

**State of New Hampshire
Public Utilities Commission
PSNH Least Cost Integrated Resource Plan
Docket DE 10-261**

**Closing Brief of the Conservation Law Foundation
June 13, 2012**



I. Introduction

PSNH's business model is broken. PSNH's energy supply cost structure is rapidly exceeding the ability and means of its ratepayers to pay, in what is now an intractable death spiral as customers migrate to competitive suppliers. The company over-relies on and has over invested in aging and uneconomic generating facilities at the expense of ratepayers and the environment. PSNH energy service customers are paying 40% or more above prevailing retail rates of other New Hampshire utility providers and the discrepancy is growing. The consequence is that hundreds of millions of dollars in above market payments are being extracted from New Hampshire ratepayers, while PSNH and its shareholders continue to benefit as if they are a low cost supplier, which the company clearly is not. The question before the Commission is whether the excessive costs being imposed by PSNH on its ratepayers and New Hampshire reflect, in some measure, the quality of PSNH's 2010 least cost integrated resource plan ("2010 LCIRP" or the "Plan") and thus inform the adequacy of such planning as required by RSA 378:38 – 378:40. The Commission must decide whether lapses in PSNH's planning materially contributed to adverse and avoidable ratepayer outcomes and the unsustainable rate spiral which will apparently require legislatively mandated cost shifting and/or lead to PSNH's bankruptcy.

The evidence in this proceeding unequivocally demonstrates that PSNH's planning failed to consider a multitude of material planning elements that are crucial to least cost planning. Without limitation, these include: 1) the Plan's failure to include or consider forward price

curves for natural gas which would dictate projected economic dispatch and margins; 2) the Plan's failure to forecast customer migration which substantially informs the need for and cost-effectiveness of PSNH's owned generation and entitlements; 3) the Plan's failure to address or consider future environmental costs for PSNH's generation fleet; and 4) the Plan's failure to project forward energy service rates during the five year planning period. At the core of these planning lapses lies the question of whether and the extent to which it is in the ratepayers' interests for PSNH to continue to own or operate its aging fossil fuel generation fleet, including the 1950's vintage, small uneconomic coal units at Schiller Station. PSNH's planning completely ignored the market trends which, beginning in 2008, reduced the capacity factors of Merrimack and Schiller Station to the point of being coal-fired peakers, notwithstanding the Plan's assertion that they will remain baseload generators.

This proceeding provides an opportunity for reckoning by the Commission, which can provide redress for PSNH's inadequate planning. By finding the 2010 LCIRP inadequate, based on the evidence in this proceeding, the Commission will provide a critically important foundation for addressing the consequent adverse impacts as they increasingly inundate ratepayers and are framed for further action by the Commission and the legislature. PSNH ratepayers and to some extent the economic vitality of New Hampshire are approaching a critical juncture as the insolvency of PSNH's energy supply business becomes increasingly apparent. The law and the public interest compel the Commission to reject and to find inadequate PSNH's 2010 LCIRP.

II. Statutory Background

RSA 378:38 compels each electric utility to file a least cost integrated resource plan (LCIRP), at least biennially. Among numerous elements specified by the statute, each plan shall

include an assessment of supply options, and an assessment of the plan's long- and short-term environmental economic and energy price and supply impact on the state. RSA 378:38, III, IX. The Commission is required to review the LCIRP, evaluate the adequacy of the utility's planning process, and render a determination regarding whether such planning process is adequate considering "potential environmental, economic and health related impacts of each proposed option. RSA 378:39. Because PSNH continues to own and operate generation facilities to supply power to its customers, "the primary objective of an integrated least cost resource plan for PSNH [] is to develop and implement an integrated resource plan that satisfies customer energy needs at the lowest overall cost consistent with maintaining system reliability." Order 24,945 (February 27, 2009) at p. 12. In the context of reviewing an LCIRP, the Commission may require a utility to include an economic analysis of retirement for any unit in which the alternative is the investment of significant sums to meet new emissions standards and/or maintain plant performance (*Id.* at p. 16) or to evaluate whether it is in the economic interest of retail customers for PSNH to divest (i.e., sell) its generation assets. RSA 369-B:3-a.

III. PSNH's Planning Omitted the Considerations Necessary to Satisfy Customer Demands at Lowest Overall Cost Consistent with Maintaining System Reliability

During the hearings in this proceeding, PSNH's witness Mr. Large unequivocally stated that the 2010 LCIRP "has very limited value" to its decision-making. Transcript ("Tr.") 4/4 (p.m.) at 115-116. Mr. Large's statement illuminates the significant defects with the 2010 LCIRP's assessment of supply options, in light of the statutory purposes of an LCIRP.

PSNH's Plan erroneously assumes that the coal-fired and wood-fired units (Merrimack and Schiller) are economic "in all periods and, thus, are assumed to operate as baseload resources outside of planned maintenance periods." Tr. 4/4 (p.m.) at 18; PSNH Ex. 1 at 32.

PSNH's witness testified that for planning purposes, the company modeled those resources as "baseload resources." Based on the data and trend line at the time, however, the "baseload" assumption was not a rational or prudent assumption. By the second half of 2008, more than two years before the Plan was submitted, the annual capacity factors for the coal units at Schiller and Merrimack had begun to precipitously decline. Tr. 4/4 (p.m.) at 20; CLF-1; CLF-2. In the aggregate among all of PSNH's coal units, the extent of this decline was increasing (particularly at Schiller) over the next two years. Id. Between 2010 and 2011, the Schiller coal unit capacity factors declined to below 40%. Id. PSNH's witness, Mr. Errichetti – who bids the units into the ISO-NE market, acknowledged providing input regarding projected capacity factors in August or September of 2010, yet the faulty "baseload assumption" remained unchanged as a planning assumption with regard to the operations of the units and ratepayer costs. Tr. 4/4 (p.m.) at 35. The failure to properly characterize the economics of PSNH's coal units renders the LCIRP's assessment of supply side options to be inadequate.

A substantial defect in the Plan is PSNH's failure to incorporate a natural gas forward pricing model into its planning. According to PSNH witness Mr. Carlton, forward natural gas pricing at Dracut is needed to project unit marginal cost, energy clearing prices, dispatch projections and capacity factors for Newington. Tr. 5/8 at 112-113. By extension, forward natural gas prices at Dracut are needed to assess future energy clearing prices, dispatch projections and capacity factors for PSNH's other fossil units. Mr. Carlton testified that his firm provided month-by-month forward gas price projections for Dracut for use by PSNH as part of the Plan. Tr. 5/8 at 113; Tr. 5/8 at 119. Yet PSNH did not use it in its assessment of supply options. The failure to include the forward gas price projections in its modeling for the Plan was unreasonable and renders the LCIRP assessment of supply side options to be inadequate.

By the same token, PSNH did not project future energy service rates or customer migration as part of its planning. Nonetheless, in a separate docket (DE 10-160, the migration docket), PSNH projected an energy service rate of 10 cents per kWh only days before submittal of the Plan, in hindsight an accurate projection. CLF-5. It simply is not reasonable or prudent for PSNH to omit such analyses and projections, as it relates to the cost-effectiveness of its generating facilities as supply side options, from its 2010 LCIRP. The failure to undertake and include projections of future energy service rates and/or customer migration renders the LCIRP assessment of supply side options inadequate.

As a result of these material omissions, PSNH's planning unreasonably and mistakenly relies on its generating units to serve the majority of its energy services load (PSNH-1 at 33-34) with the consequences being excess ratepayer costs. According to a report prepared by the Commission and Department of Environmental Services, PSNH residential ratepayers are paying the highest energy service rates in New Hampshire (as of August 2011). CLF-4. In comparison to the then-National Grid customers, PSNH ratepayers are charged in excess of \$25 per month for the same amount of power (assuming 500kWh/month). *Id.* This amounts to over \$300 per year, multiplied by PSNH's approximately 400,000 residential ratepayers (PSNH-1 at App. B, page 161), more than \$120 million in above market costs are being extracted from PSNH's residential customers. The amount of above-market costs continues to increase.

The Plan's assessment of compliance with environmental standards and thus, cost exposure for the ratepayers is woefully insufficient. In response to data requests, PSNH acknowledged that it did not prepare any analysis of scenarios (and thus corresponding costs) associated with pending environmental regulations. CLF-7. More tellingly, however, is PSNH's

admission that it did not plan for reasonably foreseeable requirements at Merrimack Station stemming from the then-existing provisions of the Clean Water Act.

PSNH filed and has had a pending Clean Water Act application at the Environmental Protection Agency (“EPA”) since 1997. Tr. 4/4 (p.m.) at 76. According to the Plan, the outcome of the application is highly uncertain and,

PSNH could be required to take actions determined to be potential best technology available for Merrimack Station based on cost, biological benefits and risks, ranging from installing an improved fish return system with additional monitoring requirements to investigating wedgewire screens with upgraded fish return systems.

PSNH-1 at 155. What PSNH admittedly failed to plan for is a far more costly outcome – that EPA would require cooling towers as best technology available. PSNH witnesses testified that they did not assess such a possible outcome as part of the Company’s planning. Tr. 4/4 (p.m.) at 70-81. PSNH testified that the cost of cooling towers would be significantly larger than the cost of the technologies addressed in the Plan. Tr. 4/4 (p.m.) at 84.

On or about September 23, 2011, an event which PSNH’s Plan fails to consider occurred. To wit, EPA proposed a permit that would require the installation of cooling towers at Merrimack Station in order to comply with section 316 of the Clean Water Act. CLF-8; Tr. 4/4 at 74-80. The fact that EPA proposed cooling towers in response to PSNH’s pending application is prima facie evidence that the outcome was foreseeable and should have been part of PSNH’s planning. See, TransCanada-2. With respect to Merrimack Station, PSNH’s failure to plan for the potential cost of cooling towers risks an additional and substantial cost to ratepayers.

IV. The Commission Should Require an Assessment of Divestiture or Shutdown of Schiller Station Units 4 and 6

CLF's testimony of Douglas Hurley (CLF-9), addressing the poor economics of Schiller Station and its adverse impacts to ratepayers, was uncontroverted and unopposed by PSNH or any other party. Mr. Hurley, and his firm, Synapse Energy Economics, prepared a report entitled "Economic Analysis of Schiller Station Coal Units" which analyzed and projected the net revenues of units 4 and 6 at Schiller Station over a 10 year period from 2011-2012. CLF-9 at 7. Mr. Hurley's analysis used cost and other data from the Federal Energy Regulatory Commission, EPA and various other sources listed in his testimony to assess the expected market revenues of Schiller Station units 4 and 6. Id. Mr. Hurley's modeling conducted various sensitivities based on natural gas prices, future environmental control costs, and assumptions regarding wholesale energy and capacity prices in New England from PSNH's Newington Continued Operations Study. Id. In each modeling run, and for each sensitivity, the operating cost for the units was greater than its revenues. Id.

Mr. Hurley's modeling is validated by PSNH's own projection of the units' capacity factors in 2012, of approximately 25%. CLF-6. On net present value basis, Mr. Hurley's modeling predicts that the units would have a 10-year net revenue negative of \$147 million. CLF-p at 7. Based on the adverse cost impact to ratepayers, and in light of the Plan's failure to properly assess Schiller units 4 and 6 as supply side options, the Commission should disapprove the Plan and require analysis of whether continued operation or ownership of the units by PSNH is in the ratepayers' interests. See RSA 369-B:3-a.

V. Conclusion

As suggested by Mr. Large's testimony cited above, the 2010 LCIRP as prepared by PSNH, is of little value to least cost planning and should be rejected as inadequate. Under the

statutory framework, the LCIRP is the foundation upon which the Commission must assess the prudence of costs incurred by PSNH. RSA 378:40. Accordingly, the Commission should order PSNH to prepare an adequate plan, which properly assesses supply side options and evaluates the retirement and/or divestiture of Schiller Station. Should the Commission determine to approve the Plan, then PSNH should be required to include such analysis of retirement or divestiture for Schiller Station, conducted by a contractor approved by the Commission and with Commission oversight, as part of the 2012 LCIRP, due on or before September 30, 2012 as required by RSA 388:38.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on the 13th day of June 2012, a copy of the foregoing Closing Brief was sent electronically or by First Class Mail to the service list.



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