits of FERC's approach.¹² Whether, or how, FERC will respond to the D.C. Circuit's criticism in pending and future cases remains to be seen.

(B) LNG Exports (FERC/DOE)

Due in part to low natural gas prices, global demand for liquefied natural gas (LNG) has significantly increased in recent years. In response, a wave of NGA Section 3 applications to site, construct, and operate LNG facilities were filed at FERC. Entering 2019, FERC had a backlog of 13 such applications. Since February 2019, FERC has made significant progress on those applications, issuing certificates in five of the proceedings.¹³ In addition, between March 2019 and May 2019, FERC finalized its environmental review of five other proposed LNG export projects.¹⁴ Recently, FERC has been issuing orders on LNG export applications approximately 3-4 months after issuance of the project's environmental impact statement.¹⁵ Thus, we expect FERC's progress on processing LNG export applications to continue through the second half of 2019.

Although most of the recent regulatory activity on LNG export facilities has taken place at FERC, there has also been activity at the U.S. Department of Energy (DOE). While FERC has jurisdiction over the LNG facilities, DOE has jurisdiction to authorize the export of natural gas, including the export of LNG from those facilities. DOE can permit exports to nations with which the U.S. has a free trade agreement, nations with which the U.S. has no free trade agreement, or both. In granting those authorizations, DOE typically imposes an obligation to submit periodic reports to DOE concerning the destination of the exported

⁵ See *Fla. Se. Connection, LLC*, 154 FERC ¶ 61,080, at para 4; *Reh'g in part*, 156 FERC ¶ 61,160 (2016), *vacated and remanded sub nom; Sierra Club v FERC (Sabal Trail)*, 867 F.3d 1357 (D.C. Cir. 2017), *on remand; Fla. Se. Connection, LLC*, 162 FERC ¶ 61,233 [Fla. Se. 162]; *Reh'g denied*, 164 FERC ¶ 61,099 (2018) [*Reh'g* 164].

⁶ See *Fla. Se. Connection, LLC*, 156 FERC ¶ 61,160 at paras 62-63.

⁷ *Sabal Trail*, *supra* note 4 at 1371-72.

⁸ *Fla. Se. Connection, LLC*, 162 FERC ¶ 61,233; *Reh'g denied*, 164 FERC ¶ 61,099.

⁹ See *Fla. Se. Connection, LLC*, 164 FERC ¶ 61,099 at PP 26-37.

¹⁰ *Otsego 2000, et al. v FERC* 767 Fed. App'x 19 (D.C. Cir. 2019).

¹¹ *Birckhead, et al. v. FERC*, 925 F.3d 510 (D.C. Cir. 2019).

¹² See 925 F.3d at 518-20.

¹³ *Venture Global Calcasieu Pass, LLC*, 166 FERC ¶ 61,144 (2019); *Port Arthur LNG, LLC*, 167 FERC ¶ 61,052 (2019); *Driftwood LNG LLC*, 167 FERC ¶ 61,054 (2019); *Freeport LNG Development, L.P.*, 167 FERC ¶ 61,155 (2019); *Gulf LNG Liquefaction Co., LLC*, 168 FERC ¶ 61,020 (2019).

¹⁴ See FERC Environmental Documents, online:<<https://www.ferc.gov/industries/gas/enviro/eis.asp>>.

¹⁵ See *supra* note 13 (recent orders on LNG certificate applications and the associated NEPA analyses).

LNG or natural gas. In December 2018, DOE issued a policy statement announcing a change in practice with regard to such reporting requirements.¹⁶ Specifically, DOE stated that it would end its recent practice of requiring authorization holders to report the nation(s) in which the exported LNG or natural gas was “received for end use.”¹⁷ Instead, DOE now requires authorization holders to report the nation(s) to which the LNG or natural gas “was actually delivered.”¹⁸ This change is expected to “enhance the accuracy of LNG reporting information provided by authorization holders, and to minimize administrative burdens on authorization holders in the U.S. LNG export market and those who may purchase U.S. LNG.”¹⁹

(C) State Environmental Challenges

Over the past several years, various states have mounted challenges to natural gas and other infrastructure projects using authorities granted to them by federal environmental laws. New York has been at the forefront of those challenges, due in part to its critical location between natural gas production areas and the New England region, which is increasingly reliant on natural gas-fired electricity generation. New York’s primary tool for challenging new natural gas infrastructure has been the *Clean Water Act (CWA)*.

When FERC issues a certificate of public convenience and necessity for an interstate natural gas pipeline, it does so on the condition that the applicant acquire all necessary permits and approvals, including a water quality certification under Section 401 of the *CWA* that the project will comply with state water quality standards.²⁰ Section 401 of the *CWA* provides

that a state must act on a certification request “within a reasonable period of time (which shall not exceed one year) after receipt of such request” or the certification requirement “shall be waived.”²¹ Certain states, including New York, California, and Oregon, attempted to get around this one-year time limitation by deeming the applications to be incomplete and requiring them to be refiled (or, in the case of California and Oregon, simply directing them to be withdrawn and resubmitted), and asserting that the new submission restarted the statutory clock.²²

Those state actions were challenged in the courts and, in the past 18 months, two U.S. Circuit Courts of Appeals have addressed the issue of whether states may extend their *CWA* Section 401 reviews beyond the one-year statutory deadline. Although those two cases set some boundaries for the states, they did not entirely resolve the issue.

First, in a case arising from FERC-approval of a 7.8 mile interstate natural gas pipeline slated for construction in New York²³, the Second Circuit found that *CWA* Section 401 sets a bright-line rule that the one-year statutory clock starts when the state receives an application, regardless of whether the application is complete.²⁴ The Court explained that, if a state is concerned that an application is incomplete, the state may (1) deny the application without prejudice or (2) request that the applicant withdraw and resubmit the application.²⁵

Second, in a case involving a FERC-approved hydroelectric project that was undergoing a license renewal and decommissioning process, *CWA* Section 401 certifications from both California and Oregon were required.²⁶

¹⁶ *Eliminating the End Use Reporting Provision in Authorizations for the Export of Liquefied Nat. Gas*, 83 Fed. Reg. 65078 (Dec. 19, 2018).

¹⁷ See *ibid* at 65079.

¹⁸ *Ibid*.

¹⁹ *Ibid* at 65080.

²⁰ See e.g. *New York State Dep’t of Env’t Conservation v FERC*, 884 F.3d 450, 452-53 (2d Cir. 2018) (citing 15 U.S.C. §§ 717n(a)(1)-(2)) [*Millenium*].

²¹ 33 U.S.C. § 1341(a)(1).

²² See e.g. *Millenium*, *supra* note 20 at 453; *Hoopa Valley Tribe v FERC*, 913 F.3d 1099, 1103 (D.C. Cir. 2019).

²³ *Millenium*, *supra* note 20 at 452.

²⁴ *Ibid* at 455-56.

²⁵ *Ibid* at 456.

²⁶ See *Hoopa Valley Tribe*, 913 F.3d at 1101.

California and Oregon reached an agreement with the applicant under which the applicant repeatedly withdrew and resubmitted the same Section 401 application to restart the one-year statutory clock numerous times.²⁷ The Hoopa Valley Tribe petitioned FERC for an order declaring that California and Oregon had waived their Section 401 authority. After FERC denied that petition, the Hoopa Valley Tribe petitioned the D.C. Circuit for review of FERC's order. The D.C. Circuit vacated and remanded FERC's order. After noting that the states' "scheme" had allowed them to avoid rendering the CWA Section 401 decision for more than a decade, the court found that such an arrangement is impermissible because it "serves to circumvent a congressionally granted authority over the licensing, conditioning, and developing of a hydropower project."²⁸ However, the court limited its ruling by "declin[ing] to resolve the legitimacy" of an arrangement in which an applicant would withdraw its CWA request and submit "a wholly new one" rather than resubmitting the same request.²⁹ Nor did the court "determine how different a request must be to constitute a 'new request' such that it restarts the one-year clock."³⁰

The questions left unanswered by the D.C. Circuit may allow the states to continue testing the limits of their CWA Section 401 authority, and those state actions likely will produce more judicial precedent in this area in coming years. In the meantime, FERC is moving pipeline projects forward in reliance on the recent court opinions.³¹

(D) Trump Administration Executive Orders

In April 2019, President Trump issued two executive orders aimed at promoting the development of energy infrastructure.³²

The First Order, titled "Issuance of Permits with Respect to Facilities and Land Transportation Crossings at the International Boundaries of the United States", states that over the course of several decades, the process of reviewing Presidential permits for cross-border infrastructure has become "unnecessarily complicated...thereby hindering the economic development of the United States and undermining the efforts of the United States to foster goodwill and mutually productive economic exchanges with its neighbouring countries."³³ The First Order, therefore, directs the U.S. Secretary of State (Secretary of State) to adopt procedures (subject to certain specific guidelines) to ensure that, within 60 days of receiving an application for a Presidential permit for certain types of cross-border infrastructure, the Secretary of State shall advise the President on whether to request the opinion of the heads of other agencies and whether the Secretary of State has reached a conclusion on whether the issuance of the permit would, or would not, serve the foreign policy interests of the United States.³⁴ The First Order makes clear that "[a]ny decision to issue, deny, or amend a permit...shall be made solely by the President."³⁵

The Second Order, titled "Promoting Energy Infrastructure and Economic Growth," seeks to foster private investment in energy infrastructure through, among other things, efficient permitting, timely action, and increased regulatory certainty.³⁶ The Second Order also provided specific guidance to, and imposed obligations on, certain federal agencies concerning topics ranging from environmental permitting to the energy sector investments made by pension plans.³⁷ The Second Order recognizes that "[o]utdated Federal guidance and regulations regarding Section 401 of the Clean Water Act...are causing confusion and uncertainty and are hindering the development of energy infrastructure."³⁸ Accordingly, the

²⁷ *Ibid* at 1103.

²⁸ *Ibid* at 1103-04.

²⁹ *Ibid* at 1104.

³⁰ *Ibid*.

³¹ See *National Fuel Gas Supply Corp.*, 167 FERC ¶ 61,007 (2019) (citing *Hoopa Valley Tribe* in finding that New York waived its CWA section 401 authority by failing to act within one year of receiving application).

³² See Exec. Order No. 13867, 84 Fed. Reg. 15491 (Apr. 10, 2019) (First Order); Exec. Order No. 13868, 84 Fed. Reg. 15495 (Apr. 10, 2019) (Second Order).

³³ See Exec. Order No. 13867, 84 Fed. Reg. 15491 (Apr. 10, 2019).

³⁴ *Ibid* at 15491-15492.

³⁵ *Ibid* at 15492.

³⁶ See Exec. Order No. 13868, 84 Fed. Reg. 15495 (Apr. 10, 2019).

³⁷ See *ibid* at 15495-15497.

³⁸ *Ibid* at 15496.

Second Order requires the Administrator of the U.S. Environmental Protection Agency (EPA) to consult with the States, tribes, and relevant agencies in reviewing the current regulatory framework; issue new guidance and rules, as appropriate; and then coordinate an interagency review to update other Federal agencies' guidance and regulations for consistency with EPA's changes.³⁹ The Second Order also directs the U.S. Department of Transportation to initiate two rulemakings: (1) to tailor its safety regulations for LNG facilities, to account for differences in the size and nature of different types of such facilities; and (2) to "treat LNG the same as other cryogenic liquids and permit LNG to be transported in approved rail tank cars."⁴⁰

Finally, the Second Order directs the U.S. Secretary of Transportation, in consultation with the U.S. Secretary of Energy, to submit a report to the President within 180 days assessing whether, and to what extent, State, local, tribal, or territorial actions have contributed to "the inability to transport sufficient quantities of natural gas and other domestic energy resources" the States in New England (and potentially other States).⁴¹ The Second Order also requires that a similar report be submitted to the President, on the same timeline, concerning "economic and other effects caused by limitations on the export of coal, oil, natural gas, and other domestic energy resources through the west coast of the United States."⁴²

(E) FERC Notices of Inquiry on Transmission Incentives & ROE

In March 2019, FERC commenced two separate proceedings in interrelated policy areas that directly affect the financial returns from investments in electric transmission infrastructure. The first proceeding is an inquiry into FERC's policy on the transmission incentives (Incentives Inquiry).⁴³ The second proceeding is an inquiry into FERC's policy for determining the return on equity (ROE)

for public utilities (ROE Inquiry).⁴⁴ FERC's motivation for these proceedings appears to be a desire to ensure that its transmission investment-related policies are attracting sufficient investment to build the more advanced and reliable power grid needed to support the increased market penetration of intermittent and distributed energy resources.

The Incentives Inquiry involves an examination of the transmission incentives that FERC grants pursuant to Section 219 of the *Federal Power Act (FPA)*. That statutory provision, which Congress included as part of the *Energy Policy Act* of 2005, directs FERC to develop incentive-based rate treatments for interstate electric transmission assets.⁴⁵ It has been six years since FERC's most recent policy statement in this area.⁴⁶ Based on the nature of the questions on which FERC is now seeking stakeholder input, it appears that the Incentives Inquiry represents a comprehensive review of FERC's transmission incentives policy, signaling a potential willingness to overhaul fundamentally its approach to satisfying its statutory obligations under *FPA* Section 219.

Among other things, FERC has requested public comment on the following questions: (1) whether incentives should be based on the "risks and challenges" associated with a transmission project, or instead based on the project's benefits; (2) whether and how FERC should treat advanced transmission technology; (3) whether cybersecurity and physical security of transmission facilities should be addressed by the incentives policy; (4) can transmission incentives be used to improve existing facilities; and (5) how does the transmission incentives policy relate to FERC's policy of opening up transmission development to competition.⁴⁷

Whereas the Incentives Inquiry reopens a relatively new policy area in the field of utility regulation, the ROE Inquiry goes to one of the most foundational elements of public utility

³⁹ *Ibid.*

⁴⁰ *Ibid.* at 15496-15497.

⁴¹ *Ibid.* at 15497.

⁴² *Ibid.*

⁴³ *Inquiry Regarding the Commission's Electric Transmission Incentives Policy*, 166 FERC ¶ 61,208 (2019).

⁴⁴ *Inquiry Regarding the Commission's Policy for Determining the Return on Equity*, 166 FERC ¶ 61,207 (2019).

⁴⁵ 16 U.S.C. § 824s.

⁴⁶ *Promoting Transmission Investment Through Pricing Reform*, 141 FERC ¶ 61,129 (2012).

⁴⁷ *Inquiry Regarding the Commission's Electric Transmission Incentives Policy*, 166 FERC ¶ 61,208 at PP 14-48.

regulation, *i.e.* how to determine the just and reasonable ROE for a public utility under cost-of-service ratemaking. Since the 1970s, FERC's policy approach on that issue has been relatively straightforward: in general, FERC has relied solely on a discounted cash flow (DCF) model to estimate the range of reasonable returns for a public utility; FERC would then set the target utility's return somewhere within that range. However, over the past decade, that approach has repeatedly been called into question in FERC's public utility ROE proceedings. Those disputes culminated in 2016, when the D.C. Circuit vacated and remanded a FERC ROE order in *Emera Maine v FERC (Emera Maine)*.⁴⁸ In so doing, the D.C. Circuit called into question certain foundational principles of FERC's ROE policies. In response to the *Emera Maine* opinion and concerns raised in other ROE proceedings in recent years, FERC issued the ROE Inquiry to seek public comment on whether modifications to its public utility ROE policies are warranted.⁴⁹ FERC also inquired as to whether corresponding changes to its ROE policies for natural gas pipelines and oil pipelines are warranted.⁵⁰

The ROE Inquiry lists eight specific questions on which it seeks public comment, including: (1) how useful is the DCF model in estimating public utility cost of equity; (2) which financial model, or combination of financial models, FERC should use to estimate a public utility's cost of equity; (3) how should the ROE level be set relative to the cost of equity estimate produced by those financial models; (4) how does the FERC-approved ROE impact investment decision-making; and (5) how should FERC determine, as a legal matter, whether an existing ROE has become unjust and unreasonable under *FPA* Section 206.⁵¹

The comment deadline for both the Incentives Inquiry and the ROE Inquiry was June 26, 2019, with reply comments due by July 26, 2019. Dozens of entities filed comments seeking a broad range of reforms in both policy areas. It

is not clear how or when FERC will take further action, but it seems likely that FERC will pursue policy reforms given that the Commissioners have publicly expressed unanimous, bipartisan agreement on the importance of these inquiries.

(F) Transmission Planning

In the past two years, the call for reforms to FERC's Order No. 1000 transmission planning and cost allocation requirements has steadily increased. FERC-watchers across the electricity sector have been eagerly awaiting a sign of things to come, but FERC has thus far taken no action. There have however, been significant developments at the state level concerning transmission planning.

Readers may recall that, in Order No. 1000, FERC eliminated the *federal* right-of-first-refusal (ROFR) that allowed franchised public utilities the opportunity to develop any new transmission projects in their service territories. FERC's goal in removing the federal ROFR was to create competition for transmission projects, by allowing non-incumbent transmission developers to compete with incumbent public utilities. However, in removing the federal ROFR, FERC declined to expressly preempt states from passing *state* ROFR laws that effectively reinstate the protections previously granted by the federal ROFR.

Two states — Minnesota and Texas — have now passed such laws. Both of those laws have been challenged in court and the judicial proceedings are ongoing. The Minnesota law is being challenged on dormant Commerce Clause grounds. The law survived that challenge at the U.S. District Court level, but the District Court's opinion has been appealed to the U.S. Court of Appeals for the Eighth Circuit.⁵² The Texas state ROFR law was enacted in May 2019.⁵³ In June 2019, NextEra Energy Capital Holdings, Inc., et al. filed a complaint challenging the law in U.S. District Court for the Western District of Texas.⁵⁴

⁴⁸ *Emera Maine v FERC*, 854 F.3d 9 (D.C. Cir. 2016).

⁴⁹ *Inquiry Regarding the Commission's Policy for Determining the Return on Equity*, 166 FERC ¶ 61,207 at P 3.

⁵⁰ *Ibid* at 32.

⁵¹ *Ibid* at 28-38.

⁵² See *LSP Transmission Holdings, LLC v. Lange*, 329 F. Supp. 3d 695 (D. Minn. 2018), *appeal pending*.

⁵³ See Tex. Util. Code §§ 37.051, 37.056, 37.057, 37.151, 37.154.

⁵⁴ See *NextEra Energy Capital Holdings, Inc. v Paxton, Complaint for Declaratory and Injunctive Relief*, Civil No. 1:19-cv-00626 (W.D. Tex.) (filed 17 June 2019).

Although it remains to be seen how these state ROFR cases will play out, their resolution has the potential to significantly impact the degree to which transmission infrastructure in the United States will be developed through competitive solicitations versus state or local franchise rights.

II. OIL AND GAS PRODUCTION

(A) Offshore Leasing and Drilling

As of this writing, the ultimate effect of President Trump's April 2017 executive order titled "Implementing an America-First Offshore Energy Strategy"⁵⁵ (2017 EO) remains uncertain. Section 5 of the 2017 EO explicitly changes the language of a 2015 and two 2016 Obama Administration memoranda to limit the withdrawal of leasing to "those areas of the Outer Continental Shelf designated as of July 14, 2008, as Marine Sanctuaries under the Marine Protection, Research, and Sanctuaries Act of 1972."⁵⁶ Previously, those memoranda together had withdrawn from future consideration for leasing the following planning areas: the Chukchi Sea Planning Area, the Beaufort Sea Planning Area, and certain parts of the North Atlantic and Mid-Atlantic Planning Areas (collectively, the Obama-era withdrawal area).⁵⁷

In January 2018, the U.S. Department of Interior (DOI) responded to the 2017 EO by releasing its Draft Proposed Program (DPP) to replace the Obama Administration's 2017–2022 National OCS Oil and Gas Leasing Program (2017–2022 OCS Program) for oil and gas development in the U.S. Outer Continental Shelf. Under the DPP, all of the Obama-era withdrawal area would be open to leasing with the ultimate effect of expanding offshore leasing in U.S. waters from six per cent of U.S. offshore waters to approximately 90 per cent.⁵⁸

In April 2019, the DOI temporarily paused further development of the DPP following a ruling by the U.S. District Court of Alaska invalidating provisions of the 2017 EO because the DOI believes that the ruling could likely lead to prolonged appeals process "that may be discombobulating" to the DOI's plans for block lease sales.⁵⁹ The DOI and the Trump administration have appealed the decision to the Ninth Circuit Court of Appeals with opening briefs due September 5, 2019. Because the DPP contemplates inclusion of areas under Obama era protections, the DOI is evaluating the appeal process and potential outcomes before attempting further progress on the DPP.⁶⁰ The DPP remains in the second of five regulatory steps needed for program approval under the *OCS Lands Act*⁶¹ and *NEPA*. Thus, the Obama-era 2017–2022 OCS Program remains effective.

⁵⁵ Exec. Order 13795, 82 Fed Reg 20,815 (28 April 2017).

⁵⁶ Exec. Order 13754, 81 Fed. Reg. 90669, § 5 (Dec. 9, 2016); 16 U.S.C. §§ 1431–1434, 33 U.S.C. §§ 1401 et seq.

⁵⁷ Memorandum on Withdrawal of Certain Portions of the United States Arctic Outer Continental Shelf From Mineral Leasing, DCPD201600860 (Dec. 20, 2016), online: <<https://www.govinfo.gov/content/pkg/DCPD-201600860/pdf/DCPD-201600860.pdf>>; Memorandum on Withdrawal of Certain Areas off the Atlantic Coast on the Outer Continental Shelf From Mineral Leasing, DCPD201600861 (Dec. 20, 2016), online: <<https://www.govinfo.gov/content/pkg/DCPD-201600861/pdf/DCPD-201600861.pdf>>.

⁵⁸ 2019–2024 National OCS Oil and Gas Leasing Draft Proposed Program, Table 1, online: <<https://www.boem.gov/NP-Draft-Proposed-Program-2019-2024>>. See also U.S. Department of the Interior, Press Release, "Secretary Zinke Announces Plan for Unleashing America's Offshore Oil and Gas Potential" (4 January 2018), online: <<https://www.doi.gov/pressreleases/secretary-zinke-announces-plan-unleashing-americas-offshore-oil-and-gas-potential>>.

⁵⁹ *League of Conservation Voters v Trump*, 303 F.Supp.3d 985 (D. Alaska 2018). The ruling invalidated Section 5 of the EO, which states: Sec. 5. Modification of the Withdrawal of Areas of the Outer Continental Shelf from Leasing Disposition. The body text in each of the memoranda of withdrawal from disposition by leasing of the United States Outer Continental Shelf issued on December 20, 2016, January 27, 2015, and July 14, 2008, is modified to read, in its entirety, as follows: "Under the authority vested in me as President of the United States, including section 12(a) of the Outer Continental Shelf Lands Act, 43 U.S.C. 1341(a), I hereby withdraw from disposition by leasing, for a time period without specific expiration, those areas of the Outer Continental Shelf designated as of July 14, 2008, as Marine Sanctuaries under the Marine Protection, Research, and Sanctuaries Act of 1972, 16 U.S.C. 1431-1434, 33 U.S.C. 1401 et seq." Nothing in the withdrawal under this section affects any rights under existing leases in the affected areas. Exec. Order 13795, 82 FR 20815. See also Tom DiChristopher, "Trump is shelving plans to open virtually all federal waters to offshore drilling," *CNBC* (25 Apr. 2019), online: <<https://www.cbc.com/2019/04/25/trump-admin-shelves-vast-expansion-of-offshore-drilling.html>>.

⁶⁰ Brian Scheid, "US offshore oil and gas plan on pause, potentially for years", *S&P Global* (23 May 2019), online: <<https://www.spglobal.com/platts/en/market-insights/latest-news/oil/052319-us-offshore-oil-and-gas-plan-on-pause-potentially-for-years>>.

⁶¹ *Outer Continental Shelf Act*, 43 US §1344 et seq (1953).

Expansion of offshore drilling continues to face opposition from the majority of coastal states. In a DOI survey, 23 of the 32 coastal state governors and state agencies potentially affected by the DPP opposed it.⁶² Since April 2018, Oregon, New York, Maine, New Jersey, Delaware, Maryland, California and Florida have passed legislation limiting or prohibiting offshore drilling in their respective state-controlled waters; similar legislation is pending in Connecticut, New Hampshire and Massachusetts.

Further, the U.S. House of Representatives is contemplating opposition to any further offshore drilling through provisions in its draft spending bill.⁶³ Certain adopted and proposed amendments would prohibit DOI from appropriating any of its funding for offshore oil and gas leasing.⁶⁴ The Bill is currently out of the House Committee on Rules and has been directed for consideration on the House floor.⁶⁵

Although the DOI has insisted that a lease sale will take place in 2019 for leases in the Arctic National Wildlife Refuge (ANWR), such sales have also been targeted by proposed spending restrictions.⁶⁶ Drilling in the refuge, previously banned, was authorized as part of the December 2017 Trump Administration tax overhaul. As

part of the tax reform, Congress ordered the DOI to conduct two lease sales within the wildlife refuge, one within four years and the second within seven.⁶⁷ However, to date, no sales have taken place.⁶⁸

In May 2019, DOI's Bureau of Safety and Environmental Enforcement (BSEE)⁶⁹ finalized its effort to overhaul post-Deepwater Horizon safety regulations with its final Blowout Preventer Systems and Well Control regulations (Well Control Rule) release.⁷⁰ The new regulations took effect July 15, 2019 and generally regulate well control equipment, testing, inspection and reporting requirements, and oversight requirements.⁷¹

In June 2019, opposition to the new Well Control Rule ensued despite Secretary Bernhardt's characterization of the final Well Control Rule as "put[ting] safety first, both public and environmental safety, in a common sense way."⁷² Environmental groups filed suit against the BSEE in the U.S. District Court of the Northern District of California on June 11, 2019.⁷³ The plaintiffs claim the rule rollback violates due process given the BSEE's alleged failure to provide sufficient explanation concerning the rollback's safety effects.⁷⁴

⁶² Megan Geuss, "Trump proposed a massive expansion of offshore drilling—what can states do?", *Ars Technica* (6 January 2018), online: <<https://arstechnica.com/tech-policy/2018/01/trump-proposed-a-massive-expansion-of-offshore-drilling-what-can-states-do>>.

⁶³ H.R. 3055, 116th Cong (2019) (*Commerce, Justice, Science, and Related Agencies Appropriations Act*, 2020).

⁶⁴ Pacific Coast. H.R. Rep. No 116-119, at 23, para 176; Atlantic and Florida Gulf coasts. H.R. Rep. No 116-119, at 19-20, paras 128 & 132.

⁶⁵ H.R. 445, 116th Cong (2019), online: <<https://www.congress.gov/116/bills/hr445/BILLS-116hr445ih.pdf>>.

⁶⁶ Yereth Rosen, "U.S. vows first oil lease sale in Alaska Arctic refuge this year", *Reuters* (30 May 2019), online: <<https://www.reuters.com/article/us-alaska-oil-refuge/u-s-vows-first-oil-lease-sale-in-alaska-arctic-refuge-this-year-idUSKCN1T1011>>.

⁶⁷ Kristen Miller, "Interior spending bill holds Trump administration accountable for 2017 promises," *The Hill* (19 June 2019), online: <<https://thehill.com/blogs/congress-blog/energy-environment/449247-interior-spending-bill-holds-trump-administration>>.

⁶⁸ Yereth Rosen, "U.S. vows first oil lease sale in Alaska Arctic refuge this year," *Reuters* (30 May 2019), online: <<https://www.reuters.com/article/us-alaska-oil-refuge/u-s-vows-first-oil-lease-sale-in-alaska-arctic-refuge-this-year-idUSKCN1T1011>>.

⁶⁹ The BSEE was created following the *Deepwater Horizon* tragedy to separate regulatory responsibility from leasing responsibility, see online: <<https://www.bsee.gov/who-we-are/history>>. It is "the lead federal agency charged with improving safety and ensuring environmental protection related to the offshore energy industry on the OCS", see online: <<https://www.bsee.gov/who-we-are/about-us>>.

⁷⁰ U.S. Department of the Interior, Press Release, "BSEE Finalizes Improved Blowout Preventer and Well Control Regulations" (2 May 2019), online: <<https://www.doi.gov/pressreleases/bsee-finalizes-improved-blowout-preventer-and-well-control-regulations>>.

⁷¹ Final Rule, Oil and Gas Sulfur Operations in the Outer Continental Shelf-Blowout Preventer Systems and Well Control Revisions, 84 Fed. Reg. 21908 (15 May 2019).

⁷² U.S. Department of the Interior, Press Release, "BSEE Finalizes Improved Blowout Preventer and Well Control Regulations" (2 May 2019), online: <<https://www.doi.gov/pressreleases/bsee-finalizes-improved-blowout-preventer-and-well-control-regulations>>.

⁷³ Complaint, *Sierra Club v Scott Angelle*, Case No. 3:19-cv-03263.

⁷⁴ *Ibid* at 6-8.

(B) Fracking, Drilling, and Permitting**Federal Developments**

In June 2019, California filed a motion for summary judgment in its litigation challenging the U.S. Department of Interior Bureau of Land Management's (BLM) roll-back of Obama-era fracking regulations.⁷⁵ The Obama-era regulations⁷⁶ sought to regulate hydraulic fracturing (fracking) activities on federal and tribal lands out of concern for water contamination, well integrity and containment and recovery of hydraulic fluids, but never took effect due to a stay pursuant to a decision from the U.S. District Court for the District of Wyoming, and the subsequent BLM rollback at issue in the current litigation.⁷⁷ The summary judgment motion hearing is set for December 5, 2019 — any decision will likely be appealed to the Ninth Circuit.⁷⁸ California's challenge is not alone, as a coalition of environmental groups have filed a related suit challenging the BLM's roll-back with a pending summary judgment motion currently before the court.⁷⁹

In May 2019, the Tenth Circuit ruled the BLM violated *NEPA* in failing to consider the increased volume of water needed for horizontal wells and fracking operations in issuing drilling permits for new oil and gas wells in the Mancos Shale area of New Mexico (Mancos Shale).⁸⁰

At issue, the BLM had published a “reasonably foreseeable development scenario” (RFDS) in 2014 (2014 RFDS), which estimated that 3,960 new oil and gas wells (2014 RFDS Wells) could be drilled on federal lands in the Mancos Shale in the event of full-field development.⁸¹ The parties disagreed as to whether the possibility of the 2014 RFDS Wells, as represented in the RFDS, made it reasonably foreseeable that the 2014 RFDS Wells would be drilled, thus requiring a *NEPA* Environmental Analysis (EA) in consideration of the thousands of 2014 RFDS Wells for the mere hundreds⁸² of permits at issue. Finding the BLM had itself relied on RFDSs in its own past cumulative impact analyses to define the scope of “reasonably foreseeable” actions, the court ruled the 2014 RFDS made the drilling of the 2014 RFDS Wells “reasonably foreseeable,” thus requiring consideration under *NEPA* of the cumulative impacts thereof in the EAs the BLM conducted for the subsequent Mancos Shale well permit applications.⁸³

Only six of the permits at issue were addressed on the merits — of which the court remanded five to the district court with instructions to vacate the drilling permits and remand their respective EAs to the BLM for proper *NEPA* analysis.⁸⁴ The court affirmed the district court's ruling of validity for the other 300+ due to a “dramatic insufficiency of the record” which prevented the court from reviewing them on the merits.⁸⁵

⁷⁵ *State of California v Bureau of Land Management*, Case No. 18-cv-00521-HSG (N.D. Cal.); U.S. Bureau of Land Management, Press Release, “BLM Rescinds Rule on Hydraulic Fracturing” (28 December 2017), online: <<https://www.blm.gov/press-release/blm-rescinds-rule-hydraulic-fracturing>>.

⁷⁶ 43 C.F.R. § 3160 (2015).

⁷⁷ Order on Petitions for Review of Final Agency Action, *Wyoming v Jewell*, Case No 2:15-cv-00043-SWS, (ECF No 219) (D. Wyo.); Final Rule, 80 Fed. Reg. 16,128 (26 March 2015); Chris Mooney, “To round out a year of rollbacks, the Trump administration just repealed key regulations on fracking”, *The Washington Post* (29 December 2017), online: <https://www.washingtonpost.com/news/energy-environment/wp/2017/12/29/to-round-out-a-year-of-rollbacks-the-trump-administration-just-repealed-key-regulations-on-fracking/?utm_term=.68b9c9833e78>.

⁷⁸ Amended Scheduling Order, *State of California v Bureau of Land Management*, Case No. 18-cv-00521-HSG (ECF No. 113) (N.D. Cal.).

⁷⁹ *Sierra Club v Bernhardt*, Case No. 4:18-cv-00524-HSG (N.D. Ca.).

⁸⁰ *Diné Citizens Against Ruining Our Environment v. Zinke*, Case No. 18-2089 (7 May 2019) (10th Cir. 2019).

⁸¹ *Ibid* at 4-6.

⁸² The total number of wells at issue on appeal was unclear to the court for various reasons, however, the range is between 330 and 362. *Ibid* at 7 n.2.

⁸³ The court also rejected an Intervenor's argument that the cumulative effect of the 2014 RFDS wells need not be considered when “no operator [had] proposed to drill’ all the [2014 RFDS Wells]” (citing 40 C.F.R. § 1508.7 (“Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”)) *Ibid* at 39.

⁸⁴ The sixth permit at issue was upheld because it was issued before the BLM issued the 2014 RFDS, which served as the entire basis of the Appellant's argument. *Ibid* at 37, n 14.

⁸⁵ *Ibid* at 20.

State Developments

In May and June of 2019 we saw the latest statewide bans on fracking. The state of Washington enacted a permanent ban⁸⁶, and Oregon enacted a five-year moratorium effective as of June 17, 2019.⁸⁷ Vermont, New York and Maryland have bans in place; Washington and Oregon are the fourth and fifth states to enact a statewide fracking ban. Similar to Vermont's fracking ban however, the Oregon and Washington bans are mostly symbolic given the lack of oil and gas development in these states.⁸⁸ On the other hand, although Florida and New Mexico had partial support for statewide fracking bans, proposed bans in both states failed to pass in their latest legislative session.⁸⁹

In January 2019, New Jersey Governor Phil Murphy wrote a letter to the Delaware River Basin Commission (DRBC) pushing to renew

efforts to ban fracking in the Delaware River Basin (DRB).⁹⁰ The DRBC is comprised of Commissioners consisting of the governors of Delaware, New Jersey, Pennsylvania and New York, and a commander of the U.S. Army Corps of Engineers representing federal interests. The DRBC regulates the DRB territory spanning across the four states, and began contemplating a DRB fracking ban in 2017.⁹¹ However, Commissioner Murphy's latest renewed effort extends beyond a mere fracking ban — calling for prohibitions on the storage, treatment and disposal of waste from fracking operations and on exporting water from the watershed to abet drilling operations elsewhere.⁹² The proposed ban has significant ramifications for natural gas exploration in Pennsylvania, as the location of the Marcellus Shale formation there has led to significant fracking activity throughout the state — including the state's northeastern counties abutting the Delaware River Basin.⁹³

⁸⁶ S.B. 5145, 66th Leg., Reg. Sess. (Wa. 2019), online: <<http://lawfilesexternal.wa.gov/biennium/2019-20/Pdf/Bills/Senate%20Passed%20Legislature/5145.PL.pdf>>.

⁸⁷ H.B. 2623, 80th Leg. Assemb., Reg. Sess. (Or. 2019), online: <<https://olis.leg.state.or.us/liz/2019R1/Measures/Overview/HB2623>>.

⁸⁸ U.S. EIA, *State Profile and Energy Estimates* (Washington, 2018), online: <<https://www.eia.gov/state/analysis.php?sid=WA>>; U.S. EIA, *State Profile and Energy Estimates* (Vermont, 2018), online: <<https://www.eia.gov/state/analysis.php?sid=VT>>; U.S. EIA, *State Profile and Energy Estimates* (Oregon, 2018), online: <<https://www.eia.gov/state/analysis.php?sid=OR>>; U.S. EIA, *State Profile and Energy Estimates* (New York, 2019), online: <<https://www.eia.gov/state/analysis.php?sid=NY>> (at its peak in 2006, New York produced nearly 56 billion cubic feet of natural gas); U.S. EIA, *State Profile and Energy Estimates* (Maryland, 2018), online: <<https://www.eia.gov/state/analysis.php?sid=MD>> (in 2018, Maryland produced less than 50 million cubic feet).

⁸⁹ S.B. 7064 died in Environment and Natural Resources Comm. of Florida Senate, online: <<https://www.flsenate.gov/Session/Bill/2019/7064/ByCategory/?Tab=BillHistory>>; S.B. 459 was indefinitely postponed by the New Mexico Legislature, online: <<https://www.nmlegis.gov/Legislation/Legislation?chamber=S&legtype=B&legno=459&year=19>>.

⁹⁰ Tom Johnson, "New Jersey governor: Ban fracking, all related activities in Delaware River Basin", NPR StateImpact (31 January 2019), online: <<https://stateimpact.npr.org/pennsylvania/2019/01/31/new-jersey-governor-phil-murphy-fracking-ban-delaware-river-basin>>. New Jersey does not currently regulate fracking in its own territory, as there are no economically viable oil & gas reserves in the state. Its concern lies in the fracking of neighboring states in the Marcellus Shale portions of the DRB, which is a source of drinking water for New Jersey. See also U.S. EIA, *State Profile and Energy Estimates* (New Jersey, 2018), online: <<https://www.eia.gov/state/analysis.php?sid=NJ>>.

⁹¹ The member states entered into the Delaware River Basin Compact in 1961 — giving the DRBC authority to regulate activities related to the DRB in all four member states. See 53 Del. Laws, Chapter 71 (1961); 1961 N.Y. Laws, Chapter 148, Article 6; 1961 N. J. Laws, Chapter 13; 1961 Pa. Laws, Act No. 268.

⁹² Tom Johnson, "New Jersey governor: Ban fracking, all related activities in Delaware River Basin", NPR StateImpact (31 January 2019), online: <<https://stateimpact.npr.org/pennsylvania/2019/01/31/new-jersey-governor-phil-murphy-fracking-ban-delaware-river-basin>>.

⁹³ Jon Hurdle, "Fracking ban proposed for Delaware River basin; 'significant risks' cited", NPR StateImpact (30 November 2017), online: <<https://stateimpact.npr.org/pennsylvania/2017/11/30/fracking-ban-proposed-for-delaware-river-basin-significant-risks-cited>>.

The amount of the Marcellus Shale formation potentially impacted by such a ban in the DRB is relatively small at approximately 5.4%. "Explore Shale," *Penn State Public Broadcasting* (August 2014), online: <<http://exploreshale.org>> (the size of the Marcellus Shale is approximately 90,000 sq. mi.); "About DRBC: Frequently Asked Questions", *Delaware River Basin Comm'n* (3 March 2019), online: <<https://www.nj.gov/drbc/about/faq>> (the DRB is approximately 13,500 sq. mi.); "Programs: Natural Gas Drilling Index Page", *Delaware River Basin Comm'n* (3 July 2018), online: <<https://www.state.nj.us/drbc/programs/natural>> (the Marcellus Shale formation underlies about 36 percent of the Delaware River Basin).

Pennsylvania Governor Tom Wolf and Delaware Governor John Carney also support a full ban on hydraulic fracturing in the watershed, as well as a ban on any water transfers associated with drilling operation.⁹⁴ Each Commissioner has one vote of equal power, with a majority vote needed to decide most issues.⁹⁵ With support for a full ban from three of the five members, a final vote on the issue may be drawing near, though no definitive timeline has been set by the DRBC.⁹⁶ Given the amount of oil and gas production in Pennsylvania, Governor Wolf's stance is of concern to the industry. However, he appears to limit his support of a fracking ban to the DRB, and the Pennsylvania portion of the DRB is not an area where substantial fracking takes place or would be likely to take place in the future.⁹⁷

While some states have enacted bans at the state level of government, others have opposed the practice at the county level. As of December 2018, six California counties — Monterey, San Benito, Santa Cruz, Mendocino, Alameda and Butte — have banned fracking.⁹⁸ Unlike the other five

counties in California with fracking bans, Monterey County has a significant oil and gas industry.⁹⁹ Its passage by ballot initiative drew national attention and heavy opposition from the oil and gas industry. The ban currently remains in place, however, there is an ongoing appeal challenging the fracking ban in the county.¹⁰⁰ Similar to Monterey County, San Luis Obispo County has significant oil and gas operations.¹⁰¹ However, unlike Monterey County, the voters of San Luis Obispo rejected a proposal to ban fracking in the county in November 2018.¹⁰²

In January 2019, California elected Governor Gavin Newsom. He made his stance against the oil and gas industry clear in his refusal to take its offered campaign donations and his support of a statewide fracking ban.¹⁰³ However, at this point, he has not released any concrete plans to do so, and the State of California is not a party in any of the ongoing county-ban litigation. The use of fracking to stimulate production has been practiced in California for over 30 years, without causing any reported damage to the environment.¹⁰⁴

⁹⁴ Kyle Bagentose, "Gov. Wolf says he supports full fracking ban in Delaware River basin", *The Intelligence*, online: <<https://www.theintell.com/news/20190516/gov-wolf-says-he-supports-full-fracking-ban-in-delaware-river-basin>>.

⁹⁵ "About DRBC: Frequently Asked Questions," *Delaware River Basin Comm'n* (3 March 2019), online: <<https://www.nj.gov/drbc/about/faq>>.

⁹⁶ Joe Hernandez, "Environmentalists call for full fracking ban in the Delaware River watershed", *NPR StateImpact* (13 June 2019), online: <<https://stateimpact.npr.org/pennsylvania/2019/06/13/environmentalists-call-for-full-fracking-ban-in-the-delaware-river-watershed>>. Notably, rules adopted by the DRBC need only be published in each state's register — there is no ratification requirement for the state's respective legislatures. See generally: 53 Del. Laws, Chapter 71 (1961); 1961 N.Y. Laws, Chapter 148, Article 6; 1961 N. J. Laws, Chapter 13; 1961 Pa. Laws, Act No 268.

⁹⁷ "The closest thing to a ban on fracking was Wolf's decision to join New York and Delaware, under the Delaware River Basin Commission, to ban the drilling practice in the river valley that only comprises part of southeastern Pennsylvania, where the bulk of fracking activity does not, and likely would not, occur. New York has banned fracking in the entire state, with Maryland later following suit. Wolf has also placed a moratorium on issuing leases to energy companies across its state parks, but his administration is very careful to explain that a moratorium is not a ban." See John Siciliano, "Wolf staves off green howling to dominate race in fracking state", *Washington Examiner* (4 November 2018), online: <<https://www.washingtonexaminer.com/policy/energy/tom-wolf-staves-off-green-howling-to-dominate-race-in-fracking-state>>.

⁹⁸ Peter Arcuni, "Measure G: San Luis Obispo Voters Reject a Ban on Fracking and New Oil Drilling", *KQED Science* (6 November 2018), online: <<https://www.kqed.org/science/1933923/measure-g-san-luis-obispo-green-groups-push-for-ban-on-new-drilling>> [Arcuni].

⁹⁹ Claudia Melendez Salinas, "Big Oil sues Monterey County to stop Measure Z", *The Mercury News* (16 December 2016), online: <<http://www.mercurynews.com/2016/12/16/big-oil-sues-monterey-county-to-stop-measure-z>>.

¹⁰⁰ Docket (Register of Actions), Case No. H045791, online: <https://appellatecases.courtinfo.ca.gov/search/case/mainCaseScreen.cfm?dist=6&doc_id=2250893&doc_no=H045791&request_token=NilwLSIkTkW5W1BJSNCnUEhJUFQ7UCxbjyNOWzNTICAgCg%3D%3D>.

¹⁰¹ David Middlecamp, "Black gold: SLO Country oil production was a 'boom-or-bust industry' even in the 1980s", *The Tribune* (12 Oct. 2018), online: <<https://www.sanluisobispo.com/news/local/news-columns-blogs/photos-from-the-vault/article219825615.html>> (in 2017, San Luis Obispo County produced 604,308 barrels of oil from 493 wells, according to Don Drysdale with the California Department of Conservation).

¹⁰² Arcuni, *supra* note 99.

¹⁰³ Bill Whalen, "Earth (Day) To Governor Newsom: Why Didn't You Ban Fracking?", *Hoover Institution* (25 Apr. 2019), online: <<https://www.hoover.org/research/earth-day-governor-newsom-why-didnt-you-ban-fracking>>.

¹⁰⁴ California Department of Conservation, *Hydraulic Fracturing in California*, online: <https://www.conservation.ca.gov/dog/general_information/Pages/HydraulicFracturing.aspx>.

However, it only recently started regulating the practice in September 2013.¹⁰⁵

Fracking related tort litigation continues to find its way into courtrooms in producing states. While the alleged induced seismicity (earthquakes) at the center of such lawsuits is generally associated with injection wells, the mass increase of produced wastewater associated with fracked wells is seen as a possible contributing factor.¹⁰⁶ There were seven lawsuits filed against energy exploration companies in 2018 concerning induced seismicity — the same number filed in 2017.¹⁰⁷ Of the 2018 reported lawsuits, four were filed in Oklahoma, two in Ohio, and one in Texas and West Virginia. Four of the claims filed in 2018 are still pending before courts in Oklahoma and Texas while two others settled for undisclosed amounts and one other (an insurer's claim) was dismissed because its insured had already filed a lawsuit essentially mirroring the same allegations.¹⁰⁸ The state of Oklahoma currently regulates the speed and volume of wastewater disposal due to induced seismicity concerns.¹⁰⁹ Kansas developed similar temporary regulations in an attempt to curb and

study the regulatory effects on the increasing number of earthquakes it observed, and found a decrease in seismic activity thereafter.¹¹⁰ In the context of a dramatic increase of seismic activity in the Permian Basin, similar regulatory discussions in Texas surfaced in the fall of 2018.¹¹¹ While there have been no recent developments on this issue at the Texas Railroad Commission, the topic is notable in that any increased regulatory restrictions on the Texas oil and gas industry would be of substantial import given the state's status as one of the largest producing territories in the world.¹¹²

In April 2019, Colorado Governor Jared Polis signed Senate Bill 19-181, drastically altering the oil and gas regulatory framework in the state and makes three important changes to prior law: it (1) increases local government control; (2) elevates health and safety considerations in permitting decisions; and (3) alters pooling, drilling, and permitting requirements.¹¹³ This new language clarifies that local governments have powers to regulate siting, land and surface impacts, and all nuisance-type issues related to the industry, and arguably now permits local

¹⁰⁵ S.B. 4 Oil and Gas: Well Stimulation, (California, 2013-2014), online: <https://leginfo.legislature.ca.gov/faces/billVersionsCompareClient.xhtml?bill_id=201320140SB4>.

¹⁰⁶ "Induced Earthquakes Myths and Misconceptions", *United States Geological Survey*, online: <<https://earthquake.usgs.gov/research/induced/myths.php>>.

¹⁰⁷ Four of the 2017 cases are still pending in court: *Pawnee Nation of Oklahoma v Eagle Road Oil LLC*, Case No. 4:18-cv-00263 (N.D. Okla.), *Bryant v Eagle Road Oil LLC*, Case No. CJ-17-18 (Okla. Dist. Ct., Pawnee Cty. Ct.), *Griggs v New Dominion LLC*, Case No. 5:17-cv-00942 (W.D. Okla.), and *Berlanga v Barnett Gathering LLC*, Case No. DC-17-10197 (Tex. Dist. Ct., Dallas Cty.).

¹⁰⁸ The four pending 2018 claims include: (1) toxic chemical exposure from natural gas development; (2) waste-water injection has induced earthquakes that have caused damage; (3) damages for individuals affected by a 5.8 magnitude earthquake allegedly caused by the operation of wastewater disposal wells; and (4) damages for permanent nerve damage after a 5.8 magnitude earthquake allegedly caused the plaintiff to fall down a set of stairs.

¹⁰⁹ 35 Ok. Reg. 973 (25 June 2019), online: <<http://okrules.elaws.us/oac/165:10-3-17>>; Ryan Collins & David Wethe, "Earthquakes in Heart of Texas Oil Country Spur Water Crackdown", *Bloomberg* (5 December 2018), online: <<https://www.bloomberg.com/news/articles/2018-12-05/earthquakes-in-heart-of-texas-oil-country-spur-water-crackdown>>.

¹¹⁰ "In the two years since the Kansas Corporation Commission (KCC) issued its first order limiting saltwater injections in parts of the state, seismic activity has dropped from 1,967 earthquakes March 2015 through August 2015, to 668 earthquakes September 2016 through February 2017, a reduction of 66%. Kansas Corporation Staff filed these findings in a report published in March 2017." See "Induced Seismicity", *Kansas Corporation Comm'n*, online: <<http://www.kcc.state.ks.us/oil-gas/induced-seismicity>>.

¹¹¹ For example, see: Ryan Collins & David Wethe, "Earthquakes in Heart of Texas Oil Country Spur Water Crackdown", *Bloomberg* (5 December 2018), online: <<https://www.bloomberg.com/news/articles/2018-12-05/earthquakes-in-heart-of-texas-oil-country-spur-water-crackdown>> ("[t]he Texas Oil & Gas Association continues to be supportive of research and actions that are rooted in sound methodology, which is essential to understanding natural and induced seismicity and to inform science-based policy," Todd Staples, Texas Oil & Gas Association).

¹¹² Texas has addressed the issue of induced seismicity in various ways. In a statement on the Texas Railroad Commission (TRC) website concerning the relationship between disposal wells and earthquakes, the Commission stated that it had hired a seismologist to strengthen the Commission's ability to understand and evaluate new research, as well as to coordinate the exchanging of information with the research community regarding seismic activity that may be related to oil and gas activities. Railroad Commission of Texas, Injection and Disposal Wells, online: <https://www.rrc.texas.gov/about-us/resource-center/faqs/oil-gas/faqs/faq-injection-and-disposal-wells/#collapse-54177>.

¹¹³ COLO. REV. STAT. §29-20-104 (2019).

governments to regulate, or ban altogether, fracking within their jurisdictions. Notably, the bill also modified the *Oil and Gas Conservation Act* to now require that the Colorado Oil and Gas Conservation Commission (COGCC) “[r]egulate the development and production of the natural resources of oil and gas...in a manner that protects public health, safety, and welfare.”¹¹⁴ Previously, the Act simply provided that the legislature “declared [it] to be in the public interest to foster the responsible, balanced development and production of the natural resources of oil and gas...in a manner consistent with protection of public health, safety, and welfare.”¹¹⁵ This revision seems to prevent the COGCC from recognizing that the public’s interest is met by “foster[ing] the responsible, balanced development...of oil and gas,” to instead declaring that the public’s interest is met by requiring the Commission to actively “regulate” this development, arguably providing greater regulatory power to the COGCC.¹¹⁶ Amongst various other changes, the bill also alters the makeup of the COGCC by reducing the number of “oil and gas industry” members required to be on the Commission.¹¹⁷

In January 2018, the Colorado House introduced a bill which, if passed, would have mandated that mineral interest owners (and/or other affected parties) be paid “for the value of the mineral interest” lost and for any expenses or damages resulting from a local government’s decision to outlaw hydraulic fracturing or “enact[] a moratorium on oil and gas activities.”¹¹⁸ However, the bill failed.

III. REGULATORY SUBSIDIZATION OF NUCLEAR AND COAL FACILITIES

State and federal efforts to subsidize nuclear and coal facilities continue apace. Several states

have continued the trend of subsidizing nuclear facilities for their zero-air-emissions attributes, while others have sought to preserve or support local coal-fired facilities and the jobs they create. Still others, along with the federal government, have sought to improve grid resilience or energy security by supporting generation sources that can store long-term fuel supplies on-site.

Selective non-renewable support programs came to the fore in 2016 when states like New York and Illinois moved to provide payments to nuclear generators that were otherwise at risk of shutdown due to low electricity prices in wholesale power markets, particularly when loss of the facilities would jeopardize state-level greenhouse-gas emission or climate policies, air quality targets, or other environment goals. Such programs typically function through the use of zero emission credits or certificates ZECs created for each megawatt-hour of power generated by nuclear facilities, and, in some cases, certain renewables. The movement toward supporting nuclear or coal generators without an express tie to environmental attributes is newer, and has found a strong backing from the Trump Administration. Despite few federal successes, expansions have occurred at on the state level.

(A) State Developments

The U.S. Court of Appeals for the Second Circuit, in a September 27, 2018 decision, determined that New York’s ZEC program passed constitutional muster.¹¹⁹ The court contrasted New York’s program — which initially bases ZEC prices on the social cost of carbon, subject to modification in subsequent years based on forecasts of wholesale energy prices — with the contract-for-differences scheme litigated in *Hughes v Talen Energy Marketing LLC (Hughes)*.¹²⁰ The court observed

¹¹⁴ COLO. REV. STAT. §34-60-102 (2019).

¹¹⁵ COLO. REV. STAT. §34-60-102(1)(a)(I) (amended 2019).

¹¹⁶ *Ibid.*; COLO. REV. STAT. §34-60-102 (2019); Melissa J. Lyon & James M. Tartaglia, “Colorado Senate Bill 181 Signed by Governor Polis” (17 April 2019) *The Nat’l L Rev.*, online: <<https://www.natlawreview.com/article/colorado-senate-bill-181-signed-governor-polis>>.

¹¹⁷ COLO. REV. STAT. §34-60-104(2)(a)(I) (2019).

¹¹⁸ COLO. House Bill 18-1150 (introduced 2018) to amend COLO. REV. STAT. §29-20-204.5 online: <<https://leg.colorado.gov/bills/hb18-1150>; <https://leg.colorado.gov/bills/sb18-192>; https://leg.colorado.gov/sites/default/files/documents/2018A/bills/2018a_1150_01.pdf>.

¹¹⁹ *Coal. for Competitive Energy v Zibelman*, 906 F.3d 41 (2d Cir. 2018).

¹²⁰ *Ibid.* at 51 (there is no support for Plaintiffs’ contention that the “subsidy varies in almost exactly the same manner” as in *Hughes (Hughes v Talen Energy Marketing LLC, U.S. 36 S. Ct. 1288 (2016))*).

that New York's program, unlike that in Hughes, did not require a ZEC recipient to participate in wholesale markets subject to FERC's Federal Power Act jurisdiction.¹²¹ And it found that any downward effects on capacity prices in federally regulated wholesale markets that result when ZEC-supported nuclear facilities continue to sell capacity (rather than shut down) are incidental and do not trigger concerns about federal preemption.¹²² Plaintiffs' claims of conflict preemption were similarly unavailing for failure to identify "clear damage" to federal goals from the program in light of the dual federal-state regulatory system set forth in the *FPA*,¹²³ which is designed to permit state oversight of matters like electric generation. The court closed by finding that plaintiffs lacked the standing necessary to raise their Dormant Commerce Clause claims.¹²⁴ The U.S. Supreme Court denied a later petition for certiorari in April 2019.¹²⁵

Illinois' program of ZECs likewise withstood scrutiny by the U.S. Court of Appeals for the Seventh Circuit in a September 13, 2018 decision.¹²⁶ The Seventh Circuit contrasted Illinois' program — which requires that nuclear facilities generate electricity, but does not dictate how plant output is sold — with the impermissible subsidy in *Hughes*, which required the recipient to bid into an interstate capacity auction at a price that would have caused the

facility to clear the auction and therefore sell in the market.¹²⁷ The court also rejected plaintiffs' arguments regarding alleged violations of the Dormant Commerce Clause, stating that the absence of overt harm to interstate commerce from the ZEC program, combined with the Federal Power Act's express provision for state regulation of generation "defeats any constitutional challenge..."¹²⁸ The Seventh Circuit elicited FERC's views in the course of briefing; the agency explained that it viewed Illinois' program as not interfering with FERC's jurisdiction under the Federal Power Act.¹²⁹ The U.S. Supreme declined to grant *certiorari* to plaintiffs in this case as well.¹³⁰

New Jersey enacted legislation in May 2018 that identified nuclear power as "a critical component of the State's clean energy portfolio..."¹³¹, and observed that multiple nuclear facilities risked closure for economic reasons.¹³² The legislation established a "zero emission certificate" program, to be overseen by the state's Board of Public Utilities (BPU). The law caps the number of ZECs at the equivalent of 40 per cent of the total number of megawatt-hours distributed by electric public utilities in the state in 2017.¹³³ State-regulated electric public utilities must purchase their *pro-rata* share of ZECs¹³⁴, with all costs recovered through a non-bypassable charge added to retail rates.¹³⁵ In an April 18, 2019 order, the BPU determined

¹²¹ *Ibid* at 52.

¹²² *Ibid* at 53 (citing *Nw. Cent. Pipeline Corp. v State Corp. Comm'n of Kan.*, 489 U.S. 493 (1989)).

¹²³ *Ibid* at 57.

¹²⁴ *Ibid* at 58 ("[b]ecause Plaintiffs' asserted injuries are not traceable to the alleged discrimination against out-of-state entities, but (rather) arises from their production of energy using fuels that New York disfavors, they lack Article III standing to challenge the ZEC program.")

¹²⁵ *Elec. Power Supply Ass'n v Rhodes*, 139 S.Ct. 1547 (Mem) (2019) [*Elec. Power Mem*].

¹²⁶ *Elec. Power Supply Ass'n v Star*, 904 F.3d 518 (7th Cir. 2018).

¹²⁷ *Ibid* at 524 (citing *Hughes* at 1299).

¹²⁸ *Ibid* at 524-25 (citing 16 U.S.C. § 824(b)(1), which states, in pertinent part, "[t]he Commission shall...not have jurisdiction, except as specifically provided in this subchapter and subchapter III of this chapter, over facilities used for the generation of electric energy.")

¹²⁹ *Ibid* at 522.

¹³⁰ *Elec. Power Mem*, *supra* note 126.

¹³¹ 2018 N.J. Laws Ch. 16 (SENATE 2313) § 1 a.(7).

¹³² *Ibid* § 1 a.(8). The law nonetheless excludes any power plants not licensed beyond 2029, which prevents Oyster Creek Nuclear Generating Station from receiving certificates. Oyster Creek permanently shut down three months after the legislation was passed pursuant to an administrative consent order between plant owner Exelon Generation Company, LLC and the New Jersey Department of Environmental Protection.

¹³³ *Ibid* § 3.g.(1). This target comports with the finding at § 1.a.(7) that nuclear power provided approximately 40 percent of New Jersey's electric power needs.

¹³⁴ *Ibid* § 3.i.(2).

¹³⁵ *Ibid* § 3.j.(1).

that all three remaining nuclear units in New Jersey — PSEG Salem Generating Station Units 1 and 2 (approximately 2,300 megawatts (MW), combined) and PSEG Hope Creek Station (approximately 1,200 MW) — would be eligible for the ZEC program, despite the BPU staff's finding that none of the units were at financial risk of shutdown.¹³⁶ The BPU overrode its staff and determined that it was statutorily bound to include operational and market risks in its decision-making process, which tipped the balance in favour of the generators' eligibility.¹³⁷

Connecticut conducted a Zero Carbon Solicitation and Procurement in 2018. The solicitation was issued in part pursuant to Public Act 17-3, in which state agencies evaluated the current and projected economic condition of nuclear generating facilities within the footprint of ISO New England Inc., and the potential impacts from the retirement of such facilities on matters including energy markets and reliability, greenhouse gas emission mandates, and the economy of the state and region.¹³⁸ As a result of this and prior evaluations, Connecticut authorities found that the 2,100 MW Millstone Power Station, Connecticut's only operating nuclear installation, was at risk of retirement after June 1, 2023.¹³⁹

The Connecticut Department of Energy and Environmental Protection announced the winning bidders in December 2018¹⁴⁰, which will enter into long-term contracts with state-regulated electric distribution utilities.

Millstone received the lion's share: for the first ten years of the program, it will account for approximately 77 per cent of the annual megawatt-hours procured.¹⁴¹ The next-largest share was claimed by NextEra Energy-owned and nuclear-fueled Seabrook Station (located near Portsmouth, New Hampshire), which received approximately 16 per cent of the program's average annual energy allotment for a period of eight years.¹⁴² The remaining 7 per cent was awarded to several wind, solar, and solar-plus-storage projects, each of which received a 20-year contract.¹⁴³

Ohio passed legislation to support nuclear power, as well as selected coal-fired generators, on July 23, 2019. These subsidies, unlike the measures reviewed above, are not tied to environmental attributes.¹⁴⁴ The law establishes an annual \$150 million "nuclear generation fund"¹⁴⁵, financed through charges assessed to customers of the state's electric distribution utilities¹⁴⁶, and disbursed to nuclear power plants operators through a "nuclear resource credit" program based on megawatt-hours generated, with a price set initially at nine dollars per megawatt-hour.¹⁴⁷ To qualify for the subsidy, a plant's operator must maintain a principal place of business and a "substantial presence" in Ohio.¹⁴⁸ In substance, the program benefits Akron, Ohio-based FirstEnergy Solutions Corp. and First Energy Nuclear Operating Company, which are currently involved in bankruptcy proceedings and which own and operate, respectively, Ohio's two operating nuclear stations, 900 MW Davis Besse and 1,200 MW

¹³⁶ Order Determining the Eligibility of Hope Creek, Salem 1, and Salem 2 Nuclear Generators to Receive ZECs, Docket Nos. E018080899, *et al.* (Apr. 18, 2019), online: <<https://www.state.nj.us/bpu/pdf/boardorders/2019/20190418/4-18-19-9A.pdf>>.

¹³⁷ *Ibid* at 14-15.

¹³⁸ See Public Acts, Spec. Sess., June 2017, No. 17-3, §§ 1(b) & (c). The evaluation addresses facilities likely to face retirement prior to July 1, 2027.

¹³⁹ PURA Implementation of June Special Session Public Act 17-3, Interim Decision, Docket No. 18-05-04 (Dec. 5, 2018), online: <[http://www.dpuc.state.ct.us/dockcurr.nsf/8e6fc37a54110e3e852576190052b64d/7ccd55d05bce0d168525835a00699329/\\$FILE/180504-120518.pdf](http://www.dpuc.state.ct.us/dockcurr.nsf/8e6fc37a54110e3e852576190052b64d/7ccd55d05bce0d168525835a00699329/$FILE/180504-120518.pdf)>.

¹⁴⁰ RFP Pursuant to Section 1 of June Special Session Public Act 17-3, Notice of Final Determination (no date), online: <[http://www.dpuc.state.ct.us/DEEPenergy.nsf/c6c6d525f7cdd1168525797d0047c5bf/a928bd493eb81f668525841600679687/\\$FILE/Zero-Carbon-Final-Determination.pdf](http://www.dpuc.state.ct.us/DEEPenergy.nsf/c6c6d525f7cdd1168525797d0047c5bf/a928bd493eb81f668525841600679687/$FILE/Zero-Carbon-Final-Determination.pdf)>.

¹⁴¹ *Ibid* at 16-17. The Department of Energy and Environmental Protection noted that, if Millstone were to retire, achieving statutory greenhouse-gas emission reductions would be "virtually impossible."

¹⁴² *Ibid* at 18. Unlike Millstone, Seabrook did not apply to be deemed at risk of premature closure.

¹⁴³ *Ibid* at 16.

¹⁴⁴ See 2019 Ohio Laws File 12 (Am. Sub. H.B. 6), online: <<https://www.legislature.ohio.gov/legislation/legislation-documents?id=GA133-HB-6>>.

¹⁴⁵ *Ibid* § 1 (to be codified at Ohio Rev. Code § 3706.49).

¹⁴⁶ *Ibid* (to be codified at Ohio Rev. Code § 3706.46).

¹⁴⁷ *Ibid* (to be codified at Ohio Rev. Code § 3706.45).

¹⁴⁸ *Ibid* (to be codified at Ohio Rev. Code § 3706.43).

Perry. The legislation also includes provisions authorizing non-bypassable charges to customers of electric distribution utilities to fund cost recovery for certain “legacy generation resources” owned by the Ohio Valley Electric Corporation (OVEC).¹⁴⁹ The measure will become effective on October 22, 2019.¹⁵⁰

Wyoming, on March 8, 2019, approved Senate File 159¹⁵¹, which requires any jurisdictional public utility to make a good-faith effort to sell a coal-fired generator before it can be retired.¹⁵² It also binds the selling public utility to accept a reasonable offer for the facility, and to complete a sale of such facility unless reasons beyond the reasonable control of the utility prevent it from doing so.¹⁵³ In the absence of such an attempted sale process, the utility is barred from recovering any earnings on the capital costs for any replacement unit(s) in its rates.¹⁵⁴ State-jurisdictional electric public utilities are then obligated to purchase electricity generated by a coal-fired facility that has been sold and purchased under the process set forth in the measure.¹⁵⁵ The law entered into effect on July 1, 2019.

Pennsylvania’s General Assembly considered, but did not pass, measures to support the Commonwealth’s nuclear power plants in 2019. The measures proposed to include nuclear generation as a resource eligible for a new Tier III of Commonwealth’s currently two-tiered

Advanced Energy Portfolio Standard.¹⁵⁶ The measures would have imposed a corresponding credit-purchase requirement for the state’s electric distribution utilities and electric generation suppliers.¹⁵⁷ The proposals failed to make it out of committee in either the House or the Senate. Shortly after the measures failed, Exelon Corporation announced plans to close the remaining unit of the Three Mile Island nuclear generating station, located southeast of Pennsylvania’s capitol of Harrisburg, by September 30, 2019.¹⁵⁸ FirstEnergy Solutions Corp. had previously announced plans to retire its Beaver Valley Power Station, located in Shippingport, Pennsylvania.¹⁵⁹

The Montana legislature took up a bill to support the purchase (by an existing utility part-owner) and continued operation of a portion of the coal-fired Colstrip power plant in spring of 2019.¹⁶⁰ The measure would have: (1) allowed cost recovery for prudently incurred power plant and environmental remediation costs for the purchased capacity; (2) barred retirement of coal-fired generators in the state (not just at Colstrip) before the end of their depreciations lives, unless approved by the Montana Public Service Commission; and (3) provided for acquisition of, and cost recovery for, a key interconnected electric transmission facility. The measure passed the Montana Senate, but failed in the House.¹⁶¹

¹⁴⁹ *Ibid* (to be codified at Ohio Rev. Code § 4928.01). The language of the Act technically states that it applies to “all generating facilities owned directly or indirectly by a corporation that was formed prior to 1960 by investor-owned utilities for the original purpose of providing power to the federal government for use in the nation’s defense or in furtherance of national interests, including the Ohio valley electric corporation [*sic*].” In practice, this provision applies solely to OVEC.

¹⁵⁰ The Ohio Legislature, 133rd General Assembly, “House Bill 6, History”, accessed August 8, 2019, online: <<https://www.legislature.ohio.gov/legislation/legislation-status?id=GA133-HB-6>>.

¹⁵¹ 2019 Wyo. Sess. Laws Ch. 193 (S.F. 159), online: <<https://www.wyoleg.gov/Legislation/2019/SF0159>>.

¹⁵² *Ibid* §1 (to be codified at Wyo. Stat. § 37-3-116).

¹⁵³ *Ibid*.

¹⁵⁴ *Ibid*.

¹⁵⁵ *Ibid* (to be codified at Wyo. Stat. § 37-2-133).

¹⁵⁶ 2019 Pa. House Bill No. 11, § 1, online: <<https://www.legis.state.pa.us/CFDOCS/Legis/PN/Public/btCheck.cfm?txtType=PDF&sessYr=2019&sessInd=0&billBody=H&billTyp=B&billNbr=0011&pn=0864>>, and 2019 Pa. Senate Bill No. 510, § 1, online: <<https://www.legis.state.pa.us/CFDOCS/Legis/PN/Public/btCheck.cfm?txtType=PDF&sessYr=2019&sessInd=0&billBody=S&billTyp=B&billNbr=0510&pn=0578>>.

¹⁵⁷ 2019 Pa. House Bill No. 11, § 2, and 2019 Pa. Senate Bill No. 510, § 2.

¹⁵⁸ “Three Mile Island Unit 1 To Shut Down By September 30, 2019”, (8 May 2019), *Exelon Corporation* (blog), online: <<https://www.exeloncorp.com/newsroom/three-mile-island-unit-1-to-shut-down-by-september-30-2019>>.

¹⁵⁹ FirstEnergy Solutions, “FirstEnergy Solutions Files Deactivation Notice for Three Competitive Nuclear Generating Plants in Ohio and Pennsylvania”, (28 March 2018), online: <<https://www.fes.com/content/dam/fes/about/files/newsreleases/deactivation-release-final-letterhead.pdf>> [FirstEnergy Solutions].

¹⁶⁰ See 2019 Mont. Senate Bill No. 331, online: <<https://leg.mt.gov/bills/2019/billpdf/SB0331.pdf>>.

¹⁶¹ See Montana Legislature, “Detailed Bill Information, Bill No. S.B. 311”, accessed August 8, 2019, online: <[http://laws.leg.mt.gov/legprd/LAW0203W\\$BSRV.ActionQuery?P_SESS=20191&P_BLTP_BILL_TYP_CD=SB&P_BILL_NO=331&P_BILL_DFT_NO=&P_CHPT_NO=&Z_ACTION=Find&P_ENTY_ID_SEQ2=&P_SBJT_SBJ_CD=&P_ENTY_ID_SEQ=>](http://laws.leg.mt.gov/legprd/LAW0203W$BSRV.ActionQuery?P_SESS=20191&P_BLTP_BILL_TYP_CD=SB&P_BILL_NO=331&P_BILL_DFT_NO=&P_CHPT_NO=&Z_ACTION=Find&P_ENTY_ID_SEQ2=&P_SBJT_SBJ_CD=&P_ENTY_ID_SEQ=>)> (stating bill in “Died in Process” and is “Probably Dead”; the Montana Legislature adjourned *sine die* on April 25, 2019).

(B) Federal Developments

On the federal level, efforts to subsidize coal and nuclear power have largely been unsuccessful. Such efforts peaked in 2018 and have since declined in frequency and intensity.

In January 2018, FERC rejected a DOE proposal to promulgate so-called “grid resiliency” rules under the seldom-used Section 403 of the *Department of Energy Organization Act*.¹⁶² The DOE proposal stated that fuel-secure resources (defined as those facilities with 90 days or more of onsite fuel storage) were systematically undervalued in organized wholesale electric markets and, consequently, FERC must promptly act to promulgate market rules that would “fully value” the resiliency and reliability attributes of facilities with onsite fuel supplies.¹⁶³ FERC received and reviewed pleadings from hundreds of interested parties, including electric generators, mining companies, legislators, industrial energy users, state regulatory agencies, suppliers to the coal and nuclear industries, environmental groups, and others.

FERC determined that DOE’s proposal and the accompanying proceeding had failed to demonstrate that existing energy market tariffs were not just and reasonable, as required by *FPA* Section 206.¹⁶⁴ The proceeding, according to FERC, similarly failed to establish that the DOE proposal was itself just and reasonable, and not unduly discriminatory or preferential.¹⁶⁵ In reaching the latter conclusion, FERC observed that the 90-day onsite fuel requirement

appeared “to permit only certain resources to be eligible...excluding other resources that may have resilience attributes.”¹⁶⁶ In the same order, FERC initiated a new proceeding (in Docket No. AD18-7-000) to review the actions already taken by regional transmission organizations and independent system operators to improve the resilience of their respective systems. Multiple parties requested rehearing of FERC’s January 8, 2018 order; those requests remain pending. Meanwhile, FERC amassed a substantial record in Docket No. AD18-7-000 regarding RTO and ISO efforts to enhance resilience, but has not, to date, initiated any proceedings to impose new or modified requirements in response.

In a separate, but related, development, in March 2018, FirstEnergy Solutions Corp. requested that DOE issue an emergency order pursuant to Section 202(c) of the *Federal Power Act*, to require the PJM Interconnection, L.L.C. (PJM) to enter into contracts with at-risk nuclear and coal facilities and thereby “maintain stability of the electric grid”, compensating such resources for the “full benefits” they provide.¹⁶⁷ The request came one day after FirstEnergy Solutions Corp. announced plans to retire its three nuclear power plants.¹⁶⁸ The DOE has not, as of this writing, acted upon FirstEnergy Solutions Corp.’s request and appears unlikely to do so. The request was an unprecedented invocation of Section 202(c), which has historically been used for temporary, reliability-related requests to continue operating power plants slated to retire (particularly otherwise-operable facilities retiring for environmental reasons)¹⁶⁹, or to temporarily

¹⁶² See *Grid Reliability and Resilience Pricing*, 162 FERC ¶ 61,012 (2018). Section 403 of the Department of Energy Organization Act is codified at 42 U.S.C. § 7173 and allows the Secretary of Energy to submit rulemaking proposals for “final action” by FERC.

¹⁶³ See “Secretary of Energy’s Direction that the Federal Energy Regulatory Commission Issue Grid Resiliency Rules Pursuant to the Secretary’s Authority Under Section 403 of the Department of Energy Organization Act”, FERC Docket No. RM18-1-000, at 11 (Sept. 28, 2017), online: <<https://www.energy.gov/sites/prod/files/2017/09/f37/Secretary%20Rick%20Perry%27s%20Letter%20to%20the%20Federal%20Energy%20Regulatory%20Commission.pdf>>.

¹⁶⁴ *Grid Reliability and Resilience Pricing*, 162 FERC ¶ 61,012 at P 15 (2018) (“[w]hile some commenters allege grid resilience or reliability issues due to potential retirements of particular resources, we find that these assertions do not demonstrate the unjustness or unreasonableness of the existing RTO/ISO tariffs. In addition, the extensive comments submitted by the RTOs/ISOs do not point to any past or planned generator retirements that may be a threat to grid resilience.”)

¹⁶⁵ *Ibid* at P 16.

¹⁶⁶ *Ibid*.

¹⁶⁷ Request for Emergency Order Pursuant to *Federal Power Act Section 202(c)*, FirstEnergy Solutions Corp. (29 March 2018), online: <<https://statepowerproject.files.wordpress.com/2018/03/fes-202c-application.pdf>>.

¹⁶⁸ FirstEnergy Solutions, *supra* note 160.

¹⁶⁹ See *e.g.* Order No. 202-17-1 (Apr. 14, 2017) (granting a request from the Grand River Dam Authority to temporarily maintain operations at its Grand River Energy Center, Unit 1 for relief during low-load, high-voltage events while other units were unavailable; unit 1 was otherwise required to cease operations because it did not comply with air emissions regulations, despite two one-year compliance extensions), online: <<https://www.energy.gov/sites/prod/files/2017/04/f34/Oklahoma.pdf>>.

interconnect transmission and/or distribution systems in case of an emergency, such as after a hurricane.¹⁷⁰ Days after submitting its 202(c) request, FirstEnergy Solutions Corp., its subsidiaries, and FirstEnergy Nuclear Operations Company filed for bankruptcy protection.¹⁷¹

The Trump Administration's efforts to bolster coal and nuclear generation seemed to have reached a high point in mid-2018, when what was reportedly a draft memorandum proposing a "Strategic Electric Generation Reserve" leaked from the DOE and revealed possible plans to use emergency authority under the *Defense Production Act* of 1950 to issue orders to grid operators requiring them to give preferences to facilities with onsite fuel supplies, as well as to facilities essential to defense installations and critical infrastructure.¹⁷² The draft memo reportedly also considered use of Section 202(c) authority.¹⁷³ The draft memorandum has not yet resulted in obvious programmatic changes at DOE, nor has it led to creation of the Strategic Electric Generation Reserve. The strategy reserve concept surfaced again, however, in the March 2019 *Economic Report of the President*, albeit only in passing.¹⁷⁴ More recent statements from Energy Secretary Rick Perry suggest that Administration's thinking has shifting on this topic. In June 2019, he told a gathering of energy industry participants

and observers that administration efforts have advanced little since mid-2018, and that future action to this end must come from FERC or the states.¹⁷⁵

IV. TRUMP ADMINISTRATION'S CONTINUED EFFORTS TO UNWIND PRESIDENT OBAMA'S CLIMATE ACTION PLAN

Over the course of 2018 and early 2019, the Trump Administration has continued its efforts to unwind the Obama-era Climate Action Plan¹⁷⁶ and has taken significant steps toward implementing the changes announced in President Trump's Executive Order 13783,¹⁷⁷ which was aimed at eliminating regulatory requirements on domestic energy development.

(A) Clean Power Plan Repeal and Replacement with the ACE Rule

The EPA finalized three separate rulemakings in June 2019. First, the EPA repealed the Obama-era Clean Power Plan (CPP), potentially rendering the litigation challenging the CPP moot. Numerous states and industry litigants moved to dismiss their challenges in the D.C. Circuit, a move with which the EPA concurred. The court has yet to rule on the pending motions and it is unclear whether any parties will oppose.

¹⁷⁰ See e.g. Order No. 202-08-1 (Sept. 14, 2008) (granting a request to allow CenterPoint Energy to temporarily connect its distribution and transmission system to restore power to Entergy Gulf States, Inc. and electric cooperatives and municipal customers in Texas after Hurricane Ike), online: <<https://www.energy.gov/sites/prod/files/202%28c%29%20order%20202-08-1%20September%2014%2C%202008%20-%20CenterPoint%20Energy.pdf>>.

¹⁷¹ FirstEnergy Solutions, "FirstEnergy Solutions and FirstEnergy Nuclear Operating Company File Voluntary Petitions for Chapter 11 Restructuring", (31 March 2018), online: <<https://www.fes.com/content/dam/fes/about/files/newsreleases/1-press-release-final.pdf>>.

¹⁷² Jennifer A. Dlouhy, "Trump Prepares Lifeline for Money-Losing Coal Plants", *Bloomberg* (1 June 2018), online: <<https://www.bloomberg.com/news/articles/2018-06-01/trump-said-to-grant-lifeline-to-money-losing-coal-power-plants-jhv94ghl>>.

¹⁷³ *Ibid.*

¹⁷⁴ ECONOMIC REPORT OF THE PRESIDENT, TOGETHER WITH THE ANNUAL REPORT OF THE COUNCIL OF ECONOMIC ADVISERS, at 282 (2019), online: <<https://www.whitehouse.gov/wp-content/uploads/2019/03/ERP-2019.pdf>>. The report states:

The strategic need for an electricity generation reserve to promote the grid's resilience is a challenge that is analogous to many other economic problems. The entire portfolio of generation assets in the United States could be eligible to be part of a reserve, with different strategic weights placed on various types of generation — for example, nuclear or coal-fired generation might provide greater resilience benefits and therefore be preferentially selected into the reserve.

¹⁷⁵ Catherine Morehouse, "DOE has no 'Regulatory or Statutory Ability' to Create Coal, Nuclear Bailout, Says Perry", *UTILITY DIVE* (12 June 2019) online: <<https://www.utilitydive.com/news/doe-has-no-regulatory-or-statutory-ability-to-create-coal-nuclear-bailout/556687>>.

¹⁷⁶ Executive Office of the U.S. President, *The President's Climate Action Plan* (June 2013), online: <<https://obamawhitehouse.archives.gov/sites/default/files/image/president27sclimateactionplan.pdf>>.

¹⁷⁷ Executive Order 13783 — Promoting Energy Independence and Economic Growth (Mar. 28, 2017), online: <<https://www.federalregister.gov/documents/2017/03/31/2017-06576/promoting-energy-independence-and-economic-growth>>.

Second, the EPA finalized the Affordable Clean Energy (ACE) rule as a replacement to the CPP. The ACE rule demonstrates EPA's current, more limited view on its authority to regulate emissions from existing sources. The ACE rule provides more regulatory flexibility, shifting greater responsibility to the states to develop and implement performance standards for existing electric generating units (EGUs). EPA concluded that heat rate improvement measures are the Best System of Emission Reduction (BSER) for coal fired EGUs; the ACE rule provides a list of improvements that states must evaluate in order to develop a plan including unit-specific standards for regulated sources in the state. While the new rule is unlikely to reduce CO₂ emissions to the same extent anticipated by the CPP, some regulated entities may have additional compliance requirements because the rule requires that emission reduction measures be implemented at the source itself and precludes averaging or trading across sectors to meet a set overall emissions reduction goal.

Third, EPA revised its regulations implementing Section 111(d) of the *Clean Air Act*¹⁷⁸ addressing performance standards guidelines for ongoing and future emissions of existing sources. The revisions largely address the process for states to seek EPA approval of their plans under the ACE rule. States now have three years to provide their plans to EPA for review.

Although EPA had originally planned to rollout revisions to its new source review regulations at the same time it took steps to repeal and replace the CPP, the agency announced that it would instead conduct a separate rulemaking to address new sources at a later date.

Numerous states and cities have already challenged the CPP repeal and the ACE rule and additional challenges can be expected, teeing up a protracted legal battle over the regulations and extending the current climate of regulatory uncertainty.

(B) NEPA Climate Guidance and the Social Cost of Carbon

In response to Executive Order 13783, the White House Council on Environmental Quality (CEQ) issued draft guidance to replace the 2016 Obama-era guidance to federal agencies on how to incorporate the analysis of climate change and greenhouse gas (GHG) emissions into the *National Environmental Policy Act (NEPA)* review process; it is soliciting public comment before making the guidance final.¹⁷⁹ Besides for proposing to significantly truncate the current guidance, the primary change is to clarify that agencies do not need to include analysis of the monetary cost-benefit using any Social Cost of Carbon estimates for project-level decisions.

(C) Fuel Economy Standards for Automobiles

EPA and the National Highway Traffic Safety Administration (NHTSA) announced the proposed Safer Affordable Fuel-Efficient (SAFE) Vehicles rule¹⁸⁰ in which the agencies proposed a range of actions, including freezing the Corporate Average Fuel Economy (CAFE) and CO₂ emissions standards for light-duty cars and trucks manufactured in model years 2021-2026 at 2020 levels. In what is likely to be seen as a controversial move, the rule proposes to rescind California's preemption waiver under the Clean Air Act for its GHG and zero emissions vehicle requirements in favour of setting a single national standard for GHG emissions. Rescission of the waiver would significantly affect California and the 13 states that have adopted its standards. The agencies' justification for the rescission is largely based on the auto industry's need to develop and market vehicles in response to consumer demand rather than regulatory requirements. Ford, Volkswagen, Honda, and BMW recently signed on to continue their efforts to reduce emissions and increase fuel economy to the Obama-era levels, despite the proposed regulatory rollback. If this portion of the proposed rule is adopted, it will inevitably be challenged.

¹⁷⁸ 42 U.S.C § 7411(d) (standards of performance for existing sources; remaining useful life of source).

¹⁷⁹ Draft *National Environmental Policy Act* Guidance on Consideration of Greenhouse Gas Emissions, 84 Fed. Reg. 30097 (June 26, 2019).

¹⁸⁰ Notice of Proposed Rulemaking, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks, 83 Fed. Reg. 42986 (Aug. 24, 2018).

V. ENERGY STORAGE

(A) Federal Storage Rule

On February 15, 2018, FERC issued a final rule, Order No. 841¹⁸¹ (*Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*), addressing Storage resources in RTO/ISOs. This Rule largely sets up a federal framework that establishes a timeline and set of requirements for regional grid operators to establish specific rules tailored to the unique assets and needs in their jurisdictions.

Order No. 841 removes barriers for Storage resource participation in various wholesale markets, such as capacity, energy, and ancillary services. It requires the RTO/ISOs to amend their tariffs to develop a participation model that more fully incorporates Storage into the market, taking into consideration the physical and operational characteristics of Storage resources. Further, Order No. 841 defines electric storage resources as “a resource capable of receiving energy from the grid and storing it for later injection of electric energy back to the grid.”¹⁸² In addition, Order No. 841 mandates that Storage resources should pay the wholesale locational marginal price (LMP) for electric energy that the resource buys from the RTO/ISO that is then resold back into the RTO/ISO market.

Order No. 841 mandates the RTO/ISO tariff revisions to include the following:

- Ensure that Storage resources using the RTO/ISO’s participation model is eligible to provide all capacity, energy, and ancillary services that the resource is technically capable of providing;
- Ensure that Storage resources under the participation model can be dispatched and set the wholesale market clearing

price as both a wholesale seller and a wholesale buyer;

- Account for Storage resources’ physical and operational characteristics through either bidding parameters or other means; and
- Set a minimum size requirement for Storage resources’ participation in the RTO/ISO markets not to exceed 100 kW.¹⁸³

This Order is currently being appealed to the U.S. Circuit Court of Appeals D.C. Circuit.¹⁸⁴ The appellants are seeking review of FERC’s authority to manage energy storage resources connected at the distribution level or on site behind the retail meter. The appellants largely advocate that FERC has exceeded its authority under the *FPA* by intruding into the energy storage market at the local electrical distribution level, which has been seen exclusively as a state issue.

Order No. 841 required that all RTO/ISOs file a compliance tariff no later than December 3, 2018 with an effective date of December 3, 2019, which incorporated the mandated changes.¹⁸⁵ All of the RTO/ISOs subject to FERC jurisdiction have filed their proposed amended tariffs and are awaiting FERC approval.

(B) State Developments

Several states have taken an active approach towards the utilization of Storage resources. In addition to solar+storage and wind+storage, some states are exploring development of a Clean Peak Standard (CPS), a policy tool designed to increase the delivery of kilowatt-hour sales from clean peak resources during system peak demand periods. Below are some recent highlights at the state level.

¹⁸¹ *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, 162 FERC ¶ 61,127 (2018) [*Electric Storage* 162]; 167 FERC ¶ 61,154 (2019) (2019), Order No. 841-A (denying the hearing for requests and affirming its determinations in Order No. 841) [Order No. 841].

¹⁸² Order No. 841, *supra* note 182 at 5.

¹⁸³ *Ibid* at 8-9.

¹⁸⁴ *Supra* note 182.

¹⁸⁵ Several entities filed requests for rehearing and clarification of Order No. 841. On May 16, 2019, FERC issued an order denying the rehearing requests, and denying in part and granting in part the clarification requests. See Order No. 841-A.

Colorado

In March 2018, Colorado passed a new law that required the Colorado Public Utilities Commission to begin developing rules to allow for the installation, interconnection, and use of Storage systems by utility customers. This new law stated that electric customers have a right to install, interconnect, and use Storage systems without unnecessary restrictions or regulations, and without discriminatory rates or fees. In addition, a second recent law directs the CPUC to develop rules for integrating Storage resources into the planning process. This rule was adopted in October 2018 and the final rule was published in December 2018.¹⁸⁶ During the pendency of the rulemaking, the law authorized utilities to apply for rate-based Storage projects with a maximum capacity of 15 MW.

Massachusetts

In August 2018, Massachusetts became the first state to pass a CPS. It requires the delivery of a minimum percentage of kilowatt-hour sales to come from clean peak resources during system peak demand.¹⁸⁷ The Massachusetts Department of Energy Resources (DOER) is currently working on regulations to implement this new standard. Responses to questions posed by the DOER were due on February 5, 2019. The DOER released its straw proposal on April 2, 2019 with initial comments due on April 12, 2019. No final rules have been released.

New Jersey

In May 2018, New Jersey became the first state within PJM to set a Storage target, which is non-binding but motivating for utilities within the state. New Jersey set a goal of 600 MW of Storage by 2021 and 2,000 MW by 2030, making it one of the most aggressive goals in the United States.¹⁸⁸ The new law requires the New Jersey Board of Public Utilities (BPU) to conduct an analysis of how Storage resources can benefit ratepayers and prepare a report within

one year. The analysis must also consider the need for integrating distributed energy resources into the distribution grid.

New Mexico

In 2015, New Mexico released a new, comprehensive energy plan, which recommended, among other things, “promot[ing] New Mexico as ‘the’ place to develop and test energy storage technologies” and “pursu[ing] energy storage technology development and demonstration projects such as advanced batteries and flywheel/hydraulic energy storage systems.”¹⁸⁹ Then, in February 2017, on its own motion, the New Mexico Public Regulation Commission initiated a rulemaking on including Storage in Integrated Resource Plans. Most recently, in March 2019, the New Mexico legislature passed a bill that, if it becomes law, will require all publicly regulated utilities to produce 100 per cent of their electricity from carbon-free sources by 2045. To achieve that goal, it is estimated that New Mexico would need to increase its renewable generation capacity five-fold, which will require accompanying storage capacity.

North Carolina

Energy Intelligence Partners (EIP) has developed a CPS that focuses on leveraging Storage resources in North Carolina. While North Carolina has yet to adopt EIP’s proposed CPS, the energy storage-centric CPS would apply to the three major electricity retailers and proposes to satisfy 5 per cent of their system peak load by 2025 and 10 per cent of their system peak load by 2028.

Texas

In February 2018, the Public Utility Commission of Texas (PUCT) initiated a rulemaking proceeding entitled “Rulemaking to Address the Use of Non-Traditional Technologies in Electric Delivery Service.”¹⁹⁰ The purpose

¹⁸⁶ 4 Code of Colorado Reg 723-3, online: <<https://www.sos.state.co.us/CCR/GenerateRulePdf.do?ruleVersionId=5738&fileName=4%20CCR%20723-3>>.

¹⁸⁷ Chapter 227 of the Acts of 2018, “An Act to Advance Clean Energy”, online: <<https://malegislature.gov/Laws/SessionLaws/Acts/2018/Chapter227>>.

¹⁸⁸ A-3723 - Renewable Energy Bill, online: <<https://legiscan.com/NJ/text/A3723/2018>>.

¹⁸⁹ New Mexico Energy Policy & Implementation Plan 2015, online: <http://www.emnrd.state.nm.us/EnergyPolicy/documents/EMNRD_EnergyPolicy.pdf>.

¹⁹⁰ Public Utility Commission of Texas, Docket No. 48023 (Filed Feb. 5, 2018), online: <<https://interchange.puc.texas.gov/Search/Filings?ControlNumber=48023>>.

of this rulemaking is to consider whether transmission and distribution companies in Texas can own Storage resources. Under Texas law, transmission and distribution companies remain fully regulated by the PUCT and are not allowed to own or operate generation resources. Due to the dual nature of Storage facilities as both a consumer and generator of energy, the PUCT opened the rulemaking to solicit public comment and further study how Storage resources may be utilized. This proceeding is still ongoing with public comments submitted in November 2018 and no clear timetable for a decision from the PUCT. As a demonstration of the complexity of this issue, the comments filed in the rulemaking were split as to whether or not a transmission and distribution company in Texas may own Storage resources.

In January 2019, as part of its Competition in Electric Markets report to the Texas legislature¹⁹¹, the PUCT asked for help in clarifying whether investor owned transmission and distribution companies in Texas may own Storage resources. The 2019 legislative session closed without clarification by the Texas legislature.

VI. CAPACITY MARKETS

One of the most difficult challenges facing FERC over the past few years has been managing the tension between, at the Federal level, procuring generation resources through competitive wholesale markets while, at the State level, decisions are being made to subsidize some of those resources, but not others. Because those State subsidies — *e.g.*, renewable energy credits (“RECs”) for renewable resources, and ZECs for nuclear generators — provide additional revenue streams for electricity production, the resources receiving them are able to lower their offers in the wholesale markets, and thereby have a competitive advantage over unsubsidized resources. FERC and certain RTOs and ISOs have been engaged in multiple high-profile efforts to address that issue.

In 2018, ISO New England, Inc. (ISO-NE) filed a proposal to redesign its capacity market to accommodate the market entry of State-subsidized resources, while also mitigating the concerns related to competition and impacts on unsubsidized resources. That proposal, referred to as Competitive Auctions with Sponsored Policy Resources (CASPR), involved splitting ISO-NE’s forward capacity auctions into two stages.¹⁹² In the first stage, ISO-NE would apply a minimum offer price rule (MOPR) to new capacity resources seeking to enter the market, requiring them to offer at or above a price floor determined by resource type.¹⁹³ In the second stage, existing resources that cleared the first stage can submit a permanent retirement bid, to see if a state-subsidized resource that did not clear the first stage is willing to buy out the existing resource’s capacity supply obligation, thereby allowing the state-subsidized resource to successfully enter the forward capacity market.¹⁹⁴ FERC accepted ISO-NE’s CASPR proposal on March 9, 2018, in a contentious 3-2 vote that saw three of the five Commissioners issue concurring or dissenting statements.¹⁹⁵ Multiple parties sought rehearing of the Commission’s order and, at the time of this writing, FERC has not yet acted on those rehearing requests.

One month after FERC’s CASPR order, PJM submitted its own filing to address the impact of state-subsidized resources in the PJM capacity market. PJM’s filing presented two mutually exclusive alternative proposals to FERC. The first proposal involved a two-stage auction design in which the first stage would be used to determine which resources would receive capacity supply obligations and the second stage would set the capacity price for the selected resources after making an adjustment to the offers submitted by state-subsidized resources.¹⁹⁶ The second of PJM’s two proposals involved an expansion of PJM’s existing MOPR to apply a price floor to some, but not all, state-subsidized resources.¹⁹⁷

¹⁹¹ Scope of Competition in Electric Markets in Texas, Report to the 86th Legislature, 15 Jan. 2019, online: <https://www.puc.texas.gov/industry/electric/reports/scope/2019/2019scope_elec.pdf>

¹⁹² *ISO New England Inc.*, 162 FERC ¶ 61,205, at P 1 (2018).

¹⁹³ *Ibid* at P 3.

¹⁹⁴ *Ibid* at P 7.

¹⁹⁵ See *ibid* at PP 20-27. See also *ibid* LaFleur, Comm’r (*concurring in part*), Powelson, Comm’r (*dissenting*), Glick, Comm’r (*dissenting in part and concurring in part*).

¹⁹⁶ See *Calpine Corp. v PJM Interconnection, L.L.C.*, 163 FERC ¶ 61,236, at P 23 (2018).

¹⁹⁷ *Ibid*.

On June 29, 2018, FERC rejected both of PJM's proposals, finding that PJM failed to demonstrate that either of proposal was just and reasonable.¹⁹⁸ However, in so doing, FERC consolidated the proceeding with a separate, pending complaint, which alleged that the impact of state-subsidized resources had rendered PJM's capacity market rules unjust and unreasonable.¹⁹⁹ FERC granted, in part, that complaint, finding the PJM tariff to be unjust and unreasonable.²⁰⁰ FERC established a paper hearing on FERC's proposed replacement rate, which involved: (1) expanding PJM's MOPR to apply to new and existing resources that receive out-of-market payments, regardless of resource type; and (2) allow such resources to remain online by "choos[ing] to be removed from the PJM capacity market, along with a commensurate amount of load, for some period of time."²⁰¹

Shortly after FERC issued that order, one of the three Commissioners that supported the order resigned his seat, leaving the Commission split 2-2 on how to manage the proceeding going forward. Because of that deadlock, the 2019 PJM capacity auction has been delayed multiple times. Most recently, PJM filed a motion at FERC requesting permission to conduct the 2019 capacity auction in August 2019 under the tariff rules that FERC found to be unjust and unreasonable, due to the lack of a replacement rate.²⁰² On July 25, 2019, FERC denied that motion and ordered PJM to postpone the 2019 auction until FERC establishes a just and reasonable replacement rate. As a result, at the time of this writing, significant uncertainty continues to loom over the PJM capacity market.

VII. RENEWABLE ENERGY RESOURCES

(A) State Renewable Portfolio Standards

Since our last report, many states have continued their march toward a cleaner generation fleet, with several states recently accelerating their pace. According to the U.S. Energy Information Administration, by the end of 2018, 29 states have adopted renewable portfolio standards (RPS) or other policies that require electricity to be procured from certain types of renewable resources.²⁰³ Numerous states increased their RPS targets in 2018 and 2019, with several seeking to procure 100 per cent of their power from renewable resources. Those updated RPS targets, in chronological order, are as follows:

- Connecticut: 48 per cent by 2030.²⁰⁴
- New Jersey: 50 per cent by 2030.²⁰⁵
- Massachusetts: 35 per cent by 2030, increasing by 1 per cent per year thereafter.²⁰⁶
- California: 60 per cent by 2030 and 100 per cent by 2045.²⁰⁷
- District of Columbia: 100 per cent by 2032.²⁰⁸
- New Mexico: 100 per cent by 2045.²⁰⁹
- Nevada: 50 per cent by 2030 and 100 per cent by 2050.²¹⁰

¹⁹⁸ *Ibid* at P 7.

¹⁹⁹ *Ibid* at PP 6-8.

²⁰⁰ *Ibid* at P 6.

²⁰¹ *Ibid* at P 8.

²⁰² *Calpine Corp. v PJM Interconnection, L.L.C.*, 168 FERC ¶ 61,051 (2019).

²⁰³ U.S. Energy Information Administration, *Four states updated their renewable portfolio standards in the first half of 2019* (24 June 2019), online: <<https://www.eia.gov/todayinenergy/detail.php?id=39953>> (last accessed August 2, 2019) [*Four states portfolio*].

²⁰⁴ U.S. Energy Information Administration, *Updated renewable portfolio standards will lead to more renewable electricity generation* (27 February 2019), online: <<https://www.eia.gov/todayinenergy/detail.php?id=38492>> (last accessed August 2, 2019).

²⁰⁵ *Ibid*.

²⁰⁶ *Ibid*.

²⁰⁷ *Ibid*.

²⁰⁸ *Ibid*.

²⁰⁹ *Four states portfolio, supra* note 203.

²¹⁰ *Ibid*.

- Washington: 100 per cent by 2050.²¹¹
- Maryland: 50 per cent by 2030.²¹²
- Maine: 100 per cent by 2050.²¹³
- New York: increased its target to 70 per cent by 2030 and 100 per cent by 2040.²¹⁴

There are now nine jurisdictions that have adopted mandates to procure 100 per cent of their power from renewable resources by mid-century: California, Colorado, District of Columbia; Maine; Nevada; New Mexico; New York; Puerto Rico; and Washington.²¹⁵

(B) Offshore Wind

Closely related to the recent expansion of state RPS programs, multiple states on the East coast took major steps in 2019 to facilitate the development of offshore wind resources. In particular, Massachusetts concluded its first offshore wind RFP by approving contracts for 800 MW of offshore wind capacity, and commenced its second RFP for an additional

800 MW.²¹⁶ Similarly, New Jersey approved a contract for a 1.1 GW project, the first to be approved in New Jersey's pursuit of 3.5 GW of offshore wind by 2030.²¹⁷ In July 2019, New York announced the largest commitment to date when it awarded two contracts in an RFP process that commenced in 2018: one contract for an 816 MW project and the other for an 880 MW project.²¹⁸ Connecticut also made progress in 2019. Following its approval of a 200 MW offshore wind contract in 2018, Connecticut passing legislation in June 2019 that requires the procurement of 2 GW of offshore wind capacity by 2026.²¹⁹ These projects will also require approval from the federal government.

(C) Generator Interconnection

In April 2018, FERC issued Order No. 845, reforming the rules governing the interconnection of large generators, *i.e.* those with capacity greater than 20 MW, to the transmission system.²²⁰ That rulemaking updated the standardized interconnection process for such generators that FERC adopted in 2003.²²¹ FERC's 2003 order specifically

²¹¹ *Ibid.*

²¹² *Ibid.*

²¹³ Maine.gov, Press Release, "Governor Mills Signs Major Renewable Energy and Climate Change Bills Into Law" (26 June 2019), online: <<https://www.maine.gov/governor/mills/news/governor-mills-signs-major-renewable-energy-and-climate-change-bills-law-2019-06-26>> (last accessed August 2, 2019).

²¹⁴ See "New York Enacts 100% Clean Energy Law, Secures 1.7 GW of Offshore Wind", (19 July 2019), online: <<https://www.powermag.com/new-york-enacts-100-clean-energy-law-secures-1-7-gw-of-offshore-wind>> (last accessed August 20, 2019); US, New York State, *Renewable Portfolio Standard*, online: <<https://www.nysed.ny.gov/All-Programs/Programs/Clean-Energy-Standard/Renewable-Portfolio-Standard>> (last accessed August 20, 2019).

²¹⁵ See *Four states updated their renewable portfolio standards in the first half of 2019*, U.S. Energy Information Administration (24 June 2019), online: <<https://www.eia.gov/todayinenergy/detail.php?id=39953>> (last accessed 2 Aug. 2019).

²¹⁶ See "Massachusetts approves state's first offshore wind contracts for 800 MW", (24 April 2019) *Utility Dive* (blog), online: <<https://www.utilitydive.com/news/massachusetts-approves-states-first-offshore-wind-contracts-for-800-mw/553353>> (last accessed August 20, 2019); "Massachusetts Starts Second Offshore Wind Solicitation Round", (24 May 2019) *offshoreWIND* (blog), online: <<https://www.offshorewind.biz/2019/05/24/massachusetts-starts-second-offshore-wind-solicitation-round>> (last accessed August 20, 2019).

²¹⁷ See "New Jersey taps Orsted's 1.1 GW offshore wind project in country's largest procurement to date", (24 June 2019) *UtilityDive* (blog), online: <<https://www.utilitydive.com/news/new-jersey-taps-orsted-1-1-gw-offshore-wind-project-in-countrys-largest/557443>> (last accessed August 20, 2019).

²¹⁸ See "New York awards record 1,700 MW offshore wind contracts", (19 July 2019) *UtilityDive* (blog), online: <<https://www.utilitydive.com/news/new-york-awards-record-1700-mw-offshore-wind-contracts/559091>> (last accessed August 20, 2019).

²¹⁹ See "Connecticut issues draft RFP for 2 GW offshore wind", (8 July 2018) *UtilityDive* (blog), online: <<https://www.utilitydive.com/news/connecticut-issues-draft-rfp-for-2-gw-offshore-wind/558238>> (last accessed August 20, 2019).

²²⁰ *Reform of Generator Interconnection Procedures and Agreements*, Order No. 845, 163 FERC ¶ 61,043 (2018).

²²¹ See *ibid* at PP 11 (summarizing *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, FERC Stats. & Regs. ¶ 31,146 (2003)).

established *pro forma* Large Generator Interconnection Procedures and a *pro forma* Large Generator Interconnection Agreement, to ensure that the rates, terms, and conditions of service for interconnecting large generating facilities were just and reasonable and not unduly discriminatory.²²² In Order No. 845, FERC acknowledged that the industry had experienced significant changes since 2003, and the generator interconnection process was not serving the industry as well as it could.²²³

Following a nearly three-year process that included a Notice of Petition for Rulemaking, a technical conference, and a Notice of Proposed Rulemaking, FERC's Order No. 845 concluded that, absent reforms, the current interconnection process could "hinder timely development of new generation, stifle competition, result in uncertainty and inaccurate information, or potentially unduly discriminate against new technologies."²²⁴ FERC therefore adopted numerous reforms to improve the interconnection process. The reforms were intended to benefit all interconnection customers, by providing better information and optionality, and transmission providers, by allowing them to focus on the interconnection requests that are most likely to reach commercial operation.²²⁵

Although Order No. 845 was intended to improve the interconnection rules for all large generators, regardless of fuel type, several of the reforms had noteworthy benefits for renewable energy resources and electric storage resources. As a general matter, the reforms are expected to help address the significant backlog of renewable energy projects in the various RTO/ISO interconnection queues, which is in part what necessitated Order No. 845.²²⁶ Specifically with

regard to electric storage resources, Order No. 845: (1) revised the definition of "Generating Facility" to include electric storage resources;²²⁷ and (2) allowed transmission customers to use surplus interconnection service, which "should remove economic barriers to the development of complementary technologies such as electric storage resources that may be able to easily tailor their use of interconnection service to adhere to the limitations of the surplus interconnection service that may exist."²²⁸

VIII. CLIMATE CHANGE

(A) Wildfires and PG&E Bankruptcy

Pacific Gas & Electric (PG&E) filed for bankruptcy protection in January 2019²²⁹ resulting in part from the billions in liability from catastrophic wildfires believed to have been started by faulty PG&E equipment. The bankruptcy filing may pave the way for PG&E to shed billions in power purchase agreements (PPA) for renewable energy that were executed at a time when renewable energy was priced significantly higher. The bankruptcy court's recent decision that the court — not the Federal Energy Regulatory Commission (FERC) — will determine the fate of the PPAs under the less stringent standard for determining whether a contract can be rejected,²³⁰ has been appealed by direct petition to the U.S. 9th Circuit Court of Appeals. PG&E is the largest offtaker of renewable energy in California and renewable companies may be left with limited options and likely seeking to negotiate for contracts with the other utilities and power marketers in the state.

In a related development, on July 12, 2019, California enacted Assembly Bill (AB) 1054²³¹, which introduces major changes to the way

²²² *Ibid* at P 11.

²²³ *Ibid* at PP 23-25.

²²⁴ *Ibid* at P 37.

²²⁵ *Ibid* at P 2.

²²⁶ See e.g. *ibid* at PP 15-16 (explaining that the proceeding stemmed, in part, from a petition for rulemaking filed by the American Wind Energy Association); See also *ibid* at P 516, n.902 (identifying 4,000 MW backlog of primarily wind generation in Maine).

²²⁷ *Ibid* at PP 275, 278-79.

²²⁸ *Ibid* at P 467.

²²⁹ PG&E Files for Reorganization Under Ch 11, online: <https://www.pge.com/en/about/newsroom/newsdetails/index.page?title=20190129_pge_files_for_reorganization_under_chapter_11>.

²³⁰ Memorandum Decision on Action for Declaratory and Injunctive Relief, *In re PG&E Corporation*, No. 19-30088-DM (Bankr. N.D. Cal. 2019) online: <<https://www.courthousenews.com/wp-content/uploads/2019/06/pge-ferc-ruling.pdf>>.

²³¹ 2019 CA AB-1054 Public utilities: wildfires and employee protection (11 July 2019), online: <https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB1054>.

California addresses wildfires in an emergency effort to financially stabilize the State's electric utilities following catastrophic losses from wildfires in 2017 and 2018. The legislation creates a new fund to facilitate payment of wildfire-related liabilities, overhauls the cost recovery review for electric utilities before the CPUC, and establishes safety certification protocols that electric utilities must meet to participate in such funds. AB 1054 is effective immediately.

(B) Methane Emissions

Continuing its efforts to rollback Obama-era regulations, the BLM finalized the replacement for the methane and waste prevention rule.²³² The new rule aimed to reduce regulatory requirements and reduce the cost of compliance. Key restrictions on natural gas venting and flaring were rescinded and BLM will not impose any requirements on producers to capture gas, instead looking to states for any regulation of venting and flaring. BLM also rescinded the rule's leak detection requirements. Litigants filed suit within hours of the rule being finalized; the climate of regulatory uncertainty is likely to continue through a protracted legal battle.

In addition, EPA announced that it is revisiting the amended new source performance standards for new oil and gas operations on private lands through limitations on methane and volatile organic compounds.²³³ In response to industry pushback, EPA granted reconsideration to address requirements for fugitive emissions, standards for well site pneumatic pump, and certifications for closed vent systems. The rulemaking efforts are ongoing.

(C) Carbon Markets Trading

Over the past year, a number of states advanced efforts to impose a price on carbon or

implement carbon trading markets with mixed results. While New Jersey plans to rejoin the northeast's Regional Greenhouse Gas Initiative (RGGI) after having left in 2011, Virginia's attempt to join was stymied when its General Assembly passed a budget containing a provision delaying the state from joining the collective. In response, Virginia's Governor directed the state's environmental agency to seek alternative ways to achieve emission reduction goals.

The newly formed Transportation and Climate Initiative (TCI) is a collaboration of 12 states and the District of Columbia in the Mid-Atlantic and Northeast seeking to institute a regional cap-and-invest program to achieve emission reductions in the transportation sector through their state and district agencies.²³⁴ This fledgling collaboration is still developing the details of its planned market, but will be interesting to watch given the significant role the transportation sector has in GHG emissions.

Voters in Washington State rejected a proposed tax on GHG emissions through Ballot Initiative 1631 that would have imposed the tax on carbon economy-wide and invested the revenue in measures to combat the effects of climate change.

IX. GREEN NEW DEAL

On February 7, 2019, Representative Alexandria Ocasio-Cortez, a Democrat from New York, and Senator Ed Markey, a Democrat from Massachusetts, introduced a congressional resolution calling for a Green New Deal, a set of policy goals to address climate change and economic inequality in the U.S.²³⁵ The Green New Deal envisions a ten-year national mobilization to completely transition the U.S. economy to clean, renewable and zero-emission energy sources.²³⁶

²³² Final Rule, 83 Fed. Reg. 49184 (September 28, 2018), online: <<https://www.federalregister.gov/documents/2018/09/28/2018-20689/waste-prevention-production-subject-to-royalties-and-resource-conservation-rescission-or-revision-of>>.

²³³ Proposed Rule, 83 Fed. Reg. 52056 (October 15, 2018), online: <<https://www.federalregister.gov/documents/2018/10/15/2018-20961/oil-and-natural-gas-sector-emission-standards-for-new-reconstructed-and-modified-sources>>. <<https://www.federalregister.gov/documents/2018/10/29/2018-23570/oil-and-natural-gas-sector-emission-standards-for-new-reconstructed-and-modified-sources>>.

²³⁴ Transportation & Climate Initiative, Transportation & Climate Initiative Statement (December 18, 2018), online: <https://www.georgetownclimate.org/files/Final_TCI-statement_20181218_formatted.pdf>.

²³⁵ Press Release, "Senator Ed Markey and Representative Ocasio-Cortez Introduce Green New Deal Resolution" (7 February 2019) online: <<https://www.markey.senate.gov/news/press-releases/senator-markey-and-rep-ocasio-cortez-introduce-green-new-deal-resolution>>.

²³⁶ H.R. Res. 109, 116th Cong. (2019), online: <<https://www.congress.gov/bill/116th-congress/house-resolution/109>>.

On March 26, 2019, lawmakers in the Senate voted 57-0 against advancing the resolution, with most Senate Democrats voting “present” in protest of the vote (arguing that Republican Senate Majority leader McConnell scheduled the vote without hearings and testimonies).²³⁷ Although the resolution failed to advance, six of the Democratic presidential candidates have co-sponsored the resolution,²³⁸ and it continues to be a controversial topic of discussion.

The Green New Deal’s name is derived from U.S. President Franklin D. Roosevelt’s 1930s New Deal program — economic and social policies implemented during the Great Depression, when the U.S. federal government expanded its role to facilitate economic recovery. Like the New Deal, the Green New Deal sets forth goals to create millions of jobs in the U.S. and achieve economic security, with the federal government assuming an active role in achieving its progressive plans.

The term “Green New Deal” to address climate change is not that new. In 2007, political commentator Thomas Friedman wrote an op-ed in *The New York Times* calling for a “Green New Deal” to combat climate change by developing a clean power industry.²³⁹ During the Obama Administration, elements of this vision were included in the *American Recovery and Reinvestment Act of 2009*, an economic stimulus package that provided, among other things, \$90 billion to promote clean energy, including renewable energy and smart grid technology.²⁴⁰

While the concept of a “Green New Deal” is not new, the Green New Deal resolution is designed to spur a far-reaching legislative effort in the U.S. to garner support for combating climate change and facilitating economic growth.

Part of the impetus for the Green New Deal resolution was an October 2018 report issued by the United Nations Intergovernmental Panel on Climate Change (IPCC), finding that momentous changes will be required to combat climate change, including reducing carbon emissions by half by 2020 and reaching net-zero global emissions by 2050.²⁴¹

The resolution sets forth the following goals: achieve net-zero greenhouse gas emissions; create millions of good, high-wage jobs and ensure prosperity and economic security for all people of the United States; invest in the infrastructure and industry of the U.S. to sustainably meet the challenges of the 21st century; secure a healthy and sustainable environment for all people of the U.S.; and promote justice and equity by ending historic oppression of “frontline and vulnerable communities” including indigenous people.²⁴²

To meet these goals, the Green New Deal resolution enumerates additional goals, which include: meeting 100 per cent of the power demand in the U.S. through clean, renewable and zero-emission energy sources, including by dramatically expanding and upgrading renewable power sources, and deploying new capacity; and building or upgrading to energy-efficient, distributed and “smart” power grids.²⁴³

The Green New Deal resolution also provides requirements to meet its goals including: providing public financing and assistance to communities and governments working on the Green New Deal; ensuring that the federal government factors the Green New Deal into its policies; making public investments in the research and development of clean and renewable energy; and prioritizing high-quality job creation in communities that may otherwise struggle with a transition away from carbon intensive industries.²⁴⁴

²³⁷ Matthew Daly, “Senate Shuns Green New Deal Amid Claims of Bad Faith”, *Associated Press* (26 March 2019) online: <<https://www.apnews.com/d2eab3de3be140ba8c78d853a4323307>>.

²³⁸ *Supra* note 1.

²³⁹ Thomas L. Friedman, “A Warning from the Garden”, *N.Y. Times* (19 January 2007), online: <<https://www.nytimes.com/2007/01/19/opinion/19friedman.html?module=inline>>.

²⁴⁰ *American Recovery and Reinvestment Act of 2009*, Pub. L. No. 111-5, 123 Stat 115, online: <<https://www.govinfo.gov/app/details/PLAW-111publ5>>.

²⁴¹ *Supra* note 2.

²⁴² *Ibid.*

²⁴³ *Ibid.*

²⁴⁴ *Ibid.*

While the Green New Deal resolution is aspirational, the Green New Deal goals have begun to influence policy-making and public discourse in the U.S. and could potentially shape the course of future legislation.

X. FERC ENFORCEMENT

FERC v. Coaltrain Energy, L.P.

In March, 2018, the United States District Court for the Southern District of Ohio denied Coaltrain Energy, L.P. (Coaltrain) and the individual defendants' motion to dismiss FERC's action to enforce civil penalties of \$42 million for alleged market manipulation.²⁴⁵ FERC alleged that defendants' trades of Up-To Congestion (UTC) financial contracts in the PJM day-ahead market violated the *FPA*'s anti-manipulation provision and FERC's anti-manipulation rule because they were designed solely or primarily to generate Marginal Loss Surplus Allocation (MLSA) payments while incurring no market risk of loss.²⁴⁶

The Court upheld FERC's position on multiple issues, including that such trades could be a deceptive practice even though FERC did not allege that the defendants made any material misrepresentations or omissions. The Court's holding relied on a securities fraud case law holding that "trades made without 'any legitimate economic reason[]...can constitute market manipulation.'"²⁴⁷ For the same reason, the Court rejected Coaltrain's argument that its trades could not be manipulative because FERC had expressly authorized traders to collect such payments on UTC trades that used paid transmission reservations.

ETRACOM LLC and Michael Rosenberg

In April 2018, FERC approved a Stipulation and Consent Agreement between Enforcement and ETRACOM LLC (ETRACOM) and Michael Rosenberg resolving all claims for violations of *FPA* Section 222 and FERC's Anti-Manipulation Rule, as well as the related federal lawsuit in the Eastern District of California filed by FERC

to enforce such alleged violations.²⁴⁸ FERC previously had determined that ETRACOM and Michael Rosenberg violated the *FPA* and FERC's anti-manipulation Rule by engaging in virtual transactions at the CAISO /New Melones intertie to affect power prices and benefit ETRACOM's Congestion Revenue Rights. After mediation, ETRACOM agreed to pay about \$1.9 million, consisting of a civil penalty of about \$1.5 million and disgorgement of about \$315,000 plus interest, with the disgorgement and interest to be paid to CAISO to distribute to impacted market participants. In the settlement, no sanctions were assessed against Michael Rosenberg personally.

XI. CONCLUSION

The energy sector in the United States is undergoing a foundational shift as industry participants and state and federal policymakers seek to balance environmental constraints and plentiful energy resources. The many regulatory developments covered in this report show how those changes continue apace, and may have even quickened, over the past 18 months. As the Trump Administration has gained momentum on various energy policies mid-term, many states have enacted their own measures, sometimes in support of and other times running counter to the federal initiatives. These federal and state initiatives have created a complicated regulatory environment for the electric, natural gas, and oil sectors. We expect these policy currents, and the attendant regulatory challenges, to persist in the near future. ■

²⁴⁵ Opinion and Order, *FERC v Coaltrain Energy, L.P.*, No. 2:16-cv-732-MHW, (ECF No. 45) (S.D. Ohio Mar. 30, 2018).

²⁴⁶ *Ibid.* at 21.

²⁴⁷ *Ibid.* at 35 (citing *SEC v. Masri*, 523 F. Supp. 2d 361, 372 (S.D.N.Y 2007)).

²⁴⁸ Joint Report Regarding Settlement, *FERC v ETRACOM, LLC*, No. 2:16 cv-1945-SB (ECF No. 33) (E.D. Cal. filed Aug. 17, 2016); *ETRACOM LLC & Michael Rosenberg*, 163 F.E.R.C. ¶ 61,022 (2018).