New York State Senate Democratic Policy Group



Report: A Legislative Climate Action Plan for New York State

Senator Daniel Squadron, Chair

Senators George Latimer, Velmanette Montgomery, and José M. Serrano, Policy Group Members

June 1, 2016

Senator Andrea Stewart-Cousins, Democratic Conference Leader

Senator Michael Gianaris, Deputy Democratic Conference Leader In October 2015, Democratic Conference Leader Andrea Stewart-Cousins launched the Democratic Policy Group to develop policy initiatives to better serve all New Yorkers. The group, chaired by Senator Daniel Squadron, with Senators George Latimer, Velmanette Montgomery and José M. Serrano, is working with the entire Democratic Conference to focus on affordability across the state, job creation, meaningful tax and mandate reform, and closing the upstate/downstate economic divide.

This report focuses on **climate change and a legislative climate action plan** and grows out of a Climate Action Forum hosted by the Policy Group in cooperation with Environmental Conservation Committee Ranking Member Senator Brad Hoylman and the entire Democratic Conference. Accepted scientific research shows that climate change is real and is caused by human activity. Human-induced climate change is a massive challenge facing New York State and the rest of the world, with New Yorkers already feeling the impacts through increased extreme weather, heightened flood risks – including in coastal, mountainous, and agricultural communities – and worsening health risks, especially for vulnerable communities like children, the elderly, and those with asthma. But, combating climate change also presents an opportunity for New York to exercise leadership in the green economy and create thousands of jobs for New Yorkers.

New York has begun work in multiple areas of climate change prevention and mitigation, and the Democratic Conference has long fought to combat climate change, protect our communities, and grow jobs in the green economy. As demonstrated at the climate action forum, however, there is more New York State can do to address the serious and imminent climate change threat. Strengthening New York's approach to climate change through a legislative climate action plan will drive New York's leadership and commitments to fight climate change, increase investment in the green economy, and lead to jobs, health improvements, and savings for New York State.

## The Climate Change Threat

Climate change, which can refer to any significant, long-term change in typical weather patterns,<sup>1</sup> has recently come to refer to now-ongoing significant climate changes associated with the release of greenhouse gases into our atmosphere.<sup>2</sup> As of 2015, 14 of the 15 hottest years on record had occurred since 2000.<sup>3</sup> The most recent climate change report from the Intergovernmental Panel on Climate Change (IPCC) – a global benchmark in climate change research – noted that warming of the global climate system is "unequivocal,"<sup>4</sup> and IPCC reviews of existing scientific research in 2007 and again in 2013 concluded that our climate is changing due to human action.<sup>5</sup> This human-induced climate change is a defining economic, health, and moral issue of our time.

As said at the forum, New Yorkers all over the state are already experiencing the impacts and threats of climate change. Recent research has highlighted the particular risks climate change poses in the Northeast including through extreme weather events, and increased precipitation, temperatures and flood risk that pose particular threats to New York State, including coastal communities and mountainous regions where flooding threatens communities and agriculture in valleys.<sup>6</sup> Recent increases in extreme weather events, such as the devastation of Hurricanes Irene and Lee and Superstorm Sandy, historic snowfalls and even tornadoes, have made personal the threat that climate change can pose to our everyday life in New York.<sup>7</sup>

Experts at the forum pointed out that climate change is also a public health issue, as higher temperatures increase the likelihood and impact of the spread of insect-borne disease, worsen the symptoms of those with asthma, and have other immediate health impacts especially on vulnerable populations.<sup>8</sup> Panelists at the forum explained how temperature increases allow mosquitoes that carry the Zika virus to live in more Northern areas beyond its traditional habitat,<sup>9</sup> and noted that diseases like Dengue fever, that used to be found only in more southern nations, are now found in Florida.<sup>10</sup> In addition, air pollutants from the fossil-fuel combustion that contributes to climate change also pose a significant threat to human health, especially for children, the elderly, and those living in communities where such pollutants are released.<sup>11</sup>

As noted by panelists, scientists have estimated that to avoid the worst effects of climate change, worldwide greenhouse gas emissions will need to be reduced by as much as 80 percent.<sup>12</sup> Some recent studies have indicated an even greater and sooner potential for even more massive impact on our human life on earth, with the authors of these studies suggesting that some of the most severe impacts of climate change, including extreme sea level rises impacting coastal cities, could be triggered within the next fifty years.<sup>13</sup>

## Addressing Climate Change Produces Jobs and Savings for New Yorkers

The massive changes occurring in the atmosphere are alarming. Combating climate change is an imperative that also has the potential to create thousands of jobs for New Yorkers, improve public health and quality of life, and generate savings for the state and consumers.

The forum highlighted an important fact: Steps that can be taken to combat climate change – including decreasing greenhouse gas emissions, increasing use of renewable energy, and improving energy efficiency – create jobs and economic growth in the "green economy" and produce savings and financial returns for families and the state. 2016 research cited at the forum found over 85,000 New Yorkers are already employed in the clean energy sector across every county in the state, including as scientists and researchers, factory and construction workers, engineers, and office and support staff,<sup>14</sup> and given the forward-looking nature of the green economy, these jobs are ripe as long-term career opportunities for New Yorkers. A stronger climate action plan in New York State, including renewable energy and greenhouse gas reduction goals codified in statute would increase these numbers. Recent research has predicted over 1 million jobs worldwide (and 470,000 in the United States) in the renewable energy sector alone would be created if nations across the globe made good on certain climate commitments.<sup>15</sup> Nationwide, state renewable energy standards alone in 2013 supported over 200,000 renewable

energy jobs, saved consumers over \$2 billion in reduced electricity and gas prices, and produced over \$7 billion in benefits from reduced emissions and air pollution.<sup>16</sup>

Combating climate change also saves money for the state and consumers. For example, investments of \$1 in clean energy have been shown to generate savings and financial returns of between \$3 and \$4.<sup>17</sup>

## A Legislative Climate Action Plan for New York State

Expert remarks at the forum highlighted that many of New York's existing climate action commitments and programs have been accomplished through regulatory or executive actions, such as executive orders, which could be weakened or even rescinded under future administrations.<sup>18</sup> For example, New York committed to reduce emissions 80% below 1990 levels by 2050 in 2009's Executive Order  $24^{19}$  and more recently by signing the "Under 2 MOU" – an executive agreement between several U.S. states and international jurisdictions to prevent global temperatures from rising more than  $2^{\circ} C^{20}$  – but has not committed legislatively to these goals or the associated planning needed to achieve them. The 2009 Executive Order established a Climate Action Council tasked with issuing a Climate Action Plan for the state.<sup>21</sup> That Council released an interim report in 2010,<sup>22</sup> but never released a final Climate Action Plan. The New York State Energy Plan<sup>23</sup> includes additional commitments that have not been enacted legislatively, including to reduce greenhouse gas emissions 40% below 1990 levels by 2030 and obtain 50% of New York's electricity from renewable sources by 2030.

The status of climate commitments in New York was contrasted at the forum with examples in Massachusetts and California, which each passed climate action plans legislatively – Massachusetts in 2008 and California in 2006.<sup>24</sup> Panelists credited that work as setting up those states for the clean energy industry leadership they are now showing: As an example, Massachusetts now has a comparable number of energy efficiency workers as New York despite having only one-third its population,<sup>25</sup> and Massachusetts and California occupy the top two spots in a nationwide state energy efficiency ranking.<sup>26</sup> Other states including Connecticut,<sup>27</sup> Rhode Island,<sup>28</sup> and Maryland<sup>29</sup> have also established legislative climate action plans including greenhouse gas reduction targets and associated planning. Experts agreed that establishing New York's current and future climate targets and associated planning in statute – including consideration of environmental justice goals and concerns – would ensure the long-term state commitment and processes necessary to combat climate change at the state level.

Reduction of energy use and emissions by state agencies and public universities is another example where executive commitments could be strengthened through legislation: Executive Order 88<sup>30</sup> and the BuildSmart initiative, which has reported a \$40 million reduction in energy bills across state buildings,<sup>31</sup> represent executive commitments to reduce energy use and increase use of renewables at state facilities. Executive Order 4 has established an ongoing state green procurement and agency sustainability program,<sup>32</sup> and a recent pilot aims to expand agency use of zero emission vehicles.<sup>33</sup> Establishing these and other green practices for state agencies in statute would strengthen this important set of tools and commitments, that lead to prevailing wage jobs and further the state's commitment to the green economy. On the university side, some state campuses have made commitments to achieve net-zero greenhouse gas emissions, including City College in the CUNY system (by 2050)<sup>34</sup> and the University at Buffalo in the SUNY system (by 2030),<sup>35</sup> but many campuses have not made such commitments or are working more slowly. The University of California has committed to achieving climate neutrality system-wide by 2025.<sup>36</sup> With assistance from New York State, all SUNY campuses and CUNY could be supported to establish goals of climate neutrality by 2040.

The panelists also agreed that New York needs to start moving more urgently to address the impacts of climate change, and pointed to two areas where state commitments could be increased to help the state address climate change threats more quickly and further expand jobs and growth in the clean energy sector. First, discussion at the forum highlighted that one of New York's central climate commitments – to reduce greenhouse gas emissions 80% below 1990 levels by 2050 – has been on the books since the 2009 Executive Order but has not been fully implemented. Increasing New York's commitment to achieving a 100% reduction in human-caused greenhouse gas emissions below 1990 levels by 2050 and setting this commitment into law would help New York respond to the increasing impacts of climate change and grow its clean energy sector more quickly. Second, panelists noted that under recent PSC orders and analyses, utilities would be required to achieve only a .37% to .45% annual increase in energy efficiency while utilities in other states have been able to achieve 2% or even 3% annual reductions.<sup>37</sup> Increasing this standard to match what other states have achieved would help reduce emissions, and grow energy efficiency jobs – already one of the largest clean energy job sectors<sup>38</sup> – even further in New York.

In order to achieve emissions reductions targets, New York must evaluate progress toward them. State law required the recently released New York State Energy Plan to include greenhouse gas emissions projections,<sup>39</sup> but the emissions inventory included with that plan did not evaluate progress toward emissions reductions goals.<sup>40</sup> To ensure progress toward emission reduction goals, clear public reporting that tracks progress toward those targets is needed. For example, such reporting would likely highlight the need to reduce use of home heating oils that don't meet certain environmental standards, an issue that was raised at the forum.

Finally, although New York State is making historic investments in clean energy and climate change, additional protections are necessary to protect those investments. New York has recently announced plans for a ten-year \$5 billion "Clean Energy Fund"<sup>41</sup> to provide state funding to a variety of renewable and clean energy projects, with a goal of attracting and leveraging significant private investment, but the full scope of projects that this funding will support is not yet clear. Ongoing public reporting and review is necessary to ensure these substantial state investments meet their goals and contribute to combating climate change. In addition, although New York is making historic investment in the state's Environmental

Protection Fund (EPF) and continuing work through the Regional Greenhouse Gas Initiative (RGGI), without additional protection, there is no guarantee that EPF and RGGI funds will be dedicated to their intended purposes in the future. The 2015-16 Enacted Budget included sweeps of \$41 million and \$25 million, from RGGI and EPF, respectively, to the General Fund, with no specific language authorizing its replacement.<sup>42</sup> Locking these funds to protect them from sweeps will ensure EPF and RGGI funds go toward their intended purposes.

## A Legislative Climate Action Plan for Consideration

- Legislatively enact state climate commitments and the planning necessary to achieve those commitments, as in other states, to secure these goals and grow jobs in the green economy
- Legislatively strengthen green practices at state agencies and climate neutrality goals for SUNY and CUNY
- Address the growing urgency of climate change by targeting achievement of a 100% reduction in human-caused greenhouse gas emissions by 2050 and increasing utility energy efficiency goals to levels achieved by other states
- Evaluate and report on progress toward climate change goals to ensure headway in meeting those goals
- Lock EPF and RGGI to protect those funds from sweeps

Guardian. 2 Feb. 2015.

<sup>4</sup> IPCC, 2013: Summary for Policymakers. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA at 4. Available at https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5\_SPM\_FINAL.pdf.

<sup>5</sup> See Id. at 15-16; New York State Department of Environmental Conservation, "Updated Physical Science Basis of Climate Change." Available at http://www.dec.ny.gov/energy/93663.html; Rosenthal, Elisabeth and Andrew C. Revkin. "Science Panel Calls Global Warming 'Unequivocal." *N.Y. Times.* 3 Feb. 2007; *see also* NASA's Jet Propulsion Laboratory, Earth Sciences Communications Team. "Scientific Consensus: Earth's Climate is Warming." Available at http://climate.nasa.gov/scientific-consensus/.

<sup>6</sup> Horton, R., G. Yohe, W. Easterling, R. Kates, M. Ruth, E. Sussman, A. Whelchel, D. Wolfe, and F. Lipschultz, 2014: Ch. 16: Northeast. Climate Change Impacts in the United States: The Third National Climate Assessment, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 16-1-nn. Available at http://nca2014.globalchange.gov/report/regions/northeast. The Third U.S. National Climate Assessment recently reported that the Northeast has experienced a greater recent increase in extreme precipitation than any other region in the U.S., including an over 70% percent increase precipitation during heavy weather events between 1958 and 2010, that sea level rise along most of the coastal Northeast is expected to exceed the global average rise, and that heat waves in the Northeast are expected to be particularly severe, hitting children, the elderly and vulnerable populations especially hard. *Id. See also* New York State Department of Environmental Conservation, "Impacts of Climate Change in New York." Available at http://www.dec.ny.gov/energy/94702.html.

<sup>7</sup> Horton, R., G. Yohe, W. Easterling, R. Kates, M. Ruth, E. Sussman, A. Whelchel, D. Wolfe, and F. Lipschultz, 2014: Ch. 16: Northeast. Climate Change Impacts in the United States: The Third National Climate Assessment, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 16-1-nn, at 374-75. Available at http://nca2014.globalchange.gov/report/regions/northeast; *see also* New York State, Office of Governor Andrew M. Cuomo, "New York State Built to Lead: 2016 State of the State." at 73.

<sup>8</sup> Remarks of David O. Carpenter at May 24, 2016, Democratic Policy Group Climate Action Forum. *See also* Testimony of David O. Carpenter before U.S. Senate Committee on Environment and Public Works, June 30, 2011. Available at http://www.epw.senate.gov/public/\_cache/files/45bbd4f7-e5fb-4447-8819-

75bf585d5b0a/carpentercaircamr27.pdf.; Liu, Xiaopeng, Lawrence Lessner and David O. Carpenter. "Association between Residential Proximity to Fuel-Fired Power Plants and Hospitalization Rate for Respiratory Diseases." *Environ Health Perspect.* 120:807–810 (2012). Available at http://dx.doi.org/10.1289/ehp.1104146; McGinty, Molly M. "Climate Change Bites." *NRDC Explainer.* 31 Dec. 2015. Available at https://www.nrdc.org/stories/climate-change-bites.

<sup>9</sup> Remarks of David O. Carpenter at May 24, 2016, Democratic Policy Group Climate Action Forum; *see also* Mercer, Greg. "The Link Between Zika and Climate Change." *The Atlantic*. 24 Feb. 2016. (describing study identifying the mosquito that can carry Zika living in Washington, D.C. when previously thought not able to survive north of South Carolina).

<sup>10</sup> Remarks of David O. Carpenter, Richard Schraeder, Peter Iwanowicz, at May 24, 2016, Democratic Policy Group Climate Action Forum; *See also* Tirrell, Meg and Betsy Cline. "Fighting Mosquitoes with More Mosquitoes." *CNBC*. 4 Mar. 2015. Available at http://www.cnbc.com/2015/03/04/fighting-dengue-in-the-florida-keys.html.

<sup>11</sup> Remarks of David O. Carpenter at May 24, 2016, Democratic Policy Group Climate Action Forum; see also Testimony of David O. Carpenter before U.S. Senate Committee on Environment and Public Works, June 30, 2011. Available at http://www.epw.senate.gov/public/\_cache/files/45bbd4f7-e5fb-4447-8819-

75bf585d5b0a/carpentercaircamr27.pdf; Liu, Xiaopeng, Lawrence Lessner and David O. Carpenter. "Association between Residential Proximity to Fuel-Fired Power Plants and Hospitalization Rate for Respiratory Diseases." *Environ Health Perspect*. 120:807–810 (2012). Available at http://dx.doi.org/10.1289/ehp.1104146.

<sup>&</sup>lt;sup>1</sup> See, e.g., United States Environmental Protection Agency, "Climate Change: Basic Information." Available at https://www3.epa.gov/climatechange/basics/.

 <sup>&</sup>lt;sup>2</sup> See New York State Department of Environmental Conservation, "Climate Change." Available at http://www.dec.ny.gov/energy/44992.html. See also New York State Department of Environmental Conservation, "Updated Physical Science Basis of Climate Change." Available at http://www.dec.ny.gov/energy/93663.html.
<sup>3</sup> See, e.g., Carrington, Damian. "14 of the 15 hottest years on record have occurred since 2000, UN says." The

<sup>12</sup> See, e.g., Environmental Advocates. "*Climate Protection Act.*" Available at http://www.eany.org/ourwork/policy/climate-protection-act-0 (noting that "scientists have estimated that in order to avoid the worst effects of climate change, we need to cut worldwide greenhouse gas emissions by as much as 80 percent"); Morris, Jackson. "Harnessing the Energy to Lead: New York State Energy Plan Can Deliver the Clean Energy Triple Crown." NRDC. 25 June 2015. Available at https://www.nrdc.org/experts/jackson-morris/harnessing-energy-lead-new-yorkstate-energy-plan-can-deliver-clean-energy (noting that "[f]or some time now, the science has made clear that we need to slash greenhouse gas emissions by at least 80 percent by 2050 in order to avoid the worst impacts of climate change").

<sup>13</sup> See Gillis, J. "Scientists Warn of Perilous Climate Shift Within Decades, Not Centuries." *NY Times.* 22 Mar. 2016. Hansen, J., M. Sato, P. Hearty, R. Ruedy, et al., 2016: Ice melt, sea level rise and superstorms: evidence from paleoclimate data, climate modeling, and modern observations that 2 C global warming could be dangerous Atmos. Chem. Phys., 16, 3761-3812. doi:10.5194/acp-16-3761-2016.

<sup>14</sup> Remarks of Richard Schraeder at May 24, 2016, Democratic Policy Group Climate Action Forum; Environmental Entrepreneurs (E2), New York State Sustainable Business Council, Alliance for Clean Energy New York, New Yorkers for Clean Power. "Clean Jobs NY." May 2016 at 5. Available at http://www.e2.org/wp-

content/uploads/2016/05/FINAL\_CleanJobsNY.pdf.

<sup>15</sup> Hurst, Luke. "Reducing Climate Change Would 'Create One Million Jobs."" *Newsweek*. 31 Mar. 2015.

<sup>16</sup> See Lawrence Berkeley National Laboratory. "News Release: Renewable Energy for State Renewable Portfolio Standards Yielded Sizable Benefits and Other Impacts in 2013." 6 Jan. 2016. Available at

https://emp.lbl.gov/sites/all/files/rps-benefits-and-impacts-press-release-jan-2016.pdf; Wiser, R., G. Barbose, J. Heeter, T. Mai, L. Bird, M. Bolinger, A. Carpenter, G. Heath, D. Keyser, J. Macknick, A. Mills, and D. Millstein. 2016. A Retrospective Analysis of the Benefits and Impacts of U.S. Renewable Portfolio Standards. Lawrence Berkeley National Laboratory and National Renewable Energy Laboratory. NREL/TP-6A20-65005. Available at http://www.nrel.gov/docs/fy16osti/65005.pdf.

<sup>17</sup> Environmental Advocates of New York. "The Regional Greenhouse Gas Initiative: Clean Energy, Clean Air & Economic Growth for New York." (2012) available at

http://f.cl.ly/items/1V2G1u3K3a2H440U160w/rggi%20success%20story.pdf; see also RGGI Inc. "Investment of Proceeds from RGGI CO2 Allowances." Feb. 2011 at 5. Available at

http://www.rggi.org/docs/Press\_Release\_%20RGGI\_Proceeds\_Report.pdf.

<sup>18</sup> Remarks of Peter Iwanowicz at May 24, 2016, Democratic Policy Group Climate Action Forum.

<sup>19</sup> See New York State Executive Order 24 (2009). Available at http://www.dec.ny.gov/energy/71394.html. This Executive Order was continued by Governor Cuomo pursuant to Executive Order 2 (2011). Available at https://www.governor.ny.gov/news/no-2-review-continuation-and-expiration-prior-executive-orders.

<sup>20</sup> See New York State, Office of the Governor. "Press Release: Governor Cuomo, Joined By Vice President Gore, Announces New Actions to Reduce Greenhouse Gas Emissions and Lead Nation on Climate Change." 8 Oct. 2015 (announcing New York State's signing of the Under 2 MOU); Under2MOU. "Background on the MOU effort." Available at http://under2mou.org/?page\_id=228.

<sup>21</sup> New York State Executive Order 24 (2009). Available at http://www.dec.ny.gov/energy/71394.html

<sup>22</sup> See New York State Climate Action Council. New York State Climate Action Plan Interim Report (2010). Available at http://www.dec.ny.gov/energy/80930.html.

<sup>23</sup> See New York State Energy Planning Board. "The Energy to Lead: 2015 New York State Energy Plan." Available at http://energyplan.ny.gov/.\_The Energy Plan is a codification of strategic goals initially outlined and also pursued through New York State's Reforming the Energy Vision (REV) process. See New York State Energy Research and Development Authority. "New York State Energy Plan." Available at http://www.nyserda.ny.gov/About/New-York-State-Energy-Plan; . New York State's targets for sourcing electricity from renewable sources were previously contained within the Renewable Portfolio Standard. A regulatory proceeding is ongoing to establish a Clean Energy Standard to succeed the Renewable Portfolio Standard. See generally DSIRE, NC Clean Energy Technology Center. Renewable Portfolio Standard. Available at http://programs.dsireusa.org/system/program/detail/93.

<sup>24</sup> See Remarks of Peter Iwanowicz, Richard Schraeder at May 24, 2016, Democratic Policy Group Climate Action Forum. See also Massachusetts Global Warming Solutions Act. 2008, Chapter 298. Available at

https://malegislature.gov/Laws/SessionLaws/Acts/2008/Chapter298; Massachusetts Executive Office of Energy and Environmental Affairs, "Global Warming Solutions Act Background." Available at http://www.mass.gov/eea/air-water-climate-change/climate-change/massachusetts-global-warming-solutions-act/global-warming-solutions-act-background.html; California Global Warming Solutions Act. AB 32/2006. Available at

http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab\_0001-0050/ab\_32\_bill\_20060927\_chaptered.pdf.

<sup>25</sup> Environmental Entrepreneurs, New York State Sustainable Business Council, Alliance for Clean Energy New York and New Yorkers for Clean Power. "Clean Jobs New York". May 2016 at 10. Available at http://www.e2.org/wp-content/uploads/2016/05/FINAL\_CleanJobsNY.pdf.

<sup>26</sup> Gilleo, Annie, Seth Nowak, Meegan Kelly, Shruti Vaidyanathan, Mary Shoemaker, Anna Chittum, and Tyler Bailey. *The 2015 State Energy Efficiency Scorecard*. American Council for an Energy-Efficient Economy (ACEEE), Oct. 2015, Report U1509. at vii, 21. ACEEE State Rankings are available at

http://database.aceee.org/state-scorecard-rank.

<sup>27</sup> Connecticut Substitute Bill No. 595 (2004), An Act Concerning Climate Change. Available at https://www.cga.ct.gov/2004/TOB/s/pdf/2004SB-00595-R01-SB.pdf.

<sup>28</sup> Resilient Rhode Island Act of 2014. H7904/2014. Available at

http://webserver.rilin.state.ri.us/BillText/BillText14/HouseText14/H7904.pdf. See also Salit, Richard. "Chafee signs law bolstering R.I.'s efforts to ease impact of climate change." Providence Journal. 1 Aug. 2014.

<sup>29</sup> Maryland Greenhouse Gas Emissions Reduction Act. SB 323/2016. Available at

http://mgaleg.maryland.gov/webmga/frmMain.aspx?pid=billpage&tab=subject3&stab=01&id=sb0323&ys=2016RS. <sup>30</sup> New York State Executive Order 88 (2012). Available at http://www.governor.ny.gov/news/no-88-directing-state-agencies-and-authorities-improve-energy-efficiency-state-buildings.

<sup>31</sup> See New York State, Office of Governor Andrew M. Cuomo, "New York State Built to Lead: 2016 State of the State." at 77

<sup>32</sup> Executive Order No. 4 (2008): Establishing a State Green Procurement and Agency Sustainability Program". Available at http://www.dec.ny.gov/energy/71389.html. This Executive Order was continued by Governor Cuomo pursuant to Executive Order 2 (2011). Available at https://www.governor.ny.gov/news/no-2-review-continuation-and-expiration-prior-executive-orders.

<sup>33</sup> See New York State Energy Research and Development Authority. "Electric Vehicle Programs: Clean Fleets NY." Available at http://www.nyserda.ny.gov/Cleantech-and-Innovation/Electric-Vehicles/Electric-Vehicle-Programs.

<sup>34</sup> The City College of New York. "Campus Climate Action Plan." (2010) Available at http://rs.acupcc.org/cap/591/. The Sustainability Section of CUNY's Capital Plan notes CUNY's participation in the BuildSmart initiative to reduce energy use and the participation of CUNY's community colleges in a city commitment to reduce carbon emissions 80% by 2050. *See* CUNY Capital Plan at 13 (on file).

<sup>35</sup> State University of New York, University at Buffalo. Climate Action Plan. (2009). Available at http://rs.acupcc.org/cap/19/. SUNY is also working to increase energy efficiency and reduce greenhouse gas emissions across its campuses including to improve energy efficiency by 20% and reduce greenhouse gas emissions 30% by 2020. *See* New York State, Office of the Governor. "Press Release: Governor Cuomo, Joined By Vice President Gore, Announces New Actions to Reduce Greenhouse Gas Emissions and Lead Nation on Climate Change." 8 Oct. 2015. Available at https://www.governor.ny.gov/news/governor-cuomo-joined-vice-president-gore-announces-new-actions-reduce-greenhouse-gas-emissions; *see also* New York Power Authority. "N.Y. Power Authority Partners with SUNY on Energy Efficiency Projects". 11 May 2016. Available at

http://www.nypa.gov/Press/2016/051116.html (detailing recent SUNY energy efficiency projects); The State University of New York. "Build Smart NY 30% Working Group Report". 3 Dec. 2012. Available at https://www.suny.edu/about/leadership/board-of-trustees/meetings/webcastdocs/4%20-

SUNY%20Working%20Group%20Report.pdf.

<sup>36</sup> University of California, Office of the President. "Presidential Initiatives: Carbon Neutrality Initiative". Nov. 2013. Available at http://www.ucop.edu/initiatives/carbon-neutrality-initiative.html. Approximately 650 colleges and universities nationwide have set climate goals for their campuses. *See* Second Nature. "Reporting Institutions". Available at http://rs.acupcc.org.

<sup>37</sup> See Woolf, Tim, Alice Napoleon, Patrick Luckow, Wendy Ong, Kenji Takahashi. "Aiming Higher Realizing the Full Potential of Cost-Effective Energy Efficiency in New York." Synapse Energy Economics, Inc. (April 2016) at 3. Available at http://www.synapse-energy.com/sites/default/files/Aiming-Higher-NY-CES-Whitepaper-15-056.pdf. The most recent DPS analysis presents a 1.4% overall efficiency savings target. *Id. See also* Nadel, Steven. "New York's REV: Will the state's new energy plan spur savings or slow progress?" American Council for an Energy-Efficient Economy. 8 Mar. 2015. Available at http://aceee.org/blog/2015/03/new-york-s-revwill-state-s-new; Morris, Jackson. "New Study Concludes Getting 50% of NY's Electricity From Renewable Sources by 2030 is a Net Win". NRDC. 12 April 2016. Available at https://www.nrdc.org/experts/jacksonmorris/new-study-concludes-getting-50-nys-electricity-renewable-sources-2030-net-win; Environmental Entrepreneurs, New York State Sustainable Business Council, Alliance for Clean Energy New York and New Yorkers for Clean Power. "Clean Jobs New York". May 2016 at 10. Available at http://www.e2.org/wp-content/uploads/2016/05/FINAL\_CleanJobsNY.pdf.

<sup>38</sup> Environmental Entrepreneurs, New York State Sustainable Business Council, Alliance for Clean Energy New York and New Yorkers for Clean Power. "Clean Jobs New York". May 2016 at 5. Available at http://www.e2.org/wp-content/uploads/2016/05/FINAL CleanJobsNY.pdf.

<sup>39</sup> See New York State Energy Law § 6-104(2)(a)(5).

<sup>40</sup> See New York State Energy Research and Development Authority. "New York State Greenhouse gas Inventory and Forecast: Inventory 1990-2011 and Forecast 2012-2030". June 2015. Available at http://www.nyserda.ny.gov/-/media/Files/EDPPP/Energy-Prices/Energy-Statistics/greenhouse-gas-inventory.pdf. In comparison, the 2010 Climate Action Plan Interim Report highlighted the need for New York State to both establish emissions reduction targets and evaluate progress toward those targets. See New York State Climate Action Council. New York State Climate Action Plan Interim Report (2010) at ES-6 (stating "The State will need to establish clear targets and evaluate progress toward those targets.") and Chapter 5 (reviewing greenhouse gas emissions levels and comparing future outcomes of various policy options). Available at http://www.dec.ny.gov/energy/80930.html; see also Alliance for Clean Energy New York (ACENY) Comments on the Interim Climate Action Plan. 7 Feb. 2011. Available at http://www.aceny.org/files/ACENY\_CAPComments.pdf (calling for stronger commitment to interim goals, tracking, and reporting to monitor progress and adjust policies as necessary). <sup>41</sup> New York State Energy Planning Board. "The Energy to Lead: 2015 New York State Energy Plan: Vol. I." at 22-

<sup>41</sup> New York State Energy Planning Board. "The Energy to Lead: 2015 New York State Energy Plan: Vol. I." at 22-23. Available at http://energyplan.ny.gov/-/media/nysenergyplan/2015-state-energy-plan-pf.pdf.

<sup>42</sup> Office of the State Comptroller. *Report on the State Fiscal Year 2015-16 Enacted Budget*. Apr. 2015. at 13. Available at https://www.osc.state.ny.us/reports/budget/2015/2015-16\_enacted\_budget.pdf; *see also* Gilleo, Annie. "Proposed RGGI Raid Puts Connecticut's Continued Leadership in Energy Efficiency at Risk." *American Council for an Energy-Efficient Economy*. 18 April 2016. Available at http://aceee.org/blog/2016/04/proposed-rggi-raidputs-connecticut-s (describing potential diversion of RGGI money contemplated in Connecticut).