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Comments
of
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NH PUC IR 13-020 PSNH

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The report by the Staff of the New Hampshire Public Utilities Commission and The Liberty Consulting Group (IR 13-020) on default service and market conditions relating to PSNH generating assets provides a troubling perspective. It appears that a combination of low market prices, high operating cost and potential environmental costs has created the perfect storm, the PSNH fossil plants are not economically viable in the short term and default customers are leaving for competitive suppliers. The plants are potentially unsustainable in the long term as carbon dioxide emission payments may substantially raise operating costs and enhanced thermal discharge control may require extensive capital investment.

The report also finds that because of the legislation developed during the restructuring process, the customers may be responsible for stranded costs. The report further finds that the customers might be responsible for most of the book value of the fossil plants because the market value of those plants is a very small portion of the remaining book value.

PSNH counters the findings with the observation that coal provides an economic hedge against gas price volatility and security benefits against a regional over-reliance on gas.

From the customer's perspective, the sale of the PSNH power plants at low prices leaving high stranded cost payments is unsatisfactory. During restructuring, customers paid the high price of stranded cost for access to the market. In this case, stranded cost payments provide no benefit to the customer.

If customers are to remain responsible for almost all of the book value, the following process outline might provide an alternative.

PSNH buys default service power from the market

PSNH continues to operate its power plants and sell its power to the market

Delivery service customers pay stranded cost at book value in exchange for revenue from the plants

Delivery service customers receive all of the revenue from power sales minus operating costs

Stranded cost and revenues are distributed on a kWh basis in the delivery service tariff

From the customer's perspective, if the plants fail the customer ends up paying a little more stranded cost than in the sale option. On the other hand, if gas price continues to rise as it has during the last year, power plant economics would improve, thus providing a credit against stranded cost payments.

This structure requires that PSNH operate its plants for the benefit of the customers. This would be best achieved by aligning the interests of the company and the customers by requiring the company to retain a percentage of the book value in exchange for the same percentage of the income. Additionally oversight by the Commission would need to continue.

Air emissions from Merrimack Station have been substantially reduced with the addition of the new scrubber. However, carbon dioxide and thermal emissions remain issues which can be addressed in a number of ways.

Efficiency improvement

Co-firing with gas or wood

Cycle modification, for example, providing feed water heat from gas turbine exhaust instead of from extraction

Carbon capture and use, for example, to support plant or algae growth in a greenhouse as a source of food or bio-fuel

Use of waste condenser heat from Merrimack Station to displace fuel using a low-temperature district heating system to serve Concord and Manchester, and likewise Portsmouth from Newington or Schiller.

The last two items in this list may also reduce the need for a new cooling tower by diverting some of the heat for useful purposes. The \$110 million cost of a new cooling tower would pay for a lot of district heating pipe. These alternatives may also reduce the presence of hot spots by diverting cooling water discharge away from the power plant.

The valuable by-products of these alternatives, carbon dioxide, heat and biomass, will make the system more economic while providing environmental benefits.