

Specifically, the legislation added mid- and long-term goals of 50 percent by 2030 and 90 percent by 2050, all below 2005 emissions levels.⁴ The legislation directs the Colorado Air Quality Control Commission (AQCC) to promulgate implementing rules and regulations consistent with the economy-wide GHG reduction goals, while taking into account “the costs of compliance”, “the time necessary for compliance”, “the importance of striving to equitable distribute the benefits of compliance,” “the relative contribution of each source or source category to statewide GHG pollution,” and “whether greater or more cost-effective emission reductions are available through program design.”

Renewable Portfolio Standards and Carbon Neutral Procurement Targets

States’ renewable portfolio standards (RPS) have been an important policy driver of renewable energy development in the U.S. Currently, 29 states and the District of Columbia have RPS programs requiring utilities to supply a minimum percentage of their electricity from designated renewable, low-, or no-emissions resources. In 2018, these jurisdictions collectively accounted for 55 percent of electricity retail sales in the U.S.⁵ A November 2018 study attributed almost half of the growth in renewable energy between 2000 and 2017 to state RPS policies.⁶

In May 2019, Maryland became the eighth state within the last year, along with the District of Columbia (D.C.), to increase the ambition of their RPS. Notably, of these states, four (California, Nevada, New Mexico, and Washington), as well as D.C., have passed legislation setting ambitious 100 percent zero-carbon procurement targets. These five jurisdictions join Hawaii, which in 2015, became the first state to set a 100 percent RPS. And while Maryland did not set a target of 100 percent zero-carbon resources, the enacted legislation does require a state agency to conduct a study assessing the feasibility of implementing an RPS of 100% “renewable energy” by 2040.

Additionally, while RPS programs have traditionally targeted the growth of renewable resources such as wind and solar, several states have amended their RPS to target a broader suite of “clean” or “zero-carbon” resources in addition to renewables. As a result, these expanded programs allow resources such as fossil fuels paired with carbon capture and sequestration (CCS) or nuclear to qualify under the RPS (or, as these programs may also be called, carbon neutral procurement standards). Table 1 details recent changes to state RPS programs and carbon-neutral procurement policies in 2018 and 2019.

⁴ Colorado General Assembly, “Climate Action Plan to Reduce Pollution,” (enacted May 30, 2019), <https://leg.colorado.gov/bills/hb19-1261>.

⁵ U.S. Energy Information Administration, “Updated renewable portfolio standards will lead to more renewable electricity generation,” *Today in Energy*, (February 27, 2019), <https://www.eia.gov/todayinenergy/detail.php?id=38492>.

⁶ Lawrence Berkeley National Laboratory, “2018 Annual Status Report on U.S. Renewable Portfolio Standards” (November 2018), http://eta-publications.lbl.gov/sites/default/files/2018_annual_rps_summary_report.pdf.

Table 1: Recent Changes to State RPS and Zero-Carbon Requirements

State	Changes to Ambition of Long-Term Requirement (Target of Percent Share of Retail Electricity Sales by Year)	Changes to Resource Eligibility
<p>California <i>revised Sept. 2018⁷</i></p>	<p>Increased 2030 requirement to obtain 50% of electricity sales from renewable resources to 60% by 2030 and each year thereafter Added 100% zero-carbon requirement by 2045</p>	<p>Defined eligibility for 2045 target to zero-carbon resources</p>
<p>Connecticut <i>revised May 2018⁸</i></p>	<p>Increased and extended requirement to obtain 24% of electricity sales from Class I eligible renewable resources by 2020 to 44% by 2030 and each year thereafter (4% of which can be met with eligible waste-to energy in 2018 and each year thereafter)</p>	
<p>Massachusetts <i>revised Aug. 2018⁹</i></p>	<p>Increased the 1% annual growth rate of its requirement for Class I eligible new renewables to 2% annually from 2020 to 2029, dropping back to 1% each year thereafter. Thus, by 2030, requirement to obtain 25% of electricity sales from Class I eligible new renewable resources increases to 35%</p>	
<p>Maryland <i>revised May 2019¹⁰</i></p>	<p>Increased and extended requirement to obtain 25% of electricity sales from Tier 1 eligible renewable resources by 2020 (including at least 2.5% from solar) to 50% from Tier 1 eligible renewable resources (including at least 14.5% from solar energy and a percentage of offshore wind energy sufficient to reach a generating capacity 1,200 MW) and each year thereafter Maryland Power Plant Research Program must submit to the Governor by 2024 a study assessing “the overall costs and benefits of increasing the [RPS] to a goal for 100% renewable energy by 2040” and publish “recommendations regarding the feasibility of implementing a [RPS] of 100% by 2040”</p>	

⁷ California State Legislature, Senate Bill No. 100, “The 100 Percent Clean Energy Act of 2018” (signed September 10, 2018), https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB100.

⁸ Connecticut General Assembly, Substitute Senate Bill No. 9, “An Act Concerning Connecticut’s Energy Future” (signed May 24, 2018), <https://www.cga.ct.gov/2018/act/pa/pdf/2018PA-00050-R00SB-00009-PA.pdf>

⁹ Massachusetts General Court, House Bill No. 4857, “An Act to Advance Clean Energy” (signed August 9, 2018), <https://malegislature.gov/Laws/SessionLaws/Acts/2018/Chapter227>.

¹⁰ Maryland General Assembly, Senate Bill No. 516 (2019 Regular Session), “An Act Concerning Clean Energy Jobs” (enacted May 25, 2019), <http://mgaleg.maryland.gov/webmga/frmMain.aspx?pid=billpage&stab=01&id=sb0516&tab=subject3&ys=2019RS>.

State	Changes to Ambition of Long-Term Requirement (Target of Percent Share of Retail Electricity Sales by Year)	Changes to Resource Eligibility
<p><i>Nevada</i> <i>revised Apr. 2019¹¹</i></p>	<p>Increased and extended requirement to obtain 25% of electricity sales from eligible renewable resources by 2025 to 50% by 2030 and each year thereafter</p> <p>Eliminated solar carve-out of 6% by 2016 and each year thereafter</p> <p>Added “goal of achieving by 2050 an amount of energy production from zero carbon dioxide emissions resources that is equal to the total amount of electricity sold by providers of electric service”</p>	<p>Amended definition of eligible renewable resources to include additional types of hydropower</p> <p>Defined eligibility for 2050 target as zero-carbon resources</p>
<p><i>New Jersey</i> <i>revised May 2018¹²</i></p>	<p>Increased and extended requirement of 24.4% Class I eligible renewable resources by 2024 to 52.5% by 2030</p> <p>Revised solar-electric carve-out target requires at least 5.1% by 2021 and target gradually reduced to 1.1% by 2033</p> <p>Increased the offshore wind requirement of a percentage sufficient to reach a generating capacity of 1,100 MW to 3,500 MW</p>	
<p><i>New Mexico</i> <i>revised Mar. 2019¹³</i></p>	<p>Increased 2020 requirement to obtain 20% of electricity sales from renewable resources to 80% by 2040</p> <p>Established target of 100% of eligible zero carbon resources (comprised of at least 80% renewable energy) by 2045¹⁴</p>	<p>Amended definition of eligible renewable resources to include hydropower that existed prior to 2007</p> <p>Defined eligibility for 2045 target as zero-carbon resources</p>
<p><i>Washington</i></p>	<p>Added requirement for all electric utilities to eliminate coal-fired resources by end of 2025</p> <p>Added state policy that 100% of electricity sales be GHG-neutral beginning 2030 and that non-emitting electric generation and electricity from renewable resources supply 100% of electricity sales beginning 2045</p>	<p>Defined eligibility for 2030 target as GHG-neutral resources</p> <p>Defined eligibility for 2045 target as non-emitting and renewable resources</p>

¹¹ Nevada Legislature, Senate Bill 258, “An act relating to renewable energy” (signed April 22, 2019), <https://www.leg.state.nv.us/App/NELIS/REL/80th2019/Bill/6651/Overview>.

¹² New Jersey Legislature, Assembly No. 3723, “An Act concerning clean energy, amending and supplementing P.L.1999, c.23, amending P.L.2010, c.57, and supplementing P.L.2005, c.354 (C.34:1A-85 et seq.)” (signed May 25, 2018), https://www.njleg.state.nj.us/2018/Bills/A4000/3723_I1.PDF.

¹³ New Mexico Legislature, Senate Bill 489, “Energy Transition Act” (signed March 22, 2019), <https://www.nmlegis.gov/Legislation/Legislation?Chamber=S&LegType=B&LegNo=489&year=19>.

¹⁴ According to the passed legislation, a distribution cooperative shall have the 100% zero-carbon target “provided that: 1) achieving the target is technically feasible; 2) the rural electric cooperative is able to provide reliable electric service while implementing the target; and 3) implementing the target shall not cause electric service to become unaffordable.”

State	Changes to Ambition of Long-Term Requirement (Target of Percent Share of Retail Electricity Sales by Year)	Changes to Resource Eligibility
<i>revised May 2019¹⁵</i>		
District of Columbia <i>revised Jan. 2019¹⁶</i>	Increased 2032 requirement to obtain 50% of electricity sales from renewable resources to 100% by 2032 and each year thereafter Increased 5% solar carve-out by 2032 to 10% by 2040 and each year thereafter	

¹⁵ Washington State Legislature, Senate Bill No. 551 (2019-2020), “Supporting Washington’s clean energy economy and transition to a clean, affordable, and reliable energy future” (signed May 7, 2019), <https://app.leg.wa.gov/billsummary?BillNumber=5116&Year=2019&Initiative=false>. This legislation would not amend the state’s existing RPS, which applies to electric utilities serving at least 25,000 retail customers and requires 15% of eligible renewable resources by 2020 and each year thereafter.

¹⁶ Council of the District of Columbia, B22-0904, “Clean Energy Omnibus Amendment Act of 2018,” (signed January 18, 2019), <http://lims.dccouncil.us/Download/40667/B22-0904-SignedAct.pdf>.

In addition to RPS programs, several states are also exploring additional policies to require increased electricity from zero-carbon resources. For example, Massachusetts’ Clean Energy Standard, finalized in August 2017, requires 80 percent clean energy by 2050, 55 percent of which must come from RPS-eligible resources.¹⁷ The Massachusetts Department of Environmental Protection is currently seeking stakeholder input on potential amendments to the Clean Energy Standard, including increasing the stringency of the 2020 standard, applying the standard to municipally-owned utilities beginning in 2021, and including clean generation that commenced operation before 2010 in the standard by setting a separate Clean Energy Standard-E (CES-E) standard of 15 percent.

Some Governors are also looking to increase investments in 100 percent clean or renewable energy by specific years through executive orders and administrative actions. For example, in May 2018, New Jersey Governor Murphy signed an executive order directing the New Jersey Board of Public Utilities to prepare a 2019 Energy Master Plan that provides “a comprehensive blueprint for the total conversion of the State’s energy production profile to 100% clean energy sources on or before January 1, 2050, and shall further provide specific proposals to be implemented over the next 10 years in order to achieve the January 1, 2050 goal.”¹⁸ The New Jersey Board of Public Utilities intends to release a draft Energy Master Plan for public comment this spring and to finalize the plan by June 2019.¹⁹

Similarly, as part of the 2019 executive budget, New York Governor Cuomo proposed a “Green New Deal” that would statutorily mandate 100 percent carbon-free electricity in New York and increase the ambition of the state’s Clean Energy Standard.²⁰ Wisconsin Governor Evers also “recommend[ed] creating a statutory goal that all electricity produced in the State of Wisconsin should be 100 percent carbon-free by January 1, 2050”²¹ as part of the executive budget for 2019 through 2021. Additionally, this March, Minnesota Governor Walz announced a proposal that would establish a goal of 100 percent carbon-free electricity by 2050.²² In May, Colorado Governor Polis released a climate action plan and a roadmap that included a goal to achieve 100 percent “renewable” electricity by 2040.²³

Finally, a few states are also implementing policies to specifically support existing nuclear resources. Illinois, for example, created a Zero Emissions Credit (ZEC) program in 2016. The same year, New York established a Clean Energy Standard, which requires 50 percent of electricity sales from eligible renewables resources and includes

¹⁷ 310 CMR 7.75(7)(a)(1); The regulation defines “clean energy” resources as those that: 1) qualify as Class I eligible resources under Massachusetts’ RPS, or 2) have net lifecycle GHG emissions, over a 20 year life cycle, that yield at least a 50 percent reduction of GHG emissions per unit of useful energy relative to the lifecycle GHG emissions from the aggregate use of the operation of a new combined cycle natural gas electric generating facility using the most efficient commercially available technology as of the date of the statement of qualification application for the portion of electricity delivered by the generation unit.

¹⁸ New Jersey Governor Murphy, Executive Order 28 (signed May 23, 2018), <https://nj.gov/infobank/eo/056murphy/pdf/EO-28.pdf>.

¹⁹ State of New Jersey, 2019 Energy Master Plan, <https://nj.gov/emp/energy/>.

²⁰ State of New York Office of the Governor, “Governor Cuomo Announces Green New Deal Included in 2019 Executive Budget,” (January 17, 2019), <https://www.governor.ny.gov/news/governor-cuomo-announces-green-new-deal-included-2019-executive-budget>.

²¹ State of Wisconsin Office of the Governor, “Executive Budget 2019 – 2021,” (February 2019), <https://doa.wi.gov/budget/SBO/2019-21%20Executive%20Budget%20Complete%20Document.pdf>.

²² State of Minnesota Office of the Governor, “Walz, Flanagan Propose Plan to Achieve 100 Percent Clean Energy in Minnesota by 2050,” (March 4, 2019), <https://mn.gov/governor/news/#/detail/appId/1/id/374280>.

²³ State of Colorado Office of the Governor, “Governor Polis releases roadmap to 100 percent renewable energy and bold climate action” (May 30, 2019), <https://drive.google.com/file/d/0B7w3bkFgg92dMkpxY3VsNk5nVGZGOHJGRUV5VnJwQ1U4VWtF/view>.

provisions for existing eligible nuclear facilities.²⁴ New Jersey also established a ZEC program for eligible nuclear facilities in November 2018.²⁵

Clean Peak Standards

Some states are taking a more targeted approach to increasing renewables and energy storage deployment during periods of peak demand through Clean Peak Standards (CPSs). These programs can target emissions associated with peak demand periods and specifically value zero-carbon energy on the grid during defined peak hours. Below are brief summaries of states' engagement regarding the policy; a recent MJB&A Issue Brief provides additional detail.²⁶

In January 2018, as part of a broad Arizona Energy Modernization Plan, Arizona Corporation Commissioner Tobin proposed a CPS “to ensure that Arizona continues to expand its use of clean energy resources, while also considering the overall impact that deployment of various resources will have on the grid’s most expensive critical peak hours.”²⁷ Commissioner Tobin proposed draft CPS regulations in July 2018,²⁸ and the Corporation Commission is currently reviewing the proposed CPS and other aspects of the Energy Modernization Plan.²⁹

As a part of the 2018 *Act to Advance Clean Energy*, the Massachusetts Department of Energy Resources (DOER) is in the process of developing regulations to implement a Clean Peak Standard starting in early 2020. In January 2019, DOER solicited stakeholder feedback on questions focused on the definition of eligible resources, the value of clean peak certificates, and the methodology by which DOER should establish the seasonal peak window.³⁰ Based on the initial stakeholder feedback, DOER published a draft straw proposal in April 2019, which starts to outline some of the program details.³¹ The straw proposal would allow new RPS resources and battery storage resources to be eligible for Clean Peak Certificates if they generate, dispatch or discharge energy to the electric grid during the proposed four seasonal four-hour peaking windows. DOER is working to release proposed regulations for comment by mid-2019.

New York has taken a broader approach to encouraging clean energy and storage deployment during times of peak energy use. In December 2018, the New York Public Service Commission (PSC) issued an energy storage deployment roadmap that details a number of recommendations to help facilitate a shift toward meeting peak demands with clean energy.³² Among the recommendations, the PSC recommended that the state “develop approaches to [carbon dioxide] reduction compensation that varies with time.” The PSC order also established an

²⁴ State of New York Public Service Commission, “Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard,” (August 1, 2016), <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7b44C5D5B8-14C3-4F32-8399-F5487D6D8FE8%7d>.

²⁵ State of New Jersey Board of Public Utilities, “NJBPU Approves Zero Emission Credit Program and Application Process for Nuclear Power Plants,” (November 19, 2018), <https://www.bpu.state.nj.us/bpu/newsroom/2018/approved/20181119.html>.

²⁶ MJB&A, Clean Peak Standards (October 2018), <https://mjbradley.com/reports/virginia%E2%80%99s-proposed-cap-and-trade-program>.

²⁷ Arizona Corporation Commission, “Arizona’s Energy Modernization Plan,” (January 30, 2018), <https://www.azcc.gov/commissioners/atobin/letters/energyplan.asp>.

²⁸ Arizona Corporation Commission, “Regarding Docket No. E-00000Q-16-0289; Review, Modernization and Expansion of the Arizona Energy Standards and Tariff Rules and Associated Rules,” (July 5, 2018), <http://images.edocket.azcc.gov/docketpdf/0000189786.pdf>.

²⁹ Arizona Corporation Commission, “Docket No. RU-00000A-18-0284,” <https://edocket.azcc.gov/Docket/DocketDetailSearch?docketId=21658#docket-detail-container2>.

³⁰ Massachusetts DOER, Clean Peak Standard Stakeholder Questions (January 17, 2019), <https://www.mass.gov/files/documents/2019/01/17/Clean%20Peak%20Standard%20Stakeholder%20Questions%201.17.19.pdf>.

³¹ Massachusetts DOER, Clean Peak Standard Straw Proposal Presentation, (April 2, 2019), <https://www.mass.gov/files/documents/2019/04/02/Clean%20Peak%20Straw%20Proposal%20203.29.19%20.pdf>.

³² New York PSC, Order Establishing Energy Storage Goal and Deployment Policy, Docket No. 18-00516 (December 13, 2019), <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={FDE2C318-277F-4701-B7D6-C70FCE0C6266}>.

energy storage goal of 3,000 MW by 2030. In addition, in February 2019, Governor Cuomo proposed new NO_x emissions limits for simple cycle and regenerative combustion turbines during the ozone season.³³ The regulations would phase in lower NO_x thresholds between 2023 to 2025 for gas-fired peaker plants. Comments on the proposed regulations are due May 20, 2019.

State Carbon Pricing and Other Policies

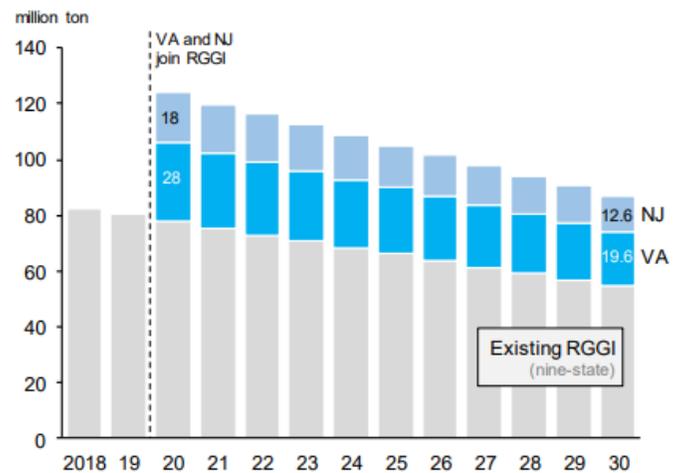
In addition to the programs targeting increasing specific generating resources, a number of states are also pursuing market-based carbon pricing schemes to internalize the externality of carbon emissions.

As detailed in prior MJB&A Issue Briefs, Virginia and New Jersey have undertaken a process to implement a carbon cap-and-trade program that would link with the Regional Greenhouse Gas Initiative (RGGI), the electric power cap-and-trade program currently in place in the nine northeastern states.³⁴ As illustrated in Figure 1, if Virginia and New Jersey were to participate in RGGI, this would significantly increase in the size of the RGGI carbon budgets—with the addition of these two states, the RGGI CO₂ cap would increase by over 50 percent.

Both states have proposed a carbon budget reduction trajectory that reflects a compound annual reduction rate of -3.5 percent through 2030, to be consistent with the current RGGI budgets, and the initial level of the state budget has been a central issue. An additional key issue for stakeholders is how the state will distribute the allowances (either through a consignment auction as in Virginia or auction) and how the state and regulated utilizes will direct the revenue.

In December 2018, New Jersey released for public comment a proposed regulation to join RGGI with an initial carbon cap of 18 million tons.³⁵ Virginia proposed an initial budget of 33 million or 44 million tons, in April 2019, but the final regulation established an initial carbon cap of 28 million tons.³⁶

Figure 1: Existing and Proposed RGGI Budgets



However, in Virginia’s biennial budget bill, H.B. 1700, the Virginia General Assembly included a provision that would prohibit the use of any state funds “to support membership or participation in [RGGI].” A separate provision in the bill requires that any revenue generated through any regional climate change compact, such as RGGI, be deposited in the general fund for appropriation by the General Assembly.³⁷ On May 2, 2019, Governor Northam signed the budget legislation without using a line-item veto to reject these provisions. In a letter detailing his actions on the state budget, Governor Northam stated, “[w]hile the General Assembly has restricted the Commonwealth from participating in RGGI, I am directing the Department of Environmental Quality to identify ways to implement

³³ New York Department of Environmental Conservation, “Proposed Part 227-3, Ozone Season Oxides of Nitrogen (NO_x) Emission Limits for Simple Cycle and Regenerative Combustion Turbines,” <http://www.dec.ny.gov/regulations/116131.html>.

³⁴ See, e.g., MJB&A, Virginia’s Proposed Cap-and-Trade Program (November 27, 2017) <https://mjbradley.com/reports/virginia%E2%80%99s-proposed-cap-and-trade-program>; MJB&A, Potential Impacts of New Jersey Rejoining RGGI (January 19, 2018), <https://mjbradley.com/reports/potential-impacts-new-jersey-rejoining-rggi>.

³⁵ New Jersey Department of Environmental Protection, Proposed CO₂ Budget Trading Program, December 17, 2018, https://www.state.nj.us/dep/aqes/docs/rggi_co2_trading_proposal_with_disclaimer.pdf.

³⁶ Virginia Department of Environmental Quality, CO₂ Budget Trading Program General Provisions (effective June 26, 2019), <http://www.townhall.virginia.gov/L/ViewStage.cfm?stageid=8608>.

³⁷ H.B. 1700, Budget Bill for 2018-2020, <https://lis.virginia.gov/cgi-bin/legp604.exe?191+sum+HB1700>.

the regulation and achieve our pollution reduction goals.”³⁸ Consistent with Governor Northam’s directive, the Virginia Department of Environmental Quality will now explore how to continue to implement the state cap-and-trade program consistent with budget language.

In terms of economy-wide trading programs, Oregon and Washington are working on developing programs that could potentially link with the Western Climate Initiative (WCI) GHG cap-and-trade program currently in place in California and Québec.³⁹ Oregon lawmakers are considering adoption of the program in order to meet the state’s long-term GHG reduction goals, which the state is currently not on track to meet through existing policies. On January 31, 2019, the Joint Interim Committee on Carbon Reduction published HB 2020 for consideration, which would establish a cap-and-trade program from 2021 through 2050 to achieve an 80 percent reduction in GHG emissions below 1990 levels by 2050.⁴⁰ HB 2020 would also allow for linkage with other cap-and-trade programs, such as the neighboring WCI. On May 17, 2019, the Committee approved an amended version of the bill, which is now under consideration by the state legislature. The legislative session ends on June 30, 2019.

Similarly, Washington is also exploring options to link with WCI. On March 6, 2019, Washington senators introduced Senate Bill 5981, which would establish a state-wide cap-and-trade program starting in 2021 through 2035, with the aim of reducing GHG emissions by 40 percent below 1990 levels by 2035 and 80 percent by 2050.⁴¹ The proposed legislation encourages the state to consider linking with other established market-base carbon emissions programs such as the California-Québec cap-and-trade program. The Senate held its first committee hearing on the bill on March 21, 2019.

Although already part of RGGI, the New York ISO (NYISO) is considering a carbon pricing proposal that aims to incorporate a social cost of carbon into wholesale energy markets on a price-per-ton-of-CO₂ basis in order to the help the state meet its decarbonization goals.⁴² NYISO concluded that the carbon price implied by RGGI allowance prices would not, on its own, be sufficient to drive reductions in line with the state’s long-term decarbonization goals. NYISO intends to design the program such that the proposed carbon fee would not change existing energy market structure or supplier offer procedures, and quarterly RGGI allowance prices would be subtracted from the nominal annual gross-social cost of carbon price. NYISO has indicated that the earliest possible implementation of this carbon-adder is late-2021. Currently, NYISO is working to understand the potential macroeconomic and public health impacts of the pricing proposal and the implications on state natural gas and wholesale markets.⁴³

Additionally, New York’s Department of Environmental Conservation recently adopted regulations requiring existing in-state power plants to meet CO₂ emissions limits. By December 31, 2020, the regulations require existing in-state fossil fuel-fired electric generating units to meet a CO₂ emissions standard of 1,800 pounds (lbs) CO₂ per MWh-gross electric output (or 180 lbs CO₂ per million Btu of input), based on a 12-month rolling average basis.⁴⁴

³⁸ Office of Governor Northam, News Release: Governor Northam Announces Final Action and Signature of Budget (May 2, 2019), <https://www.governor.virginia.gov/newsroom/all-releases/2019/may/headline-840390-en.html>.

³⁹ See, e.g., MJB&A, Oregon’s Cap-and-Trade Proposal. (March 7, 2019), https://mjbradley.com/sites/default/files/MJBA_Summary_Oregon-Cap-and-Trade-Proposal.pdf.

⁴⁰ Oregon State Legislature, “Relating to greenhouse gas emissions”, 2019 Regular Session, <https://olis.leg.state.or.us/liz/2019R1/Measures/Overview/HB2020>.

⁴¹ Washington State Senate, “Implementing a Greenhouse Gas Emissions Cap and Trade Program,” 2019-2020 Regular Session (introduced March 6, 2019), <https://legiscan.com/WA/bill/SB5981/2019>.

⁴² See, e.g., MJB&A, NYISO Carbon Pricing Proposal (December 20, 2018), https://mjbradley.com/sites/default/files/MJB%26A_Summary_NYISOCarbonPricingProposal.pdf.

⁴³ Analysis Group, “Carbon Pricing Supplemental Analysis” (March 28, 2019), [https://www.nyiso.com/documents/20142/5740643/Analysis%20Groupf...l](https://www.nyiso.com/documents/20142/5740643/Analysis%20Groupf...).

⁴⁴ New York, Part 251: CO₂ Performance Standards for Major Electric Generating Units (finalized May 9, 2019), <https://www.dec.ny.gov/regulations/113544.html>.

Thus, the regulations require the state's remaining coal-fired power plants to either repower to cleaner sources of energy or to retire by 2020.

Companion Sector Programs

While this MJB&A Issue Brief highlights programs focused more on the electric sector, states are also exploring ways to address emissions from the transportation sector, which became the largest source of GHG emissions in the U.S. in 2016.⁴⁵ To date, nine states have adopted California's Zero-Emissions Vehicles (ZEV) programs, requiring an increasing share of vehicles sold in the state to be ZEVs, such as battery electric vehicles, fuel cell vehicles, and plug-in hybrid EVs.⁴⁶ Colorado may become the tenth state to adopt the California's ZEV program. In May 2019, pursuant to an Executive Order from Colorado Governor Jared Polis, the Colorado AQCC proposed regulatory revisions to adopt specific provisions of California's ZEV program. Governor Polis has directed the Commission to conclude its consideration of adopting a ZEV program by October 30, 2019.⁴⁷

Additionally, the Transportation and Climate Initiative (TCI) recently announced a process to design a regional policy to reduce carbon emissions from the transportation sector.⁴⁸ TCI is a regional collaboration of 12 Northeast and Mid-Atlantic states and the District of Columbia that seeks to improve transportation, develop the clean energy economy, and reduce carbon emissions from the transportation sector. The participating states are taking steps this year to consider a "regional low-carbon transportation policy proposal that would cap and reduce carbon emissions from the combustion of transportation fuels through a cap-and-invest program or other pricing mechanism." TCI is planning a series of meetings in the coming months focusing on key design elements, transportation equity, and low-carbon transportation investments, among other issues. The goal of TCI is to release a straw proposal by the end of the year.

In the absence of a federal program, states can play an important role of driving additional emission reductions through increasing the stringency and breadth of existing programs as well as implementing new program designs. Thus, states will continue to explore opportunities to increase clean energy resources providing electricity to their state through both specific program mandates and market-based programs that price the externality of carbon emissions.

⁴⁵ Center for Climate and Energy Solutions, "Transportation emissions roll over power sector emissions" (June 20, 2016), <https://www.c2es.org/2016/06/transportation-emissions-roll-over-power-sector-emissions/>.

⁴⁶ The states are: Connecticut, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Rhode Island, and Vermont. While the Trump Administration has proposed to revoke California's (and Section 177 states') ability to adopt these ZEV standards starting with model year 2021, numerous steps remain for EPA to finalize such a decision and any decision is expected to be litigated by states and other stakeholders.

⁴⁷ State of Colorado Office of Governor, "Executive Order Supporting a Transition to Zero Emissions Vehicles" (January 17, 2019), https://www.colorado.gov/governor/sites/default/files/inline-files/b_2019-002_supporting_a_transition_to_zero_emissions_vehicles.pdf.

⁴⁸ The participating states include Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Virginia. Transportation & Climate Initiative, "Nine States and D.C. to Design Regional Approach to Cap Greenhouse Gas Pollution from Transportation" (December 18, 2018), https://www.georgetownclimate.org/files/Final_TCI-statement_20181218_formatted.pdf.

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About Us

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