
"With the passage of the Green Communities Act in 2008 and subsequent related actions, the Commonwealth made a firm commitment to improving its energy portfolio, reducing its energy-related environmental impact and attracting new investment . . . . [T]hat commitment has paid off . . . ."¹

I. INTRODUCTION

Widespread variation in state and local renewable energy policies causes a regulatory patchwork of permitting requirements and policies associated with the development of renewable energy.² This leads to uneven promotion of renewable energy development and drives up soft costs—such as permitting fees and filing requirements—that can create unintentional barriers to market growth.³ Policies adopted by some states and local jurisdictions, however, provide innovative financial incentives and streamlined permitting procedures, which can serve as models for renewable energy policies across the United States.⁴ Many states attempted to address impediments to renewable energy development by streamlining the permitting process for renewables.⁵ Such

⁴ See Passera, supra note 2 (discussing innovative streamlined permitting procedures).
statewide policies can take the form of: enabling statutes, which provide municipalities with model ordinances related to renewable energy; incentives, such as tax breaks and rebates; or state Renewable Portfolio Standards (RPS), which require a certain amount of the state’s electricity be produced by renewable sources.\textsuperscript{5}

With the adoption of the Green Communities Act (GCA) of 2008, former Governor Deval Patrick set forth his ambitious goal to put Massachusetts among the nation’s leaders in renewable energy production.\textsuperscript{7} Massachusetts further developed its renewable energy policies beyond the GCA with additional legislative and regulatory changes, which includes pending legislation to further improve the permitting processes for wind development and to provide financial incentives for solar development.\textsuperscript{8}

Thanks in part to the GCA, the renewable energy industry in Massachusetts is thriving at an all-time high; the Commonwealth, however, must build upon this success by simplifying certain processes and creating further incentives for continued development.\textsuperscript{9} Massachusetts already ranks among the nation’s leaders in installed solar capacity, due to ambitious policy goals supported by


aggressive subsidy and incentive programs that should be continued and strengthened.\textsuperscript{10} Although Massachusetts streamlined the permitting process for the largest capacity wind energy projects, this consolidated process should also be available to smaller capacity projects.\textsuperscript{11}

Part II.A of this Note will discuss the ways states and local governments regulate and promote renewable energy through permitting, siting, incentives and subsidies for developing renewable energy.\textsuperscript{12} Part II.B will then analyze the policies implemented in Massachusetts through the GCA, subsequent legislation, and regulations.\textsuperscript{13} Part II.C will focus on the permitting and siting of wind in Massachusetts and pending legislation to streamline those procedures.\textsuperscript{14} Part II.D will then consider the various incentives and subsidies available for solar energy development in Massachusetts.\textsuperscript{15} Part II.E will discuss various constitutional challenges to state and local renewable energy policies.\textsuperscript{16} Part III will analyze and propose further steps Massachusetts can take to build upon the successes of the GCA to continue promoting renewable energy development.\textsuperscript{17} Part IV will then conclude that the Commonwealth’s renewable energy policy is still evolving and, by building upon the successes of the GCA, Massachusetts will continue to lead the nation in this renewable energy development.\textsuperscript{18}

II. HISTORY

A. State and Local Regulation of Renewable Energy

In the United States, the power to regulate land use and its natural resources

\textsuperscript{10} See 2014 Mass. Policy Priorities: Hearing on S. 2019 & H. 3901 Before the Joint Comm. on Telecomm., Utilities, and Energy, 188th Leg. (Mass. 2014) [hereinafter Mass. Policy Priorities] (statement of representatives from New England Clean Energy Council) (Janet Gail Besser testifying in favor of increasing current net metering cap). “Solar development has seen tremendous growth in Massachusetts in recent years due in large part to favorable state policies such as net metering and solar renewable energy credits (SRECs), which have been instrumental in attracting new developers and investors that have brought projects, jobs and customer savings to the state.” See id.; see also infra note 99 and accompanying text (comparing Massachusetts with other states in installed solar capacity).


\textsuperscript{12} See infra Part II.A (discussing state and local regulation of renewable energy).

\textsuperscript{13} See infra Part II.B (discussing Massachusetts and GCA).

\textsuperscript{14} See infra Part II.C (discussing wind facility siting and permitting throughout New England and in Massachusetts).

\textsuperscript{15} See infra Part II.D (discussing incentives for solar energy development throughout New England and in Massachusetts).

\textsuperscript{16} See infra Part II.E (discussing constitutional challenges to renewable energy policies).

\textsuperscript{17} See infra Part III (discussing GCA success so far and wind and solar development going forward in Massachusetts).

\textsuperscript{18} See infra Part IV (arguing Massachusetts as nation leader for renewable energy policies).
lies primarily with the states.\textsuperscript{19} States in turn delegate much of this land use control to local governments.\textsuperscript{20} Thus, a regulatory patchwork of primarily local ordinances, state laws, and federal laws dictates land use decision making throughout the nation.\textsuperscript{21}

Many states adopted state siting laws to coordinate, expedite, and streamline the permitting and licensing process for traditional large-scale power plants.\textsuperscript{22} Renewable energy facility siting is confronted with a number of challenges under this existing power plant siting framework.\textsuperscript{23} Of the states with centralized authorities, most renewable energy facilities are not large enough to qualify for this expedited permitting process.\textsuperscript{24} In states that primarily rely on local governance for energy siting, the local approval process can be lengthy, costly, and unpredictable.\textsuperscript{25} In either case, the process for siting most renewable energy facilities requires a long list of separate state and local permit applications with no single point of contact.\textsuperscript{26}

States have been forceful drivers of the recent rise in renewable innovation, specifically through enactment of important land-energy rules.\textsuperscript{27} Emerging


\textsuperscript{22} See Outka, supra note 19, at 257-58; 5-11 Frank P. Grad, \textit{TREATISE ON ENVIRONMENTAL LAW \S 11.02[2]} (Matthew Bender ed., 2009). In the 1970s, many states began adopting state siting laws to assign ultimate power plant siting decisions to a state agency in order to coordinate and expedite permitting, licensing, and streamline challenges to site approvals. See Outka, supra note 19, at 257-58. Such state siting laws maintained local influence on energy siting by incorporating local involvement in the process to ensure consistency with local regulation. See id. Still, roughly half the states have not altered the local land use process for energy siting. See id.

\textsuperscript{23} See Outka, supra note 19, at 266 (outlining four reasons why renewable energy poorly matched with existing siting frameworks); Grad, supra note 22 (discussing land use issues associated with power production).

\textsuperscript{24} See Outka, supra note 19, at 266-67; Grad, supra note 22 (discussing land use problems inherent in power production). In states with provisions to consolidate some or all aspects of project siting review for electric generation above a certain threshold size, these reviews are handled by a single “one-stop shop” agency that issues a single consolidated approval incorporating any necessary conditions from relevant agencies. See TRC ENV. CORP., supra note 9, \S 2.1 (discussing case of consolidated approval).

\textsuperscript{25} See Outka, supra note 19, at 267 (outlining four reasons why renewable energy poorly matched with existing siting frameworks); Grad, supra note 22 (discussing land use problems related to power production). Where there is no consolidated process, permitting issues are generally handled separately, with some addressed at the local level and others addressed at the state level in a process of multiple permit review. See TRC ENV. CORP., supra note 9, \S 2.1 (stating variance regarding permitting issues).

\textsuperscript{26} See Outka, supra note 19, at 266-67 (discussing challenges to renewable energy development from existing siting framework); Grad, supra note 22 (discussing land use issues related to power production).

\textsuperscript{27} See Garrick B. Pursley & Hannah J. Wiseman, \textit{Local Energy}, 60 EMORY L.J. 877, 911 (2011)
renewable energy siting approaches seek to expedite and simplify the permitting process through synchronizing regulations, reducing public participation, and condensing the project review period.\(^28\) On the other hand, some states have enacted enabling legislation clarifying that it is the municipalities that have the authority to regulate renewables.\(^29\) Such statutes may require accommodation of renewables through local codes by directing the content of local renewable energy regulation through model ordinances or preempting local governments from attempting to unreasonably restrict or prohibit renewable energy siting.\(^30\)

In addition to state policies, many counties and municipalities seek to promote renewable energy through their own ordinances and bylaws.\(^31\) To better reach that goal, municipalities are moving toward rules that enable a smooth permitting and installation process for renewable energy facilities.\(^32\)

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29. See Pursley & Wiseman, supra note 27, at 912 (discussing how states affected innovation in renewable development through land-energy rule making). States confer varying degrees of zoning authority to local governments through state zoning enabling acts, but such acts do not necessarily provide authority to regulate renewable energy facilities. See id.


32. See Pursley & Wiseman, supra note 27, at 915 (discussing local initiatives and barriers to renewable energy development). Municipalities use zoning and building codes to streamline and simplify the siting and permitting process for renewable energy facilities. See id.
Local governments have the power to regulate wind and solar development through zoning bylaws and ordinances, building codes, and the inherent protection of public health and consumer interests. Renewable energy ordinances reflect local needs and objectives regarding renewable energy within municipal boundaries. Such ordinances also aid the development of safe facilities, which the community will embrace. Developers are not able to install wind turbines and solar panels without adhering to local zoning laws and building codes. Despite requiring adherence to local zoning laws, such land-energy rules can vary greatly from region to region.

B. Massachusetts and the GCA

In July 2008, energy policy in Massachusetts changed significantly when former Governor Deval Patrick signed the GCA into law. One major goal of this landmark legislation was to eliminate many of the long-standing obstacles—financial, regulatory, and otherwise—to building renewable power projects in Massachusetts. Many of the GCA’s provisions are aimed at promoting quicker development


34. See id. (explaining how wind energy ordinances established).

35. See Parsley & Wiseman, supra note 27, at 907 (noting need for local land-energy rules). “The need to enable . . . local governments to reshape land use laws to accommodate distributed renewables—to create land-energy rules . . . is well documented.” Id. This demand dates as far back as the mid-1970’s when the American Bar Foundation attempted to identify possible legislative remedies at the federal, state, and local levels to reduce legal barriers to the use of solar energy systems. See id. at 908.

36. See id. at 914 (explaining legal barriers to local initiatives). Local government regulation of renewable energy runs the full spectrum from banning such facilities completely to active encouragement of such development. See id.


of renewable energy sources. One provision strengthens the RPS by requiring retail-electricity suppliers to purchase a greater amount of power from renewable energy sources. The GCA established a pilot program that requires utility companies to solicit and enter long-term contracts for the purchase of newly generated renewable energy. The GCA also promotes net metering, which allows on-site renewable energy generators to sell energy back to the grid. The GCA also allows municipalities to own renewable energy facilities by providing the authority to issue bonds or notes for financing. Finally, the GCA created the Green Communities Program that annually provides up to $10 million to municipalities for the purpose of promoting energy efficiency, siting, and construction of renewable energy facilities.

C. Permitting and Siting of Wind Energy Facilities

As the rate of wind energy development increases, greater attention is paid to the role of the permitting and siting process. Differing requirements across states and localities mean there is not a “one-size-fits-all” approach to wind

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40. See TRC ENV. CORP., supra note 9, at 1-1 (describing goal of GCA provisions).

41. See Green Communities Act § 32 (increasing purchases of renewable energy sources to fifteen percent by 2020). This provision also creates a second-tier RPS to provide support for the continued operation of older renewable energy facilities. See id. Moreover, section 32 establishes minimum electric supplier purchase requirements from small-scale, on-site renewable energy generation and expressly includes behind-the-meter renewable energy generation. See id.

42. See Green Communities Act § 83 (providing financial assurance for renewable energy development). Under this section, a contract with a term of ten to fifteen years is considered to be long-term. See id.

43. See Green Communities Act § 139 (allowing distribution company customer using renewable electricity generated on-site to net-meter). Wind and solar facilities up to two megawatts qualify for net-metering, which allows such facilities to sell unused power back into the grid at a fair market price. See id.; infra Section II.D.4 (discussing solar net-metering in Massachusetts).

44. See Green Communities Act § 143 (establishing guidelines for small municipal renewable energy generating facilities).

45. See Green Communities Act § 22 (establishing Division of Green Communities and Green Communities Program). The Program aims to “reduce energy consumption and costs, reduce pollution, facilitate the development of renewable and alternative energy resources, and create local jobs related to the building of renewable and alternative energy facilities and the installation of energy-efficient equipment.” Id. To qualify as a green community, a municipality must adopt as-of-right siting for renewable energy generation facilities and an expedited permitting process for approving such facilities within one year of the filing of an application. See id.

permitting and siting. Effective wind energy facility siting, however, will continue the industry’s growth as well as the related corresponding economic and environmental benefits.

1. The Permitting and Siting Process in New England

A review of regulations and permitting processes of states within a region is beneficial when analyzing a particular state’s processes. A recent study demonstrates that a number of states near Massachusetts have more complete and predictable review processes, including: consolidated and comprehensive project review; “one-stop” permitting; guidelines for the sometimes burdensome required technical studies; limits on permissible time periods for review; and limiting the appeals process. Analyzing the practices of neighboring states provides common themes and key points that can be instructional to Massachusetts. Many states have centralized siting boards, which conduct “one-stop” consolidated permitting processes; additionally, a number of states have an electric generation capacity threshold significantly lower than Massachusetts.

47. See Wind Energy Siting Handbook, supra note 46 (presenting general information about regulatory and environmental issues associated with wind energy projects).
49. See Richard D’Amato et al., Nelson A. Rockefeller Center, Policy Options for Siting Energy Facilities: A Cross-State Analysis of Energy Facility Siting Board Strategies 1 (June 2013), http://rockefeller.dartmouth.edu/shop/prs_siting_energy_facilities_final_070113.pdf, archived at http://perma.cc/SN7L-E6BU (surveying surrounding states provides diverse array of strategies). A review of the region is important, especially considering the variable nature of the renewable resource may be similar in a certain region but quite different in other parts of the country. See id. Furthermore, the surrounding states represent Massachusetts’s closest economic competitors. See TRC ENV. CORP., supra note 9, at ES-2.
50. See TRC ENV. CORP., supra note 9, at ES-2 (providing overview of study’s findings). The study looked at the state regulatory programs for siting onshore wind projects in Massachusetts, Connecticut, Maine, New Hampshire, Rhode Island, Vermont, New York, Pennsylvania, and West Virginia. See id. at 5-1. The study compared actions of other states to improve or expedite the review process for wind projects. See id.
51. See id. Neighboring states are split on the issue of one-stop permitting. See id. States that use one-stop permitting generally face problems with the level of involvement of the other state agencies and local boards. See id. at 5-14 to 5-15. On the other hand, states that do not permit one-stop permitting generally face problems regarding the level of coordination with other agencies. See id. Other issues include: the degree of federal and state agency coordination; whether there is a special standard of review for renewables; whether there are designated areas for renewable development; standards or guidelines, such as minimum and maximum restrictions or model ordinances; how hearings and appeals are conducted; the specified time periods for decision making; and public involvement in the process. See id. at 5-14 to 5-16.
52. See TRC ENV. CORP., supra note 9, at 5-1 (observing threshold range among Northeastern states). Vermont has a one-stop process for projects of all size; Connecticut has a one megawatt threshold; New Hampshire’s threshold is thirty megawatts, but projects as small as five megawatts can request siting board review; and Maine has a twenty acre threshold that roughly equates between one to five megawatts. See id.; D’Amato et al., supra note 49, at 2-9 (providing state-by-state analysis); Energy Generation Siting Policy Commission, Siting Electric Generation in Vermont Analysis and Recommendations: A Report to the Governor and the Vermont General Assembly 28-33 (Apr. 2013), http://sitingcommission.
One of the goals of a centralized siting review board and consolidated permitting process is to streamline the permitting process.\textsuperscript{53} To make the process even more efficient, many northeastern states allow a single appeal from the centralized permitting board to the state’s highest court.\textsuperscript{54} A number of northeastern states also make the process more transparent with defined timelines for the completion of project review.\textsuperscript{55}

2. The Energy Facilities Siting Board and the Permitting Process in Massachusetts

The Energy Facilities Siting Board (EFSB) licenses the construction of all major energy infrastructures in Massachusetts.\textsuperscript{56} The EFSB is within, but independent of, the Commonwealth’s Department of Public Utilities (DPU) and has jurisdiction over facilities with electric-generating capacity of 100 megawatts or more.\textsuperscript{57} After review, the EFSB may grant a certificate of environmental impact and public interest, which has the legal effect of all otherwise required state or local permits, approvals, and authorizations.\textsuperscript{58}

Massachusetts has a comprehensive review process for renewable energy generation greater than 100 megawatts, under which qualifying facilities benefit from a consolidated permit review before the EFSB.\textsuperscript{59} In these instances, the EFSB process includes a petition for approval for construction and a certificate of environmental impact and public interest, which consolidates or eliminates other state and local permitting processes.\textsuperscript{60} This

\textsuperscript{53} See TRC ENV. CORP., supra note 9, at 5-1 (listing states found to have centralized siting boards with “one-stop” project review).

\textsuperscript{54} See id. (observing threshold range among northeastern states). In Massachusetts, this timesaving measure only applies to projects meeting the 100 megawatts threshold requirement. See id. The states that may currently send appeals directly to the state’s highest court are: Connecticut, Massachusetts, Rhode Island, and Vermont. See id.; D’AMATO ET AL., supra note 49, at 2-9 (providing state-by-state analysis); ENERGY GENERATION SITING POLICY COMM’N, supra note 52, at 28-33 (comparing practices in other New England states); STANTON, supra note 52, at 28-33, A-1 to A-109 (providing results from state survey reports).

\textsuperscript{55} See TRC ENV. CORP., supra note 9, at 5-1 (observing various timelines for project review among northeastern states). For example, Connecticut’s process takes six months, and Vermont has no statutory limit for its reviewing agency to decide on an application. See id. at 5-2 to 5-13; D’AMATO ET AL., supra note 49, at 2-11 (surveying New England states).

\textsuperscript{56} See MASS. GEN. LAWS ch. 164, § 69H (2013) (establishing energy facilities siting board).

\textsuperscript{57} See id. §§ 69G, 69J, 69J1/4 (setting forth EFSB jurisdiction).

\textsuperscript{58} See id. § 69K (explaining circumstances and advantages of certificate issuance).

\textsuperscript{59} See BERNSTEIN ET AL., supra note 11 (noting EFSB reviews large-scale energy facility projects of at least 100 megawatts).

\textsuperscript{60} See TRC ENV. CORP., supra note 9, at 5-2; MASS. ENERGY FACILITIES SITING BD., THE ENERGY
consolidated review is available to all traditional and alternative forms of electrical generation, but because this review only applies to the largest projects, most projects are reviewed and permitted separately at the state and local levels. 61 Local review requires obtaining a building permit and may require a variance or special permit from the local zoning board. 62

3. Massachusetts Wind Energy Model Zoning Bylaw

To improve municipalities’ zoning standards for wind power development and renewable energy projects, the Department of Energy Resources (DOER) and the Executive Office of Energy and Environmental Affairs (EEA) developed model bylaws. 63 The Conditional Use Wind Model Zoning Bylaw applies to utility-scale wind facilities, on-site wind facilities, and small wind energy systems. 64 The agencies also provide an As-of-Right Wind Model Zoning Bylaw for municipalities seeking to become a Green Community under the GCA. 65 To date, thirty-five Massachusetts communities adopted wind bylaws, four of which have done so as-of-right. 66

4. Wind Siting Reform in Massachusetts

In 2009, former Governor Patrick announced a goal of installing 2,000

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61. See Bernstein et al., supra note 11, at 44 (noting EFSB reviews large-scale energy facility projects of at least 100 megawatts).
62. See id. (discussing consolidated review process). Some towns adopted bylaws based on model ordinances, and towns may require a wetlands order from the conservation commission or a local historic district review. See id.
megawatts of wind capacity by 2020. Massachusetts experienced one of the fastest wind energy growth rates in the nation, growing from just three megawatts and three turbines installed in 2007 to more than 100 megawatts and dozens of turbines currently installed throughout the Commonwealth. Given that siting often impedes renewable energy development, the GCA created an advisory commission to investigate many aspects of energy facility siting. One aspect of the advisory commission’s charge was to determine “whether current laws and regulations do not adequately facilitate the siting of renewable and alternative energy facilities, or whether they make it more difficult to site renewable energy facilities than fossil-fueled energy facilities, and . . . to make recommendations for changes to such laws and regulations.” The Commission’s report found that wind energy developers are looking for a permitting process with clear specification requirements, stated time limits, and a well-defined path that, if followed, will lead to the necessary approvals for development. The Commission ultimately determined that providing clear and predictable siting standards would help achieve the Commonwealth’s renewable energy goals.

Over the past several years, Massachusetts state legislators attempted to pass comprehensive wind siting reform legislation. In 2014, House Bill 2980 aspired to establish independent local and state permit processes to both address local concerns and further promote wind energy.


68. See Williams & Kakley, supra note 67 (describing Commonwealth’s growing wind energy use pursuant to Patrick administration initiative).

69. See D.P.U. 13-165, supra note 67, at 3 (describing advisory commission established in GCA).

70. Green Communities Act § 89 (establishing energy facilities siting commission and specifying areas of commission’s study).

71. See TRC ENV. CORP., supra note 9, at 6-1 (detailing results of non-project specific interviews with wind developers).

72. See id. (suggesting such reform necessary based on study findings). The Commission noted several ways to achieve the Commonwealth’s renewable energy goals, but good examples can be found by looking at neighboring states with similar environmental issues, active local stakeholder groups, and concerns of land owners. See id. The Commission noted that such examples of permitting processes and procedures have made other nearby states more attractive to wind power development than Massachusetts. See id.

73. See H.R. 1775, 187th Leg. (Mass. 2011) (demonstrating legislative attempt to reform wind siting); H.R. 4955, 186th Leg. (Mass. 2009) (attempting to reform wind siting). Although this bill passed the House, the Senate declined to take action on the bill, thus it did not become law. See H.R. 1775, 187th Leg. (Mass. 2011); H.R. 4955, 186th Leg. (Mass. 2009).
Wind energy facility siting reform may happen legislatively, but it also may occur through administrative action. In 2013, the EEA announced its Community Wind Outreach Initiative, which subsequently established an inter-agency working group “charged with providing support and guidance for municipalities, developers, and other stakeholders in Massachusetts that may be hosting, reviewing, or considering land-based wind energy facilities.” The working group acknowledged that the siting, approval, and permitting process for land-based wind energy facilities is unwieldy, involving reviews at the local, state, regional, and federal levels. In late 2013, the DPU issued a Notice of Investigation to solicit public input and develop wind-siting guidance to assist permitting authorities, developers, and the public in achieving better siting outcomes through more consistent use of best practices.

D. Solar Energy Development

There are a number of different approaches that state and local governments may take when attempting to regulate or promote solar energy development. These approaches may be categorized as carrots or sticks. When governments decide to dangle rewards to entice certain behavior, it is categorized as carrots. However, when governments threaten penalties for failing to achieve certain behavior, it is categorized as sticks. Common examples of carrots for solar regulation are tax incentives or subsidies whereas sticks commonly occur upon failure to fulfill RPS requirements.
1. Renewable Portfolio Standards in Massachusetts and New England

One example of the stick approach is for a state to establish RPS because it serves as a statutory obligation on energy suppliers to obtain a percentage of electricity from renewable energy sources.84 The Massachusetts RPS began in 2003 with an obligation of one percent to increase annually at one-half percent through 2009.85 The GCA’s passage in 2008 expanded the RPS program, both imposed a one percent annual increase in the amount of renewable energy utilities must obtain and created two separate classes of qualifying generation units.86 Solar photovoltaic (PV) and wind energy generation facilities that began commercial operation after 1997 are under RPS Class I, which currently has a requirement of five percent and is set to increase by one percent annually.87

Utility compliance with the RPS is necessary for this stick to be effective.88

84. See Jocelyn Durkay, State Renewable Portfolio Standards and Goals, NAT’L CONF. OF ST. LEGISLATURES (July 1, 2015), http://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx, archived at http://perma.cc/EGPS-QQST [hereinafter Renewable Portfolio Standards] (describing renewable portfolio standards and goals). The requirement may apply only to investor-owned utilities (IOUs), while some states also include municipalities and electric cooperatives at equivalent or lower amounts. See id. RPS requirements will help achieve the goal of lowering electricity bills by diversifying the region’s energy mix. See Caleb Kenna, Renewables Are in New England’s Future, but Gas Pipelines Still Needed, BOS. GLOBE (Oct. 5, 2014), http://www.bostonglobe.com/opinion/editorials/2014/10/04/renewables-are-new-england-future-but-gas-pipelines-still-needed/tpRSYYamO6Gdeg8k9R2rM/story.html (linking diversification of energy resources to lower electricity bills over long term). More renewable energy—such as wind and solar—will cushion the region against the volatility of the natural gas market, while also reducing carbon emissions. See id. A mixture of renewable power production and traditional electricity generation feeding into the same grid, however, can lead to instances during which the amount of power provided to the system by renewable resources must be reduced. See Memorandum from Erica Wilkerson to New England Stakeholders (June 28, 2014), http://www.iso-ne.com/pubs/pubcomm/cont/2013/curtailment_summary_2013.pdf, archived at http://perma.cc/N9SS-9NX5 [hereinafter Wilkerson] (discussing need to reduce amount of power wind resources provide to system). This situation generally arises when the maximum potential output of a wind power facility would exceed the capacity of the existing transmission system. See id.


86. See id. The GCA also created two distinct classes with different supplier compliance percentages and distinctive qualifying generation units that may be used to meet the compliance percentages. See id.

87. See id. (describing RPS Class I requirements); see also 225 MASS. CODE REGS. 14.00 (2014) (establishing Class I of REPS). In addition to solar PV and wind energy, RPS Class I also encompasses solar thermal electric, small hydropower, landfill methane and anaerobic digester gas, marine or hydrokinetic energy, geothermal energy, and eligible biomass fuel. See id. at 14.05(1)(a). RPS Class II mandates that a minimum percentage of electricity sales come from renewable energy and waste energy. See Program Summaries, supra note 85 (describing RPS Class II). The obligation for each component is approximately 3.5% and does not increase annually; a supplier must comply with both minimum percentage obligations. See id. The Class II renewable component features the same energy sources as the Class I component, but the facilities must have been in operation prior to 1998, providing financial incentives for continued operation of pre-1998 renewable energy generation facilities. See 225 MASS. CODE REGS. 15.05(1)(a) & (b) (2014) (setting forth eligibility criteria for RPS Class II generation units).

In Massachusetts, renewable energy suppliers are required to document compliance with RPS in annual filings submitted to DOER.\textsuperscript{89} Suppliers can meet their compliance obligations by purchasing Renewable Energy Certificates (RECs) from qualified generators or making annual compliance payments to the Massachusetts Clean Energy Center (MCEC).\textsuperscript{90} One REC is generated for every megawatt of electricity generated by a qualified system.\textsuperscript{91} To meet the RPS compliance obligations, suppliers not creating enough renewable energy to meet the required amount must purchase a number of RECs equal to the percentage for that particular compliance year.\textsuperscript{92} The Solar REC cost in Massachusetts is the highest of any state, topping $250 per credit in 2014.\textsuperscript{93}

Massachusetts is not the only state to take this stick approach to promoting renewable energy development by adopting an RPS.\textsuperscript{94} In fact, twenty-eight other states and the District of Colombia have RPS variants, and another eight

\textsuperscript{89} See Program Summaries, supra note 85 (discussing compliance with RPS).

\textsuperscript{90} See id. (summarizing RPS and APS program). The revenue generated from Alternative Compliance Payments (ACP) is used to fund new renewable energy generation projects in Massachusetts. See id.

\textsuperscript{91} See id. (summarizing compliance with suppliers).

\textsuperscript{92} See id. In order to determine the prices for RECs, DOER sets an ACP rate, which serves as a ceiling price and exists as a penalty payment that suppliers must pay if they do not meet their RPS compliance obligation. See id.

\textsuperscript{93} See Net Metering: Hearing on S. 2019 & H. 3901 Before the Joint Comm. on Telecomm., Utilities, and Energy, 186th Leg., at 11 (Mass. 2014) (testimony of TransCanada executive Mike Hachey) [hereinafter Net Metering: Hearing] (evidencing high cost of energy in Massachusetts). The next highest state solar REC cost is New Jersey at just over $150 per credit. See id.

\textsuperscript{94} See Find Policies & Incentives by State, DATABASE OF INCENTIVES FOR RENEWABLES & EFFICIENCY (2013), http://progrms.dsireusa.org/system/program (type into the search box “renewable portfolio standards” to retrieve list of states that have also adopted renewable portfolio standards); archived at https://perma.cc/3XRG-EHDX (providing list of states with renewable portfolio standards); see also Renewable Portfolio Standards, supra note 84 (listing states with renewable portfolio standards and goals).
states have voluntary targets.\(^95\) All six New England states adopted an RPS.\(^96\)

2. **Installed Solar Capacity in Massachusetts**

Former Governor Deval Patrick declared an aggressive goal for Massachusetts to achieve 1,600 MW of solar power installations by the year 2020.\(^97\) Massachusetts already increased the amount of installed solar energy from 3.64 megawatts installed in 2008 to 841 megawatts installed as of May 2015.\(^98\) Massachusetts is well on its way to achieving the new goal, already ranking among the top states in solar energy with more installed solar capacity than all but three states.\(^99\) The main reason Massachusetts currently outranks sunnier states like Hawaii and Nevada is because of the Commonwealth’s strong incentives for solar development.\(^100\)

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96. See *Renewable Portfolio Standards*, supra note 84 (discussing RPS in New England).


100. See Runge, supra note 99 (discussing Massachusetts’s top ranking among states for solar capacity); see also Shaye Kann et al., *U.S. SOLAR MARKET INSIGHT REPORT: Q3 EXEC. SUMMARY 7* (2013), http://www.seia.org/sites/default/files/oxD2AN83502013q3smimes.pdf?key=59237104, archived at http://perma.cc/6YCR-X34Q (displaying table of U.S. PV state rankings for Q3 2013). SEIA reports on non-residential
3. Net Metering in Massachusetts

Net metering allows compensation for customers with distributed generation systems—predominantly solar—when their systems generate more electricity than the customer is using onsite.101 Every New England state provides some form of carrot for solar energy development in both net metering standards and rebate programs.102 The Massachusetts Legislature capped the use of net metering at three percent of an electric utility’s power usage, with parallel limits for public sector solar and privately owned projects.103 Recently filed legislation would lift the net metering cap completely through the end of 2016.104 This has sparked a debate among the solar and electric utility industry as to whether net metering should remain capped.105 The utilities argue net metering shifts more of the costs of running the system onto the rest of the ratepayers, while proponents of time-capped net metering seek a long-term approach and a general clarity to the system overall.106

solar energy growth in Massachusetts and projects continued expansion throughout 2014. See KANN ET AL., supra at 5. The report also points out 2013 was a “good year for the solar market from a legislative and regulatory perspective,” with the industry achieving “broadly favorable outcomes,” including the new solar deployment program in Massachusetts. See id.

101. See Net Metering, MASS. DEP’T OF ENERGY RESOURCES, https://sites.google.com/site/massdqjc/home/net-metering (last visited Sept. 3, 2015), archived at https://perma.cc/R2GN-ZZRW (explaining net metering). At the end of each month, on-site generation is credited against any electricity that the customer consumed from the grid; any net excess generation results in a credit for his or her utility bill. See id.

102. See DATABASE OF ST. INCENTIVES FOR RENEWABLES & EFFICIENCY, supra note 94 (providing map of net metering capacity limits for all fifty states); Programs, DATABASE OF ST. INCENTIVES FOR RENEWABLES & EFFICIENCY, http://programs.dsireusa.org/system/program?type=88& (last visited Sept. 5, 2015), archived at http://perma.cc/EK4E-LWYP (providing table of state and utility, local, or non-profit rebate programs).


105. See Concerning Net Metering, supra note 104 (demonstrating debate among solar and electric utility industry); see also S. 2030, 188th Leg. (Mass. 2014) (rearranging net metering system in number of ways). Under S. 2030, solar projects greater than 500 kilowatts would only be built by winning a competitive bid through the utilities. See Chesto, supra note 103 (discussing S. 2030). Moreover, private developers of any-sized project would no longer be able to use net metering for off-site power plants and new restrictions on municipal projects would be established. See id. Finally, new distribution charges would be imposed on net-metered customers. See id.

4. Solar Programs and Incentives in Massachusetts

The GCA strengthened the Massachusetts RPS by establishing a Solar Carve-Out Program to carve out a portion of the Class I Renewable Energy requirement to support distributed solar PV energy facilities.\(^{107}\) Solarize Mass, another program that seeks to increase the adoption of small-scale solar electricity in participating communities, provides increased savings as more homes and businesses join the program.\(^{108}\) This program is the result of a partnership between the Green Communities Division of DOER, established through the GCA and the MCEC, a quasi-public agency.\(^{109}\) In three years, over 900 residents and business owners took advantage of this program, with fifteen more communities set to participate in the most recent round.\(^{110}\)

Another program, Commonwealth Solar II, provides rebates for Massachusetts homeowners and businesses that install solar PV.\(^{111}\) Massachusetts is also utilizing federal programs, such as the U.S. Department of Energy (DOE) SunShot Initiative Rooftop Solar Challenge, which provides grants to lower the soft costs associated with solar PV installation.\(^{112}\) As part of the $566,354 federal grant, Massachusetts developed “model permitting processes and structure review guidance” for the implementation of community shared solar, conducted outreach to community financial institutions, and developed model solar zoning bylaw language.\(^{113}\)

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\(^{109}\) See id. (explaining development of Solarize Mass).

\(^{110}\) See id. (noting Solarize Mass program aspires to increase adoption of small solar electricity systems).


\(^{113}\) See id.; Exec. Office of Energy and Envtl. Affairs, Massachusetts Awarded $566,354 To Advance
E. Constitutional Challenges to State Renewable Energy Policies

Over the past several years, state policies promoting renewable energy are confronted with an increasing rate of constitutional challenges. Since 2010, constitutional challenges to renewable energy laws or administrative decisions were brought in eleven states. “Many of these lawsuits posit that requiring renewable energy to be generated within a State or transmitted to customers in the State, or providing incentives to do so, is unconstitutional under the dormant Commerce Clause because it inhibits out-of-state generators from competing on a level playing field.” Although ongoing proceedings remain in seven out of eleven states with challenges to renewable energy laws or administrative decisions, “no proceeding has yet resulted in a court or administrative agency striking down a renewable energy law as unconstitutional.”

The only challenge to a Massachusetts policy came in 2010 when TransCanada, a retail electricity supplier in Massachusetts, challenged two policies established under the GCA: the requirement that electric distribution companies solicit proposals for and enter into long-term contracts with renewable energy generators located in Massachusetts; and the solar carve-out to the Commonwealth’s RPS. TransCanada argued the in-state requirements violated the Commerce Clause by discriminating against out-of-state energy producers.

According to the complaint, the in-state requirement for new renewable generation prohibited TransCanada from satisfying the long-term contract requirement through a contract with an out-of-state wind power generator.

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116. Peskoe, supra note 114 (discussing legal arguments asserted against adoption of renewable energy laws in various states). Energy flows on a grid of transmission lines that crosses state borders. See id. “Energy injected into the grid from a plant in one State could be consumed in another State, so long as they are electrically connected. In general, at the point of consumption it is not possible to determine where the energy originated or what fuel was used.” Id. Another issue found in these lawsuits is whether state energy policies violate the Supremacy Clause by intruding on exclusive Federal authority over wholesale electricity markets. See id.

117. State Power Project, supra note 115 (summarizing state proceedings).


119. See id. (challenging both in-state requirements as unconstitutional under Commerce Clause).
generation facility. Furthermore, the complaint alleged the in-state preference under the solar carve-out restricted supply, which would raise the cost of complying with the statute.

The case did not proceed to trial as TransCanada and Massachusetts reached a settlement just three months after the complaint was filed. Pursuant to the agreement, Massachusetts agreed to drop the in-state requirement for long-term contracts and grandfather in existing solar contracts for purposes of complying with the solar carve-out to the RPS. While the quick settlement in TransCanada’s favor may indicate Massachusetts’s regulators were “anxious… to make this case go away,” it does not provide a legal determination as to how far a state can go in promoting in-state renewable energy projects without violating the Constitution’s Dormant Commerce Clause.

III. ANALYSIS

A. The Economic Success of the GCA: Does it Matter?

Public policy, such as the GCA, not only has environmental and societal benefits, but also benefits the Massachusetts economy. There is disagreement on exactly what effect the GCA has on the Massachusetts economy with a broad range of projections. Recently, United States Secretary of State John Kerry cited Massachusetts as an example when making the argument that there is no need to “choose between combating global

120. See id. at 11-17 (arguing in-state requirement serves no legitimate rationale and caused TransCanada substantial harm). TransCanada argued the in-state requirement prevented it from fulfilling the long-term contract requirement by contracting with a corporate affiliate’s wind power project in Maine. See id.

121. See id. at 18-19 (arguing in-state requirement of solar carve-out discriminatory and harmful to public). TransCanada alleged that the in-state requirement would increase in-state demand and drive up prices for both retail electricity suppliers and consumers. See id.


123. See id. at 2. In Section 7 of the settlement, DOER issued emergency regulations to eliminate the in-state requirement that electric utilities buy their renewable energy from projects in Massachusetts. See id. (announcing emergency regulations). Section 8 of the settlement grandfathers in out-of-state solar projects installed prior to 2010 for the purposes of satisfying the solar carve-out program. See id. The grandfather clause provides an exception to the in-state requirements of the new regulation in order to be fair to electric utilities that bought renewable energy from out-of-state solar projects prior to the regulation. See id.


125. See Patrick-Murray Admin., supra note 107 (noting economic benefits to investing in home-grown renewable energy programs). “Massachusetts sits at the end of the energy pipeline, spending billions of dollars annually to import all of its fossil fuel based energy sources” coming from around the globe, which is a lost economic opportunity for Massachusetts. Id.

126. Compare HIBBARD ET AL., supra note 39 (providing first detailed look at economic impact of GCA), with Kerry & Hammond, supra note 9 (discussing growing clean tech sector in Massachusetts).
climate change or growing [the] econom[y]... [W]e can do both—by improving resource productivity, investing in infrastructure, and stimulating innovation."\(^{127}\) According to Secretary Kerry, “[f]or the third year in a row, Massachusetts has seen job growth in its clean energy sector hit double digits, most recently by 10.5 percent. It has grown 47 percent over the past four years... Clean tech... is a $10 billion sector in the state’s economy—and growing.”\(^{128}\) A 2014 report on the economic impact of the GCA, however, projected that the law will produce a relatively modest $1.2 billion in net economic benefits to Massachusetts in the next fifteen years.\(^{129}\) Although the report acknowledged that the projected economic benefits are relatively small, the study shows that the GCA is not a drag on the state’s economy and has even helped it a bit.\(^{130}\) Although the reported 16,000 jobs created by the law have virtually no impact on the broader economy, “the potential pluses of a cleaner environment and resulting health improvements are probably incalculable.”\(^{131}\)

Critics of government incentives for renewable energy development argue it is the economic impacts—not the associated environmental benefits—that will determine whether policy makers should continue to facilitate development and investment in green industries, such as wind and solar.\(^{132}\) This criticism stems from the argument that renewables tend to increase costs for consumers and ultimately do little to improve the environment.\(^{133}\) This argument is reinforced at a time when natural gas prices are at an all-time low and are expected to remain low for the foreseeable future.\(^{134}\) Critics also argue that a free market...
approach should dictate what power sources utilities should purchase from, rather than government intervening in the marketplace by incentivizing certain renewable power sources.\textsuperscript{135}

Positive externalities, such as societal and environmental benefits provide a justification for government action.\textsuperscript{136} Although renewable sources can be more expensive than electricity generated from natural gas or coal, rapidly declining costs altered this trend, making renewable energy prices competitive in a number of regions.\textsuperscript{137} Supporters view potential added costs as worthwhile because renewables boost energy diversity and hedge against increasing fuel costs.\textsuperscript{138} Renewables are also integral to many states’ efforts to reduce pollutants and greenhouse gas emissions.\textsuperscript{139} These positive externalities may not be fully recognized in an economic analysis of public policy, such as the GCA; government action, however, is likely still warranted because of the compelling societal and environmental benefits of growing the renewable energy sector, which diversifies energy resources and lessens reliance on fossil fuels.\textsuperscript{140}

\textbf{B. The Future of Wind Development in Massachusetts}

The GCA set the framework for state promotion and facilitation of renewable energy development.\textsuperscript{141} Policy goals, however, should focus on effectively incentivizing and supporting the creation of renewable energy facilities.\textsuperscript{142} A complicated permitting process is widely considered to be one

\begin{itemize}
\item \textsuperscript{135} See \textit{Renewable Energy Mandates}, supra note 95, at 10 (discussing increasing trend of states considering RPS legislation). In 2013, “lawmakers in 17 states considered 30 bills to repeal [RPS] altogether, extend compliance deadlines for utilities, or reduce the percentage of renewable energy required.” \textit{Id.} None of the thirty bills were adopted, “although bills in nine states are pending or were carried over to [the 2014] session.” \textit{Id.}
\item \textsuperscript{136} See Stein, supra note 79, at 653 (discussing positive externalities as justification for government intervention).
\item \textsuperscript{137} See \textit{Renewable Energy Mandates}, supra note 95 (implying benefits of renewable energy development outweigh higher costs).
\item \textsuperscript{138} See id. (claiming state policies may diversify energy mix).
\item \textsuperscript{139} See id. (claiming state policies may reduce emissions).
\item \textsuperscript{140} See Stein, supra note 79, at 653 (noting economists may characterize benefits of renewable energy as positive externalities). Societal and environmental benefits of renewable energy include: generating less climate-warming greenhouse gases and air pollutants, eliminating impactful activities such as hydraulic fracturing, and lessening of dependence on finite resources. See \textit{id.; see also Hibbard et al., supra note 39}, at 2 (noting study not societal cost-benefit analysis).
\item \textsuperscript{141} See Hibbard et al., supra note 39, at 1 (providing overview of GCA). “[T]he GCA represented a significant shift in the state’s energy policy, focusing on a number of economic, environmental, and public policy objectives.” \textit{Id.} “The GCA sought to accomplish these objectives through many actions – all of which were designed to overcome barriers to the adoption of energy efficiency and renewable energy resources.” \textit{Id.}
\item \textsuperscript{142} See Kenna, supra note 84 (discussing strategies to lower electricity bills over long term). “[T]he region needs to diversify its energy mix by bringing in more wind, solar, hydropower, and other renewables. Having more renewable energy will cushion the region against the ups and downs of the gas market, while also reducing carbon emissions.” \textit{Id. But see Wilkerson, supra note 84} (discussing example of need for curtailment of wind energy generation facilities).
\end{itemize}
of the largest impediments to greater renewable energy production.\textsuperscript{143} In Massachusetts, all but the largest projects are required to obtain numerous permits from a multitude of state and local entities.\textsuperscript{144} Conversely, in many neighboring states, a streamlined and expedited permitting process is available for much smaller projects.\textsuperscript{145} As a result, renewable energy developers may be tempted to propose projects in other New England states rather than Massachusetts.\textsuperscript{146}

In order to build upon the successes of the GCA, Massachusetts must adopt changes to make renewable energy siting more prompt and predictable.\textsuperscript{147} Passage of legislation, such as the Comprehensive Wind Siting Reform Act, would provide a streamlined approach to wind facility permitting.\textsuperscript{148}

[The bill would] encourage the development of clean, renewable, electric generating [wind facilities], ensure that such facilities are sited in appropriate locations based on clear, predictable and protective environmental, cultural and historic resource standards and streamline the permitting of such facilities at the state and local level and reduce delays associated with appeals of such permits.\textsuperscript{149}

The proposed legislation would provide an expedited permitting process for facilities of at least two megawatts, a notable improvement from the current 100 megawatts threshold.\textsuperscript{150}

Under the proposal, Massachusetts would gain both a local permit process

Wind power is a growing source of energy in New England and this growth is being driven, in part, by state policies that support the development of renewable sources of energy . . . . \textsuperscript{1}There are times when the ISO, local transmission service providers, or wind plant operators themselves must reduce or “curtail” the amount of power that these resources provide to the system. Curtailments generally arise when the maximum potential output of a resource would exceed the capacity of the existing transmission system.

\textit{Id.}

\textsuperscript{143} See Outka, supra note 19, at 245 (noting industry trade association agreement states siting poses most significant challenge to development).

\textsuperscript{144} See TRC Env. CORP., supra note 9, at 5-1 (discussing streamlined appeals process for projects greater than 100 megawatts).

\textsuperscript{145} See id. (categorizing Massachusetts permitting process as more restrictive than other New England states).

\textsuperscript{146} See id. at 3-1 (outlining difficulties of developers relative to Massachusetts permitting process).

\textsuperscript{147} See id. (evidencing developers value definitive timelines so permitting timely and predictable). Massachusetts should reform the permitting process for proposed wind-power development projects to include establishing a single project application that results in a single project certificate with conditions to address environmental issues and concerns of the host community. See id.

\textsuperscript{148} See H.R. 2980, 188th Leg. (Mass. 2014) (reforming siting process for land based wind projects in Massachusetts).

\textsuperscript{149} Id.

\textsuperscript{150} See id. § 6 (laying out expedited permitting process).
and a state permit process, paying due attention to local concerns while also furthering the statewide goal of promoting renewable energy development.\textsuperscript{151} The Commonwealth would be able to identify municipalities with significant wind resource areas, which would trigger the establishment of a local wind energy permitting board to conduct a local permitting process.\textsuperscript{152} Furthermore, the proposal also authorizes the state’s EFSB to establish an expedited permitting process for land-based wind energy facilities of two megawatts or greater.\textsuperscript{153}

Prior iterations of the bill were met with varying degrees of support in the legislature.\textsuperscript{154} The legislative support already expressed, in conjunction with developer-friendly approaches in neighboring states, may indicate that Massachusetts is ready to adopt a more accessible, streamlined, and expedited renewable energy permitting process.\textsuperscript{155}

\textbf{C. The Future of Solar Development in Massachusetts}

The Commonwealth’s solar policy has proven successful and, as demand for solar continues to increase, the state must adapt its policies to accommodate the growing demand.\textsuperscript{156} In May 2013, Massachusetts met its 2017 goal to have

\begin{itemize}
  \item \textsuperscript{151} See id. (providing for both local permit process and state permit process). The proposed local permit process would include the establishment of a local wind energy permitting board to conduct local permitting of wind energy facilities in municipalities identified as containing significant resources. \textit{Id.} The bill provides for an expedited local permitting procedure for proposed wind energy facilities of 2 megawatts or greater. \textit{Id.} The proposed bill also amends the existing state permitting process to account for local wind energy permitting board and to apply to facilities of 2 megawatts or greater. \textit{Id.}
  \item \textsuperscript{152} H.R. 2980, 188th Leg. (Mass. 2014) (explaining permitting process). The process would take into account all local laws, rules, regulations, bylaws and ordinances, including construction permits and permits associated with wetlands or other environmentally sensitive areas and may waive zoning or other regulatory requirements as deemed necessary. \textit{See id.} The process would incorporate a public hearing and public comment period, with the entire process taking less than one year. \textit{See id.} Finally, the proposal would empower the local board to issue any permit or approval otherwise required by any local board or official who would otherwise act with respect to the application. \textit{See id.}
  \item \textsuperscript{153} \textit{See id.} § 8. The process also provides for two regional public hearings, a public comment period, and a comment period for the state agencies that would otherwise have jurisdiction, such as environmental agencies. \textit{See id.} The standard of review is simply that the benefits of the proposed facility outweigh the detriments. \textit{See id.} The period again will take no more than one year, and approval of a project would be in the form of a composite of all individual state permits, approvals, or authorizations, which would otherwise be necessary for the construction and operation of the facility. \textit{See id.}
  \item \textsuperscript{154} See Cheney, \textit{supra} note 74 (reporting on status of bill). The bill did not advance reportedly because the mandates found in the bill were not fully vetted. \textit{See id.; see also} H.R. 1775, 187th Leg. (Mass. 2011) (demonstrating committee heard bill but took no further action); H.R. 4955, 186th Leg. (Mass. 2009) (indicating committee reviewed bill but required no further action).
  \item \textsuperscript{155} \textit{See supra} note 67 and accompanying text (discussing former Governor Patrick’s wind energy generation goals for Massachusetts); \textit{supra} note 152 and accompanying text (discussing prior legislative support for bill); \textit{see also supra} notes 145-146 and accompanying text (emphasizing developer-friendly permitting processes in states neighboring Massachusetts).
  \item \textsuperscript{156} \textit{See} Noucas, \textit{supra} note 107 (discussing expectations for SREC-II in Massachusetts). Based on the structure of the program, state officials are optimistic SREC-II will be successful, bringing a large amount of solar energy to the Commonwealth. \textit{See id.}
250 megawatts of solar power installed in Massachusetts. The current RPS Solar Carve-Out also reached its 400 megawatt limit; the DOER, therefore, should build upon the success of SREC-I with a second installment of the program to maintain the growth of the solar PV market in Massachusetts. Proposed draft regulations for the SREC-II program are well designed to achieve former Governor Patrick’s latest goal to expand solar development to reach 1,600 megawatts by 2020. It is also designed to meet the Patrick administration’s policy objectives, such as to provide economic support, grow the solar industry, stabilize ratepayer costs, and minimize regulatory intricacy.

In addition to SREC revenue, most non-residential solar projects also rely on the net metering credit incentive. DOER should go beyond merely recognizing that current net metering caps are too low to support demand for solar growth and should take an affirmative stance on raising the net metering caps. By moving from the existing net metering cap to a time-based cap, more projects can be constructed and communities will receive the associated energy cost savings.

157. See SYLVIA, supra note 98 (presenting key elements of final design of SREC-II program).
158. See SREC-II Solar Carve Out Policy Development, supra note 99 (announcing DOER’s active engagement in developing SREC-II Solar Carve-Out policy). At a roundtable in late 2013, Commissioner Mark Sylvia presented final details of the SREC-II program. See SYLVIA, supra note 98 (providing elements of SREC-II final program design).
159. See Runge, supra note 98 (reporting on recently released draft regulations for SREC-II program). But see Fitzgerald, supra note 88 (arguing new policies benefit solar industry and not ratepayers); SYLVIA, supra note 98, at 2 (referencing Governor Patrick’s 1600 megawatts goal). Following a public hearing and comment period in early January 2014 on the draft regulations, DOER may make revisions before providing them to the Legislature’s Joint Committee on Telecommunications, Utilities and Energy. See Runge, supra note 99 (providing update on draft SREC-II regulations).
160. See SYLVIA, supra note 98, at 4 (listing SREC-II policy objectives); see also Runge, supra note 98 (reporting on recently released draft regulations for SREC-II program). But see Fitzgerald, supra note 88 (arguing new policies benefit solar industry and not ratepayers).
161. See SYLVIA, supra note 98, at 11 (discussing SREC-11 and net metering).
162. See id.; see also Concerning Net Metering, supra note 104 (supporting H.R. 3901 and S. 2019 lifting net metering caps). “Simply put, absent net metering cap relief the phenomenal growth in solar development in the Commonwealth and the important environmental, economic development and energy security benefits such projects bring will come to a screeching halt.” Id.; see also Mass. Policy Priorities, supra note 10 (supporting increasing net metering cap). “The current net metering cap limits development and impedes the state’s ability to meet its goals.” Mass. Policy Priorities, supra note 10. But see Net Metering: Hearing, supra note 93, at 15 (asking “[b]efore any more renewable program expansion . . . . Exempt manufacturing customers from solar and RPS obligation increases”). TransCanada asserts that Germany exempts its industrials from renewable surcharges to maintain their competitiveness. See id.
163. See Statement of Blanchard, supra note 106 (supporting lifting net metering cap). The Town of Palmer reached an agreement on a Net Metering Power Purchase Agreement projected to save the town between $6.2 and $7.8 million in electricity costs over a twenty-year operating period. See id. The project, however, just missed an allocation assignment under the most recent cap limit, and, although all of the necessary local permits are in place, the project has not yet been constructed. See id.
IV. CONCLUSION

The GCA and consequent related actions propelled Massachusetts to the forefront of renewable energy development. In Massachusetts, wind and solar is regulated through permitting and siting guidelines, mandates, such as renewable portfolio standards, incentives, and subsidies.

In order to cement its position as a national leader in renewable energy development and to continue to grow the installed wind and solar capacity, Massachusetts should build upon its successes by making some modest regulatory changes and by continuing critical programs. Specifically, by simplifying, consolidating, and streamlining the permitting and siting processes for wind energy facilities of a significantly lower capacity, policy makers can facilitate greater wind energy development without losing sight of important local concerns. Furthermore, continuing important solar subsidy programs—as DOER is doing with SREC-II, and moving to a time-based cap for net metering as proposed in the state legislature—will send a message to solar developers that Massachusetts is the place to do business. While the relevance of the economic impact of policies to promote renewable energy development is a topic long for debate, the positive externalities—the societal and environmental benefits to enacting such measures—justify and warrant continued government action.

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