



New York: Pathway to 2030

EnergyVision 2030 describes in detail how seven Northeast states can be on a pathway towards a reliable, consumer-oriented clean energy future that meets a goal to reduce climate pollution at least 45% from 1990 levels by 2030. Reducing climate pollution 45% by 2030 is needed to keep New York on track for an 80% reduction from 1990 levels by 2050 as part of its 2015 State Energy Plan. Using a data-driven approach, EnergyVision 2030 sets technology-specific targets in four key clean energy markets—grid modernization, electric generation, buildings, and transportation—and proposes supporting policies to achieve those goals.

New York is setting the standard for best practices in key areas such as grid modernization; in others, it can do more. The summary tables below detail policies that can be used to reach the clean energy benchmarks presented in EnergyVision 2030. They show New York’s current levels of implementation for specific policies and technologies in each of the four key areas compared to the best practice levels needed to meet emissions targets.

While some states are leading in individual areas, a more uniform and consistent approach is needed across all Northeast states. EnergyVision 2030 shows that a goal to reduce greenhouse gas emissions by 45% can be achieved if all states adopt the best practices of each leading state.

Electric Generation

Solar and wind power are emerging as cost-effective alternatives to traditional fossil-fueled generation sources. Across the United States, solar prices have dropped dramatically, and installed capacity has grown exponentially. New York and New England have vast untapped solar and on- and off-shore wind resources. Harnessing this clean, low-cost generation is critical to meeting the 2030 emissions target. New York’s progress toward this goal is represented below.

Policy	Best Practice Status	New York Current Status	2030 Recommendations
Renewable Portfolio Standard (RPS)	New York – 50% by 2030 Rhode Island – 38.5% by 2035	50% by 2030 (includes hydroelectric)	50% by 2030 (includes hydroelectric)
Distributed Solar Annual Installation Rate	Vermont – 118 watts per capita (2016) Massachusetts – 56 watts per capita (2016)	15 watts per capita (2016)	48 watts per capita through 2030



Transportation

Transportation is the largest source of emissions in the Northeast and traditionally the most difficult emissions sector to address, but rapidly evolving technology offers deep reduction potential. Electric vehicles (EVs) and innovations in mobility options can help improve transportation efficiency and reduce emissions. In cities and towns of all sizes and in the state’s more rural areas, increased transit options like buses, trains, and carpools can grow. See how much New York needs to do in this area to meet emissions targets below.

Policy	Best Practice Status	New York Current Status	2030 Recommendations
EV Sales Annual Growth	Vermont – 42% (average, 2013–2016) Massachusetts – 41% (average, 2013–2016)	42% (average, 2013-2016)	40% annually through 2030
EV Incentive Level	Connecticut – up to \$3000	Up to \$2000	Market levels needed to achieve growth targets
Stable Funding Source?	Colorado – \$5000	Yes	Yes
California ZEV Standard Adoption	Several states have adopted	Yes	Yes
EV Chargers			
DC Fast Chargers per 1000 Miles of Highway	Massachusetts – 17	3	
L2 Chargers per Billion VMT	Vermont – 18	6	
EV Charging Rate/Demand Management Program	New York – EV time of use rates and demand management program pilots	EV time of use rates, whole house time of use rates, and demand program pilots	Easy to understand time-varying rates for energy supply, transmission and distribution
Annual Transit Trips per Capita (Buses, Trains, and Subways)	New York – 195	195	
Percentage of Workers 16+ Carpooling	Maine – 10.6%	6.9%	
Emissions Pricing for Transportation Fuel	California – \$13/ton	No	Yes – market-based price



Grid Modernization

To take full advantage of opportunities to benefit consumers and advance emissions-reducing technologies, the rules and regulations governing the electric grid need to be comprehensively updated. The present grid was designed at a time when centralized power generators exclusively controlled a one-way flow of electricity to consumers. A modern grid needs to accommodate greater consumer control and two-way flows of power. Grid modernization will provide the backbone that supports the carbon-cutting changes in all sectors. See how grid modernization processes in New York are progressing below.

Policy	Best Practice Status	New York Current Status
Distribution System Planning to Consider Clean Local Alternatives to Infrastructure	<p>Rhode Island – System Reliability Procurement Plan and Power Sector Transformation</p> <p>New York – Reforming the Energy Vision (REV) proceeding</p> <p>Vermont – Renewable Energy, Efficiency, Transmission, and Vermont’s Energy Future Act</p>	Yes – New York REV proceeding
Regulatory Proceeding or Other Process Underway to Align Utility Business Models	<p>New York – REV proceeding</p> <p>Rhode Island – Power Sector Transformation</p>	Yes – New York REV proceeding
Regulatory Proceeding Underway to Modernize Grid	<p>New York – REV proceeding</p> <p>Rhode Island – Power Sector Transformation</p>	Yes – New York REV proceeding
<p>Consumer-Friendly Rate Design</p> <p>Limited Reliance on Fixed Charges</p> <p>Easy to Understand Time-Varying Rates for Energy Supply, Transmission and Distribution (T&D)</p>	<p>Several states have utilities with residential fixed charges in the \$5 to \$10 range</p> <p>Green Mountain Power (VT) offers three options for highly differentiated bundled residential rates.</p> <p>Several New York utilities offer residential rates with differentiated energy and transmission/distribution components.</p> <p>United Illuminating (CT) offers a residential rate with differentiated transmission and energy components.</p>	<p>Fixed Charges ConEd: \$15.76 PSEG Long Island: approximately \$10.80 (\$0.36 per day) National Grid: \$17 Central Hudson: \$24 RG&E: \$22.10 Orange and Rockland: \$20 NYSEG: \$16.10</p> <p>Time-varying Rates ConEd: yes PSEG: T&D National Grid: Yes Central Hudson: yes NYSEG: supply (high users only) Orange and Rockland: no; RG&E: supply</p>
Shared Solar or Virtual Net Metering	New York, Massachusetts, and Vermont	Yes – Community Solar program
Distributed Generation Compensation	Monetary crediting, with initial reforms to align credit structures with value	Yes, DG compensation aligned with value to the energy system for larger projects, with process to consider changes for residential and small C&I.
Storage Mandate	California – 1325 MW by 2020	Yes (NYC): 100 MWh by 2020.



Buildings

Buildings offer significant energy efficiency investment opportunities that can be combined with clean heating technologies to provide deep emissions reductions. The Northeast is a national leader in investing in energy efficiency, but New York state has historically lagged in this area. Not only is efficiency the lowest cost and cleanest energy choice, it provides enormous economic gains, creates jobs, and saves consumers money. Increasing investments in efficiency has made nearly \$500 million of expensive transmission line upgrades no longer necessary in New England. More information about current efficiency efforts in New York below.

Policy	Best Practice Status	New York Current Status	2030 Recommendations
Electric Energy Efficiency Annual Savings Level	Massachusetts – 2.9% (2017 plan)	0.5% (2017 plan –utilities only)	3.0% ³
Natural Gas Energy Efficiency Annual Savings Level	Massachusetts – 1.2% (2016)	0.5% (2015)	1.2%
Residential Heat Pump Conversion Rate	Maine – 0.8% (2016)	Insufficient data available	1.0% through 2030
Fossil Fuel or Carbon-based Incentive Funding for Heat Pumps	Massachusetts – MassCEC’s \$30 million Clean Heating and Cooling program	No	Yes

Conclusion

New York continues to be a regional and national clean energy leader in some areas. To build a low-carbon energy system, the state must excel across all policy areas. To reach EnergyVision 2030 goals, the state should adopt all cost-effective energy efficiency; strengthen efforts to modernize the grid through current regulatory proceedings; eliminate barriers to adoption of solar PV; support switching to heat pumps; and continue to incentivize and remove barriers to purchasing and using electric vehicles. If New York follows these policy recommendations, it will be on its way to a clean energy future.

References

² EnergyVision 2030 calls for an average of 2.5% annual electric savings through 2030. Because Massachusetts and other states have demonstrated that savings of 3% or more are currently achievable and lower total electric costs, Acadia Center is currently recommending that states aim for higher near-term levels.

acadiacenter.org • info@acadiacenter.org

Boston, MA 617-742-0054 • **Hartford, CT** 860-246-7121 • **New York, NY** 212-256-1535
Providence, RI 401-276-0600 • **Rockport, ME** 207-236-6470

