BCR **Benjamin C. Riggs, Jr.**

January 2, 2014

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities & Carriers
89 Jefferson Boulevard
Warwick, RI 02888

Re: Docket No. 4288 – Objection of Wind Energy Development, LLC dated 12/31/2013

Dear Members of the Commission:

My comments on the above referenced Objection are as follows:

1. Failure to Comply with the Act: Wind Energy Development, LLC ("WED") argues that the purposes of the Distributed Generation Standard Contract Act ("the Act") to facilitate the use of renewable energy, reduce carbon emissions, reduce environmental impacts, and diversify energy sources are not being met by the Board's proposed contract targets and ceiling prices for large wind projects. In fact, this is not the case at all, for several reasons:
   a) National Grid is free to contract for a wide variety of less expensive and available renewable energy through ISO New England that is produced in Maine and Massachusetts, along with hydroelectric power from Quebec.
   b) There is no evidence that wind turbines in Rhode Island (or anywhere else) will contribute to the environmental benefits called for in the Act. In fact the only comprehensive study I can find on the impact of wind turbines on an electrical grid is the study done by the Electric Reliability Council of Texas ("ERCOT"), which concludes that the net result of connecting wind turbines to the grid in that state has been the burning of more fossil fuel and the emission of more carbon, not less. (See **Exhibit A** attached.) That is because the requirement for conventional natural gas plants to ramp up and down to compensate for the intermittency of wind results in less efficient operation, similar to what happens when you drive your car in stop and go traffic.
   c) It also happens that selecting a more expensive venue such as Rhode Island results in higher costs than for the same power being sourced from elsewhere in the Grid. This ultimately drives more jobs overseas to countries like China and India, which emit 5 times as much carbon as the U.S. on a GDP basis. This hardly contributes to slowing global warming. (See **Exhibit B** attached.)

2. WED's interpretation of the Act's requirements would violate Federal law. WED refers to the need to compensate for higher costs in Rhode Island by setting higher prices and requiring the non-competitive purchase of power from Rhode Island sources at those prices. (See WED's Exhibit D.) This appears to ask for a

violation of the Federal Power Act, to include 16 U.S.C. § 791, *et seq*., and the Public Utility Regulatory Policies Act ("PURPA"), 16 U.S.C. § 824. Because ISO New England is an interstate grid, mandating sole in-state sources at prices that are not commercially reasonable or in the public interest would be in violation of the Commerce Clause of the U.S. Constitution. In addition, the PUC cannot lawfully comply with state legislation that circumvents the authority of the PUC, thereby violating the State's separation of powers, along with the Supremacy Clause of the U.S. Constitution. This is not a problem unique to Rhode Island. (See **Exhibit C** attached.) And this issue has been analyzed a number of times in comprehensive reports. These would include the Clean Energy States Alliance report funded (in part) by the Department of Energy (see **Exhibit D** attached), along with another by the Suffolk University Law School (see **Exhibit E** attached), plus another from a member of the Maryland Law Review (see **Exhibit F** attached). And since these papers were written, the matter has been tested in U.S. District Court for the State of Maryland in the case of PPL EnergyPlus v. Nazarian. (See a short summary attached as **Exhibit G**.) This Commission would be well advised to study the many similarities in that case, and the points raised in the papers that have been referenced above, before participating in any scheme that sets prices for a utility that is connected to an interstate grid and that mandates the purchase of power from an in-state source.

3. The Act does not require a 60 day notice. In this case, there is no change being proposed to a class, but rather to an allotment. And as noted above, allotments such as this in general may not be lawful anyway if they apply only to in-state sources.

In conclusion, I recommend that no increases be considered to the Distributed Generation target and ceiling prices as requested by WED, and that the overall structure of this program be reviewed for compliance with Federal law.

Very truly yours,

Benj C Riggs

Benjamin C. Riggs, Jr.

Attachments: Exhibits A-G

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Wind Integration Realities: The Bentek Study for Texas (Part IV)

By Kent Hawkins
May 26, 2010

[Editor's note: This is the final post in the series reviewing studies for the Netherlands, Colorado and Texas on (elevated) fossil-fuel emissions associated with firming otherwise intermittent wind power. Part I introduced the issues. Part II showed negated emission savings for the Netherlands at current wind penetration (about 3 percent). Part III extended the Netherland's experience to the higher wind penetration in Colorado (6%) which demonstrates *higher* emissions. Part IV concludes with the Bentek results for Texas, which confirms those for Colorado.]

SUMMATION: As wind penetration is increased, the Colorado and Texas experience shows that the savings become negative, that is, fossil fuel and CO2 emissions are increased. The integration of all the considerations for the three approaches is complex and necessarily simplified.
NOTE: The Electric Reliability Council of Texas (ERCOT) manages the flow of electric power to 23 million Texas customers - representing 85 percent of the state's electric load and 75 percent of the Texas land area. As the independent system operator for the region, ERCOT schedules power on an electric grid that connects 40,500 miles of transmission lines and more than 550 generation units. It also manages financial settlement for the competitive wholesale bulk-power market and administers customer switching for 6.6 million Texans in competitive choice areas.

There are a number of relevant, notable characteristics of the 2008 Texas electricity production profile, 85% of which is managed by ERCOT:

- The utility portion of the total electricity production is only about 24% of the total, with independent suppliers providing 57% and CHP installations, 19%. This distribution suggests that ERCOT's ability to balance wind production is more limited than what might first appear.
- Wind production is 5% of the total (less CHP), but a very large 17% of the utilities portion.
- A large proportion of gas production is provided by independent suppliers and CHP, 45% and 39% respectively, again likely limiting ERCOT's ability to balance wind with gas.
- The ratio of utility gas to wind production is 192%, which suggests that this is tight if dedicated to wind balancing. This, plus high production from wind at night, explains the high degree of cycling of coal plants required.

Because of recycling events, arguably attributable to the presence of wind plants, the results are the same as for PSCO, that is, there is an increase in CO_2 emissions with the presence of wind. In ERCOT, the coal plants produced an additional CO_2 emissions in 2008 of about 0-566,000 tons over running stably without these events, and in 2009, an additional 772,000-1,102,000 tons.

Wind Capacity Factor

Based on the information in the Bentek report, the wind capacity factor within ERCOT in 2009 is 22.7%, which is low and likely due to curtailment of wind, as is the case in Germany, which has a similar wind penetration of about 6% and wind capacity factors below 20%. There is notable curtailment in ERCOT as reported by NREL. The DOE/EIA published information for 2008 indicates a wind capacity factor of 25%. The difference could well be year to year variations in the wind regime. A capacity factor of 23% will be used in calculator runs.

Heat Rate Penalty and CO2 Emissions Increase Factor

From DOE/EIA published information, for Texas in 2008, for utility fossil fuel plants only, at $\Delta F=0$, this is:

$\Delta R = (16,200/93,400) \times 41\% = 7.1\%$

For all fossil fuel plants in the system (less CHP) this becomes:

$\Delta R = (16,200/265,100) \times 41\% = 2.5\%$

Based on the totals used in Figure VI-4 (2009 data) for ERCOT, there might be some suggestion of using independent suppliers to balance wind. The 2.5% value assumes all the independent suppliers are used, which is unlikely. In the absence of more information, the PSCO calculated ΔR of 3.3% will be used for the deriving the calculator input for heat rate penalty, which is the same as for PSCO at starting at 35% but adjusted down to 20-25% for the lower capacity factor as used in Figure 4 of the calculator Part V post.

Calculator Results for ERCOT

The resulting calculator CO_2 emissions increases are: coal cycling only – 0.7 million tonnes (0.77 million tons) per year.

As for PSCO, a reasonable view is that both coal and gas plants will be involved in cycling at different times. Although coal and gas production are about the same in ERCOT, because wind is strongest at night, coal is more heavily weighted in the wind balancing mix at 67% coal and 33% gas. The total ERCOT gas mix is heavily weighted to CCGT production, but for wind balancing about an equal split with OCGT is assumed. This means more production from existing OCGT or possibly some CCGT plants being run as OCGT. Frequent cycling of CCGT plants damages the HRSGs so single stage operation is needed. In summary, more OCGT production is used than would be required if wind was not present in the system. The emissions increase over normal coal/CCGT operations becomes 2.3 million tons per year. This is an aspect not addressed in the Bentek paper. Table 1 shows the comparison of the Bentek results with the calculator.

Table 1 – Comparison of Bentek Study and Calculator results for ERCOT

	Bentek Results – Coal Cycling (million tons)		Calculator Results (million tons)	
	2008	2009	Coal Cycling	Coal/Gas Cycling*
CO_2 Emissions Increase per Year	0-0.6	0.8-1.1	0.8	2.3

*No comparable Bentek results

The calculator results directly comparable to the Bentek findings are very close to Bentek's. It should be emphasized that this is not likely the whole story as the gas cycling impacts should also be taken into account.

Summary of Dutch and Bentek Studies

Table 2 provides an overview of the findings of this series on wind integration. In summary, the Netherlands experience is that at wind penetration of about 3% the fossil fuel and CO_2 emissions saving is reduced to zero. As wind penetration is increased, the Colorado and Texas experience shows that the savings become negative, that is, fossil fuel and CO2 emissions are increased. The integration of all the considerations for the three approaches is complex and necessarily simplified. Any additional insights are welcome.

Table 2 – Summary of the Three Approaches Analyzed in this Series

	The Netherlands	Bentek		Comments
		PSCO	ERCOT	
Total Electricity Production	105 TWh	53 TWh	405 TWh	
Total Wind Production	3.4 TWh	3.2	16.2 TWh	
Wind Penetration	3.2%	6%	5% **	
Percent Coal Production	27%	66%	36%	
Percent Gas Production	58%	23% *	29% **	
Wind Curtailment	?	Small?	Some	
Efficiency Loss ΔR	2.11%	3.3%	3.3%	
Efficiency Loss (Heat Rate Penalty) in Wind Mirroring Plants	25%	35%	20-25%	ERCOT is adjusted as explained above.
Wind Capacity Factor	25%	35%	23%	
Netherlands Study				
Netherlands Study Fossil Fuel Increase	0%			
Calculator Fossil Fuel Increase (Saving)	(0.5%)-1.7%			The range shown is for two runs (1) CCGT only, (2) CCGT/OCGT
Calculator CO_2 Emissions Increase	0.8%			This is run (3) which includes some coal plants
Bentek Study				
Bentek CO_2 Emissions Increase		0.1-0.15 million tons/year	0-1.1 million tons/year	Coal cycling only
Calculator CO_2 Emissions Increase		0.11 million tons/year	0.8 million tons/year	Coal cycling only

*Includes non-utility suppliers (otherwise is 9%)
** Excludes CHP plants

There is a notable consistency among these three approaches. Look for more studies, based on actual experience, to emerge from countries not now dependent on foreign markets for export of wind turbine products and services, confirming the inability of new renewables, especially wind, to contribute to the reduction in fossil fuel use and CO_2 emissions reduction in electricity generation. *In the absence of comprehensive, objective and transparent studies that finally settle the matter, policies in support of new renewables should be severely curtailed.*

Rank	Country	GDP ($millions)	Carbon CO2 (billion tons)
	World	**57,843,376**	**33.0**
	European Union	**16,414,697**	
1.	United States	14,119,050	5.9
2	Japan	5,068,894	1.3
3	China	4,984,731	10.0
4	Germany	3,338,675	0.8
10	Canada	1,336,427	0.6
11	India	1,235,975	2.5
12	Russia	1,231,892	1.8

12 MONTHS ENDING July 2010

NOTE: As a percentage of GDP, China and India emit 5 times as much carbon as the United States.

Federal Judge: Michigan Renewable Energy Mandate Unconstitutional

Court cases may deflate wind energy in Michigan

By Jack Spencer | Nov. 16, 2013

A 476 foot tall windmill stands 1,139 feet from the Shineldecker house in Riverton Township in Mason County.

Court battles over the Colorado and Minnesota renewable energy mandates could potentially mark the beginning of the end for similar laws in other states, including Michigan.

In June, Judge Richard Posner of the U.S. Court of Appeals for the Seventh Circuit Court wrote that Michigan's in-state renewable energy mandate violates the Commerce Clause and is therefore unconstitutional. Judge Posner's statement did not have the weight of law because the issue wasn't directly before him. Nonetheless, many received it as a wake-up call and possible harbinger of things to come.

In 2008, the Michigan Legislature passed a law mandating that 10 percent of the state's energy be produced by in-state renewable energy sources by 2015. This law was supposedly enacted to reduce greenhouse gas emissions. However, aspects of it appear inconsistent with that goal.

The law did not include monitoring requirements to test what effects, if any, the mandate actually has on emissions. Also, although there are several so-called renewable energy sources with wind energy the predominate source used to meet the mandate in Michigan. This has been so in spite of the fact that the federal government says Michigan is not well-suited for wind energy production.

If courts find that in-state renewable energy mandates violate the Commerce Clause, many think it would virtually kill wind energy in Michigan. Such a ruling would force Michigan's wind energy industry to compete on an open market. Wind energy cannot be produced efficiently in Michigan. As a result, without an in-state mandate, Michigan produced wind energy would simply lose out to cheaper energy produced from other sources or even by wind energy from some other states.

At the U.S. District Court in Colorado, the Energy & Environmental Legal Institute (E&E Legal) is arguing the same point Judge Posner made. At issue in the lawsuit, *ATI v. Epel*, is whether Colorado's 30 percent renewable energy mandate violates the Commerce Clause.

"The case against Colorado demonstrates that nearly every state's renewable energy mandate violates the Constitution's Commerce Clause." said David W. Schnare, general counsel for E&E Legal and lead attorney on the case. "A state may not tell an electric company outside its borders how to make electricity or how to make renewable energy credits.

"Once we prevail in Colorado, the first domino will have fallen and we expect to see state legislatures throughout the nation scrambling to find a Constitutional way to mandate renewables," he said. "They will not succeed, as the only way to do so and still remain within the Commerce Clause is to pass a federal mandate."

Some believe the U.S. District Court in Minnesota could be the first to rule that in-state renewable mandates violate the Commerce Clause. Two years ago, North Dakota filed a lawsuit, *The State of North Dakota v. Swanson*, over Minnesota's 25 percent renewable energy mandate, which was signed into law in 2007.

The Minnesota mandate law prohibits utilities serving Minnesota from importing energy from other states unless any additional carbon dioxide emissions are offset. North Dakota, which sits on the world's largest deposit of lignite coal, clearly has a great deal at stake in this case.

Attorneys for North Dakota argue that the Minnesota mandate violates the Commerce Clause. According to media accounts, they also claim the Minnesota law is just a "symbolic gesture" against global warming.

THE COMMERCE CLAUSE AND IMPLICATIONS FOR STATE RENEWABLE PORTFOLIO STANDARD PROGRAMS

CLEAN ENERGY STATES ALLIANCE STATE RPS POLICY REPORT

by

Carolyn Elefant

and

Edward A. Holt

March 2011

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Disclaimers

The objective of this report is to identify and discuss options available to states for structuring RPS programs in a constitutionally compliant manner. This report is for informational purposes only and does not constitute legal advice. If you have any specific legal problems, issues, or questions, please do not act on this legal information alone. Seek a complete review of your situation with a lawyer licensed to practice in your jurisdiction, as different factual situations and different legal jurisdictions may lead to different results.

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The Commerce Clause and Implications for State Renewable Portfolio Standard Programs

Executive Summary

Twenty-nine states and the District of Columbia have adopted mandatory renewable portfolio standards (RPS) that require the state's retail utilities to procure a certain percentage of their energy requirements from renewable energy resources. To capture the in-state benefits of RPS-stimulated renewable development, many state programs impose in-state location or delivery requirements as a condition of RPS eligibility. Other states limit the amount of out-of-state power that a utility may use to satisfy the RPS. More recently, some states have required utilities to "carve out"[1] a portion of their RPS obligation for distributed generation (primarily solar).

While most RPS programs are motivated by state goals such as improved environmental health or diversity of supply, states also hope to reap economic benefits from a renewable industry in-state. The Commerce Clause of the United States Constitution, however, prohibits states from favoring local industry to the disadvantage of out-of-state competitors for economically protectionist reasons. As such, the constitutionality of state RPS programs has been the subject of analysis under the Commerce Clause.[2] However, no state RPS program was ever formally challenged in court until last year.

In April 2010, TransCanada, a North American energy company, filed a suit in federal district court challenging the state of Massachusetts' RPS under the Commerce Clause in two respects: (1) the set-aside for solar distributed generation located in-state and (2) the in-state eligibility requirement for long-term renewable power sales contracts that utilities must procure under state law.[3] Although the parties have put the case on hold

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[1] This design option is also known as a set-aside, a different target for different renewable energy technologies or applications.

[2] *See*, *e.g*., N. Rader, S. Hempling, *The Renewables Portfolio Standard: A Practical Guide,* Prepared for National Association of Regulatory Utility Commissions (2001) ("NARUC Report") (evaluating Commerce Clause implications of RPS programs); *also K. Engel*, *The Dormant Commerce Clause Threat to Market Based Environmental Regulation: The Case of Energy Deregulation*, 26 Eco. L.Q. 243, 271-272 (1999); P. Jacoby, 30 Vt. L. Rev. at 1132, 1134 (2004); S. Ferrey, *Sustainable Energy, Environmental Policy and States Rights: Discerning the Future of Energy Through The Eyes of the Commerce Clause*,12 N.Y.U. Envir. L.J. 507, 604 (2009).

[3] *TransCanada Power Marketing LTD v.* Bowles, CA No. 4:10cv-40070-FDS (April 16, 2010).

in light of a partial settlement, the TransCanada suit has revived lingering concerns over the constitutionality of certain provisions in state RPS programs.

In light of this uncertainty, the objective of this report is to identify and discuss options available to states for structuring RPS programs in a constitutionally compliant manner. Part I provides an overview of the requirements of the Commerce Clause and how they might affect certain types of RPS programs. Part II describes options available to states to retain the state-specific benefits of RPS programs without running afoul of the Commerce Clause. These include:

- Craft facially neutral[4] RPS eligibility requirements, such as in-state delivery or consumption requirements that apply equally to all resources irrespective of location;

- Evaluate the feasibility of re-casting location-based eligibility requirements in a facially neutral manner;

- Emphasize the state's interest in legitimate, non-protectionist goals such as environmental protection, reliability, energy conservation and diversity of power supply when drafting or reauthorizing RPS legislation or regulations;

- If location-based requirements are employed, opt for in-region location eligibility requirements which are more likely to withstand constitutional challenge than in-state location requirements;

- Where location-based eligibility RPS requirements are employed, build a legislative or administrative factual record showing that the state has no other alternative to achieve legitimate goals;

- Phase in new in-state RPS requirements gradually, or limit rather than prohibit out-of-state eligibility, to minimize impacts on affected parties. While these measures will not cure constitutional infirmities, they may significantly reduce litigation risk.

Because this review was prompted by a Commerce Clause challenge, an Appendix includes a case study of TransCanada's legal challenge to the Massachusetts procurement statute and distributed generation set-aside.

[4] In the commerce clause context, the term "facially neutral" means that the statute or regulation applies impartially to both in-state and out-of-state business and does not explicitly classify on the basis of in-state or out-of-state location.

I. Dormant Commerce Clause Issues and Implications for RPS Programs[5]

A. Commerce Clause Overview

The Commerce Clause of the U.S. Constitution empowers Congress "[t]o regulate Commerce… among the several states."[6] While expressly granting Congress authority to regulate interstate commerce, the Commerce Clause also has a negative or "dormant" clause that restricts states from "unjustifiably…discriminat[ing] against or burden[ing] the interstate flow of commerce."[7] This negative aspect of the Commerce Clause prohibits economic protectionism—that is, "regulatory measures designed to benefit in-state economic interests by burdening out-of-state competitors."[8]

1. Facially discriminatory laws

a. Facially discriminatory laws are virtually per se invalid

Statutes that discriminate on their face violate the Commerce Clause unless there is demonstrable justification for the discrimination unrelated to protectionism. "Barriers to the free flow of commerce based on point of origin or other geographic factors to benefit local interests are virtually *per se* invalid,"[9] unless the state can identify a non-protectionist and compelling local interest that cannot be served by any other means. The exception for lack of alternatives is extremely narrow; only one facially discriminatory law has avoided invalidation on these grounds.[10]

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[5] The terms "dormant commerce clause" and "commerce clause" are used interchangeably throughout this paper.

[6] U.S. CONST. art. I, §8, cl. 3.

[7] Baldwin v. G.A.F. Seelig, Inc., 294 U.S. 511, 522 (1935).

[8] New Energy Co. of Indiana v. Limbaugh, 486 U.S. 269, 273-74 (1988).

[9] Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978) (holding that New Jersey's ban on imports of out-of-state garbage is a per se Commerce Clause violation).

[10] Maine v. Taylor, 477 U.S. 131 (1986)(upholding Maine law banning imports on out-of-state baitfish finding that no alternatives existed to protect domestic populations from disease).

Facially discriminatory laws take many forms. State laws that block imports[11] or exports[12] of goods across state lines, or impose added taxes or charges on out-of-state goods[13] are considered impermissible barriers under the Commerce Clause. Regional barriers fare no better, since laws that discriminate against some states rather than all states (*e.g.,* a law that forbids a state from importing goods outside of a six-state region still discriminates against 44 other states) also violate the Commerce Clause.[14]

b. Examples of facially discriminatory laws involving the energy industry

A number of Commerce Clause cases involving energy production have overturned state laws creating preferences based on the geographic point of origin of the fuel or energy. Examples of energy-related laws overturned under the Commerce Clause as *per se* invalid include a New Hampshire law prohibiting hydroelectric plants from selling power out of state before offering it for sale in-state;[15] an Oklahoma law requiring in-state plants to burn a mixture of coal containing at least ten percent Oklahoma-mined coal;[16] an Illinois law encouraging use of in-state coal for purposes of compliance with the Clean Air Act[17]and an Ohio law extending a tax credit to users of ethanol from Ohio or from other states granting reciprocal tax advantages.[18]

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[11] Philadelphia v. New Jersey (invalidating ban on imports of trash from other states).

[12] *C & A Carbone v. Town of Clarkstown*, N.Y., 511 U.S. 383 (1994) (striking down town ordinance requiring non-recylable solid waste to be processed at designated facility within municipality before shipping); *South-Central Timber Development Inc. v. Wunnicke*, 467 U.S. 82 (1984) (striking down Alaska regulation that required all Alaska timber to be processed within the state before export).

[13] *Chemical Plant Management Inc. v. Hunt*, 504 U.S. 334, 342 (1992) (invalidating Alabama law imposing extra fee on imported hazardous waste).

[14] *Hunt v. Washington State Apple*, 432 U.S. 333 (1977) (striking down law that banned sale of apples in North Carolina from any states with a grading system other than USDA even though law precluded sales from some but not all states).

[15] *New Hampshire v. New England Power*, 455 U.S. 331 (1982)(holding that law restricting exports of hydropower hoards resources for state's economic advantage).

[16] *Oklahoma v. Wyoming*, 502 U.S. 437 (1992)(finding no de mimimis exception to Commerce Clause that would sustain discriminatory statute requiring utilities to burn mixture of coal that includes minimum of 10 percent of in-state coal).

[17] *Alliance for Clean Coal v. Miller*, 50 F.3d 591 (7th Cir. 1995)(finding that statutory provisions such as granting full rate recovery for scrubbers for plants using Illinois coal statute or requiring utilities to consider local coal industry in developing Clean Air Act compliance plans make use of Illinois coal a more attractive option and thus, violate Commerce Clause).

[18] *New Energy Co. of Indiana*, 486 U.S. 269 (finding that providing tax credits for use of Ohio-produced ethanol as well as ethanol produced in other states granting credits for Ohio ethanol still discriminates against all other states that do not offer reciprocal treatment in violation of Commerce Clause).

One recent Virginia case, *Appalachian Voices v. State Corporation Commission*, is an exception.[19] There, the Virginia Supreme Court upheld a statute that allowed utilities to seek rate approval for facilities that use technology capable of burning Virginia coal. Because the Virginia law did not compel use of Virginia coal, the court concluded that the statute did not significantly burden interstate commerce. *Appalachian Voices* represents a minority view in Commerce Clause jurisprudence because it involved a facially discriminatory law where the court assessed the extent of impact on commerce rather than striking the law as *per se* invalid. The precedential value of *Appalachian Voices* (if any, since it contradicts Supreme Court cases) would be limited to Virginia.

c. Summary regarding facially discriminatory laws

As discussed, the majority of energy-related laws that extend preference based on location have been overturned under the Commerce Clause. *Appalachian Voices* is an exception and runs counter to Supreme Court precedent. As one commentator has observed, "at the very least, [use] of location based language increases the odds that a savvy litigant will challenge the statute."[20] For this reason, RPS statutes that express a preference for projects based on geographic location, either within a state or even within a region, are vulnerable to Commerce Clause challenges.

A state's best opportunity to avoid invalidation of a facially discriminatory law is to demonstrate a compelling interest unattainable in any other manner.[21] The compelling interest test poses a high bar, however. Even a state's interest in environmental health, diverse supply, safety and energy conservation may not save facially-discriminatory state RPS or renewable incentives laws, particularly if more protectionist motives (such as economic development) are evident or another alternative is available. Rather than try to justify a facially discriminatory statute, a preferable approach for states is to craft statutes using facially neutral language.

2. Facially neutral laws with a discriminatory or adverse impact on commerce

When a statute regulates "evenhandedly" and imposes only "incidental" burdens on interstate commerce, courts often apply what is known as the *Pike* analysis, evaluating whether "the burden imposed on such commerce is clearly excessive in

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[19] 675 S.E.2d 458 (2009).

[20] Patrick R. Jacobi, *Renewable Portfolio St*andard Generator Applicability Requirements: How States Can Stop Worrying and Learn to Love the Dormant Commerce Clause, 30 Vt. L. Rev. 1079, 1132 (Summer 2006).

[21] Maine v. Taylor, supra 477 U.S. 131.

relation to the putative local benefits."[22] Local benefits such as energy conservation, waste disposal, improving environmental health or safety will justify a burden on commerce under the *Pike* balancing test; [23] parochial benefits such as subsidizing an in-state industry will not.[24]

In some cases, however, even facially neutral language is so clearly a ruse for protectionist behavior that courts have invalidated the statute without even reaching the *Pike* balancing analysis. For example, *C.A. Carbone*[25]involved a municipal ordinance requiring all solid waste to be processed at a designated transfer station before leaving the municipality. The Court found that in spite of the statute's neutral façade, its real intent was to drive waste to a designated facility to ensure its profitability. In light of the ordinance's protectionist motive, i.e., to protect the profitability of a specific facility, the Court's majority invalidated it without reaching the *Pike* balancing analysis.

Bacchus Imports Ltd. v. Diaz[26] involved another facially neutral statute concealing protectionist motive. There, a Hawaii statute provided a tax exemption for sales of two types of wine, both produced from products uniquely indigenous to Hawaii. All other fruit wines, whether produced in-state or out-of-state, remained subject to the tax. Because no non-Hawaii based companies produced the indigenous wines that received the exemption, the statute created a situation where no out-of-state interests would receive any of the law's benefits. As in *Carbone*, the *Bacchus* Court bypassed the *Pike* balancing test, and invalidated the law as a protectionist-inspired action.

To summarize, where a statute is facially neutral, it is subject to the more deferential *Pike* balancing test. Under the *Pike* test, so long as states can demonstrate that a facially neutral RPS statute advances benefits such as clean energy, environmental health or conservation, the statute will likely survive commerce clause

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[22] Pike v. Bruce Church, Inc., 397 U.S. 137 (1970)(invalidating Arizona law that requires all Arizona produce to be packed and marked in Arizona before leaving the state finding that law does not further state interest in avoiding deceptive packaging or protecting reputation of Arizona fruit).

[23] *See Minnesota v. Clover Leaf Creamery*, 449 U.S. 456, 472-73 (1981); *C & A Carbone*, 511 U.S. 383 (1994) (applying *Pike* to uphold Minnesota statute banning use of environmentally unfriendly plastic milk containers by both in-state and out-of-state sellers notwithstanding burden on out-of-state suppliers in light of state's interest in environmental protection).

[24] *Dean Milk Co. v. Madison County*, 340 U.S. 349 (1951)(invalidating statute prohibiting sale of milk unless pasteurized within five miles of the City because law's purpose is not protection of public health but protecting "major local industry.")

[25] *C & A Carbone*, 511 U.S. 383 (1994).

[26] 468 U.S. 263 (1984).

review.[27] Still, states must take care not to draft facially neutral statutes such as those in *Bacchus* or *Carbone* that limit commerce so substantially that courts will presume a protectionist motive.[28]

3. Market Participant Exceptions

Courts recognize the "market participant" doctrine as an exception to the Commerce Clause's ban on discrimination. The market participant exception applies when a state goes beyond merely regulating a market and instead itself participates in the market.[29] When a state (or local government) enters the market as a participant, it is not subject to the restraints of the Commerce Clause, and may favor its own citizens over others.[30] In most cases, a state is considered a market participant where it owns or fully funded the enterprise that is the recipient of preferential treatment.[31] In these cases, the Court reasons that the state's preference for an in-state public entity over a private one is not discriminatory because all private entities, "whether in-state or out of state are treated exactly the same."[32] In addition, the Supreme Court holds that the Commerce Clause permits states to spend their own funds to participate in the market and can use that money to favor its own citizens.[33]

In most RPS programs, the state would not be considered a market participant since it does not fund or purchase Renewable Energy Credits (RECs) or otherwise participate actively in the REC market. Instead, RECs are merely a regulatory device by

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[27] Several commentators reach this same conclusion, with varying levels of confidence. *See* n.2, *supra*.

[28] *See, e.g. Bacchus*, *supra* (invalidating facially statute that blocks any out of state companies from receiving benefits).

[29] *Alexandria Scrap v. Hughes*, 426 U.S. 794, 810 (1976)(holding that state is a market participant where it pays a companies that remove truck hulks from junkyards for processing at in-state facilities and thus, does not violate the Commerce Clause by paying bounty to in-state but not out-of-state processors).

[30] *Id; see also White v. Massachusetts Council of Constr. Employers*, 460 U.S. 204, 208 (1983)("When a state or local government enters the market as a participant it is not subject to the restraints of the Commerce Clause.")

[31] *See United Haulers Assoc. Inc. v. Oneida-Herkimer Solid Waste Management Authority*, 550 U.S. 330 (2007)(finding that flow control ordinance requiring haulers to take waste to municipal owned facility prior to export does not violate commerce clause because it "treats private entities in-state and out-of-state the same); *Department of Revenue of Ky. v. Davis*, 128 S. Ct. 1801 (2008)(upholding Kentucky law that exempts interest from state municipal bonds from tax but not interest from out-of-state municipal bonds or private bonds).

[32] *United Haulers* at 334, *supra*.

[33] *Alexandria Scrap v. Hughes*, 426 U.S. at 809.

which to comply with RPS requirements. Thus, the market-participant exception will not apply to the majority of RPS programs, as currently devised. [34]

However, there is a unique RPS program design employed by two states, New York and Illinois, which may satisfy the market-participant exception. In those states, a state agency has direct responsibility to conduct procurement under the RPS. In New York, for example, the New York Energy Research and Development Authority (NYSERDA) is the procurement agent and is authorized to purchase the environmental attributes created by the renewable generation, not the electricity, under long-term contracts. The renewable generator provides NYSERDA with all rights to the RPS attributes associated with each MWh of renewable electricity generated and delivered into the New York Control Area that are under an RPS contract.

Because NYSERDA purchases RECs, it would likely be regarded as a market participant. Thus, if NYSERDA (or any other state with a similar program) chose to purchase RECs only from facilities located in the state, most likely, this program would not violate the Commerce Clause. Though reliance on the market participant exception doctrine is a possibility, it is difficult to predict how courts will rule since application of the market participant exception in the context of energy cases presents a matter of first impression. States are on far stronger grounds if they can create a non-facially discriminatory program, which is a more accepted and traditional basis for avoiding a Commerce Clause challenge.

B. The Commerce Clause Implications of Various RPS Design Elements

This section analyzes the potential applicability of the Commerce Clause to a variety of common RPS design elements including (1) enhanced RPS compliance credit for certain types of generation; (2) delivery-based and location-based eligibility requirements; (3) set-asides for distributed generation and (4) unbundled REC compliance. The design elements discussed are intended as examples only; the analysis should not be viewed as offering a legal opinion on the compliance of any specific RPS statutes with the Commerce Clause.

1. Resource-based eligibility or carve-outs

[34] Two commentators concur with this conclusion. *See* Ferrey, 12 N.Y.U. Envir. L.J. 507, 607 (explaining that RPS standards are implemented by regulation and do not qualify for exception since state does not own the resource or create the market through subsidies); Engel, 26 Ecology L.Q. at 341-342 (acknowledging that market participant exception only applies to state owned or state funded programs).

RPS programs that exclude certain types of renewables from eligibility are constitutionally sound (e.g., Ohio RPS does not include ocean-based renewable energy as an eligible resource). The type of resource eligibility restriction falls equally on both in-state and out-of-state resources and as such, does not discriminate on geographic grounds.

Some state RPS programs include distributed generation (DG) or customer-sited "set-asides," *i.e.,* a requirement that a percentage of a utility's RPS requirement be supplied by DG or customer-sited solar (hereinafter, referred to as DG or solar set-aside). However, RPS set-asides or multipliers (i.e., enhanced compliance credits) for certain types of renewables do not raise Commerce Clause concerns so long as eligibility is not limited to in-state projects. Programs that favor one renewable source over another are facially neutral, while the state's interest in increasing diversity of supply by offering added incentives to spur development of certain types of renewables is compelling. In contrast, set-asides that are limited to in-state resources are discriminatory (e.g., requiring utilities to satisfy RPS with a specified percentage of in-state generation only), and can only be justified by a showing that the state lacks non-discriminatory alternatives to achieve legitimate goals – which is a difficult standard to meet.[35] (See fuller discussion *infra* section 2.)

2. In-state or in-region location v. in-state or regional delivery requirements

States sometimes condition project eligibility on in-state location or delivery requirements. Generally speaking, location-based requirements raise Commerce Clause concerns; delivery-based or other neutral, functional requirements do not, as discussed.

Requirements that a project be located in a state or region to qualify for the RPS discriminate on their face because they treat in-state and out-of-state projects differently solely for geographic reasons. As such, location-based RPS requirements can avoid invalidation under the Commerce Clause *only* if the state can show that there are no other non-discriminatory alternatives available to achieve legitimate state goals. In some cases, a neutral, in-state deliverability or other functional eligibility requirement may provide a viable alternative to an in-state location requirement. For example, a state may argue that there is a legitimate reason for an in-state deliverability requirement because it ensures that "dirtier" generation within the region is displaced. That is, to the extent that fossil-fired generators are displaced, the delivery requirement will improve air quality both locally and in the broader region and contribute to regional development. The absence of such a delivery requirement, on the other hand, provides no certainty of local or even regional economic and environmental benefits. However, it is important to note that where neutral alternatives are available to meet the state's legitimate objective, a location-based RPS violates the Commerce Clause.

[35] See Part A.1.c, supra.

RPS statutes with functional eligibility requirements, such as in-state deliverability, interconnection or consumption, are facially neutral because any company, whether in or out of a state, can meet these requirements. While an out-of-state developer may face added costs to connect to an in-state distribution facility, the costs are a product of a project's distance to distribution facilities rather than geographic boundaries. Moreover, the added costs are not discriminatory; an in-state project located in a remote or transmission-constrained portion of a large state might also face increased costs in meeting an in-state deliverability or distribution requirement. Overall, commentators generally agree that in-state and regional delivery requirements will survive commerce clause review, while geographic or location-based requirements are vulnerable.

3. DG and Customer Sited Set-Asides

As mentioned, many state RPS programs include DG or customer-sited set-asides, although the eligibility designs vary significantly, ranging from in-state interconnection, a showing of displacement of power (to account for behind-the-meter generation) or in-state location.

Location-based eligibility requirements for DG or solar set-asides may raise Commerce Clause concerns as discussed in the preceding section. However, functional eligibility requirements such as in-state deliverability or power displacement may accomplish nearly the same results as location requirements. As a practical matter, the majority of DG or solar projects that are capable of meeting RPS functionality requirements will also be located in-state.

At the same time, because deliverability requirements for DG or solar set-asides mean that the provisions disproportionately benefit in-state projects, it might be argued that even neutral functional eligibility requirements impermissibly burden commerce by foreclosing opportunities for out-of-state generation. Since functional requirements are neutral, the *Pike* balancing test would apply to evaluate these particular Commerce Clause issues.

DG or solar set-asides impose minimal burdens on commerce since they comprise only a small percentage of utilities' RPS obligations. The minimal burdens to commerce are also offset by states' compelling interest in DG set-asides as a way to meet legitimate state goals such as improved reliability and diverse supply. Without DG set-asides, a state has few alternatives to ensure that utilities will use DG or solar resources to comply with the RPS because utilities are more inclined to favor larger or lower cost renewable projects to meet their RPS obligations. Set-asides compel utilities to incorporate DG or smaller projects into their renewables mix.

There are really no comparable alternatives by which a state can accomplish legitimate policy goals underlying DG or small solar set-asides such as reliability, diversity of supply or avoidance of new transmission (which in turn serves environmental goals). Even providing state funding for DG to reduce the cost will not necessarily result in the integration of DG into a utility's energy portfolio. The compulsory nature of RPS programs drives utility adoption of DG more effectively than any other incentive.

Given the minimal burden to commerce occasioned by set-asides, strong state interest, and lack of alternatives to achieve state goals, functional based eligibility requirements for DG set-asides will likely pass muster under the Commerce Clause.

4. Limits on out-of-state RECs

A renewable energy credit represents the environmental attributes of a renewable energy project, and may be conveyed separately (unbundled) from sale of project power. RECs are also viewed as a financing tool because they supply projects with another stream of revenue in addition to revenue from power sales.

An RPS program may allow utilities to satisfy their compliance obligation through a combination of eligible renewable electricity purchases and unbundled RECs. Programs that limit the percentage of a utility's RPS obligation which can be satisfied with unbundled RECs without regard to the REC's point of origin are facially neutral and do not violate the Commerce Clause. By contrast, programs that allow a utility to satisfy its full RPS compliance requirements with in-state RECs, but preclude or limit use of out-of-state RECs for compliance, are facially discriminatory.

Prohibiting use of out-of-state, but not in-state unbundled RECs for RPS compliance obligation is problematic under the Commerce Clause. Differential treatment is always suspect under the Commerce Clause, and a state's reasons for favoring in-state RECs are likely to be viewed as protectionist: a way to drive up the value of in-state RECs and produce a revenue stream to subsidize development of in-state projects. Moreover, states have alternatives: they may award grants directly to in-state projects, or impose more neutral restrictions – i.e., restricting use of RECs associated with those projects that do not deliver power into the state.

II. Options for States

There are many ways for states to implement RPS programs that do not implicate Commerce Clause concerns. This section provides options for states to ensure that existing RPS laws enable them to retain and capture in-state benefits in a constitutionally compliant manner.

1. Craft facially neutral eligibility requirements

RPS programs that contain neutral RPS eligibility requirements stand the best chance of avoiding Commerce Clause problems. Eligibility requirements based on functional criteria such as a project's ability to interconnect to in-state distribution facilities, deliver power in-state or displace power that would otherwise have been delivered in-state are all likely to survive Commerce Clause scrutiny. RPS programs that grant enhanced compliance credit for certain types of renewable resources are also permissible because they do not discriminate based on location.

2. Choose carefully the technologies that are eligible for the RPS based on state resources

States often express preference for in-state resources through their resource eligibility rules. Provided the eligibility resource definitions are facially neutral (not expressly location-based), a state certainly may include or exclude resources based on the relative abundance or lack of the resource in-state. For example, a state such as Ohio is justified in not including ocean–based technologies in its list of eligible resources because it lacks ocean waters, even though it may be part of a power pool that includes coastal states. In contrast, New Jersey may (and has) adopted a requirement for 1,100 MW of offshore wind that is connected to the New Jersey electric transmission system, based on the abundance of this wind resource off its coast, without a Commerce Clause risk.[36]

There are many examples in which states have selected particular RPS resources for eligibility based on their desire to increase the use of those resources in which the state is well-endowed, without implicating the Commerce Clause since the requirement is open to in and out-of-state resources, regardless of location. For example, Maryland, which produces 325,000 tons of chicken manure each year, includes poultry litter in its list of eligible Tier 1 resources[37], and North Carolina, with about 10 million pigs each

[36] NJ S.B. 2036 (08/19/2010)

[37] Md. Public Utility Companies Code § 7-701 et seq. (05/26/2004) (subsequently amended)

year, requires 0.2% of electricity to be generated from swine waste by 2018[38], because these requirements are facially neutral. And Connecticut, home to a large manufacturer of fuel cells, includes fuel cells (using renewable or non-renewable fuels) in its Class I requirement.

Similarly, a state may also exclude certain resources such as large hydropower because the state does not want to support conventional technologies or has concerns about the technology's environmental impacts. This type of exclusion affects both out-of-state and in-state resources.

3. Focus on legitimate state goals such as environmental protection, reliability, energy conservation and diversity of supply and safety

Even where a facially neutral state statute affects commerce, the state's interest in legitimate goals such as environmental protection (either in emissions reduction or, with DG, by minimizing the need to construct additional transmission), reliability, energy conservation and diversity of power supply will outweigh any incidental burdens to commerce under the *Pike* balancing test. Thus, states should incorporate these goals prominently in the enabling language of any RPS programs. Economic development or establishment of an indigenous renewables industry, while laudable, are more likely to be viewed by courts as economically protectionist goals which do not justify a burden on commerce.

4. Evaluate feasibility of re-casting location-based requirements in a facially neutral manner

States should consider whether a location-based requirement can be recast in more neutral terms. As discussed, with regard to DG set-asides, there is not much difference between a functional eligibility requirement based on a project's ability to interconnect to a distribution facility or deliver power in-state and an in-state location requirement. As a practical matter, most of the DG projects that can meet a deliverability (or displacement) requirement will be located in-state since it is neither economic or desirable for out of state DG projects (particularly those that are consumer owned or behind the meter) to pay the added costs associated with interconnecting in another state.

To the extent that a location-based preference can be expressed in neutral terms, it stands a better chance of surviving Commerce Clause scrutiny.

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[38] N.C. Gen. Stat. § 62-133.8 (8/20/2007)

5. Consider regional location requirements rather than in-state location requirements

As a practical matter, regional location requirements, although still somewhat problematic under the Commerce Clause, are less likely to attract a challenge simply because they are far less restrictive than in-state location requirements. Moreover, while there are a myriad of Supreme Court cases overturning in-state location requirements on Commerce Clause grounds, there are no cases that specifically address the constitutionality of in-region location requirements.[39] For these reasons, an in-region location requirement, while not free of constitutional concerns, offer a less risky approach to RPS eligibility than in-state location requirements.

6. Build a record showing that the state lacks alternatives to achieve legitimate goals

States that employ location-based RPS requirements may be able to insulate their programs from a successful challenge by building a legislative or administrative record showing that the state lacks non-discriminatory alternatives to achieve its goals of reliability, power diversity or avoiding environmental harm associated with new transmission. Thus, a state enacting a location-based DG set-aside might include in the legislative or administrative record expert testimony, studies and reports showing that alternatives to a location-based requirement are infeasible -- for example, that deliverability requirements would exclude entities producing behind-the-meter generation, and that displacement requirements are infeasible alternatives because they are difficult to track and verify.

In addition, states should downplay the economic development advantages of location-based RPS eligibility requirements and focus more on goals such as reliability, diversity and environmental health. Admittedly, downplaying the in-state economic benefits for RPS programs may not be politically feasible since legislators seek to justify the economic costs of RPS programs. But focusing on non-economic goals such as reliability or environment will neutralize claims that a location-based RPS requirement is driven by economic protectionism, which the Commerce Clause prohibits.

7. Limit rather than prohibit use of unbundled out-of-state RECs for compliance to reduce litigation risk

States face the greatest challenge in restricting or prohibiting use of unbundled out-of-state RECs for RPS compliance, while not similarly constraining use of in-state

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[39] But see, *Hunt v. Washington State Apple*, 432 U.S. 333, *supra* n.13 (striking down law that has the effect of barring apple sales from some but not all states). *Hunt* did not specifically address regional restrictions.

RECs. Disparate treatment of unbundled RECs for RPS compliance would likely be viewed as a protectionist measure to subsidize in-state development, and vulnerable under the Commerce Clause.

The market-participant exception might offer an option for limiting or restricting use of out-of-state RECs -- but only if states themselves purchase RECs to become active participants in the market. Otherwise, the next best option is for states to limit the number of out-of-state RECs that a utility can use for compliance. While limitations on use of out-of-state RECs are facially discriminatory and thus constitutionally vulnerable, as a practical matter, out-of-state companies may have less incentive to bring a challenge if they are still able to satisfy a portion (albeit reduced) of the RPS requirement using out-of-state RECs.

8. Minimize risk of litigation by phasing in requirements gradually

States implementing or amending RPS programs that favor in-state development should do so in a way that minimizes the impacts on affected entities and reduces the risk of a challenge. As described in the Appendix, Massachusetts' adoption of an in-state location requirement for its solar carve-out program increased TransCanada's compliance costs. TransCanada had already locked into contracts which did not qualify for Massachusetts' new in-state RPS eligibility requirements and would have faced enhanced compliance penalties under the new law. By raising a Commerce Clause challenge to Massachusetts' program, TransCanada was able to leverage a settlement that enabled it to avoid added compliance costs.

Bringing a constitutional challenge to an RPS program is a potentially expensive proposition. Unless a company such as TransCanada that has substantial dollars at stake, a suit may not be cost effective for most affected parties. Phasing in new RPS requirements to avoid cost-shock to impacted entities will not cure underlying constitutional infirmities, but it will reduce the risks of litigation.

9. Assess Risks

States can take some comfort that many of these RPS laws have "been on the books" for years without being subject to challenge. The Massachusetts case is unusual in that the in-state requirements precluded a large and well funded out-of-state competitor from competing for, and gaining access to, the Massachusetts market which in turn gave rise to the lawsuit. In most other situations, statutes have gone unchallenged either because companies are resource constrained, or because an RPS program limits, but does not entirely foreclose a company from availing itself of an RPS program.[40]

[40] However, it should be noted that recently a California utility, Southern California Edison Company (SCE), filed a rehearing challenge to the California Public Utilities Commission's decision of January,

At the same time, lingering constitutional questions may create uncertainty even if the actual chances of a lawsuit are minimal. For that reason, states may want to reevaluate their programs and implement some of the options described in this Report.

2011, arguing that certain REC-related elements of the California RPS program violate the Commerce Clause. In a February, 2011 filing with the Commission, SCE alleges that, among other legal defects, the Commission has placed limitations on the use of REC-only transactions that limit the availability of out-of-state RPS procurement in violation of the Commerce Clause. In its administrative challenge, SCE states that it reserves its rights to raise the Commerce Clause claims in federal court, if necessary. *See* Application of Southern California Edison Company for Rehearing of Decision 11-01-025, CPUC Rulemaking 06-02-012 (Filed February 14, 2011).

APPENDIX

Case Study of Commerce Clause Challenge to Provisions of the Massachusetts Green Communities Act

In 2008, the Massachusetts General Assembly passed the Green Communities Act, updating the state's RPS. Among other things, the Green Communities Act requires the Massachusetts Department of Public Utilities (DPU) to adopt rules to implement long-term contracts for renewable energy in order to "facilitate the financing of renewable energy generation within the jurisdictional boundaries of the [C]ommonwealth, including state waters, or in adjacent federal waters."[41]

In June 2009, the DPU adopted rules for long-term contracts for renewable energy.[42] Each distribution company was required to solicit proposals from renewable energy developers, and, if reasonable proposals have been received, to enter into long-term (10-15 years) contracts for the energy or RECs to facilitate financing of in-state projects.[43]

Under the initial rules, long-term contracts had to be with renewable energy generation sources that:

(1) have a commercial operation date on or after January 1, 2008;

(2) are certified by the state as eligible to participate in the RPS, and to sell RECs under the program;

(3) are determined by the DPU to

   (a) provide enhanced electricity reliability within Massachusetts;
   (b) contribute to moderating system peak load requirements;
   (c) be cost-effective to Massachusetts electric ratepayers over the term of the contract; and

(4) are a cost-effective mechanism for procuring renewable energy on a long-term basis.[44]

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[41] G.L. c. 169, § 83.

[42] Massachusetts Department of Public Utilities, Order Adopting Regulations. Docket 08-88-A, June 12, 2009. Appendix A. 220 CMR 17.00.

[43] "In-state" includes state and adjacent federal waters (see Massachusetts Long-Term Contracts Case Study).

[44] 220 CMR 17.05

In December 2009, the DPU approved the method and timetable for the solicitation;[45] the utilities issued their RFP in January 2010. Proposals had been received and the review process was underway when, on April 16, 2010, TransCanada Power Marketing Ltd. filed a lawsuit in federal court alleging that limiting eligibility for long-term contracts to in-state projects violates the Commerce Clause of the U.S. Constitution.

On June 1, 2010, TransCanada also sought an injunction to prevent the signing or approval of contracts under the state-sponsored RFP. On June 9, the DPU suspended the requirements that (1) renewable energy generation sources be located within the jurisdictional boundaries of Massachusetts, and (2) where feasible, additional employment be created "in the [C]ommonwealth."

Soon after, the DPU issued emergency rules to allow solicitations for long-term contract proposals for renewable energy generation from outside Massachusetts.[46] These emergency rules removed all in-state preferences for renewable energy projects. The rules were made final on August 20, 2010.

As part of the emergency rules, the DPU also directed the utilities to work with the Department of Energy Resources (DOER) to revise the RFP. [47] In July, the DPU invited comments on the utilities' proposed changes.[48] Following comments and responses from the parties, the DPU approved the RFP.[49] The revised and amended RFP included the following changes (among others) to the original RFP:

- The requirement that the renewable energy generation source be "within the jurisdictional boundaries of the commonwealth, including state waters, or in adjacent federal waters" has been eliminated

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[45] Massachusetts Department of Public Utilities, Joint Petition by Fitchburg Gas and Electric Light Company d/b/a Unitil, Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid, NSTAR Electric Company, Western Massachusetts Electric Company, and the Commonwealth of Massachusetts Department of Energy Resources for approval of proposed timetable and methods for the solicitation and execution of long-term contracts for renewable energy, pursuant to St. 2008, c. 169, § 83. Docket 09-07, December 29, 2009.

[46] Massachusetts Department of Public Utilities, Order Adopting Emergency Regulations. Docket 10-58, June 9, 2010.

[47] Massachusetts Department of Public Utilities, Notice of Filing and Request for Comments. Docket 10-76, July 19, 2010.

[48] *Id.*

[49] Massachusetts Department of Public Utilities, Corrected Order. Docket 10-76, August 27, 2010.

- The requirement that the renewable energy generation source "create employment, where feasible," is no longer limited to Massachusetts
- Bidders must disclose, and the utilities must consider, whether entering into long-term contracts will facilitate the financing of the project
- Bidders bear the costs associated with delivering the energy and/or RECs, and utilities are required to evaluate the estimated market value of energy, RECs, and capacity, taking into consideration the production profile and location of the proposed project over the term of the proposed bid
- The utilities will evaluate bids and negotiate long-term contracts independently, not jointly or in consultation with DOER

On September 2, 2010, the Massachusetts utilities (National Grid, NSTAR Electric, Western Massachusetts Electric and Fitchburg Gas & Electric) issued an amended RFP. In addition to accepting bids from out-of-state projects, the solicitation allowed new in-state bidders to participate and allowed bidders that submitted bids previously under the first RFP to refresh their bids. Bids were due on October 7, 2010. The results of the bids—and in particular, whether the selected bids include any out-of-state projects—are unknown as of this writing.

The conclusion to the legal process has been postponed because a stay in the proceeding was granted at the request of both parties until May 2011, presumably to give the solicitation process time to play out.

The TransCanada suit also involved another provision of the Massachusetts RPS. When the Massachusetts legislature adopted the Green Communities Act, it directed the Department of Energy Resources to establish a requirement that a minimum percentage of electricity sales be from "new on-site renewable energy generating sources located in the commonwealth."[50] DOER first proposed emergency rules for a 400 MW solar set-aside. To be eligible, solar generation units must be "used on-site, located in the Commonwealth of Massachusetts, and be interconnected with the electric grid."[51]

The solar alternative compliance payment (ACP) was set at $600, but DOER then lowered the ACP for retail electricity suppliers that already had fixed-price contracts with customers. As initially proposed, the emergency rules established that the solar ACP for contracts entered into prior to January 1, 2010 would be $400 per MWh for compliance year 2010 rising to $500 per MWh for compliance year 2012. This was

[50] Green Communities Act S.B. 2768, Section 11F. (g)

[51] 225 CMR 14.05 (4). As distinguished from the solar carve-out, the Massachusetts Class I requirement may be satisfied with behind-the-meter generation that is located within the ISO-NE control area; off-grid generation may be eligible only if it is located in Massachusetts.

amended to $325 per MWh for the duration of pre-existing retail load contracts because of comments by several retail electricity suppliers that they would not be able to recover the solar ACP from existing customers already under contract at pre-negotiated prices.[52]

Subsequently, on April 16, 2010, TransCanada Power Marketing filed its lawsuit in Federal District Court in Massachusetts, described above. The lawsuit also included a challenge to the in-state solar requirement. TransCanada asserted in its complaint that, "[w]ere it not for the discriminatory requirement TransCanada would purchase Solar RECs at lower prices from out-of-state generators – both this year and in the future as the broader market develops – which would obviate the need for TransCanada to purchase Solar RECs at high prices from Massachusetts generators, or else make expensive Alternative Compliance Payments."

A few weeks later, the parties to the suit reached a partial settlement with respect to the solar carve-out requirements. In the settlement agreement, DOER agreed to charge the Class I alternative compliance payment for that portion of a retail supplier's load obligation that was contracted before January 1, 2010. Load obligations that were contracted on or after January 1, 2010, would be subject to the higher solar alternative compliance payment proposed in the emergency regulations.[53] In other words, the solar obligation, including the in-state requirement, applies to a supplier's total load, but the new solar ACP will apply only to that portion of load that is contractually committed or renewed beginning in 2010. The in-state requirement remains in place.

The Massachusetts case just described is not an anomaly. In December 2010, TransCanada and a coalition of business groups filed suit in Massachusetts Supreme Judicial Court and challenged the constitutionality of the same procurement statute, this time in the context of the Massachusetts Department of Public Utilities' approval of a power purchase agreement (PPA) between Cape Wind and National Grid.[54]

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[52] 225 CMR 14.08 (3) (b) 3. "The ACP Rate for that portion of a Retail Supplier's obligation under contracts entered into prior to January 1, 2010, shall be $400 per MWh for Compliance Year 2010, $450 per MWh for Compliance Year 2011, and $500 per MWh for Compliance Year 2012." This was changed to: "The ACP Rate for that portion of a Retail Supplier's obligation under contracts executed prior to January 1, 2010, shall be $325 per MWh for the duration of such contracts. This provision does not apply to contracts extended on or after January 1, 2010."

[53] 225 CMR 14.08 (3) (b) 3. Changed to: The ACP Rate for that portion of a Retail Electricity Supplier's Solar Renewable Energy Credit obligations that were contractually committed or renewed prior to January 1, 2010, shall be equal to the RPS Class I ACP Rate as calculated for the applicable Compliance Year under 225 CMR 11.08(3)(a)(2). This provision does not apply to obligations that were contractually committed or renewed on or after January 1, 2010. [same language as the settlement agreement]

[54] *TransCanada Power Marketing v. Department of Public Utilities*, Supreme Judicial Court Massachusetts, Docket No. SJ-2010-0537 (December 13, 2010).

TransCanada argued that the DPU erred in approving the contract because National Grid was required to implement a competitive bidding process pursuant to G.L. c. 169, Section 83 ("Section 83") and failed to do so. TransCanada also contended that the competitive bidding process violated the Commerce Clause because it was not open to out-of-state entities – and that the DPU's June 9 order lifting the ban on out-of-state participation in utilities' procurement process "did not remove the taint" of the Commerce Clause violations because the order came too late to enable TransCanada to compete. Following a briefing of the issues, the court took the case under advisement on February 4, 2011, with a decision pending.

In addition, TransCanada has raised Commerce Clause concerns in Rhode Island regarding power purchase agreements, although within a regulatory proceeding rather than in a court case.[55]

[55] *Review of Amended Purchase Power Purchase Agreement Between Narragansett Electric d/b/a National Grid and Deepwater Wind Block Island, LLC Pursuant to R.I.G.L § 39-26.1-7*. Rhode Island Public Utilities Commission, Docket No. 4185 (TransCanada Motion to Dismiss and Memorandum in Support of Motion to Dismiss, dated July 13, 2010).

Clean Energy States Alliance (CESA) is a national nonprofit coalition of state clean energy funds and programs working together to develop and promote clean energy technologies and markets. CESA provides information sharing, technical assistance services and a collaborative network for its members by coordinating multi-state efforts, leveraging funding for projects and research, and assisting members with program development and evaluation.

Many states across the U.S. have established public benefit funds to support the deployment and commercialization of clean energy technologies. Eighteen states make up the core base of CESA membership. Though these clean energy funds, states are investing hundreds of millions of public dollars each year to stimulate the technology innovation process, moving wind, solar, biomass, and hydrogen technologies out of the laboratory and toward wider use and application in business, residential, agricultural, community and industrial settings. State clean energy funds are pioneering new investment modelsand demonstrating leadership to create practicalclean energy solutions for the 21st century.

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Legal Barriers to Sub-National Governance Techniques by U.S. States for Renewable Energy Promotion and GHG Control

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Abstract

The attempt by many U.S. states to copy verbatim the European model of feed-in tariffs to promote renewable power and recent efforts of states to promote their renewable power development or greenhouse gas ("GHG") emission restrictions have been successfully challenged legally in the past few months. These challenges have reinforced that these E.U. and Kyoto mechanisms employed by the states in the U.S. as a governance tool, run afoul of the U.S. Constitution. Renewable and climate change policy in the U.S. is undertaken by regulatory actions at the state, rather than federal, level. This is a significant issue going forward regarding institutional mechanisms available to U.S. states.

On the flip-side of the coin, in separate legal actions, states were recently confronted with litigation, and settled, legal challenges raising Constitutional issues regarding their renewable RPS programs and RGGI carbon emission restrictions. The states are "batting" 0-3 in these various legal challenges to date. These are not just any states that were challenged, but the three most proactive renewable energy and GHG emission-controlled states in the country: New York, Massachusetts, and California. The European system of governance and regulatory techniques are subject to strict limitations when applied as a governance mechanism by U.S. states.

1 Renewable Energy and GHG Regulatory Techniques

With ten U.S. states now considering feed-in tariffs, Constitutional impediments will complicate the exercise of this state regulatory authority. The Supremacy Clause of the U.S. Constitution creates a legal barrier to certain state-mandated regulatory actions. In a federalist legal system, there are limits on what the states may do without being preempted pursuant to the U.S. Constitution.

European policies that mandate that utilities and their ratepayers pay more for renewable power through feed-in tariffs can run afoul of four Supreme Court precedent interpreting energy and

environmental state regulation permissible under the U.S. Constitution. These Constitutional limitations cannot be overcome simply by passing a state statute in a given state. The Constitution remains the ultimate law of the land.

There still can be powerful renewable energy incentives that pass legal muster. Aside from global warming emission reduction requirements, other incentives include tax incentives, renewable trust funds, and carefully sculpted Renewable Portfolio Standard ("RPS") requirements with tradable renewable energy certificates ("RECs"). Because the legal systems of European nations and the U.S. are distinct, what is permissible in one does not always seamlessly translate legally to the other.

2 Feed-In Tariffs

Feed-in tariffs are the most widely employed renewable energy policy in Europe and, increasingly, the rest of the world. Forty five countries as well as 18 states/provinces/territories have implemented feed-in tariffs.[ii] This includes some form of feed-in tariff in approximately 28 developing countries. Feed-in tariff designs and impact vary, especially in developing countries. Feed-in tariffs go by many names and definitions. The U.S. National Renewable Energy Laboratory (NREL) recently defined feed-in tariffs as:

> "A feed-in tariff (FIT) is an energy supply policy that offers a guarantee of payments to RE developers for the electricity they produce. Payments can be comprised of electricity alone or of electricity bundled with renewable energy certificates (REC)… These payments are generally awarded as long-term contracts set over a period of 15-20 years. FIT policies can be understood as an advanced form of production-based incentive (PBI), where a payment is awarded for the actual electricity produced ($/kWh)."

A California Energy Commission report leaves the definition of a feed-in tariff relatively vague and then later identifies that what is bought and sold can include electricity only, or can also include RECs and/or other bundled environmental attributes when adapted to the US context:

> "A simple definition of a feed-in tariff is an offering of a guaranteed payment over a specified term with specified operating conditions to eligible renewable energy generators (although some feed-in tariffs step down in price over time) and can be either an all-inclusive rate or a premium payment on top of the prevailing spot market price for power. The price paid represents estimates of either the cost or value of renewable generation. The tariff is generally offered by the interconnecting utility and sets a standing price for each category of eligible renewable generator; the price is available to all eligible generators. Tariffs are often differentiated based on technology type, resource quality, or project size, and may decline on a set schedule over time." [iii]

Feed-in tariff structures are typically either fixed payments based on an electricity generator's cost to produce electricity, or as a fixed premium paid above the spot market or wholesale market price of electricity. These fixed payments are long-term contracts for anywhere from five to thirty years in

duration.[iv] And here lies the legal problem that is examined more below: Despite reports giving little treatment to the legal requirements, mandating a payment based on what is demanded by the producer, rather than what renewable power is objectively worth to the buyer in the market, sets a state-mandated wholesale price that is contrary to federal law, guarding against "unjustified" or "unreasonable" prices paid for wholesale power.

Feed-in tariffs, whether implemented by themselves or though REC market prices (discussed below), increase the power sale price for certain wholesale renewable technologies to an amount that is deemed administratively and politically necessary to encourage their development, rather than what the value of the power is actually worth in the market to the purchaser. Feed-in tariffs exceed market wholesale prices and utility-avoided costs, and therefore are justified only by their objectives and results, and not typically by accepted ratemaking methodology, which aims to minimize generating costs to prudent and reasonable market levels.

Feed-in tariffs have been successful in encouraging significant renewable energy development with 45% of global wind power deployment and 75% of solar PV deployment attributable to feed-in tariff policies through 2008.[v] Often, feed-in rates are differentiated by technology and are based on the cost to the producer of deploying a given renewable energy technology.[vi]

Costs of a feed-in tariff are passed on to retail consumers by purchasing energy suppliers and reflect a public policy decision to increase the percentage of renewable electricity sources in use.

Internationally

Italy, Sweden, and the United Kingdom initially favored RPSs, while Germany, Spain, and other countries favored feed-in tariffs. Germany, Denmark, and Spain, while only a small fraction of the size of the United States in square miles, were responsible for 53% of total installed global wind power capacity between 1990 and 2005.[vii] Germany receives 5% of its total energy from wind power, Demark nearly 20%, and Germany surpassed its 12.5% goal of renewable electricity by 2009, three years earlier than expected.[viii]

Germany's feed-in tariff program created the world's largest solar energy market. In Germany, the current debate is whether the expense of feed-in tariffs is too high given what their consumers are willing to support.[ix] The average German electric bill has increased by roughly $3 per month (€1.45/month)[x] over the period of feed-in tariff implementation.[xi] The German public has generally

supported the increase, especially since many individuals have taken advantage of the incentives to install their own renewable energy generation systems.[xii]

The European Commission concluded that feed-in tariffs are more effective than quota-based tradable REC systems.[xiii] For example, Germany's wind power was on average more than 20 % cheaper than wind power installed under a tradable REC system in the UK.[xiv] Similar findings have since been reported by the Stern Review on the Economics of Climate Change (2006),[xv] the International Energy Agency,[xvi] in analyses conducted on behalf of the New Jersey Board of Public Utilities in the United States,[xvii] and by Ernst & Young.[xviii]

In the United States

Feed-in tariffs have not historically been sanctioned in the U.S. The most prevalent renewable energy policy enacted by states is the Renewable Portfolio Standard ("RPS") with a REC component. The two are similar to the extent that they only qualify renewable power that is actually produced. The feed-in tariff does this by linking the renewable subsidy to the price paid for renewable power, while the RPS does this by creating a separate tradable renewable attribute, or REC.

However, the momentum and impact of European feed-in tariff policies has caused some U.S. states to propose legislation and adopt policies similar to European feed-in tariffs (FiTs). As many as ten states have introduced actual feed-in tariff legislation, while a handful of others are considering feed-in tariff policies. That groups includes Arkansas, California, Florida, Hawaii, Illinois, Indiana, Iowa, Maine, Michigan, Minnesota, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont, Virginia and Washington State. Vermont was the first US state to implement a FIT in 2009,[xix] for long-term contracts for 15-25 years at tariffs differentiated by technology and size (ranging from $0.12 – 0.30/kWh), with an individual project cap of 2.2 MW.

The Supremacy Clause, Federal Preemption and Wholesale Rates

Sections 205 and 206 of the FPA empower FERC to regulate rates for the interstate and wholesale sale and transmission of electricity.[xx] In doing so, the act bestows upon FERC broad power to shape the energy market affecting all stakeholders. By exercising exclusive authority over "just and reasonable" rates and terms, FERC is charged with responsibility to ensure that wholesale generators of electric power will charge fair rates to retailers, and that wholesale generators receive a fair rate of return, and thus "have the incentive to continue to produce and supply power.[xxi]

The Act creates a "bright line" between state and federal jurisdiction, with wholesale power sales falling on the federal side of that line[xxii]: "Congress meant to draw a bright line easily ascertained

between state and federal jurisdiction, making unnecessary case-by-case analysis….making [FERC] jurisdiction and extending it to all wholesale sales in interstae commerce…".[xxiii] This preempts state regulation of wholesale power transactions and prices: State regulation is not allowed to veto the regulatory scheme of a superior level of government. FERC jurisdiction is plenary and extends to all wholesale power sales in interstate commerce.[xxiv]

There is no dispute that sales of wholesale renewable power to investor-owned regulated utilities are (1) wholesale power transactions and (2) interstate power transactions, unless they occur in Alaska, Hawaii, or parts of Texas. All are subject to exclusive federal jurisdiction; state authority is preempted. As the federal Court of Appeals recently remarked, and the Supreme Court confirmed, reforms in about a third of the states have taken their regulated utilities out of the power generation business and caused them to purchase wholesale the power that they distribute later at retail, and contributed to "a massive shift in regulatory jurisdiction from the states to the FERC." [xxv]

These Constitutional limitations on state authority affect only regulation of investor-owned utilities, which collectively serve approximately three-quarters of American consumers; they do not affect government-owned utilities which are not subject to the Federal Power Act. In some states, government officials are moving to compel private investor-owned utilities they regulate and their ratepayers to bear higher-than-wholesale-market rates for renewable power.

The Filed-Rate Doctrine

The so-called "filed-rate doctrine" of federal/Constitutional law, holds that state regulatory commissions may not second-guess or overrule on any grounds a wholesale rate determination made pursuant to federal jurisdiction. The Supreme Court in 1986 and again in 1988, 2003, and 2008, upheld the filed-rate doctrine.[xxvi]

Feed-in tariff rates are set by the state above the already-set mandatory federal wholesale price of energy and above avoided cost rate levels. This results in at least a temporary increased wholesale and retail cost of electricity. And here lies the conundrum: Does this conflict with either the requirements of the Public Utility Regulatory Policies Act (PURPA), which is part of the FPA, or the general rate-setting requirements of FERC under the FPA?[xxvii] A series of court decisions over the past two decades makes this the key question under the Supremacy Clause of the United States Constitution.

The PURPA promotion of renewable energy is premised on renewable energy generators receiving only the utility's avoided cost rate.[xxviii] PURPA, therefore, specifically provides that no state

mandate requiring a utility to purchase energy from a QF "shall provide for a rate which exceeds the incremental cost to the electric utility of alternative electric energy."[xxix] Congressional hearings emphasized the use of avoided cost methodologies to determine the cost of acquiring alternative electric power, so that no particular electricity producer or consumer would subsidize the inefficiency of another.[xxx]

Therefore, if a state orders or approves a wholesale power sale rate above the federally-approved wholesale power rate pursuant to the FPA, or above the PURPA avoided cost, it not only crosses the no-state-jurisdiction line, but specifically contradicts the federal wholesale rate determination and raises power costs. Again, there are some exceptions to which this filed rate doctrine does not apply: Unregulated government utilities, federal marketing agencies, municipal utilities, and utilities in Alaska, Hawaii, and parts of Texas which are not connected in the interstate power grid. There also are two other exemptions affecting regulated investor-owned utilities.

Limited Exceptions

There are two limited exceptions. The first exception is if the excess cost is for a green energy program in which utility retail customers individually voluntarily agree to higher rates for renewable power covering the costs above the utility's avoided cost.[xxxi] Of that one-quarter of the nation's utilities that offer such renewable energy purchase options, it is typical that only about 1-2% of their customers elect this more expensive option.

The second exception applies to net metering. On March 28, 2001, FERC held that state net metering decisions were not preempted by federal law, because no "sale" of power occurs when an individual consumer installs distributed generation and accounts for its dealings with the utility through the practice of netting.[xxxii] Eighty percent of the states have electively adopted "net metering," which runs the retail utility meter backwards when a renewable energy generator of an eligible size and type puts power back to the grid. As of 2010, forty-two states and the District of Columbia had some form of net metering. Net metering can pay the eligible renewable energy source up to approximately four times more for this power when it rolls the retail meter backwards compared to what the market values as the price for wholesale power.

State Renewable Wholesale Fit Power Pricing Constitionally Stricken in 2010 California Matter

In 2008, the California Public Utilities Commission ("CPUC") announced the availability of feed-in tariffs to support the development of up to 480 megawatts (MW) of renewable generating capacity

from small facilities throughout California. These feed-in tariffs allowed small renewable generators up to 1.5 MW to sell power to certain listed utilities at terms of 10, 15 or 20-year fixed-price, non-negotiable contracts. This program is designed to benefit entities with significant onsite renewable generating potential and combined heat & power, in excess of what they can use onsite. In October 2009, California enacted new legislation to increase the size of facilities eligible for California feed-in tariffs from 1.5 Mw to 3 Mw.[xxxiii]

In 2010, FERC was asked by California to assess these program elements and issued a definitive ruling on state feed-in tariffs. It held that the Commission's authority under the FPA includes the exclusive jurisdiction to regulate the rates, terms and conditions of sales for resale of electric energy in interstate commerce.[xxxiv] While Congress has authorized a role for states under delegated federal authority in setting wholesale rates under PURPA, Congress has not authorized other opportunities for states to set rates for wholesale sales in interstate commerce by public utilities, or indicated that the Commission's actions or inactions can give states this authority. FERC totally dismissed California's argument that there was a difference if a state only ordered its regulated utilities to establish an "offer price," which constitutes impermissible wholesale rate-setting by the state. Such decisions are setting rates for wholesale sales in interstate commerce by public utilities, and are preempted by the FPA and the U.S. Constitution.

FERC in this 2010 opinion addressed legal issues concerning whether state statutes are consistent with the FPA, and whether they meet the requirements of PURPA, in cases concerning *Midwest Power Systems* and *Connecticut*. In *Midwest Power Systems*, the Commission found that an Iowa statute and the implementing orders of the Iowa Utilities Board were consistent with federal law to the extent that they required utilities in Iowa to purchase from certain types of generating facilities, but also found that the orders of the Iowa Utilities Board were preempted to the extent they required sales by renewable QFs be made at rates in excess of the purchasing utilities' avoided cost, and to the extent they set rates for wholesale sales of electric energy by non-QF public utilities.[xxxv] In *Connecticut*, the Commission similarly found that, to the extent a Connecticut statute required sales by a QF be made at rates that exceeded avoided cost, the statute was preempted by PURPA.[xxxvi] The Commission reasoned there that wholesale QF rates cannot both be capped by full avoided cost (pursuant to the federal statute) and exceed the avoided cost cap (pursuant to the state statute). In its order denying reconsideration of *Connecticut*, the Commission found that, "even if a QF has been exempted pursuant to the Commission's regulations from the ratemaking provisions of the Federal Power Act, a state still cannot impose a ratemaking regime inconsistent with the requirements of PURPA and this Commission's regulations—i.e., a state cannot impose rates in excess of avoided cost."[xxxvii] The rate established by a state can not exceed the avoided cost of the purchasing utility.[xxxviii]

In a sense, there is nothing new in this 2010 California decision. State regulatory action has been stricken by federal courts and FERC regarding similar California actions 15 years ago when it either raised or lowered the federally-jurisdictional rate paid for power to wholesale renewable energy projects. First, lowering wholesale renewable prices is not permissible. In *Independent Energy Producers Association*, the California state utility commission authorized utilities to suspend payment to renewable power-selling Qualifying Facilities (QFs) if the utility found that the QF did not comply with federal standards, and substitute a 20% lower, alternative rate.[xxxix] The court stated that the rate paid by utilities for electricity must be determined by calculating the avoided cost that the utility would pay if it had to purchase electricity outside the renewable QF contract price. The court also commented that federal PURPA full avoided cost rates are the "statutory ceiling."

Going the other direction, raising renewable energy prices as an incentive to the power producer, also have been stricken. In *Southern California Edison Company, San Diego Gas & Electric,*[xl] FERC refused to sanction a higher California price for renewable power supply. The California PUC had ordered two of its investor-owned and regulated utilities to sign long-term fixed-price contracts with renewable QF power sellers to purchase electricity at prices that were competitive with what it cost for the developer to do a renewable energy project, but nonetheless in excess of the utilities' avoided cost and/or the price of wholesale power in the market. Edison, one of the affected utilities, had wholesale electricity supply options available for $0.04 per kWh or less, while the PUC required purchase of renewable prices as high as $0.066 per kWh. Of note, the currently adopted or proposed feed-in tariffs in 2010 contain a price premium for renewable power substantially greater than this 50% premium, in some cases being 600% of current avoided costs and/or wholesale power prices. Under the filed-rate doctrine, any dispute about these matters may not be arbitrated by the state, but is reserved exclusively to federal authority.[xli]

Avoided cost is defined as "the incremental costs to an electric utility of electric energy or capacity or both which, but for the purchase from the qualifying facility or qualifying facilities, such utility would generate itself or purchase from another source."[xlii] The avoided cost rate must reflect prices available from all wholesale power sources able to sell to the utility, regardless of generation technology.[xliii] This concern does not ameliorate over time: The FERC further stated that, "[a]s the electric utility industry becomes increasingly competitive, the need to ensure that the states are using procedures which ensure that QF rates do not exceed avoided cost becomes more critical."[xliv]

The federal Court of Appeals agreed in deciding a third California case.[xlv] While this decision proceeded on appeal to the U.S. Supreme Court[xlvi] and thereafter was remanded to FERC for more clarification,[xlvii] its holding was not overturned at the Supreme Court. The court ruled that Congress did not intend that the scope of FERC's jurisdiction over the interstate sale of electricity at wholesale be determined by a case-by-case analysis of the impact of state regulation on national interests.[xlviii]

California is not alone in trying to justify rates above avoided cost. National Grid, the major power distribution company for Rhode Island, agreed to pay 24.4 cents Kwh beginning in 2013 for power from the Deepwater Wind Project of 20.8 Mw on Block Island. This is several hundred percent above the expected value of wholesale power at that time. TransCanada, the owner of a Maine wind project who had successfully sued Massachusetts in 2010 regarding its renewable energy program, sought to intervene in the review approval of this deal which would award a long-term contract at above avoided cost and wholesale energy prices to in-state renewable energy. The Conservation Law Foundation, and environmental group, also sought dismissal of the power purchase agreement by the Public Utility Commission.

The FERC precedent goes further, stating that any future state action to order/approve a contract price for renewable power purchases above these prices is "void ab initio."[xlix] "Void ab initio" orders, contracts, and deals are automatically declared stricken from the moment of their enactment, even without initiating a separate case before FERC to contest it. This creates a significant Constitutional ring-fence around state discretion on wholesale transactions.

The FPA creates a "bright line" between state and federal jurisdiction, with wholesale power sales prices falling clearly and unequivocally on the federal side of the line. The wholesale price determination, which involves every feed-in tariff for wholesale sale of renewable power to investor-owned utilities, is reserved exclusively to federal authority.[l]

3 Renewable Portfolio Standards with Tradable RECS

There is an alternative to promote renewable energy production that half the U.S. states have implemented. It is state mandatory renewable energy supply requirements, which are usually imposed on electric utilities or independent retail suppliers. These alternatives typically are known as Renewable Portfolio Standards. Under an RPS program, the regulatory agency establishes the percentage quantity of electricity that must be supplied by eligible renewable projects, and the market determines the most cost-effective means and pricing to satisfy that independent variable of trading price of the credits created.

Under a feed-in tariff, the reverse occurs: the government establishes the price for a particular renewable energy project power output sale, and allows the market to decide how much quantity can be supplied at that price.

RPS programs exist in twenty-nine states plus the District of Columbia; six more states have nonbinding RPS goals.[li] These RPS programs cover half of nationwide retail electricity sales. It has been estimated that RPS motivated approximately 45% of the 4,300 MW of wind power installed in the U.S. between 2001 and the end of 2004.

Half of these existing RPS programs employ differentiated tiers of often tradable RECs. Some states distinguish tiers of RECs by the year in which the REC was created or the type of renewable resource used in creation of the REC, so as to promote certain technologies. Some states create technology set-asides or bands of technology. This creates myriad variations on state RPS models. Most states allow the open market to set the price at which RECs trade between renewable energy generators that sell them and power retailers that buy them. Recently, some state officials have talked about using state REC prices to work as a hybrid feed-in tariff.

State RPS programs regard differently the geographic location of RECs creation:

- At least three states expressly require that the RECs be created by in-state power generation, and two additional states require that RECs be created either in-state or in the service territory of a state utility
- Some states encourage, but do not require, RECs to be traded in-state by attaching a multiplier value to in-state RECs.

Eight states required that the power eligible for RPS RECs must be delivered to in-state load-serving entities.[lii] Geographic program restrictions attached to some state RPS programs providing a preference for in-state power RECs over RECs associated with out-of-state renewable power that is in interstate commerce, can raise separate Commerce Clause concerns under the Constitution.[liii] Such geographic discrimination occurs in states in various areas of the country.

Ohio[liv] requires that at least half of this renewable energy be generated within the state. Illinois' RPS program through 2011, requires that electric utilities must utilize resources that are located within the state,[lv] and provides the ability to seek outside resources under certain circumstances. Arizona[lvi] encourages in-state production of solar energy to the detriment of out-of-state producers by allowing utilities to earn extra credit multipliers for "early installation of certain technologies, in-state solar installation, and in-state manufactured content." New Jersey's trust fund, raised from sale of retail

electricity in the state, requires that "[s]uch programs shall include a program to provide financial incentives for the installation of Class I renewable energy projects in the State."[lvii] The renewable energy statute in Texas includes limiting language restricting benefits in state: "[i]t is the intent of the legislature that by January 1, 2015, an additional 5,000 megawatts of generating capacity from renewable energy technologies will have been installed in this state."[lviii] Massachusetts under its Green Communities Act required Massachusetts utilities to purchase renewable power from facilities within Massachusetts.[lix]

When There Is Geographic Discrimination

Article 1, section 8 of the Constitution states that "Congress may regulate Commerce…among the several States…." The dormant Commerce Clause prohibits actions that are facially discriminatory against interstate commerce.[lx] The so-called dormant Commerce Clause restriction is "driven by concern about 'economic protectionism--that is, regulatory measures designed to benefit in-state economic interests by burdening out-of-state competitors."[lxi] Discriminatory statutes are subject to "strict scrutiny," and for such a statute or regulation to be valid the state must establish that there is a compelling state interest for which the statute is the least intrusive means to achieve that interest. If the statute is found to discriminate against out-of-state interests based on geographic limitations or favoring local interests to the detriment of interstate commerce, the court will find the statute to be per se invalid.[lxii] In *West Lynn Creamery v. Healy*, 512 U.S. 186 (S. Ct. 1994) the Supreme Court found that "even if environmental preservation were the central purpose" of the regulation, it "would not be sufficient to uphold a discriminatory regulation."[lxiii]

These geographic program restrictions raise commerce clause concerns under the U.S. Constitution.[lxiv] Providing limitations for in-state use of electricity, fuel, or renewable portfolio standards has not been encouraged as constitutional by the courts. Use of indigenous fuel supplies for electricity was stricken in *Wyoming v. Oklahoma*, 502 U.S. 437 (1992). Income tax credits cannot be given by a state only to in-state producers of fuel additives. *New Energy Company of Indiana v. Limbach*, 486 U.S. 269, 271, 278-80 (1988). In-state coal cannot be required by a state in order to satisfy federal Clean Air Act requirements. *Alliance for Clean Coal v. Miller*, 44 F.3d 591, 596-97(7th Cir. 1995).

Litigation

Massachusetts, starting in 2010, allowed only in-state solar PV RECs to be earned and traded. The Commonwealth of Massachusetts enacted a statewide renewable energy power auction to procure renewable power on behalf of willing in-state utilities that are required by state law to have at least three percent of their annual demand met through 10 year or 15 year wholesale power purchase agreements

with renewable power developers.[lxv] Massachusetts was sued by TransCanada Power with regard to the Massachusetts Green Communities Act which required Massachusetts utilities to purchase renewable power from facilities within Massachusetts.[lxvi] This suit by TransCanada Corp, the owner of a Maine wind project, was based on Constitutional grounds.[lxvii] The suit alleged that Massachusetts' limitation on both solar RECs and long-term contracts to Massachusetts companies, discriminated against out-of-state renewable energy projects in violation of the dormant Commerce Clause of the U.S. Constitution.[lxviii]

After stating that it had confidence in its position, Massachusetts immediately settled the litigation so as to avoid a court decision, providing that TransCanada would be eligible for these programs.[lxix] The scope of the settlement did not necessarily open up the program to all out-of-state programs, but gave a preference in the penalty price for compliance to certain pre-existing contracts and provided a relief-valve on penalties regarding requirements for in-state RECs eligibility. Therefore, Massachusetts surrendered to the battle, but avoided a court declaration on the Constitutional war.

In addition, the Massachusetts DPU extended time for utility distributor NStar to finalize ten-year 30-Mw power purchase agreements with two separate wind turbine developers in New York State and in Canada. Controversy was raised because the potentially higher price that NStar would pay for this renewable power from wind was not disclosed to other competitive entities. It also contradicted the habit of NStar since deregulation of retail power to purchase power in shorter increments than ten-year commitments.

In a related 2009 Constitutional suit, Indeck-Corinth, an existing cogeneration project with a long-term contract to sell power to ConEdison Company in New York, later joined by Brooklyn Navy Yard Co-Generation Project and Selkirk Cogen Partners, sued the state of New York regarding the legality and constitutionality of the requirement to purchase auctioned allowances under the New York version of the ten-state Regional Greenhouse Gas Initiative ("RGGI'). In a a reaction similar to that of Massachusetts, New York quickly agreed to settle the suit prior to trial, to avoid a declaration of illegality. New York told ConEdison to pay the cogeneration project for the cost of its additional carbon allowances through the end of their pre-existing long-term contracts. The settlement allows the utility company to ask the New York PSC to pass through the cost of these allowances, or approximately $3 million annually, to utility customers. This would not be itemized on the bills so that consumers would see this charge.

4 Conclusion

The states of California, New York, and Massachusetts not only have been leaders in these renewable energy and climate change control efforts, but also have very significant legal staffs to sculpt

programs in a careful way. When each of them is successfully sued and plaintiffs achieve their full remedy, it highlights the importance of the legal issues in play. It is fair to state that E.U. policies on renewable power and carbon allowances, are not seamlessly transposed to U.S. state initiatives. The U.S. system of federalism as part of the Constitution, does not give states unlimted prerogative in designing energy policies of their choices. There are strict lines over which states may not cross.

Particularly when states may act in discriminatory fashions, states are not allowed to act as if they have unfettered discretion to enact state-discriminatory energy policies. In addition, since the beginning of national energy legislation in the 1930s, states have not been allowed to regulate interstate wholesale electric power transactions. Consistently, for more than half of the history of electric power's use, and for all of the period of national regulation, there has been a clear line limiting state power. This has been reiterated by the U.S. Supreme Court and FERC consistently, with the most recent articulation of the Filed Rate Doctrine in 2008. There is nothing new or novel in this.

Some have profession indignation that the states can't do whatever they want with GHGs and renewable power to differentiate themselves from other states. However, the national power supply is not infinitely malleable by the states. There is nothing more quintessentially in interstate commerce than electric power. And states do not have free legal reign to harbor power or its renewable attributes, or to require power sale contracts be fashioned, in a discriminatory fashion.

The final conclusion from these examples is that forms of governance, as moderated by legal requirements, matter. Differences between nations and forms of governance matter. While there is much international focus on the renewable and global warming control technologies, this is not at the core of the current challenge. The challenge is to find methods of governance to implement the proven technologies. Both the technologies and the mechanisms exist and are proven; they just must be carefully implemented. And this can be more daunting legally, than initially appears to policy makers.

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[xix]Wilson Rickerson et al, Feed-in Tariffs and Renewable Energy in the USA – A Policy Update 10 (North Carolina Solar Center 2008).

[xx] Federal Regulation and Development of Power ("Federal Power Act"), 16 U.S.C. §§ 824d–e.

[xxi] Pub. Util. Dist. No. 1 of Snohomish County Wash. v. Fed. Energy Regulatory Comm'n, 471 F.3d 1053, 1058 (9th Cir. 2006), *vacated on other grounds*, 547 F.3d 1081 (9th Cir. 2008).

[xxii] *Id.* at 1066, *aff'd*, Morgan Stanley Capital Group v. Pub. Util. Dist. No. 1 of Snohomish County, Wash, 128 S.Ct. 2733 (2008). For a discussion of the California and Western energy crisis that spawned this litigation, see Ferrey, *Soft Paths, Hard Choices: Environmental Lessons in the Aftermath of California's Electric Deregulation Debacle*, 23 VA. ENVTL. L.J. 251 (2004).

[xxiii] *FPC v. S. Cal. Edison Co.*, 376 U.S. 205, 214 (1964).

[xxiv] N. States Power Co. v. Minn. Pub. Util. Comm'n, 344 N.W.2d 374, 378 (Minn. 1984).

[xxv] *Pub. Util. Dist. No. 1*, 471 F.3d at 1066; *see also* Entergy La., Inc., v. La. Pub. Serv. Comm'n, 539 U.S. 39, 47 (2003) (noting that the filed rate doctrine applies to the states through federal preemption).

[xxvi] Nantahala Power & Light Co. v. Thornburg, 476 U.S. 953, 966–67 (1986); Miss. Power & Light Co. v. Miss. *ex rel.* Moore, 487 U.S. 354, 371 (1988) ("FERC has exclusive authority to determine the reasonableness of wholesale rates."); Entergy La., Inc., v. La. Pub. Serv. Comm'n, 539 U.S. 39, 47 (2003) (noting that the filed rate doctrine applies to the states through federal preemption); Pub. Util. Dist. No. 1 of Snohomish County Wash. v. Fed. Energy Regulatory Comm'n, 471 F.3d 1053, 1066 (9th Cir. 2006), aff'd in part and rev'd in part, Morgan Stanley Capital Group v. Pub. Util. Dist. No. 1 of Snohomish County Wash., 128 S.Ct. 2733 (2008). .

[xxvii] Federal Regulation and Development of Power ("Federal Power Act"), 16 U.S.C. 824a. (2006).

[xxviii] Id., 16 U.S.C. § 824a-3(b) (2006) (providing that a rate may not "exceed[] the incremental cost to the electric utility of alternative electric energy"); 18 C.F.R. 292.304(a)(2) (providing that no electric utility shall "pay more than the avoided costs for purchases").
[xxix] *See* Windway Techs., Inc v. Midland Power Coop., 2001 WL 1248741 at *4 (N.D. Iowa 2001) (quoting .16 U.S.C. § 824a-3(b)).
[xxx] Steven R. Miles, *Full-Avoided Cost Pricing Under the Public Utility Regulatory Policies Act: "Just and Reasonable" to Electric Consumers?*, 69 CORNELL L. REV. 1267, 1284 n. 99 (1984) (citing Public Utility Rate Proposals of President Carter's Energy Program: Hearings Before the Subcomm. on Energy Conservation and Regulation of the Senate Comm. on Energy and Natural Resources, 95th Cong., 1st Sess. pt. 1, at 189 (1977)).
[xxxi]In re Fla. Power & Light Co., 219 P.U.R.4th 46, 49 (Fla. Pub. Serv. Comm'n, 2002).
[xxxii] Steven Ferrey, *Net Metering ,in* 1 ENCYCLOPEDIA. OF ENERGY ENGINEERING AND TECH. 1096, 1098 (Barney L Capehart ed., 2007).
[xxxiii] California SB32, which also increased the state cap on the amount of the feed-end tariff from 498.5 Mw to 750 Mw. Liza Weinwimer, "Schwarzenegger Vetoes 33% RPS Bill; Backs Move to Widen Feed-in Tariff Eligibility," Electric Utility Week, October 19, 2009 at 15.
[xxxiv] 16 U.S.C. §§ 824, 824d, 824e (2006); *e.g.*, *Mississippi Power & Light Co. v. Mississippi ex rel. Moore*, 487 U.S. 354 (1988).
[xxxv] *Midwest Power Systems*, 78 FERC ¶ 61,067 at 61,246; *see id*. at 61,246-48.
[xxxvi] *Connecticut*, 70 FERC ¶ 61,012 at 61,029.
[xxxvii] *Connecticut*, 71 FERC ¶ 61,035 at 61,153. *See* Order No. 671, FERC Stats. & Regs. ¶ 31,203 at para. 99 (clarifying that a QF will retain exemption from sections 205 and 206 of the FPA when its sales are pursuant to a state regulatory authority's implementation of PURPA and distinguishing between a "state regulatory authority's implementation of PURPA" and "state programs that are not grounded in PURPA").
[xxxviii] 18 C.F.R. § 292.304 (2010). Under section 210 of PURPA, the rules prescribed by the Commission shall not provide for a rate "which exceeds the incremental cost to the electric utility of alternative electric energy." 16 U.S.C. § 824a-3(b) (2006). Under the Commission's regulations, absent agreement of the parties to the contrary, rates shall be capped at the electric utility's full "avoided cost." 18 C.F.R. § 292.304 (2010).
[xxxix] Indep. Energy Producers Ass'n v. Cal. Pub. Utils. Comm'n, 36 F.3d 848, 853 (9th Cir. 1994).
[xl] S. Cal. Edison Co., 70 F.E.R.C. ¶ 61,215 (1995).
[xli] Miss. Power & Light Co. v. Miss. *ex rel.* Moore, 487 U.S. 354, 371 (1988).
[xlii] 18 C.F.R. § 292.101(b)(6) (2009).
[xliii] S. Cal. Edison Co., 70 F.E.R.C. ¶ 61,215, ¶ 61,666 (1995).
[xliv] *Id*. ¶¶ 61,675–76.
[xlv] Pub. Util. Dist. No. 1 of Snohomish County Wash. v. Fed. Energy Regulatory Comm'n, 471 F.3d 1053, 1066 (9th Cir. 2006).
[xlvi] Morgan Stanley Capital Group v. Pub. Util. Dist. No. 1 of Snohomish County Wash., 128 S.Ct. 2733 (2008).
[xlvii] Both *P.U.D. No. 1* and *Morgan Stanley* remanded the case to the FERC. *See Morgan Stanley Capital Group*, 128 S.Ct. 2733 (2008).
[xlviii] See also, Fed. Power Comm'n v. S. Cal. Edison Co., 376 U.S. 205, 215 (1964).
[xlix] Id.
[l] Fed. Energy Regulatory Comm'n v. Mississippi, 456 U.S. 742, 765 (1982).
[li] DSIRE SUMMARY TABLES, MARCH 2010. HTTP://WWW.DSIREUSA.ORG/SUMMARYMAPS/INDEX.CFM?EE=0&RE=1
[lii] R. Wiser & G. Barbose, supra, at 10.
[liii] FERREY, ENVIRONMENTAL LAW: EXAMPLES AND EXPLANATIONS (5th ed. 2010), at chapter 4..
[liv] *See* Environmental Protection Agency, *Addressing Climate Change – Ohio's Role*, available at http://www.epa.state.oh.us/dapc/climatechange/ccohio.aspx (outlining the Ohio Alternative Energy Portfolio Standard).
[lv] *See* DSIRE, Illinois Incentives & Policies for Renewables & Efficiency, available at http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=IL04R&re=1&ee=1.
[lvi] *See* DSIRE, ARIZONA INCENTIVES/POLICIES FOR RENEWABLES & EFFICIENCY, available at http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=AZ03R&re=1&ee=1.
[lvii] *Id.*
[lviii] *See* Texas Utilities Code Ann. §39.904 (Vernon 2007).
[lix] *See* TransCanada Complaint, available at http://www.windaction.org/documents/27061.

[lx] *See Davis*, 128 S. Ct. at 1808-09 (quoting Oregon Waste Systems, Inc. v. Dep't of Envt'l Quality of State of Or., 511 U.S. 93, 100 (1994).
[lxi] *See* Dep't of Revenue of Ky. v. Davis, 128 S. Ct. 1801, 1807 (2008) (quoting New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 273-74 (1988)).
[lxii] *See* Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978) (noting that if a statute is facially discriminatory, it is virtually per se invalid).
[lxiii] *West Lynn Creamery*, 512 U.S. at 204 (citing *Philadelphia v. New Jersey*, 437 U.S. 617, 626).
[lxiv] S. Ferrey, Environmental Law: Examples and Explantions, Aspen Publishers, 5th ed., 2010, at chapter 4.
[lxv] 225 C.M.R. 14, 17.
[lxvi] *See* TransCanada Complaint, available at http://www.windaction.org/documents/27061.
[lxvii] Transcanada Power Marketing, Ltd. v. Bowles, et al., C. A. No. 4:10-cv-40070-FDS, (D. Ma. July 2010).
[lxviii] Id.
[lxix] See Massachusetts Dept. of Energy Resources, Partial Settlment Agreement with TransCanada, available at http://www.mass.gov/Eoeea/docs/doer/renewables/solar/Settlement-Agreement.pdf

Comments

SURVIVING THE COMMERCE CLAUSE: HOW MARYLAND CAN SQUARE ITS RENEWABLE ENERGY LAWS WITH THE FEDERAL CONSTITUTION

ANNE HAVEMANN*

The renewable energy industry is booming. Worldwide, companies invested $260 billion in clean energy last year.[1] Nearly $56 billion of that investment occurred in the United States.[2] Individual states have also begun to latch onto the promise of renewable energy. Twenty-nine states, including Maryland, have mandatory renewable energy laws, known as Renewable Portfolio Standards ("RPSs").[3]

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1. Press Release, Bloomberg New Energy Finance, Solar Surge Drives Record Clean Energy Investment in 2011 (Jan. 12, 2012), *available at* http://www.bnef.com/PressReleases/view/180.

2. *Id.*

3. The twenty-nine mandatory state RPSs are: (1) Arizona Renewable Energy Standard and Tariff, ARIZ. ADMIN. CODE 14-2-18 (2010); (2) California Renewables Portfolio Standard Program, CAL. PUB. UTIL. CODE § 399.11 (West 2011); (3) Colorado Renewable Energy Standard, COLO. REV. STAT. ANN. § 40-2-124 (West 2004 & Supp. 2011); (4) Connecticut Renewable Energy Portfolio Standards, CONN. GEN. STAT. ANN. § 16-245a (West 2007); (5) Delaware Renewable Portfolio Standards Act, DEL. CODE ANN. tit. 26, §§ 351–64 (West 2009); (6) Hawaii Renewable Portfolio Standards, HAW. REV. STAT. §§ 269-91 *et seq.* (West 2011); (7) Illinois Renewable Portfolio Standard, 20 ILL. COMP. STAT. ANN. 3855 / 1-75(c)(1) (West 2008); (8) Iowa Alternate Energy Production Facilities, IOWA CODE ANN. §§ 476.41–476.48 (West 2009 & Supp. 2011); (9) Kansas Renewable Energy Standards Act, KAN. STAT. ANN. §§ 66-1256 to 66-1262 (West 2009 & Supp. 2011); (10) Maine Renewable Portfolio Requirements, ME. REV. STAT. ANN. tit. 35-A, § 3210(3)-(3-A) (2011); (11) Maryland Renewable Energy Portfolio Standard, MD. CODE. ANN., PUB. UTIL. §§ 7-701 *et seq.* (LexisNexis 2011); (12) Massachusetts Renewable Energy Portfolio Standard for Retail Electricity Suppliers, MASS. GEN. LAWS ANN. ch. 25A, § 11F (West 2010); (13) Michigan Clean, Renewable, and Efficient Energy Act, MICH. COMP. LAWS ANN. §§ 460.1001 *et seq.* (West 2002 & Supp. 2011); (14) Minnesota Renewable Energy Standard, MINN. STAT. ANN. § 216B.1691 (West 2010); (15) Missouri Renewable Energy Standard, MO. ANN. STAT. §§ 393.1025, 393.1030 (West 2011); (16) Montana Renewable Power Production and Rural

These laws require that a portion of a state's energy consumption derive from renewable energy and are a significant driver of the renewable energy boom. A 2010 study, for example, estimated that state RPS policies will spur a 250 percent increase in renewable energy generation by 2025.[4]

At a time when the United States is realizing the consequences of decades of reliance on fossil fuels such as coal and oil, developing renewable energy is particularly critical. The reality of this reliance was highlighted in April 2010 when an explosion at a coal mine in West Virginia killed twenty-nine miners.[5] Fifteen days later,[6] a BP-owned drilling rig in the Gulf of Mexico malfunctioned, triggering the

Economic Development Act, MONT. CODE ANN. §§ 69-3-2001 *et seq.* (2011); (17) Nevada Portfolio Standard, NEV. REV. STAT. ANN. § 704.7821 (West 2009); (18) New Hampshire Electric Renewable Portfolio Standard, N.H. REV. STAT. ANN. § 362-F (LexisNexis 2011); (19) New Jersey Renewable Portfolio Standards, N.J. ADMIN. CODE § 14:8-2.1 (2011); (20) New Mexico Renewable Portfolio Standard, N.M. STAT. ANN. § 62-15-34 (West 2004 & Supp. 2011); (21) New York Renewable Portfolio Standard, N.Y. PUB. SERV. COMM'N ORDER, CASE 03-E-0188, ORDER APPROVING IMPLEMENTATION PLAN, ADOPTING CLARIFICATIONS, AND MODIFYING ENVIRONMENTAL DISCLOSURE PROGRAM (2004); (22) North Carolina Renewable Energy and Energy Efficiency Portfolio Standard, N.C. GEN. STAT. § 62-133.8 (West 2011); (23) Ohio Alternative Energy Portfolio Standard, OHIO ADMIN. CODE 4901:1-40 (2011); (24) Oregon Renewable Portfolio Standards, OR. REV. STAT. ANN. § 496A (West 2011); (25) Pennsylvania Alternative Energy Portfolio Act, 73 PA. CONS. STAT. ANN. § 1648 (West 2008); (26) Rhode Island Long-Term Contracting Standard for Renewable Energy, R.I. GEN. LAWS ANN. § 39-26.1 (West 2006); (27) Texas Goal for Renewable Energy, TEX. UTIL. CODE ANN. § 39.904 (West 2007); (28) Washington Energy Independence Act, WASH. REV. CODE ANN. §§ 19.285.010—.080 (West 2007); (29) Wisconsin Renewable Resources, WIS. STAT. ANN. § 196.378 (West 1992).

The District of Columbia also has a mandatory renewable energy standard. D.C. Renewable Energy Portfolio Standards, D.C. CODE §§ 34-1431 *et seq.* (2011).

Eight states—Indiana, North Dakota, Oklahoma, South Dakota, Utah, Virginia, Vermont, and West Virginia—have nonbinding goals for adoption of renewable energy instead of an RPS. *RPS Policies*, DATABASE OF STATE INCENTIVES FOR RENEWABLES AND EFFICIENCY, http://www.dsireusa.org/summarymaps/index.cfm?ee=1&RE=1 (last updated Aug. 2011).

4. Press Release, IHS, IHS Study: State RPS Policies Will Drive 250% Increase in Renewable Energy Generation by 2025 (June 30, 2010), *available at* http://press.ihs.com/press-release/ehs-sustainability/ihs-study-state-rps-policies-will-drive-250-increase-renewable-ener.

5. *See, e.g.*, Bernie Becker, *West Virginia Coal Towns Mourn the Miners Lost*, N.Y. TIMES, Apr. 10, 2010, *available at* http://www.nytimes.com/2010/04/11/us11mourn.html?ref=miningdisasters.

6. The West Virginia coal mine explosion occurred on April 5, 2010. Ian Urbina, *Toll Mounts in West Virginia Coal Mine Explosion*, N.Y. TIMES, Apr. 5, 2010, *available at* http://www.nytimes.com/2010/04/06/us/06westvirginia.html. The BP drilling rig exploded on April 20, 2010. Jad Mouawad, *For BP, a History of Spills and Safety Lapses* N.Y. TIMES, May 8, 2010, *available at* http://www.nytimes.com/2010/05/09/business/09bp.html.

"greatest environmental disaster of its kind in [American] history."[7] These two catastrophes, within the same month, only added to the growing sense that our nation's energy policy needs reform.[8] While the debate continues over the exact effects of burning coal and oil for energy, no credible scientist doubts that fossil fuels cause air and water pollution, and few dispute the energy sources' contribution to climate change.[9] In addition, traditional energy sources are finite and are often imported from volatile countries.[10]

State RPSs therefore represent a vital policy tool to ease the transition away from traditional energy. The laws, however, are a work in progress. The RPSs are open to challenges under the U.S. Constitution's Commerce Clause because many of them favor renewable energy produced in-state or within a defined region.[11] Lawsuits have already arisen in two states. In Massachusetts, a large energy company filed suit alleging that the state's RPS impeded its ability to compete fairly within Massachusetts.[12] In response, Massachusetts struck a portion of its law[13] and reached a partial settlement with the company.[14]

7. Press Release, The White House, Remarks by the President After Meeting with BP Oil Spill Commission Co-Chairs (June 1, 2010), *available at* http://www.whitehouse.gov/the-press-office/remarks-president-after-meeting-with-bp-oil-spill-commission-co-chairs.

8. *See* Elisabeth Bumiller & Adam Nagourney, *Bush: 'America is Addicted to Oil'*, N.Y. TIMES, Feb. 1, 2006, *available at* http://www.nytimes.com/2006/02/01/world/americas/01iht-state.html (explaining that in his 2006 State of the Union address, President Bush (who was not known to oppose traditional forms of energy) declared that "America is addicted to oil" and set a goal of replacing 75 percent of the nation's Mideast oil imports with alternative energy sources by 2025).

9. See, for example, the most recent report by the U.N. Intergovernmental Panel on Climate Change ("IPCC"), a scientific body considered the leading international organization on climate science, which concludes with "very high confidence" that humans have caused most of the observed increase in global average temperatures since the mid-twentieth century. Richard B. Alley et al., *Summary for Policymakers*, *in* IPCC, CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS, (Susan Solomon et al. eds., 2007). But see the findings of a MIT meteorology professor, Richard S. Lindzen, who argues that confident predictions of climate catastrophe are unwarranted. Richard S. Lindzen, Op-Ed, *The Climate Science Isn't Settled*, WALL ST. J. (Nov. 30, 2009, 7:44 PM), http://online.wsj.com/article/SB10001424052748703939404574567423917025400.html.

10. *See, e.g.*, Jordan Weissmann, *Will the Iran Sanctions Spark an International Oil Crisis?*, ATLANTIC (Jan. 9, 2012, 3:29 PM), http://www.theatlantic.com/business/archive/2012/01/will-the-iran-sanctions-spark-an-international-oil-crisis/251094/ (explaining how sanctions against oil-rich Iran for its nuclear program threaten to create an international oil crisis).

11. U.S. CONST. art. I, § 8, cl. 3; *see also infra* Part I.A (explaining the Commerce Clause).

12. Complaint, TransCanada Power Mktg. Ltd. v. Bowles, No. 4:10-cv-40070 (D. Mass. Apr. 16, 2010).

13. *See* Order Adopting Emergency Regulations, D.P.U. 10-58 (Mass. Dep't of Pub. Utils. June 9, 2010) (revising 220 MASS. CODE REGS. §§ 17.00 *et seq.*).

Less than a year after this challenge, a conservative advocacy group filed suit in federal court asserting that Colorado's renewable energy laws violated the Commerce Clause.[15] Although that case is still pending,[16] the group is already preparing for new challenges.[17] If it wins in Colorado, the organization plans to target renewable energy laws in other states.[18]

Maryland has had an RPS since 2004 and is among the states vulnerable to potential challenges.[19] Its renewable energy policies will only draw more scrutiny if it becomes one of the first states to pursue offshore wind development.[20] Because Maryland's law favors renewable energy generated within a defined region, a court could find that certain provisions of Maryland's law are unconstitutional.[21] Although courts could overlook the constitutional defects of the RPS by focusing on the benefits of renewable energy, they are more likely to find that Maryland could continue to receive the benefits of renewable energy through less discriminatory means.[22] State renewable energy laws like Maryland's are too vital a policy tool to risk having them overturned by a court. Given the recent challenges to state RPSs, Maryland should consider taking steps today to preempt possible attacks.[23] While overhauling the entire RPS is far from necessary, Maryland can follow Massachusetts's lead and amend the most constitu-

14. Email from Dwayne Breger, Dir., Renewable and Alternative Energy Development, Mass. Dep't of Energy Resources, to stakeholders, TransCanada and Massachusetts Settlement Announcement (May 28, 2010), *available at* http://www.nepoolgis.com/GeneralDoc/Archive.asp (Program Update Archived).

15. Amended Complaint for Injunctive Relief and Declaratory Relief, Am. Tradition Inst. v. Colorado, No. 1:11-cv-00859-WJM-KLM (D. Colo. Apr. 22, 2011).

16. Am. Tradition Inst. v. Colorado, No. 1:11-cv-00859-WJM-KLM, 2011 WL 3705108, at *3 (D. Colo. Aug. 23, 2011) (granting a stay of all proceedings).

17. *ATI Environmental Law Center v. State of Colorado Renewables Mandate—Pt. 3, Possible Outcomes*, AM. TRADITION INST. (Aug. 14, 2011), http://www.atinstitute.org/ati-environmental-law-center-v-state-of-colorado-renewables-mandate-%E2%80%93-pt-3-possible-outcomes/ [hereinafter *Possible Outcomes*] (declaring that the American Tradition Institute is "putting wind on trial").

18. *Id.*

19. *See infra* Part I.B.2.c.

20. Press Release, Office of Governor Martin O'Malley, Governor O'Malley Introduces the Maryland Offshore Wind Energy Act of 2011 (Feb. 11, 2011), *available at* http://www.gov.state.md.us/pressreleases/110211b.asp.

21. *See infra* Part II.A.1 (arguing that provisions of Maryland's RPS are unconstitutional); *see also infra* Part II.A.2 (arguing that the broad RPS system is constitutional).

22. *See infra* Part II.A.1.b.ii.

23. Although the federal government could also take action, this Comment will focus on actions Maryland can take to ensure its renewable energy laws are not struck down as unconstitutional. For a brief discussion of steps the federal government should take, see *infra* note 247.

tionally suspect provisions without significantly affecting the purpose of the law.[24]

I. BACKGROUND

Although constitutional challenges to renewable energy laws are relatively new, the Supreme Court's Commerce Clause jurisprudence dates back to the early nineteenth century.[25] A court would therefore analyze any challenge to Maryland's RPS against the Court's historic understanding of the Commerce Clause.[26] The Court's more recent decisions in cases involving Commerce Clause challenges to energy-related laws are also useful when determining how a court would evaluate Maryland's law.[27] While a detailed description of U.S. energy regulation is not within the scope of this Comment, a basic understanding of RPS legislation is helpful.[28] The structure of and challenges to the renewable energy laws in Massachusetts[29] and Colorado[30] reveal the types of policies that invite constitutional scrutiny. Finally, an overview of Maryland's RPS is necessary to determine the success of any potential challenge.[31]

A. Commerce Clause Overview

The Commerce Clause provides that "Congress shall have Power . . . [t]o regulate Commerce . . . among the several states . . . ."[32] The Supreme Court has found that the clause grants Congress the exclusive authority to regulate interstate commerce.[33] In addition, the Court has long held that the clause prohibits states from unduly burdening interstate commerce, even in the absence of federal regulation.[34] This "negative" aspect of the Commerce Clause is referred to

24. *See infra* Part II.B.

25. *See* Gibbons v. Ogden, 22 U.S. (9 Wheat.) 1, 76–79 (1824) (interpreting the Commerce Clause).

26. *See infra* Part I.A.

27. *See infra* Part I.A.

28. *See infra* Part I.B.1.

29. *See infra* Part I.B.2.a.

30. *See infra* Part I.B.2.b.

31. *See infra* Part I.B.2.c.

32. U.S. CONST. art. I, § 8, cl. 3. The Constitution also grants Congress the authority to regulate foreign commerce. *Id.*

33. Gibbons v. Ogden, 22 U.S. (9 Wheat.) 1, 180 (1824) ("[T]he power to regulate commerce [i]s exclusively vested in Congress.").

34. *See, e.g.*, New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 273 (1988) ("[T]he Commerce Clause not only grants Congress the authority to regulate commerce among

as the dormant Commerce Clause.[35] The purpose of the dormant Commerce Clause is to prevent states from interfering with the flow of commerce for their own economic benefit.[36] The Supreme Court has repeatedly interpreted the clause as "invalidat[ing] local laws that impose commercial barriers or discriminate against an article of commerce by reason of its origin or destination out of state."[37]

The dormant Commerce Clause applies to laws that discriminate on their face as well as facially neutral laws with discriminatory effects.[38] Determining the type of discrimination is critical because facially discriminatory laws are subject to stricter scrutiny than laws that merely have discriminatory effects.[39]

1. Facially Discriminatory Laws Receive Strict Scrutiny

Facially discriminatory laws differentiate between articles of commerce based solely on their geographic origins.[40] This disparate treatment violates the Commerce Clause, which is meant to ensure that a product's presence in the market is attributable solely to market forces.[41] Facially discriminatory laws can take a number of forms,

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the States, but also directly limits the power of the States to discriminate against interstate commerce.").

35. *See, e.g.*, C & A Carbone, Inc. v. Clarkstown, 511 U.S. 383, 402 (1994) (O'Connor, J., concurring) (referring to the negative aspect of the clause as the "dormant" Commerce Clause). In addition to the dormant *Interstate* Commerce Clause, which governs commerce between states, the Court has also read a negative aspect into the *Foreign* Commerce Clause, which governs commerce between states and foreign countries. *See* Japan Line, Ltd. v. County of Los Angeles, 441 U.S. 434, 445–46 (1979) (distinguishing the dormant Foreign Commerce Clause from the dormant Interstate Commerce Clause). For ease of reference, this Comment will refer to the dormant Interstate Commerce Clause simply as the dormant Commerce Clause.

36. *See, e.g.*, *Limbach*, 486 U.S. at 273–74 (noting that the dormant Commerce Clause prohibits "regulatory measures designed to benefit in-state economic interests by burdening out-of-state competitors").

37. *C & A Carbone*, 511 U.S. at 390.

38. *See infra* Part I.A. Courts also recognize two exceptions to the dormant Commerce Clause: the "market participant" exception and instances where Congress has explicitly authorized the discrimination. *See* White v. Mass. Council of Constr. Emp'rs, Inc., 460 U.S. 204, 208 (1983) ("[W]hen a state or local government enters the market as a participant it is not subject to the restraints of the Commerce Clause."); *see also* Lewis v. BT Inv. Managers, Inc., 447 U.S. 27, 44 (1980) (explaining that Congress can "confer[] upon the States an ability to restrict the flow of interstate commerce that they would not otherwise enjoy"). A detailed description of these exceptions is not necessary for purposes of this Comment.

39. *See infra* Part I.A.

40. *See, e.g.*, Philadelphia v. New Jersey, 437 U.S. 617, 629 (1978) (striking down a New Jersey law that blocked the import of waste from other states).

41. *See, e.g.*, *id.* at 626–27 ("[W]hatever New Jersey's ultimate purpose, it may not be accomplished by discriminating against articles of commerce coming from outside the State unless there is some reason, apart from their origin, to treat them differently.").

but generally fall into three categories: (1) laws that set up interstate barriers to commerce; (2) laws that manipulate the price of out-of-state versus in-state goods; and (3) laws that attempt to regulate out-of-state conduct.

State laws that create barriers to commerce by blocking imports or exports of goods across state lines violate the Commerce Clause.[42] Not only are laws that hinder commerce from one state to another considered unconstitutional, but the Supreme Court has also held that statutes that set up regional barriers and discriminate against some states rather than all states violate the Commerce Clause.[43] Courts have recently struck down energy-related laws that create barriers to interstate commerce. For example, the Court overturned a New Hampshire law prohibiting hydroelectric plants from selling power out of state before offering it for sale within the state.[44]

In addition to laws that set up interstate barriers to commerce, state laws that manipulate the price of goods because of their origins are also invalid. These laws generally take the form of added taxes and charges on out-of-state goods.[45] For example, the Court struck down an Ohio law that offered a tax credit to fuel dealers who sold ethanol that was either produced in Ohio or in a state that granted reciprocal tax advantages.[46]

42. *See, e.g.*, *id.* at 628 ("The New Jersey law . . . falls squarely within the area that the Commerce Clause puts off limits to state regulation. On its face, it imposes on out-of-state commercial interests the full burden of conserving the State's remaining landfill space."). In *South-Central Timber Development, Inc. v. Wunnicke*, the Court struck down an Alaska regulation requiring that all Alaska timber be processed within the state before export. 467 U.S. 82, 100 (1984). Faced with a similar issue a decade later, the Court struck down a town ordinance requiring non-recyclable solid waste to be processed at designated facility within the municipality before shipping. C & A Carbone, Inc. v. Clarkstown, 511 U.S. 383, 394–95 (1994).

43. Hunt v. Wash. State Apple Adver. Comm'n, 432 U.S. 333, 335, 353 (1977) (striking down a law that banned the sale of apples in North Carolina from any states with a grading system other than USDA even though the law precluded sales from some but not all states).

44. New England Power Co. v. New Hampshire, 455 U.S. 331, 335, 344 (1982) (holding that a law restricting exports of hydropower hoards resources for a state's economic advantage). The Court also struck down an Oklahoma law requiring in-state plants to burn a mixture of coal containing at least 10 percent Oklahoma-mined coal. Wyoming v. Oklahoma, 502 U.S. 437, 443, 455 (1992). In Illinois, a court declared unconstitutional a law that encouraged the use of in-state coal by ensuring that coal plants burning sulfur-heavy coal would meet Clean Air Act requirements. Alliance for Clean Coal v. Miller, 44 F.3d 591, 593, 595 (7th Cir. 1995).

45. *See, e.g.*, Chem. Waste Mgmt. Inc. v. Hunt, 504 U.S. 334, 336–37 (1992) (invalidating an Alabama law imposing an extra fee on imported hazardous waste).

46. New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 271–80 (1988).

Finally, laws that attempt to regulate the conduct of out-of-state businesses also violate the dormant Commerce Clause.[47] Many of these laws tie the price of goods to the price charged in other states, which may have the practical effect of regulating what interstate sellers can charge in those other states.[48] Other impermissible laws regulate the in-state market for a product that is manufactured solely outside the state.[49] Courts take the cumulative effect of these laws into account, reasoning that if one state is allowed to enact a law regulating out-of-state business, other states could impose similar laws, which would have a stifling overall effect on interstate commerce and the economy.[50]

State laws that discriminate against interstate commerce on their face trigger strict scrutiny and are considered virtually *per se* invalid.[51] Courts review facially discriminatory laws under a two-part strict scrutiny standard, asking (1) whether the law advances a legitimate local purpose; and, if so, (2) whether that purpose can be adequately served by reasonable nondiscriminatory alternatives.[52] The Supreme Court has acknowledged that protecting the environment and public

47. *See, e.g.*, Healy v. Beer Inst., 491 U.S. 324, 326–27, 343 (1989) (striking down a law requiring certification that the price of beer was not higher than that charged out-of-state).

48. *See id.* at 338 (finding that a Connecticut law, which required beer sellers to affirm that their Connecticut prices were no higher than the lowest price charged in a bordering state, had "the extraterritorial effect . . . of preventing brewers from undertaking competitive pricing in" one of the bordering states).

49. *See* Rocky Mountain Farmers Union v. Goldstene, No. CV-F-09-2234 LJO DLB, 2011 WL 6934797, at *2–3, 13 (E.D. Cal. Dec. 29, 2011) (concluding that California's Low Carbon Fuel Standard impermissibly controlled conduct outside of California's borders because the law, which favored certain types of ethanol over others, in effect regulated the manufacture of ethanol—a process that occurs almost entirely outside of California).

50. *See, e.g.*, *Healy*, 491 U.S. at 336 ("[T]he practical effect of the statute must be evaluated . . . by considering how the challenged statute may interact with the legitimate regulatory regimes of other States and what effect would arise if not one, but many or every, State adopted similar legislation.").

51. *See, e.g.*, Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978) ("[W]here simple economic protectionism is effected by state legislation, a virtually *per se* rule of invalidity has been erected."). *But see* Maine v. Taylor, 477 U.S. 131, 148 (1986) (upholding a facially discriminatory law because Maine's interest in banning out-of-state baitfish was considered legitimate).

52. *See* Or. Waste Sys., Inc. v. Dep't of Envtl. Quality of Or., 511 U.S. 93, 101 (1994) ("[T]he [law] must be invalidated unless . . . it advances a legitimate local purpose that cannot be adequately served by reasonable nondiscriminatory alternatives."); Hughes v. Oklahoma, 441 U.S. 322, 337 (1979) ("[F]acial discrimination invokes the strictest scrutiny of any purported legitimate local purpose and of the absence of nondiscriminatory alternatives."). This test is a somewhat modified version of the traditional strict scrutiny standard, which requires laws to be "narrowly tailored . . . to further compelling governmental interests." *See, e.g.*, Adarand Constructors, Inc. v. Pena, 515 U.S. 200, 227 (1995).

health are legitimate goals.[53] In contrast, it does not consider a law aimed at helping struggling local industries to be legitimate, as such a law advances a purely economic end.[54] The lack-of-alternatives exception is also extremely narrow. Only one facially discriminatory law has ever successfully invoked the exception.[55]

2. *Facially Neutral Laws with Discriminatory Effects Trigger a Balancing Test*

When a statute does not discriminate on its face, but instead imposes only incidental burdens on interstate commerce, courts use a balancing approach to determine whether the burdens outweigh the benefits of the law. The analysis, announced by the Court in *Pike v. Bruce Church, Inc.*, weighs the burden imposed on interstate commerce against the statute's local benefits.[56]

Since *Pike*, courts have found that some local benefits, such as improving environmental health and safety, justify a burden on commerce. In *Minnesota v. Clover Leaf Creamery Co.*, for example, the Supreme Court upheld a Minnesota statute banning the use of environmentally harmful plastic milk containers by both in-state and out-of-state sellers.[57] The Court reasoned that "[a] nondiscriminatory regulation serving substantial state purposes is not invalid simply because it causes some business to shift from a predominantly out-of-state industry to a predominantly in-state industry. Only if the burden on interstate commerce clearly outweighs the State's legitimate purposes does such a regulation violate the Commerce Clause."[58] Likewise, in *United Haulers Association, Inc. v. Oneida-Herkimer Solid Waste*

53. *See, e.g.*, Dean Milk Co. v. Madison, 340 U.S. 349, 354 (1951) (acknowledging that a state has an "unquestioned power to protect the health and safety of its people").

54. Bacchus Imports, Ltd. v. Dias, 468 U.S. 263, 272 (1984) ("[W]e perceive no principle of Commerce Clause jurisprudence supporting a distinction between thriving and struggling enterprises . . . . [Regardless,] the legislation constitutes 'economic protectionism' in every sense of the phrase."); *see also* United Haulers Ass'n, Inc. v. Oneida-Herkimer Solid Waste Mgmt. Auth., 550 U.S. 330, 346 (2007) ("[R]evenue generation is not a local interest that can justify discrimination against interstate commerce . . . ." (citation and internal quotation marks omitted)).

55. *Taylor*, 477 U.S. at 151–52 (upholding Maine's statute banning the importation of out-of-state baitfish into Maine waters because no alternatives existed to protect domestic population from disease).

56. 397 U.S. 137, 142 (1970) ("Where the statute regulates even-handedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits.").

57. Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456, 472–74 (1981).

58. *Id.* at 474.

Management Authority, the Court examined a flow-control ordinance that required trash haulers to deliver solid waste to a particular waste processing facility.[59] The Court applied the *Pike* balancing test, concluding that the benefits of the ordinance—creating an effective way to finance waste disposal services and increasing recycling—outweighed the incidental burdens on interstate commerce.[60]

In some cases, however, facially neutral statutes are so clearly a ruse for protectionist behavior that courts have invalidated the laws without even reaching the *Pike* balancing test.[61] Although courts do not dispute that states have the right to protect public health and the environment, when states pass a discriminatory law under the guise of protecting their citizens, courts carefully scrutinize the law's declared purpose. In *New Energy Co. of Indiana v. Limbach*, for example, the Supreme Court considered a law that gave favorable tax treatment to ethanol produced in-state and, its proponents claimed, also protected the state's environment.[62] The Court acknowledged that protecting health is a legitimate state goal but easily concluded that health was "merely an occasional and accidental effect of achieving [the law's main] purpose," which was to benefit in-state ethanol producers.[63]

By contrast, some state laws that appear at first blush to have discriminatory effects on interstate commerce do not discriminate at all. The Maryland case *Exxon Corp. v. Governor of Maryland*[64] provides an example. There, a Maryland statute barred petroleum refiners from operating any retail service station within the State.[65] Since Maryland had no petroleum refiners, the burden of the law fell entirely on interstate companies.[66] Despite the seemingly discriminatory impact of the law, the Court found no Commerce Clause violation, explaining that "[t]he fact that the burden of a state regulation falls on some in-

59. 550 U.S. 330, 334 (2007).

60. *Id.* at 346. Although the Court emphasized that "revenue generation is not a local interest that can justify *discrimination* against interstate commerce," it considered revenue generation "a cognizable benefit for purposes of the *Pike* test." *Id.* (citation and internal quotation marks omitted).

61. *See, e.g.*, Or. Waste Sys., Inc. v. Dep't of Envtl. Quality of Or., 511 U.S. 93, 107–08 (1994) (explaining that characterizing the surcharge on in-state disposal of out-of-state waste as "resource protectionism" did not validate the discriminatory statute).

62. 486 U.S. 269, 271, 279 (1988).

63. *Id.* at 279.

64. 437 U.S. 117 (1978).

65. *Id.* at 119. The statute also required any producer or refiner of petroleum products to "extend all 'voluntary allowances' uniformly to all service stations it supplies." *Id.* at 119–20.

66. *Id.* at 125.

terstate companies does not, by itself, establish a claim of discrimination against interstate commerce."[67]

B. Overview of State Renewable Energy Laws and Challenges

All twenty-nine states with RPSs—including Massachusetts, Colorado, and Maryland—have shaped their laws in accordance with one of two basic structures of RPS legislation.[68] After settling on the broad outline of an RPS, states often incorporate additional mechanisms and incentives that can affect how the law stands up to constitutional scrutiny. Thus, the structures of specific state RPSs provide vital insight into how a court would analyze the Maryland RPS. The Massachusetts RPS provides the first example explored in this section.[69] Since Massachusetts presents the only case in which a challenge to a state RPS has been resolved, the outcome of that challenge is described in detail.[70] The structure of the Colorado RPS and the challenge to that law provide the second example in this section.[71] Finally, this section concludes by outlining the structure of the Maryland RPS.[72]

1. The Basics of Renewable Portfolio Standards

An RPS is a state policy that obligates each retail seller of electricity to offer "a certain amount of electricity from renewable energy resources, such as wind, solar, geothermal, hydro, and various forms of biomass and ocean energy."[73] When shaping the RPS obligation, states have two options: (1) require electricity suppliers to maintain energy derived from renewable sources in their own energy portfolio; or (2) allow suppliers to meet their renewable energy obligations by purchasing tradable renewable energy credits ("RECs").[74] Under the first structure, a facility must physically interconnect with the state or regional electricity system to satisfy the RPS requirement.[75] These sys-

67. *Id.* at 126.

68. *See infra* Part I.B.1 (describing the basics of RPS legislation).

69. *See infra* Part I.B.2.a.

70. *See infra* Part I.B.2.a.

71. *See infra* Part I.B.2.b.

72. *See infra* Part I.B.2.c.

73. NANCY RADER & SCOTT HEMPLING, THE RENEWABLES PORTFOLIO STANDARD: A PRACTICAL GUIDE 1 (2001).

74. *Id.* at 2. "The word 'portfolio' refers to the mix of power supply resources that a retail seller assembles to serve its customers." *Id.*

75. Patrick Jacobi, *Renewable Portfolio Standard Generator Applicability Requirements: How States Can Stop Worrying and Learn to Love the Dormant Commerce Clause*, 30 VT. L. REV. 1079, 1090 (2006).

tems are referred to as "bundled" because the attributes of renewable energy are bundled with electricity and sold together.[76] Under the second framework, retailers can "trade" their obligation; instead of maintaining renewable energy in their own energy portfolios, they need only demonstrate that someone else has generated the required amount of renewable energy.[77] In these cases, renewable energy attributes are "unbundled" from electricity and traded as RECs.[78]

Renewable Portfolio Standards that require bundled energy and attributes are based on contracts between a supplier and a consumer of electricity.[79] Two types of contracts exist: "the 'power pool' arrangement and the bilateral contract."[80] In the power pool arrangement, various electricity providers enter into short-term contracts to contribute electrons to one central pool.[81] A regional transmission organization ("RTO") or an independent system operator ("ISO") coordinates power transmission decisions within the pool to ensure that the supply of electricity meets demand.[82] Power pools can be quite large; the RTO that operates the Mid-Atlantic power pool, for example, supplies power to all or parts of thirteen states and

76. *See* EDWARD A. HOLT & RYAN H. WISER, THE TREATMENT OF RENEWABLE ENERGY CERTIFICATES, EMISSIONS ALLOWANCES, AND GREEN POWER PROGRAMS IN STATE RENEWABLES PORTFOLIO STANDARDS 3 (2007) (mentioning electricity and its "bundled attributes" and explaining that attributes can be unbundled from the underlying electricity and traded separately).

77. *See id.* ("A second approach is to unbundle the attributes from the underlying electricity and allow them to be traded as RECs. Verification of compliance can then take place by examining the number of RECs owned and retired by the obligated entities.").

78. *Id.*

79. *See id.* (mentioning a "chain of custody" in contracts for electricity and their bundled attributes, where "the generating units and their attributes are specified").

80. Jacobi, *supra* note 75, at 1093.

81. *See* STEVEN FERREY, LAW OF INDEPENDENT POWER: DEVELOPMENT, COGENERATION, UTILITY REGULATION § 10:3.1 (West 2005) (1989) ("Generators bid for the right to supply bulk electricity at wholesale through a process specifying price and quantity. The offers are aggregated and a system-wide price is established. All offers to supply power below this price are then accepted by the pool.").

82. RTOs or ISOs operate a regional power pool. *See* JOHN CHANDLEY, HOW RTOS SET SPOT MARKET PRICES (AND HOW THIS HELPS TO KEEP THE LIGHTS ON) 1 n.2, 15 (2007), *available at* http://www.pjm.com/~/media/documents/reports/spot-market-prices-j-chandley.ashx (using RTOs and ISOs interchangeably). The difference between an RTO and an ISO is that the Federal Energy Regulatory Commission does not regulate the size of the region the ISO serves. *PJM's Role in the Energy Industry: FAQs*, PJM.COM, http://pjm.com/Home/about-pjm/learning-center/pjm-overview/pjms-role-in-energy-industry.aspx?faq={035A1DB7-4C51-4E9F-8E59-2007D89FE794} (last visited Jan. 11, 2012). For additional background on RTOs and ISOs, see generally FRED BOSSELMAN ET AL., ENERGY, ECONOMICS, AND THE ENVIRONMENT: CASES AND MATERIALS 860–77 (2006).

the District of Columbia.[83] Under the power pool arrangement, it is difficult to trace the path the electricity will take.[84] In contrast, a bilateral contract is a direct contract between a power producer and a user or broker outside of the centralized power pool and leaves no question of where an electron will arrive.[85]

The alternative to bundled energy and attributes is a REC-based system. This type of RPS involves a trading scheme where utilities can purchase renewable electricity without the costs associated with "production, interconnection, and transmission."[86] Under this scheme, "instead of having to generate or buy renewable energy, retail [electricity] sellers . . . purchase RECs from renewable energy producers and submit them once each year to the [state] program administrator in amounts equal to the required percentage of the total electricity sales."[87]

2. Specific State RPS Legislation and Related Litigation

a. Massachusetts

In 1997, Massachusetts enacted an RPS and chose to use a REC-based system.[88] Under the Massachusetts RPS, 15 percent of the energy supplied to Massachusetts customers must come from renewable sources by 2020.[89] An electricity supplier may meet this obligation in part through purchasing RECs from qualified suppliers.[90]

In 2008, the Massachusetts legislature significantly revisited its RPS by enacting the Green Communities Act.[91] Section 83 of the Green Communities Act required electric distribution companies to enter into long-term contracts with generators of renewable energy

83. *About PJM: Who We Are*, PJM.COM, http://pjm.com/about-pjm/who-we-are.aspx (last updated Jan. 3, 2012).

84. *See* RADER & HEMPLING, *supra* note 73, at 34 ("While the customer can *contract to pay for* electricity from a specific generator, that generator's output will flow into the grid and commingle with the output of all other generators in the grid.").

85. FERREY, *supra* note 81, at 1, app. B.

86. *See* Jacobi, *supra* note 75, at 1091 (explaining the benefits of a REC-based system).

87. *Id.* (alterations in original) (internal quotation marks omitted).

88. 1997 Mass. Acts 874.

89. 225 MASS. CODE REGS. 14.07 (2007).

90. *See id.* (allowing utilities to meet the RPS through "New Renewable Generation Attributes"); *id.* 14.02 (defining "New Renewable Generation Attributes" as "[t]he Generation Attribute of the electrical energy output of a specific Generation Unit that derives from the Unit's production of New Renewable Generation"). For a description of RECs, see *supra* Part I.B.1.

91. 2008 Mass. Acts 308.

located in Massachusetts.[92] As if anticipating a challenge, Section 83 further provided:

> If any provision of this section is subject to a judicial challenge, the department of public utilities may suspend the applicability of the challenged provision during the pendency of the judicial action until final resolution of the challenge and any appeals, and shall issue such orders and take such other actions as are necessary to ensure that the provisions that are not challenged are implemented expeditiously to achieve the public purposes of this provision.[93]

Section 32 of the Green Communities Act added a provision to the RPS requiring electricity suppliers to purchase RECs from generation units located in Massachusetts.[94] Acting pursuant to this authority, the Massachusetts Division of Energy Resources, added a solar "carve-out" requiring each electricity supplier to meet a portion of its renewable energy quota from solar generators in Massachusetts.[95]

TransCanada, a significant developer and producer of renewable energy in the United States and Canada,[96] challenged both portions of the Green Communities Act as discriminatory on their face. The company argued that Section 83 prevented it "from bidding to fulfill the required long-term contracts by offering renewable energy generated outside Massachusetts, including renewable energy from the Kibby Wind Power Project [in Maine]."[97] The company claimed that the requirements "harm[ed] the public of Massachusetts by increasing prices for renewable energy by prohibiting" TransCanada and other out-of-state generators from competing for the long-term contracts in Massachusetts.[98] In response to TransCanada's lawsuit, and

92. *See id.* at 365 ("[E]ach distribution company . . . shall be required . . . to . . . enter into cost-effective long-term contracts to facilitate the financing of renewable energy generation *within the jurisdictional boundaries of the commonwealth* . . . ." (emphasis added)).

93. *Id.*

94. MASS GEN. LAWS ANN. ch. 25A, § 11F(g) (West 2010). The RPS stated that:

> In satisfying its annual obligations under [the RPS program], each retail supplier shall provide a portion of the required minimum percentage of kilowatt-hours sales from new on-site renewable energy generating sources located in the commonwealth . . . . [T]he department may specify that a certain percentage of these requirements shall be met through energy generated from a specific technology or fuel type.

Id.

95. 225 MASS. CODE REGS. 14.05(4)(a) (2011).

96. Complaint at ¶ 16, TransCanada Power Mktg. Ltd. v. Bowles, No. 4:10-cv-40070 (D. Mass. Apr. 16, 2010).

97. *Id.* ¶ 25.

98. *Id.* ¶ 26.

pursuant to its authority under Section 83, the Massachusetts Department of Public Utilities eliminated the requirement limiting the availability of long-term contracts to in-state renewable resources.[99]

TransCanada also challenged the solar carve-out created under Section 32. The company argued that "[w]ere it not for the discrimination in favor of Massachusetts generation units, Solar RECs would develop in a broader geographic area . . . and they would reach reasonable price points more quickly."[100] Addressing Massachusetts's argument that the solar requirement was meant to further a legitimate environmental purpose, the company explained:

> As in the existing REC program, the environmental benefits of the Solar RECs will be experienced in every location that is affected by traditional power plants generating power for the power grid operated by ISO New England. These may include power plants located in other control areas. There is no reason that the solar generators must be located in Massachusetts in order to create and to verify "the positive environmental attributes associated with this clean energy production."[101]

In May 2010, Massachusetts and TransCanada agreed to settle this portion of the lawsuit.[102] Energy suppliers that had contracts with Massachusetts on or prior to January 1, 2010, including TransCanada, can now meet their portion of the solar renewable energy obligation with out-of-state solar energy sources.[103]

b. Colorado

In 2004, Colorado became the first state in the nation to enact an RPS by ballot measure.[104] Like Massachusetts, the state allows energy suppliers to use tradable RECs to meet their renewable energy obliga-

99. Order Adopting Emergency Regulations, D.P.U. 10-58 (Mass. Dep't of Pub. Utils. June 9, 2010), revising 220 MASS. CODE REGS. §§ 17.00 *et seq.*

100. Complaint at ¶ 42, TransCanada Power Mktg. Ltd. v. Bowles, No. 4:10-cv-40070 (D. Mass. Apr. 16, 2010).

101. *Id.* ¶ 37.

102. Email from Dwayne Breger, Dir., Renewable and Alternative Energy Development, Mass. Dep't of Energy Resources, to stakeholders, TransCanada and Massachusetts Settlement Announcement (May 28, 2010), *available at* http://www.nepoolgis.comgeneral Doc/Archive.asp/ (Program Updates).

103. *Id.*

104. Jesse Broehl, *Colorado Voters Pass Renewable Energy Standard*, RENEWABLEENERGYACCESS.COM (Nov. 3, 2004), http://www.renewableenergyworld.com/rea/news/article/2004/11/colorado-voters-pass-renewable-energy-standard-17736.

tions.[105] In 2010, Colorado revised its RPS by increasing the amount of renewable energy that utilities were required to procure from 20 to 30 percent by 2020.[106] The 30-percent-by-2020 mandate applies to all providers of retail electric service in Colorado except for municipally owned utilities that serve 40,000 customers or fewer and unregulated electric associations.[107]

The law allows for a regional system of tradable RECs, as long as the trading utility uses the same definition of renewable energy as Colorado.[108] To meet its renewable-energy requirement, Colorado favors certain types of energy sources by inflating their compliance value. For example, the RPS counts every kilowatt-hour of renewable energy produced within the state as 1.25 kilowatt-hours of eligible energy.[109] To further promote solar energy, the RPS requires utilities other than cooperative electric associations and municipally owned utilities to offer a rebate to customers who install solar electric generation on their premises.[110] Finally, to stimulate rural economic development, the law doubles the regulatory compliance value of renewable sources if they interconnect to electric transmission or distribution facilities owned by a cooperative electric association or municipally owned utility.[111]

105. COLO. REV. STAT. ANN. § 40-2-124(d) (West 2004 & Supp. 2011). The Colorado RPS requires unbundled RECs. HOLT & WISER, *supra* note 76, at 5 table 1. For a description of RECs, see *supra* Part I.B.1.

106. *Id.* § 40-2-124(1)(c)(I)(E).

107. *Id.* § 40-2-124(1). These excluded providers must generate 10 percent of their energy from renewable sources by 2020. *Id.* § 40-2-124(1)(c)(V).

108. *See id.* § 40-2-124(1)(d) ("The commission shall not restrict the qualifying retail utility's ownership of renewable energy credits if the qualifying retail utility . . . uses definitions of eligible energy resources that are limited to those identified in paragraph (a) [defining renewable energy] of this subsection . . . .").

109. 4 COLO. CODE REGS. § 723-3:3654(e) (2010) ("For purposes of compliance with the renewable energy standard, each kilowatt-hour of eligible energy generated in Colorado, other than retail renewable distributed generation, shall be counted as 1.25 kilowatt-hours of eligible energy."). The RPS also favors "community-based projects," defined as "project[s] located in Colorado," and counts each kilowatt-hour of electricity from renewable resources at these community-based projects as 1.5 kilowatt-hours. COLO. REV. STAT. ANN. § 40-2-124(1)(c)(VI) (West 2004 & Supp. 2011). Municipally owned and cooperative electric associations may count one kilowatt-hour of solar energy as three kilowatt-hours. *Id.* § 40-2-124(1)(c)(VII)(A).

110. COLO. REV. STAT. ANN. § 40-2-124(1)(e) (West 2004 & Supp. 2011).

111. *Id.* § 40-2-124(1)(c)(IX) ("[E]ach kilowatt hour of electricity generated from renewable energy resources that interconnects to electric transmission or distribution facilities owned by a cooperative electric association or municipally owned utility may be counted . . . as two kilowatt hours . . . .").

Under the RPS, renewable distributed generation ("DG") must comprise 3 percent of retail electricity sales by 2020.[112] Distributed generation is comprised of either retail DG or wholesale DG.[113] The statute defines retail DG as "a renewable energy resource that is located on the site of a customer's facilities and is interconnected on the customer's side of the utility meter."[114] Wholesale DG is defined as "a renewable energy resource *in Colorado* with a nameplate rating of thirty megawatts or less and that does not qualify as retail distributed generation."[115] At least one-half of a utility's DG requirements must be met by retail DG.[116]

Finally, the law relieves Colorado utilities from complying with the competitive bidding requirements of the Colorado Public Utility Commission.[117] To protect consumers from rising energy prices, the RPS contains a "retail rate impact rule," effectively limiting the amount of eligible energy resources and renewable energy credits a utility may acquire.[118]

In April 2011, the American Tradition Institute ("ATI"), a conservative Washington-based non-profit dedicated to advancing free-market solutions, challenged Colorado's RPS as violating the dormant Commerce Clause. In its complaint, ATI not only challenged the facially discriminatory portions of Colorado's law, as TransCanada did in Massachusetts, but also argued that Colorado's entire RPS is unconstitutional because it "discriminates on its face against legal, safer, less costly, less polluting and more reliable in-state and out-of-state generators of electricity sold in interstate commerce."[119] The advocacy group advanced three main arguments. First, ATI described its

112. *Id.* § 40-2-124(1)(c)(I)(E).

113. *Id.* § 40-2-124(1)(a)(II).

114. *Id.* § 40-2-124(1)(a)(V).

115. *Id.* § 40-2-124(1)(a)(VI) (emphasis added).

116. *Id.* § 40-2-124(1)(c)(II)(A).

117. *Id.* § 40-2-124(1)(f)(I). The Colorado Public Utilities Commission oversees the Renewable Energy Standard. *See id.* § 40-2-101 (establishing the Public Utilities Commission).

118. *See id.* § 40-2-124(1)(g)(I)(A)–(B) ("[T]he commission shall establish a maximum retail rate impact of this section of two percent of the total electric bill annually for each customer. The retail rate impact shall be determined net of new alternative sources of electricity supply from noneligible energy sources that are reasonably available at the time of the determination. . . . If the retail rate impact does not exceed the maximum impact permitted . . . the qualifying utility may acquire more than the minimum amount of eligible energy resources and renewable energy credits . . . .").

119. Amended Complaint for Declaratory Relief at ¶ 2, Am. Tradition Inst. v. Colorado, No. 1:11-cv-00859-WJM-KLM (D. Colo. Apr. 22, 2011). The complaint was also brought by the American Tradition Partnership and individual plaintiff Rod Lueck. *Id.* For ease of reference, this Comment will only refer to plaintiff American Tradition Institute.

constitutional claim, laying out the seven ways in which the RPS allegedly discriminates against out-of-state-energy sources.[120] Second, ATI questioned the benefits of renewable energy, arguing that renewable energy is unreliable,[121] costly,[122] and actually results in more pollution since coal and natural gas plants must be powered up and down frequently to supplement the intermittent power from wind energy.[123] Third, ATI argued that the purposes of the Colorado RPS[124] could be more effectively achieved by promoting coal and natural gas.[125]

While ATI's complaint contained seven challenges to the constitutionality of the state RPS, only three of the arguments are applicable to Maryland. The first such argument is ATI's broad claim that any renewable energy requirement burdens interstate commerce because it "bars a power source connected to the interstate grid from producing non-renewable power equivalent to the percentage of renewable energy required to meet the Colorado law."[126] The second argument is ATI's claim that the purpose of the RPS is facially discriminatory to electricity generators operating outside of Colorado.[127] The third argument is ATI's claim that Colorado's RPS impermissibly regulates out-of-state conduct by authorizing the use of tradable renewable energy credits but mandating that definitions of "renewable energy" be identical to those set out in the Colorado law.[128]

120. *Id.* at Part II.A–G.

121. *Id.* at Part III.B.

122. *Id.* at Parts III.D, H.

123. *Id.* ¶ 90.

124. Colorado's RPS was established in 2004 through a ballot initiative. The ballot initiative contained a declaration of legislative intent, which stated:

> [I]n order to save consumers and businesses money, attract new businesses and jobs, promote development of rural economies, minimize water use for electricity generation, diversify Colorado's energy resources, reduce the impact of volatile fuel prices, and improve the natural environment of the state, it is in the best interests of the citizens of Colorado to develop and utilize renewable energy resources to the maximum practicable extent.

Colo. Amendment 37, § 1 (2004).

125. Amended Complaint for Declaratory Relief at Part III.I, Am. Tradition Inst. v. Colorado, No. 1:11-cv-00859-WJM-KLM (D. Colo. Apr. 22, 2011).

126. *Id.* ¶ 60.

127. *Id.* at Part II.B (see *supra* note 124 for the purpose of the Colorado law).

128. *Id.* ¶ 75. In addition, ATI's complaint contains six specific challenges that are less relevant for purposes of this Comment. First, it challenges the in-state wholesale DG requirement and the various multipliers favoring in-state renewable energy generation. *Id.* at Part II.C. Second, the organization claims that the regulation's preference for solar energy "establish[es] a market-bias against otherwise non-renewable sources located outside of Colorado." *Id.* ¶ 73. Third, ATI challenges the provision inflating the compliance value of renewable sources that interconnect to electric facilities owned by cooperative

The merit of these arguments is not known at this time because ATI's suit is still pending.[129]

c. Maryland

Maryland enacted its RPS in 2004 and revisited it in 2007, 2008, and 2010.[130] Under Maryland's RPS, electricity suppliers must procure 20 percent of their electricity from renewable sources by 2022.[131] Electricity suppliers comply with the RPS requirements by acquiring RECs, which each represent one megawatt-hour ("MWh") of defined renewable energy sources.[132] The Maryland RPS includes an interconnection requirement: RPS-eligible facilities must be located within the geographic footprint of the PJM interconnection[133] or in an adjacent control area if electricity is delivered into the PJM region.[134]

Maryland also imposes a solar-specific procurement target, commonly known as a solar carve-out: by 2022, 2 percent of RECs used to satisfy the Maryland RPS must come from solar energy.[135] Starting in 2012, solar energy must be generated within Maryland's electricity grid to satisfy Maryland's RPS requirements.[136] Maryland also insti-

electric associations or municipally owned utilities. *Id.* ¶ 74. Fourth, ATI challenges the requirement that Colorado utilities must offer rebates to customers who install solar generating technologies on their premises. *Id.* ¶ 76. Fifth, ATI claims that because municipal and cooperative electric associations are not relieved from the competitive bidding requirements of the Colorado Public Utility Commission rules, their ability to compete effectively in the interstate electricity market is diminished. *Id.* ¶ 77. Sixth, the organization argues that the provision limiting the amount of eligible energy resources and renewable energy credits a qualifying utility may acquire is unconstitutional because it imposes on out-of-state companies a direct limitation on the sales of both renewable resources and renewable energy credits to certain Colorado utilities. *Id.* ¶ 78.

129. Am, Tradition Inst. v. Colorado, No. 1:11-cv-00859-WJM-KLM, 2001 WL 3705108, at *3 (D. Colo. Aug. 23, 2011) (granting a stay of all proceedings).

130. *Maryland: Renewable Energy Portfolio Standard*, DATABASE OF STATE INCENTIVES FOR RENEWABLES AND EFFICIENCY (May 23, 2011), http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MD05R&re=1&ee=1.

131. MD. CODE ANN., PUB. UTIL. § 7-703(b)(17) (LexisNexis 2010).

132. *See id.* § 7-704(b) (allowing for RECs); *see also id.* § 7-701(i) (defining RECs). The Maryland RPS requires unbundled RECs. HOLT & WISER, *supra* note 76, at 5 table 1. For a description of RECs, see *supra* Part I.B.1.

133. The PJM Interconnection is a regional transmission organization that coordinates the movement of wholesale electricity in all or parts of thirteen Mid-Atlantic states and the District of Columbia. *About PJM: Who We Are*, PJM.COM, http://pjm.com/about-pjm/who-we-are.aspx (last updated Jan. 3, 2012).

134. PUB. UTIL. § 7-701(i)(1)–(2).

135. *Id.* § 7-703(b)(17).

136. *Id.* § 7-701(l)(1) (defining solar energy as a Tier 1 renewable source); *id.* § 7-704(a)(2)(i)(1) (providing that beginning in 2012, solar energy is "eligible for inclusion in meeting the renewable energy portfolio standard only if the source is connected with

tuted a solar REC provision, requiring that an owner of a solar generating system who chooses to sell RECs "must first offer the credits for sale to an electricity supplier or electric company that shall apply them toward compliance with the renewable energy portfolio standard."[137]

II. ANALYSIS

The lawsuits in Massachusetts and Colorado have prompted commentators to question the soundness of other RPSs.[138] These suits could therefore impact not only the challenged state law but also the remaining states with renewable energy laws and those considering one.[139] The challenges were brought by entities with deep pockets[140] and a strong commitment to challenging similar laws.[141] With a lot of money at stake and future challenges to be expected, it would be prudent for Maryland to take another look at its law.

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the electric distribution grid serving Maryland."). Prior to 2012, the requirement was stricter:

> On or before December 31, 2011, [solar energy] that is not connected with the electric distribution grid serving Maryland is eligible for inclusion in meeting the renewable energy portfolio standard only if offers for solar credits from Maryland grid sources are not made to the electricity supplier that would satisfy requirements under the standard and only to the extent that such offers are not made.

Id. § 7-704(a)(2)(i)(2).

137. *Id.* § 7-704(a)(2)(ii).

138. *See, e.g.*, Jacobi, *supra* note 75, at 1118–33 (pointing out vulnerabilities of RPSs in several states, including Nevada, Texas, New York, New Mexico, and others); Bev Pearman, *Non-Profit Groups Challenge Colorado's RES and Question Public Policy Favoring Wind Energy*, RENEWABLE + LAW BLOG (Apr. 5, 2011), http://www.lawofrenewableenergy.com/tags/colorado-rps/ (posted by William H. Holmes) ("If plaintiffs are successful with their claims, then the states with RESs and [Renewable Portfolio Goal]s may have to modify their standards so they are not discriminating against out-of-state renewable energy generators.").

139. Indiana, for example, is considering an RPS. Press Release, Am. Wind Energy Ass'n, Gov. Mitch Daniels Signs Energy Bill With Voluntary Clean Energy Portfolio Standard for Indiana (May 11, 2011), *available at* http://www.renewableenergyworld.com/rea/partner/american-wind-energy-association/news/article/2011/05/gov-mitch-daniels-signs-energy-bill-with-voluntary-clean-energy-portfolio-standard-for-indiana.

140. TransCanada, the challenger of the Massachusetts RPS, is the largest independent power producer in the Canadian province of Ontario. Press Release, TransCanada, TransCanada Enters into Solar Generation (Dec. 20, 2011), *available at* http://www.transcanada.com/5911.html. It operates the largest wind farm in Canada and New England. *Id.* Its third-quarter earnings in 2011 were $417 million. Quarterly Report to Shareholders, TransCanada, TransCanada Reports an Increase in Third Quarter Comparable Earnings to $417 Million or $0.59 Per Share (Nov. 1, 2011), *available at* http://www.transcanada.com/docs/Investor_Centre/TCC_-_Q3_11_-_11_01_11.pdf.

141. *See Possible Outcomes*, *supra* note 17.

The suits in Massachusetts and Colorado provide two different frameworks for analyzing Maryland's RPS. Under a narrow challenge, exemplified by *TransCanada Power Marketing Ltd. v. Bowles*,[142] a court would examine specific provisions of the Maryland law.[143] In crafting the RPS, the Maryland legislature included incentives for renewable energy produced within a certain region,[144] causing provisions of the law to discriminate on their face.[145] Although promoting renewable energy provides legitimate health and environmental benefits, courts are likely to find that Maryland could achieve these benefits through less discriminatory means, thus concluding that portions of Maryland's RPS are unconstitutional.[146]

In contrast, *American Tradition Institute v. Colorado*[147] represents a much broader challenge.[148] Under this framework, which challenges the entire RPS, a court is unlikely to strike down the whole law as unconstitutional.[149] Nevertheless, state renewable energy laws like Maryland's are too vital a policy tool to risk having even portions of them overturned by a court. The state should therefore consider taking steps to preempt possible attacks. While overhauling the entire RPS is not necessary, Maryland can follow Massachusetts's lead and amend the most controversial provisions without significantly affecting the purpose of the law.[150]

A. Commerce Clause as Applied to Maryland's RPS

If a company brought a challenge similar to *TransCanada Power Marketing Ltd.*, a court is likely to find certain provisions of Maryland's RPS unconstitutional.[151] If an entity brought a broader challenge—along the lines of *American Tradition Institute*—to Maryland's RPS, a court is unlikely to find the entire law unconstitutional.[152]

142. Complaint, No. 4:10-cv-40070 (D. Mass. Apr. 16, 2010).

143. *See infra* Part II.A.1.

144. *See supra* Part I.B.2.c.

145. *See infra* Part II.A.1.a.

146. *See infra* Part II.A.1.b.

147. Amended Complaint for Injunctive and Declaratory Relief, No. 1:11-cv-00859-WJM-KLM (D. Colo. Apr. 22, 2011).

148. *See supra* Part I.B.2.b.

149. *See infra* Part II.A.2.

150. *See infra* Part II.B.

151. *See infra* Part II.A.1.

152. *See infra* Part II.A.2.

1. *A Specific Challenge to Maryland's RPS Would Reveal Three Facially Discriminatory Provisions in Maryland's Law*

A narrow challenge, as exemplified by *TransCanada Marketing Ltd.*, would target the provisions of Maryland's law that impose the greatest burden on interstate commerce. The portions of Maryland's law that risk being challenged as unconstitutional are (1) the requirement that RPS-eligible facilities must be located within the PJM interconnection (hereinafter "the interconnection requirement"); (2) the solar REC requirement; and (3) the solar carve-out.[153] When analyzing these provisions, a court would first determine whether the provisions discriminate on their face, triggering per-se invalidity, or whether they merely have a discriminatory effect, in which case a court would employ a balancing test.[154] A court is likely to find that the provisions are facially discriminatory because they discriminate against renewable energy producers based on location.[155]

a. *Three of Maryland's RPS Provisions Discriminate on Their Face*

A court is likely to find that all three of Maryland's vulnerable provisions are facially discriminatory. First, consider the interconnection requirement, which requires that all RPS-eligible facilities must be "located" either (a) "in the PJM region;" or (b) if they are located outside the PJM region they must be "in a control area that is adjacent to the PJM region, if the electricity is delivered into the PJM region."[156] By prefacing the interconnection provision with the word "located," Maryland invites a Commerce Clause challenge.[157]

The PJM region is comprised of all or parts of thirteen states and Washington, D.C.[158] By limiting eligibility to renewable energy produced within the PJM region, the first interconnection provision discriminates against all of thirty-seven states and parts of additional states. The second clause of Maryland's RPS reduces the number of

153. All three of these requirements are described in detail above. *See supra* Part I.B.2.c.

154. *See supra* Part I.A.

155. *See, e.g.*, Philadelphia v. New Jersey, 437 U.S. 617, 626–27 (1978) ("[W]hatever New Jersey's ultimate purpose, it may not be accomplished by discriminating against articles of commerce coming from outside the State unless there is some reason, apart from their origin, to treat them differently."); *see also supra* Part I.A.1 (discussing how laws that discriminate against products based on their origins are facially discriminatory).

156. MD. CODE ANN., PUB. UTIL. §§ 7-701(i)(1), (2) (LexisNexis 2010).

157. Jacobi, *supra* note 75, at 1132–33.

158. *About PJM: Who We Are*, PJM.COM, http://www.pjm.com/about-pjm.aspx (last updated Jan. 3, 2012).

states Maryland discriminates against but does not solve the problem.[159] At best, part (b) includes generators located in most of the states east of Ohio but still "exclude[s] well over half of the United States based purely on location."[160] A court is likely to find that the interconnection requirement is facially discriminatory because statutes that discriminate against some states rather than all states still violate the Commerce Clause.[161]

Like the interconnection requirement, Maryland's solar REC provision also facially discriminates against more than half of U.S. states. Maryland requires that if an owner of a solar generating system chooses to sell RECs, "the owner must first offer the credits for sale to an electricity supplier or electric company that shall apply them toward compliance with the [RPS]."[162] This requirement favors suppliers based on location because the statute mandates that RPS-eligible facilities be located within or adjacent to Maryland's electricity grid.[163] When the Supreme Court declared unconstitutional a New Hampshire law prohibiting hydroelectric plants from selling power out-of-state before offering it in-state, the Court reasoned that "a State is without power to prevent privately owned articles of trade from being shipped and sold in interstate commerce on the ground that they are required to satisfy local demands."[164] Under the same reasoning, a court would find that Maryland's solar REC provision improperly prevents electricity from being sold freely in interstate commerce in an effort to satisfy the local demands for renewable energy created by the RPS. The solar REC provision is facially discriminatory because the provision discriminates against half of the United States and prevents a product from freely entering interstate commerce.

Finally, Maryland's solar carve-out is also facially discriminatory. The carve-out requires RPS-eligible solar energy to be produced within the electric distribution grid serving Maryland beginning in 2012.[165] This provision is even more discriminatory than the interconnection and solar REC provisions because it blocks solar energy produced in all of thirty-seven states.

159. Jacobi, *supra* note 75, at 1132.

160. *Id.* at 1133. *See Electric Market National Overview*, FED. ENERGY REGULATORY COMM'N, http://www.ferc.gov/market-oversight/mkt-electric/overview/elec-ovr-rto-map.pdf (last visited Jan. 16, 2012) (mapping United States electric grids).

161. *See supra* text accompanying note 43.

162. MD. CODE ANN., PUB. UTIL. § 7-704(a)(2)(ii) (LexisNexis 2010).

163. *Id.* §§ 7-701(i)(1)–(2).

164. New England Power v. New Hampshire, 455 U.S. 331, 338 (1982) (quoting Philadelphia v. New Jersey, 437 U.S. 617, 627 (1978)) (internal quotation marks omitted).

165. MD. CODE ANN., PUB. UTIL. §§ 7-704(a)(2)(i)(1)–(2) (LexisNexis 2010).

b. Under a Specific Challenge, a Court Could Find That Maryland's RPS Fails Strict Scrutiny

After determining that three provisions of Maryland's law are facially discriminatory, a court would next apply strict scrutiny to determine whether the provisions are constitutional.[166] To withstand the first prong of a court's scrutiny, Maryland must demonstrate that its law advances a legitimate purpose.[167] A court is likely to find that Maryland's goal of reducing emissions and promoting a healthy environment is legitimate.[168] By contrast, a court should not find Maryland's energy-security goal legitimate.[169] Under the second prong, a court would consider whether Maryland could achieve its legitimate purpose through less discriminatory means.[170] Because Maryland could have pursued three less discriminatory alternatives that would have still allowed it to meet at least some of its goals, a court could find that certain provisions of Maryland's law fail strict scrutiny.[171]

i. Maryland's RPS Advances a Legitimate Purpose

Applying strict scrutiny, a court would begin by asking whether Maryland's RPS advances a legitimate purpose.[172] This prong consists of two parts: (1) the purpose must be legitimate; and (2) the law must actually advance that purpose. According to the legislature, the purpose of the RPS was to procure "the benefits of electricity from renewable energy resources, including long-term decreased emissions, a healthier environment, increased energy security, and decreased reliance on and vulnerability from imported energy sources."[173]

166. *See, e.g.*, Hughes v. Oklahoma, 441 U.S. 322, 337 (1979) ("[F]acial discrimination invokes the strictest scrutiny of any purported legitimate local purpose . . . .").

167. *See, e.g.*, Or. Waste Sys., Inc. v. Dep't of Envtl. Quality of Or., 511 U.S. 93, 100–01 (1994) ("[T]he [law] must be invalidated unless . . . it advances a legitimate local purpose . . . ." (quoting New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 278 (1988) (internal quotation marks omitted)). *See supra* note 54 for a description of how the standard courts apply to facially discriminatory laws differs from the traditional strict scrutiny standard.

168. *See infra* Part II.A.1.b.i.

169. *See infra* Part II.A.1.b.i.

170. *See, e.g.*, *Hughes*, 441 U.S. at 337 ("[F]acial discrimination invokes the strictest scrutiny of . . . the absence of nondiscriminatory alternatives.").

171. *See infra* Part II.A.1.b.ii.

172. *See, e.g.*, *Hughes*, 441 U.S. at 337 ("[F]acial discrimination invokes the strictest scrutiny of any purported legitimate local purpose . . . .").

173. MD. CODE ANN., PUB. UTIL. § 7-702(b)(1) (LexisNexis 2010).

Maryland's first and second goals—decreased emissions and a healthier environment—are environmental and public health goals[174] that a court would consider against the backdrop of recent Supreme Court cases. The Court has recognized that the preservation of the environment and public health are legitimate goals. In *New Energy Co. of Indiana v. Limbach*, for example, the state argued that its law discriminating against interstate commerce was justified because it encouraged the use of ethanol in gasoline in place of lead, thereby reducing harmful exhaust emissions.[175] Although the Court ultimately invalidated the law, it conceded that "[c]ertainly the protection of health is a legitimate state goal."[176] As in *Limbach*, Maryland may also claim that its goal of reducing harmful emissions is legitimate. Renewable energy produces no emissions, while traditional energy sources produce harmful air and water emissions. Thus, a court can be expected to find that Maryland's environmental and health goals are legitimate.[177]

A court would also likely find that Maryland's RPS will in fact advance these legitimate environmental and health goals. Like in Massachusetts and Colorado, the Maryland RPS relies on tradable RECs.[178] Most REC schemes allow "retailers to purchase RECs from renewable energy generators and submit them annually to state regulators."[179] Under a traditional REC scheme, therefore, a state cannot guarantee that the local benefits of renewable energy—decreased emissions, a healthier environment—will accrue in-state.[180] The regional requirements, however, ensure that renewable energy is produced in-state or within the region.[181]

174. The environmental goals of "long-term decreased emissions [and] a healthier environment" directly contribute to improvements in public health. *See* North Carolina *ex rel.* Cooper v. Tenn. Valley Auth., 593 F. Supp. 2d 812, 821–23 (W.D.N.C. 2009) (finding that emissions from electric power plants are "certain to cause premature mortality in humans," as well as other negative health impacts), *rev'd on other grounds*, 615 F.3d 291 (4th Cir. 2010). This Comment will refer to these goals interchangeably as "environmental goals" and "environmental and health goals."

175. 486 U.S. 269, 279 (1988).

176. *Id.* at 279–80.

177. *See id.* at 279 ("Certainly the protection of health is a legitimate state goal, and we assume for purposes of this argument that use of ethanol generally furthers it.").

178. *See* HOLT & WISER, *supra* note 76, at 5 table 1 (demonstrating that the RPSs of Massachusetts, Colorado, and Maryland all require RECs).

179. Jacobi, *supra* note 75, at 1111; *see also supra* Part I.B.1.

180. *See* Jacobi, *supra* note 75, at 1095–96 (discussing the difficulty of proving the in-state accrual of benefits without limiting the location of eligible renewable energy).

181. *See id.* at 1096 ("The obvious method to guarantee that benefits accrue in-state is to limit the location of renewable generators eligible to participate in the RPS-created market either to the state or immediate regional area.").

Locally generated renewable energy will offset the need for traditional energy facilities in Maryland[182] and the entire PJM region. Air and water do not recognize state boundaries; an improvement in air and water quality outside Maryland could improve Maryland's environment, especially if those improvements take place near Maryland.[183] Thus, the very language that makes Maryland's RPS facially discriminatory also enables the RPS to achieve the legislature's stated environmental and health goals.

Maryland also takes the threat of climate change very seriously[184] and its goal of reducing emissions would surely include minimizing the state's contribution to climate change. Climate change is a global phenomenon,[185] thus any decrease in emissions within Maryland and the surrounding region would decrease overall emissions that result in climate change.[186] A court could therefore determine that Maryland's RPS helps reduce climate change.

A court is unlikely to find that Maryland's third and fourth goals—energy security and decreased reliance on imported energy sources—are legitimate. These goals are very similar in effect and would be analyzed together. Here, the legislature's exact intent is unclear; the goals could be interpreted to apply to the state of Maryland or to the country as a whole. Maryland relies on coal to generate more than 50 percent of its electricity, but "most of the State's coal-

182. Maryland has six coal-fired power plants with a capacity of 400 megawatts and above. U.S. ENERGY INFO. ADMIN., DEP'T OF ENERGY, STATE ELECTRICITY PROFILES 2010, at 121 (Jan. 2012), *available at* http://www.eia.gov/cneaf/electricity/st_profiles/sep2009.pdf.

183. According to Neil Donahue, a chemistry professor at Carnegie Mellon University, "smoke from a Pittsburgh-area smokestack can surf the wind eastward then bend south along the East Coast, [passing through Maryland and] eventually turning west toward Baton Rouge where it swings northward through the Midwest before prevailing winds can carry it back through Pennsylvania." David Templeton & Don Hopey, *Wind and Terrain Play a Role in 'Transport' Pollution*, PITTSBURGH POST-GAZETTE, Dec. 15, 2010, *available at* http://www.post-gazette.com/pg/10349/1109207-114.stm. Because of these wind patterns, Maryland receives pollution from as far away as Pennsylvania and other eastern states. Transport pollution is such a strong concern that EPA recently announced a rule limiting the interstate transport of emissions of nitrogen oxides and sulfur dioxide. Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 Fed. Reg. 48,208 (proposed Aug. 8, 2011) (to be codified at 40 C.F.R. pts. 51, 52, 72, 78, 97).

184. Through its CO_2 Budget Trading Program, Maryland is a member of the Regional Greenhouse Gas Initiative, a regional carbon trading scheme. MD. CODE REGS. 26.09 (2011). The legislature passed the Greenhouse Gas Emissions Reduction Act in 2009. MD CODE ANN., ENVIR. § 2-1200 (LexisNexis 2007 & Supp. 2011).

185. *See* SOLOMON, *supra* note 9, at 2 (discussing the global nature of climate change).

186. As is true throughout this section, whether Maryland could have achieved these goals through other, less discriminatory, means will be discussed below. *See supra* Part II.A.1.b.

fired power plants burn coal shipped from West Virginia and Pennsylvania."[187] If the Maryland legislature's purpose was to reduce Maryland's reliance on West Virginia and Pennsylvania coal, it would seem to be exactly the type of isolationist behavior the dormant Commerce Clause was designed to prevent.[188] Under the alternative interpretation—wherein the legislature meant to decrease reliance on foreign sources of energy and increase the energy security of the United States—a court is also likely to find the goal invalid. To satisfy the dormant *Foreign* Commerce Clause,[189] a state must meet additional requirements beyond what is necessary to satisfy the dormant Interstate Commerce Clause.[190] Because the energy-security goal is invalid under the dormant Interstate Commerce Clause, it cannot be valid under the stricter dormant Foreign Commerce Clause test.

ii. Maryland Has Less Discriminatory Alternatives

A court must next consider the second prong of the strict scrutiny test: whether Maryland can meet its legitimate goals through less discriminatory means.[191] If Maryland is able to meet its legitimate environmental and health goals by pursuing an alternative that is less discriminatory, the state will not satisfy the lack-of-alternatives exception. A court is likely to find that Maryland has three less discriminatory means to achieve its goals. The state could (1) implement a system based on electricity bundled with the attributes of renewable energy instead of relying on RECs; (2) emphasize the delivery of benefits over the physical location of generators; and (3) strike the interconnection requirement entirely. Because Maryland has alternative

187. U.S. ENERGY INFO. ADMIN., DEP'T OF ENERGY, MARYLAND ENERGY FACT SHEET, http://www.eia.gov/state/state-energy-profiles.cfm?sid=MD (last updated Nov. 2009).

188. *See, e.g.*, New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 273–74 (1988) (the dormant Commerce Clause prohibits "regulatory measures designed to benefit in-state economic interests by burdening out-of-state competitors").

189. The dormant Foreign Commerce Clause is the analogue of the dormant Interstate Commerce Clause (commonly referred to, and referred to in this Comment, as the dormant Commerce Clause). *See supra* note 35.

190. In addition to satisfying the requirements of the dormant Interstate Commerce Clause, a state measure that impacts foreign commerce may not increase the risk of multiple taxation or impair the nation's ability to "speak with one voice" in foreign affairs. Japan Line, Ltd. v. County of Los Angeles, 441 U.S. 434, 446–49 (1979) (internal quotation marks omitted) (citing Michelin Tire Corp. v. Wages, 423 U.S. 276, 285 (1976)).

191. The only decision in which the Court concluded that the lack-of-alternatives prong was satisfied was *Maine v. Taylor*, 477 U.S. 131 (1986). There, the Court focused on "whether scientifically accepted techniques exist for the sampling and inspection of live baitfish." *Id.* at 146. Because no techniques had been developed, Maine had no alternatives to ensure that imported baitfish were not infected with parasites or nonnative species. *Id.* at 147, 151.

means to achieve its goals, a court could find that provisions of Maryland's RPS fail strict scrutiny.

States have two options when shaping the RPS obligation: (1) a bundled system or (2) a REC-based system.[192] Maryland chose the REC-based option and wrote additional regional requirements into the law.[193] Instead of relying on RECs, Maryland could have implemented a system based on electricity bundled with the attributes of renewable energy.[194] By definition, only generators in the region (or close enough to deliver energy into the region) can offer bundled electricity.[195] Bundled energy and attributes therefore assure "that environmental benefits will accrue to the state or region in which the RPS is established."[196]

In an influential industry treatise, scholars Nancy Rader and Scott Hempling argue that courts will not apply strict scrutiny to an RPS that bases eligibility on a generator's ability to produce benefits for a state (instead of basing it on the origin of the electricity).[197] They argue that "[a]lthough such a policy clearly will exclude distant generators, the exclusion will occur not because those generators are located in another state, but because their physical circumstances preclude benefits to the state. This feature avoids the facial discrimination attack which makes explicit location requirements vulnerable."[198] Under a bundled system, generators are RPS-eligible not based on their location but because they provide benefits to the state. The system is therefore a less discriminatory alternative, and so Maryland is likely to fail the second prong of the strict scrutiny test.

In lieu of switching to a different system, Maryland has two alternatives under its current REC-based system. The first possible alternative under a REC-based system would be for Maryland to focus on delivery of benefits rather than physical location of the generator. The statute's current interconnection requirement defines a REC as elec-

192. *See* RADER & HEMPLING, *supra* note 73, at 55; *see also supra* Part I.B.1.

193. *See* HOLT & WISER, *supra* note 76, at 5 table 1 (demonstrating that the Maryland RPS requires RECs). The three constitutionally suspect provisions within Maryland's RPS—the interconnection requirement, solar REC requirement, and solar carve-out—all contain regional requirements that favor suppliers and generators based within the PJM region. This Comment refers to all three provisions collectively as "regional requirements."

194. *See supra* Part I.B.1.

195. HOLT & WISER, *supra* note 76, at 3.

196. *Id.*

197. *See* RADER & HEMPLING, *supra* note 73, at A-3 (arguing that this approach "avoids the facial discrimination attack which makes explicit location requirements vulnerable").

198. *Id.*

tricity derived from a renewable source that "is *located*: (1) in the PJM region or in a state that is adjacent to the PJM region; or (2) outside the area described in item (1) . . . but in a control area that is adjacent to the PJM region, if the electricity is delivered into the PJM region."[199] Since laws that discriminate against a product based solely on location are facially discriminatory,[200] it is unfortunate that the Maryland legislature prefaced the entire interconnection requirement with the discriminatory word "located."[201]

In part (2) of the interconnection requirement, however, the legislature introduced a delivery component. Emphasizing the delivery of benefits is far less discriminatory than focusing on the location of an energy producer because such focus merely makes the region surrounding the enacting state "a more attractive market for renewable energy generation in the same way as would a tax break offered to those who sell to or locate within the state."[202] By eliminating the "location" language and emphasizing the existing delivery component, Maryland's RPS would not contain the suspect location-based language while still meeting the goals of reducing regional emissions and promoting a healthy environment.

Amending the interconnection requirement would also lessen the burden placed on interstate commerce by the solar REC requirement and the solar carve-out. The solar REC requirement would not discriminate on its face since that provision is only constitutionally suspect because it is tied to the interconnection requirement.[203] The solar carve-out, however, contains location-specific language.[204] Nevertheless, like the interconnection requirement, the solar carve-out provision would cease to be facially discriminatory if the Maryland legislature changed the emphasis from the location of the solar ener-

199. MD. CODE ANN., PUB. UTIL. § 7-701(i)(1)–(2) (LexisNexis 2010) (emphasis added).

200. *See supra* Part I.A.1.

201. *See* Jacobi, *supra* note 75, at 1132–33 (arguing that Maryland's RPS focuses on in-region location to its detriment).

202. *See id.* at 1117 (quoting RADER & HEMPLING, *supra* note 73, at A-4) (internal quotation marks omitted) (describing the benefits of bundled regional limits disguised as eligibility based on in-state benefit delivery).

203. Maryland requires that if an owner of a solar generating system chooses to sell RECs, "the owner must first offer the credits for sale to an electricity supplier or electric company that shall apply them toward compliance with the [RPS]." PUB. UTIL. § 7-704(a)(2)(ii) (LexisNexis 2010). Because RPS-eligible facilities must be located within Maryland's electricity grid, requiring an owner of a solar generating system to first offer the credits to an eligible electricity supplier favors suppliers within the PJM grid.

204. It requires that RPS-eligible solar energy be produced within the electric distribution grid serving Maryland. *Id.* § 7-704(a)(2)(i)(1).

gy produced to the ability of the producer to deliver the solar energy to the region.[205]

The second possible REC-based alternative would involve striking the regional requirements entirely. By striking the regional requirements, Maryland would rid the RPS of the three facially discriminatory provisions and eliminate any danger that its law violates the dormant Commerce Clause. Striking these requirements, however, would only allow Maryland to meet its large-scale goal of reducing climate change[206] and would preclude the state from receiving any localized benefits of renewable energy.[207] Although air and water do not respect geographic boundaries, Maryland is more likely to enjoy a cleaner environment if renewable energy replaces traditional energy within the surrounding region.[208] Thus, while a challenger may argue that Maryland could achieve its legitimate goal of reducing climate change by eliminating the regional requirements, the state could strongly counter that it cannot achieve any localized environmental and health benefits without some form of regional restrictions. Eliminating the regional requirements entirely, therefore, is not a viable alternative.

2. A Broad Challenge to Maryland's RPS Is Unlikely to Succeed

A broader challenge to Maryland's RPS, as exemplified by *American Tradition Institute v. Colorado*, could have more sweeping effects than a narrow suit. A suit similar to that brought by ATI would challenge the entire law as facially discriminatory, argue that the purpose of the law renders it invalid, and introduce a charge that the law impermissibly regulates out-of-state business conduct.[209] When analyzing these broad allegations, it is necessary to discount the discriminatory provisions discussed in Part II.A.1 and consider the law as a whole. Once a court takes this approach, it should find that, at most, the law has an incidental effect on commerce, but not that it is facially

205. *See supra* text accompanying note 202.

206. Because climate change is a global phenomenon, a reduction anywhere will decrease the amount of greenhouse gas emissions overall. *See* Solomon, *supra* note 9, at 2 (discussing the global nature of climate change).

207. *See supra* text accompanying note 180.

208. A renewable energy source in a nearby state is likely to produce more benefits for Maryland because of its close proximity, as compared to a far-away source. *See* RADER & HEMPLING, *supra* note 73, at A-5 (noting that the benefits of renewables are not easily confined to a single state). *But see* New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 279 (1988) (noting that out-of-state ethanol provides no fewer health benefits than in-state ethanol).

209. *See infra* Part I.B.2.b (discussing ATI's challenge to the Colorado RPS).

discriminatory. Here, the more lenient *Pike v. Bruce Church Inc.* balancing test[210] would apply, and a court is likely to find that the benefits of the law outweigh any incidental burdens.[211] A court should not find that the law's purpose unconstitutionally discriminates against interstate commerce because the law achieves more than simple economic protectionism.[212] Finally, a court is unlikely to find that the Maryland law impermissibly regulates extraterritorial conduct since Maryland treats in-state companies the same as out-of-state companies.[213]

a. Maryland's RPS in Its Entirety Burdens Commerce Incidentally, if at All

A challenge similar to the Colorado lawsuit would first claim that Maryland's entire RPS is unconstitutional because it prohibits energy suppliers from putting a certain amount of electricity from fossil fuel sources into the grid.[214] In Maryland's case, the claim would be that by 2022, utilities supplying electricity to the interstate grid would be burdened because 20 percent of their energy could not come from fossil fuels.[215] In essence, the law manipulates the market for clean energy by requiring a certain percentage of renewable energy regardless of the price. Pursuant to the Supreme Court's Commerce Clause jurisprudence, a court would consider whether the law burdens interstate commerce and, if so, to what extent.[216] Although, as discussed, a court could find *provisions* of the law facially discriminatory,[217] it is unlikely that a court would find that the entire law discriminates on its face. Requiring a certain amount of renewable energy sets up no barriers to commerce based on the origin of the energy, does not manipulate the price of out-of-state versus in-state goods, and does not attempt to regulate out-of-state conduct.[218]

A court would next determine whether a law that encourages a certain type of good has an incidental effect on commerce. In *Exxon Corp. v. Governor of Maryland*, the Court upheld a law that favored one

210. 397 U.S. 137, 142 (1970).

211. *See infra* Part II.A.2.a.

212. *See infra* Part II.A.2.b.

213. *See infra* Part II.A.2.c.

214. Amended Complaint for Injunctive and Declaratory Relief at Part II.A, Am. Tradition Inst. v. Colorado, No. 1:11-cv-00859-WJM-KLM (D. Colo. Apr. 22, 2011).

215. MD. CODE ANN., PUB. UTIL. § 7-703(b)(17) (LexisNexis 2010).

216. *See supra* Part I.A (outlining the Court's Commerce Clause jurisprudence).

217. *See supra* Part II.A.1.

218. *See supra* Part I.A.1 (providing examples of facially discriminatory laws that fit into these categories).

type of interstate petroleum refiners over another by barring the disfavored type from owning retail stores in Maryland.[219] Because Maryland had no oil refiners, the law affected only out-of-state companies.[220] Regardless, the Court found no discrimination, explaining that "the Act create[d] no barriers whatsoever against interstate [petroleum] *dealers*."[221] Similarly, the RPS scheme encourages one type of energy over another, but it treats all energy *companies* the same. The RPS as a whole does not bar any out-of-state electric company from doing business in Maryland. Instead, it merely requires that companies who want to do business in Maryland derive 20 percent of their electricity from renewable sources by 2022.[222]

While a court could conclude that Maryland's RPS does not discriminate at all, it could also find that it incidentally burdens certain interstate companies. After all, to comply with Maryland's law, companies must purchase RECs, which tend to be more expensive than traditional energy.[223] Laws with merely incidental effects are properly analyzed under the *Pike* balancing test.[224]

Under *Pike*, local benefits, such as improving environmental health and safety, outweigh an incidental burden on commerce.[225] In *United Haulers Association, Inc. v. Oneida-Herkimer Solid Waste Management Authority*, for example, the Court examined a flow-control ordinance that required trash haulers to deliver solid waste to an in-state waste processing facility.[226] The Court applied the *Pike* balancing test

219. 437 U.S. 117, 119–21 (1978).

220. *Id.* at 125–26.

221. *Id.* at 126 (emphasis added). The Court continued:

> While the refiners will no longer enjoy their same status in the Maryland market, in-state independent dealers will have no competitive advantage over out-of-state dealers. The fact that the burden of a state regulation falls on some interstate companies does not, by itself, establish a claim of discrimination against interstate commerce.

Id.

222. MD. CODE ANN., PUB. UTIL. § 7-703(b)(17) (LexisNexis 2010).

223. *See* OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY, U.S. DEP'T OF ENERGY, GUIDE TO PURCHASING GREEN POWER: RENEWABLE ELECTRICITY, RENEWABLE ENERGY CERTIFICATES, AND ON-SITE RENEWABLE GENERATION 7 (2010) (explaining that RECs tend to be more expensive than conventional energy sources).

224. *See supra* note 56.

225. *See, e.g.*, Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456, 472–74 (1981) (upholding a Minnesota statute banning the use of environmentally harmful plastic milk containers).

226. 550 U.S. 330, 334 (2007). The Court did not strike down the law as facially discriminatory, which it effectively was, because it fit into the market-participant exception to the Commerce Clause. *Id.* For a discussion of the market-participant exception, see *supra* note 38.

and concluded that the benefits of the ordinance—increased recycling, among other benefits—outweighed the burdens.[227] The effect on interstate commerce in that case was more substantial than here because the law at issue in *United Haulers* clearly favored in-state facilities. Maryland's RPS as a whole does not favor in-state facilities, and a court is likely to find that Maryland's legitimate environmental and health goals outweigh any burden on commerce created by the entire RPS.

b. The Purpose of Maryland's Law Is Constitutional

Maryland's RPS would also likely survive allegations that the purpose of the RPS facially discriminates against electricity generators operating outside of state borders.[228] Like Colorado[229] and other states,[230] Maryland included the economic benefits of renewable energy in its statement of purpose.[231] While the dormant Commerce Clause prohibits "simple economic protectionism,"[232] the analysis does not end there. In addition to the economic impacts of the RPS, the Maryland legislature also stressed the law's environmental and health benefits.[233] Although courts carefully scrutinize the stated purpose of a law,[234] they do not do so in a vacuum. If Maryland claimed to have enacted the RPS because of a concern for the environment without ever having taken an interest in the environment

227. 550 U.S. at 346–47. The Court emphasized that the ordinances allowed the counties to finance their waste disposal services while also increasing recycling and conferring significant health and environmental benefits. *Id.*

228. Amended Complaint for Injunctive and Declaratory Relief at Part II.B, Am. Tradition Inst. v. Colorado, No. 1:11-cv-00859-WJM-KLM (D. Colo. Apr. 22, 2011).

229. *See supra* note 124.

230. *See, e.g.*, 26 DEL. CODE ANN. tit. 26, § 351(b) (2009) ("The General Assembly finds and declares that the benefits of electricity from renewable energy resources . . . include . . . new economic development opportunities.").

231. *See* MD. CODE ANN., PUB. UTIL. § 7-702(a) (LexisNexis 2010) ("It is the intent of the General Assembly to . . . recognize the *economic*, environmental, fuel diversity, and security benefits of renewable energy resources . . . ." (emphasis added)).

232. *See supra* notes 35–37 and accompanying text.

233. *See supra* note 231.

234. *See, e.g.*, Or. Waste Sys., Inc. v. Dep't of Envtl. Quality of Or., 511 U.S. 93, 107–08 (1994) (explaining that characterizing its surcharge on in-state disposal of out-of-state waste as "resource protectionism" did not validate the discriminatory statute); New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 279 (1988) (recognizing that the protection of health is a legitimate state goal but finding that health was "merely an occasional and accidental effect of achieving . . . [the law's] purpose, favorable tax treatment for . . . ethanol [produced in-state]"); Dean Milk Co. v. City of Madison, 340 U.S. 349, 354 (1951) (explaining that Madison cannot discriminate against interstate commerce "even in the exercise of its unquestioned power to protect the health and safety of its people, if reasonable nondiscriminatory alternatives . . . are available").

previously, a court would have good reason to suspect the claim. Maryland, however, has shown a strong commitment to environmental issues. It is part of the Regional Greenhouse Gas Initiative,[235] and it has taken great strides to clean up emissions from cars and traditional energy sources.[236] Thus, it is unlikely that a court would find Maryland's environmental goals illegitimate.

A court could even find that Maryland's economic goals are legitimate benefits. Since encouraging certain types of energy has, at most, incidental effects on interstate commerce, *Pike* is the appropriate test to apply. In *United Haulers*, the Court upheld a discriminatory ordinance under the *Pike* test because the benefits of the ordinance, which included financing a municipal service, outweighed any incidental burdens on interstate commerce.[237] While emphasizing that "revenue generation is not a local interest that can justify *discrimination* against interstate commerce," the Court explained that revenue generation could be considered a cognizable benefit for purposes of the *Pike* test.[238] Thus it is unlikely that a court would find the stated purposes of Maryland's law to be unconstitutional.

c. Maryland's RPS Does Not Attempt to Regulate Extraterritorial Conduct

Using ATI's suit as a guide, one may argue that Maryland's RPS violates the dormant Commerce Clause by impermissibly regulating out-of-state conduct.[239] These types of claims have often arisen in California,[240] which has unusual sway because of the size of its econo-

235. The Regional Greenhouse Gas Initiative is a cooperative effort among several Northeast and Mid-Atlantic states, including Maryland, at capping and reducing "CO_2 emissions from the power sector 10 percent by 2018." The Initiative's homepage can be found at http://rggi.org/.

236. *See* MD. CODE ANN., ENV. §§ 2-1001 *et seq.* (LexisNexis 2007 & Supp. 2011) (Healthy Air Act targeting emissions from traditional energy sources); MD. CODE REGS. 26.09 (2011) (Maryland CO_2 Budget Trading Program Rules); MD. CODE REGS. 26.11.34 (2011) (Clean Cars Program).

237. United Haulers Ass'n, Inc. v. Oneida-Herkimer Solid Waste Mgmt. Auth., 550 U.S. 330, 346 (2007) ("We find it unnecessary to decide whether the ordinances impose any incidental burden on interstate commerce because any arguable burden does not exceed the public benefits of the ordinances.").

238. *Id.*

239. *Cf.* Amended Complaint for Injunctive and Declaratory Relief at ¶ 75, Am. Tradition Inst. v. Colorado, No. 1:11-cv-00859-WJM-KLM (D. Colo. Apr. 22, 2011).

240. *See, e.g.*, Rocky Mountain Farmers Union v. Goldstene, No. CV-F-09-2234 LJO DLB, 2011 WL 6934797, at *12–15 (E.D. Cal. Dec. 29, 2011).

my.[241] An Eastern District of California court recently struck down a state law that attempted to reduce greenhouse gas emissions from ethanol used to make gasoline.[242] California did not produce ethanol. Therefore, the law, which favored ethanol produced a certain way, had the effect of regulating out-of-state ethanol producers.[243] In contrast to the California ethanol law, Maryland's RPS affects energy generators with plants inside—as well as outside—Maryland's borders.[244] Maryland also has less of an impact on the conduct of other states than California due to the much smaller size of its economy. Therefore, it is unlikely that a court would find that Maryland's RPS impermissibly regulates out-of-state conduct.

A Colorado-type challenge to Maryland's RPS based on regulation of out-of-state conduct would also likely fail because of a difference between the two laws. The Colorado RPS authorizes the use of tradable RECs but mandates that definitions of "renewable energy" be identical to those set out in the Colorado law.[245] While Maryland's law, like Colorado's, relies on RECs, Maryland has no similar provision requiring that the definition of "renewable energy" be identical to those set out in the Maryland law.[246] Thus, regardless of whether ATI's claim against Colorado has merit, Maryland's law does not have the same provision and is not susceptible to the same challenge.

In sum, under a challenge similar to *American Tradition Institute*, a court would apply the more lenient *Pike* test and conclude that, on balance, the burden placed on commerce by Maryland's RPS is outweighed by the environmental and health benefits it provides. It should not find the statement of purpose, which includes an economic benefit, fatal to the RPS because the law is aimed at achieving legitimate environmental goals in addition to improving the economy. Finally, a court should not find that the RPS has the effect of regulat-

241. *See California's Economy Dips to No. 9 in World*, SACRAMENTO BEE (Jan. 13, 2012), http://www.sacbee.com/2012/01/13/4184193/californias-economy-dips-to-no.html (reporting that California is the ninth biggest economy in the world).

242. *Goldstene*, 2011 WL 6934797, at *16 (concluding that California's Low Carbon Fuel Standard impermissibly controlled conduct outside of its borders).

243. *Id.* at *13–15.

244. *See supra* Part I.A.2.c.

245. *See* COLO. REV. STAT. ANN. § 40-2-124(1)(d) ("The commission shall not restrict the qualifying retail utility's ownership of renewable energy credits if the qualifying retail utility . . . uses definitions of eligible energy resources that are limited to those identified in paragraph (a) [defining renewable energy] of this subsection.").

246. *Compare* COLO. REV. STAT. § 40-2-124(1)(a) (West 2004 & Supp. 2011) (outlining Colorado's REC requirement), *with* MD. CODE ANN., PUB. UTIL. § 7-701 (LexisNexis 2010) (no similar REC requirement).

ing out-of state companies because it has little impact on their conduct. Thus, Maryland would prevail under a broad challenge.

B. State Action to Amend Maryland's Statute

As challenges to state RPSs mount, it is prudent for Maryland to take another look at its law. Although the federal government could take action,[247] the Maryland legislature, which revisited the law as recently as 2010, is best suited to head off any potential challenges. The General Assembly should start with the three facially discriminatory provisions.

As discussed, Maryland has three alternatives to its current RPS. First, it could switch from a REC-based system to a system that relies on energy bundled with the attributes of renewable energy.[248] While

247. While a longer discussion of Congress's authority to ensure that renewable energy laws like Maryland's are found to be constitutional is outside the scope of this Comment, the federal government has two options. First it could pass a federal renewable energy standard, which would preempt state RPSs. Second, it could authorize discriminatory state RPSs.

Although Congress could pass a federal RPS, it is unlikely that any such bill would pass given the current political climate. *See, e.g.*, Transparency in Regulatory Analysis of Impacts on the Nation (TRAIN) Act of 2011, H.R. 2401, 112th Cong. (2011) (requiring the Environmental Protection Agency to conduct a cost-benefit analysis before implementing new regulations); Regulations from the Executive in Need of Scrutiny (REINS) Act of 2011, H.R. 10, 112th Cong. (2011) (requiring Congress to vote on all new major rules of the executive branch). If Congress did pass a federal RPS, it would probably be less stringent than most state RPSs. To pass, it would most likely act as a ceiling, requiring states with strong RPSs to lower their standards. Although the regulation could potentially act as a floor preemption, this option would also have flaws. States would enact stronger RPSs, and in doing so would continue their attempts to preserve the economic and environmental benefits for their own states. Thus, a floor preemption would likely do nothing to alleviate current Commerce Clause issues. *See* Jim Rossi, *The Shaky Political Economy Foundation of a National Renewable Electricity Requirement*, 2011 U. ILL. L. REV. 361, 371 ("[A]llowing a national RPS to preempt unconstitutional state protectionist measures may be one of the more significant benefits offered by a national RPS.").

In the alternative, Congress could pass a law approving of certain discriminatory RPSs, as it has done with insurance. *See* W. & S. Life Ins. Co. v. State Bd. of Equalization of California, 451 U.S. 648, 653 (1981) ("Congress removed all Commerce Clause limitations on the authority of the States to regulate and tax the business of insurance when it passed the McCarran-Ferguson Act . . . ."). While such a law would face political challenges similar to passing a federal RPS, the preemption issue would not be as problematic. New Hampshire has argued that Congress essentially approved of discriminatory RPSs when it established the Federal Energy Regulatory Commission. The Supreme Court dismissed this argument so quickly, however, that it is very unlikely this particular argument could be resurrected. *See* New England Power Co. v. New Hampshire, 455 U.S. 331, 340–41 (1982) ("Congress did no more than leave standing whatever valid state laws then existed [and] intended only that its legislation 'take no authority from state commissions.'" (alterations and emphasis omitted)).

248. *See supra* Part II.A.1.b.ii.

this approach would assure that benefits accrue locally,[249] it would compel Maryland to completely rewrite its law. In addition, a REC-based system has certain advantages over bundled renewable electricity. RECs are easily tracked for RPS compliance purposes[250] and allow more flexibility than bundled electricity and attributes. It is not surprising, therefore, that most states with RPSs favor a system involving tradable RECs.[251]

To keep its current REC-based system, Maryland legislators have two options. They can eliminate the regional requirement entirely or they can emphasize the delivery of benefits over the location of the electricity generation. Eliminating the regional requirements is less desirable because it will reduce Maryland's ability to guarantee that the environmental and health benefits accrue locally.[252] While improvements to air and water quality outside Maryland could improve the state's environment,[253] the current regional requirements incorporate energy produced in states as far away from Maryland as Ohio. The benefits to Maryland of renewable energy generated farther west than Ohio are too indirect to be relied upon. Thus, the second REC-based option is Maryland's best choice. Only by emphasizing delivery over location can Maryland's RPS survive a Commerce Clause challenge *and* ensure that benefits accrue in-state or in-region.[254]

By focusing on benefit-delivery and not location, Maryland's RPS will continue to impact interstate commerce to some extent. Without the facially discriminatory provisions, however, the law would be analyzed under the *Pike* balancing test—the same test a court would apply if faced with a broad challenge to Maryland's RPS.[255] Under this more lenient test, Maryland would very likely prevail. The environmental and health benefits the RPS provides for Maryland would outweigh any impact on interstate commerce.

Although a broad challenge is unlikely to succeed, the state can take a simple step to reduce the chance of a broad attack, by revising

249. *See supra* text accompanying note 196.

250. *See supra* Part I.B.1 (discussing the difficulties of tracking bundled electricity in power pool arrangements; *see also* HOLT & WISER, *supra* note 76, at 3 (discussing the benefits of RECs).

251. *See* HOLT & WISER, *supra* note 76, at 4 (explaining that most states allow RECs for RPS compliance purposes).

252. *See supra* Part II.A.1.b.ii.

253. *See supra* note 183.

254. The revised provision could define an REC as "1 megawatt-hour of electricity that is derived from a renewable source that delivers electricity into the PJM region."

255. *See supra* Part II.A.2 (discussing how a court, using the *Pike* standard, would dismiss a broad challenge to Maryland's RPS).

its statement of purpose. While the statement should not dictate the outcome of a challenge, the Colorado suit demonstrates that when a state legislature takes economic considerations into account, the law becomes an easier target. While stressing the economic benefits of renewable energy might have helped legislators pass the RPS initially,[256] now that Maryland's law is on the books, the state will receive the economic benefits regardless of the stated purpose. Revising the purpose is an easy step the legislature can take to reduce the risk of a challenge.

III. CONCLUSION

Renewable energy is a multi-billion-dollar industry. With so much at stake, challenges like those in Massachusetts and Colorado are not surprising and can be expected in the future. Maryland is among the twenty-nine states with RPS legislation, all of which are vulnerable to a certain extent.[257] A court could find that certain provisions of Maryland's RPS law are unconstitutional because the law favors renewable energy generated within a defined region.[258] Although courts could overlook the constitutional defects of the RPS by focusing on the benefits of renewable energy, they are more likely to find that Maryland could continue to receive the benefits of renewable energy through less discriminatory means.[259] State renewable energy laws like Maryland's are too vital to risk having any provisions of them overturned by a court. Given the recent challenges to state RPSs, Maryland should consider taking steps today to preempt possible attacks. While abandoning the entire RPS is far from necessary, the state should keep its REC-based system but emphasize the delivery of benefits over the location of the energy source. Finally, Maryland should revisit its statement of purpose.[260]

256. Press Release, Office of Governor Martin O'Malley, Governor Martin O'Malley Releases Clean Energy Agenda to Promote Jobs, Sustainability (Jan. 15, 2010) (stressing the economic and job-growth benefits of the Maryland RPS).

257. *See supra* note 3 (listing the twenty-nine states with RPSs).

258. *See supra* Part II.A.1 (arguing that provisions of Maryland's RPS are unconstitutional); *see also supra* Part II.A.2 (arguing that the broad RPS system is constitutional).

259. *See* discussion *supra* Part II.A.1.b.ii.

260. *See* discussion *supra* Part II.B.

An Important Victory for Competitive Electricity Markets

Tuesday, October 1, 2013 9:42 am by Sandy Rizzo

In a 149 page opinion, the US District Court for the District of Maryland yesterday ruled in *PPL EnergyPlus, LLC et al. v. Nazarian* that the State of Maryland's actions to secure the development of new power plants by setting the price to be received by a new plant in the PJM market for the next 20 years intruded on the federal government's role to set wholesale prices and thus violates the Supremacy Clause of the US Constitution due to field preemption. This case is critically important to incumbent generators because successful state actions to suppress wholesale prices in organized markets by mandating the execution of contracts for new generation at non-market prices would undermine the ability to make merchant investments based upon expectations of future supply and demand dynamics. A similar case is pending in the US District Court for the State of New Jersey based on that state's law requiring utilities to purchase supply from "new generators" at an established price.

In addressing the competing claims between the plaintiffs and defendant as to the authority of the federal government versus the states, the court explained as follows:

While Maryland may retain traditional state authority to regulate the development, location, and type of power plants within its borders, the scope of Maryland's power is necessarily limited by FERC's exclusive authority to set wholesale energy and capacity prices under, inter alia, the Supremacy Clause and the field preemption doctrine. Based on this principle, Maryland cannot secure the development of a new power plant by regulating in such a manner as to intrude into the federal field of wholesale electric energy and capacity price-setting. Furthermore, Maryland's stated purpose to use the Generation Order to secure the existence of sufficient and reliable electric energy for Maryland residents does not permit invasion into a federally-occupied field. Where a state action falls within a field Congress intended the federal government alone to occupy, the good intention and importance of the state's objectives are immaterial to the field preemption analysis.

The court went on to hold that the Contract for Differences ("CfD") mechanism the state scheme employed, which guaranteed that CPV would be paid at least the CfD rate during the term of the contract so long as CPV cleared the PJM capacity auction, was inconsistent with the Supremacy Clause:

Accordingly, the Court finds that the Generation Order,through the CfD, establishes the price ultimately received by CPV for its actual physical energy and capacity sales to PJM in the PJM Markets. However, under field preemption principles, the PSC is impotent to take regulatory action to establish the price for wholesale energy and capacity sales. FERC has exclusive domain in that field and has fixed the price for wholesale energy and capacity sales in the PJM Markets as the market-based rate produced by the auction processes approved by FERC and utilized by PJM.