

**BEFORE THE  
NEW HAMPSHIRE PUBLIC UTILITIES COMMISSION**

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**EnergyNorth Natural Gas, Inc. d/b/a  
KeySpan Energy Delivery New England**

**2006 Integrated Resource Plan**

**Docket No. DG 06-105**

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**STAFF'S INITIAL POST-HEARING BRIEF**

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## **I. SUMMARY RECOMMENDATION**

For the reasons set forth in Staff's testimony and this initial brief, the 2006 Integrated Resource Plan (IRP) filed by EnergyNorth Natural Gas, Inc. d/b/a KeySpan Energy Delivery New England (EnergyNorth or the Company) is not adequate in certain respects related to the demand forecast, the demand-side and supply-side assessments, and the integration of those assessments. Accordingly, the 2006 IRP should not be approved. EnergyNorth should be directed to file its next IRP correcting these deficiencies, with the filing date to be determined by the Commission.

## **II. CONTRARY TO THE COMPANY'S CONTENTION THAT VERY FEW STATES REQUIRE ANYTHING APPROACHING WHAT STAFF IS RECOMMENDING FOR INTEGRATED RESOURCE PLANNING BY A GAS UTILITY, STAFF'S RECOMMENDATIONS FOR SUPPLY-SIDE AND DEMAND-SIDE RESOURCE ASSESSMENTS AND THEIR INTEGRATION ARE CONSISTENT WITH THE POLICIES AND REQUIREMENTS OF OTHER STATES. THE COMPANY'S CONTENTION ALSO IGNORES THE LENGTHY HISTORY OF INTEGRATED RESOURCE PLANNING POLICIES IN NEW HAMPSHIRE.**

### **A. Other States:**

The Company contends that Staff's position with respect to supply-side and demand-side resource assessments and their integration in an IRP goes far beyond what other states require, the implication being that Staff's position is extreme and unreasonable. Company Direct Testimony at 12-14. Nothing could be farther from the truth. The Company's contention is based on a review of other state's policies that was admittedly "nothing comprehensive," Hearing Transcript (Tr.) at 49, and is rebutted by evidence in the record.

The Company admitted that some states such as Georgia and Washington have detailed integrated resource planning policies, see Company Direct Testimony at 13, though it maintained

that those requirements “appear” to apply “more” to an electric or combination gas and electric utility where “self-build might be” an option.<sup>1</sup> *Id.* The Company could not, however, recall the specific integrated resource planning requirements of those states nor did it review the requirements of Utah and Oregon. Tr. at 51, 55.

On the other hand, Staff introduced an excerpt from Avista’s 2007 Natural Gas Integrated Resource Plan, Exhibit 4, which indicates that Oregon’s detailed integrated resource planning requirements apply to natural gas utilities without regard to whether they are gas-only or “self-build” utilities. The excerpt states that under regulatory requirements in Oregon, Washington and Idaho, Avista must demonstrate, among other things, that it has examined a range of demand forecasts, examined feasible means of meeting demand, including both supply-side and demand-side resources, treated supply-side and demand-side resources equally, described its long term plan for meeting expected growth and described its plan for resource acquisitions between planning cycles. These requirements are virtually the same as those urged by Staff in this case. It is also worth noting Avista’s willingness to recognize that “[t]he formal exercise of bringing together forecasts of customer demand with *comprehensive* analyses of resource options, including supply-side and demand-side measures, *is valuable to the company*, its customers and regulatory commissions for long-range planning.”<sup>2</sup> (Emphasis added.)

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<sup>1</sup> In the Company’s view, “self-build” in the case of a gas utility would be one which purchases its own land rights, drills its own wells, produces its own gas and perhaps transmits the gas itself. Tr. at 50. And according to the Company, “self-build” would include a utility’s development and control of a large underground storage facility, such as Puget Sound in Washington. Tr. at 50-51.

<sup>2</sup> Avista’s description of the context in which integrated resource planning is conducted is instructive as well: “[w]e regard the IRP as a means for identifying and evaluating various resource options and as a process to *establish a plan of action* for resource decisions. Through ongoing and evolving investigation and research, we may determine that alternative resources are more cost-effective than *those resources selected in this IRP*. We will continue to review and refine our knowledge of resource options and will act to secure these least-cost options when appropriate.” (Emphasis added.)

Of course, Staff does not claim that all states have integrated resource planning policies and requirements that are the same as those it argues for. It is aware, for example, of the Company's statements that EnergyNorth's 2006 IRP would pass muster in Massachusetts (Tr. at 48) and that the Company's New York affiliate makes a less formal presentation to the New York Commission staff on an annual basis. Although states operate under different regulatory frameworks, it is a fact that many have integrated resource planning policies and requirements that are similar to Staff's recommendations in this case. Thus, it cannot be said that Staff's position is an outlier or unreasonable in light of what other states may do.

**B. History of New Hampshire's Integrated Resource Planning Policies and Requirements:**

The Company argues at length that its sole obligation in filing the 2006 IRP was to comply with the settlement agreement approved by Order No. 24,531 in Docket No. DG 04-133, and having done so, as allegedly evidenced by Staff's statement that the 2006 IRP "addresses" the required issues, is entitled to an order approving its plan. Company Direct Testimony at 2-8. This argument is discussed in detail below.

Regarding the implication that Staff's position on supply-side and demand-side resource assessments and their integration is extreme and unreasonable, Staff submits that in focusing on the requirements of a single order, the Company has overlooked the lengthy history of integrated resource planning in New Hampshire. If Staff's position is extreme and unreasonable, then it would also be true that the Commission's own IRP policies have been outside the mainstream and unreasonable. Staff does not believe that is the case.

**Order No. 19,546.** Approximately 20 years ago, the Commission approved Granite State Electric Company's IRP<sup>3</sup> as fulfilling the applicable requirements.<sup>4</sup> *Granite State Electric Company*, 74 NH PUC 325, Order No. 19,546 (1989). In that order, the Commission pointed out that the purpose of requiring utilities to file IRPs is to evaluate whether they are planning properly. The Commission made clear that while its acceptance of a utility's IRP indicates that the utility's resource planning process is adequate, that does not constitute approval of specific resources in the plan. Instead, the Commission reviews and analyzes the prudence of a particular resource decision when the utility seeks recovery of the costs in an appropriate proceeding.

The Commission pointed out that electric utilities were required to document their planning processes in seven areas: forecast of future demand, assessment of demand-side options, assessment of supply-side options, assessment of transmission requirements, limitations and constraints, integration of demand- and supply-side resource options, a two year implementation plan, and avoided cost forecasts. The Commission established the following criteria for reviewing an IRP:

1. Completeness in meeting the documentation requirements;
2. Comprehensiveness in identifying and assessing all resource options, both on the demand-side and the supply-side;
3. Integration of the planning process, i.e., evaluating demand- and supply-side options in an equivalent manner and addressing issues of coordinated timing in the acquisition of resources;
4. Feasibility of implementing the utility's resource plan; and

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<sup>3</sup> At that time and thereafter, IRPs were called integrated least cost resource plans. For simplicity, such plans are referred to in this brief as IRPs.

<sup>4</sup> These requirements were set forth in a previous order, *Public Service Company of New Hampshire*, 73 NH PUC 117, Order No. 19,052 (1988).

5. Adequacy of the planning process, i.e., providing for resources in a timely manner sufficient to meet the electricity and energy service needs of utility customers both now and for the future. See Staff Direct Testimony at 5-6.

**RSA 378: 38.** A year later, the legislature enacted RSA 378: 38, governing least cost energy planning by electric utilities. The requirements are substantially similar to those set forth by the Commission in Order No. 19,546 and now include several additional ones.<sup>5</sup> Of course, Staff does not argue that this statute applies to EnergyNorth. Rather, Staff refers to this statute (and to certain Commission orders regarding integrated resource planning by electric utilities) to support its view that each IRP, whether filed by an electric utility or by a gas utility, must include certain basic components, some of which are reflected in RSA 378:38 (and electric utility orders), in order to be pronounced adequate.

**DR 95-189 and Order No. 22,116.** The Commission considered EnergyNorth's 1995 IRP in DR 95-189. There, the Company and Staff entered into a stipulation recommending that the Commission close the docket without approving or rejecting EnergyNorth's IRP on condition that EnergyNorth's 1997 and subsequent IRPs meet the following elements:

“1) planning guidelines that closely follow those for electric utilities (specifying, among other things, a 10 year planning horizon, report on distribution-related gas projects rather than transmission, report on long term avoided supply costs which will form the basis of economic evaluation of demand side resources, all of which are subject to modification if there are changes in the natural gas industry);

2) planning criteria, delineating the criteria used in the 1997 plan, including among other things, a detailed description of the planning criteria used;

3) natural gas demand forecast . . . ;

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<sup>5</sup> In 1994, the legislature added requirements for the assessment of plan integration and impact on state compliance with the Clean Air Act Amendments of 1990 and the National Energy Policy Act of 1992, and an assessment of the plans long- and short-term environmental, economic and energy price and supply impact on the state. See Laws of 1994, Chapter 362:4. In 1997, the legislature enacted RSA 378:38-a specifying that the Commission could, with one exception regarding plans relating to transmission and distribution, waive the requirements of RSA 378:38.



4) supply side resources (including a chart displaying volumes and start and end dates for existing supply contracts, a description of each new supply side resource analyzed, analysis of the benefits and detriments of using futures and options contracts as gas management tools, description of [EnergyNorth's] supply procurement strategies and its view of the proper balance of short and long term resources in its supply mix);

5) demand side resources (evaluation of demand side and supply side resources on an equivalent basis, definition of what [EnergyNorth] considers the optimal level of demand side resources and analysis if [EnergyNorth] concludes that less than the optimal amount of demand side resources would be in the public interest);

6) integration of supply side and demand side resources (which would be submitted for the purpose of assessing [EnergyNorth's] resource planning process and which would identify those existing and uncommitted resources planned to meet forecasted demand, year by year, for the 10 year horizon); and

7) uncertainty over forecasts (by submitting high and low demand growth scenarios and addressing the impacts of a large shift of gas sales to transportation services).”  
*EnergyNorth Natural Gas, Inc.*, 81 NH PUC 306, Order No. 22,116 (1996).

Certainly, these elements are substantially the same as the elements now recommended by Staff in the present docket.<sup>6</sup> That should not be surprising given the fact that George McCluskey, formerly the manager of least cost planning for both electric and gas utilities,<sup>7</sup> testified in both dockets. His current views on the appropriate elements of an IRP, based on his extensive experience, are consistent with the stipulation in Order No. 22,116.

The Commission approved the stipulation. Recognizing that integrated resource planning for gas utilities was then “in the early stages and that there will necessarily be a period in which gas utilities become familiar with our filing and review requirements and more importantly, with the analysis of demand side and supply side resources and forecasts of demand,” the

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<sup>6</sup> It is also worth keeping in mind that these elements are now being contested by the same utility that had agreed to them in DR 95-189. Then, the Company did not argue as it does now that gas utilities should not be treated the same as electric utilities with respect to the elements of IRPs or that the lack of gas utility integrated resource planning legislation indicates that the legislature did not believe that the electric utility integrated resource planning standards should apply to gas utilities. See Company Direct Testimony at 8-10.

<sup>7</sup> Staff Direct Testimony, Exhibit GRM-1.

Commission said it expected that the 1997 IRP will provide a more detailed forecasting and analysis as required in a complete IRP.<sup>8</sup> *Id.*

**DR 98-134.** Following a letter from Northern Utilities, Inc. (Northern) requesting certain modifications to the dates, guidelines and review process for filing its IRP, the Commission opened Docket No. DR 98-134 in respect to EnergyNorth since these issues also concerned EnergyNorth.<sup>9</sup> EnergyNorth, Northern and Staff concurred that it would not be necessary to file an avoided cost study with the utilities' IRPs. However, Staff urged that updated avoided costs be submitted in their IRP proceedings to the extent the parties proposed to continue demand-side management plans into the 1999-2000 program year.

The Commission ruled that Northern's request for revising the IRP process was reasonable and should be applied to EnergyNorth as well and that the IRP filings need not include avoided cost studies. EnergyNorth subsequently filed its IRP in DR 98-134. The Commission then ruled that it had decided to close the docket and discontinue the formal filing of IRPs. The Commission noted that issues which are typically addressed in an IRP, such as energy efficiency, could be addressed in another docket. The Commission concluded that if an IRP proves necessary in the future, the Commission will address the issue at that time.

In DR 98-134, the Commission ceased requiring EnergyNorth to file IRPs. This action served to hold in abeyance the requirements of the stipulation approved in Order No. 22,116 but did not negate them in the event an IRP became necessary in the future.

**DG 03-160 and Order No. 24,323.** The Commission next had occasion to consider integrated resource planning by EnergyNorth in its review of the settlement agreement reached

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<sup>8</sup> The Commission also granted Staff's request that EnergyNorth's conservation and load management programs be considered in a separate docket except to the extent that they related to EnergyNorth's planning process and determination of least cost options.

<sup>9</sup> A similar docket, DR 98-135, was opened in respect to Northern.

between the Company, OCA, Staff and intervenors in Docket No. DG 03-160, which focused on certain gas supply dispatch decisions by the Company. In relevant part, the settlement agreement stated that an IRP process is important in ensuring that EnergyNorth and Staff understand one another's views regarding EnergyNorth's gas supply needs and gas resource decisions.

Accordingly, EnergyNorth agreed to file with the Commission, on or before August 2, 2004, an IRP and identify resources it deems are necessary to serve its load over the ensuing five years.

See *EnergyNorth Natural Gas, Inc. d/b/a Keyspan Energy Delivery New England*, Order No. 24,323 (May 7, 2004).

The Commission approved the settlement agreement, stating in support of its decision:

“Pursuant to the Settlement Agreement, [EnergyNorth] agrees to file an Integrated Resource Plan (IRP) on or before August 2, 2004. [EnergyNorth] testified it will include in its 5-year IRP information on what resources [it] will use to serve its load. [EnergyNorth] will also provide Staff with copies of its Massachusetts IRP. Prior to EnergyNorth’s acquisition by KeySpan Corporation, [EnergyNorth] filed IRPs. The Commission halted the practice of filing IRPs based on Staff’s recommendation in Docket No. 98-134.<sup>10</sup> At the time, Staff had no concerns regarding [EnergyNorth]’s resource model and Staff stated [EnergyNorth] was effectively managing its supply portfolio.

It is evident from the record in this docket that both the IRP process and results have changed since [EnergyNorth] was acquired by KeySpan. The filing of an IRP, in combination with other provisions of the Settlement Agreement, should enable Staff and the Commission to better understand and evaluate the IRP process as practiced by EnergyNorth and allow for a more thorough, methodical exploration of the changes in [EnergyNorth]’s supply and dispatch operations resulting from: (i) the acquisition of [EnergyNorth] by EnergyNorth Corporation, (ii) increased demand during recent years, and (iii) as further discussed below, the use of asset management agreements, than can be made in the normal course of expedited [cost of gas] dockets. Staff testified that *IRPs are valuable communication mechanisms which provide Staff with information relative to*

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<sup>10</sup> “Staff’s recommendation, filed with the Commission in a memorandum dated April 21, 2000 stated: ‘Staff believes that [EnergyNorth] has demonstrated satisfactorily that [EnergyNorth] has developed and utilizes an appropriate and comprehensive resource model in its short- and long-term resource planning. [EnergyNorth] has also demonstrated its ability to effectively manage its supply portfolio with the demands placed on its system by its customers....Staff recommends that the utility notify the Commission, under RSA 374:4 Duty to Keep Informed, if there are any significant changes to the IRP process or results.’ In accepting the recommendation, we stated that in the event an IRP proved necessary in the future, we could address the issue either in a separate docket, or in the context of a cost of gas proceeding.”

. . . *how the company is planning on meeting those forecasted supply needs*, and whether long term contracts, such as the Distrigas contract, are needed.” [Transcript citations omitted; emphasis added]. *Id.*

This passage clearly affirms the Commission’s expectation that in EnergyNorth’s next IRP, the Company would present information regarding the resources it would use to serve its load and how it planned to meet the forecasted supply needs.

**DG 04-133 and Order No. 24,531.** EnergyNorth timely filed its 2004 IRP in Docket No. DG 04-133 and consolidated that docket with Docket No. DG 04-175, addressing open dispatch issues. Staff filed a report by Liberty Consulting Group (Liberty) on Staff’s behalf regarding long term gas supply planning and the IRP, among other matters. See *EnergyNorth Natural Gas, Inc. d/b/a Keyspan Energy Delivery New England*, Order No. 24,531 (October 21, 2005).

In its report, Liberty commented that design criteria should be developed from weather analysis and not from a cost/benefit analysis. *Id.* at 4. Liberty also complained that the Company’s 2004 IRP did not discuss the issue of whether the existing resource portfolio is optimal and did not include an analysis identifying the combination of resources that minimizes the gas costs of firm customers over the long term. *Id.* at 5. Liberty recommended that the next IRP include an analysis that (i) identifies all available and potentially available supply-capacity resources and their costs, including variable demand costs, (ii) identifies each existing resource that can be varied and at what times, (iii) uses the planning model to evaluate various resource configurations under different load and gas price scenarios, and (iv) evaluates the model results. *Id.* Liberty also recommended that EnergyNorth perform a realistic assessment of what it can expect from its peaking plants.

Staff's testimony in the current docket regarding the inadequacy of the Company's supply-side assessment in the 2006 IRP is consistent with Liberty's complaint about EnergyNorth's 2004 IRP. Moreover, a comparison of the section of the 2006 IRP relating to the Company's longer term portfolio optimization, section IV, A.-D., with the analogous section of the 2004 IRP, section IV, A.-D. reveals no material changes indicating that the 2006 IRP cured the deficiencies in the Company's supply side assessment identified by Liberty.

EnergyNorth's testimony in response to the Liberty report expressed no disagreement with Liberty about the need to discuss in the next IRP whether or not the existing resource portfolio is optimal, about including in its integrated resource planning an analysis which identified the combination of resources that minimizes the gas costs of firm customers over the long term, or about the need to assess what it can expect from its peaking plants.

EnergyNorth, OCA and Staff filed a settlement agreement (2004 Settlement Agreement) requiring the Company to file its next IRP by August 1, 2006. Under the settlement agreement, the 2006 IRP was to incorporate nine changes to the plan filed in DG 04-133. The changes included a requirement setting forth the Company's planning practices regarding longer term portfolio optimization:

“[t]he [section on optimization] will identify the available and potentially available supply resources and their respective costs. In addition, the section will discuss the opportunities for utilizing these available resources, either as replacements for expiring contracts or meeting load growth, describe the optimization model, and identify the mix and timing of resource additions and subtractions that are expected to minimize costs over the long-term under a given set of price and demand forecasts. Determination of the optimal portfolio also requires the Company to address the role of its peaking plants in its overall portfolio. Finally, the section will also identify supply resources that are unlikely to be available to the Company because of particular circumstances.” Section II.A.6.

This provision responded to Liberty's complaint about the deficiencies in the Company's supply-side assessment and was consistent with Liberty's recommendations. The Settlement Agreement

also provided that “[f]or purposes of establishing design planning standards, the Company will use a Monte Carlo weather forecasting analysis.” Section II.A.4.

There is no indication in the settlement agreement or otherwise in the record of DG 04-133 that the parties or the Commission intended to make any fundamental changes to its previously announced integrated resource planning policies and requirements for gas utilities.

The Commission approved the settlement agreement, stating in part:

“Most important, effective least cost planning is transparent. In other words, it is essential that the [next] integrated resource plan describe how that analysis is performed and present the results of its analysis. Under the terms of the Settlement Agreement, [EnergyNorth] will set forth its planning practices relating to longer-term portfolio optimization, identifying resource mix and the timing of changes in the resource mix expected to minimize costs over the long-term. EnergyNorth will also address the role of its peaking plants in its overall portfolio, an issue of concern for both Staff and Liberty.”

Again, Staff’s position regarding the deficiencies in the 2006 IRP is consistent with the portions of Liberty’s report, the settlement agreement, and the Commission’s order referred to above.

**Order No. 24,695.** After EnergyNorth filed its 2006 IRP, the Commission issued Order No. 24,695 (November 8, 2006) involving Public Service Company of New Hampshire’s 2005 IRP. In that order, the Commission approved a partial settlement agreement and resolved certain disputed issues, one of which involved the adequacy of Public Service Company’s demand-side assessment. Like Staff’s testimony in this docket, Staff contended that Public Service’s discussion of demand-side management programs was limited to the effect of existing Core energy efficiency programs on transmission and distribution costs. The Commission ruled that Public Service Company’s demand-side assessment should be more rigorous than that:

“We have reviewed the relevant sections of the revised [IRP] 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 [integrated resource planning] 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 IRP] 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 [IRP] a systematic evaluation of reasonably available demand-side management programs. . . .

“[T]he 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 [IRP]. Given our decision above, we note that PSNH is obligated to describe the process for integrating demand-side and supply-side resources.” *Id.*

The combination of this decision regarding the type and scope of demand-side assessments for an electric utility such as Public Service Company and its previous decision in Order 22,116 affirming the appropriateness of treating gas and electric utilities the same with respect to integrated resource planning strongly suggests that Staff’s testimony in this docket regarding demand-side assessments for gas utilities is neither extreme or unreasonable.

**III. COMPLIANCE WITH THE 2004 SETTLEMENT AGREEMENT IS NOT THE SOLE CRITERION FOR DETERMINING WHETHER THE 2006 INTEGRATED RESOURCE PLAN IS ADEQUATE, BUT EVEN IF SO, THE 2006 INTEGRATED RESOURCE PLAN DOES NOT MEASURE UP FOR THE REASONS DESCRIBED BELOW.**

The Company and Staff have differing views about the extent to which the 2006 IRP complies with the requirements of the 2004 Settlement Agreement approved by Order No. 24,531. The Company argues that it has fully complied. Staff submits that while the 2006 IRP “addressed” the issues required by the order, it has not addressed them adequately in respect to the supply-side assessment, see section II.A.6. of the 2004 Settlement Agreement, and the establishment of design planning standards, see section II.A.4. of the 2004 Settlement Agreement. Staff’s views regarding the deficiencies of the 2006 IRP were set forth in its testimony and are discussed elsewhere in this brief.

Nevertheless, even assuming, without conceding, that the 2006 IRP fully complies with the 2004 Settlement Agreement and Order No. 24,531, it does not follow that the 2006 IRP must automatically be approved.

First, as Staff pointed out in its Surrebuttal Testimony at 4-5, the express terms of the 2004 Settlement Agreement do not provide that the 2006 IRP will be approved if it includes the specified changes. Rather, the Settlement Agreement provides that “the Commission’s approval of this Settlement Agreement will *not constitute continuing approval of, or precedent for,* any particular issue or resolution thereof in this proceeding, except that . . . the matters set forth in this Settlement Agreement shall be binding on the Staff and Parties to the extent *expressly* set forth herein” and “[t]his Settlement Agreement constitutes the *entire agreement* between the Staff and Parties regarding the subject matter hereof.” (Emphasis added.) Second, as made clear above, there is no indication in the 2004 Settlement Agreement or otherwise in the record of DG 04-133 that the parties or the Commission intended to make any fundamental changes to the previously announced integrated resource planning policies and requirements for gas utilities.

Under these circumstances, Staff believes the Commission retains full discretion to effectuate integrated resource planning policies and assess the adequacy of the 2006 IRP and future IRPs on their merits.

**IV. THE 2006 IRP IS INADEQUATE BECAUSE IT FAILS TO ACHIEVE THE FUNDAMENTAL OBJECTIVE OF INTEGRATED RESOURCE PLANNING AND DOES NOT CONTAIN, OR INSUFFICIENTLY TREATS, CERTAIN BASIC ELEMENTS THAT THE COMMISSION HAS FOUND TO BE ESSENTIAL TO INTEGRATED RESOURCE PLANNING.**

There is no dispute that “the fundamental objective of IRP [integrated resource planning] is to ensure that utilities assess a comprehensive set of supply- and demand-side options based on



consistent planning assumptions, in order to create a resource mix that reliably satisfies customers' short-term and long-term energy service needs at the lowest total cost.” Tr. at 45-47; *NARUC Primer on Gas Integrated Resource Planning*, Exhibit 8 at 25. This objective has two parts, one pertaining to achieving reliability and the other to minimizing the cost of energy services.<sup>11</sup> Importantly, NARUC’s opinion on the objectives of integrated resource planning accords with Order No. 19,546 and Order No. 22,116.

While the above opinions point to cost minimization and reliable service as the two primary objectives of integrated resource planning, they also suggest that for a resource plan to be judged adequate the following basic components must be included:

- (1) a forecast of future gas demand to determine customer energy requirements;
- (2) an assessment of available demand-side resource programs including a forecast of avoided supply costs to determine the cost-effectiveness of demand-side resources;
- (3) an assessment of available supply-side resource options;
- (4) a description of the process used to identify the least cost mix of cost-effective demand-side and supply-side resources.

Although the 2006 IRP includes detailed demand forecasts for Energy North’s service area, including a peak demand forecast under extreme weather conditions for reliability planning purposes, there is virtually no discussion of the available supply-side and demand-side resource options that could be used to meet customer demands over the planning period. Staff Direct Testimony at 3. More importantly, because the 2006 IRP fails to identify the available resource options, any discussion of the processes used to evaluate the cost effectiveness of different resources must of necessity be in general rather than specific terms. Integrated resource planning, when properly implemented, determines what a resource is worth to the utility and

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<sup>11</sup> NARUC went on to comment that the notion of the role of gas utilities as providers of energy services, and not simply gas therms, is an integral part of the move towards integrated resource planning.

compares it to what it costs. A resource is deemed cost-effective whenever its cost is less than it is worth. Because the worth of a particular resource is equal to the costs it avoids, the discussion of cost-effectiveness must include a thorough account of how the utility's avoided costs were formulated. Though the 2006 IRP includes avoided cost estimates, those estimates are based on New England-wide avoided supply costs rather than EnergyNorth-specific avoided supply costs. Staff Direct Testimony at 15. Add to this the fact that the costs of acquiring the available resources are not addressed at all, and there can be little doubt that the 2006 IRP failed to achieve the primary function of integrated resource planning, i.e., cost minimization. Staff Direct Testimony at 16.

Finally, the Commission should note that the 2006 IRP neither discusses the process for integrating cost effective demand-side and supply-side resources nor identifies the preferred portfolio of existing and new resources that satisfies forecasted demand at least cost. Staff Direct Testimony at 3-4. This, however, is not surprising given that the 2006 IRP fails to list the available resource options under each category, much less rank those options based on economics, a prerequisite for the development of any least cost resource plan.

In summary, Staff believes that the 2006 IRP does not achieve one of the two primary objectives of integrated resource planning, i.e., cost minimization, because it does not include complete assessments of supply-side and demand-side resources. For this reason, Staff urges the Commission to find the 2006 IRP inadequate.

**V. WHILE THE 2006 IRP DOES ADDRESS THE ITEMS IN THE 2004 SETTLEMENT AGREEMENT, IT IS NONETHELESS INADEQUATE BECAUSE IT FAILS TO SUFFICIENTLY ADDRESS THE COMPANY'S PRACTICES RELATING TO LONGER-TERM PORTFOLIO OPTIMIZATION AS CONTEMPLATED BY THE 2004 SETTLEMENT AGREEMENT.**

Section II.A.6 of the 2004 Settlement Agreement states in part that the 2006 “IRP will include a section setting forth the Company’s planning practices relating to longer-term portfolio optimization.” 2004 Settlement Agreement at 2. The agreement goes on to say that the section will “identify the available and potentially available supply resources and their respective costs” and “identify the mix and timing of resource additions and subtractions that are expected to minimize costs over the long-term . . . .”

Notwithstanding the explicit commitments set forth in section II.A.6 of the 2004 Settlement Agreement regarding longer-term portfolio optimization, the Company’s supply-side assessment “provides very little information on [EnergyNorth’s] plans to meet forecast requirements over the planning period.” Staff Direct Testimony at 16; see also Staff hearing testimony, Tr. at 146, 150, 152, 154. Also, while the gas commodity and pipeline capacity contracts that are scheduled to expire during the planning period are identified, “there is no discussion of the cost effectiveness of renewing those contracts at existing or alternate levels or replacing them with new contracts” and that “there is virtually no discussion of available options (such as proposed new pipeline projects, proposed new storage projects, or expansion of existing LNG LP-Air capacity) to supply the balance between existing resources (including or excluding expiring contracts) and forecast demand, let alone an analysis of the costs of these options relative to each other.” *Id.* In addition, regarding the section of the 2006 IRP that addresses the integration of supply- and demand-side resources, Staff concluded that it “neither discusses the process for integrating cost-effective demand-side and supply-side resources nor identifies the preferred portfolio of existing and new resources that satisfies forecasted loads at least cost over the planning period.” Staff Direct Testimony at 27.

Asked at hearing where in the 2006 IRP the Company identified the “potentially available resources” as required by the 2004 Settlement Agreement, the Company could only name the incremental capacity addition that was under discussion with Tennessee Gas Pipeline (TGP), which was alluded to briefly in a single short paragraph in section IV,C. page 20 of the 2006 IRP. Tr. at 65. The Company admitted that it “regularly reviews promotional material regarding new and revised services from various supply related entities,” as set forth in section IV,C. page 16, and thus the Company has that kind of information. Tr. at 66. However, the Company did not include any of it in the 2006 IRP. As to the costs of “potentially available resources,” the Company could only point to the estimated \$12-\$16.5 million capital cost of the proposed expansion of the Concord Lateral even though that cost represented a small portion of the total cost of the expansion over the 20 year life of the agreement with TGP. See section IV,C. page 20 of the 2006 IRP and Tr. at 67-68. And the Company had no answer when asked where in the 2006 IRP Staff could find the “price forecasts” that were used to show that the Company’s acquisition plan would minimize costs over the long-term, also required to be set forth. Tr. at 71-72.

For these reasons, Staff urges the Commission to find the 2006 IRP inadequate for failing to sufficiently address the requirements specified in section II.A.6. of the 2004 Settlement Agreement.

**VI. THE RESOURCE SELECTION PROCESS PROPOSED BY STAFF IS NOT A MEANINGLESS, ACADEMIC EXERCISE.**

The Company contends that the resource selection process proposed by Staff is an “academic and largely meaningless exercise because it would be based on hypothetical price quotes for potential projects that might be sufficient to meet projected future requirements.”

Company Direct Testimony at 10. The implication is that any evaluation process that involves resources whose future availability and cost are uncertain must be of limited value to the Company and its customers. While this argument could apply to both demand-side and supply-side resources, the Company seems particularly concerned about the proposal to include in future IRPs a detailed economic comparison of EnergyNorth's supply-side resource options. Therefore, Staff's answer to the Company's contention will focus solely on supply-side issues.

It is worth noting at the outset that, as discussed below, Staff and the Company agree on the length of the planning period for integrated resource planning. That is, the Company's primary integrated resource planning objective is to identify and evaluate resources that in aggregate are capable of meeting resource shortfalls that fall within a 5-year window. The issue of how to address resource shortfalls that fall outside of this window is left for subsequent IRPs. Since projections made over a shorter time horizon are generally more reliable than projections made over a longer horizon, the use of a 5-year planning period has the effect of greatly reducing, though not eliminating, the uncertainty regarding the availability of potential resources.

The same cannot be said, however, for the uncertainty regarding the cost of potential resources. Because the length of the planning period does not limit the time period over which long-lived resource options are evaluated,<sup>12</sup> cost uncertainty is typically a much greater concern. The fact that the costs of potential long-lived resources are uncertain does not, however, lessen the value in having EnergyNorth undertake an economic comparison of the alternatives. Indeed, it is common knowledge that competitive firms faced with the need to make costly long-term investments to meet uncertain future demands for their products perform economic comparisons

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<sup>12</sup> For example, if EnergyNorth identified a supply-side resource option that has a term in excess of the planning period (e.g., 20 years), the economic evaluation of the option would extend beyond the planning period, up to its full term.

of their options in order to reduce the risk that their products become uncompetitive and profits fall. If competitive firms, which generally are exposed to far greater uncertainties than regulated firms, believe it is prudent to perform such analyses, Staff can think of no reason why EnergyNorth should do otherwise.

The value to EnergyNorth in performing economic comparisons of alternatives as part of an IRP is highlighted by the evaluation it performed in Docket No. DG 07-101, which was opened by the Commission to investigate the reasonableness of EnergyNorth's proposed agreement with TGP for increased capacity on the Concord Lateral at a cost of more than \$80 million over a twenty year period. To demonstrate that its decision was reasonable, the Company compared over a 30 year period the cost of expanding the Concord Lateral and associated incremental commodity purchases with the cost of expanding onsite peaking facilities. Despite the obvious uncertainties associated with such long-term cost projections, the Company wisely proceeded with the evaluation and used the results to justify its decision to move ahead with the project. See *EnergyNorth Natural Gas, Inc. d/b/a KeySpan Energy Delivery New England*, Order No. 24,825 (February 29, 2008).

There is considerable value in utilities evaluating their resource options prior to the time when resources would normally be acquired. Without the benefit of an economic comparison of all resource options, the Company runs the risk of making resource decisions that over the long term prove more costly and increase rates to customers by more than is necessary. An example of this risk is provided by EnergyNorth's failure to include in its 2006 IRP an analysis of the cost-effectiveness of meeting projected growth in peak demand with on-site peaking facilities instead of purchased incremental pipeline capacity.

On cross examination at hearing, the Company testified that when it came time for it to decide whether or not to sign the capacity agreement with TGP or to build on-system peaking facilities to meet the demand requirements, the Company went through the supply-side planning process described in section IV of its IRP. Tr. at 74. That process kicks into gear “when a resource need arises,” i.e., when the Company first becomes aware of the need. Tr. at 77; 2006 IRP section IV at 16. In the case of the Concord Lateral expansion, the Company testified that the need arose when the five year demand forecast in the 2004 IRP indicated a shortfall in the out year or the next year. Tr. at 79. The Company stated it has been aware for years of this oncoming resource need and has been “monitoring the market” on what resources would be available to satisfy the need. *Id.* However, the process for analyzing the alternatives for satisfying the resource need did not begin in any meaningful way until 2007.

In August 2005, the Company discussed with its TGP account representative the need for an estimated cost to obtain incremental pipeline capacity. *Id.* TGP made its first proposal to the Company in May 2006. Tr. at 80. On November 13, 2006, the Company stated to Staff that it had “not yet performed a cost benefit analysis of an expansion to its on-system facilities versus the Concord Lateral upgrade, nor has the Company determined if such an upgrade would be best accomplished by an expansion of existing facilities or the construction of new facilities.” Tr. at 80-81. On the same date, the Company stated to Staff that it “anticipates the next increment of capacity addition will be the expansion of the Tennessee Gas Pipeline Concord Lateral.” Tr. at 81. In other words, even though it had not yet performed any analysis of the comparative costs of the alternatives, the Company already expected to choose the Concord Lateral expansion alternative. The risks of prejudging the issue in this situation are obvious.

As of January 24, 2007, the Company had still not performed a cost-benefit analysis. Tr. at 83. TGP made two more proposals to the Company regarding the incremental capacity contract, one on January 16, 2007 and the other on February 5, 2007. *Id.* On March 8, 2007, the Company requested CHI Engineering to provide cost information regarding the on-system alternatives to the TGP agreement. Tr. at 84-85. On May 3, 2007, almost three years after the resource need was first identified, the Company made a presentation to Staff and the OCA regarding the comparison of the TGP Concord Lateral and on-system alternatives. Tr. at 85. After the presentation, at the end of May and the beginning of June, the Company received the cost estimates for the on-system alternatives. Tr. at 87. On July 20, 2007, TGP made its final cost estimate for the Concord Lateral incremental capacity. *Id.* Finally, on September 14, 2007, the Company filed its petition for approval of the TGP agreement, which the Commission docketed as DG 07-101. Tr. at 88-89. Had the Company's analysis shown that an on-system peaking alternative was cost effective compared to the TGP Concord Lateral alternative, it is questionable whether the Company had enough time to complete the project before the year of need.

As it turned out, the Company did subsequently demonstrate to Staff's satisfaction that the purchase of incremental pipeline capacity is cost effective in DG 07-101. However, the Company made the determination to obtain increased capacity via a pipeline expansion prior to beginning its economic comparison of the alternatives. This failure to assess the costs of constructing and operating a peaking facility prior to entering negotiations with TGP for the expansion of the Concord Lateral unnecessarily exposed customers to the risk of excess supply costs. Had such an assessment been included in the 2006 IRP, the cost risk would have been



mitigated and the need for a separate docket to review the reasonableness of the Company's actions eliminated.

The analysis of resource alternatives based on long term cost projections can certainly be done, as evidenced by the testimony in DG 07-101. Indeed, the Company agrees it has to be done, Tr. at 74, though the Company prefers to do it close to the time the shortfall actually occurs rather than as part of an advance planning process. In the context of DG 07-101, the Company stated that it did not consider an economic analysis of long-lived alternatives to be meaningless. Tr. at 72-73. If such an economic analysis is not meaningless in that context, it would not be meaningless for integrated resource planning purposes either.

## **VII. ENERGNORTH'S CLAIM THAT INTEGRATED RESOURCE PLANNING APPLIES ONLY TO VERTICALLY INTEGRATED UTILITIES IS WRONG.**

A vertically integrated utility is one that owns and manages a considerable amount of the physical assets, including production, transmission, and distribution facilities, needed to meet customer demands.<sup>13</sup> EnergyNorth asserts that integrated resource planning applies only to vertically integrated utilities and offers Public Service Company of New Hampshire as an example of such a utility. Company Direct Testimony at 9. EnergyNorth goes on to claim that gas utilities, unlike vertically integrated electric utilities, do not develop their own supply resources. *Id.* Based on these statements, EnergyNorth concluded that the IRP filing requirements that apply to vertically integrated electric utilities are not appropriate for gas utilities. EnergyNorth is wrong on all three counts.

First, Public Service Company of New Hampshire is not vertically integrated. Like the other electric utilities in New Hampshire, Public Service Company was required by the state's

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<sup>13</sup> Some vertically integrated utilities meet customer demands by purchasing some of their requirements from other utilities.

restructuring law to create a restructured organization consisting of independent generation and integrated transmission and distribution. In addition, Public Service Company was required to unbundle its retail rates to allow customers “direct access” to non-utility suppliers. See RSA 374-F. Because of this restructuring, Public Service Company is no longer a vertically integrated utility. Despite this change, Public Service Company was made responsible for supplying the electric energy requirements of customers who choose not to purchase their requirements from competitive suppliers. This service is known as default service.

EnergyNorth’s second error is the claim that it is different from Public Service Company. Staff disagrees. Like Public Service Company, EnergyNorth is responsible for supplying customers that choose not to purchase their gas requirements from competitive suppliers. Like Public Service Company, EnergyNorth maintains a portfolio of supplies acquired from the market to meet its customers’ demands. Tr. at 58-59. Because EnergyNorth meets the demands of its default service customers through a portfolio of resources, the Commission would be completely justified in imposing on EnergyNorth the same integrated resource planning requirements that it imposes on Public Service Company. The fact that EnergyNorth acquires more of its resources from the market than does Public Service Company does not mean that EnergyNorth is dependent on suppliers for reliable cost information relating to potential new projects. Like most large sophisticated gas companies, EnergyNorth is perfectly capable of developing its own cost estimates for potential new resources and using that information appropriately in planning studies. As noted above, this capability was adequately demonstrated in DG 07-101, where EnergyNorth expressed sufficient confidence in its long term cost estimates to recommend rejection of the on-system peaking facility option in favor of incremental pipeline supplies. EnergyNorth’s claim that there are too many variables to obtain firm quotes from

potential project developers is nothing more than a smoke screen to obscure its own ability to make reasonable cost estimates.

EnergyNorth's third error is its assertion that integrated resource planning applies only to vertically integrated utilities. This assertion is directly refuted by *Public Service Company of New Hampshire*, Order No. 24,695 (2006), which requires Public Service Company, a de-integrated electric utility, to file an IRP that includes a supply-side assessment relating to the construction or acquisition of new generation capacity and a demand-side assessment that comprises a systematic evaluation of reasonably available demand-side management programs. Order No. 24,695 at 25-26.

For all of these reasons, Staff contends that integrated resource planning does apply to a gas utility such as EnergyNorth.

**VIII. THE PROCESS USED BY ENERGNORTH TO DETERMINE ITS RELIABILITY PLANNING STANDARDS IS NOT CONSISTENT WITH THE LIBERTY REPORT AND WAS NOT EXPRESSLY AUTHORIZED BY THE 2004 SETTLEMENT AGREEMENT.**

Supply reliability at its most basic level is about the ability of a utility to meet its customers' expected demands. Reliability planning is about the utility ensuring that it has sufficient resources on hand to meet its customers' expected demands. It follows, therefore, that demand forecasting is at the heart of reliability planning. What makes reliability planning challenging for gas utilities is the fact that the demand for gas is noticeably sensitive to weather conditions. This fact has led gas companies in cold climates to establish conservative reliability planning standards that are intended to meet expected demands of firm customers under extreme weather conditions. One such standard relates to the amount of resources needed to meet the peak day demand under extreme weather conditions and is referred to as the design day.

Another relates to the amount of resources needed to meet the year round demand under extreme weather conditions and is referred to as the design year.<sup>14</sup>

EnergyNorth used a three-step process to establish its design day and design year planning standards. See EnergyNorth Direct Testimony at 20. In the first step, EnergyNorth created a probability distribution of peak day temperatures for its service area based on a Monte Carlo analysis of weather data. In the second and third steps, EnergyNorth performed a cost/benefit analysis. When performed correctly, a cost/benefit analysis can establish the design day standard as the point of intersection between a cost curve (which plots the cost of added reliability) and a benefits curve (which plots to benefit of reduced service curtailment). See e.g., Staff Direct Testimony at 12-13, footnote 8.

EnergyNorth claimed that its three step process is consistent with Liberty's recommendation in DG 04-133. EnergyNorth Direct Testimony at 21. With that statement, however, EnergyNorth contradicts the plain language of Liberty's report, which recommends that the Company: (i) employ Monte Carlo simulation to develop a probability distribution of ENGI weather; and (ii) base its design day standard on a statistical analysis of that distribution. Liberty Report at 8-9. Nor is the three step process expressly authorized by the terms of the 2004 Settlement Agreement. Although the Company did employ Monte Carlo simulation to develop the probability distribution, the second part of Liberty's recommendation was ignored. In place of a statistical analysis, the Company used a cost/benefit analysis. Cost/benefit analysis, however, cannot be confused with statistical analysis. Statistical analysis is the science of analyzing sample data (in this case the 3,000 peak day temperatures obtained from Monte Carlo simulation) for the purposes of making generalizations about the population from which the

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<sup>14</sup> Both the design day and design year standards are expressed in Effective Degree Days (EDD).

sample was drawn. As such, statistical analysis does not concern itself with the assessment of costs and benefits associated with a particular action, which is the fundamental purpose of cost/benefit analysis. Furthermore, while it is not uncommon for statistical analysis to be employed in the development of inputs for a cost/benefit analysis -- as EnergyNorth did when it used the probability distribution from step one to calculate the probability-weighted benefits of avoiding curtailment -- this does not change the fundamental nature of the analytical process. For this reason, Staff urges the Commission to reject cost/benefit analysis as the basis for developing EnergyNorth's planning standards on the ground that such use is contrary to both Liberty's recommendation in DG 04-133 and is not expressly authorized by the 2004 Settlement Agreement.

**IX. IF THE COMMISSION DETERMINES THAT USE OF COST/BENEFIT ANALYSIS TO ESTABLISH RELIABILITY PLANNING STANDARDS IS APPROPRIATE, IT SHOULD NONETHELESS REJECT THE RESULTS OF ENERGYNORTH'S ANALYSIS ON THE GROUND THAT SUCH ANALYSIS IS SERIOUSLY FLAWED.**

The Company's cost/benefit analysis suffers from several deficiencies. As explained in Staff's Direct Testimony at 12-13, to estimate accurately the cost to purchase additional resources to improve supply reliability, the Company must first identify for each level of reliability the supply portfolio that meets customer demand at least cost over the long term (i.e., the optimal portfolio). The only way to do this accurately is to use the Company's SENDOUT model. The stream of portfolio costs produced by the SENDOUT model could be used to calculate a stream of incremental costs by subtracting the portfolio cost associated with one level of reliability from the portfolio cost associated with the next level. Instead of developing an incremental cost curve in this way, the Company elected to take a shortcut. Staff Direct Testimony at 12. The shortcut involved developing not one but two cost curves. One is labeled

the Low Upgrade Cost curve and is based on the unit cost to add a liquid propane-air (LP-Air) facility to the Company's system. The other is labeled the High Upgrade Cost curve and is based on the unit cost to add interstate pipeline capacity. The annual cost of LP-Air capacity was estimated at \$55.40 per MMBtu and interstate pipeline capacity at \$559 per MMBtu. Staff Surrebuttal Testimony, Exhibit-1.

The Company took a second shortcut regarding the development of an incremental benefits curve. Staff Surrebuttal Testimony at 9-10. Because of the uncertainty regarding the percentage of residential customers that might experience heating system freeze-ups and consequent need for remodeling, the Company chose to present the probability-weighted benefits of avoiding curtailment at three different levels each represented by a benefit curve. The intersection of the two cost curves and the three benefits curves produced the geometric shape shown in Fig 1 below.

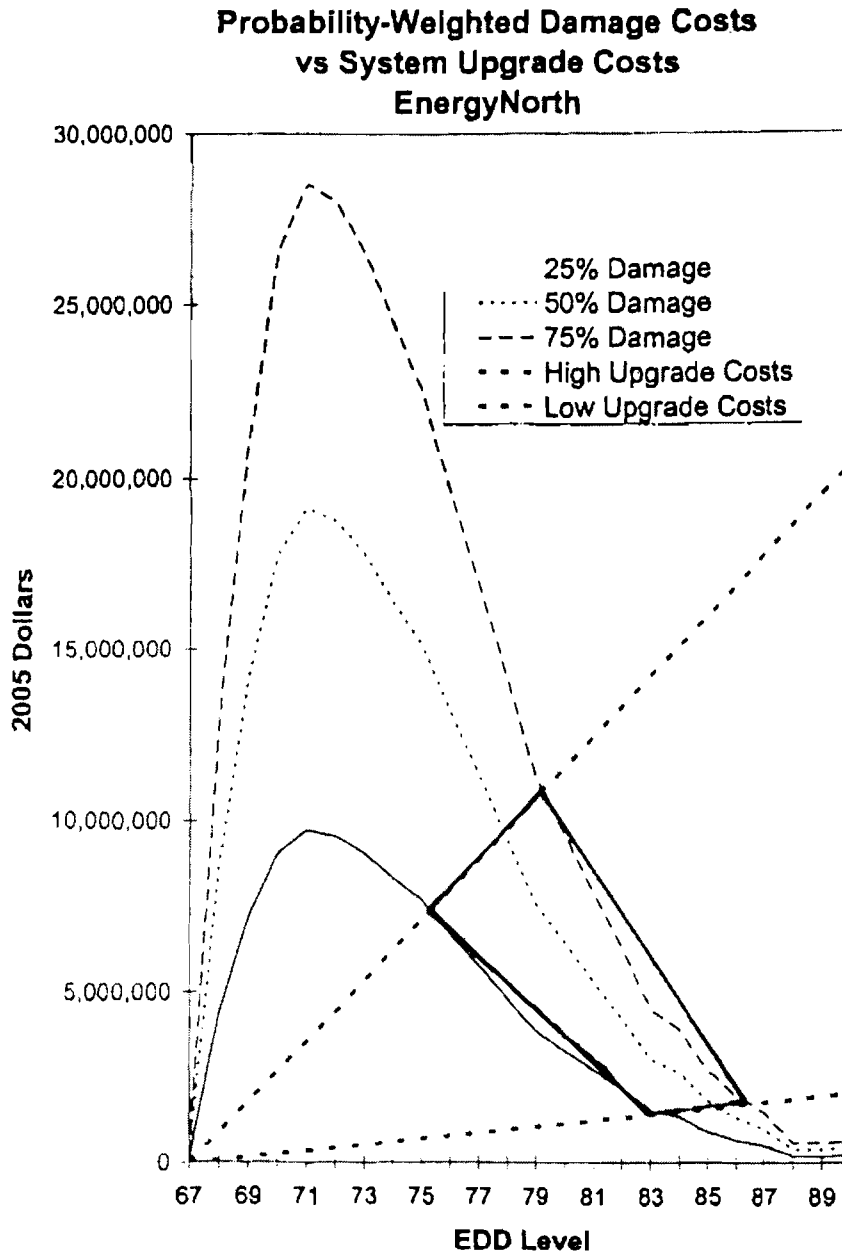


Figure 1

There are two major problems with this analysis. The first is that because of the uncertainty created by the use of cost and benefit ranges, the intersection of the benefit and cost curves produces a wide assortment of solutions for the design day planning standard that ranges

from 75 to 87 EDD. 2006 IRP at Chapter III page 57. To solve this problem, the Company arbitrarily set the design day standard equal to the EDD level (80.2 EDD) that passes through the center of the geometric shape. 2006 IRP at Chapter III page 57; Staff Surrebuttal Testimony at 10. The center of the geometric shape, however, no more represents the correct solution than the point that corresponds to the low end of the EDD range, i.e., 75 EDD. Indeed, EnergyNorth has presented no evidence to support the use of the center point over any other point.

The second problem is that, as Staff showed in its Surrebuttal Testimony at 8-9, that the cost estimates used by the Company in its analysis have been undercut by cost estimates submitted in Docket DG 07-101. Specifically, the Company estimated the annual cost to expand its propane facilities at \$256 per MMBtu, which is approximately four times the amount used in the cost/benefit analysis. Tr. at 138. Also, the cost to add interstate pipeline capacity does not include the cost of expanding the Concord Lateral, which is a prerequisite to receiving additional pipeline supplies. Staff Surrebuttal Testimony at 9. EnergyNorth calculated this cost to be \$146 per MMBtu per year, which suggests that the cost of incremental pipeline capacity in the cost/benefit analysis is understated by about 26%. *Id.*

The implication of these cost underestimates can easily be understood by reference to Fig 1. Because the unit costs to acquire additional resources in the cost/benefit analysis are underestimated, the gradient of each cost curve shown in Fig 1 is too low. Staff Surrebuttal Testimony at 10. Correcting for this error will result in a new geometric shape that is located to the left of the shape shown in Fig 1. This new shape will be defined by intersection points that cut the x-axis at lower EDD levels. This means that the center of the new shape will be lower than 80.2 EDD, the center of the shape developed by EnergyNorth. *Id.* For this reason, Staff



concludes that a design day standard of 80 EDD recommended by the Company cannot be substantiated by the updated cost estimates provided in DG 07-101.

**X. ENERGYNORTH IMPROPERLY CLAIMS THAT STAFF ARBITRARILY SELECTED ITS DESIGN DAY STANDARD.**

EnergyNorth contends that Staff chose “without any evidence” a probability of occurrence that simply “feels comfortable.” Tr. at 22. EnergyNorth’s claim is unfounded and flatly contradicted by Staff’s direct and surrebuttal testimony. Staff’s design day recommendation of 79 EDD is made in unambiguous terms in its direct testimony. Staff Direct Testimony at 13. Expressed in probability terms, this is equivalent to a probability of occurrence of once in every 32.26 years. See Staff Direct Testimony at 10. The derivation of Staff’s design day recommendation is also explained in its direct testimony. Specifically, after noting that the probability distribution created by EnergyNorth’s Monte Carlo simulation has a mean of 66.98 EDD and a standard deviation of 5.99 EDD, Staff noted that the mean plus two standard deviations equals 78.96 EDD or 79 EDD after rounding. Staff Direct Testimony at 10. Finally, the significance of a standard that equates to the mean plus two standard deviations is fully explained in Staff’s Surrebuttal Testimony at 13-14: the probability of exceeding a design day standard that equates to the mean of a probability distribution plus two standard deviations is equal to only 2.5% or a 1 in 40 chance of occurrence. Staff believes that such a standard not only establishes a reasonable level of reliability for firm customers but is consistent with EnergyNorth’s prior practice. Staff Direct Testimony at 11. For these reasons, Staff urges the Commission to reject EnergyNorth’s claim.

The Company has drawn attention to the fact that Staff’s proposed standard differs from its own by only 1 EDD. Tr. at 24 and 114. Its purpose, presumably, is to downplay the

importance of Staff's criticisms in the hope that its proposed standard will be adopted. This would be a mistake. While it might appear that the positions of Staff and the Company are close, the truth is very different as the critique of the Company's cost/benefit analysis above attests. That is, because the costs and benefits used by the Company to derive its proposed standard have been undercut by cost estimates presented in another docket and the benefits are subject to a high degree of uncertainty, little or no confidence should be attached to the result of the cost-benefit analysis. Thus, the positions of Staff and the Company are farther apart than what might appear. For this reason, Staff urges the Commission to put the above-mentioned comparison in its proper context and not overlook the real significance of the differences of opinion over the cost-benefit analysis.

**XI. ENERGNORTH'S CLAIM THAT THE INCLUSION OF A DEMAND-SIDE ASSESSMENT IN ITS INTEGRATED RESOURCE PLAN WOULD DUPLICATE WORK ALREADY DONE IN ENERGY EFFICIENCY PROCEEDINGS IS MISLEADING.**

EnergyNorth states that its 2006 IRP treats demand-side resources exactly the same way that its 2004 IRP did, i.e., through a reduction to its demand forecast. EnergyNorth Direct Testimony at 14. In addition, EnergyNorth claims that there is no need for a separate assessment of demand-side resources in the 2006 IRP because a "full assessment was previously made in the Company's gas energy efficiency proceeding, Docket No. DG 06-032, as part of the Commission's process for reviewing and approving Company-sponsored demand-side management and market transformation measures and programs, the cost-effectiveness of those programs and the appropriate level of program costs and savings." EnergyNorth Direct Testimony at 14-15. While the 2004 IRP treated demand-side resources as an offset to the demand forecast, such treatment is contrary to the fundamental objective of integrated resource

planning, which is to assess a comprehensive set of supply- and demand-side options based on consistent planning assumptions, in order to create a resource mix that reliably satisfies customers' short-term and long-term energy service needs at the lowest total cost. *NARUC Primer on Gas Integrated Resource Planning*, Exhibit 8 at 25. By contrast, traditional methods of utility resource planning focus on supply-side projects only, which in truth is what EnergyNorth would have the Commission adopt in this proceeding. If the Commission's policy goal is to apply integrated resource planning principles to gas utilities, the Company's proposal must be found to be inconsistent with that goal.

As to the second claim, it is simply misleading to say that a full assessment of demand-side resources was made in DG 06-032. On the contrary, no attempt was made in that docket to determine the potential for demand-side management initiatives in EnergyNorth's service area or the amount of cost-effective demand-side resources that minimizes the costs of EnergyNorth's resource portfolio, which as noted above is one of the primary goals of integrated resource planning. Staff Surrebuttal Testimony at 15. Rather, as EnergyNorth testified in that docket, the program goals were simply to increase awareness of the benefits of energy efficiency, induce lasting market changes and realize energy efficiency saving that might not occur without the programs. *EnergyNorth Natural Gas, Inc. d/b/a KeySpan Energy Delivery New England*, Order No. 24,636 (2006) at 6-7.

**XII. ENERGNORTH'S ARGUMENT THAT GAS UTILITIES SHOULD NOT UNDERTAKE DEMAND-SIDE ASSESSMENTS BECAUSE SUCH RESOURCES ARE LESS RELIABLE THAN SUPPLY-SIDE RESOURCES IS FLAWED.**

EnergyNorth believes that it is inappropriate for gas companies to assess new demand-side programs on an equal footing with supply-side resources because the former have a lower level of reliability. Tr. at 27-28. The implication is that reliability planning standards cannot be

met when demand-side programs are included in a resource portfolio. Even assuming demand resources are less reliable,<sup>15</sup> it does not follow that reliability will be put at risk by their inclusion in the portfolio. Because integrated resource planning requires that supply- and demand-side resources be evaluated in an equivalent manner, reliability differences will be taken into account as part of the integration process. For example, if demand-side programs are on average only half as reliable as supply-side resources in meeting peak day demands, a utility may need to add twice as many demand resources than supply resources to maintain reliability during peak demand periods. Because this would adversely affect the relative cost-effectiveness of demand-side programs, a least cost resource mix would include far fewer demand-side resources than would be the case under a scenario in which reliability differences are negligible.

**XIII. ENERGYNORTH INCORRECTLY SUGGESTS THAT STAFF SUPPORTS A PLANNING HORIZON LONGER THAN FIVE YEARS.**

In response to a question about Staff's position on the analysis of specific supply resources, the Company stated that "planning beyond the five year horizon, it doesn't make sense, it would require, if we are looking at what Mr. McCluskey has proposed, and to continuously evaluate kind of theoretical and hypothetical projects that we may or may not add to the portfolio ten years out, eight years out, beyond the five year period, that would take, obviously, time and resources, but, yet, it wouldn't add any value to the process." Tr. at 28. The suggestion that Staff supports a planning horizon longer than the five years proposed by the Company is not supported by Staff's direct or surrebuttal testimony or by Staff's responses to EnergyNorth discovery in this proceeding. That statement notwithstanding, Staff does take the position that the length of the planning horizon in no way limits the time period over which long

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<sup>15</sup> The Commission should note that EnergyNorth has presented no evidence in support of this claim.

lived resource options are evaluated. For example, if EnergyNorth identifies a gas supply option that has a term in excess of five years, Staff believes that the evaluation of that option must cover the full term regardless of whether that term extends beyond the planning horizon. Staff notes that this position is entirely consistent with the economic analyses performed by EnergyNorth and Staff in DG 07-101.

#### **XIV. THERE IS NO EVIDENCE TO SUPPORT CREATING A CAPACITY RESERVE FOR ENERGNORTH.**

In its 2006 IRP, EnergyNorth took the position that there is no evidence to support creating a capacity reserve to protect sales customers from the risk that grandfathered transportation customers return to sales service. 2006 IRP, section III page 39. The basis of the Company's position was that the data indicate that there have been minimal under deliveries by the suppliers of transportation customers. EnergyNorth went on to say that in the event the Commission disagrees and determines that it is appropriate for the Company to plan for the gas supply needs of grandfathered transportation customers it should plan for 100% of those needs, rather than the 30% proposed by Northern Utilities, Inc. *Id.* In addition, EnergyNorth recommended that the cost to acquire the resources to back up the 100% reserve should be borne by all customers. 2006 IRP, section III page 40.

Staff agrees with EnergyNorth that there is no evidence to support creating a capacity reserve. However, Staff is troubled by EnergyNorth's two positions regarding the alternative scenario. On the one hand, it says that there is no evidence to support the creation of a capacity reserve. On the other, it says that if the Commission disagrees with that assessment, the capacity reserve should be set to meet 100% of the needs of grandfathered transportation customers. Staff is troubled because logic would suggest that if there is no evidence that sales customers would

benefit from having a capacity reserve, then a rational person should argue for the smallest possible reserve not the largest, assuming of course that a final decision to create a reserve had been made.

On the second issue, if sales customers are unlikely to benefit from a capacity reserve, it seems illogical to require them to pay any of the costs to acquire back up resources. The logical position would be to charge only those customers that are the source of the risk; namely, those transportation customers that do business with unreliable suppliers. For these reasons, Staff urges the Commission to reject the Company's two positions regarding the alternative scenario.

#### **XV. CONCLUSION**

The 2006 IRP should not be approved because it is not adequate in certain respects related to the demand forecast, the demand-side and supply-side assessments, and the integration of those assessments, as set forth in Staff's testimony and this initial brief.

Respectfully Submitted,

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