

November 20, 2006

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

**RE: Docket 3766 – Gas Cost Recovery (GCR)
Responses to Division Record Requests 1 and 2**

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RHODE ISLAND PUBLIC UTILITIES COMMISSION

Dear Ms. Massaro:

Enclosed please find ten (10) copies of National Grid's responses to Division Record Requests 1 and 2 issued at the evidentiary hearing held on October 25, 2006, in the above-captioned proceeding.

Thank you for your attention to this filing. If you have any questions, please feel free to contact me at (401) 784-7667.

Very truly yours,



Laura S. Olton

Enclosures

cc: Docket 3766 Service List

Division Record Request 1-01

Request:

What are the Company's protocols related to any "breach" in security at a Company LNG site?

Response:

Given the sensitivity of security plans for Company LNG sites, the Company respectfully requests the Commission not require these documents to be copied and filed. In lieu of filing copies, we will make these documents available for inspection in our Weybosset Street offices for any members of the Commission or Division staff, or the Attorney General's office.

Division Record Request 1-02

Request:

Please provide a copy of LRAC referenced in the Company's Long Range Gas Supply Plan, filed with the Commission on August 22, 2006.

Response:

Attached are the pages from the 1994 Integrated Resource Plan describing the Long Run Avoided Cost (LRAC) estimates calculated at that time. The Company used the LRAC in the decision analysis to evaluate the impact of using a 1 in 100-year standard versus a 1 in 40 or 1 in 20-year standard.

LONG-RUN AVOIDED COSTS

The marriage of the Company's supply side strategy with the demand side options begins with the development of long-run avoided costs (LRAC). This methodology was developed by electric companies and state commissions to facilitate the screening of the large number of demand side options available and, in some cases, to force commonality of cost assumptions where supply side costs are derived or affected by power pools. The use of LRAC's for program screening eliminates the need to model each program or combination of programs through a full dispatch analysis and economic study. In some cases, there have been controversial generic proceedings to develop LRAC methodology and LRACs. In many cases, LRACs have been slow to reflect changes in the cost of the supply side resources as markets, fuel prices and supply structures have changed leading to continuation of programs long after their original economic justification had become obsolete. As with most short cuts, there are at least some pitfalls in their use.

For all its shortcomings, the use of LRAC's to initially screen options is efficient and a commonly accepted IRP practice. The LRAC methodology was chosen to capture both the supply cost structure as it exists today and the changes in costs that are anticipated to occur over the ten year horizon of the supply study. The costs used to develop the LRAC's were the result of careful

Figure II-7

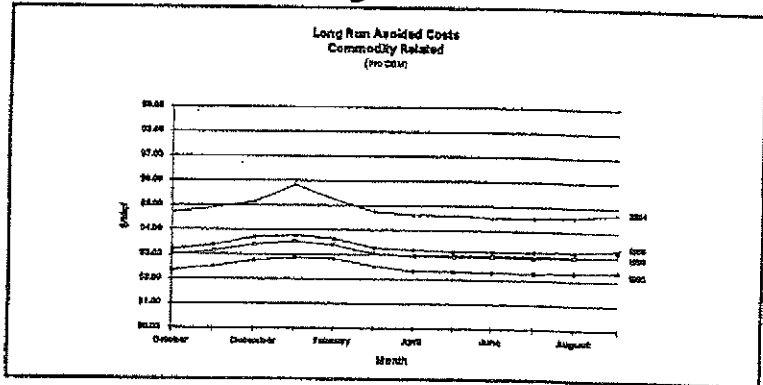


Figure II-8

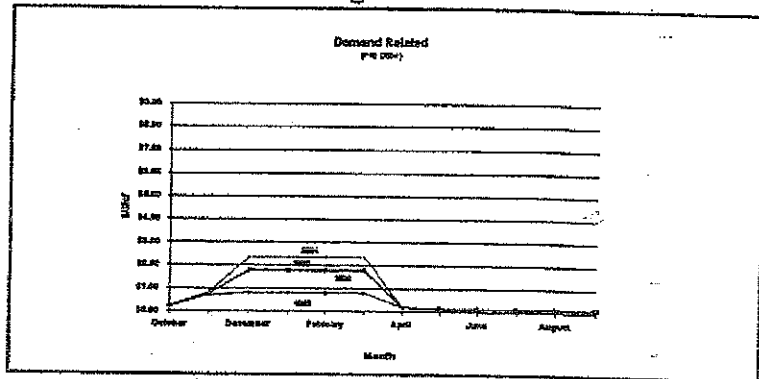
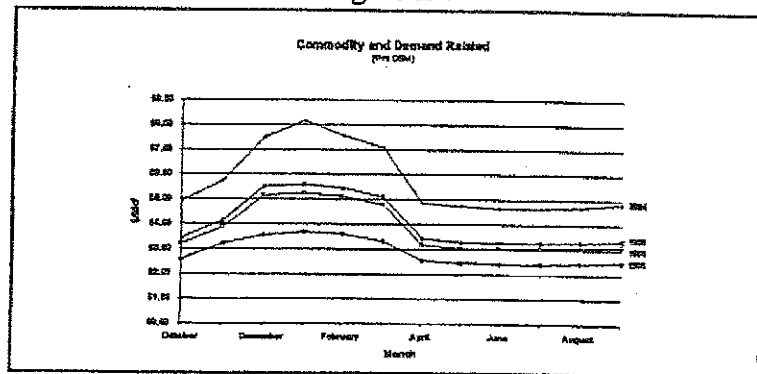


Figure II-9



study, but are still hypothetical and subject to change. Adequate supply resources are available to meet near term needs and additional supply is not needed at this time. It is critical that those using the LRACs understand that they will change as quickly as the assumptions they are built on. Given the current pace of change, that could be very quickly.

Commodity LRAC's

The commodity LRAC's are shown in Figure II-7. They were developed by modeling projected supply using the SENDOUT model to produce the least cost daily dispatch over the ten year planning horizon. The commodity LRACs were calculated by averaging for each month the marginal cost for each day. The marginal cost is the cost to add one incremental unit to that day's dispatch. It is a close approximation of the cost which would be avoided if a small amount of gas were conserved by a load reduction program or the cost which would be added by a small addition in load from a load building program.

The commodity LRACs were developed using a normal weather model run which incorporated the least cost supply mix capable of meeting all design requirements. Following creation of the final portfolio of demand side resources, the validity of the commodity LRACs was tested by preparing LRACs using the adjusted requirements.

Demand LRAC's

The demand LRAC methodology was chosen because it was felt that it would most accurately reflect the true avoided cost of capacity which would be created through conservation or used through cost effective load building programs. This was accomplished by estimating the value or opportunity cost of the capacity if it were assumed to be released. The Company has had a release program since the implementation of Order 636 and already attempts to release any capacity it does not need to meet current demand. This activity and actual experience create the basis for forecasting the demand recovery available from release. Unfortunately, there is good evidence that the release market is evolving rapidly and the forecast of revenue available from a release may change significantly. However, we still feel that the inclusion of a reasonable estimate of the revenue available from release as part of the demand LRAC provides a truer picture of the value of the capacity in spite of any weakness there may be in the forecast. Note that the demand related LRAC is applied as a unit cost in the same fashion as a commodity charge rather than as a demand charge applicable to peak use.

As explained in the design section, the ability to meet peak requirements with LNG vaporization shifts the design condition over to the December to March requirements. To reflect that fact, the demand related LRAC for the new capacity needed to meet growth is calculated by spreading the full demand cost over the volume available during the design period. Each additional unit in that period drives the need for additional capacity. An adjustment to the cost is made to recognize the fact that the capacity added can be released on a month to month basis as normal, not design, weather occurs. The release value is escalated at approximately the rate of inflation,

3.6% per year. As an example, calculation of the 1997/98 demand LRAC is shown below:

\$365/year estimated demand cost
\$156 release value

\$209 net demand cost

121 days in December, January, February and March

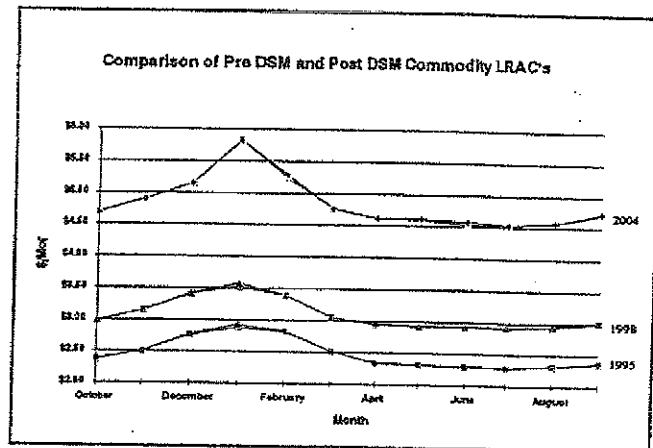
$\$209/121 \text{ Mcf} = \1.73 demand related LRAC for each additional Mcf avoided in December, January, February and March.

Note that there is no demand cost assigned to peak day beyond the commodity cost which would reflect LNG use and the demand related unit cost. This is true because peak day coverage is achievable without adding incremental resources to meet peak. Compared to the cost of adding pipeline capacity, the cost of adding vaporization capability to serve peak requirements is quite low once the other elements of the LNG infrastructure (tankage, piping, take away capacity, and unloading facilities) are available. It is also likely that increased vaporization will be available as the vaporizers, already over 20 years old, are updated to newer designs.

Post DSM LRAC's

Following the development of the DSM portfolio of programs, a new set of LRACs were run to verify that the resulting change in firm requirements had not shifted the LRAC making the initial screening economic analysis incorrect. A comparison of pre-DSM and post-DSM Commodity LRACs is shown in Figure II-10. There is a very slight, almost invisible, change between the pre-DSM and post-DSM LRACs. There is no change in the demand related LRAC because the year at which the new resource must be added is still 1998, even with the addition of the load building DSM programs.

Figure II-10



Certificate of Service

I certify that a copy of the cover letter and materials accompanying this certificate were mailed or hand-delivered to the parties listed below.



Date: November 20, 2006

Joanne M. Scanlon
 National Grid

Docket 3766 – National Grid – Annual Gas Cost Recovery (GCR) Service List as of 9/13/06

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