

14 238  
Ex U

**Comments  
of  
Pentti J. Aalto  
NH PUC DE 14-238  
PSNH Generating Assets**

**PJA Energy Systems Design LLC  
720 Bachelder Rd  
Pembroke NH 03275  
603 485 2559  
pjaesd@comcast.net  
September 22, 2015**

In this testimony I will address several issues.

Situational background and default service

Minimizing distribution charges

Alternatives to absolute auction

Proposal

Qualifications

Situational background and default service

The original restructuring agreement required that default service customers would pay all the cost of generation. This included all of the operating and capital cost of existing generation plus any capital enhancements such as the scrubber at Merrimack station. Additional power would be purchased when necessary. The price of default service remained relatively low compared to the market for a number of years; however, dramatic gas price reductions and the addition of a very expensive scrubber to Merrimack station led to higher prices and customer defection from default service. The result was additional upward pressure on price and more defection. Under conventional ratemaking, the commission would interrupt this "death spiral" at some point by limiting rate increases to some reasonable level in order to protect customers who could not leave default service. The utility would not achieve its allowed rate of return for its generation investments. In this case however, the restructuring agreement provided for stranded cost recovery from all distribution service customers in the event of a sale or retirement of the assets. The result of all this is that the customers are exposed to a stranded cost on the order of \$0.5 billion minus any prudence disallowance.

I do not take any position on prudence for the purpose of the following discussion. I will assume that customers are responsible for full book value.

### Minimizing distribution charges

Currently, distribution charges are quite high and may continue increasing as more efficiency measures and distributed generation reduce power consumption. A stranded cost surcharge, in addition to its direct economic effects, will increase pressure for more efficiency and distributed generation, as well as increase the prospect of larger commercial customers leaving the territory, all of which may cause a new “death spiral” in distribution service. It is essential that we try to limit new distribution rate adders while we seek improvement in actual distribution costs.

### Alternatives to absolute auction

The current settlement assumptions are that an absolute auction is the best way to maximize ratepayer value. We will take what we can get. This implies that there is no other way to extract value from these assets. There are, however, other options that have not been adequately considered. An example would be securitization of the full book value of an asset with operating income used to support the securitization payments. In this structure, the utility would be made whole and would be separately paid to manage the asset for the benefit of the ratepayers. In the event that the utility doesn't want this job, someone else could be hired to do it. This would be similar to the situation that occurred during the earlier years of restructuring, when a number of power plants that were under construction went bankrupt, leaving the financial entities with the need to hire outside plant operators to manage the assets.

If we decide to sell an asset we should at least set a reserve price equal to a few years of income.

To explore the thought a little further, in the current case the book value of assets may be \$700 million and the stranded cost in the divestiture might be \$500 million. Net income might be \$100 million a year. Annual securitized payments might be 12%. Full book value securitization for 15 years would result in an obligation of something like \$84 million a year while the divestiture option would be around \$60 million. The net income applied to the book value option would very quickly pay off the difference. Or put another way, simple payback might be as little as seven years.

### Proposal

Securitize the total book value of PSNH's generating assets, minus any amount that might be disallowed, with the agreement that PSNH would continue to operate these facilities for a management fee until such time as other arrangements can be made for long term management. All income net of operating costs would be applied to securitized obligations.

Default service would be provided from the market, as it is with other utilities.

If it is decided to sell some of the plants, then I would propose that they would be sold in a reserve auction, with the reserve price being set at perhaps three years projected income.

### Qualifications

My professional work has been at the interface between technology and policy. While at Antioch College in Ohio I decided to focus on energy issues. I quickly learned that technological development in energy was strongly constrained by policy and regulation. After graduation I continued my work and study in a number of areas including alternative sources of energy, district heating, heat pumps, cogeneration systems, and industrial research and design. The following is a list of some my projects and experience since the early seventies.

Design of a back pressure steam turbine induction generator set at Antioch College. The design was later applied at a Massachusetts Hospital.

Work with Arthur Morgan who had been the first chairman of the TVA, on a number of projects to apply university research and development to industry. The experience provided a profound exposure to national energy policy issues.

I took part in the founding of the New England Solar Energy Association, now the Northeast Sustainable Energy Association.

I studied the integration of small wind and hydro power into the grid in a number of early projects.

I went on a study tour of district heating systems in Finland.

I initiated a project that became the Governor's Commission on Cogeneration in Massachusetts and then served the Commission in its DOE funded work in support of the National Energy plan and PURPA.

I worked on a project with the Institute for Local Self Reliance on a project for NYSERDA on issues with the grid interconnection of small distributed generation systems.

I worked on a number of DOE funded innovative research projects applied to district heating. These included use of plastic piping for district heating systems, and warm wet air conversion of building steam systems to be able to use heat from a hot water district heating system.

I was active for a number of years with the International District Heating and Cooling Association research committee.

I worked with Pequod Associates, now part of United Technologies, on a wide variety of district heating, cogeneration, heat pump and other energy efficiency projects.

I helped develop the New England Cogeneration Association now the Northeast Energy & Commerce Association and have been active on its board. The association was very involved in the electricity restructuring process and still represents the many disparate interests in the competitive era.

Since the nineties, I have been active with electric industry restructuring issues in the northeast and nationally. My main technical interests have been in the practical application of Second Law efficiency concepts to the supply of heat and power in a market oriented environment.

