

Other Northeastern States

Other states in the region generally have strong demand-side policies and some green jobs programs, but they do not have the same level of active state government intervention that supports research programs in universities, start-up companies in the clean-energy sector, and manufacturing initiatives for clean technology. Although the political climate is often favorable, the other states generally have smaller state government budgets, smaller and fewer research universities, and/or a more agrarian and tourist-based economy. Several of the states are participants in the Regional Greenhouse Gas Initiative and have a renewable portfolio standard, system benefits charges, and green-building and energy-efficiency standards. Connecticut, Delaware, and Maryland are the three states in the New England and the Mid-Atlantic region that have some supply-side policies and related industries.

Connecticut

Connecticut had a strong renewable portfolio standard of 23 percent by 2020 with an additional 4 percent from combined heat and power. However, in 2010 the state legislature considered a roll-back on the renewable portfolio standard because of problems in achieving financing. The money that utilities would have spent on achieving the standard was planned to be shifted to no-interest loans for consumers for energy-efficiency and renewable-energy projects (Spiegel 2010). In May, 2010, Governor Jodi Rell vetoed the Act Reducing Electricity Costs and Promoting Renewable Energy (SB 493), whose supporters claimed would reduce energy costs by shifting to more long-term contracts. The governor supported aspects of the bill but rejected the high investment associated with it. As a result, the policy signals at the state-government level have been generally supportive but somewhat mixed.

The state has supported its clean-energy businesses through two public benefits funds. The Connecticut Clean Energy Fund has a budget of about \$20 million per year, and it is authorized not only to provide grants and support but also to invest in companies. The fund has various programs, including support for solar energy and the state's fuel-cell industry. The Connecticut Energy Efficiency Fund has a budget of about \$60-70 million per year plus \$6 million from the Regional Greenhouse Gas Initiative. The fund supports energy-efficiency projects, education, research, and development. In some years the state's General Assembly has transferred \$1 million per month from the fund to the general fund (DSIRE 2010). In 2008 the state launched the \$9 million Clean Tech Fund. By March 2010 it had only invested \$2 million, but additional investments were available from the state's Eli Whitney Fund for technology businesses (Cohen 2010).

There is also a biotechnology cluster around Yale University that could develop into a biofuels innovation cluster, but so far the industry has remained focused on medical applications. So far the state's fuel-cell industry is the leading clean-energy manufacturing industry. Largely due to support from the state government, Connecticut has two large companies in the stationary fuel-cell market (FuelCell Energy and UTC Power) and some smaller companies and hydrogen companies. The industry is small (estimated at about 1,000 direct jobs), but the state's roadmap for fuel cells estimates that the industry could grow to 30,000 jobs statewide by 2020. The state

government has consistently supported the industry through various mechanisms. The state's Clean Energy Fund has supported fuel-cell installations, and fuel cells are included in the state's renewable portfolio standard. The Connecticut Center for Advanced Technology (2009) administers the Connecticut Hydrogen Fuel Cell Coalition, which links industry, government, and research. The state has also used the funds described above to support fuel-cell research and development, and with support from the state government, the Connecticut Global Fuel Cell Center was established in 2001 at the University of Connecticut. As the center grew to include over forty researchers, its clean-tech research interests diversified, and the center was subsequently renamed the Center for Clean Energy Engineering. In 2008 the state produced a hydrogen fuel-cell roadmap. The state's roadmap explored competition with other states and concluded that Connecticut was first among states in fuel-cell patent activity. In 2009 the government dedicated \$8 million of federal ARRA funds to the industry.

Delaware

Delaware has a renewable electricity standard of 20 percent by 2019 with a 2 percent photovoltaic set aside. The state's Sustainable Energy Utility provides support for energy-efficiency and renewable-energy projects (Sustainable Energy Utility Task Force 2009). It is funded partly by a public benefits charge and partly by other sources, including a share of renewable energy credits and savings from clients. The state of Delaware also has a LEED silver standard for new construction and major renovations of public buildings. To complement the demand policies, there are some efforts oriented toward economic development for the clean-energy industries, but clean-energy was not listed as a separate industrial cluster on the state's Economic Development Office web site. The office does offer a Clean Energy Center Partnership program, which provides matching grants for industry research at the University of Delaware or Delaware State University. The office also offers Clean Energy Performance Grants, which support manufacturing for photovoltaics, fuel cells, and wind energy in Delaware.

The state has some manufacturing. It has a power purchase agreement for off-shore wind and a 2 percent photovoltaic set-aside in the renewable electricity standard. There is some solar-energy research and development at DuPont, and manufacturing of photovoltaics takes place in Newark by the Taiwanese firm Motech Industries. The most advanced clean-energy manufacturing industry in the state is fuel cells. DuPont, W. L. Gore, and Ion Power are all major suppliers of fuel-cell components, and the University of Delaware hosts the Center for Fuel Cell Research. Although the industry is small in comparison with those of larger states, Delaware is centrally located along the main transportation corridor of the East Coast and able to integrate easily with the broader cluster of fuel-cell research and manufacturing in the Northeast. Delaware is also home to the electric vehicle manufacturer Fisker, and a supply-chain is emerging in the state and in southeastern Pennsylvania.

Maryland

The state of Maryland has strong demand-side policies that make it a leader on many rankings of renewable energy and energy efficiency. However, the state does not have a strong suite of supply-side policies that would support green business development and job creation, and it has no cluster of manufacturing or biorefining firms that could be considered an industrial strength. On the demand side, in 2008 the legislature approved three laws that brought about the following changes in energy policies: a goal of a decrease in greenhouse gas emissions by 25 percent by 2020 in comparison with a 2006 baseline, an increase in the renewable portfolio standard to 20 percent by 2022 with a 2 percent set-aside for solar energy, and an energy-efficiency standard of a reduction in per capita electricity consumption of 15 percent by 2015 from a 2007 baseline. However, the state lacks a public benefits fund, which can be a valuable resource for helping local companies, providing jobs training, and supporting new business development.

The green jobs policy in the state has been largely oriented toward the installation, construction, and service jobs for green energy generation. For example, in 2009 the governor's Workforce Investment Board released a report on energy and green jobs that emphasized jobs in those industries, and in 2010 Governor Martin O'Malley released a clean-energy agenda that focused on demand-side policies such as solar energy generation, off-shore wind energy, and plug-in electric vehicles (State of Maryland 2009, O'Malley 2010). However, a report by the Maryland Energy Administration (2010) recognized the need and potential to diversify Maryland's green jobs efforts from weatherization, construction, and energy generation maintenance to a broader clean-energy economic development strategy. To support the diversification, the Clean Energy Economic Development Initiative allocated 15 percent of the state's energy program funds, or about \$7 million, to business development. In 2009 the state also launched the Maryland Clean Energy Center, which groups together business development efforts with green-energy installation projects. The center also provides an incubator for green-energy businesses and links to the state's research universities. Consequently, Maryland has many pieces in place to have a diversified green jobs strategy. It needs a public benefits fund and a good assessment of which areas of manufacturing or biorefining make sense given the state's other industrial strengths.

References

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