

**DE 04-072**

**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE**

**2004 Least Cost Integrated Resource Plan**

**Order Approving Partial Settlement Agreement  
and Resolving Disputed Issues**

**ORDER NO. 24,695**

**November 8, 2006**

**APPEARANCES:** Gerald Eaton, Esq. on behalf of Public Service Company of New Hampshire; Gary Epler, Esq. on behalf of Unitil Energy Systems, Inc.; Stephen Merrill, of the Office of Consumer Advocate on behalf of residential ratepayers; and Donald M. Kreis, Esq. on behalf of the Staff of the New Hampshire Public Utilities Commission.

**I. INTRODUCTION**

This proceeding concerns the revised biennial Least Cost Integrated Resource Plan (“LCIRP”) filed June 30, 2005 by Public Service Company of New Hampshire (“PSNH” or “Company”) with the New Hampshire Public Utilities Commission (“Commission”). The original LCIRP was filed April 30, 2004, pursuant to RSA 378:38. Following a Pre-Hearing Conference conducted on January 5, 2005, the Commission issued Order No. 24,435 (February 25, 2005), denying a request from PSNH for a waiver, pursuant to RSA 378:38, of certain requirements related to its 2004 LCIRP.

By Secretarial Letter dated November 16, 2005, the Commission approved a revised procedural schedule. On December 22, 2005, Staff submitted the direct testimony of George R. McCluskey and, on January 27, 2006, PSNH submitted the rebuttal testimony of Terrance J. Large and Stephen R. Hall. On February 3, 2006, Constellation Energy filed comments on both the Revised LCIRP and Staff’s direct testimony.

Following the submission of testimony, PSNH met in a settlement conference with the Office of Consumer Advocate (“OCA”) and the Staff of the Commission (“Staff”). Those discussions led to a partial settlement agreement among PSNH, OCA and Staff, which was filed with the Commission on March 20, 2006. The partial settlement agreement, as well as certain issues expressly not resolved in the agreement, were presented to the Commission at a hearing held March 21, 2006.

## **II. PARTIAL SETTLEMENT AGREEMENT**

### **A. Resolved Issues**

There have been several technical sessions and settlement conferences over the course of the proceeding. As a result of those discussions, PSNH, OCA and Staff agreed to defer review of the Revised LCIRP and instead focus on reaching consensus on the filing requirements for the next LCIRP, expected to be filed 2007. As a result, PSNH, OCA and Staff were able to enter into a partial settlement agreement that would, if approved, resolve some of the filing requirement issues for the next LCIRP. Following is a summary of the issues on which the signatories reached agreement.

#### **(1) Planning Horizon**

In the event the Commission determines that new generation resource options should be included in the supply-side assessment, the signatories agree that the planning period for its next LCIRP should be as long as the single longest lead time for such resource options, but in no event shorter than five years. If the Commission determines that new generation options should be excluded from the supply-side assessment, the planning horizon would be five years.

#### **(2) Load Forecasts**

PSNH agreed to develop load forecasts for delivery and energy services that match the adopted planning horizon. In addition, PSNH agreed to include in its next LCIRP the following information:

1. Detailed discussion of the methodologies used to forecast customer counts and retail sales, including related assumptions.
2. With regard to the energy service forecast, specific assumptions regarding customer movement to competitive suppliers. Also, PSNH will provide a range of forecasts assuming a higher and lower rate of migration to competitive suppliers.
3. Reference plan load forecast on a customer class basis.
4. Reference plan load forecast showing adjustments for losses, economic development programs, demand-side management (DSM) energy savings and self-generation.
5. Identify and explain the reasons for change in forecasted load growth compared to historical growth rates.
6. Broaden load forecast scenarios to include higher than expected economic activity and higher than expected electricity prices. Also, PSNH agreed to discuss how LCIRP addresses the load uncertainty associated with these and other scenarios.

### **(3) Resource Balance**

PSNH agreed to include in its next LCIRP information that shows the difference (on an energy and capacity basis) between its generation and committed wholesale purchases and projected requirements based on the most current reference load forecast. Using the results of scenario analysis, PSNH agreed to discuss the potential variability in this resource balance over the planning period.

### **(4) Supply-side Resources**

In the event the Commission determines that new generation should be included in the supply-assessment, PSNH would identify all reasonably available resource options to meet the projected resource balance over the planning period. The methods used to evaluate the cost-effectiveness of such resource options would also be described including identification of the costs and benefits. To the extent that such methods include a comparison of the costs of implementation for a specific resource and the wholesale market energy and capacity costs avoided over the life of the resource, PSNH agreed to present the wholesale price forecast, identify the forecast components and specify the input assumptions used in their development.

PSNH would include a description of its then current coal procurement strategy and discuss any recent changes to that strategy that are designed to improve the reliability and/or reduce the cost of its coal supply over the planning period. Such discussion would include an account of PSNH's efforts to reduce its coal transportation costs. Also, PSNH agreed to discuss the impact of anticipated changes in regulations on the characteristics of fuel it plans to purchase and the impact those procurement changes are expected to have on the cost of generation from fossil-fired facilities. In addition, PSNH would present a forecast of the cost of coal-fired generation over the planning period.

Finally, PSNH agreed to explain how it takes into account the price of SO<sub>2</sub> allowances when procuring fossil fuels.

#### **(5) Hedging**

PSNH agreed to describe its strategy to hedge the cost of supplemental power purchases on a daily and annual basis. This description would address: (1) the type of products PSNH plans to purchase to meet the resource shortfall and hedge costs (e.g., forward contracts, option contracts, generating assets), (2) the timing as to when the products are purchased (e.g., close to

delivery or multiple months prior to delivery), (3) the time periods for which the products are purchased (e.g., peak or off-peak), (4) for each such time period, the amount of the shortfall that PSNH plans to meet with such products.

To place this strategy in context, PSNH would describe generally its power procurement risk management strategy, the organization responsible for its development and implementation, and the internal protocols that allow for its timely execution.

Also, PSNH would describe the process it uses to assess future market prices and market volatility. In addition, PSNH would describe the process it uses to develop the short-term (one day to several weeks) and medium-term (one month to one year) forecasts of its supply shortfall.

#### **(6) Environmental Compliance**

PSNH agreed to discuss and evaluate the costs and benefits of all reasonably available alternatives (including scrubbers) to its existing strategy for meeting existing or anticipated new SO<sub>2</sub> regulations. In addition, PSNH would describe its SO<sub>2</sub> compliance plan and quantify its impact on retail rates.

PSNH agreed to explain how New Hampshire's NO<sub>x</sub> budget program works and specify the magnitude and timing of the required NO<sub>x</sub> reductions. In addition, PSNH would describe its NO<sub>x</sub> compliance plan and quantify its impact on retail rates.

PSNH would identify all reasonably achievable production adaptations, market-based mechanisms or other alternatives that could be used to comply with Phases I and II of New Hampshire's Clean Power Act or proposed regional or federal programs to decrease power sector CO<sub>2</sub> emissions such as the Regional Greenhouse Gas Initiative. In addition, PSNH would provide an economic assessment of production adaptations and market-based mechanisms and quantify the potential rate impact of any compliance plan.

Finally, PSNH would discuss and evaluate alternatives for complying with potential state and federal mercury emissions regulations. In addition, PSNH agreed to describe its mercury emissions compliance plan and to quantify the potential rate impacts.

**(7) Integration**

In the event the Commission determines that the demand-side resource assessment should include an analysis of the cost effectiveness of non-Core Energy Efficiency Programs (i.e., energy efficiency programs not funded through the System Benefits Charge authorized by RSA 374-F:3, VI), PSNH agreed to describe the process for integrating demand-side and supply-side resources in a manner that meets current and future needs at the lowest reasonable cost to customers.

**(8) Filing Date**

PSNH agreed to file its next LCIRP by April 30, 2007.

**(9) Status of Filed Plan**

The signatories agreed that it is in the public interest to avoid litigating issues arising under the 2005 plan and focus instead on the development of a 2007 plan that satisfactorily addresses the resolved and unresolved issues identified in the agreement. Accordingly, the signatories agreed that, as a condition of accepting the settlement, the Commission determine that further action on the 2005 plan be held in abeyance other than resolving the issues set forth below.

**B. Unresolved Issues**

The signatories noted in the agreement that they were unable to reach agreement on five issues, each of which is summarized below.

**(1) Plan Adequacy**

The Commission is authorized under RSA 378:38-a to waive the requirement in RSA 378:38 that electric utilities address generation in their LCIRPs. On February 25, 2005, the Commission issued Order No. 24,435, responding to PSNH's request for such a waiver. The order includes certain guidance with respect to how the Commission interprets PSNH's RSA 378:38 obligation to prepare an LCIRP in light of the restructuring of New Hampshire's electric industry and the unique position of PSNH as a utility that owns generation facilities but may or may not continue to own such facilities in the future. The signatories disagreed on the extent to which Order No. 24,435 was intended to modify, limit or eliminate criteria set forth in previous Commission orders with respect to the standard for a determination of the adequacy of PSNH's LCIRP pursuant to RSA 378:39.

**(2) Supply-side Assessment**

The signatories disagreed on whether the supply-side assessment required by RSA 378:38 should include an evaluation of the economics of new generation resource options.

**(3) Divestiture of Existing Generation Assets**

The signatories disagreed on whether the supply-side assessment required by RSA 378:38 should include an analysis of whether it is in the economic interest of retail customers of PSNH to divest PSNH's existing generating assets.

**(4) Demand-side Assessment**

The signatories disagreed on whether the demand-side assessment required by RSA 378:38 should include an analysis of the cost-effectiveness of displacing supplemental power with non-Core Energy Efficiency Programs.

**(5) Unitil and Granite State Electric**

The signatories disagreed on whether a generic docket should be opened to address PSNH's contention that LCIRP requirements should be consistently applied to all electric utilities in the state.

### **III. POSITIONS OF THE PARTIES**

#### **A. Initial Positions**

##### **(1) PSNH**

PSNH contended that the regulatory environment in which it operates has undergone substantial changes since its previous LCIRP was filed in 1996. These changes include, but are not limited to: the restructuring of New England's bulk power system, the divestiture of some of PSNH's generating assets, uncertainty over the ownership of the remaining generating assets, the opening of PSNH's electric system to give customers the option to choose their electricity supplier, and PSNH's new role as a provider of default service to customers who choose not to be served by competitive suppliers. The result of these changes, according to PSNH, is a more difficult short-term planning problem and a reduced need for long-term integrated least cost planning. That said, and notwithstanding the fact that PSNH must purchase about one quarter of its customers' energy requirements in the wholesale market at volatile prices, the Company stated that it does not see its role as building or purchasing new long-term generating capacity other than from smaller facilities. Nonetheless, PSNH argued that the Revised LCIRP is in accordance with the requirements established by RSA 378:38.

##### **(2) Staff**

Based on its review of the Revised LCIRP, Staff took the following positions:

Despite a Commission requirement to assess all reasonably available demand-side and supply-side resource options, Staff stated that the revised LCIRP includes virtually no discussion, much less evaluation, of the available resource options to meet default service loads over the planning period. For example, according to Staff, there is no evaluation of the decision to serve default loads with existing generation instead of purchases in the wholesale power market.

Staff noted that the resource balance (i.e., the projected gap between existing resources and expected loads) over the planning period was not identified in the revised LCIRP, nor was an avoided cost forecast to benchmark supply-side and demand-side resources presented.

According to Staff, because the available resource options to meet default loads are not evaluated, there is no integration of the options and demand forecast into a resource plan that meets current and future loads at the lowest cost to customers. Staff further noted that, although PSNH acknowledges that it has insufficient resources of its own to meet customer demands and, therefore, must in the short-term purchase the shortfall in the wholesale market at prices that are extremely volatile, the revised LCIRP failed to address the strategy to hedge the cost of these volatile supplemental power purchases.

Staff pointed out that the revised LCIRP does not demonstrate that the Company's SO<sub>2</sub> emissions strategy of combining low-sulfur coal with the purchase of emissions allowances is least cost, nor does it address the cost-effectiveness of SO<sub>2</sub> control technologies. Staff also noted that the revised LCIRP does not address the ratemaking implications of the Company's NO<sub>x</sub> compliance strategy.

Staff drew the Commission's attention to the lack of an explanation in the revised LCIRP of how the Company plans to comply with the New Hampshire Clean Power Act's Phase II CO<sub>2</sub>

Cap. Finally, according to Staff, the revised LCIRP does not explain how existing and new SO<sub>2</sub>, NO<sub>x</sub> and CO<sub>2</sub> emissions regulations are incorporated into the Company's evaluation of resource options, including the option of retaining its existing generation.

## **B. Rebuttal Positions**

PSNH witnesses, Stephen R. Hall, Terrance J. Large and Gilbert E. Gelineau, and Staff witness George R. McCluskey, testified in support of the partial settlement agreement.

### **(1) Resolved Issues**

Regarding the proposed planning horizon, Mr. McCluskey stated in his direct testimony that a planning period shorter than the customary 15 years is both consistent with the Commission's decision in Order No. 24,435 and appropriate given the uncertainty over PSNH's authority to add new, long-lived generation assets to its resource mix.

In response to Staff's concern that the medium-term forecasts of energy and capacity requirements included in the Revised LCIRP are not adequately explained, PSNH agreed to present load forecasts for delivery and energy services that match the adopted planning period and to provide significantly more information detailing how those forecasts were developed. PSNH also agreed to present in its next LCIRP the projected gap between existing resources and forecasted loads (i.e., the resource balance) over the planning period.

The provision in the settlement agreement relating to supply-side resources is conditional, in part, on the Commission determining that new generation must be included in the supply-side assessment. At issue is whether the criteria established in Orders No. 19,052 and 19,546 continue to apply. If those criteria do apply, PSNH agrees to identify and evaluate all reasonably available resource options to meet the projected resource balance over the planning period. To

the extent the evaluation involves a comparison of resource implementation costs and avoided wholesale market energy and capacity costs, PSNH also agreed to include the avoided cost forecast in its filing. Staff noted, however, that the agreement to evaluate all reasonably available supply-side resource options does not mean that Staff is supportive of the Company investing in new generation projects that it determines to be cost-effective.

PSNH also agreed to include a description of its hedging strategy in its next LCIRP. With more than 20 percent of the Company's energy requirements expected to be met by wholesale market power purchases over the next several years, Staff argued that it is proper that the next LCIRP include an account of the Company's efforts to protect customers against significant cost risks including a run-up in power prices and daily price volatility.

In addition, PSNH agreed to address in greater detail in its next LCIRP several issues related to the environmental compliance of its generating stations. These include demonstrating that its SO<sub>2</sub> emissions strategy of combining low-sulfur coal with allowance purchases is least cost, addressing the cost-effectiveness of SO<sub>2</sub> control technologies, discussing the ratemaking implications of its NO<sub>x</sub> compliance strategy, explaining how PSNH plans to comply with the New Hampshire Clean Power Act's Phase II CO<sub>2</sub> Cap, and evaluating alternatives for complying with potential state and federal mercury emissions regulations.

The provision relating to integration of supply-side and demand-side resources is conditional on the Commission determining that non-Core Energy Efficiency Programs must be included in the demand-side assessment. At issue is whether the revised LCIRP should identify available demand-side measures by market sector and determine their cost-effectiveness compared to continued purchases of supplemental power.

Finally, regarding the provision conditioning PSNH's acceptance of the partial settlement

agreement on the Commission holding in abeyance further action on the revised LCIRP, Mr. Hall explained that that provision was designed to avoid a situation where the Parties and Staff had agreed to focus on the development of the next LCIRP and the Company was prohibited from changing its rates because the review of the revised LCIRP had been completed without a finding of adequacy.

## **(2) Unresolved Issues**

### **a. Plan Adequacy**

#### **(i) Public Service Company of New Hampshire**

PSNH contended that the least cost planning criteria established by the Commission in Order No. 19,052 are no longer suitable for evaluating the adequacy of its LCIRP because they were created under a different regulatory paradigm. According to PSNH, the purpose of Order No. 19,052 was to develop a framework for translating a Commission-approved avoided cost methodology into long-term purchased power arrangements that PSNH was formerly obliged to enter into with independent power producers designated as Qualified Facilities (QFs) under the federal Public Utility Regulatory Policies Act (PURPA). Because New Hampshire utilities no longer have an obligation to purchase power from QFs as the result of the 2005 Energy Policy Act, PSNH asserted that the criteria established in Order No. 19,052 have been rendered obsolete. Further, PSNH argued that if the criteria in Order No. 19,052 continue to be effective, as asserted by Staff, it would require the filing of voluminous plans similar to those filed prior to the inception of open-access transmission and restructuring, which would be contrary to the Commission's determinations in Order No. 24,435.

This interpretation, according to PSNH, is supported by the following statements in Order No. 24,435: "it would be inconsistent with the public interest . . . to require PSNH to conduct

least cost integrated resource planning as it did prior to restructuring . . . the sensible course is to require PSNH to submit a document that delineates its planning in light of its continued ownership of generation and the other realities described in PSNH's memorandum" and the Commission "anticipate[s] that such a planning document will be significantly different from, and likely more abbreviated than, the kind of document a traditional, vertically integrated electric utility would produce."

**(ii) Commission Staff**

Although Staff and PSNH agreed that the starting point for any discussion of the adequacy of least cost planning processes is RSA 378:38, which requires that each LCIRP meet a minimum of nine specific reporting requirements, they disagreed on whether the planning criteria established in Orders No. 19,052 and 19,546 continue to control the content of those reports. According to Staff, because the Commission has not rescinded the guidance provided in Order No. 19,052, an LCIRP cannot be deemed adequate if the report on supply-side options fails to assess the full range of available supply-side resources. Similarly, according to Staff, an LCIRP cannot be deemed adequate if the planning process fails to evaluate demand-side and supply-side options in an equivalent manner.

Staff also disagreed with the Company's contention that the planning criteria established in Orders No. 19,052 and 19,546 are no longer suitable because they were created under a different regulatory paradigm. Staff argued that power supply planning is more complex today than before. Although PSNH will continue to supply customers that choose not to buy from competitive suppliers, Staff noted that the option to take default service from PSNH or competitive service from other suppliers makes the demand for regulated service considerably more uncertain. In addition, because PSNH's retained generation will be insufficient to supply

future default service loads and because PSNH appears to be constrained in its ability to acquire new supply-side resources to meet those loads, Staff argued that the ensuing “open position” will have to be filled in the short term, at least, with purchases from the wholesale market at prices that are extremely volatile, resulting in significant cost risks to customers and the need for complex hedging strategies.

For these reasons, Staff argued that the Commission’s pre-restructuring planning criteria continue to be relevant and, hence, should form the basis for any adequacy determination. The increased complexity of power supply planning is also the reason Staff disagreed with PSNH’s argument that future LCIRPs should be more abbreviated than the plans filed by traditional, vertically integrated electric utilities.

Staff also disagreed with PSNH’s argument that the above-referenced passages in Order No. 24,435 support the contention that the Commission modified its least cost planning criteria. Staff interpreted those passages to mean that the Company is authorized to use a shorter planning horizon than it did prior to restructuring. With that single exception, Staff asserted that Order No. 24,435 contains no criteria that would be useful in determining the adequacy of PSNH’s planning processes.

### **(iii) Office of Consumer Advocate**

The OCA supported Staff’s position on the criteria for least cost planning.

## **b. Supply-side Assessment**

### **(i) Commission Staff**

Despite a statutory provision requiring each utility to include in its LCIRP an assessment of supply-side resource options and a Commission directive that the assessment be comprehensive (i.e., consider the full range of supply-side resources available to meet future

energy requirements), Staff asserted that the revised LCIRP contains little more than a summary of existing owned generation, PURPA-mandated purchases, and supplemental wholesale market purchases. According to Staff, there is virtually no discussion of available generation options (such as adding to existing owned resources and/or increasing supplemental purchases from the wholesale market) to supply the balance between PSNH's existing resources and forecast demand, let alone an analysis of the costs of these options relative to each other and to PSNH's avoided costs.

In order to remedy these omissions, Staff recommended that the Company include in its next LCIRP a comprehensive assessment of supply-side resource options available to meet customer demands over the planning period, including new long-term bilateral power contracts and the construction and/or acquisition of power plants. Staff contended that the Company is already authorized to enter into long-term bilateral power contracts. Because the construction or acquisition of new power plants appears to require prior legislative approval, Staff stated that the Company should report the results of its economic evaluations to the Commission so that an informed decision could be made by the Commission or the Legislature regarding whether the public interest would be served by authorizing PSNH to acquire new generation.

**(ii) Public Service Company of New Hampshire**

PSNH argued that it is not reasonable to require the Company to evaluate new generation options as long as uncertainty remains regarding its authority to construct or acquire generation capacity. According to PSNH, such evaluations would be labor-intensive and costly. Until that uncertainty is removed, PSNH stated that its focus should be on managing its existing generating assets so as to minimize its combined generation and wholesale purchased power cost. If opportunities to modify the existing assets present themselves, PSNH asserted that it would

review them on a case-by-case basis, instead of as part of a long-term planning process, and seek Commission approval of projects determined to be economic. PSNH also stated that it is not clear that the Company is legally obligated to analyze options for acquiring generation or constructing new plant. PSNH also argued that the uncertainty created by the changes to the New England wholesale power market have made it significantly more difficult to conduct the type of least cost planning envisioned in Order No. 19,052 and recommended by Staff.

**(iii) Office of Consumer Advocate**

The OCA supported Staff's position on the evaluation of new generation options.

**c. Divestiture of Existing Generation Assets**

**(i) Commission Staff**

Staff argued that the constraint placed upon PSNH by RSA 369-B:3-a to retain its generation assets until at least April 2006 means that any decision to retain or divest those assets subsequent to that date should be addressed in the supply-side assessment mandated by RSA 378:38. According to Staff, this view is consistent not only with Orders 19,052 and 19,546 but also with RSA 369-B:3-a. Specifically, Staff argued that the decision to retain or divest the assets should be based on the economic interests of retail customers, which in turn should be determined based on an analysis of future rather than past costs and benefits. Moreover, the time period for the analysis, according to Staff, should be sufficiently long so as to capture most of the major costs and benefits associated with the investment decision. Staff contended that the Company's decision to continue to supply a portion of its default service load from its generation assets was made without the benefit of studies, analyses or calculations of the economic benefits of retention to PSNH retail customers.

**(ii) Public Service Company of New Hampshire**

PSNH responded to Staff's statement by maintaining that such an analysis is not required and was not contemplated by the outdated Order No. 19,052. According to PSNH, Order No. 24,435 only requires it to "describe the options available to it for assuring that safe and reliable electricity is available to its customers at the lowest possible cost." PSNH also disagreed that the analysis should be based on future costs and benefits. Rather, it stated that the Company's Default Service energy prices, when compared to the prices received by Unitil Energy Systems ("UES") and National Grid through competitive market solicitations, demonstrate the economic benefit to customers of continued ownership of the generating assets.

**(iii) Office of Consumer Advocate**

The OCA supported Staff's position on the need for PSNH to include a divestiture analysis in its supply-side assessment.

**d. Demand-side Assessment****(i) Public Service Company of New Hampshire**

The Company stated in its rebuttal testimony that it believed it had fully complied with the Commission's directive in Order No. 24,435 to assess the viability of both Core and non-Core energy efficiency programs as alternatives to "transmission upgrades, generation projects and other initiatives that PSNH might undertake." On cross examination, the Company acknowledged that its discussion of demand-side programs in the revised LCIRP relates to existing programs including demand response programs offered by the regional grid operator ISO New England, and that specific new initiatives beyond the existing Core programs were not addressed explicitly. That said, Mr. Gelineau suggested the Commission focus not on whether Core and non-Core energy efficiency programs should be implemented but rather how to finance more spending on Core energy efficiency programs, which he believes encompass a reasonably broad selection of potential programs. Mr. Gelineau also suggested that the Commission refrain from directing PSNH to consider increasing its spending on DSM programs pending the Legislature's completion of its review of energy efficiency spending.

**(ii) Commission Staff**

Despite the instruction in Order No. 24,435 to include in the 2004 LCIRP an assessment of the viability of both Core and non-Core energy efficiency programs as alternatives to "transmission upgrades, generation projects and other initiatives that PSNH might undertake," Staff testified that the demand-side resource assessment in the revised LCIRP is limited to transmission and distribution system upgrades. There is no discussion of the cost effectiveness of DSM as an alternative to new generation projects or additional purchases of supplemental

power. Instead, DSM is included as a reduction to PSNH's demand forecast. If the cost to implement new demand-side resources is less than the savings allocated to non-participants (i.e., customers that do not participate in DSM programs), Staff testified that these programs could be implemented without increasing rates or seeking additional financing. In fact, Staff argued that such programs could lower rather than increase rates to PSNH customers. For this reason, Staff recommended, as a first step, that the Company identify in its next LCIRP all available DSM programs by class and present estimates of implementation costs and associated energy/demand savings. Using these costs and savings estimates, Staff recommended that PSNH undertake studies to identify levels of program activity that will cost-effectively displace supplemental power purchases.

**(iii) Office of Consumer Advocate**

The OCA supported Staff's position on the need to assess the viability of non-Core energy efficiency programs as alternatives to generation projects.

**e. Generic Docket**

**(i) Public Service Company of New Hampshire**

In its rebuttal testimony, the Company questioned whether the power procurement processes used by UES and National Grid are least cost, and argued that Staff's recommendations for PSNH were equivalent to the imposition of a different planning standard. In order to address these concerns, PSNH requested that a generic docket be opened to determine whether the Commission's decision in this proceeding should be applied consistently to all electric utilities in the state. Mr. Hall noted that the Company's proposal might require UES and National Grid to investigate whether purchasing, through the bilateral market, strips of base load

power supplemented with market purchases is more cost-effective than the current practice of soliciting “full requirements” power at fixed prices.

**(ii) Commission Staff**

Staff opposed PSNH’s proposal to open a generic docket, arguing that if the Commission wanted to hear from the Parties and/or other utilities on the pros and cons of opening a generic docket, it should ask those entities to brief the issue in the current proceeding. Staff noted that National Grid was also opposed to PSNH’s proposal. On the issue of whether the customers of UES and National Grid would benefit from conducting supply-side assessments, Staff argued that because both companies are required by statute to purchase all of their power requirements from the competitive market, no purpose would be served by requiring them to evaluate the construction or acquisition of new generation capacity.

**(iii) Unitil Energy Systems, Inc.**

UES agreed with Staff’s position that there is no need for a generic docket.

**(iv) Office of Consumer Advocate**

The OCA supported Staff’s position that there is no need for a generic docket.

**IV. COMMISSION ANALYSIS**

**A. Resolved Issues**

RSA 378:39 requires us to evaluate an electric utility’s proposed integrated least cost resource plan in order to “evaluate the adequacy of [the] utility’s planning process.” Because it meets the adequacy standard, the proposal in the partial settlement agreement to shorten the LCIRP planning horizon for PSNH is approved. This change is appropriate given the

uncertainty over New Hampshire's restructuring law and PSNH's lack of authority to add new, long-lived generation assets to its resource mix.

We also approve as consistent with RSA 378:39 the proposed changes to the filing requirements that relate to load forecasts and the associated gap between loads and existing resources (i.e., the resource balance). As a result of these changes, PSNH will be required to provide much more information about how the forecasts of energy and peak demand are developed and how the need for additional resources during the planning period is determined. These changes will enhance our ability to assess the models used to forecast customer class loads as well as the forecast of the resource balance.

The partial settlement agreement also provides for PSNH to include a description of its hedging strategy in its next LCIRP. With at least 20 percent of the Company's energy requirements expected to be procured in the competitive market over the next several years, and the recent experience of rapidly increasing power prices, we view the development and implementation of a strategy to protect default service customers against power price run-ups and daily price volatility as a leading concern for the Company. Thus, we agree that a LCIRP plan for PSNH should include a description of the Company's hedging strategy in order to meet the RSA 378:39 standard.

PSNH has also agreed to evaluate the costs and benefits of alternatives to current strategies for meeting existing or anticipated new emissions regulations including sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), mercury (Hg), and carbon dioxide (CO<sub>2</sub>). We will approve these provisions as consistent with the requirements of RSA 378:39 because we regard the ongoing consideration of cost-effective alternatives to current emissions strategies to be appropriate.

The provision relating to integration of supply-side and demand-side resources is conditional on the Commission determining that non-Core Energy efficiency programs be included in the demand-side assessment. We address this issue in Section IV, B(4) below.

The Partial Settlement Agreement also provides for PSNH to file its next LCIRP on or before April 30, 2007. We will move that date to September 30, 2007, in order to accommodate any statutory changes that might result from the upcoming session of the Legislature. We view this change as consistent with the requirement in RSA 378:38 that such plans be filed at least biennially.

The last resolved issue in the partial settlement agreement is the provision that conditions PSNH's acceptance of the settlement on the Commission holding in abeyance further action on the revised LCIRP. We understand that the purpose of this provision is to avoid an outcome in which PSNH is statutorily prohibited from changing its rates in the future if we completed our review of the Revised LCIRP without making a finding of adequacy. We address this issue in Section IV, B(1) below.

## **B. Unresolved Issues**

### **(1) Plan Adequacy**

PSNH has taken the position that the filing requirements established in Order No. 19,052, (April 7, 1988) are no longer suitable for evaluating the adequacy of LCIRPs because they relate to a regulatory paradigm that no longer exists. In its view, the criteria for determining adequacy were established more recently, in Order No. 24,435. Staff disagreed with this view, noting that the Commission has never rescinded the requirements of Order No. 19,052.

The LCIRP requirements set forth in Order No. 19,052 were the result of an effort to facilitate the integration of purchases from qualifying small power producers and qualifying co-

generators (qualified facilities or QFs) into utility long-term resource planning. These requirements, taken as a whole, required each utility to file an integrated resource plan that described its resource planning process, resultant plans, and avoided cost forecast. We agree with PSNH that the changes in the industry over the last decade necessitate corresponding changes in our LCIRP filing requirements under the RSA 378:39 adequacy standard. In recognition of the fact that utilities are no longer obligated to purchase QF power at avoided cost rates, we eliminate the requirement that PSNH include the purchase of QF power as a resource option. We also shorten the planning horizon to reflect the greater risk of forecasting customer load in an open access environment and remove the requirement to provide energy and demand forecasts at the parent level. The primary objective, however, remains the same: namely, to develop and implement an integrated resource plan that satisfies customer energy service needs at the lowest overall cost consistent with maintaining supply reliability. *See Public Service Co. of New Hampshire*, 73 NH PUC 117, 126 (1988).

Although there are relatively few changes in the filing requirements, for ease of reference we set forth below the information that PSNH must include in future LCIRP filings in order to obtain the adequacy determination required by RSA 378:39. Beginning with its next filing, and every two years thereafter, PSNH shall file an LCIRP that includes the following components: (i) electric energy and demand forecasts for delivery and energy services under high-, low- and base-case scenarios; (ii) the resource balance over the planning period, including an assessment of the Company's base-load, intermediate and peaking needs; (iii) the resource plan with which PSNH proposes to fill the resource balance at the lowest overall cost; and (iv) a description of the process (including the results of any evaluations) used by PSNH to select the mix of demand-

side and supply-side resources included in the resource plan. Lowest overall cost in this context means a resource portfolio that minimizes the present worth of future revenue requirements.

Instead of the 15-year forecasts specified in Order No. 19,052, PSNH shall provide forecasts that are consistent with the length of the planning period contained in the partial settlement agreement we approve here. The new forecasts, however, shall be supplemented by the information required in the partial settlement agreement. Also, because the 2005 Energy Policy Act eliminated the relevant purchase requirements for New Hampshire utilities, PSNH shall not be required to file a forecast of avoided costs for the purpose of setting QF prices.

With respect to the revised LCIRP, although the signatories to the settlement agreement ask us to hold a ruling in abeyance, we nonetheless find that the filing is adequate within the meaning of RSA 378:39 when viewed against the backdrop of the considerable planning uncertainty created by the Legislature's decision to delay the sale of PSNH's generating assets, the uncertainty as to whether PSNH is legally authorized to build or acquire new generation, the uncertainty over the applicable planning criteria and standards governing this proceeding, and the Company's misunderstanding as to the extent of the demand-side assessment required by us in Order 24,435. In view of the uncertainties that persist, we seek to clarify here what is expected of PSNH in each area in its next LCIRP.

## **(2) Supply-side Assessment**

Although the construction or acquisition of new generation capacity by PSNH appears to require prior legislative authorization, information on the costs of such supply-side alternatives provides a valuable context for planning. We therefore find it appropriate for PSNH to include generic cost information regarding the construction or acquisition of new generation capacity in its next LCIRP. We will not require PSNH to evaluate new generation options that hold out little

likelihood of satisfying customers' energy service needs at the lowest overall cost. However, to the extent that PSNH suggests or advocates a change in the law that would allow it to build or acquire new generation, PSNH must demonstrate that the resources that it plans to add to its portfolio will satisfy customers' energy service needs at the lowest overall cost.

Supply-side resource options shall be evaluated based on net present value of revenue requirements, expressed in dollars in the year the plan is filed. The options should be ranked from lowest net present value relative to the cost of market purchases to highest. In evaluating available supply-side options, PSNH should also take into account: (1) the environmental compliance costs of each option, (2) fuel diversity benefits of each option, (3) the availability of each option at the time of system peak, and (4) whether each option will promote price stability.<sup>1</sup>

### **(3) Divestiture of Existing Generating Assets**

Staff has argued that the provision in RSA 369-B:3-a, relative to the possibility of PSNH divesting its generation assets after April 30, 2006, means that divestiture is a supply-side option and, as such, should be evaluated in the LCIRP. The economic evaluation, according to Staff, should be based on a comparison of future costs and benefits. PSNH has opposed Staff's recommendation and noted that its low default service prices, compared to other New Hampshire electric utilities, demonstrate the economic benefit to customers of continued ownership. We

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<sup>1</sup> These objectives may be subject to change as we address fuel diversity and pricing issues in the context of our assessment of the 2005 Energy Policy Act requirements in Docket No. DE 06-061.

agree with PSNH that it should not be required to evaluate the costs and benefits of divestiture in the context of its LCIRP, inasmuch as the legislature created RSA 369-B:3-a to deal specifically with divestiture of PSNH generation assets.

#### **(4) Demand-side Assessment**

PSNH argued that it has fully complied with our decision in Order No. 24,435 requiring Core and non-Core energy efficiency programs to be assessed for cost-effectiveness relative to building new generation capacity or purchasing additional supplemental power. Staff disagreed, contending that the discussion of DSM in the Revised LCIRP is limited to the effect of existing Core energy efficiency programs on transmission and distribution costs.

We have reviewed the relevant sections of the revised LCIRP and agree with Staff that the Company did not fully comply with Order No. 24,435. Comparing demand-side and supply-side resource options in the context of LCIRP requires a methodology for measuring the avoided costs (i.e., savings) associated with *not* having to purchase additional supplemental power or building new generation capacity. Once this methodology is developed, the resulting avoided costs must be compared to the costs of implementing the demand-side resources. The Revised LCIRP does not discuss the avoided cost methodology; nor does it include an avoided cost forecast. For these reasons, we conclude that the cost-effectiveness of demand-side resources was not adequately evaluated. Accordingly, we direct PSNH to include in its next LCIRP a systematic evaluation of reasonably available DSM programs. In addition to the types of programs implemented through the Core energy efficiency program, reasonably available DSM programs are understood to include, but are not necessarily limited to: (1) ISO New England-administered energy efficiency and demand response programs that are eligible for capacity payments under the pending Forward Capacity Market, and (2) dynamic retail pricing (i.e., retail

prices that vary during different time periods in response to changes in hourly wholesale prices).<sup>2</sup> We will also direct PSNH to include in its filing a description of its avoided cost methodology and the resulting avoided cost forecast for DSM evaluation purposes.

The description of the avoided cost methodology should identify the specific costs avoided with DSM programs. These costs will vary depending on whether demand growth is met with new generation capacity or additional supplemental power purchases. In the former case, the avoided costs include deferred capital investments and deferred operating costs. Deferred operating costs include, among other things, fuel expenses, labor costs, costs related to mercury abatement, and reductions in allowance expenses related to SO<sub>2</sub> and NO<sub>x</sub> emissions. We will also require PSNH to evaluate the impact on DSM cost-effectiveness of a reasonably likely state or federal program to regulate CO<sub>2</sub> emissions. Deferred capital investments include generation capital expenditures to meet demand growth or comply with emissions regulations and capital cost savings associated with demand reductions on the transmission and distribution system. If demand growth is to be met with additional supplemental power purchases, the deferred capital investments and deferred operating costs will be replaced with wholesale market energy expenses and capacity payments determined in the Forward Capacity Market. Finally, while we will continue our policy of not incorporating monetized environmental externality values in avoided cost analyses, environmental damages not reflected in the costs of generating power (such as health impacts) should be considered from a qualitative standpoint.

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<sup>2</sup> The availability of dynamic retail pricing for PSNH may depend on the outcome of our assessment of the 2005 Energy Policy Act requirements in DE 06-061.

As noted in Section IV(A), the provision in the partial settlement agreement relating to integration of supply-side and demand-side resources is conditioned on the Commission determining that non-Core energy efficiency programs should be evaluated for cost-effectiveness in the next LCIRP. Given our decision above, we note that PSNH is obligated to describe the process for integrating demand-side and supply-side resources.

Finally, we address the issue of the appropriate test for evaluating the cost effectiveness of DSM programs – the Total Resource Cost (“TRC”) test or the Rate Impact (“RIM”) test. The former ranks demand-side resources based on the Net Present Value of Revenue Requirements (“NPVRR”) whereas the latter uses the Net Present Value of Rate Impacts (“NPVRI”) as the determinant of rank. PSNH currently employs the TRC test when screening measures for inclusion in the state’s Core energy efficiency programs.

DSM programs that provide electricity savings and peak demand reductions at a lower NPVRR than new supply side resources will lower the energy bills for all customers in aggregate. But DSM programs that reduce overall energy bills in many cases do not lower utility rates because: (1) the utility’s fixed costs (including additional DSM expenditures) are spread over fewer electricity sales, and (2) the avoided costs are allocated disproportionately to participants. This means that DSM programs evaluated based on the TRC test may result in non-participants paying higher energy bills than would otherwise be necessary. Use of the RIM test, however, could greatly reduce the amount of DSM resources that are pursued by PSNH, thereby leading consumers in aggregate to pay higher energy bills. Until information is available on the effects of adopting the RIM test, it is appropriate that PSNH use the TRC test for planning purposes. That said, in order to increase our knowledge base on this issue, we direct PSNH to

undertake a study to determine the effects of using the RIM test on DSM resource availability and to submit the associated results in its next LCIRP.

### **(5) Generic Docket**

We next address PSNH's request to open a generic docket to determine whether the planning requirements that result from this proceeding should be applied consistently to all electric utilities in the state. Implicit in PSNH's request is the assumption that the requirements that apply to PSNH under applicable law also apply to UES and National Grid. We disagree with this assumption.

As we have noted, PSNH is currently prohibited by RSA 369-B:3-a from selling its fossil and hydro generation assets absent a finding that it is in the economic interest of PSNH retail customers to do so and, moreover, PSNH must use the output from those facilities to meet the needs of default service customers. UES and National Grid, on the other hand, have completed the divestiture of their generating assets and, consistent with RSA 374-F: 3, V(c), procure their default service requirements in the competitive market. Therefore, requiring all three New Hampshire utilities to implement the same least cost planning process makes no sense and, more importantly, would be at odds with RSA 374-F: 3, V(c). Finally, questions such as whether full requirements supply contracts or supply portfolios best meet the energy needs of default service customers are best handled in default service proceedings, not LCIRP proceedings.

## **V. MOTIONS FOR CONFIDENTIAL TREATMENT**

We conclude by addressing the motions submitted by PSNH for confidential treatment of certain materials the Company has submitted during the course of this proceeding. On December 6, 2005, PSNH sought confidential treatment of customer-specific load and usage data, the Company's coal supply and supply-hedging strategies, PSNH's analysis of a proposed

wind-powered generation facility and a report of an internal PSNH working group concerning efforts to manage retail energy prices and cost recovery. On December 21, 2005, PSNH sought protective treatment of details of the forward power supply contracts into which PSNH had entered for 2005 and 2006. There were no objections filed to any of these requests.

The New Hampshire Right-to-Know Law provides each citizen with the right to inspect all public records in the possession of the Commission. *See* RSA 91-A:4, I. The statute contains an exemption, invoked here, for “confidential, commercial, or financial information.” RSA 91-A:5, IV. In most cases, a balancing test, weighing the asserted privacy interest against the public’s interest in disclosure, is used to determine whether confidential treatment should be granted. *See e.g., Union Leader Corporation v. New Hampshire Housing Finance Authority*, 142 N.H. 540 (1997). Applying the balancing test here leads to a determination that PSNH is entitled to confidential treatment of the documents at issue.

The first issue raised by PSNH involves a Staff request that PSNH provide both the Company’s projected sales losses due to customer self-generation and the assumptions underlying this projection. According to PSNH, the answer to this query reveals the self-generation plans of a very limited number of PSNH customers, all of which are commercial rather than residential. A commercial electric user that undertakes self-generation is clearly interested in minimizing its energy costs so as to obtain a competitive advantage in whatever marketplace it participates. Thus, disclosure of such plans would give the competitors of these customers an unfair advantage. Balanced against this harm is the public’s relatively small interest in disclosure, which involves the extent to which the Commission has adequately evaluated PSNH’s projected sales losses – an inquiry that is unrelated to the specifics of the self-

generation plans of individual customers. In this instance, the benefit of confidential treatment is clearly outweighed by the harm.

The next request concerns studies of PSNH's coal supply and hedging strategies. Public disclosure of this information would cause significant harm to both PSNH and its customers by revealing the utility's strategy for dealing with market risk to potential suppliers with which PSNH will be negotiating in the future. While the public has some interest in obtaining this information so as to assess the extent to which the Commission assures that PSNH recovers only costs that are prudently incurred, this interest is outweighed by the competitive disadvantage that would inure to both PSNH and its customers.

PSNH also seeks confidential treatment of an internal report dealing with potential arrangements with the developer of the proposed wind generation facility in Lempster, exploring whether PSNH should enter into a purchase power contract with the facility and provide assistance with construction of the facilities necessary to interconnect the project with PSNH's transmission and distribution system. According to PSNH, the analysis delves into the economics of such power purchases and, thus, its public disclosure would place PSNH and its customers at a competitive disadvantage by revealing how PSNH analyzes such possibilities.<sup>3</sup> The balancing analysis applicable to such a disclosure is identical to the one we applied to coal supply and hedging strategies. Thus PSNH's analysis of the Lempster project is subject to confidential treatment. Likewise, and for the same reasons, we grant confidential treatment to the contracts entered into by PSNH for power supply to be delivered in the future. In each instance, the applicable harm is both significant and largely attributable to PSNH customers

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<sup>3</sup> PSNH also contends that the information "may" contain trade secrets that belong to the project developer. Such a speculative assertion is not appropriate for consideration in the context of a motion for confidential treatment under

because it is the customers that are obliged to compensate PSNH for its prudently incurred costs of acquiring power. Consistent with past practice, the protective treatment provisions of this Order will be subject to the ongoing rights of the Commission, on its own motion or on the motion of Staff, any party, or any other member of the public to reconsider in light of RSA 91-A, should circumstances so warrant.

Based upon the foregoing, it is hereby

**ORDERED**, that Public Service Company of New Hampshire's revised Least Cost Integrated Resource Plan filed June 30, 2005 is found to be ADEQUATE; and it is

**FURTHER ORDERED**, that the Partial Settlement Agreement filed in this proceeding is APPROVED subject to the changes made herein; and it is

**FURTHER ORDERED**, that Public Service Company of New Hampshire file its next least cost integrated resource plan on or before September 30, 2007, consistent with the determinations made herein; and it is

**FURTHER ORDERED**, that the motions for confidential treatment submitted by Public Service Company of New Hampshire on December 6, 2005 and December 21, 2005 are GRANTED.

By order of the Public Utilities Commission of New Hampshire this eighth day of November, 2006.

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Thomas B. Getz  
Chairman

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Graham J. Morrison  
Commissioner

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Clifton Below  
Commissioner

Attested by:

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Debra A. Howland  
Executive Director and Secretary