STATE OF NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION

DG 10-041

NATIONAL GRID NH

Integrated Resource Plan

Order Finding Integrated Resource Plan Adequate

O R D E R N O. 25,317

January 11, 2012

APPEARANCES: McLane, Graf, Raulerson & Middleton, P.A., by Steven V. Camerino, Esq., on behalf of National Grid NH; Office of the Consumer Advocate by Meredith A. Hatfield, Esq., on behalf of residential utility ratepayers; and Staff of the Commission by Marcia A. B. Thunberg, Esq.

I. PROCEDURAL HISTORY

On March 1, 2010, National Grid NH filed an Integrated Resource Plan (IRP) for Commission review and approval. The IRP, which covers the period November 1, 2010 through October 31, 2015, provides details of National Grid NH's resource planning process and strategies based on market conditions at the time of preparation and its then current forecast of requirements.

On April 21, 2010, the Commission issued an order of notice and scheduled a prehearing conference and technical session for May 20, 2010. On May 5, 2010, Northern Utilities, Inc. (Northern) filed a petition to intervene. On May 12, 2010, the Office of the Consumer Advocate (OCA) filed a notice of participation on behalf of residential ratepayers consistent with RSA 363:28. The prehearing conference took place as noticed and on May 20, 2010, Staff filed a proposed procedural schedule on behalf of itself and the parties to the docket. On June 4, 2010, the Commission approved the procedural schedule and granted Northern's petition to intervene.

The procedural schedule was modified in July and on August 18, 2010, National Grid NH filed revised pages to its IRP. On September 27, 2010, Staff filed the testimony of George R. McCluskey. Staff filed a corrected version of Mr. McCluskey's testimony on October 13, 2010. The procedural schedule was again modified and then suspended. Ultimately, the Commission approved a hearing date of July 14, 2011. On June 28, 2011, National Grid NH filed the rebuttal testimony of Elizabeth D. Arangio, A. Leo Silvestrini, and Theodore E. Poe, Jr. On July 14, 2011, the Commission held a hearing on the merits.

At the conclusion of the hearing, the Commission asked Staff and National Grid NH to attempt to resolve two disputed issues: 1) regarding whether a separate docket ought to be opened to address the issue of the Company maintaining resources in excess of its design day demand and 2) when the Company ought to file an updated resources mix analysis. On July 22, 2011, Staff wrote informing the Commission that it had not reached agreement with National Grid NH with respect to the issue of maintaining resources in excess of design day demand and, on July 29, 2011, Staff also informed the Commission that it was unable to reach agreement with National Grid NH on the issue on when the updated resources mix analysis should be filed.

On August 23, 2011, National Grid NH provided a status letter to the Commission informing the Commission that Ventyx, the vendor of the SENDOUT gas dispatch model used to determine the optimal mix of supply-side and demand-side resources, recently provided an updated version of the model and that the Company had successfully rerun the resource mix analysis provided in the original IRP. The Company provided the revised information to Staff for its review.

On October 4, 2011, Staff filed a letter forwarding the rerun mix analysis for inclusion in the docket, but disputed National Grid NH's statement of compliance. Staff's review concluded that the revised analysis did not demonstrate that the corrected Ventyx SENDOUT gas dispatch model was functioning adequately. On October 11, 2011, National Grid NH responded to Staff's October 4, 2011 letter. National Grid NH stated that Staff's letter incorrectly characterized the information provided by the Company to Staff on August 23, 2011 as having been provided in response to the fifth recommendation set forth in the testimony of Mr. McCluskey. National Grid NH stated that the two issues, correction of the resource mix analysis and compliance with Mr. McCluskey's fifth recommendation, are separate issues and that by collapsing the two issues into one, Staff may have inadvertently created additional confusion regarding the issues before the Commission in this proceeding.

II. POSITIONS OF THE PARTIES AND STAFF

A. National Grid NH

National Grid NH's initial IRP stated that its planning processes ensure the maintenance of a reliable resource portfolio and energy supply to meet the forecasted needs of its customers at the lowest possible cost. In support of its IRP, National Grid NH included, among other things: 1) a step-by-step description of the methodology used to forecast demand on its system; 2) a detailed description of the analysis employed to determine the normal and design planning standards; 3) a detailed description of how the resource portfolio was developed to meet customer requirements under design conditions; 4) an inventory of the expected available resources in the portfolio, including savings associated with the implementation of energy efficiency programs; and 5) a demonstration of the adequacy of the portfolio to meet customer demands under a range of weather and economic conditions.

The Company analyzed three demand scenarios: a low demand case, a base case and a high-demand case. Each of these demand scenarios is based on the 2008/09 springboard demand plus incremental demand, as forecast for the period of the filing (2010/11 through 2014/15). The Company's current resource portfolio was then tested for adequacy to meet customer requirements under design weather conditions. The Company assumed that, throughout the forecast period, there would be no change in its current service obligation and that, as a result, it would be responsible for planning for the capacity requirements for all firm customers.

The Company then ran these different demand scenarios in combination with three levels of penetration of incremental demand-side management (DSM) measures: low case, base case, and high case. All three DSM penetration scenarios were SENDOUT® model runs in the optimization mode to test the reduction in utilization of the Company's resource portfolio due to different levels of DSM. The Company then utilized the resource mix mode of the SENDOUT® model to optimize its resource portfolio with both supply-side and demand-side resources. In its resource mix run, the Company evaluated the conversion of a portion of its Tennessee long-haul transportation to short-haul from the Marcellus Basin, as well as the optimal mix of DSM and two of its expiring transportation contracts.

Under the resource mix simulation of the high case demand side management programs, the model is allowed to choose the optimum mix and timing of the six programs available under Tiers 1, 2, and 3. Simulation results indicate that the Tier I Residential, Tier I Commercial and Industrial (C&I), Tier 2 Residential, Tier 3 Residential, and Tier 3 C&I programs are all favorable beginning in 2010/11. In isolation, the Tier 2 C&I programs are not favorable. Relative to the 2008/09 springboard year, annual implementation of the high case demand side management programs can result in a reduction in customer requirements of 858 MMBtu/year by 2014/15.

At the hearing and in written rebuttal testimony, the Company indicated its willingness to accept all five recommendations contained in Staff's direct testimony even though it did not necessarily agree with Staff's basis for making those recommendations.

Regarding the recommendation concerning excess capacity, the Company asserts that any Commission docket opened to examine that issue should be based on the load forecast and supply portfolio that it will include in its 2012 IRP filing, which it expects to file in February 2012. The Company states the present data contained in the current IRP is outdated for such an analysis. The Company maintains that the excess is attributable to the "lumpy" nature of supply-side resources whereby a block, or lump, of supply capacity is added that exceeds current peak day requirements, thus requiring the utility to "grow" into the excess over time.

National Grid NH's rebuttal testimony cautions against returning any interstate pipeline capacity and stated that if pipeline capacity is returned to address the excess capacity situation, there is no certainty that the same capacity would be available if needed at some time in the future. To the extent that a decision is made to retire on-system facilities to address the excess capacity situation, the Company argues that the ability to replace those facilities when needed is likely to be equally, if not more, problematic because of the cost, permitting, and siting issues involved with constructing such facilities. According to the Company, the abandonment of any assets for an interim period is likely to result in higher, not lower, costs for customers in the long run, because once existing low-cost resources are released or decommissioned, they will not be available to be reactivated when needed.

The Company also notes that it must take into account the seven-day storage requirement when determining how much capacity to maintain on its system. Puc 506.03 requires the Company to maintain sufficient inventory in its supplemental supply facilities (LNG and LPG) and/or hold sufficient trucking arrangements for supplemental supplies to ensure design weather demands are met.

B. Office of the Consumer Advocate

The OCA did not file testimony in this docket and did not take a position on the adequacy of the IRP. It did, however, support the items Staff and National Grid NH agreed should be included in the next IRP. At the hearing, the OCA recognized National Grid NH's first truly integrated resource plan that treats demand-side resources like supply and agreed with the Company that the next step is to integrate planning outcomes and program design on the efficiency side. The OCA stated that resource planning and design of energy efficiency programs are presently done independently of each other and that these two functions ought to be combined in order to achieve the goal of meeting customer demands at the lowest reasonable cost. According to the OCA, this view is supported by the Vermont Energy Investment Corporation's Independent Study of Energy Policy Issues for the New Hampshire legislature, which notes that the goal-setting process in the efficiency dockets does not connect to planning in that goals in the latter are set by the utility. As a result, the OCA states that New Hampshire is not taking sufficient advantage of cost-effective efficiency and requests that the Commission direct utilities to take advantage of all cost-effective efficiency in both IRP and energy efficiency dockets. The OCA acknowledged, however, that efficiency programs would need to be ramped up over time at a reasonable rate and would need to balance costs and benefits to customers.

C. Staff

In its pre-filed testimony, Staff stated that National Grid NH's positions on the planning period, the demand forecast, design planning standards, and the capacity reserve were reasonable and consistent with Commission Order No. 24,941.[1] With respect to supply-side resource planning, Staff concluded that National Grid NH appeared to have more gas supply capacity on hand than needed during the planning period and that customers may be at risk of paying unnecessary gas supply costs for this excess capacity. Staff attributed the excess capacity to two factors: the addition of 30,000 MMBtu per day of Tennessee Gas Pipeline (TGP) capacity effective November 1, 2009 associated with the Concord Lateral expansion project; and, the lower design day demand forecast compared to the forecast in the Concord Lateral proceeding, attributable largely to the recent downturn in the economy. To address the problem, Staff suggested that the Company consider retiring some of its high cost peaking facilities.

Staff also stated that, with one exception, the filing was silent on the opportunities for cost savings that involve the replacement of expiring supply contracts with lower cost alternatives and recommended more discussion in subsequent filings. While the Company's supply-side modeling pointed to the continued use of its propane facilities, Staff was concerned that the same modeling indicated no role for the lower cost Granite Ridge peaking contract.

With regard to demand-side resource planning, Staff stated that the Company's modeling to determine the optimal mix of demand-side resources in its portfolio suffered from numerous flaws that limited the accuracy of the results. To improve the Company's modeling, Staff recommended that: the cost-benefit analysis be conducted over the useful life of the demand-side resource rather than over five years; the annual cost savings be present valued and summed; the annualization of the demand-side resource costs be eliminated; and the demand charges in the gas supply contracts be escalated in the model. Staff also argued that the model contained unreasonable constraints that bias the modeling results including limiting the number of supply contracts that can be displaced by demand-side resources and limiting the size of the modeled

[1] *EnergyNorth Natural Gas, Inc.,* Order No. 24,941, 94 NH PUC 80 (2009).

demand-side resources. Finally, Staff contended that the results of the modeling are not supported by the costs of the individual demand and supply resources in the analysis.

In order to resolve the above concerns, Staff recommended that the Commission: 1) open a separate proceeding to review the prudence of the Company carrying capacity in excess of that needed to meet its reliability planning standard; 2) order the Company to address in its next IRP issues related to excess capacity, including the amount of the excess, the pros and cons of eliminating the excess and plans on how to handle the excess; 3) direct the Company to address in its next IRP the opportunity for gas cost savings that involve the replacement of expiring contracts with alternative supply options; 4) direct the Company to explain at its next Cost of Gas Adjustment hearing why its resource plans do not include the Granite Ridge peaking contract; and 5) direct the Company to file within six months of the final order in this proceeding, an updated resource mix analysis that incorporates certain changes in its method and identifies the least cost mix of supply- and demand-side resources. At the hearing, Staff modified its fifth recommendation to require the Company to file the updated resource mix analysis within two months of the Commission issuing the order in this proceeding.

At the hearing Staff also responded to certain claims made by the Company in its rebuttal testimony. First, Staff stated that it had never recommended that the Company resolve its excess capacity problem by returning pipeline capacity but rather that the Company should consider retiring some of its propane facilities, which are the highest-cost supply resources on its system.

Second, regarding the recommendation to open a separate proceeding to review the prudence of the Company carrying excess capacity, Staff stated that it did not recommend, as claimed, that the excess capacity analysis be based on the demand forecast included in the current IRP. Staff's position is that if an updated demand forecast is available to the Company prior to the filing of testimony in the separate proceeding, then it would be appropriate for the Company to use that forecast as the basis of its testimony. Staff, however, opposed the recommendation that the excess capacity proceeding be postponed until the 2012 IRP is filed because that would likely result in a delay in the final decision and during that delay, ratepayers would have to shoulder the costs of the excess capacity.

III. COMMISSION ANALYSIS

The Commission exercises general supervisory authority over public utilities, RSA 374:3, and has a duty to keep informed of the utilities' operations and their provision of safe and adequate service. RSA 374:4 and RSA 374:1. The Commission has stated that the filing of IRPs by gas companies "serves important purposes and the filing of IRPs should be continued." *EnergyNorth Natural Gas, Inc.*, Order No. 24,941, 94 NH PUC 80, 88 (2009). The filing of IRPs helps promote communication between the utility and the Commission regarding the utility's supply needs and gas resource decisions. *See EnergyNorth Natural Gas, Inc. d/b/a Keyspan Energy Delivery New England*, Order No. 24,323, 89 NH PUC 274, 284 (2004). Integrated resource planning helps the Commission assess a utility's comprehensive supply-side and demand-side resources and the utility's ability to satisfy customer's short-term and long-term energy needs at the lowest overall cost consistent with maintaining supply reliability. *See Public Service Company of New Hampshire*, Order No. 24,695, 91 NH PUC 527, 539 (2006).

We first consider the adequacy of National Grid NH's 2010-2015 IRP. We understand Staff's recommendation that the Company be directed to file an updated resource mix analysis that incorporates the recommended methodological changes contained in its testimony. The benefits of the changes to the resource mix analysis are not disputed; Staff and the Company disagreed merely over the timing of making the changes. Having reviewed Staff and the

Company's testimony, we will not require the Company to make the changes to the resource mix analysis in the instant filing. The Company has stated that it can incorporate the recommended changes in its next IRP and we direct the Company to do so. Accordingly, we will deem the Company's demand-side assessment in the instant IRP to be adequate.

As to the Company's supply-side assessment, in its rebuttal testimony, the Company indicated its willingness to accept all of Staff's recommendations pertaining to supply-side issues. At the hearing, the Company clarified that although it was willing to accept the recommendations, it did not believe there was a need for a separate proceeding to address excess capacity. Given the apparent agreement that future IRPs should follow Staff's recommendations as to supply-side issues, we will direct National Grid NH to address in its next IRP: issues related to excess capacity, including the amount of the excess, the pros and cons of eliminating the excess and options for how to handle the excess; and opportunities for gas cost savings that involve the replacement of expiring contracts with alternative supply options.

With respect to excess capacity, we have determined that there is merit to opening a separate docket to examine the Company's projected supply/demand balance over the 2010-2015 planning period and, if necessary, determine the prudence of maintaining more capacity than needed to satisfy the reliability planning standard that was approved in this proceeding. A separate docket is warranted because the examination could potentially result in changes in rates. The examination of National Grid NH's supply/demand balance should be based on the most recently updated demand forecast plus the resource portfolio expected to be in place over the 2010-2015 planning period. In addition, if the resource portfolio does not include the Granite Ridge peaking contract, National Grid NH is directed to explain why it is appropriate to exclude that contract. The Commission will issue an order of notice in the near future commencing this docket.

At hearing, National Grid NH stated that it plans to file its next IRP in early 2012. Because the deadline for filing IRPs is set by order and not by statute, the Commission has determined that it is appropriate to delay the filing of the next IRP to allow the Company and Staff to focus on the excess capacity docket noted above. National Grid NH is thus directed to file its next IRP no later than February 28, 2013.

Based upon the foregoing, it is hereby

ORDERED, that National Grid NH's 2010-2015 IRP is deemed adequate, as set forth above; and it is

FURTHER ORDERED, that National Grid NH file its next IRP on or before February 28, 2013, reflecting the elements described above.

By order of the Public Utilities Commission of New Hampshire this eleventh day of January, 2012.

Thomas B. Getz Chairman	Clifton C. Below Commissioner	Amy L. Ignatius Commissioner

Attested by:

Debra A. Howland
Executive Director