EXECUTION COPY

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PRECEDENT AGREEMENT

This PRECEDENT AGREEMENT ("Precedent Agreement") is made and entered into this 28th day of June, 2013 ("Effective Date"), by and between Algonquin Gas Transmission, LLC ("Pipeline"), a Delaware limited liability company, and Colonial Gas Company d/b/a National Grid ("Customer"), a Massachusetts corporation. Pipeline and Customer are sometimes referred to individually as a "Party" and collectively as the "Parties."

WITNESSETH:

WHEREAS, Pipeline owns and operates an interstate gas transmission system in the Northeastern United States;

WHEREAS, Pipeline is proposing to expand its interstate natural gas transmission system in order to offer additional firm natural gas transportation capacity by constructing, owning and operating new pipeline and related facilities, as well as installing new compressor units and upgrading existing compressor units, as part of its Algonquin Incremental Market Project ("Project");

WHEREAS, Customer desires firm natural gas transportation service as part of the Project;

WHEREAS, subject to the terms and conditions of this Precedent Agreement, Pipeline is willing to construct the Project and provide the firm transportation service that Customer desires;

WHEREAS, subject to the terms and conditions of this Precedent Agreement, Pipeline is willing to provide such service to Customer and Customer is willing to pay Pipeline for such service;

NOW, THEREFORE, in consideration of the mutual covenants herein assumed, and intending to be legally bound, Pipeline and Customer agree as follows:

1) Pipeline Obligations. Subject to the terms and conditions of this Precedent Agreement, Pipeline shall proceed with due diligence to obtain from all governmental and regulatory authorities having competent jurisdiction over the premises, including, but not limited to, the Federal Energy Regulatory Commission ("Commission" or "FERC"), the authorizations and/or exemptions Pipeline determines are necessary: (i) for Pipeline to construct, install, own, operate, and maintain the Project facilities, and, if applicable, abandon existing facilities, necessary to provide the firm transportation service contemplated herein; and (ii) for Pipeline to perform its obligations as contemplated in this Precedent Agreement. Pipeline reserves the right to file and prosecute any and all applications for such authorizations and/or exemptions, any supplements or amendments thereto, and, if necessary, any request for rehearing or court review, which are consistent with this Precedent Agreement in a manner it deems to be in its best interest. Pipeline agrees to provide Customer with an opportunity to review and comment on the text of Pipeline's application for a certificate of public convenience and necessity for the Project in advance of the filing date of such application, and Pipeline agrees to work with Customer in good faith to address any concerns raised by Customer prior to filing such application.

2) Customer Obligations.

   a) No later than thirty (30) days after the Effective Date of this Precedent Agreement, Customer will advise Pipeline in writing of any facilities which Customer must construct, or cause to be constructed, in order for Customer to utilize the firm transportation service contemplated in this Precedent Agreement.

b) Subject to the terms and conditions of this Precedent Agreement, Customer shall proceed with due diligence to obtain Customer's Authorizations (as defined in Paragraph 7 of this Precedent Agreement). Customer reserves the right to file and prosecute applications for Customer's Authorizations, and, if necessary, any court review, in a manner it deems to be in its best interest; provided, however, Customer shall pursue Customer's Authorizations in a manner designed to implement the firm transportation service contemplated herein in a timely manner. Customer agrees to promptly notify Pipeline in writing when each of Customer's Authorizations is received, obtained, rejected or denied. Customer shall also promptly notify Pipeline in writing as to whether each of Customer's Authorizations that has been received or obtained is acceptable to Customer.

c) During the term of this Precedent Agreement, Customer agrees to use reasonable efforts to support and cooperate with, and to not oppose, obstruct or otherwise interfere with in any manner, the efforts of Pipeline to obtain all authorizations and/or exemptions and supplements and amendments thereto necessary for Pipeline to construct, own, operate, and maintain the Project facilities, to provide the firm transportation service contemplated in this Precedent Agreement, and to perform its other obligations as contemplated by this Precedent Agreement. Notwithstanding the foregoing, Customer may elect to participate in a New England expansion project with Tennessee Gas Pipeline Company contemporaneously with Customer's participation in the Project and the mere fact of such participation in and of itself shall not be deemed to constitute opposition, obstruction or interference with Pipeline's efforts regarding the Project.

3) Service Agreements.

a) Firm Service Agreement. To effectuate the firm transportation service contemplated herein, Customer and Pipeline agree that no later than thirty (30) days following the date on which the Commission issues an order granting Pipeline a certificate of public convenience and necessity to construct the Project facilities or, upon Pipeline's request to Customer, within a shorter time following the issuance of such certificate as may be deemed necessary by Pipeline in its reasonable discretion to allow Pipeline to commence the construction of the Project, Pipeline and Customer will execute a firm transportation service agreement under Rate Schedule AFT-1 ("AFT-1 Service Agreement"), which will (i) specify a Maximum Daily Transportation Quantity ("MDTQ") of 25,000 Dth/d, exclusive of fuel requirements, effective on the Service Commencement Date (as determined in accordance with Paragraph 4 of this Precedent Agreement), (ii) specify a primary term of fifteen (15) years commencing on the Service Commencement Date ("Primary Term"), (iii) specify a Primary Point of Receipt at Ramapo in Rockland County, NY (Meter No. 00214), and a Maximum Daily Receipt Obligation ("MDRO") of 25,000 Dth/d; provided, however, the sum of the MDROs at all Primary Points of Receipt contemplated in this clause (iii) shall not exceed the MDTQ, (iv) specify the following Primary Points of Delivery and Maximum Daily Delivery Obligations ("MDDO"): Bourne (Meter No. 18) – 10,000 Dth/d; and Sagamore (Meter No. 51) – 15,000 Dth/d; provided however, the sum of the MDDOs at all Primary Points of Delivery contemplated in this clause (iv) shall not exceed the MDTQ, and (v) incorporate creditworthiness requirements consistent with the provisions set forth in Paragraph 12 below. The AFT-1 Service Agreement will be considered a ROFR Agreement with the rights afforded to ROFR Agreements as set forth in Pipeline's FERC Gas Tariff.

b) Rate. Pipeline and Customer further agree that, contemporaneously with the execution of this Precedent Agreement, they will execute, in accordance with Section 46 of the General Terms and Conditions ("GT&C") of Pipeline's Tariff, a negotiated rate agreement ("Negotiated Rate Agreement") which shall become effective on the Service Commencement Date and shall provide for a negotiated rate applicable to service under the AFT-1 Service Agreement as set forth on Exhibit A hereto, subject to approval by the Commission.

c) Extension. Customer may, at its option, extend the Primary Term for up to 100% of the MDTQ for either [redacted], provided that Customer notifies Pipeline of such extension, including whether Customer chooses to extend the term for [redacted], at least twelve (12) months prior to the expiration of the Primary Term. The applicable rate during the term of such extension shall be as set forth in the Negotiated Rate Agreement.

d) [redacted] Receipt Point Availability. In the event that a Project shipper with receipt point capacity at [redacted] terminates its precedent agreement and/or AFT-1 service agreement prior to the Service Commencement Date (as defined in Paragraph 4) and, as a result of such termination, receipt point capacity at [redacted] becomes available, Pipeline will offer such receipt point capacity to all remaining Project shippers. Within ten (10) days of such offer, Customer may notify Pipeline that it will move its Primary Receipt Point to [redacted] for all, or a portion, of the receipt point capacity offered by Pipeline. Pipeline will award available [redacted] receipt point capacity on a pro-rata basis among all Project shippers that timely notify Pipeline of their interest in such receipt point capacity.

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e) Existing Service Agreement. Pipeline and Customer agree to amend the existing service agreement under Rate Schedule AFT-1 between the parties (designated as Contract No. 510025, and referred to herein as "Existing Service Agreement") to extend the term of that agreement through October 31, 2016, and, if the Service Commencement Date (as defined in Paragraph 4) for the Project will not occur on November 1, 2016, the Parties agree to further amend the Existing Service Agreement to extend the term through the day prior to the Service Commencement Date. Upon the expiration of the Existing Service Agreement, the capacity under Contract No. 510025 from the head of the G System to Bourne (Meter No. 18) and Sagamore (Meter No. 51) will be included as part of the Project capacity, and the capacity from Beverly, MA (Meter No. 215) to the head of the G System under the Existing Service Agreement will become available capacity on Pipeline's system subject to the provisions for available capacity in Pipeline's FERC Gas Tariff, as effective from time to time.

4) Commencement of Service. Upon satisfaction or waiver of all the conditions precedent set forth in Paragraph 7 of this Precedent Agreement, Pipeline shall notify Customer of such fact, and that service under the AFT-1 Service Agreement will commence on a date certain, which date will be the later of: (i) November 1, 2016, or (ii) the date that all of the conditions precedent set forth in Paragraph 7 of this Precedent Agreement are satisfied or waived ("Service Commencement Date"). On and after the Service Commencement Date, Pipeline shall provide firm transportation service for Customer pursuant to the terms of the AFT-1 Service Agreement and Customer will pay Pipeline for all applicable charges required by the AFT-1 Service Agreement and the Negotiated Rate Agreement.

5) Design and Permitting of Project Facilities. Pipeline will undertake the design of the Project facilities and any other preparatory actions necessary for Pipeline to complete and file its application(s) related to the Project with the Commission or other governmental authority as appropriate. Prior to satisfaction of the conditions precedent set forth in Paragraph 7 of this Precedent Agreement, Pipeline shall have the right, but not the obligation (subject to Paragraph 6 of this Precedent Agreement), to proceed with the necessary design of facilities, acquisition of materials, supplies, properties, rights-of-way and any other necessary preparations to implement the firm transportation service under the AFT-1 Service Agreement as contemplated in this Precedent Agreement.

6) Construction of Project. Upon satisfaction of the conditions precedent set forth in Paragraphs 7(a)(i) through 7(a)(iv), inclusive, 7(a)(vi), and 7(b)(i) through 7(b)(iii), inclusive, of this Precedent Agreement, or waiver of the same by Pipeline or Customer, as applicable, Pipeline shall proceed (subject to the continuing commitments of all customers executing precedent agreements and service agreements for service utilizing the firm transportation capacity to be made available by the Project) with due diligence to construct the authorized Project facilities and to implement the firm transportation service contemplated in this Precedent Agreement on November 1, 2016. If, notwithstanding Pipeline's due diligence, Pipeline is unable to commence the firm transportation service for Customer as contemplated herein on November 1, 2016, Pipeline will continue to proceed with due diligence to complete arrangements for such firm transportation service, and commence the firm transportation service for Customer at the earliest practicable date thereafter. Pipeline will neither be liable nor will this Precedent Agreement or the AFT-1 Service Agreement be subject to cancellation if Pipeline is unable to complete the construction of such authorized Project

facilities and commence the firm transportation service contemplated herein by November 1, 2016.

7) Conditions Precedent. Commencement of service under the AFT-1 Service Agreement and Pipeline's and Customer's rights and obligations under the AFT-1 Service Agreement are expressly made subject to satisfaction of the following conditions precedent in this Paragraph 7 (only Pipeline shall have the right to waive the conditions precedent set forth in Paragraph 7(a) and only Customer shall have the right to waive the conditions precedent set forth in Paragraph 7(b)):

a) Pipeline's Conditions Precedent.

i) Pipeline's receipt and acceptance by December 1, 2015, of all necessary certificates and authorizations from the Commission to construct, install, own, operate and maintain the Project facilities, and, if applicable, abandon existing facilities, all as described in Pipeline's certificate application as it may be amended from time to time, to provide the firm transportation service contemplated herein and in the AFT-1 Service Agreement, and to perform its other obligations contemplated herein;

ii) Pipeline's receipt of approval, on or before the date that Pipeline files its certificate application with the Commission, from its Board of Directors, or similar governing body, to expend the capital necessary to construct the Project facilities;

iii) Pipeline's receipt of all necessary governmental authorizations, approvals, and permits required to construct the Project facilities necessary to provide the firm transportation service contemplated herein and in the AFT-1 Service Agreement other than those specified in Paragraph 7(a)(i);

iv) Pipeline's procurement of all rights-of-way, easements or permits (in form and substance acceptable to Pipeline) necessary for the construction and operation of the Project facilities;

v) Pipeline's completion of construction of the Project facilities and all other facilities required to render firm transportation service for Customer pursuant to the AFT-1 Service Agreement and Pipeline being ready and able to place such facilities into gas service; and

vi) Amendment of the Existing Service Agreement as contemplated in Paragraph 3(e) on or before July 23, 2013.

b) Customer's Conditions Precedent.

i) Customer's receipt of approval, on or before July 23, 2013, from its Board of Directors, or similar governing body, to participate in the Project;

ii) Customer's receipt and acceptance by December 1, 2013 (or such later date as may be mutually agreed upon by the Parties), of any necessary governmental, contractual and/or regulatory authorizations, approvals, certificates, permits and/or exemptions associated with the Project facilities, including but not limited to that of the Massachusetts Department of Public Utilities ("Customer's Authorizations"); and

iii) Amendment of the Existing Service Agreement as contemplated in Paragraph 3(e) on or before July 23, 2013.

c) With respect to each condition precedent set forth in Paragraph 7(a) of this Precedent Agreement Pipeline shall use commercially reasonable efforts to provide notice to Customer within five (5) days of the date that such condition precedent has been satisfied or waived. With respect to each condition precedent set forth in Paragraph 7(b) of this

Precedent Agreement, Customer shall use commercially reasonable efforts to provide notice to Pipeline within five (5) days of the date that such condition precedent has been satisfied or waived. The inadvertent failure of either Pipeline or Customer to notify the other as contemplated by this Paragraph 7(c) shall not be considered a breach of this Precedent Agreement nor shall it be considered cause for either Party to terminate this Precedent Agreement.

d) Unless otherwise provided for herein, the Commission certificate(s), authorization(s) and approval(s) contemplated in Paragraph 1 of this Precedent Agreement must be issued in form and substance reasonably satisfactory to both Parties hereto. For purposes of this Precedent Agreement, such Commission certificate(s), authorization(s) and approval(s) shall be deemed satisfactory if issued or granted in form and substance substantially as requested, or if issued in a manner acceptable to Pipeline and such authorization(s) and approval(s), as issued, will not otherwise have a material adverse effect on Customer. Customer shall notify Pipeline in writing not later than fifteen (15) days after Pipeline notifies Customer of the issuance of the Commission certificate(s), authorization(s) and approval(s), including any order issued as a preliminary determination on non-environmental issues, contemplated in Paragraph 1 of this Precedent Agreement if such Commission certificate(s), authorization(s) and approval(s) are not satisfactory to Customer. Otherwise, Customer will be deemed to have waived all rights related to such Commission certificate(s), authorization(s) and approval(s). All other governmental authorizations, approvals, permits and/or exemptions that Pipeline must obtain must be issued in form and substance reasonably acceptable to Pipeline. All governmental approvals that Pipeline is required by this Precedent Agreement to obtain must be duly granted by the Commission or other governmental agency or authority having jurisdiction, and must be final and no longer subject to rehearing or appeal; provided, however, Pipeline may waive the requirement that such authorization(s) and approval(s) be final and no longer subject to rehearing or appeal.

8) Pre-Service Costs. If Customer (i) fails to perform, in whole or in part, its material duties and obligations hereunder; or (ii) during the term of this Precedent Agreement [redacted] and, as a result of such actions by Customer, Pipeline does not receive the authorization and/or exemptions in form and substance as requested by Pipeline or does not receive such authorizations and/or exemptions at all, then in either of the above events, Customer shall, at the option and election of Pipeline, reimburse Pipeline within thirty (30) days of Pipeline's invoice for Customer's [redacted] of Pre-Service Costs as hereinafter defined. If the conditions precedent set forth in Paragraphs 7(b)(i) and 7(b)(iii) of this Precedent Agreement have not been fully satisfied or waived by Customer by the applicable date specified therein, and Customer terminates this Precedent Agreement pursuant to Paragraph 9(b) hereof, then [redacted] under this Precedent Agreement. The term "Pre-Service Costs" for all purposes in this Precedent Agreement shall include, but will not be limited to, those expenditures and/or costs incurred, accrued, allocated to, or for which Pipeline is contractually obligated to pay (including, without limitation, the tax liability, if any, to Pipeline associated with its receipt of such reimbursement amount), associated with engineering, construction, land and right-of-way

matters, materials and equipment, environmental, regulatory, and/or legal activities, allowance for funds used during construction, negative salvage, internal overhead and administration and any other costs incurred in furtherance of Pipeline's efforts to develop and construct the Project and to satisfy its obligations under this Precedent Agreement and all other precedent agreements for service on the Project facilities. Pre-Service Costs will include expenditures and/or costs incurred or accrued to Pipeline if the event giving rise to such costs occurred on or before the date of termination of this Precedent Agreement, including contractual obligations incurred prior to such date for payments due after the date of termination of this Precedent Agreement. NOTWITHSTANDING THE FOREGOING, THE PARTIES HERETO AGREE THAT NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY FOR ANY PUNITIVE, SPECIAL, EXEMPLARY, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, LOSS OF PROFITS OR BUSINESS INTERRUPTIONS) ARISING OUT OF OR IN ANY MANNER RELATED TO THIS PRECEDENT AGREEMENT, AND WITHOUT REGARD TO THE CAUSE OR CAUSES THEREOF OR THE SOLE, CONCURRENT OR CONTRIBUTORY NEGLIGENCE (WHETHER ACTIVE OR PASSIVE), STRICT LIABILITY (INCLUDING, WITHOUT LIMITATION, STRICT STATUTORY LIABILITY AND STRICT LIABILITY IN TORT) OR OTHER FAULT OF EITHER PARTY. THE IMMEDIATELY PRECEDING SENTENCE SPECIFICALLY PROTECTS EACH PARTY AGAINST SUCH PUNITIVE, EXEMPLARY, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES EVEN IF RELATED TO THE NEGLIGENCE, GROSS NEGLIGENCE, WILLFUL MISCONDUCT, STRICT LIABILITY OR OTHER FAULT OR RESPONSIBILITY OF SUCH PARTY; AND ALL

RIGHTS TO RECOVER SUCH DAMAGES OR PROFITS ARE HEREBY WAIVED AND RELEASED.

9) Termination of Precedent Agreement for Failure of Conditions Precedent.

a) If the conditions precedent set forth in Paragraph 7(a) of this Precedent Agreement have not been fully satisfied or waived by Pipeline, by the earlier of the dates specified therein, or within two (2) years after the date specified in clause (i) of Paragraph 4 of this Precedent Agreement, and this Precedent Agreement has not been terminated pursuant to Paragraphs 10 or 11 hereof, then Pipeline may thereafter terminate this Precedent Agreement (and the AFT-1 Service Agreement, if executed) by providing ninety (90) days' prior written notice of its intention to terminate to Customer; provided, however, if the conditions precedent are satisfied, or waived by Pipeline, within such ninety (90) day notice period, then termination of such agreements will not be effective. Pipeline's termination right pursuant to this Paragraph 9(a) expires ten (10) days after the deadline giving rise to such termination right.

b) If the conditions precedent set forth in Paragraph 7(b) of this Precedent Agreement have not been fully satisfied or waived by Customer by the earlier of the dates specified therein, or within two (2) years after the date specified in clause (i) of Paragraph 4 of this Precedent Agreement, and this Precedent Agreement has not been terminated pursuant to Paragraphs 10 or 11 hereof, then Customer may thereafter terminate this Precedent Agreement (and the AFT-1 Service Agreement, if executed) by providing ninety (90) days' prior written notice of its intention to terminate to Pipeline; provided, however, if the conditions precedent are satisfied, or waived by Customer within such ninety (90) day notice period, then termination of such agreements will not be effective. Customer's termination right pursuant to this Paragraph 9(b) expires ten (10) days after the deadline giving rise to such termination right.

10) Additional Pipeline Termination Rights. In addition to the provisions of Paragraph 9 hereof, Pipeline may terminate this Precedent Agreement at any time upon fifteen (15) days' prior written notice to Customer, if: (i) by the earlier of: (a) the sixtieth (60^{th}) day following the issuance of the FERC certificate for the Project, provided that no other material Pipeline Authorizations are outstanding, or (b) April 1, 2017, Pipeline, in its sole and reasonable discretion, determines for any reason that the Project contemplated herein is no longer economically viable, or (ii) as of April 1, 2017, substantially all of the other precedent agreements, service agreements or other contractual arrangements for the firm service to be made available by the Project are terminated, other than by reason of commencement of service. In the event that Pipeline terminates this Precedent Agreement in accordance with this Paragraph 10, Customer shall not be liable for any costs incurred by Pipeline in connection with the Project.

11) Termination Upon Service Commencement Date. If this Precedent Agreement is not terminated pursuant to Paragraphs 9 or 10 hereof, then this Precedent Agreement will terminate by its express terms on the Service Commencement Date, and thereafter Pipeline's and Customer's rights and obligations related to the transportation service contemplated herein shall be determined pursuant to the terms and conditions of such AFT-1 Service Agreement and Pipeline's FERC Gas Tariff, as effective from time to time. Notwithstanding any termination of this Precedent Agreement pursuant to Paragraphs 9, 10 or 11 hereof, to the extent that a provision of this Precedent Agreement contemplates that one or both Parties may have further rights and/or obligations hereunder following such termination, the

provision shall survive such termination as necessary to give full effect to such rights and/or obligations.

12) Creditworthiness. On or within five (5) business days after the Effective Date of this Precedent Agreement, Customer shall satisfy the creditworthiness requirements as set forth in this Paragraph 12.

a) Creditworthiness Standard. Customer shall at all times during the effectiveness of this Precedent Agreement and the AFT-1 Service Agreement be "Creditworthy". For purposes herein, Customer will be considered Creditworthy if Customer has and continues to maintain: (i) a long-term senior unsecured debt rating from (a) Moody's Investors Service, Inc. of Baa3 with stable outlook or higher, and (b) Standard & Poor's of BBB- with stable outlook or higher and (ii) a sufficient open line of credit with Pipeline and its affiliates.

b) Guaranty. If at any time and from time to time during the effectiveness of this Precedent Agreement and/or the AFT-1 Service Agreement, Pipeline determines that Customer is not Creditworthy, or if Pipeline initially finds Customer to be Creditworthy but subsequently determines that Customer is no longer Creditworthy, then Customer will provide, or cause to be provided, a guaranty (a "Guaranty") from Customer's parent company or from a third party (a "Guarantor"), provided such Guarantor is determined by Pipeline to be Creditworthy and Guarantor remains Creditworthy for so long as it guarantees Customer's payment obligations. The Guaranty shall: (i) guarantee all payment obligations of Customer under this Precedent Agreement and the AFT-1 Service Agreement, (ii) remain in effect until all payment obligations under this Precedent Agreement and AFT-1 Service Agreement have been satisfied in full, and (iii) be in a form acceptable to Pipeline, which for purposes herein shall mean in form and content substantially similar to Exhibit B hereto. If the original Guarantor is, at any time, no longer Creditworthy, Pipeline may require Customer to provide, or cause to be provided either: (i) a replacement guaranty from a Creditworthy guarantor, or (ii) to supplement the existing Guaranty with a letter of credit as described in Paragraph 12(c).

c) Letter of Credit. If at any time and from time to time during the effectiveness of this Precedent Agreement and/or the AFT-1 Service Agreement, Customer fails to meet the requirements of Paragraphs 12(a) or Guarantor fails to meet the requirements of Paragraph 12(b) above, Customer shall provide, or cause to be provided, at its sole cost, a standby irrevocable letter of credit (a "Letter of Credit") from a Qualified Financial Institution. For purposes herein, a "Qualified Financial Institution" shall mean a major U.S. commercial bank, or the U.S. branch offices of a foreign bank, which is not the Customer or Customer's Guarantor (or a subsidiary or affiliate of the Customer or Customer's Guarantor) and which has assets of at least $10 billion dollars and a credit rating of at least "A-" by Standard & Poor's and at least "A3" by Moody Investors Service, Inc.. The Letter of Credit shall: (i) [redacted] (ii) remain in effect until all payment obligations under this Precedent Agreement and AFT-1 Service Agreement have been satisfied in full, and (iii) be in a form acceptable to Pipeline, which for purposes herein shall mean in form and content substantially similar to Exhibit C hereto. Pipeline may require Customer at its cost to substitute a Qualified Financial Institution if the Letter of Credit provided is, at any time, from a financial institution which is no longer a Qualified Financial Institution.

d) Tariff Credit Provisions Apply. The requirements set forth in this Paragraph 12 shall be in addition to, and not in lieu of, any requirements under the GT&C of Pipeline's FERC Gas Tariff (including, but not limited to, Section 3), which are applicable to Customer with respect to service on and after the Service Commencement Date under the AFT-1 Service Agreement.

e) Pipeline Notification. Notwithstanding anything in this Paragraph 12 to the contrary, if at any time and from time to time during the effectiveness of this Precedent Agreement and/or the AFT-1 Service Agreement Pipeline determines that Customer is not satisfying the requirements in this Paragraph 12, Pipeline shall notify Customer in writing, and Customer shall satisfy, or cause to be satisfied, such requirement(s) as soon as reasonably practicable, but in no event later than the close of the fifth (5^{th}) business day following receipt of such notice from Pipeline.

f) Failure to Comply. The failure of Customer to timely satisfy or maintain the requirements set forth in this Paragraph 12 shall in no way relieve Customer of its other obligations under this Precedent Agreement and/or the AFT-1 Service Agreement, nor shall it affect Pipeline's right to seek damages or performance under this Precedent Agreement and/or the AFT-1 Service Agreement. Further, Pipeline shall have the right, but not the obligation, to suspend or terminate performance under this Precedent Agreement, or to terminate this Precedent Agreement, upon ten (10) days' prior written notice by Pipeline following the fifth (5th) business day notice period set forth in this Paragraph 12(f).

g) Term of Credit Provisions and Survival. This Paragraph 12 shall survive the termination of this Precedent Agreement and shall remain in effect until all payment obligations under this Precedent Agreement and the AFT-1 Service Agreement have been satisfied in full.

h) Replacement Customer Creditworthiness. In the event Customer assigns this Precedent Agreement and/or the AFT-1 Service Agreement in accordance with the applicable assignment provision(s), or in the event Customer permanently releases all or a portion of Customer's capacity under the AFT-1 Service Agreement in accordance with Section 14 of the GT&C of Pipeline's FERC Gas Tariff, the assignee and/or the permanent replacement customer, as applicable, shall be required to satisfy the requirements of this Paragraph 12 until all payment obligations under this Precedent Agreement and the AFT-1 Service Agreement have been satisfied in full.

13) Amendments. This Precedent Agreement may not be modified or amended unless the Parties execute written agreements to that effect.

14) Prior Agreements. This Precedent Agreement and its attachments, when executed, supersede all prior agreements and understandings, whether oral or written, with respect to the Project.

15) Successors; Assignments. Any company which succeeds by purchase, merger, or consolidation of title to the properties, substantially as an entirety, of Pipeline or Customer, will be entitled to the rights and will be subject to the obligations of its predecessor in title under this Precedent Agreement. Otherwise, neither Customer nor Pipeline may assign any of its rights or obligations under this Precedent Agreement without the prior written consent of the other Party hereto. Notwithstanding the foregoing, Pipeline shall have the right, without obtaining Customer's consent, to pledge or assign its rights under this Precedent Agreement and/or the AFT-1 Service Agreement as collateral security for indebtedness incurred by Pipeline or by an affiliate of Pipeline.

16) No Third-Party Rights. Except as expressly provided for in this Precedent Agreement, nothing herein expressed or implied is intended or shall be construed to confer upon or give to any person not a Party hereto any rights, remedies or obligations under or by reason of this Precedent Agreement.

17) Joint Efforts: No Presumptions. Each and every provision of this Precedent Agreement shall be considered as prepared through the joint efforts of the Parties and shall not be construed against either Party as a result of the preparation or drafting thereof. It is expressly agreed that no consideration shall be given or presumption made on the basis of who drafted this Precedent Agreement or any specific provision hereof.

18) Recitals and Representations. The recitals and representations appearing first above are hereby incorporated in and made a part of this Precedent Agreement.

19) Choice of Law. This Precedent Agreement shall be governed by, construed, interpreted, and performed in accordance with the laws of the Commonwealth of Massachusetts, without recourse to any laws governing the conflict of laws.

20) Notices. Except as herein otherwise provided, any notice, request, demand, statement, or bill provided for in this Precedent Agreement, or any notice which either Party desires to give to the other, must be in writing and will be sent by two of the following means: electronic mail, facsimile transmission, hand delivery or courier to the other Party at the addresses set forth below:

Pipeline: Attn: Director, Business Development
5400 Westheimer Court
Houston, TX 77056
Phone: (713) 627-5400
Fax: (713) 627-4727
Email: gncrisp@spectraenergy.com

Customer: Attn: John Allocca, Director of Gas Contracting & Compliance

National Grid
100 East Old Country Road
Hicksville, NY 11801
Phone: (516) 545-3108
Fax: (516) 545-3130
Email: john.allocca@nationalgrid.com

or at such other address as either Party designates by written notice. Notices given hereunder by electronic mail or facsimile will be deemed to have been effectively given the day indicated on the confirmation accompanying the electronic submission or facsimile. Notices given hereunder by reputable overnight courier will be deemed to have been effectively given on the next business day after sending.

21) Defined Terms. When used in this Precedent Agreement, and unless otherwise defined herein, capitalized terms shall have the meanings set forth in Pipeline's FERC Gas Tariff on file with the Commission, as amended from time to time.

22) Waivers. The waiver by either Party of a breach or violation of any provision of this Precedent Agreement will not operate as or be construed to be a waiver of any subsequent breach or violation hereof.

23) Counterparts. This Precedent Agreement may be executed in any number of counterparts, each of which will be an original, but such counterparts together will constitute one and the same instrument.

24) Headings. The headings contained in this Precedent Agreement are for reference purposes only and shall not affect the meaning or interpretation of this Precedent Agreement.

25) Representations and Warranties. Each Party represents and warrants to each other as follows:

(i) Such Party is duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation and has full corporate power to execute, deliver and perform this Precedent Agreement;

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(ii) The execution, delivery and performance of this Precedent Agreement by such Party have been and remain duly authorized by all necessary corporate action and do not and will not contravene Party's constitutional documents or any contractual restriction binding on Party or its assets;

(iii) This Precedent Agreement has been duly executed and delivered by such Party. This Precedent Agreement constitutes the legal, valid, binding and enforceable obligation of such Party, except as such enforceability may be limited by bankruptcy, insolvency, reorganization and other similar laws and by general principles of equity;

(iv) No governmental authorization, approval, order, license, permit, franchise or consent, and no registration, declaration or filing with any governmental authority is required on the part of such Party in connection with execution and delivery of this Precedent Agreement, although it is subject to the necessary governmental approvals specified herein for its effectuation.

(v) There is no pending or, to the best of such Party's knowledge, threatened action or proceeding affecting such Party before any court, governmental authority or arbitrator that could reasonably be expected to materially and adversely affect the financial condition or operations of such Party or the ability of such Party to permit its obligations hereunder, or that purports to affect the legality, validity or enforceability of this Precedent Agreement or would otherwise hinder or prevent performance hereunder.

26) Confidentiality and Disclosures.

a) The substance and terms of this Precedent Agreement are confidential. Either Party may disclose the substance and terms of this Precedent Agreement to its or its affiliates' directors, officers, employees, representatives, agents, consultants, attorneys or auditors ("Representatives") who have a need to know the substance and terms of this Precedent Agreement. Pipeline and Customer agree not to disclose or communicate, and will cause their respective Representatives not to disclose or communicate, the substance or terms of this Precedent Agreement to any other person, entity, firm, or corporation without the prior written consent of the other Party, provided that either Party may disclose the substance or terms of this Precedent Agreement as required by law, order, rule or regulation of any duly constituted governmental body or official authority having jurisdiction, subject to the condition that the disclosing Party first give the other Party two (2) business days' notice of same, or as much notice as possible under the circumstances, so that a protective order or other protective arrangements may be sought. Notwithstanding the foregoing, the Parties acknowledge that (A) Pipeline may, in its sole discretion, exercised reasonably, (i) file a copy of this Precedent Agreement with the FERC under seal in connection with the FERC certificate application, (ii) place on public file with the FERC a description of the terms of any negotiated rate prior to the commencement of firm transportation service under the AFT-1 Service Agreement, and (iii) use the terms and conditions of this Precedent Agreement (excluding any information proprietary to Customer) in Pipeline's preparation of the pro forma precedent agreement for other shippers under the Project, and (B) Customer, in its sole discretion, may provide Project information, including a copy of this Precedent Agreement, to the Massachusetts Department of Public Utilities; provided Pipeline or Customer will request confidential treatment for any such filing or written disclosure. Such filings will not constitute a breach of this confidentiality provision and will not require compliance with the foregoing two (2) day notice provision. If this Precedent Agreement is terminated pursuant to Paragraphs 9, 10 or 11 above or otherwise by mutual agreement of the Parties, then this Paragraph 26 will survive for a period of two (2) years from and after the effective date of such termination.

b) The following will not constitute confidential information for purposes of this Precedent Agreement: (i) information which is or becomes generally available to the public other than as a result of a disclosure by the Party receiving the confidential information or its Representatives; (ii) information which was already known to the Party receiving the confidential information on a non-confidential basis prior to being furnished such information by the other Party; (iii) information which becomes available to the Party receiving the confidential information on a non-confidential basis from a source other than the Party providing such confidential information or its Representative if such source was not known by the Party receiving such information to be subject to any prohibition against transmitting the information to such Party; or (iv) information which was or is independently developed by Party receiving the confidential information or its Representatives without reference to, or consideration of, confidential information.

REDACTED DOCUMENT

EXECUTION COPY

IN WITNESS WHEREOF, the Parties hereto have caused this Precedent Agreement to be duly executed by their duly authorized officers as of the day and year first above written.

Algonquin Gas Transmission, LLC	Colonial Gas Company d/b/a National Grid
By: William T. Yardley	By: John V. Vaughn
Title: President	Title: Authorized Signatory

REDACTED DOCUMENT

Exhibit A
Negotiated Rate Agreement
For AFT-1 Service Agreement

ALGONQUIN GAS TRANSMISSION, LLC
5400 Westheimer Court
Houston, TX 77056-5310
713.627.5400 main

Mailing Address
P.O. Box 1642
Houston, TX 77251-1642

REDACTED DOCUMENT

Spectra Energy.

June __, 2013

John Allocca
Director of Gas Contracting and Compliance
Colonial Gas Company d/b/a National Grid
100 East Old Country Road
Hicksville, New York 11801

Re: Rate Schedule AFT-1 Service Agreement (Contract No. ______) – Negotiated Rate

Dear Mr. Allocca:

By this transmittal letter, Algonquin Gas Transmission, LLC ("Algonquin") and Colonial Gas Company d/b/a National Grid ("National Grid") are implementing a negotiated rate applicable to service under the above-referenced Rate Schedule AFT-1 Service Agreement.

Algonquin and National Grid hereby agree that the provisions on the attached *Pro Forma* Statement of Negotiated Rates reflect the terms of their agreement, including the effectiveness of the negotiated rate. After execution of this letter by both Algonquin and National Grid, Algonquin shall file a Statement of Negotiated Rates with the Federal Energy Regulatory Commission ("Commission") containing rate-related provisions identical to those provisions on the attached *Pro Forma* Statement of Negotiated Rates in accordance with Section 46 of the General Terms and Conditions of the Algonquin tariff.

If the foregoing accurately sets forth your understanding of the matter covered herein, please so indicate by having a duly authorized representative sign in the space provided below and returning an original signed copy to the undersigned.

Sincerely,

William T. Yardley
President

ACCEPTED AND AGREED TO
THIS __ DAY OF JUNE, 2013

COLONIAL GAS COMPANY D/B/A NATIONAL GRID

Name: John V. Vaughn
Title: Authorized Signatory

CRC
JA

STATEMENT OF NEGOTIATED RATES 1/2/3/4/5/6/10

Customer Name: Colonial Gas Company d/b/a National Grid

Service Agreement: [INSERT CONTRACT NUMBER]

Term of Negotiated Rate: The term of this negotiated rate commences on the Service Commencement Date (as defined in the Precedent Agreement between Pipeline and Customer) of Contract No. [INSERT CONTRACT NUMBER] and continues for the Primary Term (as such term is defined in the Precedent Agreement and Contract No. [INSERT CONTRACT NUMBER]). In the event Customer exercises its one-time option to extend the Primary Term of Contract No. [INSERT CONTRACT NUMBER] for up to 100% of the MDTQ, then (a) Pipeline and Customer will amend the Negotiated Rate to reflect the extension of the term of the Negotiated Rate for an additional (i) [redacted] at a new negotiated rate equal to [redacted] per Dth per month or (ii) [redacted] at a new negotiated rate equal to [redacted] per Dth per month for the elected volume, or (b) if Customer elects to extend the Primary Term of Contract No. [INSERT CONTRACT NUMBER] at the then-effective maximum recourse rate, then the term of the Negotiated Rate will expire at the end of the Primary Term. 11/

Rate Schedule: AFT-1 [AIM Project]

MDTQ: 25,000 Dth/d

Reservation Rate: Customer shall pay a negotiated reservation rate of [redacted] per Dth, per month of Customer's MDTQ under Contract No. [INSERT CONTRACT NUMBER] during the Primary Term thereof. /3/4/7/9

Commodity Charge and Other Charges: /8

Primary Receipt Point: /5
Ramapo (Meter No. 00214) – 25,000 Dth/d

Primary Delivery Point: /5
Bourne (Meter No. 18) – 10,000 Dth/d
Sagamore (Meter No. 51) – 15,000 Dth/d

Recourse Rate(s): The Recourse Rate(s) applicable to this service is the applicable maximum rate(s) stated on Pipeline's Statement of Rates for Rate Schedule AFT-1 [AIM Project] at the applicable time.

FOOTNOTES:

1/ This negotiated rate transaction does not deviate in any material respect from the form of service agreement set forth in Pipeline's FERC Gas Tariff.

2/ This Negotiated Rate shall apply only to transportation service under Contract No. [INSERT CONTRACT NUMBER], up to Customer's specified MDTQ, using the Primary Receipt Point and Primary Delivery Points designated herein, and any secondary receipt and delivery points available under Rate Schedule AFT-1.

3/ [redacted]

REDACTED DOCUMENT

[redacted]

[redacted]

5/ Customer may at any time during the Primary Term of the Service Agreement request a change from its Primary Receipt Point or Primary Delivery Points (or the MDROs or MDDOs associated with such points) to any receipt point or delivery point, respectively, that is part of the incremental capacity and transportation path constructed for the Project, subject to the availability of capacity and consistent with Pipeline's FERC Gas Tariff, including the provisions regarding allocation of capacity and amendments to existing service. If Customer's request satisfies the requirements in the foregoing sentence, Pipeline will accept such request and promptly process the necessary amendments to the Service Agreement to provide for the applicability of the negotiated rate under this statement of negotiated rates to transportation service using the designated points. If Customer seeks to change its Primary Receipt Point or Primary Delivery Points (or the MDROs or MDDOs associated with such points) to any receipt point or delivery point, respectively, that is not part of the incremental capacity and transportation path constructed for the Project, then Customer shall, prior to requesting such point change electronically, request a meeting with Pipeline regarding such proposed change and Pipeline shall promptly evaluate such request and meet with Customer to respond to such request.

6/ Pipeline and Customer agree that Contract No. [INSERT CONTRACT NUMBER] is a ROFR Agreement.

7/ Prior to filing this statement of negotiated rates to reflect the Updated Capital Costs and Final Capital Costs, if applicable, the negotiated Reservation Rate and the term extension rates stated above will be replaced with the adjusted Reservation Rate and adjusted term extension rates, which are the applicable rates updated to reflect estimated and actual cost increases or decreases according to the cost sharing rate adjustments set forth in footnotes 3 and 4 and, additionally with respect to the term extension rates, footnote 11.

8/ Customer shall pay: (i) a commodity charge which shall be zero for the quantity of gas, in Dekatherms, delivered during the applicable Day under Pipeline's Rate Schedule AFT-1 for the Project; (ii) the applicable Fuel Reimbursement Quantity ("FRQ") under Pipeline's Rate Schedule AFT-1 for the Project; (iii) the applicable Annual Charge Adjustment and all other charges and surcharges applicable to Rate Schedule AFT-1 for the Project; and (iv) any future surcharge or additional usage charge pursuant to any FERC-approved cost recovery mechanism of general applicability implemented in a generic proceeding or in a Pipeline specific proceeding, which mechanism recovers cost components not reflected in Pipeline's initial recourse rate(s) applicable to service under Pipeline's Rate Schedule AFT-1 for the Project.

9/ **Most Favored Nations (MFN)**

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

(c) [redacted]

[redacted]

REDACTED DOCUMENT

[redacted] ion rate schedule for service on Pipeline's mainline, [redacted] t for service on the Project with a customer that is [redacted], and if such customer's reservation rate is less than [redacted] e provided in accordance with the foregoing sentence [redacted] to promptly offer Customer a reservation rate pursuant [redacted] able, following Pipeline's acceptance of the certificate [redacted] e Project. Within seven (7) days following Pipeline's [redacted] ation for a qualifying incremental expansion project, [redacted] that such application has been submitted. Such notice [redacted] tive Expansion Rate for such qualifying incremental [redacted] e recourse rate(s) calculated for the Project, and (Y) [redacted] sal in the application. This qualifying incremental [redacted] ipeline of any obligation to promptly offer Customer a [redacted] his footnote 9, if applicable, following FERC approval [redacted] ppealable order in form and substance substantially as [redacted] onably acceptable to Pipeline, as set forth in (b)(ii). [redacted] ither of the notices described above in order to retain

(e) [redacted]

[redacted]

REDACTED DOCUMENT

Exhibit B
Guaranty

REDACTED DOCUMENT

EXHIBIT B

GUARANTY

This Guaranty ("Guaranty"), dated as of ______________, is made by ________________________, a [state and corporate structure] ("Guarantor"), in favor of _____________ a [state & corporate structure] ("Beneficiary").

WHEREAS, from time to time, _________________, a ________________ [state and corporate structure] ("Counterparty"), and Beneficiary may enter into one or more contracts, agreements and commitments for the storage or transportation of natural gas (referred collectively as "Agreement");

WHEREAS, Counterparty is a wholly-owned subsidiary of Guarantor; and Guarantor will directly or indirectly benefit from the Agreement to be entered into between Counterparty and Beneficiary; and

WHEREAS, as an inducement to Beneficiary to enter into the Agreement, Guarantor has agreed to provide this Guaranty; and

WHEREAS, Guarantor has agreed to execute and deliver this Guaranty with respect to Counterparty's payment obligations under the Agreement:

NOW THEREFORE, in consideration of the premises, Guarantor hereby agrees as follows:

1. **Guaranty.** Guarantor hereby absolutely, irrevocably and unconditionally guarantees the timely payment when due of Counterparty's payment obligations arising under any Agreement, as such Agreement may be amended or modified from time to time, together with any interest thereon and fees and costs of collection (including attorney's fees and court costs) in connection therewith ("Obligation"). In the event Counterparty defaults in the payment of any of the Obligation, within ten (10) days after receiving written notice from Beneficiary, Guarantor shall make such payment or otherwise cause same to be paid. This Guaranty may be enforced by Beneficiary at any time without the necessity of first resorting to or exhausting any other security or collateral. All amounts payable by Guarantor hereunder shall be in freely transferable funds.

2. **Effectiveness.** This Guaranty is effective as of the date set forth above and is a continuing guaranty which shall remain in full force and effect throughout the term of the Agreement, including any extensions or renewals thereof, until Guarantor has completely fulfilled the Obligation. If at any time during the effectiveness of this Guaranty, Guarantor no longer qualifies as Creditworthy as defined in Paragraph XX of that certain precedent agreement between Counterparty and Beneficiary dated _____ ("Precedent Agreement"), Guarantor shall, or shall cause Counterparty to, immediately provide the collateral specified in Paragraph XX(X) of the Precedent Agreement.

3. **Waivers.** (a) Guarantor waives any right to require as a condition to its obligations hereunder any of the following should Beneficiary seek to enforce the obligations of Guarantor:

   (i) presentment, demand for payment, notice of dishonor or non-payment, protest, notice of protest, or any similar type of notice;
   (ii) any suit be brought against, or any other action be brought against, or any notice of default or other similar notice be given to, or any demand be made upon Counterparty or any other person or entity;
   (iii) notice of acceptance of this Guaranty, of the creation or existence of the Obligation, and/or any action by Beneficiary in reliance hereon or connection herewith;
   (iv) notice of entering into any Agreement between Counterparty and Beneficiary, and/or any amendments, supplements or modifications thereto, or any waiver of consent under any Agreement, including waiver of the payment and performance of the Obligation thereunder; and/or

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(v) notice of any increase, reduction or rearrangement of Counterparty's Obligation under any Agreement, or any extension of time for payment of any amounts due Beneficiary under any Agreement.

(b) Guarantor also waives the right to require, substantively or procedurally, that a judgment has been previously rendered against Counterparty or any other person or entity, or that Counterparty or any other person or entity be joined in any action against Guarantor.

4. **Assignment.** Guarantor shall not assign its duties hereunder without the prior written consent of Beneficiary. Beneficiary shall be entitled to assign its rights hereunder in its sole discretion upon prior written notice to Guarantor. Any assignment without such prior written consent or notice, as applicable, shall be null and void and of no force or effect.

5. **Notice.** All demands, notices or other communications to be given by any party to another must be in writing and shall be deemed to have been given when delivered personally or otherwise actually received or on the third (3rd) day after being deposited in the United States mail if registered or certified, postage prepaid, or one (1) day after delivery to a nationally recognized overnight courier service, fee prepaid, return receipt requested, and addressed as follows:

Guarantor's Name & Address	Beneficiary's Name & Address
________________	________________
________________	5400 Westheimer Court
________________	Houston, TX 77056
________________	Attn: Credit Director
________________	Phone: 713-627-5446
	Fax: 713-627-5681

or such other addresses as they may change from time to time by giving prior written notice to the other party.

6. **Applicable Law.** THIS GUARANTY SHALL IN ALL RESPECTS BE GOVERNED BY, ENFORCED UNDER AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.

7. **Effect of Certain Events.** Guarantor agrees that its liability hereunder will not be released, reduced, impaired or affected by the occurrence of any one or more of the following events:

(i) the insolvency, bankruptcy, reorganization, or disability of Counterparty;
(ii) the renewal, consolidation, extension, modification or amendment from time to time of the Agreement;
(iii) the failure, delay, waiver, or refusal by Beneficiary to exercise any right or remedy held by Beneficiary with respect to the Agreement;
(iv) the sale, encumbrance, transfer or other modification of the ownership of Counterparty or the change in the financial condition or management of Counterparty; or
(v) the settlement or compromise of any Obligation.

8. **Representations and Warranties**. Guarantor hereby represents and warrants the following:

(i) Guarantor is duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation and has full corporate power to execute, deliver and perform this Guaranty;
(ii) the execution, delivery and performance of this Guaranty have been and remain duly authorized by all necessary corporate action and do not contravene Guarantor's constitutional documents or any contractual restriction binding on Guarantor or its assets; and
(iii) this Guaranty constitutes the legal, valid and binding obligation of Guarantor enforceable against Guarantor in accordance with its terms, subject, as to enforcement, to bankruptcy, insolvency, reorganization and other similar laws and to general principles of equity.

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9. **Subrogation**. Until all amounts which may be or become payable under the Agreement have been irrevocably and indefeasibly paid in full, Guarantor shall not by virtue of this Guaranty be subrogated to any rights of Counterparty or claim in competition with Beneficiary against Counterparty in connection with any matter relating to or arising from the Obligation or this Guaranty. If any amount shall be paid to Guarantor on account of such subrogation rights at any time before all of the Obligation has been irrevocably paid in full, such amounts shall be held in trust for the benefit of Beneficiary and shall promptly be paid to Beneficiary to be applied to the Obligation.

10. **Amendment**. No term or provision of this Guaranty shall be amended, modified, altered, waived, supplemented or terminated unless first agreed to by Guarantor and Beneficiary and then set forth in a written amendment to this Guaranty.

11. **Counterparts**. This Guaranty may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one document.

12. **Entire Agreement**. This Guaranty embodies the entire agreement and understanding between Guarantor and Beneficiary regarding payment of the Obligation under the Agreement and supersedes all prior agreements and understandings relating to the subject matter hereof.

IN WITNESS WHEREOF, Guarantor has executed this Guaranty effective as of the date first herein written.

GUARANTOR' S NAME

By:______________________________

Name:____________________________

Title:_____________________________

REDACTED DOCUMENT

Exhibit C
Letter of Credit

REDACTED DOCUMENT

EXHIBIT C

1) IRREVOCABLE STANDBY LETTER OF CREDIT

2) **Letter of Credit No:**__________

Date:________________, 20__

Date of Expiry: _________, 20__

Beneficiary:
[Spectra entity name]
5400 Westheimer Court
Houston, TX 77056

Account Party:
(Complete Legal Name)
(Address)
(City, State, Zip)

Attn: Credit Director

[Name of Bank] ("Issuing Bank") hereby establishes this Irrevocable and Transferable Standby Letter of Credit No. _________ in favor of [Spectra entity name] ("Beneficiary") for the account of [Account Party Name] ("Account Party") for the aggregate amount of up to (*dollar amount*) available to Beneficiary by presenting sight draft(s) to Issuing Bank when accompanied by a signed and dated statement by an authorized representative of Beneficiary certifying one or more of the following, as applicable:

1. "The amount drawn herein is to satisfy obligations of Account Party between Beneficiary and Account Party. Wherefore, the undersigned Beneficiary does hereby demand payment of $__________. Beneficiary further certifies that supporting documents when required were presented to Account Party and that Account Party has not satisfied its obligations." And / or

2. "This Letter of Credit will expire in less than thirty (30) days and Beneficiary has not received an extension of said Letter of Credit or other acceptable replacement collateral from Account Party. Wherefore, the undersigned Beneficiary does hereby demand payment of $__________. Upon timely receipt of an amendment extending this Letter of Credit, this drawing is to be considered automatically rescinded." And / or

3. "Issuing Bank 's lowest long-term senior unsecured debt rating no longer meets or exceeds "A-" by Standard & Poor's Rating Group and "A3" by Moody's Investor Services, Inc., and Account Party has not caused a replacement Letter of Credit from an alternate financial institution acceptable to Beneficiary to be issued to Beneficiary. Wherefore, the undersigned Beneficiary does hereby demand payment of $_______________."

REDACTED DOCUMENT

SPECIAL TERMS AND CONDITIONS

1. Partial and multiple drawings are allowed hereunder. The amount that may be drawn by Beneficiary under this Letter of Credit shall be automatically reduced by the amount of any payments made through Issuing Bank referencing this Letter of Credit.

2. This Letter of Credit shall automatically extend without amendment for periods of one year each from the present or any future expiry date unless Issuing Bank notifies Beneficiary in writing at least sixty (60) days prior to such present or future expiry date, as applicable, that Issuing Bank elects not to further extend this Letter of Credit.

3. This Letter of Credit is transferable without charge any number of times, but only in the amount of the full unutilized balance hereof and not in part and with the approval of Account Party which consent shall not be unreasonably withheld, conditioned or delayed.

4. The term "Beneficiary" includes any successor by operation of law of the named beneficiary to this Letter of Credit, including, without limitation, any liquidator, any rehabilitator, receiver or conservator.

5. Presentations for drawing may be delivered in person, by mail, by express delivery, or by facsimile.

6. All Bank charges are for the account of Account Party.

7. Article 36 under UCP 600 is modified as follows: If the Letter of Credit expires while the place for presentation is closed due to events described in said Article, the expiry date of this Letter of Credit shall be automatically extended without amendment to a date thirty (30) calendar days after the place for presentation reopens for business.

Issuing Bank hereby agrees with Beneficiary that documents presented for drawing in compliance with the terms of this Letter of Credit will be duly honored upon presentation at Issuing Bank's counters if presented on or before the expiry date.

Unless otherwise expressly stated herein, this Letter of Credit is subject to the Uniform Customs and Practice for Documentary Credits ("UCP"), 2007 Revision, International Chamber of Commerce Publication No. 600. Matters not covered by the UCP shall be governed and construed in accordance with the laws of the state of New York.

ISSUING BANK SIGNATURE

REDACTED DOCUMENT

FIRST AMENDMENT TO PRECEDENT AGREEMENT

This First Amendment to Precedent Agreement ("First Amendment") is made and entered into this 31st day of July, 2013, by and between Algonquin Gas Transmission, LLC ("Pipeline") and Colonial Gas Company d/b/a National Grid ("Customer"). Pipeline and Customer are sometimes collectively referred to herein as the "Parties" or individually as a "Party."

WITNESSETH:

WHEREAS, Pipeline and Customer are parties to that certain Precedent Agreement dated June 28, 2013 ("Precedent Agreement"), pursuant to which Pipeline has agreed to expand its interstate natural gas transmission system and to provide service on such expansion facilities to Customer, and Customer has agreed to pay for such service, all subject to various conditions precedent set forth in the Precedent Agreement;

WHEREAS, the Parties have agreed to modify one of the conditions precedent in the Precedent Agreement as discussed more fully herein.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained and intending to be legally bound, Pipeline and Customer agree as follows:

1. The reference in Paragraphs 7(a)(vi), 7(b)(i) and 7(b)(iii) to "July 23, 2013" is hereby deleted and replaced with "September 1, 2013".

2. This First Amendment may be executed in counterparts which, when taken together, shall constitute one and the same instrument.

3. Each and every provision of this First Amendment will be considered as prepared through the joint efforts of the Parties and will not be construed against either Party as a result of the preparation or drafting thereof. It is expressly agreed that no consideration will be given or presumption made on the basis of who drafted this First Amendment or any specific provision hereof.

4 This First Amendment may be executed in any number of counterparts, each of which will be an original, but such counterparts together will constitute one and the same instrument.

5. Except as amended herein, the Precedent Agreement shall continue in full force and effect according to its original terms and conditions.

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IN WITNESS WHEREOF, the Parties have caused their duly authorized representatives to execute this First Amendment as of the date first set forth above.

Algonquin Gas Transmission, LLC	Colonial Gas Company d/b/a/ National Grid
By:	By: ORC
Name: William F. Yardley	Name: John V. Vaughn
Title: President	Title: Authorized Signatory

NATIONAL GRID

PREFILED TESTIMONY OF THEODORE POE, JR.
EXHIBIT NGRID-TEP-1

D.P.U. 13-____

Q. Please state your name and business address.

A. My name is Theodore Poe, Jr. My business address is National Grid, 40 Sylvan Road, Waltham, MA 02451.

Q. What is your position?

A. I am the Manager of Gas Load Forecasting and Analysis with responsibility for preparing forecasts of the resource requirements for the local gas distribution companies that operate as National Grid, which are Boston Gas Company ("Boston Gas") and Colonial Gas Company ("Colonial Gas") (together, the "Company").

Q. Please summarize your educational background and your professional experience.

A. I graduated from the Massachusetts Institute of Technology in 1978 with a Bachelor of Science Degree in Geology. From 1981 to 1989, I worked as a Research Associate with Jensen Associates, Inc. of Boston where I was responsible for developing a variety of computer-forecasting models to analyze natural gas supply and demand for interstate pipeline and local distribution companies. Since joining Boston Gas in 1989, I have been responsible for modeling and forecasting the natural-gas resource requirements of customers and managing the resource-planning process. In 1998, I assumed the same responsibility for Essex Gas. In 1999, I assumed that responsibility for Colonial Gas.

Q. Are you a member of any professional organizations?

A. I am a member of the Northeast Gas Association, the New England-Canada Business Council, and the American Meteorological Society.

Q. Have you previously testified in regulatory proceedings?

A. Yes. I have testified in a number of proceedings before the Department of Public Utilities (the "Department"), the Massachusetts Energy Facilities Siting Board ("EFSB"), in cases including KeySpan Energy Delivery New England, D.T.E.01-105 (2003) (approval of KeySpan's first consolidated Long Range Resource and Requirements Plan), KeySpan Energy Delivery New England, D.T.E. 02-18 (2002) (approval of the HubLine firm transportation agreements), KeySpan Energy Delivery New England, E.F.S.B. 02-1 (2003) (approval to construct underground natural gas pipeline on Cape Cod), KeySpan Energy Delivery New England, D.T.E. 05-35 (2005) (approval of Tennessee ConneXion firm-transportation agreement), KeySpan Energy Delivery New England, D.T.E. 05-40 (2005) (approval of firm transportation agreements with TransCanada and the Union Gas Pipeline), KeySpan Energy Delivery New England, D.T.E 05-68 (Long Range Resource and Requirements Plan) and KeySpan Energy Delivery New England, E.F.S.B. 05-2 (2006) (approval to construct underground natural gas pipeline on Cape Cod), Boston Gas Company and Colonial Gas Company, and Essex Gas Company each d/b/a National Grid, D.P.U. 08-108 (2008), Boston Gas Company and Colonial Gas Company each d/b/a National Grid, D.P.U. 11-09 (2012). I recently testified before the Department of Public Utilities (the "Department") in Boston Gas Company and Colonial Gas Company each d/b/a National Grid, D.P.U. 13-01 (2013). In D.P.U. 13-01, the Company is seeking approval of its long-range forecast and supply plan for the five-year forecast period 2012-2013 through 2016-2017.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to provide an analysis of the Company's resource requirements, which indicates a need for additional interstate pipeline capacity to serve the Company's service areas. As discussed below, the need analysis that I have prepared supports the Company's decision to enter into an arrangement with Algonquin Gas Transmission Company ("Algonquin" or "AGT"). As described in more detail in Ms. Arangio's and Mr. Allocca's testimony, the Company has contracted for up to 100,000 dt/day of AIM capacity, which is the sum of the Company's existing HubLine contracts of 45,000 dt/day, plus an incremental 55,000 dt/day. As of the in-service date of the AIM Project, the existing HubLine contracts will terminate, thereby replacing an illiquid receipt point at Beverly with a more liquid receipt point at Ramapo, NY and securing an incremental 55,000 dt/day to address load growth.

Q. Would you please describe the Company's process for system planning?

A. Yes. The Company's core obligation is to provide safe, reliable and least-cost gas service to all customers within its service territory. To meet this obligation, the Company employs a multi-disciplined planning process that is designed to quantify existing and future load requirements and to ensure that sufficient gas supply and gas-distribution resources are available to serve that load on a safe and reliable basis. Thus, the principal areas of focus in determining "system need" for incremental gas supply and capacity resources are the evaluation of: (1) whether there is sufficient gas supply available to the Company to serve customer demand; and (2) whether there is sufficient transportation and storage capacity available to deliver that gas to customers on the peak hour, peak day and over the peak season. For the Company, reliable service to customers cannot be maintained unless identified needs are addressed in each of these areas.

Q. What is the Company's process for forecasting customer load requirements?

A. The principal objective of the Company's gas-resource planning process is the development and utilization of a resource portfolio composed of gas supply, interstate-pipeline transportation, and underground storage and supplemental resources that can be used to meet firm requirements in a cost-effective and reliable manner. The Company plans for and meets customer load requirements through the coordination of two activities: demand forecasting and long-term resource planning and procurement. For the Company's Massachusetts gas-resource portfolio, the planning function is centralized within a cross-functional team that includes the Gas Supply Planning and the Gas Load Forecasting Group (together, the "Planning Group").

The primary responsibility of the Planning Group is to project the resource requirements of the Company's system and to assemble a least-cost portfolio of reliable resources to meet those requirements. The Company achieves this objective in three steps: (1) by preparing forecasts of long-term trends in customer requirements under normal weather conditions; (2) by preparing forecasts of customer requirements under defined (design-day and design-year) weather conditions; and (3) by procuring gas resources to meet the forecasted sendout requirements.

In accordance with Department precedent, the Company develops the forecast of customer requirements for the long-range resource plans based on a five-year planning horizon. For example, the Company's Long-Range Resource and Requirements Plan approved by the Department in D.P.U. 11-09 covered the five-year forecast period of 2010/11 through 2014/15, and the analysis provided in D.P.U. 13-01 (currently pending) covers the forecast period of 2012/13 through 2016/17. The Company updates the five-year forecast set forth in the long-range resource plans on an annual basis to refine the prior long-range forecast and to prepare a forecast for the subsequent five-year planning horizon.

The Company's Planning Group develops the forecast of customer requirements under design weather planning conditions using a five-step process, which involves: (1) determining the annual retail demand expected for residential heating, residential non-heating and commercial/industrial heating and commercial/industrial non-heating markets over the forecast period for both sales and transportation services using a series of econometric models at the monthly level; (2) reducing the forecasted retail demand by the impact expected to be achieved through the implementation of its Energy Efficiency programs, because these reductions are exogenous to the demand forecast generated by the econometric models; (3) converting the monthly retail demand forecast to a normalized forecast of daily customer requirements; (4) determining the design-day and design-year planning standards through the use of a cost/benefit analysis; and (5) specifying the forecasted daily customer requirements under design weather conditions. The Company employs this five-step planning process both in formulating the long-range resource plans filed with the Department, and in performing the annual update to the current plan to determine whether the existing portfolio of gas supply and capacity/storage resources continues to be sufficient to meet projected customer demand over the subsequent five years. Where shortfalls are encountered, the Company identifies and procures a suitable set of resources to ensure that customer demand is served on a safe and reliable basis.

Q. How does the Company determine when there is a need for incremental gas supply and/or capacity resources?

A. In Step 4 of the forecasting process, the Company establishes appropriate planning standards establishing the defined weather conditions and consequent sendout requirements that must be met by the Company's resource portfolio throughout the year in order to ensure reliable service to customers. In essence, the planning standards dictate the amount and type of resources that the Company must have available to serve customers during periods of peak demand. For purposes of the long-range resource plan, the Company establishes a design-day standard and a design-year standard, consistent with the Department's requirements. However, the Company must also monitor and remediate any constraints on pipeline deliveries to the Company's take stations under design weather conditions to ensure that the Company has reserved sufficient capacity rights to maintain hourly flows at the level required to meet sendout requirements.

The Company uses the design-day standard to establish the amount of *system-wide throughput* (i.e., interstate pipeline and vaporization capacity) that must be available to the system on the peak day. The design-year standard identifies the amount of *gas supply* that will be required over the design year to provide continuous service to customers under all reasonable weather conditions. Through the interaction of these two standards, the Company is able to ensure that sufficient pipeline and vaporization capacity is available on the design day and that there is adequate gas supply, flowing and in storage (underground storage and LNG), to provide reliable service throughout the design year.

The Company evaluates whether the capacity and gas supply resources available to the Company are sufficient to meet sendout requirements using the SENDOUT® model. The SENDOUT® model is a linear programming optimization software tool used to assist in evaluating, selecting and explaining long-term portfolio strategies. Using the SENDOUT® model, the Company is able to determine the least-cost portfolio that will meet the forecasted demand and to test the sensitivity of the portfolio to key inputs and assumptions, including its ability to meet sendout requirements under the Company's planning standards and contingency scenarios. Based on the results of this analysis, the Company is able to make preliminary decisions on the adequacy of the resource portfolio and its ability to meet system requirements over the longer term.

Q. Did the Company analyze the need for incremental design day and design-season resources using its established resource-planning process and, if so, what were the results?

A. Yes. As part of the annual planning process undertaken during the 2013 off-peak season, the Planning Group and the Operations Engineering Group commenced work on a multi-faceted planning project to meet the reliability and supply requirements of the Company's customers. Given the market forces described in more detail in Ms. Arangio's and Mr. Allocca's testimony, the Company took a long-term view of customer demand and system needs in order to structure a planning strategy.

To that end, the Company's Planning Group performed a ten-year forecast analysis using the methodology discussed above and approved by the Department for the long-range resource plans. The Planning Group developed both load requirements and resource requirements over a ten-year planning horizon commencing with the 2013/14 heating season. To establish the load requirement, the Planning Group extended the monthly retail demand forecast under normal weather assumptions it had developed in its 2013 Long-Range Resource and Requirements filing (D.P.U. 13-01) through 2023/24. The Planning Group then converted this retail forecast to a daily normalized forecast of customer requirements over the ten-year forecast period. Using its approved design-day and design-year weather-planning standards, the Company then determined the design-year sendout requirements and the design-day (peak-day) sendout requirements over the ten-year planning horizon. In preparing its ten-year forecast, the Company assumed that it would continue its present-day efforts at load reduction through its Energy Efficiency programs throughout the forecast period, reducing annual load by approximately one percent each forecast year. The load requirement net of Energy Efficiency was then used as an input to the SENDOUT® model to determine resource requirements.

The SENDOUT Model® was then run using the ten-year customer requirements forecast, with updated pricing, trends and anticipated changes to the portfolio. The Company then analyzed the forecasted design-year and design-day requirements taking into consideration the resource portfolio available to the Company. Based on this analysis, the Company identified a need for design day capacity of 32 MDth/day in 2014/15 growing to 313 MDth/day in 2023/24. These results are presented in Exhibit NGRID-TEP-2, Table G23-D (Revised).

The Planning Group also evaluated the need for resources to meet design-year requirements over the ten-year forecast period. Based on this analysis, the Company identified a need for design year winter season (November-March) capacity of 256 MDth in 2013/14 growing to 6,299 MDth in 2023/24. These results are presented in Exhibit NGRID-TEP-2, Table G22-D (Revised).

These long-term needs are consistent with the trend identified in the Company's D.P.U. 11-09 (Exhibit NGRID-TEP-3) and D.P.U. 13-01 (Exhibit NGRID-TEP-4) forecasts. In its D.P.U. 11-09 filing, the Company's forecast indicated no need for design day capacity through 2014/15 (Exhibit NGRID-TEP-3, Table G23-D (Revised)):

Table 1: D.P.U. 11-09: Design Day Shortfall (MDth)

	2010/11	2011/12	2012/13	2013/14	2014/15
Boston	0	0	0	0	0
Essex	0	0	0	0	0
Lowell	0	0	0	0	0
Cape	0	0	0	0	0
Total	0	0	0	0	0

but it did indicate a need for seasonal capacity beginning in 2010/11 (Exhibit NGRID-TEP-3, Table G22-D (Revised)):

Table 2: D.P.U. 11-09: Design Year Winter Season Shortfall (MDth)

	2010/11	2011/12	2012/13	2013/14	2014/15
Boston	0	0	0	0	0
Essex	0	0	0	15	22
Lowell	245	292	307	328	352
Cape	0	0	0	0	0
Total	245	292	307	343	374

More recently, in its D.P.U. 13-01 filing, the Company's forecast reflected the continued recovery from the 2008 recession and the price advantage natural gas continued to hold over heating oil and this forecast indicated a need for peak day capacity beginning in 2014/15 (Exhibit NGRID-TEP-4, Table G23-D (Revised)):

Table 3: D.P.U. 13-01: Design Day Shortfall (MDth)

	2012/13	2013/14	2014/15	2015/16	2016/17
Boston	0	0	13	18	34
Essex	0	0	0	0	0
Lowell	1	0	0	0	0
Cape	0	0	0	0	0
Total	1	0	13	18	34

as well as a need for seasonal capacity beginning in 2014/15 (Exhibit NGRID-TEP-4, Table G22-D (Revised)):

Table 4: D.P.U. 13-01: Design Year Winter Season Shortfall (MDth)

	2012/13	2013/14	2014/15	2015/16	2016/17
Boston	0	0	192	284	561
Essex	0	0	0	0	0
Lowell	1	0	0	0	0
Cape	0	0	0	0	0
Total	1	0	192	284	561

Upon continuing its forecast from D.P.U. 13-01 out to the year 2023/24, the Company's extended forecast shows that the need for peak day capacity (from Exhibit NGRID-TEP-2, Table G-23D (Revised)) continues:

Table 5: D.P.U. 13-01 (extended): Design Day Shortfall (MDth; without AIM)

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Boston	52	72	92	113	160	157	313
Essex	0	0	0	0	0	0	0
Lowell	0	0	0	0	0	0	0
Cape	0	0	0	0	0	0	0
Total	52	72	92	113	160	157	313

as well as its need for seasonal capacity for the balance of the forecast period (from Exhibit NGRID-TEP-2, Table G-22D (Revised)):

Table 6: D.P.U. 13-01 (extended): Design Year Winter Season Shortfall (MDth; without AIM)

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Boston	1,380	1,983	2,629	3,304	4,046	4,857	5,754
Essex	0	0	16	69	127	189	257
Lowell	0	0	24	75	144	213	288
Cape	0	0	0	0	0	0	0
Total	1,380	1,983	2,669	3,448	4,317	5,259	6,299

Q. Based on the factors you describe above, is it your opinion that the proposed Agreements with Algonquin are necessary for the Company to ensure continued and reliable delivery of the natural gas sendout requirements of its customers?

A. Yes. It is my opinion that the proposed Agreements with Algonquin are necessary to reliably meet both near-term and long-term sendout requirements of the Company's customers.

With the addition of the AIM Project capacity, the Company's extended forecast shows that the need for peak day capacity (from Exhibit NGRID-TEP-5, Table G-23D (Revised)) is reduced:

Table 7: D.P.U. 13-01 (extended): Design Day Shortfall (MDth; with AIM)

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Boston	0	17	37	58	80	102	124
Essex	0	0	0	0	0	0	0
Lowell	0	0	0	0	0	0	0
Cape	0	0	0	0	0	0	0
Total	0	17	37	58	80	102	124

as well as its forecasted need for seasonal capacity for the balance of the forecast period (from Exhibit NGRID-TEP-5, Table G-22D (Revised)):

Table 8: D.P.U. 13-01 (extended): Design Year Winter Season Shortfall (MDth; with AIM)

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
Boston	0	117	403	842	1,461	2,111	2,825
Essex	0	0	16	69	127	189	257
Lowell	0	0	24	75	144	213	288
Cape	0	0	0	0	0	0	0
Total	0	117	443	986	1,729	2,513	3,370

The AIM capacity will directly address the shortfall forecasted for the Boston service territory and indirectly, through the synergies of the Massachusetts portfolio, the other service territories. The Company will continue to monitor its forecasted customer requirements and address any other incremental needs as they arise.

Q. Does this conclude your pre-filed testimony in this proceeding?

A. Yes. It does.

Comparison of Resources and Requirements

D.P.U. 13-01 (extended)

<u>Base Case Without AIM</u>

Table G23-D (Revised) **1065-13Q3 DY No AIM**
Page 1

National Grid Massachusetts
Comparison of Resources and Requirements
Design Year
(BBtu)

			DESIGN PEAK DAY (without AIM)										
			2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
	REQUIREMENTS												
1	Firm Sendout	Boston	947	959	943	960	979	999	1,019	1,040	1,062	1,084	1,106
		Essex	70	71	71	72	74	75	77	79	81	83	85
		Lowell	148	152	146	152	155	158	159	161	163	165	167
		Cape	115	119	114	118	120	123	125	127	130	133	135
2	Sales for Resale		0	0	0	0	0	0	0	0	0	0	0
3	Interruptible		0	0	0	0	0	0	0	0	0	0	0
4	Fuel Reimbursement		*32*	*32*	*32*	*32*	*32*	*32*	*32*	*20*	*20*	*20*	*20*
5	Storage Refill		0	0	0	0	0	0	0	0	0	0	0
6	TOTAL		1,311	1,332	1,307	1,334	1,360	1,387	1,412	1,428	1,456	1,485	1,514
	RESOURCES												
7	MNE	Dracut	42	12	43	43	43	33	43	43	43	43	43
8		HubLine	20	24	20	23	25	28	30	37	35	42	42
9	TGP	Dawn/Niagara	29	29	29	29	29	29	29	29	29	29	29
10		Waddington	36	36	36	36	36	36	36	36	36	36	36
11		Gulf	251	251	251	251	251	251	251	251	251	251	251
12		Market Area	4	4	10	10	10	10	10	10	10	10	10
13		Storage	108	108	102	102	102	102	102	102	102	102	102
14	TET/AGT	Gulf	150	150	150	150	150	150	150	0	0	0	0
15		Market Area	36	29	29	29	29	29	29	244	244	237	244
16		Storage	106	113	113	113	113	113	113	37	37	44	37
17		AIM	0	0	0	0	0	0	0	0	0	0	0
18	DOMAC	Vapor	21	0	0	0	0	0	0	0	0	0	0
19		Liquid	0	0	0	0	0	0	0	0	0	0	0
20	LNG From Storage		507	543	506	513	518	533	525	525	507	533	406
21	Propane		0	0	0	0	0	0	0	0	0	0	0
22	Other Purchased	Boston	0	32	16	33	52	72	92	113	160	157	313
	Resources	Essex	0	0	0	0	0	0	0	0	0	0	0
		Lowell	0	0	0	0	0	0	0	0	0	0	0
		Cape	0	0	0	0	0	0	0	0	0	0	0
23	TOTAL		1,311	1,332	1,307	1,334	1,360	1,387	1,412	1,428	1,456	1,485	1,514

Table G22-D (Revised)
Page 1

1065-13Q3 DY No AIM

National Grid Massachusetts
Comparison of Resources and Requirements
Design Year
(BBtu)

			HEATING SEASON (NOV-MAR) (without AIM)										
			2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
	REQUIREMENTS												
1	Firm Sendout	Boston	68,225	68,764	69,698	69,629	70,684	72,084	73,920	75,032	76,584	78,170	80,221
		Essex	5,085	5,154	5,284	5,300	5,408	5,539	5,703	5,812	5,953	6,098	6,278
		Lowell	10,400	10,552	10,699	10,867	11,045	11,218	11,397	11,452	11,608	11,764	11,987
		Cape	8,189	8,315	8,365	8,431	8,575	8,720	8,920	9,033	9,195	9,363	9,585
2	Sales for Resale		0	0	0	0	0	0	0	0	0	0	0
3	Interruptible		0	0	0	0	0	0	0	0	0	0	0
4	Fuel Reimbursement		*3,770*	*3,747*	*3,725*	*3,690*	*2,980*	*2,715*	*2,747*	*2,437*	*2,431*	*2,447*	*2,452*
5	Storage Refill		0	0	0	0	0	0	0	0	0	0	0
6	TOTAL		95,669	96,531	97,771	97,917	98,693	100,275	102,689	103,765	105,772	107,841	110,524
	RESOURCES												
7	MNE	Dracut	2,251	2,084	2,191	2,415	2,642	2,911	3,112	3,261	3,426	3,601	3,773
8		HubLine	829	853	855	877	939	995	1,075	1,193	1,343	1,511	1,714
9	TGP	Dawn/Niagara	2,940	2,684	1,723	1,788	1,797	1,992	2,075	2,635	2,163	2,350	2,600
10		Waddington	1,128	2,103	5,429	5,213	5,395	5,305	5,120	5,214	5,232	5,179	4,729
11		Gulf	31,607	30,646	30,804	30,152	29,637	30,030	30,762	30,824	31,275	30,908	31,557
12		Market Area	12,565	11,986	12,882	12,779	12,783	12,787	12,896	12,793	12,795	12,797	12,905
13		Storage	4,062	4,678	3,893	3,887	3,887	3,862	3,871	3,837	3,837	3,838	3,835
14	TET/AGT	Gulf	21,119	21,010	20,735	20,529	8,803	4,622	4,653	0	0	0	0
15		Market Area	6,425	6,909	5,286	6,016	18,332	23,523	24,530	29,848	30,671	30,912	32,937
16		Storage	7,641	7,678	7,995	7,987	7,678	6,844	6,506	5,292	5,292	6,068	4,772
17		AIM	0	0	0	0	0	0	0	0	0	0	0
18	DOMAC	Vapor	62	0	0	0	0	0	0	0	0	0	0
19		Liquid	0	0	0	0	0	0	0	0	0	0	0
20	LNG From Storage		4,784	5,399	5,383	5,402	5,420	5,420	5,420	5,420	5,420	5,419	5,404
21	Propane		0	0	0	0	0	0	0	0	0	0	0
22	Other Purchased	Boston	256	501	594	871	1,380	1,983	2,629	3,304	4,046	4,857	5,754
	Resources	Essex	0	0	0	0	0	0	16	69	127	189	257
		Lowell	0	0	0	0	0	0	24	75	144	213	288
		Cape	0	0	0	0	0	0	0	0	0	0	0
23	TOTAL		95,669	96,531	97,771	97,917	98,693	100,275	102,689	103,765	105,772	107,841	110,524

Comparison of
Resources and Requirements

D.P.U. 11-09

Base Case

Table G23-D (Revised) BASE CASE

National Grid Massachusetts
Comparison of Resources and Requirements
Design Year
(BBtu)

			DESIGN PEAK DAY				
			2010/11	2011/12	2012/13	2013/14	2014/15
	REQUIREMENTS						
1	Firm Sendout	Boston	921	924	922	922	923
		Essex	76	77	79	79	79
		Lowell	153	154	154	155	154
		Cape	119	120	119	118	118
2	Sales for Resale		0	0	0	0	0
3	Interruptible		0	0	0	0	0
4	Fuel Reimbursement		*19*	*18*	*19*	*19*	*18*
5	Storage Refill		*0*	*0*	*0*	*0*	*0*
6	TOTAL		1,289	1,294	1,292	1,293	1,293
	RESOURCES						
7	MNE	Dracut	43	43	43	43	43
8		HubLine	45	45	45	45	45
9	TGP	Dawn/Niagara	28	28	28	28	28
10		Gulf Coast	264	264	264	264	264
11		Waddington	35	35	35	35	35
12		Storage	108	108	108	108	108
13	TET/AGT	Long-Haul	153	153	153	153	153
14		Storage	116	116	116	116	116
15	DOMAC	Vapor	13	14	14	14	14
16		Liquid	0	0	0	0	0
17	LNG From Storage		484	488	486	486	486
18	Propane		0	0	0	0	0
19	Other Purchased Resources	Boston	0	0	0	0	0
		Essex	0	0	0	0	0
		Lowell	0	0	0	0	0
		Cape	0	0	0	0	0
20	TOTAL		1,289	1,294	1,292	1,293	1,293

Table G22-D (Revised)
Page 1

BASE CASE

National Grid Massachusetts
Comparison of Resources and Requirements
Design Year
(BBtu)

			HEATING SEASON (Nov-Mar)				
			2010/11	2011/12	2012/13	2013/14	2014/15
	REQUIREMENTS						
1	Firm Sendout	Boston	65,431	65,984	65,900	65,977	66,093
		Essex	5,326	5,437	5,494	5,536	5,555
		Lowell	10,471	10,565	10,575	10,603	10,628
		Cape	8,405	8,447	8,432	8,430	8,421
2	Sales for Resale		0	0	0	0	0
3	Interruptible		0	0	0	0	0
4	Fuel Reimbursement		*5,327*	*5,348*	*5,292*	*5,233*	*5,235*
5	Storage Refill		240	242	240	240	240
6	TOTAL		95,199	96,023	95,931	96,019	96,172
	RESOURCES						
7	MNE	Dracut	1,788	2,828	2,403	2,510	2,510
8		HubLine	1,693	3,032	2,903	2,672	2,613
9	TGP	Dawn/Niagara	3,406	2,945	3,475	3,184	3,194
10		Gulf Coast	38,675	38,953	38,422	37,847	37,852
11		Waddington	2,102	1,732	1,665	1,902	1,967
12		Storage	8,783	8,841	8,859	9,078	9,078
13	TET/AGT	Long-Haul	24,593	24,429	24,262	24,385	24,383
14		Storage	9,174	8,579	9,220	9,554	9,634
15	DOMAC	Vapor	13	14	14	14	14
16		Liquid	240	242	240	240	240
17	LNG From Storage		4,486	4,136	4,162	4,290	4,312
18	Propane		0	0	0	0	0
19	Other Purchased	Boston	0	0	0	0	0
	Resources	Essex	0	0	0	15	22
		Lowell	245	292	307	328	352
		Cape	0	0	0	0	0
20	TOTAL		95,199	96,023	95,931	96,019	96,172

Comparison of Resources and Requirements

D.P.U. 13-01

Base Case

Table G23-D

BASE CASE

National Grid Massachusetts
Comparison of Resources and Requirements
Design Year
(BBtu)

			DESIGN PEAK DAY				
			2012/13	2013/14	2014/15	2015/16	2016/17
	REQUIREMENTS						
1	Firm Sendout	Boston	954	948	960	945	961
		Essex	71	70	71	71	72
		Lowell	149	148	152	146	152
		Cape	114	115	119	114	118
2	Sales for Resale		0	0	0	0	0
3	Interruptible		0	0	0	0	0
4	Fuel Reimbursement		*30*	*31*	*31*	*31*	*31*
5	Storage Refill		0	0	0	0	0
6	TOTAL		1,318	1,312	1,333	1,307	1,335
	RESOURCES						
7	MNE	Dracut	43	9	43	23	24
8		HubLine	46	20	23	20	23
9	TGP	Dawn/Niagara	29	29	29	29	29
10		Other Flowing	314	254	254	254	254
11		Waddington	7	35	35	35	35
12		Storage	108	108	108	108	108
13	TET/AGT	Flowing	181	181	181	181	181
14		Storage	113	113	113	113	113
15	DOMAC	Vapor	21	21	20	0	0
16		Liquid	0	0	0	0	0
17	LNG From Storage		448	541	512	525	532
18	Propane		6	0	0	0	0
19	Other Purchased	Boston	0	0	13	18	34
	Resources	Essex	0	0	0	0	0
		Lowell	1	0	0	0	0
		Cape	0	0	0	0	0
20	TOTAL		1,318	1,312	1,333	1,307	1,335

Table G22-D
Page 1

BASE CASE

National Grid Massachusetts
Comparison of Resources and Requirements
Design Year
(BBtu)

			HEATING SEASON (Nov-Mar)				
			2012/13	2013/14	2014/15	2015/16	2016/17
	REQUIREMENTS						
1	Firm Sendout	Boston	68,336	68,288	68,827	69,760	69,692
		Essex	5,020	5,085	5,154	5,284	5,300
		Lowell	10,511	10,396	10,546	10,692	10,859
		Cape	8,187	8,189	8,315	8,365	8,431
2	Sales for Resale		0	0	0	0	0
3	Interruptible		0	0	0	0	0
4	Fuel Reimbursement		*3,567*	*3,092*	*2,798*	*2,832*	*2,810*
5	Storage Refill		109	115	250	250	250
6	TOTAL		95,731	95,165	95,890	97,183	97,342
	RESOURCES						
7	MNE	Dracut	2,312	1,856	2,061	2,168	2,386
8		HubLine	1,316	757	853	853	877
9	TGP	Dawn/Niagara	2,695	2,319	2,530	2,623	2,596
10		Other Flowing	45,247	43,279	42,260	42,850	42,500
11		Waddington	305	1,046	1,126	1,131	1,186
12		Storage	3,948	3,965	3,960	3,960	3,960
13	TET/AGT	Flowing	28,939	29,338	29,271	29,684	29,638
14		Storage	6,102	6,888	7,651	7,651	7,651
15	DOMAC	Vapor	62	62	62	62	62
16		Liquid	109	115	250	250	250
17	LNG From Storage		4,669	5,540	5,675	5,668	5,674
18	Propane		26	0	0	0	0
19	Other Purchased	Boston	0	0	192	284	561
	Resources	Essex	0	0	0	0	0
		Lowell	1	0	0	0	0
		Cape	0	0	0	0	0
20	TOTAL		95,731	95,165	95,890	97,183	97,342

Comparison of
Resources and Requirements

D.P.U. 13-01 (extended)

Base Case With AIM

Table G23-D (Revised) **1066-13Q3 DY AIM**
Page 1

National Grid Massachusetts
Comparison of Resources and Requirements
Design Year
(BBtu)

			DESIGN PEAK DAY (with AIM)										
			2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
	REQUIREMENTS												
1	Firm Sendout	Boston	947	959	943	960	979	999	1,019	1,040	1,062	1,084	1,106
		Essex	70	71	71	72	74	75	77	79	81	83	85
		Lowell	148	152	146	152	155	158	159	161	163	165	167
		Cape	115	119	114	118	120	123	125	127	130	133	135
2	Sales for Resale		0	0	0	0	0	0	0	0	0	0	0
3	Interruptible		0	0	0	0	0	0	0	0	0	0	0
4	Fuel Reimbursement		*32*	*32*	*32*	*33*	*33*	*33*	*33*	*21*	*21*	*21*	*21*
5	Storage Refill		0	0	0	0	0	0	0	0	0	0	0
6	TOTAL		1,311	1,332	1,307	1,335	1,361	1,388	1,413	1,429	1,456	1,485	1,515
	RESOURCES												
7	MNE	Dracut	43	27	43	36	29	43	43	43	43	43	43
8		HubLine	20	24	20	0	0	0	0	0	0	0	0
9	TGP	Dawn/Niagara	29	29	29	29	29	29	29	29	29	29	29
10		Waddington	36	36	36	36	36	36	36	36	36	36	36
11		Gulf	251	251	251	251	251	251	251	251	251	251	251
12		Market Area	4	4	10	10	10	10	10	10	10	10	10
13		Storage	108	108	102	102	102	102	102	102	102	102	102
14	TET/AGT	Gulf	150	150	150	150	150	150	150	0	0	0	0
15		Market Area	29	29	29	29	29	29	29	237	244	237	244
16		Storage	113	113	113	113	113	113	113	44	37	44	37
17		AIM	0	0	0	101	101	101	101	101	101	101	101
18	DOMAC	Vapor	21	0	0	0	0	0	0	0	0	0	0
19		Liquid	0	0	0	0	0	0	0	0	0	0	0
20	LNG From Storage		458	528	506	476	510	505	510	516	523	530	536
21	Propane		0	0	0	0	0	0	0	0	0	0	0
22	Other Purchased	Boston	48	32	16	0	0	17	37	58	80	102	124
	Resources	Essex	0	0	0	0	0	0	0	0	0	0	0
		Lowell	0	0	0	0	0	0	0	0	0	0	0
		Cape	0	0	0	0	0	0	0	0	0	0	0
23	TOTAL		1,311	1,332	1,307	1,335	1,361	1,388	1,413	1,429	1,456	1,485	1,515

Table G22-D (Revised)
Page 1

1066-13Q3 DY AIM

National Grid Massachusetts
Comparison of Resources and Requirements
Design Year
(BBtu)

			HEATING SEASON (NOV-MAR) (with AIM)										
			2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24
	REQUIREMENTS												
1	Firm Sendout	Boston	68,225	68,764	69,698	69,629	70,684	72,084	73,920	75,032	76,584	78,170	80,221
		Essex	5,085	5,154	5,284	5,300	5,408	5,539	5,703	5,812	5,953	6,098	6,278
		Lowell	10,400	10,552	10,699	10,867	11,045	11,218	11,397	11,452	11,608	11,764	11,987
		Cape	8,189	8,315	8,365	8,431	8,575	8,720	8,920	9,033	9,195	9,363	9,585
2	Sales for Resale		0	0	0	0	0	0	0	0	0	0	0
3	Interruptible		0	0	0	0	0	0	0	0	0	0	0
4	Fuel Reimbursement		*3,770*	*3,747*	*3,725*	*3,657*	*2,934*	*2,668*	*2,697*	*2,388*	*2,362*	*2,377*	*2,386*
5	Storage Refill		0	0	0	0	0	0	0	0	0	0	0
6	TOTAL		95,669	96,531	97,771	97,884	98,647	100,228	102,639	103,717	105,702	107,772	110,457
	RESOURCES												
7	MNE	Dracut	2,251	2,084	2,191	2,082	2,313	2,684	2,874	3,122	3,257	3,413	3,555
8		HubLine	829	853	855	0	0	0	0	0	0	0	0
9	TGP	Dawn/Niagara	2,940	2,684	1,723	1,353	1,432	1,586	1,628	2,262	1,674	1,853	2,213
10		Waddington	1,128	2,103	5,429	5,213	5,395	5,164	4,856	4,947	4,966	4,905	4,183
11		Gulf	31,607	30,646	30,804	29,019	27,963	28,296	28,906	28,907	28,899	28,481	29,139
12		Market Area	12,565	11,986	12,882	12,697	12,728	12,746	12,876	12,782	12,795	12,797	12,905
13		Storage	4,062	4,678	3,893	3,872	3,840	3,844	3,850	3,815	3,819	3,819	3,797
14	TET/AGT	Gulf	21,119	21,010	20,735	20,530	8,803	4,622	4,653	0	0	0	0
15		Market Area	6,425	6,909	5,286	2,631	11,468	16,576	17,608	22,779	23,827	24,278	26,676
16		Storage	7,641	7,678	7,995	7,968	7,678	6,844	6,506	5,292	5,292	6,068	4,772
17		AIM	0	0	0	8,085	12,192	12,666	13,130	13,508	14,119	14,312	14,499
18	DOMAC	Vapor	62	0	0	0	0	0	0	0	0	0	0
19		Liquid	0	0	0	0	0	0	0	0	0	0	0
20	LNG From Storage		4,784	5,399	5,383	4,436	4,833	5,084	5,309	5,316	5,323	5,333	5,347
21	Propane		0	0	0	0	0	0	0	0	0	0	0
22	Other Purchased	Boston	256	501	594	0	0	117	403	842	1,461	2,111	2,825
	Resources	Essex	0	0	0	0	0	0	16	69	127	189	257
		Lowell	0	0	0	0	0	0	24	75	144	213	288
		Cape	0	0	0	0	0	0	0	0	0	0	0
23	TOTAL		95,669	96,531	97,771	97,884	98,647	100,228	102,639	103,717	105,702	107,772	110,457

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITES

D.P.U. 13-___

PREFILED TESTIMONY OF
EXHIBIT NGRID-JSS-1

I. INTRODUCTION

Q. Please state your name, address and position.

A. My name is John S. Stavrakas. My business address is 40 Reservoir Woods, Waltham, Massachusetts 02451. My title is Director of Project Development, Gas Systems Engineering.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of Boston Gas Company and Colonial Gas Company, each d/b/a National Grid ("National Grid" or the "Company").

Q. Would you please summarize your educational background and professional experience?

A. I graduated from The State University of New York at Stony Brook in 1983 with a Bachelors Degree in Mechanical Engineering. I also completed graduate work in mechanical engineering at the University of Pittsburgh in 1984 and 1985 (non-matriculated). I currently hold professional engineering licenses in the states of New Hampshire, Massachusetts and New York. From 1984 to 1985, I worked in the operating plants division at the Bettis Atomic Power Laboratory for Westinghouse Corporation. In 1986, I joined the Long Island Lighting Company ("LILCO") and worked in various engineering and distribution capacities within the Gas Operations Division. In 1998, LILCO merged with KeySpan, which then acquired Eastern Enterprises (which included Boston Gas and Colonial Gas) in 2000. During this period, my responsibilities included planning engineering, project engineering, production engineering, and system operations. Currently, I am responsible for all engineering functions supporting major projects with National Grid gas distribution business.

Q. Are you a member of any professional organizations?

A. Yes. I am a member of the National Society of Professional Engineers.

Q. Have you previously testified in regulatory proceedings?

A. Yes, I testified before the New York State Public Service Commission in the late 1990s regarding the proposed siting of electric generation facilities in Long Island, New York and before the New Hampshire PUC in 2007 regarding expansions of the Tennessee Pipeline Concord lateral.

Q. What is the purpose of your testimony in this proceeding?

A. The purpose of my testimony is to discuss the West Roxbury Lateral project described in the Algonquin/Boston Gas Agreement presented by Ms. Arangio and Mr. Allocca, along with its potential benefits in conjunction with the AIM Project.

II. DESCRIPTION OF WEST ROXBURY LATERAL PROJECT

Q. Can you please describe the West Roxbury Lateral project?

A. The West Roxbury Lateral would be a dedicated lateral to serve the Boston Gas distribution system built by Algonquin with an in-service date of November 1, 2016.

Q. Please describe the J-Lateral.

A. The J-Lateral pipeline feeds six existing take stations including stations located in Wellesley, Waltham (Polaroid), Waltham (Trapelo Road), Everett, Medford, and Weston. The J-Lateral is located at the end of the Algonquin system, and provides approximately 37.5% of the gas supply into the Company's intermediate pressure (IP) distribution system serving Boston. The closest connection point to the City of Boston in West Roxbury, however, is through the Wellesley station. Should there be any disruption of service on the J-Lateral, i.e. third party damage or integrity issues, the City of Boston could suffer tens of thousands of customer outages. In order to increase reliability, a new delivery point off the Algonquin system is needed to diversify infrastructure serving Boston.

The proposed West Roxbury Lateral would come off of the I-Lateral (not the J-Lateral), which currently serves the Company's Ponkapoag take station. The J-Lateral and the I-Lateral are not connected. Rather, both laterals come off of the Algonquin main line.

Q. Please describe the maximum daily transportation quantity associated with the lateral.

A. The lateral will be built with the capacity to transport 100,000 MMBtus/day. The lateral will initially receive up to 30,000 MMBtus/day of primary firm deliveries from the Algonquin mainline. Over time, Boston Gas will be able to increase deliveries through this lateral into its distribution system up to a maximum of

100,000 MMBtus/day thereby allowing the Company to provide additional reliability and flexibility in managing its system into the future.

Q. Why is the West Roxbury Lateral project included in the AGT/Boston Gas Agreement?

A. Although National Grid has discussed the possibility with Algonquin to separate the project, Algonquin has communicated to the Company that it would not be interested in separating the West Roxbury Lateral project from the AIM Project. First, National Grid neither controls nor influences when Algonquin holds its open season. As a result, if the West Roxbury Lateral was not included in the AGT/Boston Gas Agreement, Boston Gas would have to wait several years to discuss construction of another entry point into Boston. In order to receive FERC approval, Algonquin needs to consolidate the mainline project and the associated, significant lateral project.

Second, it is more efficient to construct the West Roxbury Lateral as part of the bigger project as the significant expense of permitting, FERC licensing, community outreach, etc. will be rolled into one effort as part of the AIM Project rather than duplicating these activities and costs in a separate project. As part of the discussion between Algonquin and National Grid, both sides recognized the benefit of a new delivery point on the opposite side of the City of Boston.

III. DESCRIPTION OF COSTS

Q. What is the estimated cost of the West Roxbury Lateral?

A. The estimated cost of the West Roxbury Lateral, and the negotiated reservation rate terms are included in Exhibit EDA-JEA-2 **[CONFIDENTIAL]**, on pages 38-39, and are discussed in Exhibit EDA-JEA-1 **[CONFIDENTIAL]**.

The cost to construct the West Roxbury Lateral is influenced by the location of the pipeline, the materials required to install the pipeline and the inclusion of a meter station. First, the pipeline will be approximately 4.9 miles in length and extend through downtown West Roxbury, a high density area of the City of Boston.

Second, gas transmission pipes are made of steel with heavier walls. These pipes are hydro-tested, all welds are x-rayed, the pipeline is installed deeper in the ground and the pipeline is built to accommodate pipeline pigging for inspection.

Third, the cost of the lateral project includes the meter station, which includes ultrasonic metering, pressure control valves and heaters, and pig receivers.

However, as noted herein, the West Roxbury Lateral will provide significant benefits to the Company.

IV. BENEFITS OF THE WEST ROXBURY LATERAL

Q. Please summarize the potential benefits of the West Roxbury Lateral.

A. The primary reasons why this project would be beneficial and is needed for the Boston Gas distribution system and its customers is to improve system reliability, facilitate upgrades to the local distribution system in West Roxbury and to support long term growth.

The project improves system reliability by providing a second feed into the City of Boston, now primarily fed by the J-Lateral, and supported from the Company's Commercial Point LNG facility. The West Roxbury Lateral would also eliminate the operational need for the Commercial Point LNG facility to provide pressure support for the overall gas network.

In addition to the reliability benefits noted above, the West Roxbury Lateral provides a high pressure source to upgrade the West Roxbury gas distribution system. 95% of the homes and businesses in West Roxbury use natural gas. 84% of the distribution system in West Roxbury is low pressure and 70% of that is leak prone pipe such as bare steel or cast iron. National Grid plans to replace all leak prone pipe in its system within twenty-five years. By making a high pressure source available in West Roxbury, the gas system can be modernized and replaced with high pressure (60 psig) plastic gas mains, which is more efficient and cost effective than replacing the existing low pressure system.

The West Roxbury Lateral supports long term growth by providing increased pressure to a particular low pressure point of the distribution system in West Roxbury, serving the City of Boston and surrounding communities. The increased pressure would facilitate growth in the Boston area and reduce or eliminate the need for some distribution upgrade projects.

Q. Why is construction of the lateral in West Roxbury optimal for relieving pressure constraints?

A. West Roxbury has long been one of the low pressure points on the Boston Gas intermediate pressure system. Connecting a new supply point to this portion of the Boston Gas system provides reinforcement benefits which support long term growth for the Boston region. The lateral will help enable growth in the Boston area and reduce or eliminate the need for on-system distribution projects. There are currently a total of 146,000 potential new customers in the Boston area that would be supported by this project. Based on a recent study conducted by ICF International, the Company can expect to add another 81,000 customers in this area over the next twenty-five years.

Accordingly, the West Roxbury Lateral would deliver gas into a constrained area of the Boston IP system. Without the new West Roxbury Lateral, many of these customers could not be served without the need for significant system reinforcement. Currently, Gas Systems Engineering has reviewed gas capacity requests in this area for loads totaling 72.9 MMBTU (approximately 27% of the current total system load); of which 37% cannot be served without significant system reinforcement and will therefore likely not connect to the system. Exhibit NGRIS-JSS-2 contains a map that illustrates the level activity in the Boston area for gas requests from large volume customers.

Q. Please describe which customers would be affected.

A. Customers in this group are typically large commercial, industrial or multi-family accounts, i.e. Boston area hospitals, universities and colleges, large housing developments, museums, etc. West Roxbury is where the Boston IP system comes closest to the Algonquin I-Lateral. Pipeline routing brings the meter station to a point where gas can be delivered into a location on the IP system capable of receiving sufficient volumes of gas to provide the benefits noted above. By connecting through West Roxbury, there could be potential for long-term growth in Boston and surrounding communities. There are load requests that Boston Gas cannot address, i.e. from customers such as those noted above. The West Roxbury Lateral would serve as the entry point to serve all of Boston. Moreover, there would be minimized distribution reinforcement costs as reliability of the system would improve at the lowest pressure point.

Q. What additional enhancements would the West Roxbury Lateral provide to Boston Gas customers?

A. The West Roxbury Lateral would provide significant enhancements to the reliability of supply into the Boston Gas service territory. As described above, the J-Lateral primarily supplies the Boston area through six existing take stations surrounding the city. The J-Lateral is also the system to which the Distrigas facility is connected. In the past, Distrigas would deliver gas into the Algonquin system for redelivery to customers served by Algonquin. These volumes provided a tremendous operational benefit to Algonquin customers like Boston Gas and Colonial Gas, supporting pipeline pressures on the east end of the system (the Algonquin system terminates in Everett, MA, the same place where Distrigas Suez is located). The need for additional pressure support is growing given that deliveries from Distrigas into the J-lateral have decreased dramatically over the last few years. In the event of an outage on the J-Lateral on a cold day (15 degrees) approximately 55,000 customers could experience a loss of service.

Q. Could the Commercial Point LNG plant alleviate reliability issues?

A. No. Increased reliance on Commercial Point would only exacerbate reliability issues. Approximately 15% of the peak day requirements for Boston Gas are supplied from the Commercial Point LNG plant. An outage at Commercial Point under peak day conditions could affect approximately 34,000 customers. With the construction of the West Roxbury Lateral, which will be supplied from Algonquin’s I-Lateral, Boston Gas customers’ exposure to this reliability risk is greatly reduced. In the event of an outage on the J-Lateral, on a cold winter day, the anticipated number of outages would be reduced to approximately 15,000 from 55,000 and in the event of an outage at Commercial Point on a design day; the likelihood of outages would be eliminated provided alternate supplies could be diverted to the area. With this new delivery point, ongoing planned maintenance and upgrade activities on Algonquin's J-Lateral, i.e. pipeline pigging, replacement of sections of transmission main, can better be supported without the risk of customer outages or the need to supplement supplies with portable LNG operations.

Q. Could the West Roxbury Lateral be built as a distribution project?

A. Boston Gas could theoretically build the lateral as a distribution project; however, it would go through NSTAR Gas communities. It is not the Company's practice to build distribution pipelines through another service territory because of security and operating concerns. See NGRID-JSS-3 for an existing pipeline system access sketch of the proposed West Roxbury Lateral.

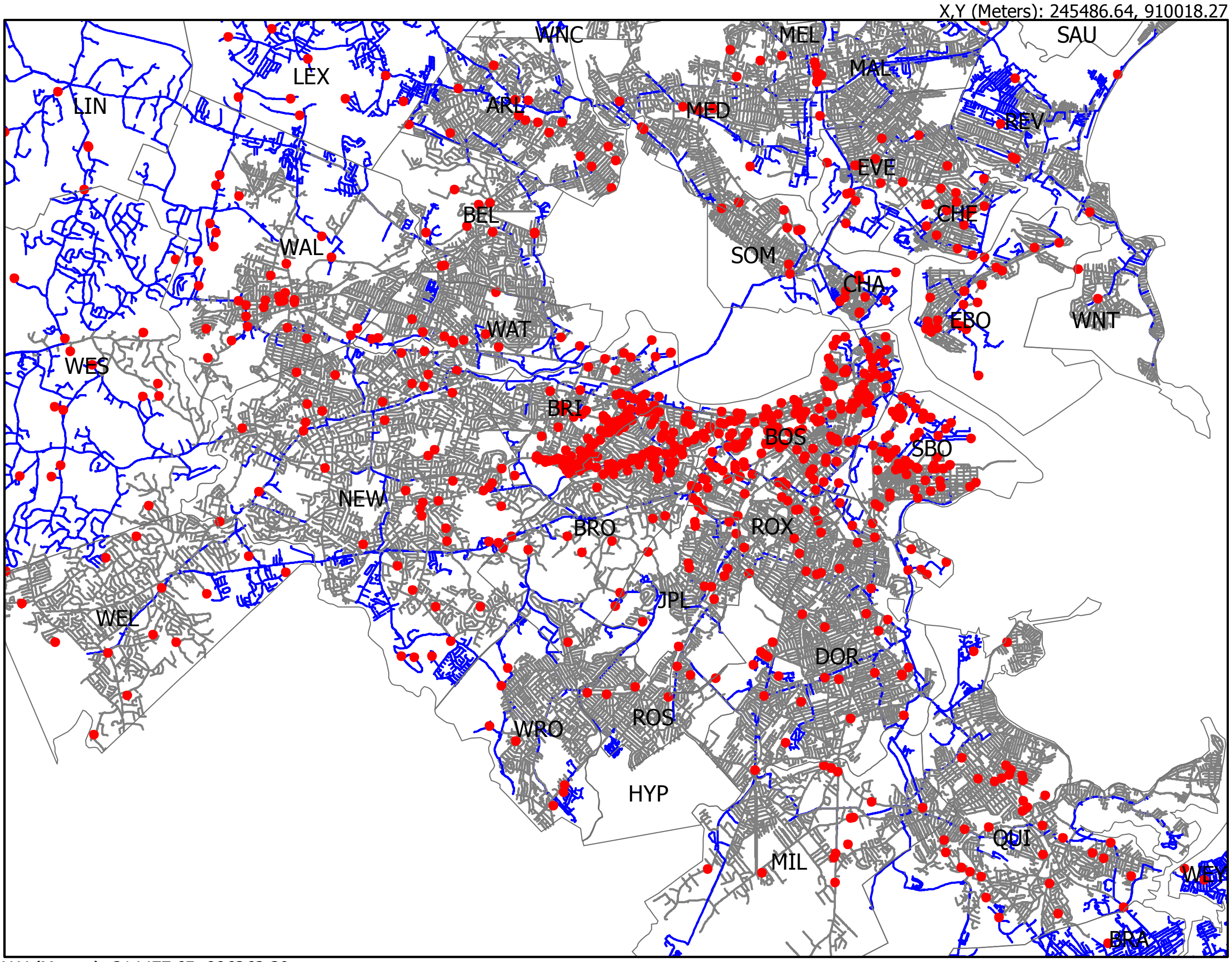
V. CONCLUSION

Q. Does this complete your testimony?

A. Yes, it does.

Boston Area Reserved Capacity

X,Y (Meters): 245486.64, 910018.27



X,Y (Meters): 214477.65, 886262.39

0 1,350 2,700 5,400 8,100 10,800 Meters

Scale: 1 = 160,900

Legend

Facilities Symbols
- Default Pipe
- Default Regulator
- Default Regulator Station
- Default Valve
- Default Check Valve

Nodes Symbols
- Default Known Flow Node
- Default Known Pressure Node
- Default Known Node

Polygons Symbols
- Default Polygon
- Default Filled Red Polygon
- Default Filled Green Polygon
- Default Filled Yellow Polygon
- Default Unfilled Polygon

Facilities Color By
Pressure (Primary Only) (psig)
- Not Applicable (140058)
- < 721.7 (77709)
- > 721.7 (438)

Nodes Color By
Elevation (ft)
- Not Applicable (0)
- < 1 (206184)
- 1 - 2 (0)
- > 2 (0)

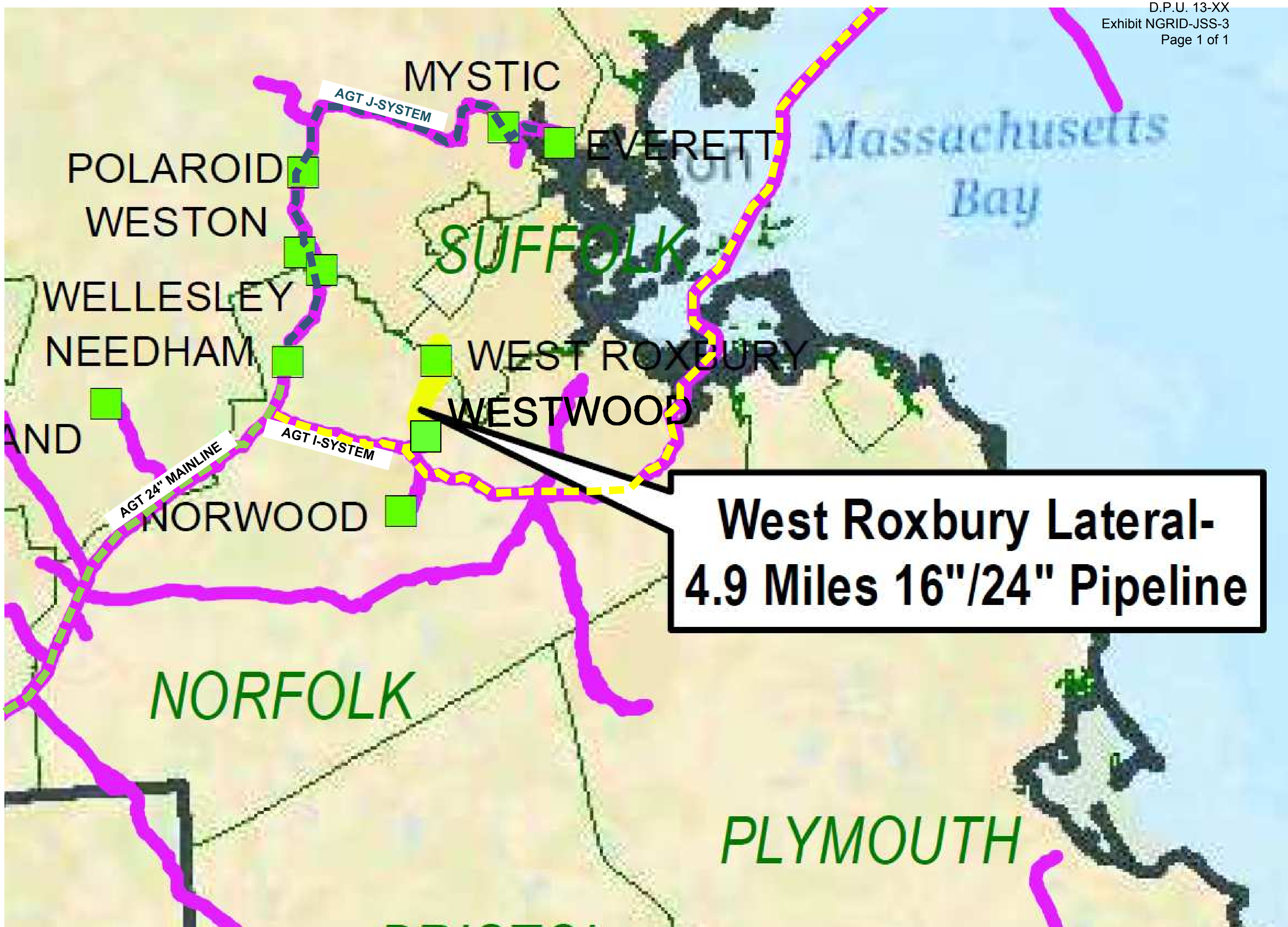
Simulation Data:
State: Solved Feasible
Date: 12/31/2011
Time: 0.00

Model Description:

Model Name: BOS-GCR-03Sept13-AIsgro-V461

Model Coordinate System: NAD 1983 STATEPLANE MASSACHUSETTS MAINLAND FIPS 2001

SynerGEE Gas 4.6.1 (29 Feb 2012) 09/04/2013 4:15:01 PM



SPECTRA ENERGY – AIM PROJECT – WEST ROXBURY LATERAL – EXISTING PIPELINE SYSTEM ACCESS SKETCH – 9/4/2013