Joint Stakeholder Comments on the 2016 RGGI Program Review
December 4th, 2015

Our organizations welcome the opportunity to submit initial comments on program design concepts for the Regional Greenhouse Gas Initiative (RGGI), and we look forward to continuing engagement as the RGGI states consider how to continue their leadership going forward.

During almost seven years of operation, RGGI has helped Northeast and Mid-Atlantic States achieve significant reductions in emissions of carbon dioxide (CO₂) and other dangerous pollutants from the electric power sector while generating significant economic benefits in the region. As states prepare to meet the Environmental Protection Agency’s (EPA) forthcoming Clean Power Plan (CPP) requirements, RGGI offers a proven, cost-effective pathway to achieve emissions reduction targets.

The 2016 Program Review should address important issues relating to CPP compliance, but it should also be approached as an opportunity for the RGGI states to meet their own greenhouse gas (GHG) reduction goals and make progress toward deep, economy-wide reductions in carbon pollution. We applaud the RGGI states for individually establishing 2030 and 2050 GHG targets in order to avoid the worst impacts of climate change, and we urge states to use RGGI as a core policy to achieve economy-wide reductions. We are encouraged by announcements that a number of RGGI states will pursue market-based policies to reduce emissions in the transportation sector, but the electric sector will likely be the lowest cost pathway to achieving the necessary emissions reductions.¹

1) EPA CPP: State Plan Approaches
The RGGI states are seeking stakeholder comments and feedback on using the CPP mass goals and comment on the potential advantages of different state plan pathways.

Since its inception, RGGI has helped reduce CO₂ emissions in the power sector by 35 percent,² while saving consumers hundreds of millions of dollars in energy costs, creating more than 30,000 job-years of employment, and producing billions of dollars in net economic growth across its participating states.³ As the RGGI states move forward and develop their State Plans

² Based on analysis of RGGI COATS Data, https://www.rggi.org/market/tracking/public-reporting
under the CPP, we strongly encourage the states to build upon the successful RGGI program by adopting a mass-based emission standards approach, consistent with the current mass-based RGGI program, and continuing to cover both new and existing sources under the RGGI cap. As described below in our comments on item #2, in continuing RGGI beyond 2020, we further encourage the states to commit to continued CO₂ emission reductions. RGGI’s 2030 emission cap for existing and new sources should be consistent with achieving the states’ 2030 and 2050 economy-wide greenhouse gas emission targets and should go beyond EPA’s mass-based goals (with new source complement).

Build on RGGI’s successful, mass-based approach
We strongly support the RGGI states’ indication that they anticipate using a mass-based emission standards approach covering new and existing sources to comply with the CPP. RGGI has shown that a mass-based CO₂ emission cap that declines over time is an effective, flexible, and efficient approach to reduce CO₂ emissions while protecting consumers and growing the economy. Combined with the RGGI states’ wise decisions to auction the vast majority of carbon allowances and invest the revenues in energy efficiency, renewable energy, and other consumer benefit programs, RGGI’s mass-based approach has been a net economic and environmental benefit to the region. Moving forward, the RGGI states should build upon their successful, proven approach to reducing CO₂ emissions in the power sector by using a mass-based emission standards approach to meet and exceed the CPP’s CO₂ emission reduction goals.

Continue to cover both new and existing sources
We also strongly support the RGGI states’ indication that they anticipate continuing to cover both new and existing sources under RGGI’s emission cap. Both new and existing fossil fuel-fired power plants emit CO₂ pollution that contributes to climate change. In establishing RGGI, the states sensibly decided to require both new and existing sources to hold allowances equal to their emissions. Treating new and existing sources equally ensures that RGGI’s cap leads to a net reduction in emissions from generators in the region, consistent with the states’ climate goals. In contrast, an existing source-only cap would likely shift generation from existing sources to new ones not subject to mass-based restrictions, creating emission leakage and distorting the carbon price signal in the electricity market. RGGI’s current design avoids this problem by covering both new and existing sources, and the states should continue to cover both new and existing sources under their cap moving forward. As discussed further below under item #6, we also urge the states not to link the RGGI market with any state or region that fails to cover both new and existing sources under its mass-based cap, as linking with such markets would create the same leakage problems to new sources outside of the region that RGGI has worked to avoid internally.

available at:
http://www.analysisgroup.com/uploadedfiles/content/insights/publishing/economic_impact_rggi_report.pdf
2) CO2 Emissions Reductions

The RGGI states are seeking stakeholder comments on the RGGI states emission goals post-2020 and pursuing additional emission reductions post-2020.

Commenters are deeply appreciative of the leadership that the RGGI states have shown over the past decade to combat the threat of climate disruption through the RGGI program. EPA’s final Clean Power Plan—many elements of which track the structure developed by the RGGI states—is a powerful testament to this leadership. At the same time, through their own internal and collective planning processes, all of the RGGI states have identified 2030, and in all but one instance 2050, climate goals that call for transformative change in both the electric sector and other sectors of the economy. Achieving this transformative change will necessitate a continuing decline in electric sector emissions from the RGGI states between 2020 and 2030. Given the RGGI program’s track record of success in capping and reducing electric sector emissions, Commenters believe that adjusting the RGGI cap is the best and most appropriate way to lock in region-wide 2030 electric sector emission levels consistent with states’ 2030 and 2050 climate goals.

To date, all of the states in the RGGI region have adopted or taken steps to adopt 2030 climate targets that will put states on a trajectory to meet their stringent and scientifically-informed 2050 climate goals. A table with each state’s 2030 and 2050 targets, together with the relevant sources of authority, is provided as Attachment A. State efforts to meaningfully and rapidly combat the threat of climate disruption are increasingly critical in light of the ever growing and strengthening body of climate science. RGGI states have already experienced first-hand the devastating effects of superstorms, which are expected to increase in both frequency and intensity in coming years as climate disruption worsens. Natural resources in the region are changing and disappearing. The abundance and location of fisheries is shifting, to the long-term detriment of many local fishing and lobstering communities. The RGGI states have even witnessed a reduction in the sugar content of maple sap, threatening the region’s iconic maple sugaring industry.

To achieve RGGI states’ 2030 and 2050 climate goals and to continue RGGI states’ climate leadership, commenters urge the RGGI states to establish a declining cap trajectory between 2020 and 2030 that is consistent with least-cost compliance with state climate goals. Commenters look forward to continuing to engage with the RGGI states about how best to translate states’ 2030 climate goals into an appropriately calibrated electric sector emission cap. One point, however, is clear. At least through 2030 the electric sector will need to continue to account for the bulk of the overall emission reductions. While reducing emissions from the transportation sector is a critical piece of reaching states’ long-term climate goals, progress in the transportation sector is incremental, tracking in large part turnover of the vehicle fleet and necessitating significant penetration of low and zero-emitting vehicles. Commenters applaud the recent announcement by a number of the RGGI states to investigate a transportation pricing policy aimed at achieving reductions of 32 to 40 percent by 2030 in the
transportation sector and also generating proceeds to fund the transportation investments.\textsuperscript{4} This represents a laudable and important step toward reducing transportation sector emissions. However, even with these emission reductions, steep additional cuts will still be required in the electric sector. As Clarke \textit{et al.} (2014) concluded based on nine top energy-environment-economy models that looked at reducing economy-wide domestic greenhouse gas emissions by 50\% and 80\% by 2050, achieving a 50\% reduction in economy-wide greenhouse gas emissions necessitates a 75\% reduction in emissions from the electric sector.\textsuperscript{5} Given that low-cost, zero emission power generation alternatives are available today, RGGI states are well positioned to achieve similar levels of electric sector emission reductions over the next fifteen years.

Commenters urge the RGGI states to model a number of scenarios consistent with achieving or exceeding state 2030 and 2050 climate goals:

- Model a region-wide electric sector emission cap that declines, beginning in 2021, by a fixed annual quantity of allowances equivalent to 2.5\% of 2012 emissions. Such a cap would achieve an 89\% reduction in CO\textsubscript{2} emissions from covered units by 2050.
- Model a region-wide electric sector emissions cap that declines, beginning in 2021, by a fixed annual quantity of allowances equivalent to 5\% of 2012 emissions. Such a cap would achieve a 100\% reduction in CO\textsubscript{2} emissions from covered units by 2038.
- Model a high transportation reduction sensitivity in which the RGGI states achieved emission reductions in the transportation sector consistent with recent announcement by Connecticut, Delaware, New York, Rhode Island, Vermont and the District of Columbia.

\textit{If post-2020 a bank of CO2 allowances remains in circulation, the RGGI states are seeking stakeholder comments on how to address or adjust for that bank into the future.}

We commend the RGGI states for implementing the first two rounds of interim adjustments for banked allowances. These actions will effectively remove a large portion of the allowance surplus that resulted from RGGI’s initial, over-allocated cap. This approach also ensures that those who purchased RGGI allowances during the first two control periods will not be disadvantaged as a result of these market adjustments. We recommend that the RGGI states take a similar approach to adjusting for banked allowances in the future, with one significant change in methodology.

The first and second control period interim adjustments for banked allowances failed to account for new allowances released into circulation from the Cost Containment Reserve (CCR). The adjustments were calculated so that the 2014-2020 CO\textsubscript{2} base budgets would be reduced by


\textsuperscript{5} Leon E. Clarke \textit{et al.}, \textit{Technology and U.S. Emissions Reductions Goals: Results of the EMF 24 Modeling}, \textit{The Energy Journal}, Vol. 1, at 9, 21 (Special Issue 1: The EMF24 Study on U.S. Technology and Climate Policy Strategies) (2014) (noting that “electricity is the least-challenging sector to decarbonize directly so it takes on the largest initial emission reductions.”).
a quantity equal to the number of banked allowances from the first two control periods, in order to eliminate the allowance surplus by the end of 2020. However, the availability of additional allowances from the CCR was not factored into that calculation. If all available CCR allowances are purchased, the adjustments made to the 2014-2020 base budgets would be 65 million tons short of eliminating banked allowances through 2020. The RGGI states should consider conducting an interim adjustment following the third control period, in addition to a post-2020 adjustment, to account for the allowance surplus created by the CCR and emissions levels that continue to fall below base budgets. 

In simple terms, the release of 15 million surplus allowances over the past two years – during which time emissions fell below the cap – threatens to undermine the adjustments RGGI states are making to ensure that the total supply of allowances reflects environmental objectives. As such, additional interim adjustments are required to account for banked CCR allowances.

3) RGGI Flexibility Mechanisms

The RGGI states are seeking stakeholder comments and feedback on how the CCR has worked to date and the current design of the CCR.

In order to preserve RGGI’s environmental integrity the CCR should either be restructured or eliminated. Through its first two years of operation, all 15 million available CCR allowances have been purchased, which effectively raises the RGGI cap and undermines the program’s environmental integrity. If the CCR remains in place as currently structured, up to 65 million additional tons of CO₂ could be allowed in the RGGI states from 2014-2020.

If the RGGI states choose to retain the CCR, it should be modified to draw allowances from beneath the cap, rather than creating new allowances when price thresholds are met. This would ensure that aggregate emissions limits are not exceeded, while preserving a mechanism to mitigate price volatility. This approach is currently being used in California’s emissions trading program where prices have been stable.⁶ Like the RGGI CCR, in California’s program additional allowances become available for purchase when price thresholds are met. Unlike the RGGI CCR, about 4% of CA’s original number of allowances from the capped budget is held back in the allowance price containment reserve. If this reserve of allowances is exhausted, there is limited “borrowing” allowed from the latest program years, and therefore the cumulative supply of allowances – and permissible emissions – is not increased.⁷

The RGGI states are interested in hearing stakeholder comments on whether any of the CCR design elements should be reviewed and how the CCR and RGGI cap should work together when developing a CPP compliance pathway.

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⁷ Explanation of California’s Allowance Price Containment Reserve: http://www.arb.ca.gov/regact/2010/capandtrade10/capv3appg.pdf
Should the RGGI states continue to use a CCR, price thresholds should be increased. The presence of a CCR is justifiable if it serves to mitigate price spikes in times of unexpected and exceptional circumstances. CCR allowances should not be expected to be purchased under normal market conditions, as they have been in 2014 and 2015. By raising the CCR price thresholds, the RGGI states will dissuade market participants from triggering the CCR under business-as-usual circumstances. This is the approach that California has successfully used for setting CCR trigger prices. California’s 2016 reserve allowances first become available at $47.54 per allowance, while the market’s most recent auction settlement price was $12.73. The RGGI states should set price triggers based on a similar ratio, which, based on the most recent RGGI auction clearing price of $7.50, would result in a CCR trigger price of $28.01.

The RGGI states are seeking stakeholder comments and feedback on the RGGI offsets program including potential improvements, additional offset categories, acceptance of offsets allowances not generated from projects located in the RGGI states or listed on offset registries, and the continuation of the offsets program within the bounds of the CPP.

The RGGI states have developed a strong offset program with robust measures that prove real, verifiable, additional, permanent and enforceable emissions reductions. That being said, it is unlikely that offsets will be a viable tool for demonstrating CPP compliance. Therefore, if the RGGI states continue to allow for the use of offsets, the RGGI cap level will have to be lower than the CPP target by a quantity equal to or larger than the maximum allowable usage of offsets under the updated RGGI model rule.

Please provide comments on whether the RGGI control periods should align with the CPP interim step periods. If so, what are your suggestions for aligning with the CPP (e.g. extend the RGGI fourth control period to 2018-2021)?

We support extending RGGI’s fourth control period by one year to 2018-2021 in order to align with the CPP interim step periods.

4) RGGI Regulated Sources

The RGGI states are seeking stakeholder comments on how best to address the fact that the RGGI cap includes emissions from more regulated sources than the CPP for compliance.

The RGGI states should continue to cover emissions from currently regulated sources (i.e., fossil fuel-fired power plants with a capacity of 25 MW or greater) under the region’s cap, and should

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explore expanding RGGI to cover sources outside of the power sector to achieve larger greenhouse gas emission reductions, consistent with the states’ climate goals.

**Continue to cover currently regulated sources**
The CPP covers a slightly narrower range of emission sources than does RGGI, but there is no need to narrow the RGGI program as the states move forward. As noted above, the existing RGGI program has been enormously successful. Including RGGI’s additional sources under the states’ emission cap has not created problems. Furthermore, all of the RGGI states have expressed economy-wide greenhouse gas emission reduction targets. Including a broader set of emission sources within the RGGI program is consistent with meeting these targets. Narrowing RGGI’s scope would not be. Accordingly, we urge the states to include all currently regulated sources under RGGI’s post-2020 emission cap. If the states set the cap at a level consistent with meeting their 2030 and 2050 economy-wide greenhouse gas emission reduction targets, then including the additional RGGI regulated sources under the region’s cap should not affect the ability of the states to demonstrate compliance with the CPP’s mass-based goals.

**Explore expanding RGGI to include other sectors**
Achieving the states’ 2030 and 2050 climate targets will require further CO₂ emission reductions in the power sector as well as increased efforts in other sectors. Recently, five RGGI states (Connecticut, Delaware, New York, Rhode Island, and Vermont) and the District of Columbia announced that they will work to develop market-based policies to reduce greenhouse gas emissions from transportation. The transportation sector accounts for roughly 35% of CO₂ emissions in the Northeast and Mid-Atlantic region, and developing policies to address these emissions would further cement the RGGI states’ leadership on climate change.

Consistent with the recent announcement, we encourage the RGGI states to explore the possibility of expanding RGGI to include the transportation sector and potentially other sectors as part of the Program Review. This analysis should consider the cap level needed to achieve emission reductions from multiple sectors consistent with the states’ economy-wide emission reduction targets and the potential market benefits of expanding the universe of covered sources and emission reduction opportunities.

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We urge the states to undertake this analysis while remaining on track to submit their State Plans and demonstrate how they will comply with the CPP’s mass-based power sector emission reduction goals by September 2016. To be clear, we recognize this exploration of covering additional sectors may require more time to conduct than the September 2016 submission date to EPA would afford, and do not suggest the states delay timely action on submitting a strong RGGI platform for purposes of CPP compliance. Rather, the current Program Review presents a good opportunity to begin to dig in to those non-power sector issues.

5) EPA CPP: Promoting Renewable Energy and Energy Efficiency

Given the fact that the RGGI states auction most of the CO2 allowances, the RGGI states are seeking stakeholder comments on whether the RGGI states should participate in the CEIP program.

Commenters support the goals of EPA’s Clean Energy Incentive Program (CEIP) and seek to further these goals, both within the RGGI region and beyond. The CEIP appropriately incentivizes states to take early action to foster development of wind and solar generation and investment in low-income energy efficiency. Both renewable energy and low-income energy efficiency investments will promote reductions in GHG emissions while the latter will also help to ensure that the benefits of combating climate change are equitably distributed.

The CEIP incentivizes investments in renewable energy and low-income energy efficiency that will generate, or in the case of energy efficiency eliminate the need to generate, MWh during the years 2020 and 2021. For states outside of the RGGI region, which lack an existing price on electric sector carbon, the CEIP creates a useful signal – establishing an economic incentive to guide investment toward low-carbon renewable and efficiency resources. For RGGI states the existence of a region-wide emission cap in 2020 creates a price signal that incents investments in low-carbon renewables and energy efficiency. At the same time, RGGI also encourages participating states to direct the revenues generated from its price on electric sector carbon back into clean energy, including energy efficiency investments, thereby furthering the goals EPA was attempting to promote through the CEIP.

Given current RGGI structure, RGGI states should not be dependent on the CEIP to continue supporting renewable energy and low-income energy efficiency. If RGGI states do choose to participate in the CEIP, they must ensure that RGGI’s environmental performance is not undermined by federal emission allowances granted for MWh generated by wind and solar projects in 2020 and 2021 and for MWh saved by low-income energy efficiency investments during those years. If RGGI states participate in the CEIP and add these federal allowances to the RGGI cap, this could have the effect of increasing regional GHG emissions and undermining the stringency of the RGGI cap. If, by contrast, EPA is willing to allow the RGGI states to participate in the CEIP with the express intention of allowing the federal allowances to expire and be retired, see 80 Fed. Reg. 64,830 (“[u]nused matching allowances . . . that remain in the accounts of states participating in the CEIP on January 1, 2023, will be retired by the EPA”), participating in the CEIP by RGGI states could produce a net positive climate benefit. Because
EPA has created a finite pool of matching allowances, accumulation and retirement of allowances will ensure that they are never used and has the potential to reduce overall emissions while still enabling RGGI states to obtain the renewable energy and low-income energy efficiency benefits of participation in the CEIP.

Ultimately, what is most important to the commenters is that RGGI states continue to take steps to achieve the goals of the CEIP. The RGGI states should continue to use RGGI allowance proceeds to pursue a wide range of complementary policies, such as efficiency programs and renewable electricity standards, to accelerate clean energy development. And the RGGI states should ensure that ample allowance proceeds are directed to low-income energy efficiency programs to promote equity within RGGI. To this end, it would be valuable for RGGI states to report on current and projected spending on low-income energy efficiency and renewable energy to create transparency and ensure that the goals of the CEIP are being achieved in the RGGI region. Given that electric generation disproportionately impacts environmental justice communities, we would further advocate for the study of how best to direct explicit benefits of the CEIP to low-income communities of color in the RGGI region, and, if the RGGI states choose not to participate in the CEIP, they should ensure that these benefits, at minimum, will still be provided for low-income communities.

**Voluntary renewable energy set asides**

Eight of the nine RGGI states have established voluntary renewables set asides (VRSA), which ensure the integrity of voluntary purchases of renewable energy credits through the retirement of a corresponding amount of RGGI allowances. The VRSA mechanism preserves the additional nature of the voluntary renewables market, and provides a solution for consideration in the context of recent CPP discussions regarding the best treatment of renewables attribute purchases from a region with a mass-based emissions cap. We furthermore urge Delaware, the only RGGI state with a voluntary renewables market but without a VRSA, to join the other eight RGGI states in adopting a VRSA.

**6) Broadening the RGGI Market /Increasing RGGI Trading Partners**

The RGGI states are seeking stakeholder comments and suggestions on the possibility of increasing the size of the current RGGI market/RGGI participating states. The RGGI states are seeking comments on possible advantages and how the RGGI states could best pursue this option.

The RGGI states have demonstrated that multi-state trading offers distinct advantages over single-state approaches to reducing carbon emissions from the power sector. Larger emissions markets create more flexibility, expand opportunities for cost-effective emissions reductions, and raise greater quantities of revenue for reinvestment in consumer and clean energy programs. Uniform market rules also facilitate efficient planning and investment decisions. As

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a result of RGGI’s strong track record and leadership, dozens of states are now considering establishing RGGI-like programs in order to meet the requirements of the CPP.

The creation of these programs presents an opportunity to follow through on RGGI’s goal of creating a model national program for other states to emulate or adopt. As RGGI states go beyond disseminating best practices to consider trading with other states and regions, standards should be established to ensure consistent program design, avoid market distortions, and preserve RGGI’s high standards of environmental performance.

In order to build on RGGI’s sound design precedents and ongoing improvements, and to promote best outcomes from trading with these new markets, the RGGI states should establish the criteria that trading partners meet. Key areas of focus for these criteria are laid out below, and we look forward to elaborating on these criteria as the Program Review progresses and programs in other states take shape.

**Cover both existing and new sources**
In order to avoid emissions leakage to new power plants, we recommend that the RGGI states limit trading to programs that cover both existing and new sources. By covering existing and new sources, the RGGI model accurately and fairly accounts for total emissions from the power sector. Covering emissions from existing sources without covering new units would send inconsistent signals to market participants, creating a bias towards new sources of generation. While states that wish to cover only existing sources are required by EPA to establish provisions to avoid leakage from existing to new sources, the simplest and fairest solution would be for states to require that both existing and new sources are subject to the same standards and price signals.

*This inclusion of new sources should be an explicit precondition for any state that wishes to trade with RGGI.*

**Ensure that polluters pay for allowances**
In order to avoid market distortions, RGGI states should endeavor to pursue trading with programs that auction allowances. If RGGI were to trade with a state that distributes allowances to generators for free (i.e. historical allocation or some other such approach), entities in the new market receiving those free allowances would have a competitive advantage over RGGI region generators.

**Direct allowance value to consumer benefit programs**
RGGI’s best practice of using allowance value for consumer benefit should be promoted through discussions related to linkage. RGGI states are investing the majority of auction revenue (59% during the second control period, 2012-2014) in energy efficiency programs that reduce consumers’ bills and reduce demand for power. Lower power demand means fewer emissions from power plants, and less money leaving the region to pay for imported fossil fuels. Consumers’ energy bill savings are spent in part within the local economy, benefiting businesses that offer goods and services in the region. Independent macroeconomic analysis
found that programs supported with revenue raised over RGGI’s first six years of operation would generate over $1.73 billion in energy bill savings. These savings create over $2.76 billion in net economic gains and 28,500 job-years of employment.

For example, prospective trading partners should be encouraged to dedicate a minimum percentage of allowance value to consumer benefit, similar to the 25% requirement for consumer benefit that RGGI states have far exceeded in practice.

**Support emissions reductions**
The achievements of RGGI states in reducing emissions and raising significant revenue to invest in consumer programs are substantial and should be built on in discussions related to linkage.

In addition to the market design and consumer protection provisions described above, RGGI states should pursue linkage in the interest of delivering emissions reductions that exceed minimum CPP requirements. All states – including RGGI states – will need to exceed minimum requirements of the CPP in order to address and mitigate the impacts of climate change. As such, RGGI states should pursue cap levels and other reforms described in these comments to exceed minimum CPP requirements, and should pursue linkage with programs that adopt comparable stringency.

In practical terms, RGGI states should evaluate on a case-by-case basis the potential effects of linking with other states on environmental performance both in RGGI and outside of it, once reforms to RGGI are determined through the 2016 Program Review.

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15 These figures are based on the combined findings from two separate reports from the Analysis Group, the first of which covered impacts from 2009 through the first half of 2011 (New Jersey impacts have been excluded from this analysis), the second report covering 2012-2014. As a result, the combined benefits included above only account for five and a half years of revenue reinvestment, rather than the full six years from 2009-2014.
Signatories:
Acadia Center
Adirondack Council
Alternatives for Community and Environment
American Lung Association of the Northeast
Appalachian Mountain Club
Chesapeake Physicians for Social Responsibility
Clean Water Action of Massachusetts
Community Labor United
Conservation Law Foundation
Environment America
Environment Connecticut
Environment Maine
Environment Maryland
Environment Massachusetts
Environment New Hampshire
Environment New York
Environment Rhode Island
Environmental Advocates of New York
Environmental Entrepreneurs
Environmental League of Massachusetts
Natural Resources Council of Maine
Natural Resources Defense Council
RENEW Northeast
Sierra Club
The Nature Conservancy
Union of Concerned Scientists
## Regional Greenhouse Gas Initiative State 2030 and 2050 Economy-wide Climate Goals

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<sup>a</sup> = “Long term” target; date not specified<br><sup>b</sup> = “Energy Sector” only – excludes agriculture