New York and New Jersey are at the core of what people think about in terms of the "Northeast." Both are very active in promoting renewable energy — New Jersey despite Governor Chris Christie, New York in part because of Governor Cuomo. New York in particular seems ready to position itself as the East Coast equivalent of California.

New Jersey

Despite having a Republican governor who took the state out of the regional emissions trading program, New Jersey is doing guite a bit on renewable energy. According to the Energy Information Agency, by 2016 New Jersey got almost all of it energy from natural gas (56%) and nuclear (39%). The main source of renewables is solar (about two-thirds from rooftop solar). New Jersey has an aggressive renewable portfolio standard that will require about one-fourth of the state's power to come from renewables by 2021. That would be timely, if only because one of its nuclear reactors at Oyster Creek is scheduled to close in 2019. The renewable portfolio standard is quite complicated, with special provisions for solar and for off-shore wind power.

There are also several state incentive programs for energy efficiency, and a demand response program (where users can reduce their own power use during periods of peak demand) run by the interstate grid operator for the area, PIM.

Chris Christie spent much of his time in office planning to become President or at the least Vice President, which meant cultivating the Koch brothers and later Donald Trump. He's been a barrier against progress in New Jersey all that time. But he's now an extremely unpopular lame duck. Some people are already making plans for the post-Chris Christie era:

"The emerging agenda, under discussion among stakeholders and Sen. Bob Smith (D-Middlesex), the chairman of the Senate Environment and Energy Committee, aims to lay the framework for overhauling the state's energy policies when a new governor takes office a year from now."

"Some of the issues, like ramping up the state's reliance on solar and other types of renewable energy, have been kicking around the Legislature for a few years. Others, like dramatically changing the business model of the state's gas and electric utilities, have been debated in the past, but have eluded compromises that satisfy both industry and consumers."

The incoming governor is very different from his predecessor in terms of climate policy. His

website gives detailed consideration to renewables:

- Rejoining the Regional Greenhouse Gas Initiative (RGGI) as one of his first acts in office.
- Setting the most ambitious offshore wind target in the country 3,500MW of offshore wind generation by 2030, which will power 1.5 million homes.
- Prioritizing solar energy expansion and ensuring that New Jersey regains its status as a national leader in solar energy production and job creation.
- Establishing New Jersey as a leader in clean energy storage, with a goal of 600 MW of energy storage by 2021 and 2000 MW of storage deployed by 2030.

Thus, there is every reason to expect New Jersey to move forward aggressively now that it is under unified Democratic control. A lengthy new joint <u>policy paper</u> from Rutgers and Georgetown Universities provides a lot of suggestions for how the state could go about this. And the <u>Washington Post</u> reports that one big area of expansion may be offshore wind.

New York

The State of New York is a member of RGGI, the Northeast states' emissions trading system. As of 2011, New York State <u>got</u> about 50% of its power from hydro and nuclear, 44% from natural gas, and the remaining 6% from coal, wind, and biomass. In 2015, the state was <u>reporting</u> 23% of its power from renewables (including hydro). In 2015, the state adopted a new <u>energy plan</u>, with 2030 targets including:

- 40% reduction in greenhouse gas emissions from 1990 levels
- 50% electricity from renewable energy resources
- 600 trillion Btu increase in statewide energy efficiency

The state projects substantial on-going CO2 reductions:

"The annual impact of past and ongoing energy efficiency and renewables programs developed in New York with support from the System Benefits Charge, Renewable Portfolios Standard (RPS), Energy Efficiency Portfolio, Standard (EEPS), Regional Greenhouse Gas Initiative (RGGI), and other initiatives, is estimated to be a reduction of 7.7 million tons of carbon dioxide(CO2) per year, equivalent to taking 1.5 million cars off the road each year."

In May, the governor also announced a plan to cut methane emissions. In June, he

announced that New York was joining the U.S. climate alliance. He had this to say on that occasion:

"New York State is committed to meeting the standards set forth in the Paris Accord regardless of Washington's irresponsible actions. We will not ignore the science and reality of climate change, which is why I am also signing an Executive Order confirming New York's leadership role in protecting our citizens, our environment, and our planet."

New York City has been a leader on climate change adaptation. For instance, in terms of sea level rise, new 2017 guidelines require greater elevation:

For sea level rise, the guidelines advise adding 16 inches to what current code requires for structures expected to be in use beyond 2040, and 3 feet for those expected to last the century. It also points to an interactive map created by the city that projects flood hazards into the future and overlays them on city streets.

In 2013, the city announced a \$20 billion adaptation plan, which includes both infrastructure such as dunes and seawalls to protect against the sea as well as funding to help property owners adapt to higher risks.

New York is a major state in population and economy. It's good to see it taking such vigorous action to address the issue of climate change.