In the absence of federal climate change policy, many states have adopted programs that encourage clean energy generation from sources such as wind, solar, and nuclear. Nuclear energy in particular remains an attractive option for a number of states pursuing clean energy policies because of its ability to generate electricity without producing any greenhouse gas emissions. Thus far, attempts by state regulators to encourage intrastate clean generation have also been trailed by fierce legal challenges from industry and consumer groups.

This Comment distills the case law on state clean energy programs, and focuses on the legal issues that have been raised in litigation involving New York and Illinois’s zero emission credit programs. It then proposes best practices that state regulators can adopt when designing clean energy programs so as to reduce litigation risk. By insulating their clean energy programs from legal challenges, states will be better equipped to achieve their individual climate change goals.

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INTRODUCTION

Climate change has long been a thorny issue dividing parties and administrations in the United States. For instance, although President Barack Obama has publicly stated that the consequences of climate change are “terrifying,” President Donald Trump, in contrast, has called climate change a hoax “created by and for the Chinese in order to make U.S. manufacturing non-competitive.” In the absence of a coherent domestic approach to climate change, many states have taken it upon themselves to adopt climate-friendly policies in the two sectors that affect climate change most: transportation and electricity.

Transportation and electricity generation account for more than half of all greenhouse gas emissions in the United States. According to the U.S. Environmental Protection Agency, electricity generation was responsible for 29% of all domestic emissions in 2015, and transportation was responsible for 27%. The factor that unites these figures is clear—U.S. dependence on fossil fuels. Fossil fuels such as coal, oil, and natural gas have powered domestic economic development for decades, making it possible for average Americans

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to power their homes, enjoy consumer goods, and travel autonomously. But these benefits have come at a cost. The vast majority of electricity is generated from burning coal and natural gas, whereas almost all fuel used domestically is petroleum-based. And with climate change threatening to affect many aspects of modern life, from the types of crops that are grown, to where American cities are situated, concerted action to reduce greenhouse gas emissions is necessary.

The advent of clean energy technologies such as wind, solar, and nuclear has introduced the possibility of maintaining current standards of living while simultaneously reducing emissions—and many states have taken notice. Nuclear energy in particular is an increasingly attractive option for a number of states pursuing clean energy policies, though it remains a contentious public issue. The fact that nuclear power plants are able to generate electricity without producing any greenhouse gas emissions means that nuclear energy will be key to achieving ambitious emissions reduction targets for certain states. Thus far, any attempts by state regulators to encourage in-state clean generation have also been trailed by fierce legal challenges from industry and consumer groups.

5 See Fossil Fuels, ENVT. AND ENERGY STUDY INST., http://www.eesi.org/topics/fossil-fuels/description [https://perma.cc/SQ7N-GXMM] (explaining that coal is responsible for 32% of greenhouse gas emissions in the United States; natural gas, 27%; and petroleum, 42%).


10 See Rebecca Riffkin, For First Time, Majority in U.S. Oppose Nuclear Energy, GALLUP (Mar. 18, 2016), http://www.gallup.com/poll/190064/first-time-majority- oppose-nuclear-energy.aspx [https://perma.cc/54B8-H3VZ] (stating that 54% of Americans oppose nuclear energy whereas 44% favor it—the first time that a majority of Americans have opposed nuclear energy since Gallup first began asking the question in 1994).

challenges: how can states adopt programs that achieve their energy goals without triggering important legal tripwires?

This Comment distills the case law on state clean energy programs, and identifies best practices for regulators designing programs that can withstand legal challenges. In Part I, I discuss the factual background and policy reasons behind state-led clean energy initiatives. In Part II, I examine the historical allocation of regulatory authority over electricity between states and the federal government, and introduce the constitutional hurdles that state programs must overcome. In Part III, I discuss the Supreme Court’s decisions in Hughes v. Talen Energy Marketing\(^\text{12}\) and Federal Energy Regulatory Commission v. Electric Power Supply Ass’n\(^\text{13}\) (FERC v. EPSA), which have reframed the debate on the limits of states’ regulatory authority in the energy sector. In Part IV, I examine ongoing litigation challenging nuclear energy subsidies in New York and Illinois. In Part V, I provide recommendations for ways that state regulators can design clean energy programs so that these programs are able to withstand legal challenges.

I. STATE EFFORTS TO ENCOURAGE CLEAN ENERGY

Clean and renewable energy sources—those that generate electricity while producing zero or low emissions\(^\text{14}\)—have an environmental advantage over traditional fossil fuels. And in the absence of a national requirement to use energy sources such as nuclear, wind, or solar in electricity generation, states have spearheaded a number of efforts to encourage clean energy development.\(^\text{15}\) States now have a variety of policy instruments available to them, such as renewable portfolio standards, renewable energy credits, zero emission credits, net metering, feed-in-tariffs, local carbon and greenhouse gas regulations, and renewable system benefit charges.\(^\text{16}\)

\(^{12}\) 136 S. Ct. 1288 (2016).
\(^{13}\) 136 S. Ct. 760 (2016).
One of the most well-established methods for states to encourage clean energy generation is a renewable portfolio standard (RPS), which sets a target for the amount of electricity in a particular jurisdiction that must come from renewable sources.\textsuperscript{17} Although just one state, Iowa, had an RPS in 1983, RPSs have become more common in the United States, and as of 2016, twenty-nine states have adopted standards with an additional eight states adopting nonbinding renewable energy goals.\textsuperscript{18} Because each state sets its own renewable energy goals, standards vary from state to state. For instance, although Hawaii has set a goal of sourcing 40% of its electricity from renewable energy by 2030, Texas has chosen to procure a set number of megawatts of electricity from renewable sources by 2015.\textsuperscript{19}

The mechanism by which nearly all state RPSs encourage clean energy generation is a renewable energy certificate (REC) program.\textsuperscript{20} On a conceptual level, a REC reflects the principle that clean air and water have some value to consumers, and that clean generators should be compensated for the positive environmental attributes of their electricity.\textsuperscript{21} RECs can be traded across markets\textsuperscript{22} so that, for instance, a natural gas plant in North Dakota that is required to meet a state RPS of 10% renewable energy could potentially buy RECs from a wind farm in Texas. The North Dakota gas plant would be able to fulfill its state RPS obligation and the Texas wind farm would also financially benefit from the sale of its REC. The price of a REC is determined by supply and demand, although prices in different state


\textsuperscript{18} Durkay, supra note 8.

\textsuperscript{19} Leon, supra note 17, at 4.

\textsuperscript{20} Id. at 6 (observing that “RPSs have caused market players to think about renewable energy development in a context that transcends state boundaries. For one thing, almost all states use renewable energy certificates (RECs) as the mechanism for compliance with the RPS”). Connecticut’s RPS, for example, requires “electric providers to obtain a specified percentage or amount of the energy they generate or sell from renewable sources.” Connecticut Renewable Portfolio Standard, STATE OF CONN. DEPT’ OF ENERGY & ENVTL. PROT., http://www.ct.gov/pura/cwp/view.asp?a=3354&q=415186 [https://perma.cc/W4EK-DN5Y]. Over a number of years, providers are required to obtain increasing percentages of the energy they generate or sell from renewable sources—from 19.5% in 2015 to 28% in 2020. Id. Providers can meet these obligations by purchasing RECs from qualified renewable energy projects—either by buying the REC on its own, or bundled along with the energy. Id.

\textsuperscript{21} See Frank J. Guarini Center on Environmental, Energy, and Land Use Law at N.Y.U. School of Law, State Electricity Regulation in the Shadow of Hughes and EPSA, YOUTUBE (Nov. 14, 2016), https://www.youtube.com/watch?v=17_bERo1hGU (explaining the general concept of RECs).

\textsuperscript{22} Leon, supra note 17, at 6.
markets may vary depending on factors such as whether the state mandates REC purchases or makes them voluntary.\textsuperscript{23}

Apart from RPSs, states have also adopted a number of initiatives that are shaping U.S. clean energy policy. As observed by scholars like Steven Ferrey, 85\% of states have adopted net metering—a policy that compensates customers for electricity that they generate and put back onto the grid—as compared to the approximately 60\% of states that have adopted RPSs.\textsuperscript{24} Additionally, a minority of states have adopted policies such as feed-in tariffs, direct carbon and greenhouse gas regulations, and renewable system benefit charges.\textsuperscript{25} Feed-in-tariffs, which guarantee payments to renewable energy developers by requiring utilities to purchase certain types of power, have been successful in stimulating renewable energy development in the United States and internationally.\textsuperscript{26} Certain states have also adopted carbon or greenhouse gas regulations individually or as part of a coalition. One of the most prominent multistate coalitions is the Regional Greenhouse Gas Initiative, which was formed by nine Eastern states in 2009 to reduce greenhouse gas emissions using a market-based, cap-and-trade approach.\textsuperscript{27} And finally, renewable system benefit charges, which impose a monthly surcharge on consumers that can be used to subsidize renewable energy projects, are currently used by approximately one-third of U.S. states.\textsuperscript{28}

Although increasing reliance on clean energy has clear benefits, the state-by-state approach to encouraging this type of generation has not been without its hurdles. Practically speaking, relying on resources such as wind and solar presents unique technical and financial challenges, as renewable sources of energy may not be consistently available to power homes, and generating facilities may be located far from consumers.\textsuperscript{29}

\begin{footnotesize}
\begin{itemize}
\item\textsuperscript{24} Ferrey, Constitutional Disputes, supra note 16, at 253. But net metering policies vary from state to state, such that the amount of power or compensation for net metering can be capped or otherwise limited. Id. at 278.
\item\textsuperscript{25} Id. at 253.
\item\textsuperscript{26} Id. at 280-81; see also Toby D. Couture, et al., A Policymaker's Guide to Feed-in Tariff Policy Design, NAT'L RENEWABLE ENERGY LAB., https://www.nrel.gov/docs/fy10osti/44849.pdf [https://perma.cc/77DD-UL8N] (discussing the international success of feed-in tariffs).
\item\textsuperscript{27} Elements of RGGI, THE REG'L GREENHOUSE GAS INITIATIVE, https://www.rggi.org/program-overview-and-design/elements [https://perma.cc/U6H7-MRZ3].
\end{itemize}
\end{footnotesize}
II. THE HISTORICAL “BRIGHT-LINE” DIVISION BETWEEN THE STATES AND THE FEDERAL GOVERNMENT UNDER THE FEDERAL POWER ACT

One Supreme Court decision has undergirded all modern challenges involving the division between state and federal authority in electricity regulation: Public Utility Commission of Rhode Island v. Attleboro. In Attleboro, the Supreme Court shaped the future of energy law when it held that, under the Commerce Clause, states are barred from regulating interstate electricity sales and furthermore, that only Congress could fill this “regulatory void.”

Taking a cue from the Court, Congress passed the Federal Power Act of 1935 to fill the gap left by the Attleboro decision, and created an early predecessor of the modern U.S. Federal Energy Regulatory Commission (FERC). FERC is an independent agency that is empowered to regulate “the interstate transmission of electricity, natural gas, and oil,” and “wholesale sales of electricity in interstate commerce.”

Under § 201 of the Federal Power Act, FERC has exclusive jurisdiction over the “transmission of electric energy in interstate commerce,” the “sale of electric energy at wholesale in interstate commerce,” and “all facilities for such transmission or sale of electric energy.” FERC thus has exclusive authority over electricity that is “transmitted from a State and consumed at any point outside thereof,” and electricity that is sold for resale, as opposed to individual consumption. Any spheres outside of these explicit grants of authority, such as retail electricity sold to consumers, are reserved for the states. Although Congress intended this distinction between wholesale electricity, which is regulated by the federal government, and retail electricity, which is regulated by the states, to be an easily discernable “bright line,” it has proven to be anything but.

31 273 U.S. 83 (1927).
32 Id. at 89-90; FERC v. EPSA, 136 S. Ct. 760, 767 (2016) (citing Attleboro, 273 U.S. at 90).
34 FERC v. EPSA, 136 S. Ct. at 767.
37 §§ 824(c)-(d).
38 § 824(a).
A. Preemption under the Federal Power Act

Under the Supremacy Clause of the U.S. Constitution, federal law preempts contrary state law. Preemption can also be subdivided into categories: express preemption, where Congress explicitly states that a particular law preempts state law, and implied preemption, where federal preemption can be inferred from the statute in question based on its structure and purpose. The analysis for implied preemption then falls further into one of two subcategories: conflict preemption and field preemption. Conflict preemption can be inferred when a state and federal law conflict such that it is impossible to comply with both, whereas field preemption can be inferred when Congress has legislated so as to occupy the entire field of a substantive area. In either express or implied preemption, the Court has iterated that “the purpose of Congress is the ultimate touchstone in every pre-emption case.”

Two recent Supreme Court decisions—one on state preemption under the Federal Power Act and the other on state preemption under the Natural Gas Act—both used field preemption as a lens to analyze the proper allocation of statutory authority between the states and the federal government. As scholars like Matthew Christiansen have noted, the Supreme Court’s field preemption inquiry in cases concerning the Federal Power Act is “somewhat unusual” because it hinges on the question of whether “‘the target at which the state law aims’ is a matter under FERC’s exclusive jurisdiction.” A field preemption claim under the Federal Power Act thus “turns not only on the scope of the exclusively federal field, but also on the target of the potentially preempted state statute.”

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40 See U.S. CONST. art. VI, cl. 2. (“This Constitution, and the Laws of the United States which shall be made in Pursuance thereof . . . , shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.”).

41 See Matthew R. Christiansen, Comment, FPA Preemption in the 21st Century, 91 N.Y.U. L. REV. ONLINE 1, 3-4 (2016) [hereinafter Christiansen, FPA Preemption] (discussing the different types of preemption).

42 Id.


44 See id. (“A state law is preempted where ‘Congress has legislated comprehensively to occupy an entire field of regulation.’” (quoting Nw. Cent. Pipeline Corp. v. State Corp. Comm’n of Kan., 489 U.S. 493, 509 (1989)); Oneok, Inc. v. Learjet, Inc., 135 S. Ct. 1591, 1595 (2015) (“Since the parties have argued this case almost exclusively in terms of field pre-emption, we consider only the field pre-emption question.”)).

45 Christiansen, FPA Preemption, supra note 41, at 8 (quoting Oneok, 135 S. Ct. at 1599).

46 Id. at 8-9.
B. Dormant Commerce Clause

Apart from preemption challenges related to the Federal Power Act, state laws attempting to regulate electricity generation may also be vulnerable to dormant Commerce Clause challenges. Under the Commerce Clause, Congress has the power to “regulate Commerce with foreign Nations, and among the several States . . . .”47 Embedded in this explicit grant of authority is an implicit grant—also called the dormant Commerce Clause—that prohibits states from discriminating against or burdening interstate commerce.48 State laws can be struck down for discriminating against interstate commerce if they are facially discriminatory, or have discriminatory purposes or effects.49 Under the extraterritoriality doctrine, a state law can also be struck down under the dormant Commerce Clause if it attempts to control conduct outside of its borders.50 But when a state law is facially neutral or lacks discriminatory purposes and effects, courts apply a balancing test to weigh the putative local benefits against the burdens that the state law places on interstate commerce.51 If the burdens outweigh the benefits, the court may find that the law violates the dormant Commerce Clause.52

In the context of state laws encouraging clean energy, past lawsuits have typically alleged that a particular policy is discriminating against out-of-state electricity generation or attempting to control commerce beyond a state’s borders by influencing wholesale markets.53 These types of challenges raise difficult questions because of the inherently interconnected nature of the market and energy itself. As Klass and Henley note, “Today’s energy markets are interstate and interconnected, with fuels and electricity flowing in regional, national, and international markets rather than intrastate, local markets.”54 And as the Supreme Court has also acknowledged, “Trying to predict the flow of electrons is akin to putting a drop of ink into a water pipe flowing into a pool, and then trying to predict how the ink drop will diffuse into the pool, and which combination of outflow pipes will eventually contain ink.”55

47 U.S. CONST. art. I, § 8, cl. 3.
49 Id.
50 Id. at 133.
51 Id. at 132 (citing Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970)).
52 Id.
53 Id. at 128-29.
54 Id. at 129.
III. SUPREME COURT CASES SHAPING THE DEBATE

Two recent U.S. Supreme Court decisions have reframed the debate surrounding the balance of regulatory authority between FERC and the states: FERC v. EPSA and Hughes v. Talen Energy Marketing. These decisions have raised questions about how states can encourage clean energy generation while avoiding serious legal tripwires.

In EPSA, the Supreme Court upheld one of FERC’s signature energy policies—“demand response.” Demand response, unlike other programs that ramp up electric generation to meet demand, encourages consumers to use less electricity at times of peak demand by compensating them for their reduced consumption.56 Because reducing demand not only lowers prices at peak times but can also protect against grid failure, FERC has taken an active role in encouraging demand response practices among wholesale market operators.57 The FERC rule at issue in the case, Order 745, required wholesale market operators to pay “as much for conserving electricity as generators do for producing it”58—no small feat in the “big business” of demand response.59 Market experts have estimated that in one regional wholesale market alone, aggregate capacity revenues in 2014 were $9 billion lower than they would have been without a demand response program.60

The key question in EPSA was whether FERC’s demand response program in Order 745, which mandated that providers who reduce demand be paid as much as generators who produce electricity, impermissibly regulated retail sales in violation of the Federal Power Act. In addressing this question, Justice Kagan,

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58 EPSA, 136 S. Ct. at 771.
60 Id. at 310; see also MONITORING ANALYTICS, ANALYSIS OF THE 2017/2018 RPM BASE RESIDUAL AUCTION 6 (2014), http://www.monitoringanalytics.com/reports/Reports/2014/MM_Analysis_of_the_2017_2018_RPM_Base_Residual_Auction_20141006.pdf [https://perma.cc/W8RN-QG6Q] (noting that “the inclusion of Demand Resources and Energy Efficiency resources resulted in a 55.4 percent reduction in RPM revenues for the 2017/2018 RPM Base Residual Auction compared to what RPM revenues would have been without any Demand Resources or Energy Efficiency resources.”).
writing for the majority, analyzed three distinct questions: first, whether the demand response practices in Order 745 directly affected wholesale rates; second, whether FERC regulated retail sales by addressing demand response; and third, whether holding that Order 745 violates the Federal Power Act would conflict with the core purpose of the statute.61

On the question of whether Order 745 directly affected wholesale rates, Justice Kagan noted that FERC is generally charged with ensuring that “any rule, regulation, practice, or contract” affecting wholesale rates is just and reasonable.62 Although FERC’s authority is limited to those rules or practices that “directly affect” the wholesale rate, Justice Kagan concluded that Order 745 easily met this standard because wholesale demand response directly reduces wholesale rates.63 In addressing the question of whether the Order regulated retail sales, Justice Kagan acknowledged the economic reality that wholesale and retail rates are inherently intertwined with each other. However, she concluded that “[w]hen FERC regulates what takes place on the wholesale market, as part of carrying out its charge to improve how that market runs, then no matter the effect on retail rates, [the Federal Power Act] imposes no bar.”64 And finally, on the question of whether striking down Order 745 would subvert the purpose of the Federal Power Act, Justice Kagan held that if, according to petitioner Electric Power Supply Association, neither FERC nor the states has authority to regulate wholesale demand response, FERC would be unable to authorize any proposed demand response program moving forward.65 Such an outcome, Justice Kagan noted, would “flout the FPA’s core objects” of “protect[ing] ‘against excessive prices’ and ensur[ing] effective transmission of electric power.”66

In concluding that Order 745 did not violate the bright-line separation between retail and wholesale electricity sales, Justice Kagan also introduced a new test for determining the limit of FERC’s authority to regulate rules and practices that affect wholesale rates: the “direct effect” test.67 Under this test, FERC can exercise jurisdiction over any rules or practices that “directly affect” wholesale rates.68 Though the outer bounds of what constitutes a “direct effect” remain unclear, a few general principles can be inferred from the opinion.

61 EPSA, 136 S. Ct. at 773.
62 Id. at 774 (quoting 16 U.S.C. § 824e(a) (2012)).
63 Id.
64 Id. at 776.
65 Id. at 780-81.
66 Id (quoting Pennsylvania Water & Power Co. v. FPC, 343 U.S. 414, 418 (1952)).
67 Id. at 785 (Scalia, J., dissenting) (stating that the “direct effect” test adopted by the majority may be a reasonable limit to FERC’s “affecting” jurisdiction under the Federal Power Act).
68 Id. at 774.
Most broadly, FERC has authority under the Federal Power Act to improve the operation of the wholesale market, even if the rules and practices that it implements substantially affect the retail market.69 The Court’s decision further hints that states’ authority over retail rates is limited to the actual price that consumers are charged for electricity.70 In contrast, FERC may regulate fairly expansively in a manner that affects retail purchasing decisions, as long it does not set retail prices.71

Just a few months after the EPSA decision, the Supreme Court heard yet another key case shaping domestic energy law: Hughes v. Talen Energy Marketing. In Hughes, the Supreme Court invalidated a contract made between the state of Maryland and a power plant on the grounds that Maryland had impermissibly encroached on federal authority over wholesale electricity rates. In the years leading up to the case, Maryland had determined that electricity generation as it stood at the time would not suffice to meet future in-state needs, and solicited offers from new electric generation facilities.72 Critically, Maryland decided to assuage any profit concerns from bidders by guaranteeing income for the selected generator in an unusual way: a subsidy that would be provided as long as the generator was able to “clear” a regional auction for wholesale electricity capacity.73 Ultimately, this arrangement resulted in one particular Maryland power plant receiving a price set in its contract with the state, unlike all other plants in the state, which received a price set by the wholesale capacity auction.74

In a majority opinion authored by Justice Ginsburg, the Court held that Maryland’s program was impermissible because it encroached on federal authority to set the wholesale price of electricity, and was preempted under the Federal Power Act.75 Importantly, the Court did not address the question of whether the plaintiffs could seek declaratory relief for their preemption
claim, and proceeded on the assumption that such relief was available.\textsuperscript{76} In her preemption inquiry, Justice Ginsburg began with the observation that FERC has exclusive authority to ensure that wholesale rates are “just and reasonable,” and that the agency has deemed clearing prices produced by the wholesale market to be “per se just and reasonable.”\textsuperscript{77} As a result, by paying one generator a price different from the one set by the wholesale market, Maryland disregarded this interstate rate and was thus preempted.\textsuperscript{78} Additionally, Justice Ginsburg noted that Maryland’s goal of encouraging in-state generation “does not save its program” because “[s]tates may not seek to achieve ends, however legitimate, through regulatory means that intrude on FERC’s authority over interstate wholesale rates.”\textsuperscript{79} In her final words in the majority opinion, Justice Ginsburg stressed the limited holding of Hughes, stating that:

We reject Maryland’s program only because it disregards an interstate wholesale rate required by FERC. We therefore need not and do not address the permissibility of various other measures States might employ to encourage development of new or clean generation, including tax incentives, land grants, direct subsidies, construction of state-owned generation facilities, or re-regulation of the energy sector. Nothing in this 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.”\textsuperscript{80}

Although the particular generator that Maryland selected was a natural gas plant, and therefore not a clean generator, Hughes provides some key lessons for states seeking to avoid preemption challenges to their clean energy policies. In the context of preemption, states should be mindful of the following two issues. First, states must carefully select the target at which the state law aims. In discussing the failure of the Maryland program, the Court cited another recent Supreme Court decision on the scope of federal authority under the Natural Gas Act and observed that although state laws may “incidentally affect areas within FERC’s domain,” a preemption claim “turns on ‘the target at which the state law aims.’”\textsuperscript{81} Second, states seeking to avoid preemption challenges must use a mechanism of encouraging clean

\textsuperscript{76} Id. at 1296 n.6 (stating that “[b]ecause neither CPV nor Maryland has challenged whether plaintiffs may seek declaratory relief under the Supremacy Clause, the Court assumes without deciding that they may”).

\textsuperscript{77} Id. at 1290.

\textsuperscript{78} Id. at 1298.

\textsuperscript{79} Id.

\textsuperscript{80} Id. at 1299 (emphasis added) (citation omitted).

\textsuperscript{81} Id. at 1298 (quoting Oneok, Inc. v. Learjet, Inc. 135 S. Ct. 1591, 1599 (2015)).
generators that is "untethered to a generator's wholesale market participation." In *Hughes*, the "tethering" that the Court took issue with was the structure of the contract between Maryland and its selected generator, which conditioned the generator's subsidy on its capacity clearing the wholesale auction.

Although the Court did not address any dormant Commerce Clause issues in its opinion, it did note that these arguments were raised and rejected in the district court. The district court rejected all arguments made by Talen Energy—then operating under a different name—that the Maryland program violated the dormant Commerce Clause. The district court held that Maryland's decision to site the new plant in either Maryland or the District of Columbia did not facially, practically, or by its purpose discriminate against interstate commerce, and did not violate the dormant Commerce Clause. The district court further held that under the balancing test laid out in *Pike v. Bruce Church, Inc.*, which requires the benefits of a state law to be weighed against any burdens placed by the law on interstate commerce, Maryland's legitimate interest in providing its residents an "adequate and reliable supply of electric energy" outweighed any such burdens.

In the context of dormant Commerce Clause challenges, the district court opinion in *Hughes* provides additional guidance for states. The opinion raises the possibility that a state can avoid a dormant Commerce Clause claim if the state itself constructs, owns, and operates a plant, which will allow it to raise a market participant defense. Under this defense, in certain situations when a state or local government acts as a private actor in a marketplace, it is "free to operate without Commerce Clause hindrance." However, the district court was careful to clarify that providing a subsidy for a particular plant alone is not sufficient to "transform it into a form of state participation in the free market."

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83 Id. at 1296 n.7 ("Respondents also raised arguments under the Dormant Commerce Clause . . . . The District Court rejected those arguments . . . . the Fourth Circuit did not address them, and they are irrelevant at this stage.").
87 Nazarian, 974 F. Supp. 2d at 844-53.
88 Id. at 844 (holding that the market participant defense cannot be used by Maryland in this case because the Public Service Commission "procured a market actor, CPV, to construct, own, and operate a private facility in the interstate energy market and then used its regulatory authority to order other market actors, and ultimately Maryland ratepayers, to provide the Facility with financial backing").
89 Id. at 843.
90 Id. at 848 (quoting New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 277 (1988)).
Ultimately, Hughes and EPSA provide several takeaways for states that wish to encourage in-state clean generation. Under EPSA, the Court’s understanding of FERC’s authority under the Federal Power Act to regulate in a way that affects retail purchasing decisions may imply that state authority in this area has correspondingly narrowed. Under the preemption analysis of Hughes, states must be careful when selecting the target at which a state law aims so as to avoid targeting an area of exclusive FERC jurisdiction, and avoid tethering any financial incentive for clean generators to their participation in the wholesale market. And under the dormant Commerce Clause analysis of the district court’s opinion in Hughes, a state’s decision to construct and operate a plant may also provide it with a market participant defense that shields it from dormant Commerce Clause challenges altogether.

IV. CHALLENGES TO ILLINOIS AND NEW YORK’S NUCLEAR PROGRAMS

In the wake of the Hughes and EPSA decisions, all eyes are on state programs that may meet the same fate as the Maryland program in Hughes. One of the most prominent state regulatory schemes designed to meet intrastate clean energy goals is New York’s Zero Emission Credit program. Similarly, Illinois’s Zero Emission Credit program has also drawn attention for its attempt to meet in-state emission goals by compensating nuclear plants.

A. New York and Illinois’s ZEC Programs

In 2016, New York regulators approved a Clean Energy Standard that sets an ambitious 50% renewable energy standard. According to current

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91 A number of scholars have proposed models for determining whether a state program is vulnerable to preemption or dormant Commerce Clause challenges. See generally Joel B. Eisen, Dual Electricity Federalism is Dead, But How Dead, and What Replaces It?, 8 GEO. WASH. J. OF ENERGY & ENVTL. L. 3 (2017) (discussing the viability of state programs like New York after the EPSA, Hughes, and Oneok decisions); Scott Hempling, High Wholesale Prices: States’ Paths for Protection, Energy Policy Roundtable in the PJM Footprint (June 29, 2016), http://pjm.raabassociates.org/main/roundtable.asp?sel=143 [https://perma.cc/25V2-UEXK] (listing characteristics of state energy programs that make them more vulnerable to legal challenges).

92 Christiansen, supra note 70, at 105. But see Jim Rossi and Jon Welllinghoff, FERC v. EPSA and Adjacent State Regulation of Customer Energy Resources, 40 HARV. ENVTL. L. REV. F. 23, 24 (2016) (describing EPSA as a “victory for state policy flexibility” and characterizing the Court’s reasoning as endorsing “pragmatism over formalism in the regulation of energy markets”).

93 Hughes v. Talen Energy Mktg., 136 S. Ct. 1288, 1299 (2016) (holding that states may encourage new or clean generation “untethered” to a generator’s wholesale market participation).

94 Governor Cuomo Announces Establishment of Clean Energy Standard that Mandates 50% Renewables by 2030, PRESSROOM OF GOVERNOR ANDREW M. CUOMO, https://www.governor.ny.gov/news/governor-cuomo-announces-establishment-clean-energy-standard-mandates-50-percent-renewables [https://perma.cc/YZV2-6VN5] (announcing the establishment of “the most comprehensive and
estimates, the RPS, if successful, will reduce greenhouse gas emissions from the state by 40% by 2030. 95 One of the key components of the Clean Energy Standard is a mechanism—the Zero Emissions Credit (ZEC) program—that will provide financial support to aging nuclear plants in the state. Under the ZEC program, nuclear plants, which do not produce any greenhouse gases in electricity generation, will be compensated for the positive environmental attributes of their zero-emissions electricity. 96

According to New York state regulators, the state’s nuclear plants prevent over fifteen million tons of carbon dioxide from being emitted each year, meaning that the loss of any single plant and subsequent replacement by one powered by fossil fuels will result in increased emissions. 97 Faced with a number of aging nuclear plants on the brink of retirement, state regulators have designed the ZEC program to encourage these plants to remain in the marketplace and continue providing their zero-emission electricity. Under the program, qualifying nuclear plants will be able to sell their ZECs to a state body and all load-serving entities that serve customers in New York will be required to buy ZECs. 98

For qualifying nuclear plants, the program is structured so that each plant will have a twelve-year contract to sell ZECs that will be subdivided into six two-year periods. 99 During the initial two-year period, a qualifying plant will receive a flat amount of $17.54 per megawatt hour of electricity generated. 100 During subsequent two-year periods, the amount of the subsidy will vary depending on a predetermined formula based on the social cost of carbon. 101 By rewarding nuclear plants for their positive environmental attributes and requiring buyers to purchase these environmental credits, state regulators argue that the program will

95 Id. (“By 2030, the 50 percent renewable mandate will be a critical component in reducing greenhouse gas emissions by 40 percent (from 1990 levels) and by 80 percent by 2050.”).
97 Id. at 19.
98 Id. at 19-20.
99 Id. at 20.
100 Id. The original Order references a different price of $17.48 per megawatt hour of electricity. The new ZEC price of $17.5394 is available in the NYSERDA’s most recent ZEC Agreement. See 2017 Compliance Year, N.Y. STATE ENERGY RESEARCH & DEV. AUTH., https://www.nyserda.ny.gov/All-Programs/Programs/Clean-Energy-Standard/REC-and-ZEC-Purchasers/2017-Compliance-Year [https://perma.cc/TVP9-NDFW].
101 For the full formula on how subsidies in tranches 2-6 will be calculated, see Clean Energy Order, supra note 96, at 131 (describing the general formula as the social cost of carbon – baseline RGGI effect – amount forecast prices exceed $39/MWh = ZEC Price ($/MWh)).
“contribute uniquely to serving the long-term goal of achieving a largely decarbonized energy system by the middle of the century.”

Much like New York, Illinois has recently taken steps to fundamentally reshape the state's energy generation profile into one that is more environmentally friendly through legislation. In December 2016, the Illinois state legislature passed the “Future Energy Jobs Act,” which, among other goals, seeks to keep aging nuclear power plants in the marketplace as a source of zero-emission energy. The legislation, which is expected to save 4,200 jobs in the state and generate more carbon-free power than all of Illinois's renewables combined, has been called “the most significant climate bill and clean energy economic development package in Illinois history,” and will, according to one estimate, spur twelve to fifteen billion dollars of private investment in the state.

The Illinois Act has three main prongs—energy efficiency, guaranteed funding to encourage renewable project development, and a ZEC program. Much like New York's ZECs, the statute establishes a zero-emission standard that will provide an approximately $235 million annual credit to qualifying nuclear plants for their “carbon-free energy.” The practical effect of the ZECs, as noted by industry opponents of the program, is that qualifying...

Yet, some key differences exist between the two ZEC programs—for instance, Illinois will provide each qualifying plant with a single ten-year contract for subsidies that will last until 2027, rather than the six two-year contracts that New York has proposed.\footnote{109}{See Future Energy Jobs Act, 20 ILL. COMP. STAT. ANN. 3855/1-75(d-5)(1) (West 2017) (stating that, “[t]he duration of the contracts procured under this subsection (d-5) shall be for a term of 10 years ending May 31, 2027”); Clean Energy Order, supra note 96, at 19-20.} And although both states will incorporate the social cost of carbon to calculate the price of a ZEC, Illinois is using a different formula. Under the Illinois program, the price for each ZEC will equal the social cost of carbon in any given year, but if electricity prices happen to increase in a particular year, the subsidy will be adjusted downward using a formula that considers the market price index.\footnote{110}{See Future Energy Jobs Act, 20 ILL. COMP. STAT. ANN. 3855/1-75(d-5)(1)(B) (West 2017) (“The price for each zero emission credit . . . shall be in an amount that equals the Social Cost of Carbon . . . However . . . if electricity prices increase, the price in an applicable delivery year shall be reduced below the Social Cost of Carbon by the amount (“Price Adjustment”) by which the market price index for the applicable delivery year exceeds the baseline market price index . . . . If the Price Adjustment is greater than or equal to the Social Cost of Carbon in an applicable delivery year, then no payments shall be due in that delivery year.”).}

This price adjustment, according to the Illinois Act, is intended to protect consumers from rising electricity prices.\footnote{111}{Id. (justifying the price reduction below the social cost of carbon as intended “to ensure that the procurement remains affordable to retail customers in this State”).}

Given the striking similarities between the New York and Illinois programs, the future of these ZEC programs will be determined by ongoing litigation. As one industry expert has described, “the DNA of the Illinois law is the New York Clean Energy Standard. If New York stands, they all stand; if New York falls, they all fall.”\footnote{112}{Maloney, supra note 106 (quoting Raymond Gifford, the former chairman of the Colorado Public Utility Commission).}

B. Federal Litigation Involving the ZEC Programs

New York’s and Illinois’s ZEC programs, which have now gone into effect,\footnote{113}{New York’s program was scheduled to go into effect in April 2017. See Complaint at 3, Coal. for Competitive Elec. v. Zibelman, 272 F. Supp. 3d 554 (S.D.N.Y. 2017) (No. 16-08164) [hereinafter Zibelman Complaint]. Illinois’s legislation took effect on June 1, 2017. See Future Energy Jobs Act, 20 ILL. COMP. STAT. ANN. 3855/1-5(A) (West 2017).} were pressed by legal challenges soon after their introduction in 2016. This Section provides a short summary of the issues addressed thus far in cases decided by the United States District Courts for the Southern District of New
York and the Northern District of Illinois. As of the time of this writing, appeals are pending in the United States Courts of Appeals for the Second Circuit and the Seventh Circuit. Although they are supported by distinct reasoning, the opinions provide valuable guidance on the substance of these claims.

In New York, a number of industry organizations joined together in October 2016 to file a lawsuit against the New York Public Service Commission alleging that the ZEC program “intrude[s] on the exclusive authority of the Federal Energy Regulatory Commission . . . over ‘the sale of electric energy at wholesale in interstate commerce.’”\(^{114}\) In the case, *Coalition for Competitive Electricity v. Zibelman*, Hughes provided a natural launching point for the industry plaintiffs to challenge New York’s program. The plaintiffs in *Zibelman* raised two main arguments before the U.S. District Court for the Southern District of New York: that the ZEC program was preempted by the Federal Power Act under the Supremacy Clause, and that the program violated the dormant Commerce Clause because it “solely benefit[s] certain wholesale producers of nuclear energy in New York, to the disadvantage of out-of-state producers who compete in the wholesale market.”\(^{115}\)

Just a few months later, in February 2017, consumer and industry plaintiffs filed suit to challenge Illinois’s ZEC program. In that case, *Village of Old Mill Creek v. Star*, the consumer and industry plaintiffs raised similar arguments of preemption under the Federal Power Act and violations of the dormant Commerce Clause before the U.S. District Court for the Northern District of Illinois. The consumer plaintiffs in *Star* also brought Fourteenth Amendment claims on the ground that the Illinois statute denied them the “equal protection of federal laws governing the wholesale electricity markets.”\(^{116}\) This argument was based on the assertion that the program would impose additional costs on Illinois consumers who consume electricity from ZEC-receiving nuclear plants, but would not impose those costs on consumers in neighboring states.\(^{117}\)

In *Zibelman*, Judge Valerie Caproni granted the New York Public Service Commission member-defendants’ motion to dismiss, holding that no private right of action exists for the industry-plaintiffs’ preemption claims, and that even if such a right of action existed, that the claims “would fail as a matter of law.”\(^{118}\) Because the Federal Power Act does not provide a private right of action, the court reasoned, any preemption claim would fall under the court’s equity

\(^{114}\) *Zibelman* Complaint, supra note 113, at 1 (quoting 16 U.S.C. § 824(b)(1) (2012)).

\(^{115}\) Id. at 6, 39-41.


\(^{117}\) Id. at *17-18. The court disposed of the consumer-plaintiffs’ equal protection claim by noting that the ZEC program had a rational relationship to the state’s environmental objectives. Id. This claim was addressed only briefly and will not be discussed further in this Comment.

jurisdiction. Furthermore, because Congress provided a “sole remedy” in the Act, the court concluded that parties are implicitly foreclosed from invoking equity jurisdiction to challenge state laws that allegedly violate the Act.

Despite these initial findings, the court proceeded to discuss the merits and held that even if a private right of action exists, the plaintiff’s preemption claim must fail because New York’s program is neither field preempted nor conflict preempted. The field preemption claim must fail, the court reasoned, because New York’s program does not mandate that a generator participate in the wholesale auction to receive a ZEC. Thus, the court concluded that New York’s program remains distinct from the Maryland program at issue in Hughes because it does not “condition or tether ZEC payments to wholesale auction participation.” Furthermore, although the ZECs allow noncompetitive plants to participate in the wholesale auction, New York’s program does not “directly adjust, alter, or affect the wholesale rate.” Similarly, the court held that the plaintiffs’ conflict preemption claim must fail because the ZEC program would not cause “clear damage” to federal goals and interfere with FERC’s regulatory objectives. The court noted that New York was not setting a wholesale price that “displaces the market-determined price” and that FERC had already approved programs such as those that impose intrastate renewable portfolio mandates in the past.

The court also rejected the industry-plaintiffs’ dormant Commerce Clause claims on the ground that the plaintiffs did not allege a cause of action. According to the court, the plaintiffs’ alleged injuries were not related to protecting out-of-state interests, and did not fall within the zone of interests protected by the dormant Commerce Clause. The plaintiffs’ alleged undue burden on out-of-state interests also fell outside of the zone of interests, the court held, because offering ZECs to out-of-state nuclear plants would not alleviate the market distortion effect that the plaintiffs alleged.

In Star, Judge Manish Shah granted the Illinois Power Agency-defendant’s motion to dismiss, and similarly proceeded to discuss the merits of the case.
The court held that the industry plaintiffs lacked Article III standing to challenge the price adjustment feature of Illinois’s ZECs, and also lacked Article III standing for their dormant Commerce Clause claims.\textsuperscript{129} For both conclusions, the court reasoned that the alleged injuries caused by the ZEC subsidies were not traceable to the ZEC program’s price adjustment feature, or to discrimination against the commerce of other states.\textsuperscript{130} In contrast, the consumer plaintiffs did have Article III standing because their alleged injuries—ZEC charges on retail electricity bills—were traceable to the Illinois law and could be redressed.\textsuperscript{131} However, the consumer plaintiffs lacked prudential standing under the Federal Power Act and could not bring a preemption claim because their injuries were based on an anticipated retail surcharge.\textsuperscript{132}

The court also held on the merits that the Illinois ZEC program influenced which generators can participate in the wholesale auction, but did not replace the auction clearing price or otherwise “directly affect” the wholesale rate.\textsuperscript{133} According to the court, the Illinois program’s price adjustment feature, which references a market price index, did not raise the “tethering” issues that were key in \textit{Hughes}.\textsuperscript{134} The court noted that, as a technical matter, generators do not even need to participate in the wholesale auction to receive ZECs.\textsuperscript{135}

The industry plaintiffs in \textit{Zibelman} appealed the decision of the district court to the United States Court of Appeals for the Second Circuit on August 24, 2017.\textsuperscript{136} The plaintiffs in \textit{Star} likewise appealed the decision of the district court to the Seventh Circuit on July 17, 2017.\textsuperscript{137} These appeals are currently pending.

and reasonable” rates was judicially unadministrable, and further supported the conclusion that Congress did not intend to provide an implicit private cause of action. \textit{Id.} at *6-9.

\textsuperscript{129} \textit{Id.} at *5-8.

\textsuperscript{130} \textit{Id.}

\textsuperscript{131} \textit{Id.} at *6.

\textsuperscript{132} \textit{Id.} The court held that because the Federal Power Act explicitly gives states the power to regulate retail sales and impose retail charges, these consumer interests fell “outside of the zone of interests of the federal statutes.” \textit{Id.}

\textsuperscript{133} \textit{Id.} at *13-14.

\textsuperscript{134} \textit{Id.}

\textsuperscript{135} \textit{See id.} at *13 n.30 (noting that, for instance, a generator in Illinois could seek approval to sell energy at retail and forego the wholesale auction altogether and still receive ZECs).

\textsuperscript{136} \textit{Notice of Appeal at 1, Coal. for Competitive Elec. v. Zibelman, 272 F. Supp. 3d 554 (S.D.N.Y. 2017) (No. 16-8164).}

\textsuperscript{137} \textit{Notice of Appeal at 1, Village of Old Mill Creek v. Star, No. 17-1164, 2017 WL 3008289 (N.D. Ill. July 17, 2017).}
V. RECOMMENDATIONS: WAYS STATES CAN STRUCTURE CLEAN-ENERGY PROGRAMS TO WITHSTAND LEGAL CHALLENGES

In light of these ongoing challenges, the opinions in Hughes, EPSA, Zibelman, and Star offer guidance to state regulators who are designing programs aimed at encouraging the in-state generation of clean energy. This Part proposes several best practices for designing state programs to withstand preemption and dormant Commerce Clause challenges. The broadest lesson from these recent decisions is that states may provide subsidies or other incentives that give certain generators an advantage entering the wholesale auction, as long as the incentive is not conditioned on the generator’s participation in the wholesale market. States also have flexibility as to how they select the substance of the subsidy, such as in the form of a direct subsidy, tax incentive, or other incentive. Yet, states must address both preemption and dormant Commerce Clause issues to sufficiently insulate their programs from legal challenges.

A. Subsidy Calculation

The mechanism by which a state provides an incentive to a specific generator, and the formula used to calculate that subsidy, can be crucial when a state faces a preemption challenge. The formula for determining the value of a subsidy must remain as minimally connected to the operation of the wholesale market as possible, such as by being flat, or by being determined by an alternative means that is entirely unrelated to the wholesale market. If these options are unworkable, the subsidy formula may reference the wholesale market indirectly, such as by incorporating a wholesale price index that protects consumers from price fluctuations.

A flat subsidy, such as the first tranche of New York’s ZEC program, offers the advantage of being entirely independent of the wholesale market. The initial two-year period of the program provides three eligible nuclear plants in New York with a set price of $17.54 per MWh of electricity produced.\(^\text{140}\)

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\(^\text{138}\) The fatal “tethering” in Hughes was that the plant was only eligible to receive the state-guaranteed subsidy if it cleared the wholesale capacity auction. Hughes v. Talen Energy Mktg., 136 S. Ct. 1288, 1299 (2016).

\(^\text{139}\) The Court in Hughes explicitly stated that it would not address the permissibility of “tax incentives, land grants, direct subsidies, construction of state-owned generation facilities, or re-regulation of the energy sector” and that “[n]othing in this opinion should be read to foreclose . . . States from encouraging production of new or clean generation through measures ’untethered to a generator’s wholesale market participation.’” Id. at 1299 (citation omitted).

New York’s formula for this period relies solely on a projected social cost of carbon less the revenues that the eligible plants would receive from a regional greenhouse gas program, RGGI.\footnote{Clean Energy Order, supra note 96, at 130.} Under this formula, the net cost of carbon is $32.47, which is then converted to a cost per MWh to reach the final value of $17.54.\footnote{Id.} The calculation for the first two years of New York’s ZEC program will not fluctuate in response to the wholesale market, leaving the ZEC value flat during this period. The independence of a flat subsidy, which does not fluctuate in response to market changes, avoids the potential for a state’s subsidy to be tethered to rates set by FERC.

The value of the subsidy could also be determined by an alternative means that is unrelated to the operation of the wholesale market, such as by supply and demand in the free market. This approach would mirror the structure of the REC program and California’s zero emission vehicle (ZEV) program, both of which rely on supply and demand to reach a set price.\footnote{See Chuck Shulock, Manufacturer Sales Under the Zero Emission Vehicle Regulation 1 (2016), https://www.nrdc.org/sites/default/files/media-uploads/nrdc_commissioned_zev_report_july_2016_o.pdf [https://perma.cc/NTY9-66X5].} Under California’s ZEV program, automobile manufacturers are required to maintain a certain number of ZEV credits based on a percentage of their total nonelectric vehicle sales in a year.\footnote{Id. at 7.} Each ZEV credit has no set value, and manufacturers can meet their ZEV obligations by purchasing them from other manufacturers, banking them, or other strategies.\footnote{Id.} Similarly, REC pricing varies across markets based on factors such as the region in which a generator is located, and market supply and demand.\footnote{See Eric O'Shaughnessy et al., Nat’l Renewable Energy Lab., Status and Trends in the U.S. Voluntary Green Power Market 13-14 (2015), https://www.nrel.gov/docs/fy16osti/65252.pdf [https://perma.cc/QMB2-ZJWN] (discussing the factors that influence REC pricing in different markets).} Determining a subsidy’s value through these types of market-based alternatives may be one way of keeping the subsidy from being tethered to participation in a wholesale auction.

In addition, it may be acceptable for a state to reference the wholesale market in its subsidy calculation as long as the reference is used as a price adjustment tool that is designed to limit, rather than exacerbate any financial harm. Illinois’s ZEC program is structured so that the ZEC formula references a wholesale market price index.\footnote{See Future Energy Jobs Act, 20 ILL. COMP. STAT. ANN. 3855/1-75(4-5)(1)(B) (West 2017).} If electricity prices increase, the price will be reduced by an amount “by which the market price index for the applicable delivery year exceeds the baseline market price index for the
[prior] 12-month period.”148 However, if the market price index exceeds the baseline market price index by an amount greater than or equal to the social cost of carbon, qualifying plants will not receive any ZEC payments.149 This adjustment mechanism is designed to protect consumers, and prevent them from subsidizing nuclear plants that are being adequately compensated by the market. In his discussion of the industry-plaintiffs’ Article III standing in Star, Judge Shah noted that any injury caused by the state’s ZEC program “is not traceable to the price adjustment, because that injury would exist even if the statute were cured of its ties to wholesale auction prices.”150 Removing this price adjustment feature, which serves as a corrective device, according to Judge Shah, would exacerbate rather than alleviate the plaintiff’s alleged harms.

B. Market Participation

Apart from the formula used to calculate the value of a subsidy, states may also be able to insulate themselves from dormant Commerce Clause challenges by acting as market participants instead of as regulators. States can act as market participants rather than as regulators by taking actions that do not “create a trade barrier or prevent or regulate the flow of energy.”151 As noted by the Zibelman court, a state’s decision to distribute subsidies to aging and otherwise noncompetitive plants is a valid form of market participation.152 This market participant defense was also noted by the district court in PPL Energyplus, LLC. v. Nazarian,153 the trial-level proceedings for Hughes. The Nazarian court held that a state may act as a market participant when it takes steps to own and operate a power plant, such as by “spending its own funds to construct a power plant.”154

C. Bid Selection Process

Furthermore, a state may reduce the risk of a dormant Commerce Clause challenge by allowing out-of-state generators to submit bids during the selection process to receive a subsidy. In Star, Judge Shah observed that Illinois’s program, which based the selection process on specified “public interest criteria,” did not

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148 Id.
149 Id.
152 Id. (finding that New York is “participating in the energy market” and favoring its citizens by “distributing subsidies through the ZEC program to otherwise financially struggling nuclear power plants”).
154 Id. at 844; see also TVA at a Glance, TENN. VALLEY AUTH., https://www.tva.com/About-TVA/TVA-at-a-Glance [https://perma.cc/L255-GDGP] (explaining that the Tennessee Valley Authority is the largest government-owned power provider in the United States).
preclude out-of-state generators from participating in the process alongside in-state generators.\footnote{See Star, 2017 WL 3008289 at *15 ("The statute is not facially discriminatory because it does not preclude out-of-state generators from submitting bids for ZECs.").} An out-of-state generator could hypothetically have submitted a bid to be considered for the subsidy, a point, which according to Judge Shah, reduced the potential discriminatory impact of the program.\footnote{Id.}

Although the options presented above may insulate a state from legal challenges, state regulators may be animated by valid concerns that lead them to structure their clean energy programs in different ways. For instance, providing a flat subsidy to clean generators that is inflexible to market price signals may be unfair to consumers, who are ultimately responsible for bearing the costs of these subsidies. Similarly, a regulator may choose to forego a subsidy value that is determined by the free market because the value produced by such a mechanism may be insufficient to meaningfully subsidize generators. Despite these issues, these options remain avenues for future consideration by state regulators.

**CONCLUSION**

Many news commentators have remarked that, given the current political climate, states will likely be the central actors advancing U.S. policy on climate change over the next few years.\footnote{The Editorial Board, supra note 3; Adam Nagourney & Henry Fountain, California, at Forefront of Climate Fight, Won't Back Down to Trump, N.Y. TIMES (Dec. 26, 2016), https://www.nytimes.com/2016/12/26/us/california-climate-change-jerry-brown-donald-trump.html [https://perma.cc/6D75-7GUD]; Adam Withnall, US States Vow to Push Ahead in Fight Against Climate Change—With or Without President Trump’s Blessing, INDEP. (Nov. 17, 2016), http://www.independent.co.uk/environment/president-donald-trump-cop22-climate-change-california-states-a7423816.html [https://perma.cc/7GW2-qLA8].} But apart from the political challenges that states must overcome in their efforts to reduce greenhouse gas emissions, they must also overcome legal challenges. Programs in states like New York and Illinois, which seek to subsidize zero-emission nuclear generators, have been challenged by industry groups and consumers on the grounds that they violate the dormant Commerce Clause, and are preempted under the Federal Power Act. Furthermore, the Hughes and EPSA decisions warn that a state’s “tether” to wholesale rates must be distinguishable from a direct effect on wholesale rates.\footnote{See Star, 2017 WL 3008289 at *13 (“EPSA and Hughes stand for the proposition that preemption applies whenever a tether to wholesale rates is indistinguishable from a direct effect on wholesale rates.”).}

In light of these difficulties, states must tread carefully to encourage clean generation within their borders while avoiding legal pitfalls. Despite these uncertainties, state regulators interested in designing clean energy policies
can take clear steps to insulate their programs from legal challenges. Regulators may calculate the value of a subsidy to clean generators using a formula that is as minimally connected to the wholesale market as possible, such as a flat subsidy or one that is determined by supply and demand. Alternatively, regulators may calculate the value of a subsidy using a metric that references the wholesale market only indirectly, such as through a wholesale price index. Furthermore, regulators may protect their programs from legal challenges by taking steps to act as a market participant rather than a regulator, and by allowing out-of-state generators to participate in the selection process for receiving a subsidy.

Although some states may choose to apply the lessons from Hughes, EPSA, Star, and Zibelman to encourage clean generation, other states may choose to create policies that promote fossil fuels at all costs. Yet, the actions of states like Connecticut and Pennsylvania to pursue policies similar to those of New York and Illinois indicate broader popular interest in achieving clean energy goals. For these and similarly-minded states, the principles embodied in decisions like Star and Zibelman expand the range of tools available to state regulators to encourage clean generation. Regulators can provide subsidies to specific power plants, as long as the subsidy is not conditioned on market participation, continue to employ RECs, enter into multistate compacts like the Regional Greenhouse Gas Initiative, and pursue state-set RPS goals.

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160 In response to a question by Justice Kagan about whether the state unconditionally giving “a load of money” to a particular plant would be preempted, former U.S. Solicitor General Paul Clement, responded that it would not be. Transcript of Oral Argument at 46, Hughes v. Talen Energy Mktg., 136 S. Ct. 1288 (2016) (Nos. 14-614, 14-623). In response to a similar question by Justice Sotomayor, Ann O’Connell, also arguing for the respondents, affirmed that a direct subsidy that is not conditioned on market participation would not be problematic. Id. at 49–50.

161 The plaintiffs in Zibelman also did not contest the legality of RECs in their brief, explaining that, because their prices are purely determined by supply and demand, RECs are not tethered “in any way to wholesale electricity prices.” Zibelman Complaint, supra note 113, at 23; see also Allco Fin. Ltd. v. Klee, Nos. 15-608, 16-508, 2016 WL 4444774, at *25 (D. Conn. Aug. 18, 2016) (holding that Connecticut’s RPS, which requires utilities to buy renewable energy credits from generators located within New England, does not violate the dormant Commerce Clause because “the RPS creates a market for RECs, rather than impeding on a previously existing national market”), aff’d, 861 F.3d 82 (2d. Cir. 2017).

162 See CLIMATE CHANGE LAW 393 (Daniel A. Farber & Marjan Peeters eds., 2016) (concluding that despite speculation on whether RGGI is constitutional, suits challenging it have been unsuccessful).

163 See Allco, 2016 WL 4444774 at *25; see also Energy & Env’t Legal Inst. v. Epel, 793 F.3d 1169, 1171 (10th Cir. 2015) (holding that Colorado’s renewable portfolio standard does not violate the dormant Commerce Clause). But see Ill. Commerce Comm’n v. FERC, 721 F.3d 764, 776 (7th Cir. 2013) (stating in its discussion of in-state transmission projects that Michigan’s RPS “trips over an insurmountable constitutional objection” and that “Michigan cannot, without violating the commerce clause of Article I of the Constitution, discriminate against out-of-state renewable energy”).