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Opinion

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Bringing more clean energy to New England

By Edward Krapels | MAY 01, 2014

It's not often six New England governors coalesce around the solution to a single challenge, and then act on it. The challenge: not enough energy infrastructure as the region transitions from old, electric generation fuels (oil, coal, and nuclear power) and embraces new, clean energy sources.

The effort to get rid of dirty energy sources creates an energy vacuum now filled by natural gas. Gas-fired power plants are efficient, but gas prices are buffeted by extraordinarily volatile commodity markets, and this winter, that volatility pushed the region's electric costs up by \$3 billion; money that will be in consumers' electric bills later this year.

So, the governors have agreed on a plan to build new infrastructure to bring clean electricity into the region from fuel sources other than natural gas. To that end, legislation has been introduced in Massachusetts by Sen. Barry Finegold and Rep. Mark Cusack. The Mass Clean Energy Resources Act allows one or more electric transmission lines from clean energy sources into New England. If the bill is passed, Massachusetts will work with the five other states to select transmission projects that will make the next 20 percent of New England's electric supply renewable.

There are two types of clean energy. In Massachusetts, wind and solar energy are Class I resources and qualify to earn "renewable energy credits" (RECs). Hydroelectricity from large-scale sources does not. RECs are quite valuable to support emerging technologies.

Legislation passed in the 2008 Green Communities Act increases the target level of renewables from 9 percent today to 15 percent by 2020, imposes penalties on utilities (and their customers) if they fail to meet these targets, and excludes large-scale hydroelectricity from REC eligibility. Hydropower is a mature technology that has been around for decades. It doesn't need subsidies. The 2014 Clean Energy Act allows utilities to contract with producers of both REC-eligible and hydro resources: both are welcome, but only wind and solar qualify for RECs.

The governors have also agreed that the transmission projects that can deliver clean energy resources will be selected via a competitive procurement. New federal rules require that all new electric infrastructure projects be acquired through a competitive process. While this is a wrenching adjustment for New England's utilities, experience in other regions shows that competition leads to more effective projects, better execution, and ultimately lower prices for consumers.

In this competition, project developers will put forward two types of electric transmission proposals: one type is importing mostly hydroelectric energy from Canada, the other type proposes focusing the transmission line on wind energy, and then adds hydro when the wind isn't blowing, a clean energy "twofer."

We will offer projects designed as "twofers," a wind plus hydro combination connecting to sources of affordable, wind from northern Maine and New York: the "Green Line" of the New England Independent Transmission Co. consortium, and the "Grand Isle Intertie" between northern New York and Vermont, respectively.

The projects selected will shape the future of New England's electricity system. Electric infrastructure lasts generations, so the choice is strategic. If an "all hydro" project from Quebec is selected, it would import hydroelectricity, but not much, if any, REC-eligible power. Utilities would still have to find other sources of REC-eligible power needed to avoid the ever-increasing penalties for non-compliance. If a "twofer" (wind plus hydro) project is selected, hydroelectricity can "firm up" the wind when the wind is not blowing.

Make no mistake, there is a cost for doing nothing: New England's dependence on natural gas will increase, the cost of electricity will increase, and penalties for not reaching our clean energy goals will increase. It's certain that new gas pipeline capacity will be required. So, the unwillingness to build electric means building equally expensive gas infrastructure. Spokesmen for the gas industry favor this proposal, but don't acknowledge that in the past the New England electric grid was developed for them and coal and oil power plants. The grid was not built to accommodate wind.

The six New England governors now plan to remedy that, and have an opportunity either to select the "twofer" projects, or hydro from Canada, a choice that will affect the New England economy and environment for decades to come.

The Mass Clean Energy Resources Act will enable Massachusetts to join in a competitive regional approach developing this needed infrastructure. This unprecedented effort will diversify our portfolio, lower our dependence on gas and stabilize each of our electric bills.

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