STATE OF NEW HAMPSHIRE

BEFORE THE

NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION

Docket No. DE 10-261

Public Service Company of New Hampshire

2010 Least Cost Integrated Resource Plan

TRANSCANADA'S POST HEARING BRIEF

BACKGROUND

The Commission opened this docket on November 3, 2010 in response to Public Service Company of New Hampshire's ("PSNH" or "the Company") filing of its Least Cost Integrated Resource Plan ("LCIRP") dated September 30, 2010. The Order of Notice said that PSNH's filing raised a number of issues, including whether PSNH's planning process is adequate according to the requirements set forth in the law and prior Commission orders and whether it is otherwise consistent with relevant NH law. As the Commission also noted in the Order of Notice, PSNH's initial filing included a "continuing unit operation study" ("CUO") for Newington Station. This study, completed for PSNH by Levitan Associates, Inc. ("LAI"), had been directed by the Commission in the last LCIRP proceeding and in a subsequent order of the Commission in an energy service rate proceeding.

In response to the Order of Notice a number of parties, including TransCanada Power Marketing Ltd. and TransCanada Hydro Northeast Inc. ("TransCanada"), Office of Energy and Planning ("OEP"), Conservation Law Foundation ("CLF"), the New England Power Generators Association ("NEPGA"), Granite Ridge Energy, LLC ("GRE"), Freedom Logistics, LLC and Halifax-American Energy Company, LLC ("Freedom and Halifax"), and New Hampshire Sierra Club ("NHSC") were granted intervention status. Many of these parties participated in discovery, submitted prefiled testimony and participated in the hearings that were held over five days in April and May of 2012.

I. PSNH's PLANNING PROCESS WAS WOEFULLY INADEQUATE AND FAILED TO MEET THE STATUTORY REQUIREMENT

PSNH witness Terry Large's comment that the LCIRP planning process "sadly has very limited value" (Transcript ("Tr.") Day 1 PM, p. 115, lines 14-15) sums up PSNH's unfortunate attitude toward planning and the impact that it had on the quality of their LCIRP. Mr. Large went on to say that the LCIRP drives decision-making "[t]o a very limited degree." Tr. Day 1 PM, p. 116, lines 3-4. Based on their testimony during this proceeding, PSNH appears to believe that the only purpose of the planning process is to "satisfy the requirements of the law". Tr. Day 1 PM, p. 120, line 14. Since the docket and proceeding has been expensive to PSNH and ultimately its ratepayers, as well as to the multiple interveners, and since it has occupied a significant amount of the PUC Staff and Commissioners' time, it is difficult to accept the Company's position that the docket is essentially a charade having no decision-making value.

PSNH seems to have a misconception about when and where it is appropriate to evaluate whether the overall costs of operating a generating facility should be evaluated. In an exchange with Chairman Ignatius about what is the appropriate forum to review the overall cost of generation, Mr. Large said that is being done in the migration docket, a docket (DE 10-160) that is no longer even active. See Tr. Day 1 PM, pp 134-136 and specifically p. 136, line 4.

As Chairman Ignatius noted in a question to the Company: "I have a hard time understanding how a document that's supposed to live with you for a five-year projection could be at the same time considered a snapshot, which sounds sort of frozen in the moment." Tr. Day 1 PM, p. 142, lines 6-11. Mr. Large's response to this question, that it is "a definition of at that moment in time", again suggests that the way in which the Company views the "planning" process is misguided in that it is not being used in any way by the Company as a guide or a "playbook", but instead merely as a snapshot in time. See Tr. Day 1 PM, p. 144, lines 15-18.

Dr. Ranajit Sahu, the NHSC witness with a wealth of experience dealing with generating facilities and environmental issues, noted that "the very nature of these plans is to account for reasonable uncertainty and a range of future outcomes by making that part of the plan" and said that "there are very, very established ways to do it." Tr. Day 2 AM, p. 23, lines 8-11. He noted inconsistencies in PSNH's position whereby on the one hand they say that based on their knowledge of their generating facilities there is no need for any capital investment, while at the same time they say that the future is too uncertain for them to plan for investment. Tr. Day 2 AM, p. 24. He noted that PSNH's planning does not comport with the standard that the PUC outlined in the December 2010 letter, marked as TransCanada Exh. 1. Tr. Day 2 AM, p. 40, lines 20-21.

Kenneth Traum, witness for the OCA, said that "the planning process must be more robust to protect ratepayers." OCA Exhibit 1, page 16, lines 16-17. In an exchange with Commissioner Harrington he noted that while PSNH may have a group that meets to discuss and set strategic direction for their generation, the results of those meetings do not appear in the LCIRP. Tr. Day 2 AM, p. 32. Similarly, Staff witness George McCluskey said: "I believe what's in the Plan does not reflect the actual planning for the Company." Tr. Day 2 PM, p. 100, lines 14-16.

It is clear that one of the biggest issues facing PSNH is the migration of customers to the competitive market. The impact of migration on default service customers and PSNH's continued ownership of generation had no meaningful discussion in the plan and very little in this docket. In short, PSNH chooses not to address this critical issue. See Tr. Day 1, AM, pp. 40-41. All that was included in the plan were a few "sensitivities". Tr. Day 1 PM, pp. 101-104. When the generating units that they own run less, default service ratepayers must pay fixed costs plus the cost of buying the power needed to supply those customers. Tr. Day 1 PM, p. 38, lines 7-15. Moreover, the LCIRP contained no projection of ES rates. Tr. Day 1 PM, p. 50, line 4 - p. 51, line 6. Nor did it in any way address the "death spiral". Tr. Day 1 PM, pp. 106-107. Mr. Traum said that they did not address "a base case migration scenario." Tr. Day 2 AM, p. 113, lines 18-19. He also said that their lack of analysis of migration was one of the defects of the least cost plan. Tr. Day 2 PM, p. 36, lines 10-14.

PSNH did no forecasting of energy or natural gas prices as part of the LCIRP. Tr. Day 1 PM, p. 60, lines 10-18; Tr. Day 1 PM, p. 98, lines 5-12. Commissioner Harrington asked the Company: "How can you have a plan that shows that you're going to meet the energy needs of the citizens or businesses of the state at the lowest reasonable cost if you're not projecting energy service rates, if you're not projecting migration customer rates, if you're not projecting future capacity factors of your plants…?" Tr. Day 1 PM, p. 114, lines 14-21. Mr. Errichetti testified for PSNH: "we did look at the forward energy prices and we did look at the estimated dispatch price. It was nothing rigorous. It was kind of a quick review." Tr. Day 1 PM, p. 131, lines 19-22. They did not adopt a particular gas, energy or coal price forecast, what they did "was more simplistic", they assumed some of their plants would just run base load even though they had not done so for a few years. Tr. Day 1 PM, p. 132, lines 6-18. Addressing this issue Mr. Traum said: "they did not address…forecasting long-term energy and capacity prices" and "PSNH's generation projections are not rigorous". Tr. Day 2 AM, p. 113, lines 14-16. Mr. McCluskey testified that if as a company PSNH doesn't do an analysis of future natural gas prices PSNH "can't make any reasonable assumption of how they're [the generating facilities] going to operate." Tr. Day 2 PM, p. 98, lines 20-22.

A question from the Chair suggested the need to give PSNH more direction for its next LCIRP; she referred to the fact that LCIRP dockets take up a lot of time and energy and said that if they're not useful then we need to ask ourselves: "How can we do a better job ? " Tr. Day 1 PM, p. 124, line 24.

From the weight of the evidence presented during the course of this proceeding coupled with PSNH's minimization of the LCIRP process value, it is clear that their planning process was flawed, superficial and inadequate to the task of "least cost" integration of "resources" to benefit customers.

II. THE LEVITAN STUDY IS DEEPLY FLAWED

A. PSNH put inappropriate limitations on the LAI study

TransCanada supports Mr. Traum's contention that the RFP that PSNH issued for the CUO did not meet PUC requirements and therefore the CUO study should be rejected as inadequate. OCA Exhibit 1, p. 21, line 15 – p. 22, line 9. During the hearing Mr. Traum testified that the RFP "just looked at continued operation, and not continued ownership." Tr. Day 4 AM, p. 33, lines 5-8. Attachment KET 34 to OCA Exh. 1, bates page 163, which is a PSNH response to Staff 1-49, makes it clear that "LAI did not determine the benefits or costs of retiring, mothballing or selling the unit as those alternatives are outside the scope of a continuing unit operations study."

Order No. 24,945, the order cited in the Order of Notice in this docket and issued in PSNH's 2007 LCIRP on February 27, 2009, required that PSNH "include in future LCIRPs 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 enhance or maintain plant performance." [Emphasis added.] *Re Public Service Company of New Hampshire*, 94 NH PUC 103, 111 (2009). In addition, in Order No. 25,061 in DE 09-180, PSNH's 2010 Default Energy Service Rate proceeding, issued on December 31, 2009 the Commission said: "Having reviewed the revenues and expense related to Newington Station, we agree with Staff that the Company should conduct a study of the costs of *continuing the ownership* and operation of the plant." [Emphasis added]. *Re Public Service Company of New Hampshire*, 94 NH PUC 760, 775 (2009). The Commission then directed PSNH to incorporate the study in the next LCIRP and changed the date for filing the LCIRP from May 2010 to September 30, 2010, to give PSNH additional time to conduct the study.

PSNH chose to narrowly interpret the Commission's direction in order to obtain an obvious, self-serving result that would be favorable to its continued operation of the facility. The initial RFP issued by PSNH underscores this when it says: "PSNH is requesting assistance with *assessing the long-term value* of continued operation of an existing rate-based thermal power plant to PSNH customers..." [Emphasis added.] OCA Exh. 1, bates page 159. The RFP is replete with references to the value that Newington brings to customers. For example: "PSNH is seeking assistance to value the flexibility that Newington Station provides to PSNH's customers and ISO-NE markets 1) as a hedge against future market uncertainty...." Also: "Identify, describe, and summarize the opportunities where such a unit would provide value in the ISO-NE market to PSNH customers..." And: "quantify the selected opportunities where Newington Station provides a physical and/or market hedge/option value to customers..." OCA Exh. 1, bates page 161. The RFP thus sent clear signals to prospective consultants about what conclusion PSNH was looking for. It was clearly not the objective study of the continued ownership and operation of the plant that the Commission sought and ratepayers deserved.

Michael Hachey, TransCanada's witness, said that the LAI study reflected "assumptions that have created biased results in favor of PSNH's desired outcome: a determination that Newington Station is now and continues in the future to be economic for PSNH's customers." TransCanada Exh. 14, p. 3, lines 57-59. It is thus clear that from the very start PSNH was shaping the Newington CUO to produce a result that would favor continued ownership and operation of Newington.

B. As a result of a vigorous review by the parties and staff LAI had to make numerous corrections

The net present value calculation included in the LAI Newington CUO study, basically an average of 250 scenarios, was reduced from $152.3 million (Tr. Day 3 AM, p. 33, lines1-21) to $71.4 million (Tr. Day 3 AM, p. 37, line 12) and then later to $36.8 million based on further adjustments that came about when Staff sought a back-cast analysis that resulted in a re-run (Tr. Day 3 AM, p. 39, lines 15-19). Despite what was a huge reduction in net present value calculation in the LAI study as a result of these "corrections", PSNH characterized the changes as follows: "The differences in outcomes predicted by the original and revised Levitan studies are relatively small…" indicating PSNH's ingrained remoteness from practical financial impacts on its ratepayers. TransCanada Exh. 8, p. 2. It is beyond belief that they could be so cavalier about such a significant change in the supposed benefits that Newington brings to their customers.

The flaws uncovered during the course of this proceeding included corrections to model equations handling the formation of energy prices, simulation of historical hourly patterns to overlay on top of daily price indexes, start-up fuel inputs, an increase to Dracut to Newington basis spreads, an adjustment to residual fuel oil prices, an issue with heat rate data that PSNH supplied to LAI, and an issue of #2 fuel use for station warming that had not been included in fixed costs. Levitan also admitted that they had underestimated the cost of natural gas for Newington. Tr. Day 3 AM, p. 41.

As Edward Arnold, the consultant hired to assist Staff in its review of the LAI model, testified in response to a question from Commissioner Scott on the last day of hearing about the iterations of the net present value calculations in the Levitan study, this was not a normal sequence of events and the Commission should be concerned with this type of outcome. Tr. Day 5, p. 127, lines 1-14. In response to a question from Chairman Ignatius Mr. Arnold said: "I think the key point here is that you still don't have a solid handle, for a number of reasons, on today's net present value of the Newington asset." Tr. Day 5, p. 128, lines 12-15. Mr. McCluskey said that the result of the back-cast analysis showed that "there was [sic] significant differences in the expected versus actual net revenue." Tr. Day 5, p. 75, lines 3-6.

Thus a study that required numerous corrections only after issues were brought to the attention of the consultant by Staff and the parties to the docket, that Ken Traum for the OCA said "does not inspire confidence in the quality or usefulness of the CUO" (OCA Exh. 1, page 20, lines 19-20), and that will cost ratepayers a half a million dollars (Tr. Day 1 PM, p. 147, line 9) was deeply flawed. Perhaps it was flawed because as LAI said in their rebuttal testimony (PSNH Exh. 8, page 15, lines 19-20), there were "time constraints" on completion of the study, perhaps because as Mr. Levitan testified during the hearing they had never done a study that incorporated "the level of rigor practiced here for the CUO" (Tr. Day 3 PM, p. 125, lines 12-15), or perhaps because as noted above the RFP seeking the consultant to do the CUO was clearly skewed toward finding the value of continued operation. In any event, the flaws were repeated and evident and it took significant effort on the part of Staff and the parties to the case to uncover them. They were not uncovered by LAI or PSNH.

As Mr. Hachey testified, this was a "report that never should have made the light of day, based on the way it was drafted the first time." Tr. Day 4 AM, p. 14, lines 18-20.

C. The Levitan Study did not take into account rate of return and fixed costs

As Mr. McCluskey testified, comparing the net present value of $37 million from LAI (assuming you could verify the underlying numbers and that you were comfortable with the end product) with the net cash flow of Newington: "Now, the question is, for the Commissioners, you're going to also pay them, say, $50 million in return, pay the Company. So, customers are out of pocket $13 million. What do you want to do? That's the decision for the Commission." Tr. Day 5, p. 130, lines 17-21. Of course Mr. McCluskey's comment assumes the validity of LAI's future projections, which were based on what most parties argue is a flawed analysis that results in a net present value of $37 million and that does not take into account the number of years, going back to 2005, where the plant has cost more to run than the revenue it has produced. See Tr. Day 5, p. 131, lines 8-23. Mr. McCluskey testified that the Company recorded losses on its books from 2005 to 2010 ranging from a high of almost $21 million to a low of $3.6 million. Tr. Day 4 AM, p. 82, lines 15-19; Staff Exh. 1, page 57.

Mr. Traum noted the failure of the LAI study to account for sunk costs, net plant value that ratepayers are already paying for, or rate of return. Tr. Day 4 AM, p. 37, lines 6-20. Mr. McCluskey testified that the returns on rate base related to Newington for the foreseeable future will be in the range of $8-10 million a year. Tr. Day 5, pp. 109-111. These numbers were not considered in the study. Mr. McCluskey's response to a question from the bench about the difference between the future projection in the LAI model and the actual net profit and loss for Newington reflected in Staff Exh. 1, p. 57, is also telling: "The answer is that they're two radically different calculations.....Going forward [in the LAI study], we have no fixed costs in there. So, we're just comparing, essentially, the same market revenues, with only the variable costs. So, obviously, it's going to be much easier to record a profit going forward..." Tr. Day 5, page 137, line 24 to page 138, line 10. Commissioner Harrington's follow up question and the response:

> "Q. But, in reality, those fixed costs that you talked about in the future years would still be paid by ratepayers, wouldn't they ?
> A. (McCluskey) they would. But they're just not reflected in that particular - - in the methodology for the Continuing Unit Operation Study."

How can a study of a generating plant (owned by and in the rate base of a traditional electric utility) that does not take into account all of the costs of operating the plant be the basis for any determination of whether it is appropriate for that utility to continue to own and operate a generation facility ? This is a plant owned and operated by a utility that anticipates earning on its costs, not a merchant subject to the pressures of the market, so the study required a different approach than was used.

Mr. Levitan's failure to recognize the significance of overlooking the all-in costs was evident in this portion of his testimony: "Why give up the free option that PSNH's customers currently enjoy based on a roll of the dice." Tr. Day 3 PM, p. 142, lines 20-22. Free option to PSNH customers ? Over seven years of operating at a loss is a free option to PSNH's ratepayers ? This just underscores how inappropriate, narrow and flawed this study was, a study that did not take into account all costs to ratepayers.

D. The Levitan Study overstated capacity revenues

Citing LAI's forecast of the retirement of over 2000 MW of NEPOOL capacity despite none of these facilities being proposed for retirement by the owners, while at the same time ignoring the Northern Pass Transmission project ("NPT"), Mr. Hachey said "Levitan has been inconsistent in that it has differing standards for capacity retirement and capacity additions." TransCanada Exh. 14, p. 7, lines 157-158. LAI assumed 2100 MW would retire. PSNH Exh. 1, bates page 221. This assumption was not borne out by the recent ISO forward capacity market auction (TransCanada Exh. 11), nor was this borne out by the Charles River Associates study undertaken by Northeast Utilities, which assumed the retirement of Somerset 6 and Salem Harbor 1-2. TransCanada Exh. 5, p. 23. This assumption of significant retirements by LAI resulted in a significant overstatement of capacity revenues. LAI's use of an economic dispatch model also resulted in overstated capacity factors.

The Commission noted a steady decline in capacity factors at Newington in Order No. 25,061, p. 17, citing a 55.9% capacity factor in 2003 and a 3.3 % capacity factor in 2008. See also PSNH Exh. 1, bates p. 204, Exhibit G.3 in the Levitan study. PSNH witnesses Smagula and Tillotson admitted in their rebuttal testimony "continued lower capacity factors" were "anticipated". PSNH Exh. 4, p. 15 (bates p. 17), line 16. Levitan had originally assumed that the plant capacity factors would be much higher in the future than in recent years, between 15 and 19%, though he later revised these to between 7 and 10.7 %. Compare PSNH Exh. 1, bates p. 232, Exhibit G.17, with PSNH Exh. 2, bates p. 232, revised Exhibit G.17.

It is also interesting to note the statements attributed to Steve Mullen, the Assistant Director of the Electric Division at the Commission, in Order No. 25,061 in DE 09-180. After noting that PSNH had estimated that Newington would receive payments of more than $20 million in capacity revenue in 2010, he testified that "with the end of the forward capacity market transition payments in May 2010, lower future capacity prices resulting from the forward capacity auctions may result in a widening of the gap between plant-related expenses and revenues." *Re Public Service Company of New Hampshire*, 94 NH PUC 760, 769 (2009).

Mr. Hachey's analysis of capacity revenues for Newington was markedly different from LAI's even though he stuck with the LAI assumptions. See TransCanada Exh. 14, pp. 9-10; Tr. Day 4 AM, p. 77, line 23 – p. 80, line 15. Mr. Hachey concluded that LAI overstated the capacity value of Newington by $36 million.

The weight of the evidence in this proceeding suggests that LAI clearly overstated the capacity revenues anticipated for Newington Station.

E. The Levitan Study overstated net energy revenue

Mr. Hachey noted that he became immediately suspicious when he realized that the LAI study was showing that the plant was going to go from being a net loser based on historical data, to becoming profitable in the future. Tr. Day 4 PM, p. 15. Commissioner Harrington noted this in a question he asked the Staff panel on the last day of hearing: "On the bottom line there, where you were just talking about the 'Net profit and loss', and it shows 2005 to 2010, and every year there there's a loss. And, then, when we get to the - - looking to the future in the model, it would appear that every year there's going to be net benefit." Tr. Day 5, p. 137, lines 8-14. He referred to it as "a fairly radical performance change". Lines 20-21.

Mr. McCluskey testified that there was a modeling problem with the Levitan study. "The model is not predicting the net revenues. And how can we say that ? Because we know what the actual net revenues are. So, the model is predicting something much greater." Tr. Day 5, p. 134, lines 19-22.

Mr. Hachey pointed out in his prefiled testimony that "Levitan offered no explanation in the report nor did either entity appear to recognize the dramatic performance change between historic [net energy benefits] values and Levitan's projected values." TransCanada Exh. 14, p. 5, lines 103-107. Mr. Hachey also pointed out that NPT, which LAI failed to consider at the explicit direction of PSNH, would have "a significant impact on the energy market". TransCanada 14, p. 9, line 197.

Finally, when the Levitan assumptions are checked by looking at actual numbers it is clear that in 2011 energy net revenues did not measure up to what Levitan predicted. See response to record request, TransCanada Exh. 4.

The weight of the evidence in this proceeding clearly suggests that LAI overstated energy benefits anticipated to be derived from the continued operation of Newington Station.

F. Capital expenditure assumptions were understated

As Mr. Large testified, the judgment that PSNH made was that "there were not going to be the need for major capital investments." Tr. Day 1 PM, p. 123, lines 17-19. Dr. Sahu noted, however, that owning generation is a capital intensive business (Tr. Day 2 AM, pp. 47-48). Mr. Traum noted that there was the potential need for the installation of an SCR at Newington in 2017, which Mr. Large did not address in his testimony and which was not included in the LAI model. Tr. Day 4 AM, p. 25, lines 20-24. Mr. Traum also noted that the actual capital expenditure for 2011 was $1,055,500 (Tr. Day 4 AM, p. 63, line 16) which was more than the $500,000 per year for the next ten years that LAI modeled. Mr. McCluskey expressed concern about the capital expenditure assumptions that Levitan used. Staff Exh. 1, pp. 24-28. Mr. Traum expressed similar concerns. OCA Exh. 1, pp. 30-32.

It is thus clear that capital expenditures were understated.

G. The study should have modeled some costs associated with environmental regulations

An issue related to the understatement of the capital expenditures is the failure to model costs associated with environmental regulations. Mr. Traum summed this issue up very well: "PSNH does not prepare analyses or scenarios based upon possible regulatory rules or outcomes", instead "they seem to have changed the standard from 'reasonably foreseeable' to 'known and quantifiable' for regulatory changes." Tr. Day 2 AM, p. 112, lines 11-16. As Mr. McCluskey testified: "we just feel that the model was unbalanced, in that it did not include certain costs, where we think there's a non-zero probability of them incurring those costs." Tr. Day 5, p. 136, lines 10-13.

Ms. Tillotson testified that any kind of qualitative analysis of the MACT/MATS rule "would have been premature". Tr. Day 1 AM, p. 65, lines 18-20. PSNH also did no planning on water intake rules, rules that are likely to result in significant capital costs. Tr. Day 1 AM, pp. 72-73; Tr. Day 1 PM, p. 74, lines 5-7. Their overall strategy is to wait until a rule is final with a compliance date. Tr. Day 1 PM, p. 112. This was clear from Mr. Smagula and Ms. Tillotson's prefiled rebuttal testimony: "In our view, it would not be prudent to begin to incur these costs until there was certainty that the Company would be required to achieve compliance at a specified level and by a specified date." PSNH Exh. 4, p. 11 (bates page 13), line 21 – p. 12, line 2. They stuck with this approach despite the Commission's direction to the contrary in a letter in this docket that made it clear that "a sound planning process should consider reasonably foreseeable regulatory changes". TransCanada Exh. 2.

Mr. Large said that with regard to "defining capital costs associated with environmental projects, we're not 'what if' –ing." Tr. Day 1 PM, p. 145, lines 13-16. Dr. Sahu testified, however, that other utilities are able to do planning even with uncertainties. Tr. Day 2 AM, p. 21, lines 8 - 15. Dr. Sahu pointed out that there are at least three instances of surprises where PSNH has "misread its relevant regulators". Tr. Tr. Day 2 AM, p. 25, lines 17-23. He also said that what they should do is to "look at future outcomes based on a reasonable set of anticipated outputs." Tr. Day 2 AM, p. 63, line 9. "That is precisely the type of thing that this plan should discuss, is a sense of the assessment for need for capital or O&M, given a range of outcomes." Tr. Day 2 AM, p. 63, lines 18-21. He went on to say: "it is standard forecasting technique to do boundary assessment." Tr. Day 2 AM, p. 72, lines 15-16. "So, for a utility to really say, and with a straight face, that 'we could not have guessed even the range of outcomes' is a little hard to believe." Tr. Day 2 AM, p. 74, lines 1-4. CLF witness Douglas Hurley underscored this: "the purpose of a planning document, is to look at those reasonable scenarios, given all the information that you have at the time and project in the planning document." Tr. Day 2 AM, p. 103, lines 2-5. Mr. Hurley also noted "to set out those potential futures... that's what other utilities do and have done". Tr. Day 2 AM, p. 104, lines 7-10.

Mr. Hachey described this issue as follows: "the Levitan study lacks a complete review of Newington's own potential exposure to future environmental costs compared with those of the assumed 2,000 MW of generation that would be retired in the Levitan report's scenario." TransCanada Exh. 14, p. 8, lines 176-179. On the one hand LAI determined that "potential environmental capital expenditure costs" were "not sufficiently reasonably foreseeable to integrate" into its analysis (Tr. Day 3 AM, p. 80, lines 5-12), yet at the same time LAI assumed that 2100 MW of generation in the ISO would retire due to "increasingly strict environmental standards". PSNH Exh. 1, bates p. 221. There is no rational basis to support the inconsistency and superficiality of LAI's and PSNH's approach, other than perhaps to pre-determine its conclusions.

H. The record shows that Newington would actually make more money if it shut down

Mr. Hachey had pointed out that LAI had failed to take into account the fact that retiring Newington station could result in $20-30 million of capacity revenue if Newington were to shed its future capacity obligations in the Forward Capacity Market reconfiguration auctions. TransCanada Exh. 14, pp. 10-11. TransCanada had propounded a data request on PSNH that asked whether the LAI calculation of net retirement "disbenefit" was an appropriate valuation of the retirement benefit or cost to PSNH customers of Newington. The response included the statement that a valuation of the retirement benefit or costs would require a more complex type of analysis that goes beyond the scope of this proceeding. TransCanada Exh. 12.

The main point TransCanada wanted to leave with the Commission on this issue is that Levitan did not do a thorough analysis of both sides of the ledger related to whether PSNH should continue to own and operate Newington. If they had done the CUO correctly they would have considered sale/retirement of Newington and weighed that against continued ownership and operation. Moreover, if they had done that kind of analysis they should have taken into account the revenues that Newington could obtain from a reconfiguration auction if it were to delist or retire. See Mr. Hachey's testimony, Tr. Day 4 AM, p. 101, lines 8-19: "I think the important thing I was trying to convey....was that, in fact, capacity - - on a station retirement, capacity revenues don't come to an end. That there's an opportunity, in today's market, a very - - somewhat lucrative opportunity to re-market that capacity supply obligation in the reconfiguration auctions...and the value of that is not insubstantial...to the extent that this Commission orders... a new independent study, that that element will be given careful consideration." See also Mr. Hachey's prefiled testimony, TransCanada Exh. 14, pp. 10-11.

I. Comparison of the CRA Study with the LAI study showed flaws in the LAI analysis

The Charles River Associates ("CRA") study of Northern Pass (TransCanada Exh. 5), commissioned by PSNH's parent company, Northeast Utilities, and completed a couple of months after the Newington CUO, portions of which PSNH fought to prevent from being disclosed in this docket, showed very clearly that the energy revenues that LAI estimated would be derived from Newington are vastly overstated to the tune of $28 to $30 million a year. TransCanada Exh. 7; Tr. Day 3 PM, pp. 42-48. As Mr. McCluskey pointed out the CRA analysis indicated an NPV of energy net revenue of $2.19 million without Northern Pass and $338,000 with Northern Pass as compared with the $39 million value included in LAI's revised filing, thus indicating CRA's view that the value of the Newington plant going forward is much lower than LAI concluded, or virtually non-existent. Staff Exh. 2, p. 3, lines 10-17.

One of the conclusions of the study is that the addition of the NPT project has a pronounced and continuing effect on the New England power market. TransCanada Exh. 7, p. 34. A review of the CRA study also underscores the inadvisability of failing to include the impact of NPT in the CUO study. As Mr. Traum said, LAI did 250 scenarios but not one included NPT. Tr. Day 4 AM, p. 64, lines 16-22.

J. The lack of meaningful access to study inputs severely limited the ability to check the accuracy of the outputs

As Mr. McCluskey stated on the last day of hearing: "We just can't tell you whether this [the LAI CUO study] produces reasonable results, because we were not allowed to get access to really test this model." Tr. Day 5, p. 129, lines 19-22. Dr. Carlson from LAI admitted that they had not granted Staff and its consultant access to all of the input data. Tr. Day 3 AM, p. 45, lines 18-23. As Mr. McCluskey testified, the results they got from their analysis of gas prices was different from what LAI or PSNH produced and they wanted to verify it, but they could not because they were not allowed to see the data. Tr. Day 5, p. 90, lines 4-14. Any study done for a public agency about a generating facility that ratepayers are paying for should be done with a clear understanding that inputs into the study and outputs from the study are public information, or at least at a minimum that the inputs are available for checking by staff and other parties to the docket. Unfortunately, that was not the case here and this significantly affected the ability to verify the viability of the study.

K. Other issues raised by the LAI study

Newington is a 400 MW generating facility that began operation in 1974. Although Newington Station is described in the LCIRP as "a peaking unit for quick start up and load change capability" and as being "designed for fast response and startup" (PSNH Exh. 1, p. 87), it in fact takes 12 hours to start from a cold start, as Mr. Smagula finally admitted. Tr. Day 3 PM, p. 70, line 14, compared with p. 82, lines 1-21. Mr. Hachey testified that Newington was only on line for 800 hours in 2011, meaning for 8,000 hours of the year the station would take 12 hours to start. Tr. Day 4 AM, p.80, lines 1-9. The age and responsiveness of the facility are thus issues that impact on its dispatchability and attractiveness as a continuing source of electricity in the New England market.

Mr. McCluskey indicated that the Levitan model estimated average heat rate for Newington in 2010 at 11,230 Btu/kWh, which was different than the actual heat rate of 13,500 Btu/kWh. Staff Exh. 1, p. 9, lines 3-12. Mr. Traum noted that the Newington heat rate had increased over the last three years and said that "how the unit is dispatched in the model as compared to how it has actually performed recently is yet another reason to question the validity of the Levitan CUO study and its findings." OCA Exh. 1, p. 25, line 11 – p. 26, line 3.

Fuel inventory assumptions at Newington and the increased cost of oil became an issue during the course of this proceeding. Mr. Traum had noted in his prefiled testimony the differences between Levitan's assumption for oil inventory and PSNH's projected amount and the impact this could have on NPV expenses. OCA Exh. 1, p. 33. While Mr. Smagula originally testified that Newington "operated very sparingly on oil" (Tr. Day 3PM, p. 72, lines 5-6) on cross examination, after reviewing TransCanada Exh. 9 – a Form 1 document on Newington Station - Mr. Smagula admitted that it could be the case that approximately 36% of the power produced at Newington in 2011 was produced by oil versus natural gas. Tr. Day 3 PM, p. 76, lines 5-11. Mr. Smagula later explained: "And since our oil price on the tank is so low, the unit has been picked up to operate with a little more than we would normally expect." Tr. Day 3 PM, p. 133, line 24 – p. 134, line 3. Mr. Hachey testified that the oil inventory is a significant asset and that PSNH's operations during 2011 raised a number of issues, including the appropriateness and prudence of burning oil based upon its purchase cost rather than its market value, or simply selling it at a significant profit, given the price that could be obtained in the current market versus the price originally paid for it. Tr. Day 4 AM, p. 75, line 14 – p. 77, line 4.

These additional issues support even more the need for an independent study that looks objectively at the logic and reasonableness of continued ownership and operation of Newington at ratepayers' expense.

III. THE COMMISSION SHOULD REQUIRE AN INDEPENDENT STUDY OF THE CONTINUED OWNERSHIP AND OPERATION OF AT LEAST NEWINGTON STATION, IF NOT ALL OF PSNH'S GENERATION

Other than PSNH, most of the other parties to the case strongly recommend that the Commission require that an independent study of the continued ownership and operation of at least Newington, if not all of PSNH's generation, be done, given all of the flaws of the LCIRP and the Levitan study pointed out above. Although Staff had been less definitive in its prefiled testimony with regard to whether another study of Newington should be done, George McCluskey, in response to a question from Commissioner Harrington on the last day of hearing, said: "If you really want to nail this down, we really believe an independent study would be the most appropriate thing." Tr. Day 5, p. 124, lines 22-24.

As CLF witness Hurley said, any CUO should go beyond what the Levitan study did in a number of ways, including more "specific and detailed information than we were able to gain from public sources" and it should include an analysis of "the flip-side" of what the Levitan study looked at, meaning the cost of "not operating the units anymore" and the cost of "retirement or divestiture". Tr. Day 2 AM, pp. 105, line 23 – page 106, line 7. Mr. Traum said that "a more complete study [of Newington] should be conducted by an entity that's chosen by the Commission" and "the inputs should be available to all parties". Tr. Day 4 AM, p. 32, lines 1-15. He also said that a new study should be done "as soon as possible, under the auspices of the Commission". Tr. Day 4 AM, p. 21, lines 2-4.

The financial issues associated with continuing the operation of Newington at ratepayers' expense were noted at least as early as Steve Mullen's testimony in 2009 in DE 09-180, PSNH's 2010 Default energy Service Rate docket.[1] In the order approving the ES rate for 2010 the Commission noted the testimony of Mr. Mullen, the Assistant Director of the Electric Division, that the revenues associated with the plant had been exceeded by plant-related expenses, that this was a trend that had steadily worsened, that he recommended a CUO and that such a study should be filed early enough to be reviewed and analyzed before PSNH filed its next ES rate filing, which would have been late in 2010. *Re Public Service Company of New Hampshire*, 94, NH PUC 760, 769 (2009). Given that we are already mid way through 2012 and ratepayers are continuing to pay for a plant that has meager capacity factors and has been losing money for years, it seems that the urgency has only increased.

Mr. Hachey said that the study must be "redone by an analytical firm that is completely independent of PSNH ... and must be performed in such a way that the assumptions and methodology of the study are chosen based on the analytical firm's best judgment, with perhaps several alternative cases chosen by staff, OCA, interveners and PSNH." TransCanada Exh. 14, p. 2, lines 51-54.

Mr. Hachey also testified that a new study should include an analysis of capacity revenues that could be obtained if Newington were to retire. Tr. Day 4 AM, p. 101, lines 8-23. Mr. Traum had some constructive comments about what generally should be in the next LCIRP, including "reasonably anticipate regulatory change impacts on O&M costs and capital costs at PSNH's generating units", "a rigorous forecast of PSNH's generating costs, incremental, as well as all-in", "a base case for migration", and new CUOs for

[1] Order 25,061 refers to testimony by Staff consultant Michael Cannata in a prior docket, DE 09-091, as suggesting that the issue was ripe for review.

"Newington, and Merrimack, which would include divestiture as an option". Tr. Day 2 AM, pp. 109, line 18 – page 110, line 8.

Again, the weight of the evidence supports the rejection of the Newington CUO at a minimum (and, perhaps, the LCIRP guidance and direction generally) and the ordering of a new independent study.

CONCLUSION

WHEREFORE, TransCanada respectfully requests that the Commission:

A. Find that PSNH's LCIRP was inadequate;

B. Require a new independent study of Newington Station; and

C. Grant such other relief as is just and equitable.

Respectfully submitted,

TransCanada Power Marketing Ltd. and TransCanada Hydro Northeast Inc.

By Their Attorneys

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Dated: June 13, 2012

Certificate of Service

I hereby certify that a copy of the foregoing Petition has on this 13th day of June, 2012 been sent by email to the service list in DE 10-261.

By:__________________________

Douglas L. Patch

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