

October 21, 2010

NO MAGIC BULLETS: ENERGY POLICY FOR MAINE IN THE NEXT DECADE

by Steve Ward

In the 1990s Maine's power rates were 50% above the national average. Then Maine restructured its electric industry beginning in March 2000. Today power rates are closer to 20% above the national average and consistently the lowest in New England. A review of Maine's history of restructuring reveals that there are no simple solutions for further reductions in energy costs while preserving reliability.

Investment in new generation and transmission capacity is unlikely in the current economic climate, given low natural gas prices and the dearth of financing. Even if such investments occurred, Maine's participation in ISO-New England, a regional transmission organization, would limit the state's ability to "capture" the value of locally generated low-cost power for Maine ratepayers. Therefore, a state sponsored Power Authority could only sell electricity at below-market rates if ISO-NE allowed the state to opt-out of its wholesale electricity marketplace or if the Legislature repealed electric restructuring, both of which are highly unlikely.

Close-to-home investments in energy efficiency and distributed generation confer immediate benefits and warrant greater attention from policymakers in Augusta and Washington.

Restructuring Maine's Electric Industry

Background

Like the rest of the country, Maine was emerging from a painful recession in the early 1990s. High electric rates were a chronic concern for individuals and businesses. Electric utility monopolies controlled power distribution and production. Starting with California, states began to privatize electricity generation and break up electric utility monopolies. Maine's utility laws were seen as outdated, contributing to higher prices than other states for three basic reasons.



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MECEP hoices

First, electric utilities in Maine were authorized by law to recover 100% of the costs for fueling their generators regardless of fuel type under the so-called "Fuel Clause." As a result, electric utilities operated their power plants without obvious incentives for efficiency or for reducing overall production costs.

Second, a number of big power plants planned in the 1970s and '80s were cancelled and utilities were permitted to recover all "prudently incurred construction costs" even if the plants never operated. Although these costs were amortized over time, often 30 years, they added to the overall retail rates customers had to pay each month. The risk of failure for new power plants fell primarily on customers.

Finally, a painful irony: wellintentioned efforts by the Maine Public Utilities Commission (PUC) to secure lower long-term prices for electricity backfired when oil prices declined through the 1980s and '90s. Under a 1978 federal law, the PUC set prices for electricity sold to local utilities by independent power producers. Long-term contracts established by the PUC guaranteed a set price based on 20-year projections of oil prices. When oil prices fell in 1986. Maine consumers were on the hook to pay for electricity that was priced well above the national average. The PUC made a big bet in the 1980s and it did not turn out well for consumers.

Path to Deregulation

To address these problems and respond to a national trend of deregulation, the Maine Legislature established the Work Group on Electric Industry Restructuring in 1995. From the beginning, the utility members were concerned about deregulation and argued against any proposal that would require them to divest their generation capacity. Consumer interests – including large industrial facilities and environmental groups – were committed to a vision of deregulation that included more competitive generation markets. These members believed this would enable them to shop for power from lower cost and "green" producers and provide greater incentives for energy efficiency and conservation. Advocates for low-income users were similarly interested in the potential in Maine, for consumer education and for the calculation of "Stranded Costs" that consisted of all cancelled plant costs, unrecovered independent power contract costs and other utility expenditures associated with generation. Proceeds from selling utility generators would reduce these costs, the remainder of which would be embedded in existing rates until they were paid off.

Historic Residential Electric Prices



Source: Energy Information Administration and MECEP Analysis

to lock in discount electricity rates through deregulation.

In the end, the Legislature was left with the task of sorting through two competing visions – a power generation market with incumbent utilities and a fully competitive market without them. The vision of a competitive market prevailed. **Maine's Restructuring Law** received unanimous approval from the Utilities Committee and was approved by all but one legislator in both legislative bodies.

Maine's Restructuring Law, enacted in 1997, set the date of March 1, 2000 for the cut-over to restructuring. This lead time allowed for full divestiture of all generators owned by utilities

Turn of Events

Two events occurred prior to March 1, 2000 that changed the landscape for electric restructuring irrevocably and have had a dramatic impact on future options. First, the owners of Maine's only nuclear power plant, Maine Yankee, chose to shut it down permanently rather than make costly investments in an increasingly competitive generation market. This decision created an 850 megawatt gap in Maine's supply from a facility that had ten years left on its license as a low-cost supplier of 2 to 3 cent per kilowatt-hour (kwh) power.

Of greater consequence for future policymaking was the Federal Energy and Regulatory Commission's creation in 1999 of ISO-NE based in Holyoke, Massachusetts to manage wholesale power markets and oversee electric reliability in the region. Intent on preventing a repeat of the 2003 Northeast Blackout that shut down the grid from Michigan to New York, ISO-NE has gained immense authority in recent years, with a budget to match.

ISO- New England serves as the "Air Traffic Controller" for turning off and turning on all the power plants in New England and increasingly has played a role in allocating the costs of new power lines in Connecticut and Massachusetts to electric customers throughout the region, including Maine. By 2005, the big decisions concerning Maine's electricity markets were being made in Holyoke, Mass. or Washington, DC – not in Augusta. This transfer of power was never anticipated by the Maine Legislature in 1997.

Results of Restructuring

The single biggest expectation for restructuring in 1997 was that a more competitive market among suppliers would result in a proliferation of lower cost options for customers. To everyone's surprise this turned out *not* to be so – at least for small and medium sized electric users. The profit margin on power sales has proven so small that quantity is everything for suppliers who became mostly interested in the largest industrial customers.

Maine now has a two-pronged retail market with virtually all residential and small business customers being served under PUC's "Standard Offer" program and upwards of 90% of all power for industrial customers provided under competitive contract arrangements. Industrial customers certainly got what they wanted – the ability to shop for power – while small customers have gotten the stability of the Standard Offer system.

Prices for electric supply have gone up over the ten years since restructuring began – from 4.5 cents per kwh to 9 cents today - but this is a reflection of a global run-up in energy prices. In fact, divestiture of generation has resulted in markets operating more fairly and enabled Maine to avoid conflicts seen in other states when incumbent utility-owned generators compete with non-utility generators. At the same time, ratepayers are no longer on the hook for the costs of the handful of power plants that were cancelled after restructuring went into effect. Consequently, the disparity between Maine's power rates and national average rates has declined from 50% above the national average in the 1990s to 20% above today.

The results on other anticipated outcomes of restructuring were mixed. New opportunities for environmentally preferable supply options materialized as natural gas replaced #6 oil, and the Legislature enacted an ambitious series of incentives for renewable power including wind, tidal and solar. Efforts to promote energy efficiency were less successful than anticipated

Assessing Future Options

Many proposals for driving down Maine's energy costs require significant investment in new transmission lines that ratepayers will have to absorb in their monthly utility bills. Although such investment would bring spinoff benefits of employment and spending in Maine's economy, very few projects will actually lower prices for retail consumers and, given current economic conditions and a nearterm surplus in generating capacity, are unlikely to attract the necessary financing to become a reality.

All power generating projects necessitate some amount of extremely costly transmission investment in new high-voltage lines. In the case of remote wind project sites, these investments are especially costly. Even when ISO-NE allocates pro rata the cost of a Maine transmission project among all New England utilities, 8% or more of this cost will be allocated to CMP and its customers. A \$2 billion transmission line across Maine could raise CMP's electric rates by \$160 million. Accessing Canada's

resources can be a very expensive proposition. And so far, Canadian suppliers have shown no willingness to sell power at below-market rates under longterm contracts.

In addition, there is no simple way for Maine ratepayers to capture the

low costs of wind, tidal or biomass generation produced in Maine, because ISO-NE manages electricity markets for the region as a whole, based on hourly generator bids. As long as Maine keeps the Restructing Law and

Residential Rates by Provider 2010



Source: Company Information and Author Analysis

as investor-owned utilities saw that kilowatt-hour savings reduced shareholder earnings and therefore opposed any significant legislation that could result in greater efficiency. continues to participate in ISO-NE for the sake of grid reliability, a state sponsored Power Authority would not be able to sell electricity below market rates.

There are solutions that are closer to home and more easily implemented that offer immediate benefits. These include undertaking the weatherization of oil-heated buildings funded by a surcharge on oil bills, to be managed by the Efficiency Maine Trust. Maine could also offer incentives for solar arrays that heat hot water at a considerably lower cost than the transmission investment necessitated by new on-shore wind projects. Such efficiency and solar projects create no air pollution or greenhouse gas, reduce the import of fossil fuels and confer clear benefits on Maine's economy.

Another approach focuses on policies that facilitate localized generation capacity and ownership. These include promoting combined-heatand-power developments at mixed use commercial/residential sites so that no excess heat from power generation is wasted. Maine also could facilitate establishment of new municipal electric utilities that are allowed to sell electricity directly to retailers, which has proven successful for some of Maine's lowest-cost utilities – Kennebunk, Madison, Houlton and Van Buren.

Conclusion

While it is easy to state the goal of lowering Maine's energy costs, it is very hard to make sustained progress. This is because no magic bullet has emerged in the form of new technologies or industry models. Even if it did, it would be implemented nation-wide, causing no change in Maine's relative position to the national average. Also, learning from history, we should not risk placing Maine's Legislature and PUC in the unenviable role of out-witting global energy markets. That turned out to be a bad bet in the 1980s and is likely to be so again.

Instead, we should focus on conservation. Energy efficiency measures costing 3 cents per kilowatthour make much more sense than onshore wind projects costing 10 cents – plus another penny in rates for the necessary transmission investment. And we should continue to look at small and targeted opportunities for energy investments within the broad context of restructuring, preserving cost reduction and energy reliability.

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