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an ERM Group company

CONCORD, MA — WASHINGTON, DC

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978-369-5533
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MJB&A Issue Brief ■ March 30, 2020

State Approaches to Climate Policy: Massachusetts, New York, and New Jersey

States have long been at the forefront of designing and implementing climate and energy policy, experimenting with new policies, refining existing programs, and expanding successful approaches into new states and sectors. While many states recognize that climate change is a global concern, in the absence of federal action, state- and-regional-level approaches continue to drive emission reductions in states and regions.

This issue brief focuses on three states—Massachusetts, New York, and New Jersey—that have long been active in the pursuit of decarbonization strategies. Each employed somewhat different vehicles to establish initial goals that require varying levels of agency action, but all three are consistently taking additional steps in recent years to achieve significant greenhouse gas (GHG) reductions. Other states may also look to adopt such approaches for their own sectors. This issue brief provides an overview of the climate policy that has evolved in these three states related to the electric sector.

Climate Policy Evolution, Current Status, and Key Drivers

Massachusetts, New York, and New Jersey have long been leaders in state climate policy, and each have legislative requirements to reduce statewide GHG emissions by at least 80 percent by 2050 (below a specified base year). Massachusetts and New Jersey are considering means to achieve further reductions, and New York is working to achieve its 85 percent reduction requirement and net-zero emissions goal by 2050. Recently, all three states have also taken actions to require state agencies to implement policies to achieve economy-wide goals. For each state, there have been several key drivers for them to strengthen their decarbonization policy approaches.

Massachusetts

Policy Evolution: Massachusetts' physical location was an early driver of its initial climate thinking. High coastal populations make the state particularly vulnerable to sea level and extreme weather, and Massachusetts has viewed itself as being at the "end" of the energy pipeline, with most of its energy sources derived from other regions of the country. Specifically, the state has had the perspective that most of its spending on fossil fuel energy has historically flowed out of the state and has failed to provide income to in-state industries.[1] Given these challenges, Massachusetts has seen climate policies as an opportunity to combat the public health and safety concerns related to climate change as well as drive state energy independence, economic growth, and energy pricing certainty for the state.

In 2008, the Massachusetts legislature enacted the Global Warming Solutions Act (GWSA), which directed the Secretary of Energy and Environmental Affairs (EEA) to set GHG limits for 2020, 2030, 2040, and 2050,

[1] Massachusetts Clean Energy and Climate Plan for 2020 (December 29, 2010), https://archives.lib.state.ma.us/bitstream/handle/2452/70734/ocn707398657.pdf?sequence=1.

including a requirement that the 2050 limit be at least 80 percent below 1990 levels.[2] The GWSA specifically directed the Massachusetts Department of Environmental Protection (MassDEP) to promulgate regulations and policies sufficient to achieve emissions goals. In 2010, the EEA set a target of 25 percent below 1990 levels by 2020.[3]

In 2016, the Massachusetts Supreme Judicial Court held in *Kain v. Department of Environmental Protection* that the GWSA requires MassDEP to regulate in-state sources of emissions sufficiently to achieve the state's GHG emission limits.[4] In that case, the environmental plaintiffs argued that MassDEP failed to fulfill its statutory mandate under the GWSA to achieve the statutory targets given that the state acknowledged in 2010 that it would achieve an 18 percent reduction from 1990 levels by 2020 as opposed to the 25 percent reduction target. The state Supreme Judicial Court agreed and held that MassDEP was not complying with its legal mandate to reduce the state's GHG emissions.

The *Kain* decision was a key factor in the Baker Administration's decision to issue, within months of the decision, an Executive Order instructing the EEA to develop a comprehensive energy plan and for MassDEP to promulgate regulations to ensure statewide emissions limits are met.[5]

Current Status: In 2018, EEA published a progress report showing that 2017 GHG emissions were 22.4 percent below the 1990 level, approaching the state's 2020 goal.[6] Since April 2019, EEA, MassDEP, and other state agencies have been engaged in a planning process to identify technically and economically viable strategies, policies, and implementation pathways for Massachusetts to reduce its GHG emissions by at least 80 percent by 2050, including pathways capable of achieving net zero emissions in 2050. Through this process, these state agencies are also working to identify the priorities to achieve an interim goal by 2030. To do so, the state is conducting a "2050 Decarbonization Roadmap" process that will include a quantitative pathway scenario analysis. The state intends to release the Roadmap later this year, which will also inform EEA's setting of the 2030 emissions target and the development of the state's implementation plan to achieve this goal. The GWSA requires the state to publish the 2030 target by the end of 2020; the EEA Secretary also intends to set the 2050 limit by the end of this year.[7]

In January 2020, Governor Charlie Baker announced his commitment to net-zero GHG emissions during his State of the Commonwealth address. Following this announcement, in February 2020, EEA released a draft determination establishing net-zero GHG emissions as the state's new legal emissions limit for 2050 and

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2 Massachusetts, An Act Establishing the Global Warming Solutions Act (signed August 7, 2008), https://malegislature.gov/Laws/SessionLaws/Acts/2008/Chapter298.

3 Massachusetts EEA, Letter Regarding Determination of GHG Emission Limit for 2020 (December 28, 2010), https://www.mass.gov/files/documents/2017/12/06/Former%20Secretary%20Bowles%E2%80%99%20Determination%20of%20the%20Greenhouse%20Gas%20Emission%20Limit%20for%202020.pdf.

4 *Kain v. Department of Environmental Protection*, 474 Mass. 278 (2016).

5 Massachusetts Office of the Governor, Executive Order 569 (September 16, 2016), https://www.mass.gov/doc/executive-order-569-mass-register-1323/download.

6 Massachusetts, Global Warming Solutions Act 10-Year Progress Report (December 2018), https://www.mass.gov/doc/gwsa-10-year-progress-report/download.

7 Massachusetts, MA Decarbonization Roadmap, https://www.mass.gov/info-details/ma-decarbonization-roadmap.

requested comments from the public regarding specific mechanisms and definitions related to establishing this limit.[8] EEA requested comment on the maximum allowable emissions level for the net-zero goal.[9]

New York

Policy Evolution: Similar to Massachusetts and New Jersey, New York's climate action has become a major priority for the state due to the health and safety concerns related to climate change, economic development goals, and the desire to improve the independence, reliability, cost certainty, and security of the state's energy supply. New York's efforts have also been driven by strong environmental justice activism in the state, which can be seen as part of the latest legislative action to require that 40 percent of all state climate and clean energy spending is directed toward disadvantaged communities.

In 2009, Governor David Patterson issued an Executive Order establishing a "goal of the State of New York" to reduce statewide GHG emissions by 80 percent below 1990 levels by 2050. In 2014, Governor Andrew Cuomo launched an updated energy policy, Reforming the Energy Vision (REV), which focused on the integration of additional renewable energy into the grid; energy efficiency; clean energy financing; sustainable and resilient communities; energy infrastructure modernization; innovation and R&D; and transportation. A year later, the state issued the New York State Energy Plan, which serves as the roadmap for REV and established an interim 2030 goal to achieve a 40 percent reduction in GHG emissions from the energy sector, below 1990 levels, and detailed several agency actions to help achieve the interim and long-term goals.

Current Status: In 2019, New York revised its climate approach by passing landmark climate legislation—the Climate Leadership and Community Protection Act (CLCPA). The CLCPA requires the state to reduce GHG emissions 40 percent by 2030 and no less than 85 percent by 2050 from 1990 levels. It also establishes a goal to reduce GHG emissions from all anthropogenic sources 100 percent over 1990 levels by the year 2050. The CLCPA requires development of a scoping plan to identify regulatory actions and other measures to meet the emission limits and net-zero goal. It also requires the Department of Environmental Conservation (NYDEC) to promulgate regulations by January 1, 2024 that ensure compliance with the state's emission limits.[10]

New Jersey

Policy Evolution: Early drivers for New Jersey's action on climate are similar to those of Massachusetts' and other states, including the objectives of addressing climate change and its impacts, promoting long-term economic development, improving air quality, and improving the reliability and security of the state's energy supply.

In February 2007, then-Governor Jon Corzine signed an Executive Order establishing statewide GHG emission "targets" of 1990 levels by 2020, and an 80 percent reduction below 2006 levels by 2050.[11] Less than six months later, the legislature enacted those targets through the Global Warming Response Act (GWRA) for in-state

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8 Massachusetts EEA, Draft Letter Regarding Determination of GHG Emission Limit for 2050 (February 26, 2020), https://www.mass.gov/doc/draft-letter-of-determination-on-the-2050-emissions-limit-revised-342020/download.

9 EAA requested comment on the bracketed part of the following draft definition of the net-zero emissions limit: "A level of statewide greenhouse gas emissions that is equal in quantity to the amount of carbon dioxide or its equivalent that is removed from the atmosphere and stored annually by, or attributable to, the Commonwealth; provided, however, that in no event shall the level of emissions be greater than a level that is [80, 85, 90]% below the 1990 level."

10 DEP is required to promulgate regulations to enable achievement of the 40 percent and 85 percent emission reduction limits. Regarding the net-zero goal, the Act states, "The department may establish an alternative compliance mechanism to be used by sources subject to greenhouse gas emissions limits to achieve net zero emissions."

11 New Jersey Office of the Governor, Executive Order #54 (February 13, 2017), https://nj.gov/infobank/circular/eojsc54.htm.

emissions as well as emissions from electricity generated outside the state but consumed in the state.[12] However, the legislation did not outline a trajectory to meet the goals, nor did it impose any binding mechanisms to ensure the goals would be met. Rather, the legislation called for the state's Department of Environmental Protection (DEP) (and other state agencies) to recommend measures to reduce emissions, for consideration by the Governor and state legislature.

Current Status: In July 2019, the New Jersey legislature revised the 2007 GWRA to mandate agency action to achieve the state's 2020 and 2050 emission reduction limits.[13] In a statement upon signing the bill, Governor Phil Murphy commended the sponsors of the bill "for providing [DEP] with the tools necessary to ensure the State meets our greenhouse gas emission reduction goals by 2050."[14] Specifically, the legislation requires DEP to: 1) send recommendations to the governor and legislature by July 2020 regarding the measures necessary to achieve the state's goals, and 2) adopt, by January 2022, "rules and regulations establishing interim benchmarks necessary to achieve the 2050 limit," and, crucially, "measures necessary to achieve the 2050 limit and the established interim benchmarks."

In January 2020, to inform state planning to achieve these goals, the state published a comprehensive Energy Master Plan (EMP) that provides a "comprehensive blueprint for the total conversation of the state's energy production profile to 100 percent clean energy sources" by 2050, as well as specific proposals to be implemented in the near-term to achieve the goal.[15] The EMP's focus on 100 percent clean energy was in response to a May 2018 Executive Order from Governor Murphy. The same day of the EMP's release, Governor Murphy issued an Executive Order that directed DEP to adopt regulatory reforms to reduce GHG emissions and adapt to climate change by integrating climate change considerations, such as sea level rise, into its regulatory and permitting programs.[16]

Electric Sector Implications

The electric sector is often the focus of state and federal GHG regulatory efforts. As Massachusetts, New York, and New Jersey continue to strengthen their climate policy goals, they are exploring new policy tools for the electric sector and economy-wide goals. As these states develop and implement their approaches, other states may also look to those policies that are successful in order to achieve similar emission reductions.

Renewable Portfolio Standards and Decarbonization Goals

Massachusetts, New York, and New Jersey continue to use Renewable Portfolio Standard (RPS) programs to drive renewable energy development; however, all three states have recently increased their program's stringency. Recent amendments to RPS programs include resource eligibility, carve-outs for specific technologies, and more stringent long-term requirements for renewable penetration.

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12 New Jersey, Global Warming Response Act (June 14, 2007), https://www.njleg.state.nj.us/2006/Bills/A3500/3301_R2.HTM.

13 New Jersey, Senate Bill No. 3207 (signed July 23, 2019), https://www.njleg.state.nj.us/2018/Bills/PL19/197_.HTM.

14 New Jersey Office of the Governor, Statement upon Signing Senate Bill No. 3207 (July 23, 2019), http://d31hzlhk6di2h5.cloudfront.net/20190723/bb/3a/c5/83/dfaf59f2979db6d22e1e827b/S3207.pdf

15 New Jersey Office of the Governor, Executive Order No. 28 (May 23, 2018), https://nj.gov/infobank/eo/056murphy/pdf/EO-28.pdf. The Energy Master Plan defines 100 percent clean energy by 2050 as "100 percent carbon-neutral electricity generation and maximum electrification of the transportation and building sectors, which are the greatest carbon emission producing sectors in the state, to meet or exceed the GWRA mandates."

16 New Jersey Office of the Governor, Executive Order No. 100 (January 27, 2020), https://nj.gov/infobank/eo/056murphy/pdf/EO-100.pdf; New Jersey DEP, NJ PACT: Protecting Against Climate Threats, https://www.nj.gov/dep/njpact/.

Additionally, in order to achieve their decarbonization goals, there has also been a general trend to move toward valuing clean resources rather than strictly renewables, with the three states taking steps to expand their portfolio requirements to include additional types of carbon neutral and/or zero-emission resources. For example, Massachusetts has implemented a Clean Energy Standard (CES), designed to be compatible with and complementary to the state's RPS. The CES identifies additional eligible technologies based on an emissions-based performance standard in addition to the "renewable" attributes of resources. New York and New Jersey have also developed Zero Emission Credit (ZEC) programs to support existing nuclear facilities in light of the zero-emission attributes of their electricity generation.

Table 1 summarizes the evolution of the portfolio goals and requirements (including RPS, CES, and ZEC requirements) of these three states over time.

Table 1. Electricity Portfolio Requirements Trending Toward Deep Decarbonization of Power Sector

	Initial Requirement (% of electricity sales annually)	**Current Portfolio Requirements (% of electricity sales annually)**
Massachusetts	**RPS:** 4% from eligible renewable resources by 2009 (reg. effective 2002)	**CES** (effective 2017):[17] • 2020: 20% from "new" eligible clean resources (**RPS** Class I compliance (15% in 2020) counts toward compliance); additional requirements for eligible "existing" renewables and biomass; additional requirements for alternative resources • 2050: 80% from "new" eligible clean resources (**RPS** Class I compliance (45% in 2050) counts toward compliance); additional requirements for eligible "existing" resources and biomass; additional requirements for alternative resources
New York	**RES:** 25% from eligible renewable resources by 2013 (up from 19.3% in 2004) (adopted 2004)[18]	**CES** (effective 2016):[19] • 2020: 3.4% from Tier 1 renewable resources; additional support for Tier 2 maintenance resources **(RES)** • 2030: 50% from Tier 1 renewable resources and Tier 2 maintenance resources **(RES)** **ZEC** (effective 2016): [20] Support for existing nuclear facilities that the PSC determines to be financially at risk of retiring (2017 through 2030) CLCPA requires the PUC to establish a program requiring that by 2030, at least 70% of electric generation suppling the state's end-use customers is generated by renewables. By 2040, statewide electrical systems must be zero-emission.[21]

[17] Massachusetts, Program Summaries of Renewable and Alternative Energy Portfolio Standard Programs, https://www.mass.gov/service-details/program-summaries; Massachusetts, Relevant Statutes, Regulations, and Guidelines for the Programs Administered by DOER's Renewable Energy Division, https://www.mass.gov/service-details/statutes-regulations-and-guidelines.

[18] NYSERDA, Renewable Portfolio Standard, https://www.nyserda.ny.gov/All-Programs/Programs/Clean-Energy-Standard/Renewable-Portfolio-Standard.

[19] New York PSC, Order Adopting a Clean Energy Standard (issued and effective August 1, 2016), https://www.nyserda.ny.gov/All-Programs/Programs/Clean-Energy-Standard/Important-Orders-Reports-and-Filings .

[20] *Id.*

[21] These are requirements of New York's CLCPA. The PUC is required to establish a program regarding the 2030 renewables requirement by July 13, 2021.

	Initial Requirement (% of electricity sales annually)	Current Portfolio Requirements (% of electricity sales annually)
New Jersey	**RPS:** 4% from "Class I" and 2.5% from "Class I" or "Class II" resources by 2012 (1999 legislation)	**RPS** (2018 legislation):[22] • 2020: 21% from Class I renewable resources; 2.5% from Class II resources • 2030: 50% from Class I resources; 2.5% from Class II resources **ZEC** (2018 order):[23] Three in-state nuclear facilities will receive ZEC credits from 4/19/19 through 5/31/22 New Jersey's EMP targets the goal of "100% carbon-neutral electricity generation" by 2050. The EMP notes that the state is considering "possible regulatory structures" to enable achievement of the goal and recommends that a CES or similar market-based mechanism should be considered.

Regional Collaboration: Participation in RGGI

An additional strategy common among the three states is their participation in the Regional Greenhouse Gas Initiative (RGGI), a regional cap-and-trade program to reduce CO_2 emissions from the power sector. RGGI requires fossil fuel-fired electric power generators with a capacity of 25 megawatts (MW) or greater to hold allowances equal to their CO_2 emissions over a three-year control period. Together, the states participating in RGGI set a cap for total CO_2 emissions from electric generating units in the region. Each state implements the program through its own regulation. The most recent program review in 2017 extended the program through 2030.[24]

Massachusetts and New York have participated in the program since its beginning in 2009. While New Jersey originally withdrew from the program in 2011, the state has since rejoined RGGI under the directive of Governor Murphy and began participating again this year.

Consideration of Additional Measures Necessary to Achieve Goals

In addition to these more traditional methods to reduce GHG emissions from electricity generation, the three states are also considering what additional policies are necessary in order to meet their long-term decarbonization goals. They are also instituting additional technology requirements (such as offshore wind and energy storage) and clean peak standards.

State Market-Based Carbon Mechanisms

In response to the *Kain* decision, Massachusetts instituted an additional cap-and-trade program for in-state generators. The in-state program operates in parallel with RGGI through 2030 and then beyond, through 2050, to

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22 New Jersey, An act concerning clean energy (signed May 23, 2018), https://www.njleg.state.nj.us/2018/Bills/PL18/17_.PDF.

23 NJBPU, NJBPU Moves to Create Zero Emission Credit Program for Eligible Nuclear Power Plants (August 29, 2018), https://www.state.nj.us/bpu/newsroom/2018/20180829a.html; NJBPU, Order Determining the Eligibility of Hope Creek, Salem 1, and Salem 2 Nuclear Generators to Receive ZECs (April 18, 2019), https://www.bpu.state.nj.us/bpu/pdf/boardorders/2019/20190418/4-18-19-9A.pdf.

24 MJB&A, RGGI States Release Final Model Rule Amendments (December 19, 2017), https://mjbradley.com/sites/default/files/MJBA_RGGImodelrulesummary_19Dec2017.pdf.

ultimately achieve an 80 percent reduction in emissions from in-state electric generation by 2050, below 2018 levels.

In New York, the state's Independent System Operator (NYISO) found that the carbon price implied by RGGI allowance prices would not, on its own, be sufficient to drive reductions in line with long term decarbonization goals.[25] To help bridge this gap, NYISO developed a carbon pricing proposal to incorporate the cost of carbon emissions into wholesale electricity markets. The proposal has proceeded through in the NYISO stakeholder process and is now awaiting support from the state.[26]

In New Jersey's recently released EMP, the state acknowledges that while RGGI and other emission control policies are in place, additional regulation may be necessary to achieve the state's 2050 economy-wide goal and its 2050 goal of carbon-neutral electricity generation. Thus, the state is considering "possible regulatory structures" to enable achievement of the goal, and the EMP recommends that a CES or similar market-based mechanism be considered.[27]

Offshore Wind

The three states have each instituted goals to procure offshore wind in order to meet their climate goals, as outlined in Table 2. These efforts began with legislation allowing state agencies and/or retail electric providers to issue a request for proposals (RFP) for long-term contracts for electricity from offshore wind projects. Today, these three states have each procured more than one thousand megawatts of offshore wind capacity, with many future solicitations planned, and each continues to increase their goals.

Table 2. Offshore Wind Procurement Goals

	Goals (Procurement to Date)
MA	3,200 MW by 2035 (1,604 MW procured to date)
NY	9,000 MW by 2035 (1,826 MW procured to date)
NJ	7,500 MW by 2035 (1,100 MW procured to date)

Each state has also passed legislation *requiring* an amount of offshore wind procurement that partially fulfills the state's long-term goal. In Massachusetts, legislation enacted in August 2016 requires electric utilities to competitively solicit and contract for approximately 1,600 MW of offshore wind by 2027.[28] The state's Department of Energy Resources (DOER) has since recommended and authorized electric utilities to proceed with additional offshore wind solicitations for up to an additional 1,600 MW of offshore wind and to enter into contracts if found to be cost-effective at the time of solicitation.[29] New York is the only state of these three to mandate procurement of offshore wind sufficient to achieve its entire long-term goal of 9,000 MW by 2035.[30] In New Jersey, the Governor signed legislation in May 2018 that requires 3,500 MW of offshore wind procurement through revisions to its

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25 NYISO, IPPTF Carbon Pricing Proposal (December 7, 2018), https://www.nyiso.com/documents/20142/3911819/Carbon-Pricing-Proposal%20December%202018.pdf/72fe5180-ef24-f700-87e5-fb6f300fb82c.

26 NYISO, Dr. Nicole Bouchez, Principal Economist, "ISO/RTO Carbon Pricing Initiatives," Carbon Pricing in Wholesale Energy Markets (March 3, 2020), Institute for Policy Integrity at NYU School of Law, Washington, DC, https://policyintegrity.org/documents/Nicole_Bouchez%2C_NYISO.pdf.

27 NJBPU, New Jersey Energy Master Plan (January 2020), https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf.

28 Massachusetts, An Act to Promote Energy Diversity (signed August 8, 2016), https://malegislature.gov/Laws/SessionLaws/Acts/2016/Chapter188.

29 Massachusetts DOER, Offshore Wind Study (May 2019), https://www.mass.gov/doc/offshore-wind-study/download.

30 New York, Climate Leadership and Community Protection Act (signed July 18, 2019), https://legislation.nysenate.gov/pdf/bills/2019/S6599.

state RPS.[31] New Jersey has since increased its goal to 7,500 MW and in February 2020, the state announced an offshore wind solicitation schedule of the full 7,500 MW through 2035.[32]

Energy Storage

Energy storage is becoming an increasing focus of comprehensive climate change policy as a way to address intermittency issues associated with variable energy resources (such as wind and solar). Massachusetts, New York, and New Jersey are taking steps to incentivize and require the installation of energy storage systems, as outlined in Table 3.

Table 3. Energy Storage Policies

	Goals
MA	1,000 MWh of storage capacity by 2025
NY	1,500 MW of storage capacity installed by 2025 and 3,000 MW by 2030
NJ	600 MW of storage capacity installed by 2021 and 2,000 MW by 2030

Massachusetts has a target of 1,000 MWh of energy storage by the end of 2025, and legislation authorizes DOER to consider a variety of policies to achieve the target and encourage the cost-effective deployment of energy storage.[33] In February 2020, electric utilities reported 108 MWh of installed energy storage with an additional 1,086 MWh of storage in development.[34]

In 2018, the New York PSC adopted storage capacity targets for 2025 and 2030 as well as a strategy to achieve the targets. The strategy includes a variety of actions to address regulatory barriers, accelerate market learning curves, reduce costs, and increase the development of storage applications that are determined to be of highest value. In 2019, the state's CLCPA codified the 2030 target as a mandate, requiring the PSC to require load-serving entities to procure 3 GW of storage capacity by 2030.

In New Jersey, 2018 legislation requires NJBPU to establish a process and a mechanism for achieving the state's energy storage goals for 2021 and 2030 (see Table 3).[35] As a first step, NJBPU has indicated that it will soon issue a straw proposal for stakeholder input.

Approaches to Address Peak Emissions

Massachusetts and New York are also developing and implementing complementary policies to increase the use of renewables and/or energy storage deployment during periods of peak electricity demand. Peak electricity demand is commonly met with generation from peaker plants, which often have a relatively higher carbon intensity rate and levelized cost of energy, potentially leading to increased emissions and ratepayer cost during these periods.

To reduce daily peak emissions, Massachusetts is developing a targeted regulation, a Clean Peak Standard (CPS), in response to a legislative directive.[36] Specifically, the regulations are intended to incentivize retail electricity suppliers to generate electricity with an increasing amount of electricity from eligible low-or-zero carbon resources, including electricity from storage, during peak periods. Using an allowance credit system, retail

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31 New Jersey, An act concerning clean energy (signed May 23, 2018), https://www.njleg.state.nj.us/2018/Bills/PL18/17_.PDF.
32 New Jersey Office of the Governor, Governor Murphy Announces Offshore Wind Solicitation Schedule of 7,500 MW through 2035 (February 28, 2020), https://www.nj.gov/governor/news/news/562020/20200228a.shtml.
33 Massachusetts, An Act to Advance Clean Energy (signed August 9, 2018), https://malegislature.gov/Laws/SessionLaws/Acts/2018/Chapter227.
34 Massachusetts, Energy Storage Initiative Goals and Storage Target, https://www.mass.gov/info-details/esi-goals-storage-target.
35 New Jersey, An Act Concerning Clean Energy (signed May 23, 2018). https://www.njleg.state.nj.us/2018/Bills/PL18/17_.PDF.
36 Massachusetts, An Act to Advance Clean Energy (signed August 9, 2018), https://malegislature.gov/Laws/SessionLaws/Acts/2018/Chapter227.

electricity suppliers will be required to supply an annually increasing amount of electricity from low-and-zero carbon resources, starting at 1.5 percent in 2020 and increasing annually to 48 percent in 2051. The proposed regulations include an alternative compliance payment mechanism that allows regulated entities to pay $30 per credit in 2020, declining linearly to $0 through 2051. The final regulation is expected in the second quarter of 2020.

New York, by comparison, has taken a slightly different approach to address emissions during peak periods, by establishing more stringent NOx emission limits for peaker plants during the ozone season through existing air quality permit statutes. In order to address local air quality concerns and upcoming federal National Ambient Air Quality Standard (NAAQS) compliance deadlines, NYDEC promulgated a regulation that phases in (between 2023 to 2025) lower NOx thresholds for simple cycle and regenerative gas-fired combustion turbines during the ozone season. In a regulatory impact analysis, NYDEC noted that the state's peaking units "typically run on hot summer days when there is a higher demand for air conditioning and when there is a strong likelihood of high ozone readings" and that many of these units "have very high NOx emission rates, are inefficient, and are approaching 50 years of age." NYDEC also noted, "[i]t is difficult to install after-market controls on most of these units because of their age and site limitations" – but that these older units "make it difficult, if not impossible, for New York to meet air quality goals and [Clean Air Act requirements]."[37]

New Jersey is approaching this topic more from a perspective of ways to control peak demand by incentivizing demand-side management. In the state's EMP, New Jersey notes that decreasing peak demand will be crucial to meeting the state's energy and climate goals, in addition to reducing overall energy demand through GHG reduction policies. The EMP recommends that the state complement its GHG reduction policies with efficiency policies that: 1) support and incentivize new utility pilots and programs to manage and reduce peak demand and 2) pilot alternative rate designs to manage electric vehicle charging (such as time-of-use rates) and encouraging customer-controlled demand flexibility (such as peak-time rebates).

Additional Policies

Furthering the state's efforts to reduce emissions from the electric sector, New York finalized regulations in 2019 establishing a CO_2 emissions standard of 1,800 pounds of CO_2 per MWh of gross electrical output for existing major electric generating units.[38] Achieving this limit will require existing coal-fired units to retire, repower to a lower carbon fuel, or adopt an advanced emission reduction technology such as carbon capture.

As noted above, New York and New Jersey have also implemented policies to specifically support existing nuclear resources. New York's 2016 Clean Energy Standard includes provisions for existing eligible nuclear facilities. New Jersey also established a ZEC program for eligible nuclear facilities in November 2018. While Massachusetts allows nuclear plants that commence operation after 2010 to contribute to its Clean Energy Standard, this qualification regarding the date of operation excludes the state's only existing nuclear facility.

In New England, states are also evaluating how to design policy to account for the unique attributes of nuclear generating resources. In March 2019, the New England Governors signed a statement announcing their intent to work together to evaluate "market-based mechanisms that value the contribution that existing nuclear generation resources make to regional energy security and winter reliability." The statement continues, "[i]n addition, to the extent a state's policies prioritize clean energy resources, those states commit to work together on a mechanism or

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37 NYDEC, Adopted Subpart 227-3, Revised Regulatory Impact Statement, https://www.dec.ny.gov/regulations/116175.html.

38 NYDEC, Adopted Part 251, CO2 Performance Standards for Major Electric Generating Facilities, https://www.dec.ny.gov/regulations/113501.html.

mechanisms to value the important attributes of those resources, while ensuring customers in any one state do not fund the public policy requirements mandated by another state's laws."[39]

Potential Implications for Additional Sectors

Massachusetts, New York, and New Jersey are also exploring ways to address emissions from additional sectors beyond the electric sector, notably from the transportation sector. To do so, these states are looking to leverage approaches that have demonstrated success in achieving emission reductions from the electric sector. In Massachusetts, for example, when Governor Baker announced a new commitment to achieve net-zero GHG emissions by 2050, he tied this commitment directly to the state's collaboration with Transportation and Climate Initiative (TCI) on designing a policy to reduce emissions from the transportation sector.[40] TCI is a collaboration among several Northeast and Mid-Atlantic states, including Massachusetts, New York, and New Jersey, to design a policy to reduce emissions from the transportation sector through a framework similar to RGGI.

The program is expected to cap CO_2 emissions from the combustion of the fossil component of finished motor gasoline and on-road diesel fuel in the region.[41] Similar to the RGGI framework, states will voluntarily opt to participate in the resulting finalized regional cap-and-invest program by signing a Memorandum of Understanding (MOU) and by adopting necessary regulatory and legislative measures to participate in the regional program. State fuel suppliers would be the regulated entities and would be required to hold allowances to cover their emissions. Under the most stringent cap (25 percent) coupled with investments, TCI estimates that the market could generate $7 billion in proceeds by 2032. Once the final MOU is released this spring, each participating jurisdiction will decide whether to sign it and formally participate in the program. These participating jurisdictions are expected to develop a model rule by fall 2020 with formal rulemaking in 2021, with the goal of program implementation as early as 2022.

Conclusion

The states of Massachusetts, New York, and New Jersey continue to move forward in designing and implementing economy-wide and sector-specific polices to achieve their ambitious long-term climate goals. In order to reduce emissions, these states have largely focused to-date on developing mechanisms to reduce emissions from the electric sector. However, recently these states have revised their ambition to decarbonize electricity generation and are considering a variety of approaches, including portfolio requirements, in-state cap-and-trade programs, and carbon prices, to do so.

While Massachusetts, New York, and New Jersey continue to implement existing policy measures, these three states are also considering additional polices necessary to meet their long-term decarbonization goals and what sectors beyond the electric industry should incorporate decarbonization frameworks into long-term planning. As other states continue to look to address climate change within their own borders, the policy mechanisms that are being implemented and tested in Massachusetts, New York, and New Jersey may serve as a foundation for others.

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39 New England Governors, New England Governors' Commitment to Regional Cooperation on Energy Issues (March 15, 2019), https://www.coneg.org/wp-content/uploads/2019/03/New-England-Governors-Statement-of-Cooperation-on-Regional-Energy-3-15-19.pdf.

40 Massachusetts Office of the Governor, 2020 State of the Commonwealth Address (January 21, 2020), https://www.mass.gov/news/governor-baker-delivers-2020-state-of-the-commonwealth-address.

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MJB&A provides strategic consulting services to address energy and environmental issues for the private, public, and non-profit sectors. MJB&A creates value and addresses risks with a comprehensive approach to strategy and implementation, ensuring clients have timely access to information and the tools to use it to their advantage. Our approach fuses private sector strategy with public policy in air quality, energy, climate change, environmental markets, energy efficiency, renewable energy, transportation, and advanced technologies. Our international client base includes electric and natural gas utilities, major transportation fleet operators, investors, clean technology firms, environmental groups and government agencies. Our seasoned team brings a multi-sector perspective, informed expertise, and creative solutions to each client, capitalizing on extensive experience in energy markets, environmental policy, law, engineering, economics and business. For more information we encourage you to visit our website, www.mjbradley.com.