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BY HAND DELIVERY

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

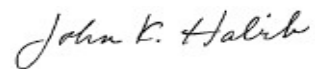
Re: Docket 4627 – In Re: Request for Approval of Firm Transportation Contracts
with Algonquin Gas Transmission, LLC for the Access Northeast Project
Responses to Data Requests – OER Set 4

Dear Ms. Massaro:

On behalf of National Grid,¹ enclosed are National Grid's responses to the Fourth Set of Data Requests issued by the Rhode Island Office of Energy Resources in the above-referenced matter.

Thank you for your attention to matter. If you have any questions, please contact me at (617) 951-1400, or Jennifer Brooks Hutchinson at 401-784-7685.

Very truly yours,



John K. Habib

Enclosures

¹ The Narragansett Electric Company d/b/a National Grid.

OER 4-1

Request:

Please provide more detail regarding the no-notice service described in the Joint Testimony of Mr. Brennan and Mr. Allocca.

- a) Is the no-notice service available only to generators and other shippers to whom firm transportation capacity has been released?
- b) Is the no-notice and fast-start service available at all times of the year?
- c) Please identify any limitations that would affect a generator's ability to schedule gas non-ratably during the LNG withdrawal period, December 1 through March 31 and July 21 through August 31?
- d) Please identify any limitations that would affect a generator's ability to schedule gas non-ratably during the injection period, September 1 through November 30th, and April 1 through July 20?
- e) Will ANE allow for the replenishment of LNG inventory during the withdrawal period? If yes, under what temperature or operating conditions? If yes, would liquefaction during the withdrawal period affect generators' ability to schedule gas non-ratably?
- f) If ANE's answer to 4-1(e) is no, why not?
- g) If operating contingencies in the wholesale electric market arise during the injection period, under what conditions would ANE allow for the regasification of LNG at Acushnet for one or more days? If yes, would withdrawals during the injection season affect generators' ability to schedule gas non-ratably?

Response:

- a) No-notice service under Section 4.3 of the ERS rate schedule is limited to those shippers who have contracted for ERS or have acquired ERS through capacity release.
- b) No-notice is available year round. Fast Start, the No-Notice Supply Service referred to in Section 4.4 of the ERS rate schedule, is available year round but is contingent on having inventory in the Acushnet LNG facility.
- c) Non-ratable hourly flexibility is limited to the ERS shipper taking no more than 1/24th of the Maximum Daily Quantity (MDQ) each hour of the day. The ERS shipper can change the scheduled quantity at any point within the day from 0 to the MDQ but can take no more than 1/24th of the MDQ any hour. This limitation applies year round.
- d) Please see the Company's response to part (c), above.
- e) Replenishment of LNG inventory during the withdrawal period is on a best efforts basis.

- f) During the withdrawal seasons Algonquin must be prepared to withdraw and vaporize LNG for any ERS shipper. The Acushnet facility is not capable of vaporizing and liquefying at the same time and therefore cannot guarantee liquefying during the withdrawal period.
- g) Vaporization of LNG could be allowed on any day where sufficient liquid inventory is available. This assumes that Algonquin is given sufficient notice to allow the liquefiers to be taken off-line and the vaporizers brought on-line. This notice is necessary due to the time it takes to prepare the system to switch from liquefaction to vaporization mode.

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OER 4-2

Request:

How does the proposed no-notice service in the ANE Service Agreement differ from Algonquin's existing FERC authorized no-notice service?

Response:

Algonquin currently provides no-notice service under Rate Schedules AFT-E and AFT-ES. With those services a customer is entitled to increase and decrease its deliveries up to its maximum daily delivery obligation during any hour of the Gas Day provided that receipts and deliveries remain in balance. However, the customer is required to maintain a qualified upstream no-notice source of supply that can deliver gas on a primary firm basis to the primary receipt point on the customer's Algonquin transportation agreement and the customer must relinquish control of that source of supply to Algonquin for operational purposes.

Rate Schedule ERS provides no-notice service similar to Algonquin's existing services. In accordance with Section 4.3 of Rate Schedule ERS a customer may request an increase or decrease in deliveries at its primary delivery point at any hour during the Gas Day however, unlike existing services, the ERS customer is not required to maintain a qualified upstream no-notice source of supply. Further, in accordance with Section 4.4 of Rate Schedule ERS, the customer is entitled to request delivery of gas on a primary firm basis from Algonquin for up to 2 hours without a concurrent nominated and confirmed receipt.

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OER 4-3

Request:

Over the last five years, 2011-15, identify any gas-fired generators in New England who have taken no-notice service, including the delivery point and the applicable tariff rate.

Response:

Currently no-notice service on the Algonquin Gas Transmission system is offered under Rate Schedules AFT-E and AFT-ES. No gas-fired generators in New England have contracts under these rate schedules.

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OER 4-4

Request:

Under ANE's Service Agreement, would the proposed "fast-start" service provide generators with the ability to take gas on an accelerated, non-ratable basis without commensurate receipt point nominations that conform to Algonquin's timely cycle requirements? If yes, would there be any hourly limitations governing the number of hours during the 24-hour Gas Day that non-ratable takes would be permitted?

Response:

The fast start service (described in Section 4.4 of Algonquin's Rate Schedule ERS) does provide generators with the ability to take gas on an accelerated, non-ratable basis for up to 2 hours without commensurate receipt point nominations. There are no limitations governing the number of hours during the 24-hour Gas Day that non-ratable takes are permitted.

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OER 4-5

Request:

During the injection periods,

- a) How does AGT plan to maintain sufficient line-pack across the Algonquin mainline to meet the contractual requirements of all primary firm transportation entitlement holders if the assignees in the secondary market are able to ship gas non-ratably throughout the day?
- b) If there are limitations regarding the number of hours the generators are able to ship gas non-ratably, please explain what operator actions will be necessary to maintain sufficient operating pressure across the AGT mainline.
- c) How does AGT plan to maintain sufficient line-pack across the Algonquin laterals in the AGT G-System aggregation area?

Response:

Based on discussions with Algonquin Gas Transmission Company, LLC (Algonquin or AGT), it is National Grid's understanding that:

- (a) All firm transportation entitlement holders do not necessarily have firm non-ratable contractual rights. Algonquin will maintain non-ratable deliveries for those contract holders that have firm non-ratable rights. All other contract holders have non-ratable rights on an interruptible basis. AGT will use linepack through its normal operating procedures of matching supply, demand and pack in the same way it does today. During injection periods when LNG supply is not available, Algonquin may use the LNG deemed for injection to supplement the pull down of linepack for the ERS shippers, and make up the difference by injecting additional LNG volumes over future days. AGT will work with its shippers to obtain the appropriate level of supply and/or restrict the interruptible non-ratable flows to maintain system integrity.
- (b) ERS shippers have the ability to nominate changes over the multiple nomination cycles offered to effectuate non-ratable flows. As explained in OER 4-5(a), above, Algonquin may use the LNG deemed for injection to supplement the pull down of linepack for the ERS shippers, and make up the difference by injecting additional LNG volumes over future days. AGT will work with its shippers to obtain the appropriate level of supply and/or restrict the interruptible non-ratable flows to maintain system integrity. The limitation to the number of hours that generators are able to take gas non-ratably will be subject to the system demands and operating conditions.
- (c) See response to OER 4-5(a) and OER 4-5(b), above.

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OER 4-6

Request:

What options exist to support the enhancement of non-ratable hourly flow rights at eligible delivery points in each of the four Aggregation Areas?

Response:

Standard transportation service limits a customer's hourly flow entitlement to 1/24 of its Maximum Daily Transportation Quantity. Pursuant to Section 2.3 of Rate Schedule ERS, customers have the option of requesting an Enhanced Maximum Hourly Transportation Quantity which would enhance the customer's ability to flow gas non-ratably.

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OER 4-7

Request:

During both the withdrawal season and the injection periods, stated in installed capacity (ICAP), what is the maximum amount of gas-fired generation ANE can serve:

- a) When all generation across all four aggregation areas is scheduled ratably?
- b) When all generation across all four aggregation areas is scheduled non-ratably?

Response:

During the injection season the Access Northeast Project will be able to deliver 500,000 Dth/day to serve electric generation load (less amounts that are scheduled for injection). Based on a heat rate of 180 Dth/day per megawatt this equates to 2,778 MW. During the withdrawal season, the Access Northeast Project will be able to deliver 900,000 Dth/day to serve electric generation load which equates to 5,000 MW.

OER 4-8

Request:

In regards to the proposed Acushnet facility:

- a) Please trace the title of the gas purchased from (i) the point of receipt into the AGT pipeline system to delivery to Acushnet, (ii) receipt of the gas at Acushnet through liquefaction, storage and regasification, and (iii) delivery from Acushnet into the AGT pipeline to a generating plant meter station.
- b) How are costs accumulated and tracked for gas delivered to Acushnet? If gas delivered on any day has two or more prices, how is this accounted for in inventory? Is inventory cost determined based upon first in – first out (FIFO), last in – first out (LIFO), or average inventory cost? How are quantities of liquefied natural gas allocated to the various owners of the LNG?
- c) How is boil-off accounted for?
- d) Are there any contract provisions for the exchange of quantities of LNG between two different owners of LNG in storage? Are there any provisions which would preclude such actions?
- e) Are there any contract provisions for the exchange of quantities of LNG between an owner of LNG in storage and a third party? Are there any provisions which would preclude such actions?
- f) How does the cost impact the price charged? Under what circumstances is it justifiable to sell below inventory cost? Is there a distinction between summer and winter seasons?
- g) Are sales described in (e) above anticipated to be made in the day ahead market, the real time market, or both markets? Is there a distinction between summer and winter seasons?

Response:

- a) In accordance with FERC's shipper–must-have-title requirements under their capacity release rules and regulations, the contract holder of the transportation contract either to or from the Acushnet facility or the contract holder of the LNG storage capacity owns title to the gas. If the Company retains the transportation and LNG storage contracts and purchases and stores LNG then it will hold title from the receipt point until it is sold and delivered. If the Company releases the transportation and storage contracts then the new shipper is responsible to purchase, store and hold title to the gas supply.
- b) Each LNG storage contract holder must schedule on the pipeline bulletin board deliveries to the storage facilities. Algonquin then accepts deliveries and records the quantity of gas by contract holder after accounting for fuel to transport and liquefy. Each storage contract holder determines the preferred accounting treatment for gas in storage. It has

been the company's practice for its LDCs to track inventory as a weighted average cost and it would expect to do the same for any EDC LNG inventory.

- c) During liquefaction, period boil-off is injected back into storage and when not liquefying is injected into the Algonquin's system. In both cases the boil-off is metered and allocated to inventory to each storage contract holder as a percentage of each contract holder's inventory to the total inventory.
- d) Section 7.2 of Rate Schedule ERS addresses transfers of title of gas in storage between two ERS customers. The ERS Rate Schedule allows for transfer of inventory between two ERS customers.
- e) Both parties to a title transfer of LNG inventory must have a service agreement under Rate Schedule ERS. FERC's capacity release regulations require that shippers must hold title to gas and therefore both parties are required to hold LNG storage capacity to receive inventory.
- f) The market price at the time of the demand will dictate whether to sell LNG supplies as vapor. The LNG storage capacity holder will make the decision to sell LNG supplies based on the market price and either the current inventory costs or the replacement costs. Selling below inventory costs would be most likely a very rare occurrence. It is expected that LNG will only be cost effective after all capacity into the region is being fully utilized because of the higher costs to purchase, deliver, liquefy and vaporize (cycle costs) LNG supplies which will occur only during peak days. There may be a reliability scenario when LNG may be required before all capacity is being used but it would be expected that the minimum sale price would be the full cycle replacement costs. There should be very little distinction between summer and winter.
- g) It is expected that sales of LNG supply as vapor will be sold in the both the day ahead and intraday markets. There should be very little distinction between summer and winter.

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OER 4-9

Request:

Do any of the pipelines supplying gas to AGT at any of the AGT receipt points under the ERC rate schedules have any provisions under any of their rate schedules which provide for deliveries at rates other than the average hourly rate? If so, please identify which rate schedules. Are these provisions available when operational flow orders (OFOs) are in effect?

Response:

The Company is not aware of any upstream pipeline that delivers gas to AGT at Access Northeast receipt Points that provide for non-ratable deliveries.

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OER 4-10

Request:

How are imbalances between shippers resolved under the ERC rate schedule? Must imbalances be resolved among ERC shippers, or can they be resolved among all shippers?

Response:

Operational Balancing Agreements (OBAs) exist at all pipeline interconnect receipt points on the AGT system. If a specific delivery point does not have an OBA and an imbalance is created on a shipper's ERS contract, imbalances would be resolved under the AGT FERC Gas Tariff, Section 25, Imbalance Resolution Procedures of the General Terms and Conditions.