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Preemption, I Think Not: Evaluating California's Stored Energy Procurement Law Against FERC Order 841

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ARTICLE

Preemption, I Think Not: Evaluating California's Stored Energy Procurement Law Against FERC Order 841

RAYMOND RICHARDS*

California's Energy Storage Systems procurement mandate is a groundbreaking measure designed to supply more clean and reliable energy to the state by allowing the capture of power produced now to be used later. While this technology is still developing, a ready market for such resources will help advance capabilities and bring down cost. Federal Energy Regulatory Commission ("FERC") Order 841 will springboard storage technology in regions covered by Regional Transmission Organizations ("RTOs") by allowing storage providers non-discriminatory and accommodating access to the FERC wholesale markets. Although FERC's new Order speaks directly to the issue of storage technology, it should not be seen as an effort to usurp or preempt state authority to encourage the use of storage technology for electricity generation in the states. By focusing on the targets of state storage laws and honoring the authority left to states under the Federal Power Act ("FPA"), a system of concurrent federalism will allow state and federal law to operate hand-in-hand to promote the advancement of storage technology, facilitating an era of clean, reliable power to fuel the nation's future.

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I. BACKGROUND TO THE UNITED STATES' ELECTRICITY MARKET

The United States electricity market is ever-changing. What was once a market controlled by vertically integrated monopolies, now has vast pockets of market-based prices and robust competition between providers. "Molding the electricity business into the

form du jour of American monopolists was one of the most remarkable projects, intellectually as well as fiscally, of the twentieth century.”¹ Breaking the monopolies and introducing competitive markets has arguably been one of the great successes of the twenty-first. As the energy landscape continues to move, jurisdictional tension will be its ever-present companion. Moving into 2019, there is a shift toward clean renewable sources of power production.² While the Federal Energy Regulatory Commission (“FERC”) retains jurisdiction over all transmission and wholesale sales of electric energy in interstate commerce,³ such regulation does not extend to matters “subject to regulation by the States.”⁴ Thus, states have tremendous power to influence the type of generation they encourage, the required fuel mix used by utilities, and the siting of new sources of generation.

Energy law in the United States was once thought to be governed by a system of “dual federalism.”⁵ Under this system, federal and state authorities governed their own distinct “spheres of authority” which rarely, if ever, overlapped.⁶ 2015 marked the beginning of the modern age of energy regulation when the United States Supreme Court weighed in on *Oneok v. Learjet*, the first of three energy law cases heard by the Court establishing the modern analytical framework for jurisdictional issues.⁷ After *Oneok*, the Court heard two more cases, *FERC v. Electric Power Supply Ass’n* (“EPSA”) and *Hughes v. Talen Energy*, both of which contributed to the new framework governing judicial analysis of jurisdictional

1. GRETCHEN BAKKE, *THE GRID: THE FRAYING WIRES BETWEEN AMERICAS AND OUR ENERGY FUTURE*, 62–63 (Bloomsbury USA) (2016) (discussing Samuel Insull’s remarkable work crafting the electricity market into a natural monopoly to match other monopolistic commodities of the day such as steel and oil).

2. See generally U.S. ENERGY INFO. ADMIN.: *ANNUAL ENERGY OUTLOOK 2019 WITH PROJECTIONS TO 2050*, 9-28 (2019), <https://perma.cc/6LLL-M843>.

3. 16 U.S.C. § 824(b) (2018).

4. *Id.* § 824(a).

5. See Joel B. Eisen, *Dual Electricity Federalism Is Dead, But How Dead, and What Replaces It?*, 8 GEO. WASH. J. ENERGY & ENVTL. L. 3, 3 (2017).

6. *Id.*

7. *Oneok Inc., v. Learjet Inc.*, 135 S. Ct. 1591 (2015).

challenges in energy law.⁸ While this new structure may have established a system of *concurrent jurisdiction*⁹ where state and federal government operate cooperatively, FERC still speaks with the voice of the federal government, and the Supremacy Clause¹⁰ of the U.S. Constitution is the ultimate law of the land.

Testing the now blurred jurisdictional lines are Electric Storage Resources (“ESRs”). FERC defines an ESR as “a resource capable of receiving electric energy from the grid and storing it for later injection of electricity back to the grid[.]”¹¹ ESRs include technologies such as “pumped hydroelectric, compressed air, batteries, flywheels, and thermal storage,” amongst others technologies.¹² As ESRs gained popularity, it became evident that existing market participation rules in the RTO service areas were not recognizing the unique physical and operational characteristics that ESRs possessed, preventing them from providing all of the services that they were technically able to purvey.¹³

On November 17, 2016, FERC issued a Notice of Proposed Rulemaking (“NOPR”) addressing barriers to the participation of

8. FERC v. Elec. Power Supply Ass’n., 136 S. Ct. 760 (2016) [hereinafter *EPSA*]; Hughes v. Talen Energy Mktg., LLC, 136 S. Ct. 1288 (2016). These decisions “herald a new approach to governing the rapid evolution of the modern electric grid . . .” Eisen, *supra* note 5, at 3.

9. See generally Eisen, *supra* note 5, at 10–17 (advocating that recent Supreme Court holdings should give way to a cooperative system of electricity regulation called “concurrent jurisdiction”).

10. See U.S. CONST. art. VI, cl. 2. (“This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land. . .”).

11. 18 C.F.R. § 35.28(b)(9) (2018).

12. JEFFERY S. DENNIS, ET AL., BERKLEY NATIONAL LABORATORY, FEDERAL/STATE JURISDICTIONAL SPLIT: IMPLICATIONS FOR EMERGING ELECTRIC TECHNOLOGIES, A-3 (2016), <https://perma.cc/5CUD-GPG8>; Order No. 841, Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators, 83 Fed. Reg. 9,580, 9,585 (Mar. 6, 2018) (codified at 18 C.F.R. pt. 35) [hereinafter Order No. 841].

13. See Indianapolis Power & Light Co. v. Midcontinent Indep. Sys. Operator Inc., 158 FERC ¶ 61,107 (Feb. 1, 2017); 18 C.F.R. § 35.34 (2018) (establishing RTOs); see also JOSEPH P. TOMAIN & RICHARD D. CUDAHY, ENERGY LAW IN A NUTSHELL 405–11 (Jesse H. Choper et al. eds., 3rd ed. 2017) (describing the structure and functions of RTOs).

ESRs and Distributed Energy Resource aggregations in FERC organized wholesale power markets.¹⁴ The Storage NOPR was FERC's response to concerns about RTOs and utilities having inconsistent rules that created barriers to market entry.¹⁵ There were also concerns surrounding ESR developers' inability to receive the full amount of compensation they were capable of earning because their resources were not allowed to provide all of the services they technically could have.¹⁶ At the time the Storage NOPR was issued, the Commission lacked the votes to issue a final rule on the topic.¹⁷ However, in early 2018, FERC had the pull it needed to take binding action.¹⁸

On February 15, 2018, the highly anticipated final rule was released.¹⁹ Acting pursuant to statutory duty in section 205 of the Federal Power Act ("FPA"),²⁰ FERC declared existing RTO market rules governing the inclusion of ESRs in the wholesale markets to be "unjust and unreasonable in light of barriers that they present to the participation of electric storage in the RTO/ISO [Independent System Operator] markets,²¹ [because they] reduc[e] competition and fail[] to ensure just and reasonable rates."²² Using its authority under section 206 of the FPA,²³ FERC created a rule with the force of law requiring RTOs (and ISOs) to revise tariffs establishing market rules recognizing the unique *physical and operational characteristics of ESRs* to facilitate the participation of such resources in the wholesale markets.²⁴ Order 841 lays out four main

14. Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators, 81 Fed. Reg. 86,522 (proposed Nov. 30, 2016) (to be codified at 35 C.F.R. pt. 35) [hereinafter Storage NOPR].

15. *Id.* at 86,524–25.

16. A. Cory Lankford & Adam Wenner, *FERC Steps Up Efforts to Support Integration of Stored Energy Technologies into Wholesale Power Markets*, 17 PRATT'S ENERGY L. REPORT 7.01, 6–7 (2017).

17. *Id.* at 4.

18. See generally Order No. 841, *supra* note 12.

19. *Id.*

20. 16 U.S.C. § 824d(a).

21. Independent systems operators (ISOs) are one of two sub-categories of RTOs—ISO are structured as non-profit entities, while for-profit RTOs are called "transcos." See TOMAIN ET AL., *supra* note 13, at 408-09.

22. Order No. 841, *supra* note 12, at 9,585.

23. 16 U.S.C. § 824e(a).

24. Order No. 841, *supra* note 12, at 9,580.

criteria that RTO tariffs must meet in order to carry out the goals of the rule:

- (1) ensure that a resource using the participation model for electric storage resources is eligible to provide all capacity, energy, and ancillary services that it is technically capable of providing in the RTO/ISO markets; (2) ensure that a resource using the participation model for electric storage resources can be dispatched and can set the wholesale market clearing price as both a wholesale seller and wholesale buyer consistent with existing market rules that govern when a resource can set the wholesale price; (3) account for the physical and operational characteristics of electric storage resources through bidding parameters or other means; and (4) establish a minimum size requirement for participation in the RTO/ISO markets that does not exceed 100 kW.²⁵

Pursuant to statutory authority, FERC justified Order 841 as an action to ensure RTO/ISO tariffs are just and reasonable.²⁶

After Order 841, questions emerge as to the effect on state-led ESR initiatives. While it is true that the Order instructs FERC governed RTO/ISOs to establish minimum standards for ESR participation in FERC wholesale markets,²⁷ state storage initiatives could be swallowed by FERC's jurisdictional power grab and be vulnerable to challenges of preemption by the new federal law. As such, the main legal question presented is whether Order 841 places ESRs squarely within FERC's sphere of influence, or whether the Order imposes a cooperative form of concurrent jurisdiction. This Article focuses on California's Assembly Bill 2514 ("AB 2514") codified in Chapter 7.7 of the California Public Utilities Code, and concludes that, because California law governs a practice that directly affects retail rates by using a carve-out for state power in the FPA, Order 841 has no preemptive effect.

25. *Id.* at 9,582.

26. *See* 16 U.S.C. § 824e(a); Order No. 841, *supra* note 12, at 9,580.

27. Order No. 841, *supra* note 12, at 9,582–83.

II. ELECTRICITY STORAGE AND STATE INITIATIVES

Electricity markets are generally viewed as more volatile than other energy markets, mainly because the commodity cannot be economically stored. Thus, real-time demand creates an almost unmitigated effect on prices.²⁸ The electrical grid must maintain a perpetual state of balance: “consumption must always match production, for there is as of yet no real means of storing that electricity for later use. If power is not being made right now, somewhere, somehow, we simply don’t have it to use.”²⁹ Compare this to the natural gas market where it is not only possible, but common practice, to store excess gas production for usage during times of peak demand.³⁰

The gas industry experiences demand variation on a seasonal basis; the northern states consume larger volumes of gas in the cold months, and electricity producers use gas at a disproportional rate in the summer when residential customers crank up the air conditioning.³¹ To combat this increased demand and mitigate its overall market effects, the gas industry utilizes storage reservoirs—usually spent gas reserves, which have been converted into holding tanks for excess gas. This excess gas is readily available for pipeline distribution to the marketplace.³² Electricity producers, however, have a rapidly changing demand to meet, fluctuating hour-by-hour rather than season-by-season, while doing so without stored reserves.³³ This ever-fluctuating, hour-by-hour demand, must be met with real-time generation, since an economically feasible electricity reservoir does not yet exist.

Electricity storage could revolutionize the energy market by allowing it to operate in a manner more analogous to the natural

28. See STEVEN FERREY, 1 L. OF INDEP. POWER § 2:21 (2018).

29. BAKKE, *supra* note 1, at 5.

30. See Jim Rossi, *The Limits of a National Renewable Portfolio Standard*, 42 CONN. L. REV. 1425, fn. 51 (2010).

31. FRED BOSSELMAN ET AL., ENERGY, ECONOMICS AND THE ENVIRONMENT, 521–22 (2d ed. 2006).

32. *Id.* at 522.

33. See e.g., U.S. ENERGY INFO. ADMIN., *U.S. Electric System Operating Data – Status Map* (Mar. 31, 2019), <https://perma.cc/ED5J-HCVT>.

gas industry. Not only would storage be beneficial in harnessing excess variable generation produced from sources like wind and solar, but it could also allow utilities to procure power produced at a period of low demand at a low rate, and reinject it back to the grid during periods of high demand and be paid the rate commensurate with peak demand.³⁴ But, storing energy is not a new concept. A few states have been experimenting in the area for several years, with California at the forefront.³⁵ By encouraging state energy policies and federal support, it is possible to spur enough investment in storage resources to advance technology to the point of economic viability.

A. California's Energy Storage Systems Procurement Mandate

The State of California is a pioneer of the clean energy movement and a national leader alongside states like New York and Massachusetts in encouraging and developing state energy storage programs.³⁶ California's Public Utilities Commission ("CPUC") has authority over all electric utilities, including locally owned electric corporations.³⁷ With this authority, CPUC implements aggressive renewable energy programs such as a Renewable Portfolio Standard ("RPS") and a state ESR procurement mandate.³⁸ In 2017, California's RPS resulted in the state's Investor Owned Utilities³⁹

34. See FERREY, *supra* note 28.

35. See e.g., *New York State Energy Storage*, N.Y. STATE ENERGY & RESEARCH & DEV. AUTH., <https://perma.cc/XH8F-GWP2> (New York state energy storage program); *Energy Storage Initiatives*, MASS. DEPT. OF ENERGY & RESOURCES, <https://perma.cc/XE32-ASUR> (Massachusetts energy storage program).

36. Krysti Shallenberger, *Massachusetts Targets 200 MWh of Energy Storage by 2020*, UTILITY DIVE (June 30, 2017), <https://perma.cc/8LU9-87BN>.

37. CAL. PUB. UTIL. CODE § 701 (West 2019); Assemb. 2514, 2009–10 Leg., Reg. Sess. (Cal. 2009).

38. CAL. PUB. UTIL. CODE § 399.11 (West 2019); Assemb. 2514, 2009–10 Leg., Reg. Sess. (Cal. 2009); California Renewables Portfolio Standard ("RPS"), CAL. PUB. UTIL. COMM'N, <https://perma.cc/RH5R-WZNS> [hereinafter CAL. PUB. UTIL. COMM'N].

39. Public utility companies are the primary providers of electricity in the United States—Investor Owned Utilities or "IOUs" are privately rather than publicly owned, and are typically vertically integrated. See TOMAIN, *supra* note 13, at 379.

(“IOUs”) providing customers with a power mix composed of 36% renewable power.⁴⁰

By adding a new chapter to its Utilities Code, California targeted energy storage technology and aimed to grow the usage of such technology within the state by implementing mandatory usage quotas.⁴¹ The new chapter focuses on Energy Storage Systems (“ESSs”)⁴² which the CPUC defines as “commercially available technology that is capable of absorbing energy, storing it for a period of time, and thereafter dispatching the energy.”⁴³ Through Public Utility Commission rulemaking, California’s mandate directs the three IOUs in the state, Pacific Gas and Electric, Southern California Edison, and San Diego Gas and Electric, to procure a combined 1,325 megawatts (“MWs”) of energy from ESSs by the year 2020.⁴⁴ The guiding principles of the procurement policy—and thus targets of the law—focus on optimizing the electrical grid, integrating renewable energy, and reducing greenhouse gas emissions.⁴⁵

The CPUC code suggests that ESSs *may* have the characteristics of being either centralized or distributed, or be owned by load serving entities (“LSEs”),⁴⁶ local electric utilities, customers of

40. CAL. PUB. UTIL. COMM’N, *supra* note 38.

41. CAL. PUB. UTIL. CODE § 2836(a)(1) (West 2013) (“[T]he commission shall open a proceeding to determine appropriate targets . . . to procure viable and cost-effective energy storage[.]”); *Id.* § 2837 (explaining that each renewable energy procurement plan “shall require the utility to procure new energy storage systems that are appropriate to allow the electrical corporation to comply with the [procurement mandate.]”).

42. *Id.* § 2835(a)(1) (defining Energy Storage System as ESS, the term the California statute and public utility code use to reference ESRs, and the terms should be viewed as referring to the same variety of resources).

43. *Id.*

44. Decision Adopting Energy Storage Procurement Framework and Design Program at 2, Order Instituting Rulemaking Pursuant to Assembly Bill 2514 to Consider the Adoption of Procurement Targets for Viable and Cost-Effective Energy Storage Systems, Decision 13-10-040, Oct. 17, 2013 (on file with Cal. Pub. Util. Comm’n.) (decision issued in rulemaking 10-12-007 filed Dec. 16, 2013) [hereinafter Procurement Targets Rulemaking].

45. *Id.* at app. A § 1.

46. LSE, or “load serving entity, means an electrical corporation, electric service provider, or community choice aggregator.” The public utility code excludes the following things from being defined as LSEs: local publicly owned electric utilities, the State Water Project, and eligible customer-side generation. CAL. PUB. UTIL. CODE § 380(k) (West 2019).

LSEs or utilities, “a third party, or [be] jointly owned by two or more” of the previously suggested owners.⁴⁷

An ESS in California *must* be cost-effective and *must* serve at least one of the following goals: reduce greenhouse gases, reduce peak electrical demand, substitute or defer for an investment in energy infrastructure, or improve grid reliability.⁴⁸ Finally, ESSs *must* perform at least one of four listed functions by using mechanical, chemical, or thermal processes to store energy produced at one time for later use. These functions include storing energy generated from renewable resources, storing energy that was generated by a mechanical process that would otherwise be wasted,⁴⁹ or storing thermal energy for direct usage in heating and cooling, which would serve to offset the use of electricity at a later date.⁵⁰

California’s storage mandate will operate hand-in-hand with the RPS, which establishes targets for renewable energy sales in the state, and sets the goal of comprising 60% of all retail sales of electricity in the state to be from eligible renewable energy resources by December 31, 2030.⁵¹ The aim of California’s RPS is conferring benefits on residents of the state such as displacing fossil fuel consumption, reducing air pollution, meeting climate change goals, promoting stable retail rates for electric service, diversifying the state’s energy generation portfolio, and contributing to the safe and reliable operation of the grid, amongst other benefits.⁵² Additionally, the Public Utility Code insists that energy “generated by eligible renewable energy resources is necessary to improve California’s air quality and public health, particularly in disadvantaged communities[.]”⁵³

47. CAL. PUB. UTIL. CODE §§ 2835(a)(2)(A)–(B).

48. *Id.* § 2835(a)(3).

49. *Id.* §§ 2835(a)(4)(A)–(D). For example, perhaps a surge of wind-generation was produced during a lull in demand; if the surplus cannot be stored and is not required for immediate use, the energy generated by the windmill would go to waste.

50. *Id.* (the later date, presumably being a period of high demand).

51. *Id.* § 399.11(a).

52. *Id.* § 399.11(b).

53. *Id.* § 399.11(e)(1).

B. Operation of California's Electricity Market

California operates a regulated retail electricity market using cost-of-service ratemaking,⁵⁴ while the wholesale markets are FERC-controlled competitive-market systems overseen by the California Independent Systems Operator (“CAISO”).⁵⁵ CAISO, like the other RTO/ISOs⁵⁶ in their respective jurisdictions, is “responsible for ensuring equitable and reliable access to the [] grid”, and ensuring “fair transmission pricing.”⁵⁷ To better understand the relationship between the retail market and the RTOs, a basic understanding of the RTO system is helpful.

1. Regional Transmission Organizations, Generally

To prevent issues that may occur if the same entity owns all of the generation, transmission, and distribution assets in a particular area, utilities voluntarily form RTOs and place control of their transmission assets under the direct management of the independent, impartial entities.⁵⁸ By vesting control of transmission assets in an impartial body, competition is preserved by avoiding any possible self-dealing or other abuses that could occur if utilities themselves were able to make decisions as to which generators are granted access to transmission lines.⁵⁹

Because generators of electricity have open access to transmission assets, they are assured a market to sell their products so long as they produce in a cost-effective manner.⁶⁰ RTOs operate under

54. *See generally* CAL. PUB. UTIL. COMM’N., CONSUMER AND RETAIL CHOICE, THE ROLE OF THE UTILITY, AND AN EVOLVING REGULATORY FRAMEWORK (2017), <https://perma.cc/H2FD-C5AL> [hereinafter EVOLVING REGULATORY FRAMEWORK].

55. *See Understanding the ISO*, CALIFORNIA ISO, <https://perma.cc/P2RZ-2267>.

56. The labels RTO and ISO are largely synonymous and should be viewed as such for the purposes of this article. *See* TOMAIN, *supra* note 13, at 406—07 (explaining that an ISO is a not-for-profit RTO); *see generally* Order No. 841, *supra* note 12, at 9,580 (using “RTO/ISO” throughout the rule to reference FERC-controlled transmission organizations).

57. 4 MICHAEL A. YUFFEE ET AL., ENERGY LAW AND TRANSACTIONS § 89.01 (2018).

58. *Id.*

59. *Id.*

60. Final Rulemaking, Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities, 61 Fed. Reg. 21,540 (1996) (to be codified at 18 C.F.R. parts 35, 385) [hereinafter Order 888].

the presumption that “competition, rather than regulation, provides the most effective means to improve service reliability and reduce the cost of electricity to consumers[;]”⁶¹ therefore, the RTO will only procure as much generation as is required by corresponding demand. To keep prices down, they accept bids from generators offering the lowest price first, and gradually accept higher bids as demand increases, capping the procurement at the amount of power needed to satisfy the demand.⁶² The highest bid accepted, known as the “clearing price,” is the rate paid to all generators accepted into the market.⁶³ Public utilities within the region served by the RTO can then procure their power from the RTO-run power auction, or enter into bilateral contracts with generators—those contracts being subject to FERC review to determine whether the contracts are unjust or unreasonable.⁶⁴

2. California Investor Owned Utilities’ Procurement of Power

California IOUs procure the power they distribute to retail customers primarily in two ways; the first being through the CAISO wholesale market.⁶⁵ Using this method, the IOU buys power sent to CAISO from generators who have cleared the market for the specified period of time.⁶⁶ The IOU does not know exactly who produced the power or exactly what fuel was used to generate it—they only know that they are getting a unit of power composed of the specified fuel mix provided by CAISO. The second way an IOU procures power is via bilateral contracts with generators—although this avoids the wholesale market, these transactions are still subject to a “just and reasonableness” review by FERC.⁶⁷ Procuring power in this manner allows an IOU to know exactly what

61. YUFFEE ET AL., *supra* note 57, at § 89.01.

62. *See generally Learning Center*, PJM, <https://perma.cc/NUS5-GFSW>.

63. *Id.*

64. *See* 16 U.S.C. § 824e(a) (explaining that whenever the Commission finds any rate or charge for a wholesale sale of generation or transmission to be unjust or unreasonable, the Commission can void the rate or charge and substitute it with their own price deemed to be just and reasonable); *see also Learning Center*, *supra* note 62.

65. *Market Processes and Products*, CAL. INDEP. SYS. OPERATOR, <https://perma.cc/E6US-JW5N>.

66. *Id.*

67. *See* 16 U.S.C. § 824e(a).

type of fuel was used to produce the acquired electricity. In both scenarios, FERC has authority over the wholesale transaction, while the CPUC governs the subsequent retail sales.⁶⁸ In fulfilling the California mandate to procure a particular amount of generation from ESSs, it is important that IOUs keep track of every kilowatt of ESS power procured and get corresponding documentation to prove compliance with the law.⁶⁹ The cost burden for the ESS procurement program is distributed to California ratepayers based on the amount of power each utility procures;⁷⁰ this cost-based recovery scheme is appropriate so long as the rates paid are proportional to the realized benefits.⁷¹

III. FEDERALISM AND PREEMPTION

Order 841 was adopted to “remove barriers to the participation of electric storage resources in the . . . [RTO] and Independent System Operator [markets].”⁷² With Order 841, FERC mandated that RTOs provide unique market rules that “recogniz[e] the physical and operational characteristics of [ESRs and] facilitate their participation in the [*wholesale market*].”⁷³ But, while the Order looks promising for manufacturers and users of ESR technology, what does it mean for states like California? Under this new regime, is it possible for federal and state jurisdiction to get along? According to Mark Kalpin, a partner in the Washington D.C. office of Holland & Knight, LLP, “[t]here are a lot of seams that are going to have to be worked out and thought through.”⁷⁴

68. 16 U.S.C. § 824(a); 16 U.S.C. § 824e(a).

69. CAL. PUB. UTIL. CODE §§ 2836, 2837.

70. FERREY, *supra* note 28.

71. CAL. PUB. UTIL. CODE § 2838.3 (West 2017); *see* CAL. PUB. UTIL. CODE § 451 (West 1977).

72. Order No. 841, *supra* note 12, at 9,580.

73. *Id.* at 9,582 (recall that under the FPA, FERC has exclusive jurisdiction over all transmission and wholesale sales of electric energy in interstate commerce).

74. Keith Goldberg, *FERC Energy Storage Rule Is a Grid Game-Changer*, LAW360 (Feb. 16, 2018), <https://perma.cc/KVA6-FMRQ>.

A. The Benefit of the Federal System

The Supremacy Clause of the U.S. Constitution makes the laws of the United States “the supreme Law of the Land[.]”⁷⁵ But, the United States operates on a system of dual sovereignty where state and federal authority run concurrently, giving the states great latitude to govern so long as they do not run afoul of the supremacy of the federal government.⁷⁶ By declaring that all powers not specifically granted to the federal government be reserved to the states or citizens, the Constitution allows states far-reaching authority to pursue their own legislative priorities.⁷⁷

The creation of two governments, but one to rule them all, is premised on the idea of enhancing freedom—not condemning it to the purgatory of legislative gridlock.⁷⁸ Giving concurrent powers to the state and federal governments “enhances freedom [] by protecting the integrity of [those bodies] themselves, [] and by protecting the [citizens], from whom all governmental powers are derived.”⁷⁹ There are many benefits of this structure, but a notable few include the creation of a government which is “sensitive to the diverse needs of a heterogeneous society[.]”⁸⁰ allowing states to be laboratories of democracy by permitting governmental innovation and experimentation; and promoting the ideology of a capitalist society by forcing states to compete for citizenry which in turn affects congressional influence.⁸¹

B. The Preemptive Power of FERC

Although states exercise great authority in structuring their governments and pursuing their own objectives, they must yield to federal law when a preemptive situation arises.⁸² This yield to federal supremacy applies equally to federal statutes and regulations.⁸³ Federal regulations are promulgated by executive branch

75. U.S. CONST. art. VI, cl. 2.

76. *Burt v. Titlow*, 571 U.S. 12, 19 (2013).

77. *Shelby Cty. v. Holder*, 570 U.S. 529, 543 (2013).

78. *See Alden v. Me.*, 527 U.S. 706, 758 (1999).

79. *Bond v. United States*, 564 U.S. 211, 221 (2011).

80. *Gregory v. Ashcroft*, 501 U.S. 452, 458 (1991).

81. *Id.*

82. *Shelby Cty.*, 570 U.S. at 542–43.

83. *Fid. Fed. Sav. & Loan Ass’n v. de la Cuesta*, 458 U.S. 141, 153 (1982).

agencies which “are subject to multiple sources of law, including constitutional provisions . . . , the Administrative Procedure Act (“APA”), ‘organic statutes’” and judge-made law.⁸⁴ Many regulatory and benefit programs are so large and complex that Congress is not well suited to craft the intricate rules required to govern such programs, thus they pass organic statutes which grant authority to administrative agencies to craft rules carrying the force of federal law.⁸⁵ Where an agency administrator (or a Commission) promulgates regulations intended to preempt state law, the court can make only limited inquiry.⁸⁶ If the regulation is a “reasonable accommodation” of policy committed to the agency’s discretion by its organic statute, the court will not overturn it unless the statute or legislative history shows the policy runs counter to the intentions of Congress.⁸⁷ Additionally, a reviewing court can assess the regulation for procedural deficiencies and reject regulations pursuant to the APA.⁸⁸ Therefore, FERC, as an executive branch agency, has the authority to promulgate rules, which could have preemptive effect on state law.

FERC’s relevant source of authority comes from Part II of the FPA, which was passed in 1935 and stands largely intact today.⁸⁹ The division of power between state and federal authority is broken up by section 201 of the FPA which states “the business of transmitting and selling electric energy . . . to the public is affected with [the] public interest, and that Federal regulation . . . [over] the transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce is necessary in the public interest[.]”⁹⁰ Such federal regulation extends only to matters not regulated by the states, and does not extend “to

84. ROBERT L. GLICKSMAN & RICHARD E. LEVY, ADMINISTRATIVE LAW AGENCY ACTION IN LEGAL CONTEXT 1 (2d ed. 2018).

85. *Id.* at 6–7.

86. *Fid. Fed. Sav. & Loan*, 458 U.S. at 154 (citing *United States v. Shimer*, 367 U.S. 374, 383 (1961)).

87. *Id.*

88. 5 U.S.C. §§ 551–59, 701–03 (2018).

89. 16 U.S.C. §§ 824a–824w (2018); *see also* Lawrence R. Greenfield, *An Overview of the Federal Energy Regulatory Commission and Federal Regulation of Public Utilities*, FERC (2017), <https://perma.cc/B2NH-WAMT>.

90. 16 U.S.C. § 824(a).

any other sale of electric energy[.]” and does not give FERC authority over “facilities used for the generation of electric energy[.]”⁹¹ A 1995 FERC holding sheds some light on the authority left to the states under the FPA.⁹² In this case, the Commission stated, “[a]s a general matter, states have broad powers under state law to direct the planning and resource decisions of utilities under their jurisdiction.”⁹³ Comparing this holding to recent holdings from the federal courts is further demonstrative.⁹⁴ Three decisions, in particular, address the dynamic between state and federal authority in the energy market, and provide a framework for assessing modern state and federal energy initiatives.

IV. FEDERALISM IN THE ENERGY ECONOMY

The following three cases decided by the U.S. Supreme Court highlight the unique inquiries to be made when evaluating preemption issues in the energy economy.

A. *Oneok, Inc., v. Learjet, Inc.*, 135 S. Ct. 1591 (2015)

Oneok v. Learjet made its way to the Supreme Court on appeal from the Ninth Circuit, where the Court affirmed the Court of Appeals and held that a state law antitrust claim did not fall within a field preempted by the Natural Gas Act (“NGA”).⁹⁵ Although dealing with the NGA and not the FPA, *Oneok* is relevant to an inquiry into electricity because the Court’s analysis grapples with FERC’s authority to determine whether any “rate, charge, or classification . . . or any rule, regulation, practice, or contract affecting such rate, charge, or classification is unjust, unreasonable, unduly discriminatory, or preferential[.]”⁹⁶ This is the same duty charged

91. *Id.* § 824(b)(1).

92. *See generally* S. Cal. Edison Co. San Diego Gas & Elec. Co., 71 FERC ¶ 61,269 (June 2, 1995).

93. *Id.* at 62,080.

94. *See infra*, Part IV.

95. *Oneok*, 135 S. Ct. at 1602–03; *see also* 15 U.S.C. §§ 717–717z (2018).

96. 15 U.S.C. § 717d(a); *Oneok*, 135 S. Ct. at 1596.

to FERC regarding review of electrical rates and charges under the FPA.⁹⁷

In *Oneok*, a group of natural gas pipeline operators backed by the United States⁹⁸ sought certiorari to resolve the issue of “whether the Natural Gas Act pre-empts retail customers’ state antitrust law challenges to practices that also affect wholesale rates.”⁹⁹ The preemption analysis focused solely on *field preemption*, which occurs when Congress forbids states from taking action in a particular field by wholly occupying that field with federal law.¹⁰⁰ Compare field preemption with *conflict preemption*, which occurs when a federal law cannot operate correctly due to an existing state law or compliance with both the relevant state and federal law would be impossible.¹⁰¹

Petitioners in *Oneok* asserted that respondents’ claims under state antitrust law were field preempted because the NGA wholly occupies the field of wholesale rate regulation and the state law antitrust claims challenged practices affecting wholesale rates.¹⁰² The NGA confers explicit authority to FERC to ensure wholesale rates are reasonable and, with this authority, FERC prohibits anticompetitive activity that would provide for unjust or unreasonable rates.¹⁰³ Addressing this issue with delicate regard for state freedom, Justice Breyer quoted *Panhandle Eastern Pipe Line Co., v. Public Service Commission of Indiana* stating “the Natural Gas Act ‘was drawn with meticulous regard for the continued exercise of state power, not to handicap or dilute it in any way.’”¹⁰⁴ Compare this statement with language in the FPA stating that regulation of transmitting and selling electric energy is affected with the public interest and thus requires federal regulation, but such regulation can “*extend only to those matters which are not subject to regulation*

97. 16 U.S.C. § 824d(a); *see also* *Nw. Cent. Pipeline Corp. v. State Corp. Comm’n*, 489 U.S. 493, 506 (1989) (“The natural gas industry is subject to interlocking regulation both by federal and state authorities.”).

98. *Oneok*, 135 S. Ct. at 1599.

99. *Id.*

100. *Id.* at 1595.

101. *Id.*

102. *Id.* at 1598.

103. *Id.* at 1599.

104. *Id.* (quoting *Panhandle E. Pipe Line Co. v. Pub. Serv. Comm’n of Ind.*, 332 U.S. 507, 517–18 (1947)).

by the States.”¹⁰⁵ It would appear that the FPA was written with the same meticulous regard for continuing exercise of state power that was employed when drafting the NGA.

Addressing field preemption in the context of natural gas, Justice Breyer drew upon precedents that considered the target of the state law in question—the target being the dispositive factor in the preemption analysis.¹⁰⁶ With this analysis, Justice Breyer emphasized a “dividing line” between state and federal authority¹⁰⁷ using two Supreme Court holdings, both arising out of Kansas and authored by Justice Brennan: *Northern Natural Gas Co. v. State Corporation Commission of Kansas*¹⁰⁸ and *Northwest Central Pipeline Corp. v. State Corporation Commission of Kansas*.¹⁰⁹

1. *Northern Natural, Northwest Central, and Aiming at the NGA*

In *Northern Natural*, the Court held that a Kansas program requiring an interstate pipeline company to “purchase gas ratably from all wells connecting with its pipeline system in each gas field within the State”¹¹⁰ was an invalid invasion of Federal Power Commission’s (the Federal Power Commission is now called FERC) exclusive jurisdiction because the federal regulatory scheme left “no room either for direct state regulation of the prices of interstate wholesales of natural gas, or for state regulations which would indirectly achieve the same result.”¹¹¹ The target of this law was the manner in which gas was to be purchased, which had an effect on FERC’s wholesale market.¹¹² The aim of the law totally missed the state carve-out for “production and gathering,” which would have

105. 16 U.S.C. § 824(a) (emphasis added).

106. *Oneok*, 135 S. Ct. at 1599–1600.

107. *Id.* at 1600.

108. *See generally* *N. Nat. Gas Co. v. State Corp. Comm’n. of Kan.*, 372 U.S. 84 (1963).

109. *See generally* *Nw. Cent.*, 489 U.S. at 493.

110. *N. Nat. Gas Co.*, 372 U.S. at 86.

111. *Id.* at 91 (citation omitted).

112. *Id.*

allowed the law to stand as a valid exercise of state power authorized by the federal law.¹¹³ Contrast this result with *Northwest Central*, where the issue was a Kansas regulation “providing for the permanent cancellation of producers’ entitlements to quantities of . . . gas.”¹¹⁴

In *Northwest Central*, the pipeline companies argued that a regulation was preempted because it caused pipelines to increase the amount of gas purchased from a particular gas field, affecting the companies’ purchase mixes and cost structures, and also that it infringed on FERC’s exclusive jurisdiction “over the abandonment of gas reserves dedicated to interstate commerce.”¹¹⁵ The Kansas Commission aimed to regulate the Hugoton gas field to protect the property rights of stakeholders sharing in a common pool of gas and to prevent the waste of the gas in the field¹¹⁶ using the “production and gathering” exemption from federal regulation under the NGA.¹¹⁷

After much movement through the courts, including two trips to both the Kansas Supreme Court and the U.S. Supreme Court, Justice Brennan ultimately held that, because the aim of the Kansas regulation was the production of gas and not its marketing, it was not preempted under the NGA.¹¹⁸ Because the NGA articulates a division of state and federal power over the natural gas industry and identifies areas into which federal authority cannot extend, a state regulation aimed at the very area of the law carved out for state authority cannot possibly be field preempted.¹¹⁹

113. 15 U.S.C. § 717(b) (the “production and gathering” exemption from federal regulation).

114. *Nw. Cent.*, 489 U.S. at 496–97 (this was said to have had the effect of the Kansas commission dictating the timing of production of gas from a particular oil field).

115. *Id.* at 497.

116. *Id.*

117. 15 U.S.C. § 717(b); see *Nw. Cent.*, 489 U.S. at 508 (district court holding that the Kansas regulation fell within the exemption).

118. *Nw. Cent.*, 489 U.S. at 509.

119. See 15 U.S.C. § 717(b) (providing an exemption from federal regulation to matters pertaining to the production or gathering of natural gas); *Nw. Cent.*, 489 U.S. at 510 (discussing the NGA and the jurisdictional divide).

2. Application of *Northern Natural* and *Northwest Central* to *Oneok*

Going back to *Oneok* and Justice Breyer's "dividing line" between state and federal authority, "the importance of considering the *target* at which the state law *aims* in determining whether that law is pre-empted" is of crucial significance.¹²⁰ Illustrating this point is a hypothetical given by the Court. "*Suppose FERC . . . had denied cost recovery for pipelines' failure to recycle. Would that fact deny States the power to enact and apply recycling laws? These state laws might well raise pipelines' operating costs, and thus the costs of wholesale natural gas transportation.*"¹²¹ The hypothetical illustrates that finding field preemption merely because costs and rates¹²² might be affected by a state law aimed at an issue irrelevant to the federal law at issue would nullify the express carve-out for state power under the federal statute.¹²³ The analysis led the Court to affirm the Court of Appeals and find that the state law antitrust claims were not preempted by the NGA.¹²⁴ With this concept in mind, consider the following cases decided by the Supreme Court in 2016.

B. FERC v. Electric Power Supply Ass'n, 136 S. Ct. 760 (2016)

In *FERC v. Electric Power Supply Ass'n* ("EPSA"), Justice Kagan explained that the FPA grants FERC authority over "the sale of electric energy at wholesale in interstate commerce," including both wholesale electricity rates and any rule or practice "affecting" such rates[, b]ut the law places beyond FERC's power, and leaves to the States alone, the regulation of "any other sale"—most notably, any retail sale—of electricity."¹²⁵ The issue in the case per-

120. *Oneok*, 135 S. Ct. at 1599.

121. *Id.* at 1601 (emphasis added).

122. Costs and rates are included in FERC's exclusive jurisdiction. 15 U.S.C. § 717.

123. *Oneok*, 135 S. Ct. at 1601.

124. *Id.* at 1602–03.

125. *EPSA*, 136 S. Ct. at 766 (citations omitted). A wholesale sale is any sale for resale, while a retail sale is any sale to an end-user. 16 U.S.C. § 824(d) (providing the definition of "wholesale;" the definition of "retail" is inferred by the definition of "wholesale" and its dictionary definition).

tained to FERC Order 745, where FERC directed the regional authorities to pay providers of “demand response” (“DR”)¹²⁶ the “locational marginal price” (“LMP”),¹²⁷ which is the price the regional authorities paid to power generators.¹²⁸ The D.C. Circuit Court of Appeals held Order 745 invalid because it lured retail customers into the wholesale market by regulating retail consumers’ consumption of power via demand response rates.¹²⁹ Because a federal actor has no authority over retail markets or customers, the D.C. Circuit invalidated Order 745.¹³⁰

Recognizing that FERC’s action in this case had mere indirect effect on the retail market and a direct effect on the wholesale market, the Supreme Court reversed the D.C. Circuit and held that FERC had the authority to regulate the rate paid to demand responders because such a regulation “govern[ed] a practice *directly affecting [a] wholesale [] rate[]*.”¹³¹ Regarding FERC’s regulation of DR and the indirect effect it would have on retail markets, the court noted, “although (inevitably) influencing the retail market too, the [Order] does not intrude on the States’ power to regulate retail sales.”¹³² Because the Order governed a practice directly affecting wholesale electricity rates, FERC’s statutory authority validly extended to the rule addressing DR.¹³³

126. Demand response is the idea of selling a commitment to curtail energy use. Rather than the RTO procuring an additional increment of generation from the market, it will accept bids to curtail an equivalent increment of load. This allows the wholesale market to balance supply and demand while lessening overall strain on the grid. See BOSSELMAN, ET AL., *supra* note 31, at 901; *see also* EPSA, 136 S. Ct. at 770.

127. Locational marginal price, or LMP, is explained as “a way for wholesale electric energy prices to reflect the value of electric energy at different locations, accounting for the patterns of load, generation, and the physical limits of the transmission system.” See *FAQs: Locational Marginal Pricing*, ISO-NEW ENGLAND, <https://perma.cc/D5K5-PPEG>.

128. EPSA, 136 S. Ct. at 771; *see* Order No. 745, Demand Response Competition in Organized Wholesale Energy Markets, 76 Fed. Reg. 16,658, 16,666–69 (Mar. 24, 2011) (codified at 18 C.F.R. § 35.28(g)(1)(v)) [hereinafter Order No. 745].

129. EPSA, 136 S. Ct. at 772.

130. *See* 16 U.S.C. §§ 824(a)–(d); EPSA, 136 S. Ct. at 772.

131. EPSA, 136 S. Ct. at 784 (emphasis added).

132. *Id.*

133. *Id.*

C. Hughes v. Talen Energy Marketing, LLC, 136 S. Ct. 1288 (2016)

Hughes v. Talen Energy explores the federalism dynamic further and introduces the “tethered” rule.¹³⁴ In *Talen Energy*, the State of Maryland took action providing a generating plant a guaranteed rate to sell its capacity in the wholesale auction administered by the FERC—run regional authority, PJM Interconnection (“PJM”).¹³⁵ The Maryland program created a “contract for differences” with a gas-fired generator run by a company called CPV.¹³⁶ The contract for differences had the effect of providing CPV a guaranteed rate for its capacity, so long as its bid was accepted into the FERC-run capacity auction.¹³⁷ If CPV’s bid cleared the market and the ultimate clearing price was lower than the contract price Maryland and CPV contracted for, Maryland “load serving entities” (“LSEs”)¹³⁸ would pay CPV the difference.¹³⁹ Conversely, if the clearing price was higher than the contract price, CPV would refund the LSEs for the difference.¹⁴⁰ Failure to clear the market resulted in no payment from LSEs or PJM, thus CPV had a strong incentive to bid into the market at or around \$0,¹⁴¹ and could count on cost recovery from the Maryland state government.¹⁴²

Because this state-sponsored initiative tethered the participating generator to the FERC market and allowed it to disregard the rate set by the federal authority, the Court ruled that Maryland’s action was an impermissible encroachment on FERC’s territory.¹⁴³ Narrowly construing the holding, Justice Ginsburg explained, “[n]othing in [the] opinion should be read to foreclose Maryland and other States from encouraging production of new or

134. *Talen Energy*, 136 S. Ct. at 1299.

135. *Id.* at 1294–95.

136. *Id.*

137. *Id.* at 1295.

138. A load serving entity is an organization that delivers electricity to retail customers. *Id.* at 1292.

139. *Id.* at 1295.

140. *Id.*

141. Once a generator has satisfied the “Minimum Offer Price Rule (“MOPR”),” it is common practice for the generator to bid into the market at \$0 ensuring *some* payment so long as another generator bids up the clearing price. *Id.* at 1294–95.

142. *See id.* at 1298–99.

143. *Id.* at 1299.

clean generation through measures ‘*untethered to a generator’s wholesale market participation.*’¹⁴⁴ As these cases have illustrated, the bright jurisdictional lines the 74th Congress thought they provided in the FPA are not so bright at all, and a continuously developing energy economy only further strains the 83-year-old statute.

V. ASSESSING THE CALIFORNIA STORAGE PROGRAM

The cases discussed above provide a legal framework for assessing state and federal energy initiatives. Because of constant jurisdictional tensions, any federal program must not run afoul of the express carve-out for state authority in the FPA, and any state program must be assessed for federal preemption.

A. The Problem in California

California’s trailblazing procurement program intends to bring 1,325 MWs of stored energy to California’s power mix by 2020¹⁴⁵ and facilitate the goal of achieving 60% renewable energy in the state by 2030.¹⁴⁶ Aiming to reduce greenhouse gases, reduce peak electrical demand, defer or substitute investment in traditional energy infrastructure, and improve overall grid reliability, California’s procurement mandate targets broad public policy goals and benefits to residents of the state.¹⁴⁷ Furthermore, because ESSs augment efficiency of renewable sources of energy, it can be implied that ESSs’ serve the goals of the RPS as well.¹⁴⁸ By coupling the goals of the ESS mandate with the goals of the RPS, the target of the procurement mandate expands to things like displacing fossil fuel consumption, reducing air pollution, meeting state climate change goals, and improving the quality of life for California’s most disadvantaged communities by improving air quality.

144. *Id.* (emphasis added).

145. Procurement Targets Rulemaking, *supra* note 44, at 2; Shallenberger, *supra* note 36.

146. CAL. PUB. UTIL. CODE § 399.11(a).

147. *Id.* § 399.11(b) (describing the goals of the state RPS).

148. *Id.*

FERC Order 841 comes into play when considering the dynamic between retail and wholesale sales in California. Order 841 mandates that any RTO (CAISO being one of them) open their market to ESRs in a non-discriminatory and accommodating fashion.¹⁴⁹ But California beat FERC to the punch by having a regime in place which incorporates storage resources into state public policy.¹⁵⁰ California law refers to storage technology as ESSs, defining an ESS as “commercially available technology that is capable of absorbing energy, storing it for a period of time, and thereafter dispatching the energy.”¹⁵¹ California’s mandate to procure 1,325 MW of ESS power raises an interesting question now that FERC Order 841 is the federal law; whether or not the state law is preempted.

1. A Hypothetical to Illustrate

Consider the following hypothetical.¹⁵² Storage Co., a provider of ESS in California, wants to take advantage of the new FERC Order mandating CAISO not only be completely non-discriminatory in allowing ESSs into the wholesale markets, but also must be accommodating to the unique physical and operational characteristics of these resources as well. Storage Co. no longer needs to haggle with the IOUs and bargain for certain treatment—they can go straight to CAISO for a ready market required by federal law to recognize the unique quirks of operating a storage resource.

For example, Storage Co. operates a lithium ion battery facility. Battery life is measured in cycles, where one cycle is a charge to full capacity, then a total discharge of that capacity.¹⁵³ In order to maximize the life of a battery, cycling must be limited, and the battery should continuously maintain a charge of about 50-60 percent to the maximum extent possible.¹⁵⁴ If the battery is discharged in a manner consistent with Storage Co.’s instructions, the useful life of the battery could be extended from about three years,

149. Order No. 841, 83 Fed. Reg. at 9,582.

150. See Procurement Targets Rulemaking, *supra* note 44.

151. CAL. PUB. UTIL. CODE § 2835(a)(1).

152. The fact pattern used for this hypothetical was drawn from *Indianapolis Power & Light Co. v. Midcontinent Indep. Sys. Operator, Inc.* See generally *Indianapolis Power & Light Co.*, 158 FERC ¶ 61,107.

153. *Id.* at 21.

154. *Id.* at 22.

up to about ten years.¹⁵⁵ If Storage Co. needs to negotiate with Southern California Edison (“SCE”) for discharge procedure rights, a discharge procedure that allows SCE to pull energy at a rate that maximizes cycles will reduce the life of the battery, and the cost of more frequent battery replacement, and disposal will be rolled into the rate bargained for, most likely driving up costs. By opting instead to bid its power into CAISO, which is now required to adhere to the discharge method prescribed by Storage Co., there is no longer a need to bargain for treatment or power purchases with the IOUs.

2. The Problem Highlighted by the Hypothetical

The IOUs like SCE will now have a more difficult time bargaining for generation produced by ESS providers because, as a result of Order 841, CAISO has become a much more attractive place to do business. If IOUs are to fulfill their ESS procurement mandate required by California law, they must now offer more attractive rates and accommodating treatment to ESS providers, so that those providers, which have limited amounts of generation to sell, will sell that generation to the IOUs. However, by offering attractive contract terms to soak up as much ESS generation as possible to fulfill the state law mandate, wholesale rates are affected. If an ESS that could contribute to the wholesale auction is now sucked out of that auction by more attractive terms driven by a state law, the state law needs to be evaluated to ensure that its effect on the wholesale market does not run afoul of the FPA or existing precedent.

B. Does FERC Order 841 Stay Within Statutory Authority?

The legal frameworks from *Oneok v. Learjet*, *FERC v. Electric Power Supply Ass’n.*, and *Hughes v. Talen Energy* supply an appropriate method to evaluate this issue. FERC has overseen CAISO since its inception, so federal governance here is not new.¹⁵⁶ What is new is FERC’s take on ESRs, or as California calls them,

155. *Id.*

156. See 16 U.S.C. 824a; see also Final Rulemaking, Regional Transmission Organizations, 65 Fed. Reg. 809 (Jan. 6, 2000) (to be codified at 18 C.F.R. pt. 35) [hereinafter Order 2000] (creating RTOs).

ESSs.¹⁵⁷ Prior to Order 841, FERC had been silent on the idea of stored energy in the wholesale markets. Order 841's direction could represent a federal power-grab over a class of resources which receives widely different treatment among the states. But, FERC's order does not direct RTO/ISOs to actually procure a single kilowatt of ESR power—it simply says that if a provider of energy storage is technically capable of providing a service and can offer that service at a competitive rate, the RTO/ISO must allow that service into whichever wholesale market it is capable of performing in.¹⁵⁸

Compare this to Order 745 highlighted in *EPSA*.¹⁵⁹ In that case, Order 745 required that the RTOs pay a certain rate to participants in the demand response program.¹⁶⁰ These participants were essentially retail customers curtailing retail consumption at the incentive of FERC, and being paid directly by the FERC wholesale market operators for the commitment to curtail usage.¹⁶¹ In *EPSA*, the Order's direct effect was on the wholesale rate, as the source of the payment came from the wholesale operator and was statutorily prescribed to be the Locational Marginal Price.¹⁶² Retail rates suffered mere indirect effect, as the Order did not regulate the price which retail customers paid, nor did it dictate any behavior in that market space.¹⁶³ There was an indirect effect on retail rates because retail customers were curtailing usage, but as the Court noted, FERC's statutory authority extends to practices (like the one at hand) which directly affect wholesale rates, thus, Order 745 withstood scrutiny as a practice directly affecting a wholesale rate.¹⁶⁴

Going back to the instant case, it can be determined that Order 841's effect is a practice directly affecting wholesale rates, and at best has an indirect effect on retail rates. Like in *EPSA*, there will be some amount of poaching customers from one market to the other, but those market effects are indirect. A direct effect on the

157. CAL. PUB. UTIL. CODE § 2835(a)(1).

158. Order No. 841, *supra* note 12, at 9,582.

159. *See EPSA*, 136 S. Ct. at 771, 781–82.

160. *Id.*; *see* Order No. 745, *supra* note 128, at 16,666–69.

161. *EPSA*, 136 S. Ct. at 784.

162. *Id.* at 771 (explaining the LMP); *id.* at 775 (“[c]ompensation for demand response thus directly affects wholesale prices”).

163. *Id.* at 776.

164. *Id.* at 776, 784.

California retail space would be something like a FERC direction to CAISO to sell ESS energy to end users at prescribed rates. Here, the situation does not come close to the standard needed to show a direct effect. Order 841 is a mandate to open markets and provide fair treatment, but it does not direct RTOs to procure any power, nor does it mention a rate to pay ESR providers that are accepted into the market.¹⁶⁵ This is clearly a rule directly affecting the wholesale market's rate, with indirect effects being felt in the retail space. For these reasons, Order 841 is within FERC's statutory authority.

C. Is California's State ESS Procurement Mandate a Lawful Exercise of State Power?

Next, California's procurement mandate is examined to determine if it runs afoul of the Supremacy Clause of the federal government. FERC's issuance of Order 841 is a regulation of the wholesale power markets—an area of law already reserved to FERC. The underlying policy of Order 841 is not to preclude states from encouraging energy storage, but to make the wholesale market more inclusive. This goal encourages the use of ESR resources, thus causing ESR capabilities to increase while the costs associated with them decrease through technological advances.¹⁶⁶ California's procurement mandate serves the goal of Order 841 by encouraging ESS providers to operate in the state of California, which facilitates development and cost effectiveness of such resources.¹⁶⁷

The target of California's law is not the FERC wholesale market; it is aimed squarely at policy reserved to the state by an express carve-out for state authority in the FPA.¹⁶⁸ By directing IOUs within the state to procure energy from ESSs, the CPUC aims at things like reducing greenhouse gases, reducing peak electrical demand, deferring or substituting investment in energy infrastructure, and improving grid reliability.¹⁶⁹ This aim comingles with the state RPS which targets the goal of acquiring 60% of the

165. See Order No. 841, *supra* note 12, at 9,582–83.

166. *Id.* at 9,584.

167. See Procurement Targets Rulemaking, *supra* note 44.

168. 16 U.S.C. § 824(a).

169. CAL. PUB. UTIL. CODE. § 2835(a)(3).

energy used in the state from renewable sources by 2030.¹⁷⁰ These aims are nowhere near the FERC wholesale markets, and certainly not close to “transmission of electric energy in interstate commerce and the sale of such energy at wholesale in interstate commerce[.]”¹⁷¹

Compare the California program to the Kansas programs highlighted by the *Oneok* Court. In *Northern Natural*, a Kansas law that aimed directly at an area of law governed by FERC was held invalid.¹⁷² In that case, the state law had an impermissible effect on the wholesale market for natural gas because the aim of the law was not protected by any form of jurisdictional carve-out in the NGA.¹⁷³ Contrast that result with the holding in *Northwest Central*, where a Kansas law affecting natural gas purchase mixes and cost structures was upheld because the target of the law was an express carve-out for state authority in the NGA.¹⁷⁴ In *Oneok*, the Court noted that the NGA “was drawn with meticulous regard for the continued exercise of state power,” and was not intended “to handicap or dilute it in any way.”¹⁷⁵ Looking at the FPA’s carve out for state power in section 201, it appears that the statute was drawn with the same meticulous regard for state power.¹⁷⁶ California’s target is most certainly a matter subject to regulation by the states because it is not business consisting of transmission of electricity in interstate commerce or the sale of electricity at wholesale in interstate commerce—it targets broad public policy goals that benefit the state’s residents.¹⁷⁷ California’s law thus survives a field preemption analysis.

Next, a look into the effect of California’s law on the wholesale market is required. By requiring state IOUs to procure a certain amount of ESS generated electricity, an effect is felt on the CAISO market. Since procuring energy from the CAISO market does not allow IOUs to verify the fuel source of the purchased electricity,

170. *Id.* § 399.11(a).

171. 16 U.S.C. § 824(a).

172. *N. Nat. Gas Co.*, 372 U.S. at 85–89.

173. *Id.* at 89–93.

174. *Nw. Cent.*, 489 U.S. at 509.

175. *Oneok*, 135 S. Ct. at 1599 (quoting *Panhandle*, 332 U.S. at 517–18).

176. 16 U.S.C. § 824(a).

177. See CAL. PUB. UTIL. CODE § 2835(a)(3) (listing the goals of the ESS procurement program).

IOUs must procure the mandatory ESS generated power using bilateral contracts. Because the state law mandates the IOUs to procure a specified amount of stored energy and there is not an abundance of this type of resource, IOUs will probably offer very attractive rates and terms to the ESS generators, thus diverting them from the wholesale market. But there is a big difference between affecting a rate and poaching a customer, as shown in *EPSA*.¹⁷⁸

In the *EPSA* case, the Court grappled with the issue of retail customers being lured into the wholesale market, and at the same time, curtailing their retail consumption, all because of a federal program.¹⁷⁹ In the instant case, a state law could presumably lure generators who would be selling energy to the FERC market to instead sell that power to IOUs directly. By taking supply from the FERC market, there is less power available to meet demand, and the market could be forced to accept a higher clearing price. Because the clearing price is the wholesale rate paid to generators selling electric energy in interstate commerce, a state law having a direct effect on said rate would be invalidated by the FPA.¹⁸⁰

While this idea could raise an eyebrow, it should be disregarded. The *EPSA* Court found a direct effect on the wholesale rate when providers of demand response were provided with a statutorily prescribed rate, the LMP.¹⁸¹ The fact that retail customers left the retail market and sold their curtailment to the wholesale market was considered to be an indirect effect on the retail market.¹⁸² Using *Oneok* further focuses the idea.

The *Oneok* rule requires an examination into the aim of the state law in question, as the target of such aim feels the direct effect.¹⁸³ Looking at the California storage law, the aim is to increase in-state ESS usage by targeting IOUs serving California's retail

178. See *EPSA*, 136 S. Ct. at 776.

179. *Id.* at 784.

180. The FPA gives FERC exclusive jurisdiction over the regulation of transmission of electricity in interstate commerce. See 16 U.S.C. § 824(a). If a state law were to directly effect the wholesale rate, it would essentially allow a state government to usurp power exclusively granted to the federal government by statute.

181. *EPSA*, 136 S. Ct. at 771.

182. *Id.* at 784.

183. *Oneok*, 135 S. Ct. at 1599.

customers.¹⁸⁴ The direct effect of this aim is a change in retail rate paid by Californians, because as a state using cost-of-service rate-making,¹⁸⁵ the IOUs will recover the cost of procuring the state mandated resources through retail rates approved by CPUC.¹⁸⁶ The effect on retail rates is not only direct, but it is certain. Because California state law mandates the procurement of ESSs, the IOUs are procuring them,¹⁸⁷ and they are rolling the cost into their retail rates—this is a perfect example of a state program landing squarely within an express carve-out for state power in a federal statute.¹⁸⁸ As the *Oneok* Court explained, just because federal costs and rates *may be affected* by a state law, that does not mean that a finding of preemption is appropriate.¹⁸⁹ When a state law aims squarely at a carve-out for state power in a federal statute, finding preemption would effectively nullify that portion of the statute and could not be what Congress intended when drafting the law.¹⁹⁰ In the electricity market, a state law directly affecting retail rates squarely hits the carve-out in the FPA and thus cannot be conflict preempted.

Finally, the California law must be evaluated using *Talen Energy* to ensure that it is not inappropriately tethered to the wholesale market. In *Talen Energy*, the state of Maryland undertook a project to increase intrastate electrical generation by entering into a “contract for differences” with a generator called CPV.¹⁹¹ The inappropriate tether was the condition that CPV clear the PJM¹⁹² capacity market in order to receive payment from either PJM or the Maryland LSEs, whichever was the higher of the two.¹⁹³ If PJM’s market-based rate provided a higher price for CPV’s capacity than the contract with Maryland, CPV would pay the LSEs the difference between the payment from PJM and the contract

184. Procurement Targets Rulemaking, *supra* note 44.

185. EVOLVING REGULATORY FRAMEWORK, *supra* note 54, at 9.

186. FERREY, *supra* note 28.

187. See PACIFIC GAS & ELECTRIC, ELECTRIC DISTRIBUTION RESOURCES PLAN 53 (2015), <https://perma.cc/Y8CD-CB9M> (showing PG&E’s retail storage deployment capacity by county).

188. See 16 U.S.C. § 824(a).

189. *Oneok*, 135 S. Ct. at 1600–02.

190. *Id.* at 1601.

191. *Talen Energy*, 136 S. Ct. at 1294–95.

192. PJM is a FERC-governed ISO like CAISO.

193. *Talen Energy*, 136 S. Ct. at 1294–95.

price.¹⁹⁴ If the PJM rate was below the contract price, the LSEs were obligated to pay CPV the difference.¹⁹⁵ The tether is not hard to see. In the Court's conclusion, Justice Ginsburg explained "[n]othing in [the] opinion should be read to foreclose Maryland and other States from encouraging production of new or clean generation through measures '*untethered to a generator's wholesale market participation*.'"¹⁹⁶

The California ESS procurement mandate is an encouragement of which Justice Ginsburg had in mind.¹⁹⁷ By directing the state IOUs to procure a set amount of ESS generation and allowing the IOUs to recover the cost through retail rates, the wholesale market is completely avoided. Things cannot be tethered if they are not dependent on one another, and the California ESS procurement mandate only depends on the IOUs being able to recover costs from retail customers.¹⁹⁸ Because of the retail-based cost-recovery scheme used by California, the state program is not tethered to the wholesale market and thus withstands review under *Talen Energy*.

VI. CONCLUSION

California's Energy Storage Systems procurement mandate is a groundbreaking measure designed to supply more clean and reliable energy to the state by allowing the capture of power produced now, to be used later. While this technology is still developing, a ready market for such resources will help to advance its capabilities and bring down its cost. FERC Order 841 will springboard storage technology in regions covered by RTOs by allowing storage providers non-discriminatory and accommodating access to the FERC wholesale markets. Although Order 841 speaks directly to the issue of storage technology, it should not be seen as an effort to usurp or preempt state authority to encourage the use of storage technology for electricity generation in the states. By fo-

194. *Id.* at 1295.

195. *Id.*

196. *Id.* at 1299 (emphasis added).

197. *Id.*

198. *See* Procurement Targets Rulemaking, *supra* note 44, at app. A.

cusing on the targets of state storage laws and honoring the authority given to states in the FPA, a system of concurrent federalism will allow state and federal law to operate hand-in-hand to promote the advancement of storage technology, thereby facilitating an era of clean, reliable power to fuel our nation's future.