Supply/Pipeline/Reducing the Basis Differential

Maine Natural Gas: Energy for Maine's Future?!

October 8, 2015

Mitch Tannenbaum, Maine Public Utilities Commission

Jim Cohen, Verrill Dana, LLP

Cynthia Armstrong, PNGTS

Greg Crisp, Spectra Energy

Curtis Cole, Tennessee Gas Pipeline

Tim Schneider, Maine Public Advocate

PIERCE ATWOOD LLP

Verrill Dana LLP
Attorneys at Law

Verrill Dana LLP
Attorneys at Law

Who Thought Oil Prices Would Drop this Much? And Does it Matter?

James I. Cohen, Partner
Verrill Dana, LLP
jcohen@verrilldana.com
October 8, 2015

PIERCE ATWOOD LLP

Verrill Dana LLP
Attorneys at Law

What a Difference a Year Makes. Or Does It?

- 2014: Polar Vortex.
- 2015: Milder Winter.

- 2014: High Oil Prices.
- 2015: Low Oil Prices.

- 2014: Regional solution seemed out of reach.
- 2015: Renewed opportunity for regional action.

- 2014: Several gas capacity projects proposed, but not certain.
- 2015: Enhanced likelihood of these projects moving forward.

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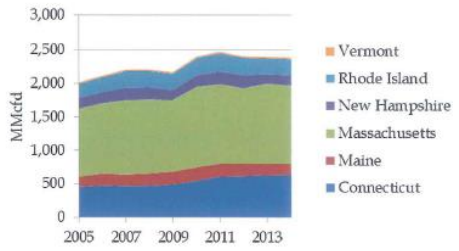
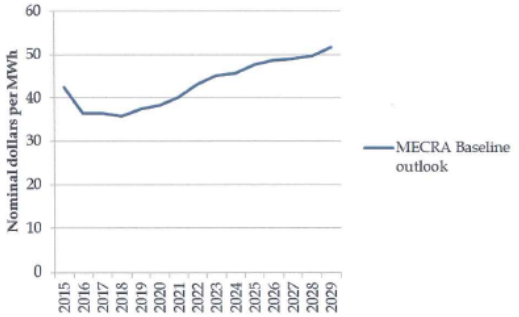
The Base Case: New England Without an ECRC

Figure 3. Natural gas consumption in New England, by state (annual average 2003-2014)



Source: Energy Information Administration ("EIA").

Figure 11. Annual average wholesale energy price for Maine load zone, under the MECRA Baseline outlook (nominal $/MWh)



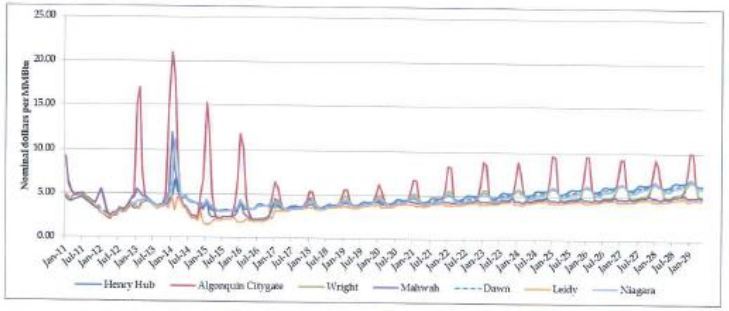
Source: POOLMod MECRA Baseline outlook.

Figure 8. Annual average gas prices for selected hubs, under the MECRA Baseline outlook (nominal $/MMBtu)

Year	Henry Hub	Algonquin Citygate	Wright	Mahwah	Dawn	Leidy	Niagara
2015	3.20	4.92	n/a	2.62	3.30	1.96	3.34
2016	3.56	4.18	2.34	2.59	3.64	2.01	3.66
2017	3.57	4.00	3.53	3.62	3.56	3.25	3.60
2018	3.76	4.06	3.83	3.82	3.70	3.48	3.75
2019	4.05	4.29	4.04	3.94	3.98	3.70	4.00
2020	4.32	4.50	4.21	4.08	4.21	3.82	4.19
2021	4.57	4.75	4.35	4.17	4.44	3.92	4.37
2022	4.87	5.15	4.56	4.29	4.72	4.03	4.61
2023	5.18	5.41	4.81	4.44	5.03	4.17	4.90
2024	5.43	5.44	4.98	4.53	5.28	4.26	5.14
2025	5.65	5.74	5.11	4.59	5.49	4.32	5.35
2026	5.91	5.84	5.27	4.68	5.76	4.40	5.61
2027	6.21	5.92	5.47	4.81	6.05	4.53	5.89
2028	6.43	5.99	5.62	4.92	6.25	4.62	6.08

Source: GPCM MECRA Baseline outlook. Note that Wright does not have a price until Constitution pipeline is added to the GPCM model.

Figure 7. Monthly average gas prices at selected hubs, under the MECRA Baseline outlook



Source: History (through March 2015) and outlook GPCM MECRA Baseline outlook.

*** Figures from London Economics International, Report to Maine PUC, June 20, 2015. MPUC Docket No. 2014-00071*

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The Base Case: Gas Capacity into New England

Thus the Baseline outlook includes pipeline capacity under development that has firm contracts. These are:

- Tennessee Gas Pipeline Connecticut expansion (72 MMcfd), in service November 2016);
- Algonquin Incremental Market (342.1 MMcfd, in service November 2017): and
- Atlantic Bridge (non-ECRC portion) (110 MMcfd, in service November 2017).

These expansions are in addition to the capacity that exists in New England as of 2014 (see Figure 43).

Figure 43. Gas pipeline transmission capacity into New England, 2014

Pipeline	From	To	MMcfd, 2014
Algonquin Gas Trans Co	New York	Connecticut	1,355
Iroquois Pipeline Co	New York	Connecticut	866
Maritimes/Northeast PL Co	New Brunswick	Maine	865
Portland Gas Trans Co	Quebec	New Hampshire	216
Tennessee Gas Pipeline Co	New York	Connecticut	150
Tennessee Gas Pipeline Co	New York	Massachusetts	1,169
Total			**4,621**

Source: Energy Information Administration, "EIA-StatetoStateCapacity.xls" at http://www.eia.gov/naturalgas/data.cfm

*** From London Economics International, Report to Maine PUC, June 20, 2015. MPUC Docket No. 2014-00071*

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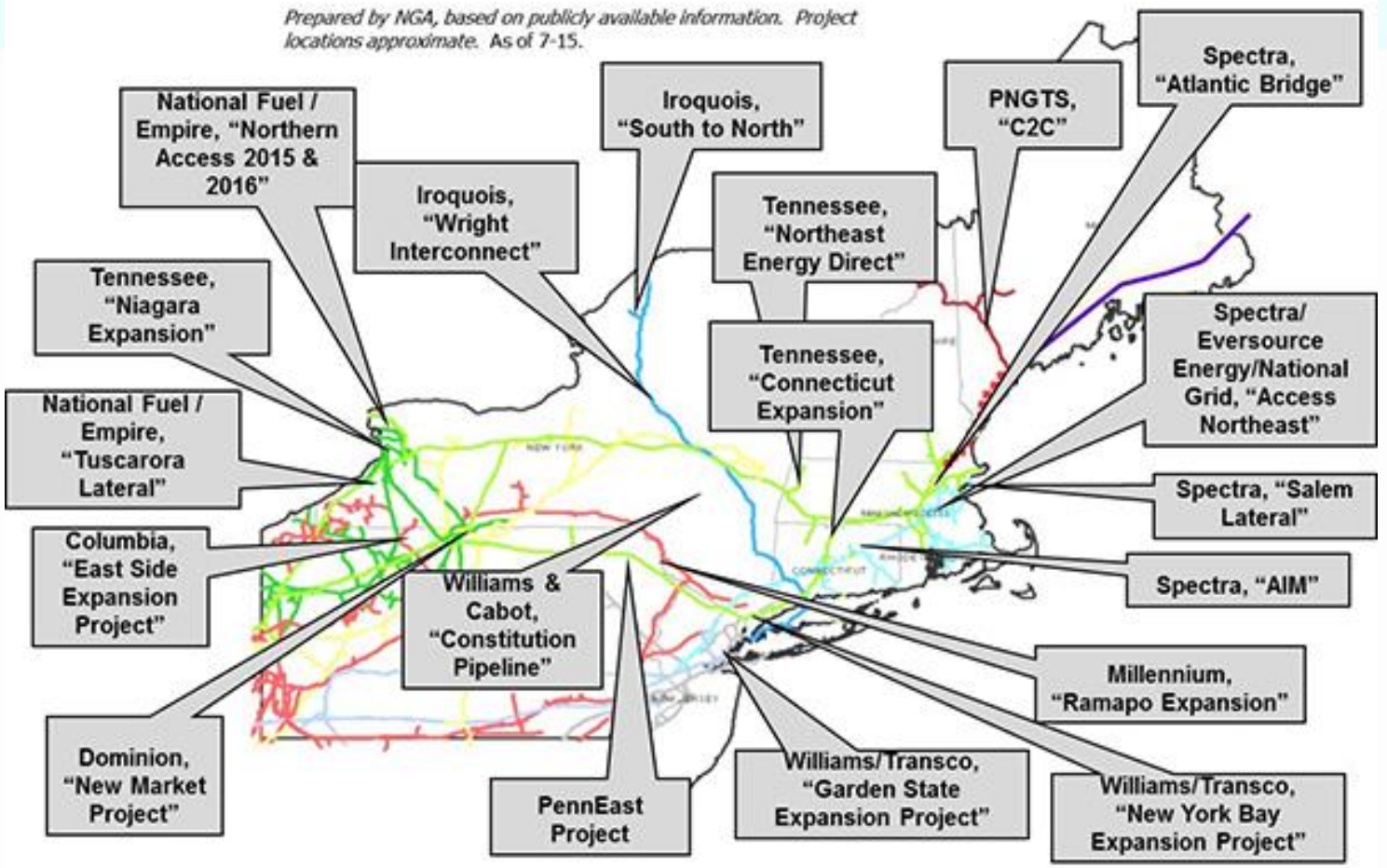
Proposed Pipeline Projects



Source: Northeast Gas Association

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Key Issues in Selecting an ECRC

Quantified Attributes

- Quantity Offered
- Price Offered
- Receipt Point
- Contract Term

Figure 32. Categories and attributes of ECRC proposals

Category	Attribute
Type of product offered	Type of service Volume and volume flexibility Term of contract Flexibility of assignment of contract Most-favored nation rate? Storage provided?
Project route	Primary receipt point(s) and flexibility Primary delivery point(s) and flexibility Secondary receipt and delivery points; flexibility, laterals?
Contract cost (FT)	FT cost by route Rate capped if potential cost overrun? FT plus gas supply cost by route; supply area prices and transparency
Construction and schedule	Greenfield/brownfield Expansion of laterals? Developer's projected in-service date Stage of the process Risk mitigation ("outs") for Maine?
Key uncertainties	Construction and permitting completion on schedule? Regulatory uncertainty apart from FERC permitting process Price of gas at receipt point(s) Downside/upside if "last-mile" deliverability is an issue Downside/upside if need for gas in storage is an issue Will the project go forward without Maine signing up?

*** From London Economics International, Report to Maine PUC, June 20, 2015. MPUC Docket No. 2014-00071*

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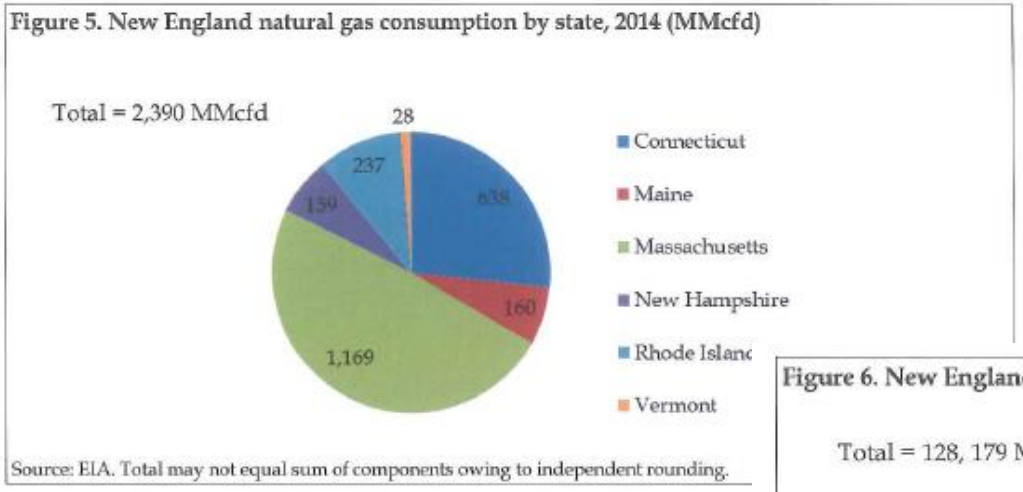
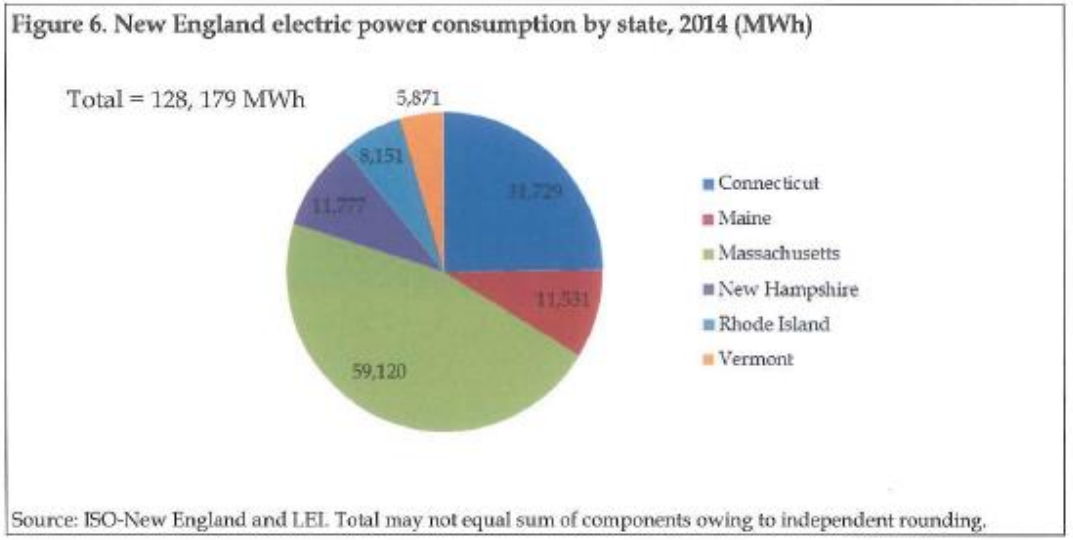
Should Maine "Go it Alone"?





*** From London Economics International, Report to Maine PUC, June 20, 2015. MPUC Docket No. 2014-00071*

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Where Do We Go From Here?

- Adjudicate current ECRC case?
- Consider regional opportunities?
- C, none of the above?

Natural Gas: Energy for Maine's Future

Portland Natural Gas Transmission System Update

October 8, 2015

PORTLAND NATURAL GAS TRANSMISSION SYSTEM

PIERCE ATWOOD LLP

Verrill Dana LLP
Attorneys at Law

Forward Looking Statement, Contact Info

This presentation may contain certain information that is forward-looking and is subject to important risks and uncertainties. The words "anticipate", "expect", "believe", "may", "should", "estimate", "project", "outlook", "forecast" or other similar words are used to identify such forward-looking information. Forward-looking statements in this presentation are intended to provide information regarding TransCanada and its subsidiaries, including management's assessment of PNGTS' future financial and operations plans and outlook. Forward-looking statements in this document may include, among others, statements regarding the anticipated business prospects and financial performance of PNGTS, expectations or projections about the future, and strategies and goals for growth and expansion. All forward-looking statements reflect TransCanada's beliefs and assumptions based on information available at the time the statements were made. Actual results or events may differ from those predicted in these forward-looking statements. Factors that could cause actual results or events to differ materially from current expectations include, among others, the ability of PNGTS to successfully implement its strategic initiatives and whether such strategic initiatives will yield the expected benefits, the operating performance of PNGTS, the availability and price of energy commodities, capacity payments, regulatory processes and decisions, changes in environmental and other laws and regulations, competitive factors in the pipeline and energy sectors, construction and completion of capital projects, and the current economic conditions in North America. By its nature, forward looking information is subject to various risks and uncertainties, which could cause actual results and experience to differ materially from the anticipated results or expectations expressed.. PNGTS undertakes no obligation to update publicly or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by law.

Cynthia L. Armstrong, *Director of Marketing and Business Development*

Portland Natural Gas Transmission System

One Harbour Place, Suite 375

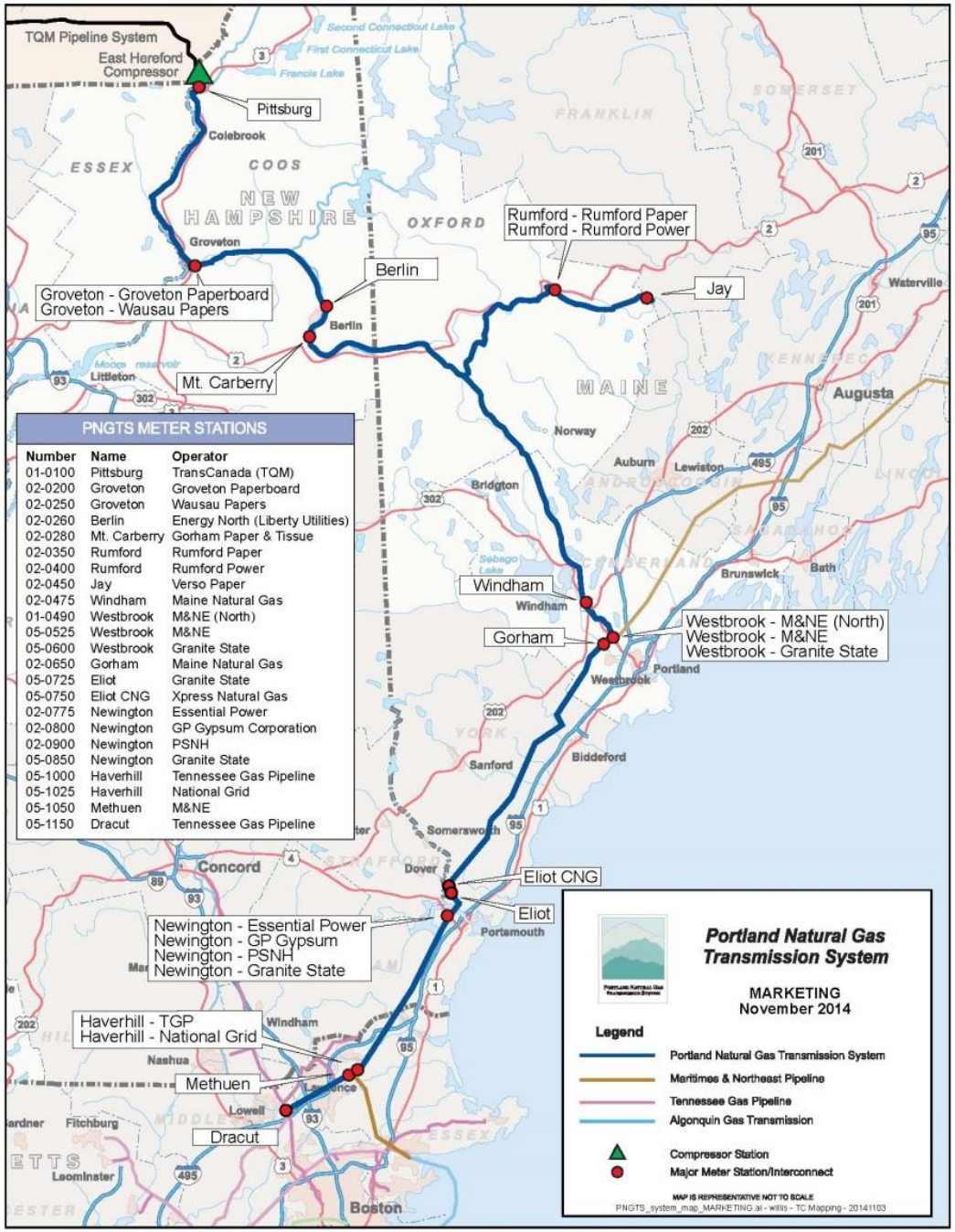
Portsmouth, NH 03801

Office: (603) 559-5527

Cell: (603) 498-0782

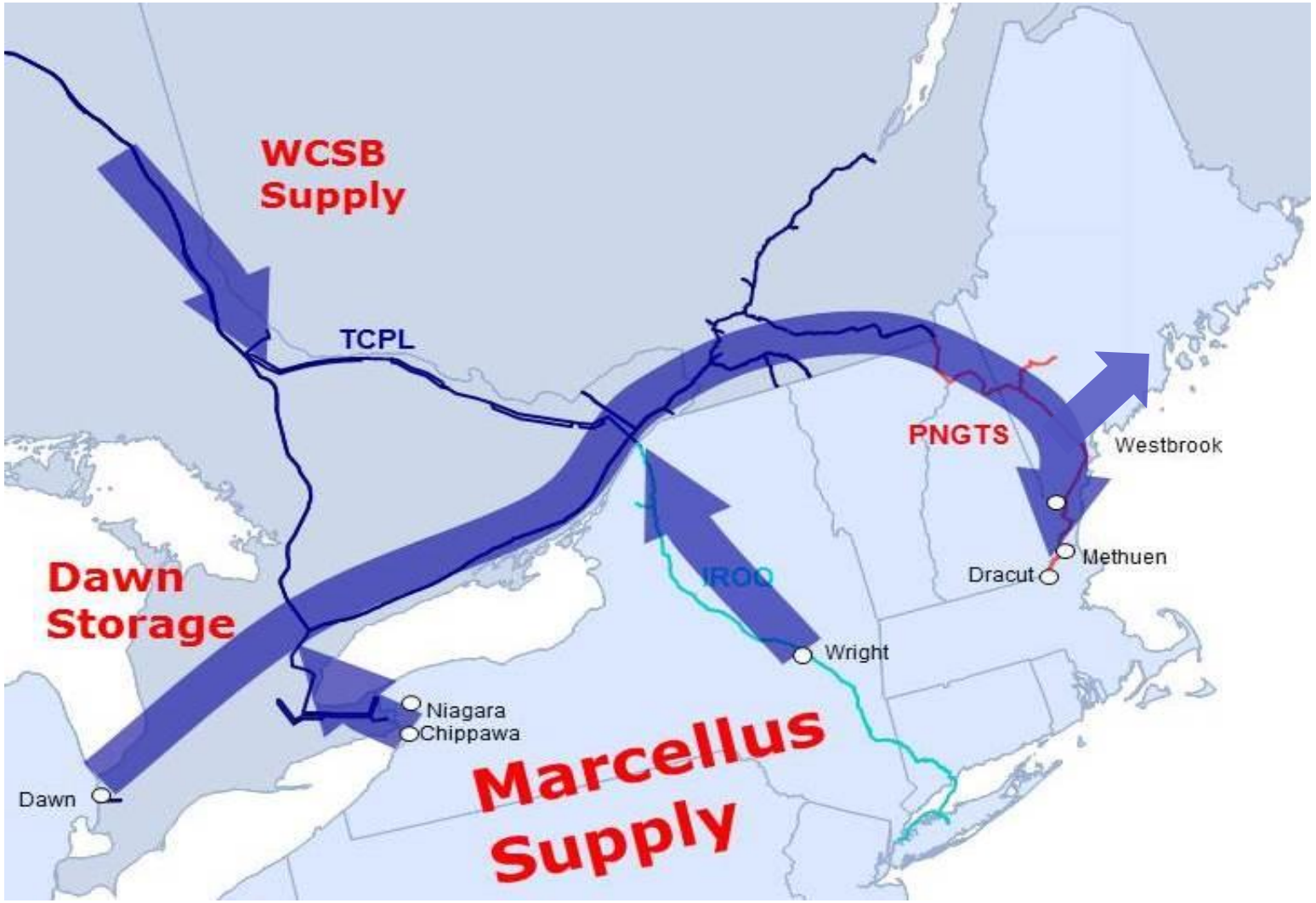
Email: cynthia_armstrong@transcanada.com

PNGTS
Pipeline for Maine

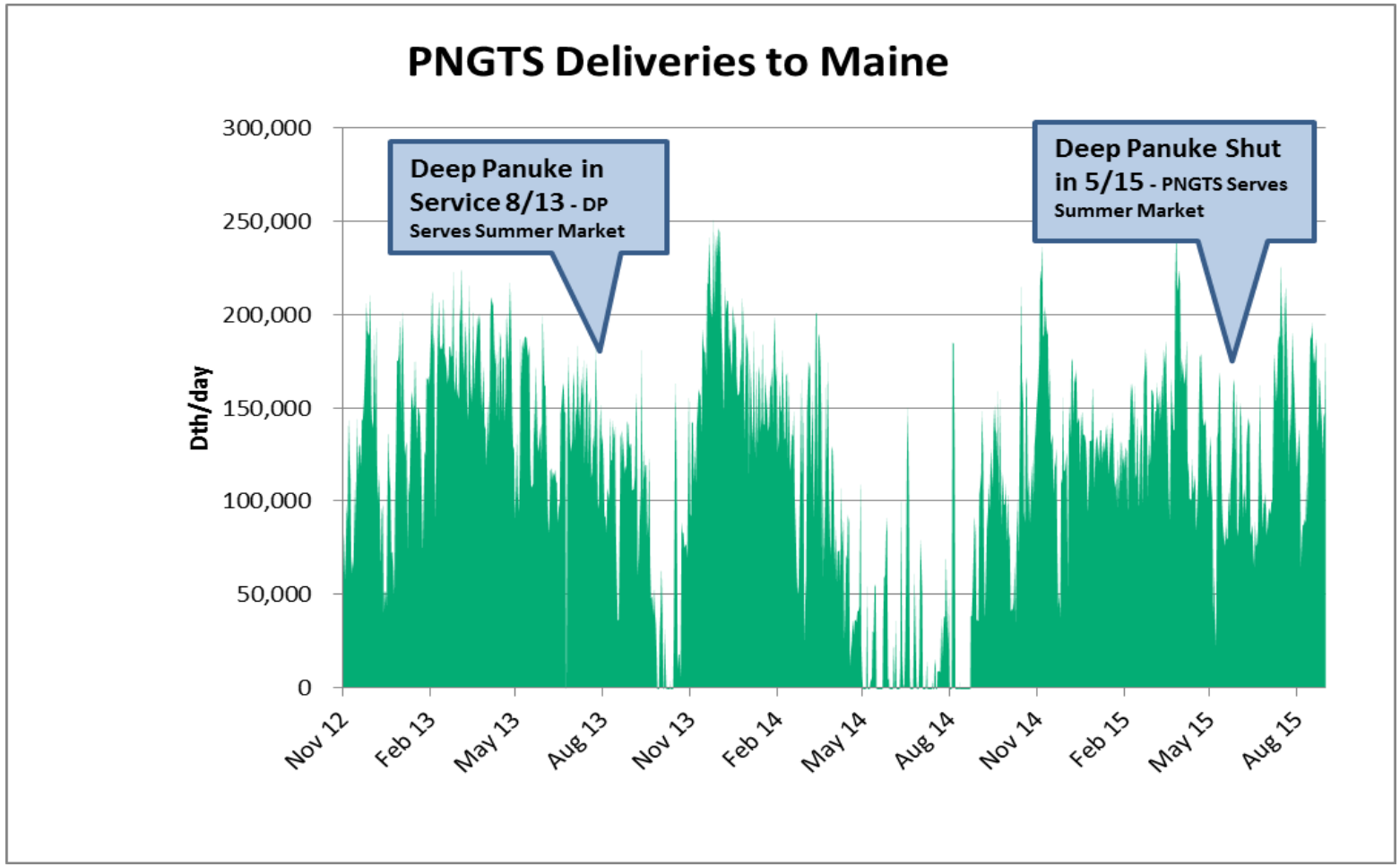


- **In-Service 1999**
  - No Compressors on system; All pressure provided upstream by TransCanada
  - Approximately 300 miles of existing 24” and 30” pipe thru NH, ME, MA
  - 210K Dth/day current capacity
- **Ownership: 62% TransCanada, 38% GazMetro**

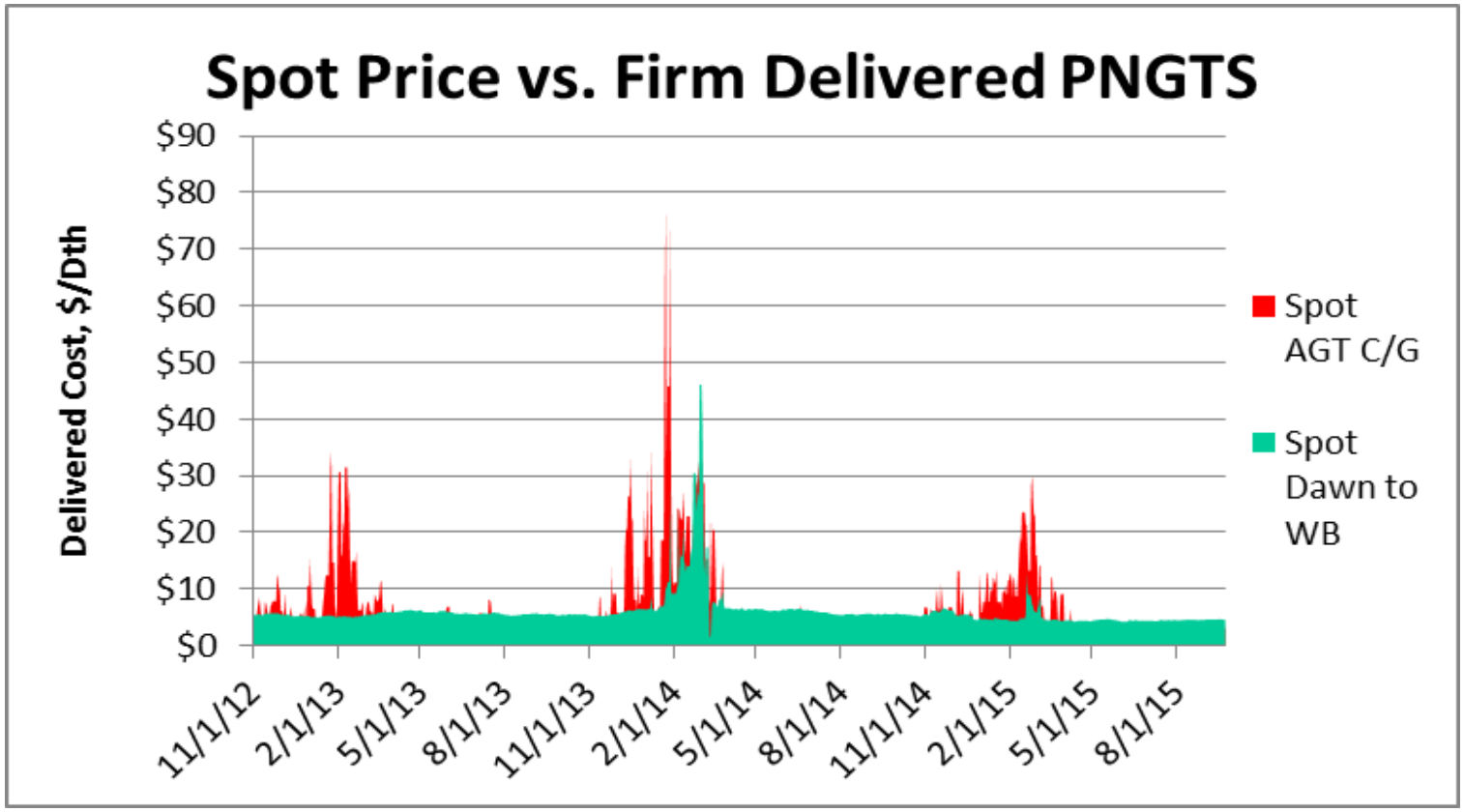
PNGTS Supply/Storage Access



PNGTS: A major source of supply for Maine



PNGTS Firm Transport Cost Benefits

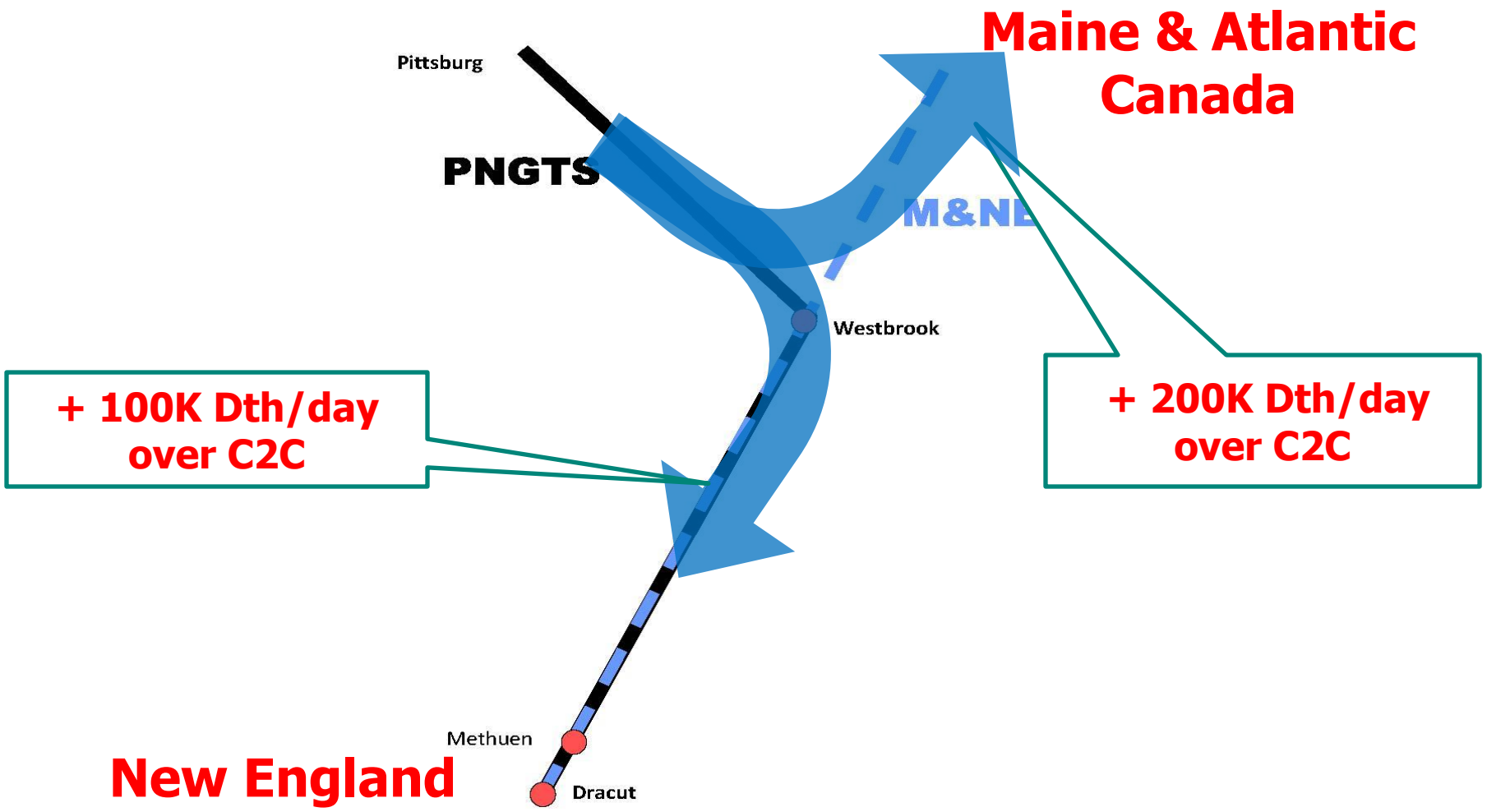


Year-Round Wtd. Avg. PNGTS FT Savings = $1.85/Dth
(= $2.10/Dth using C2C Rates)

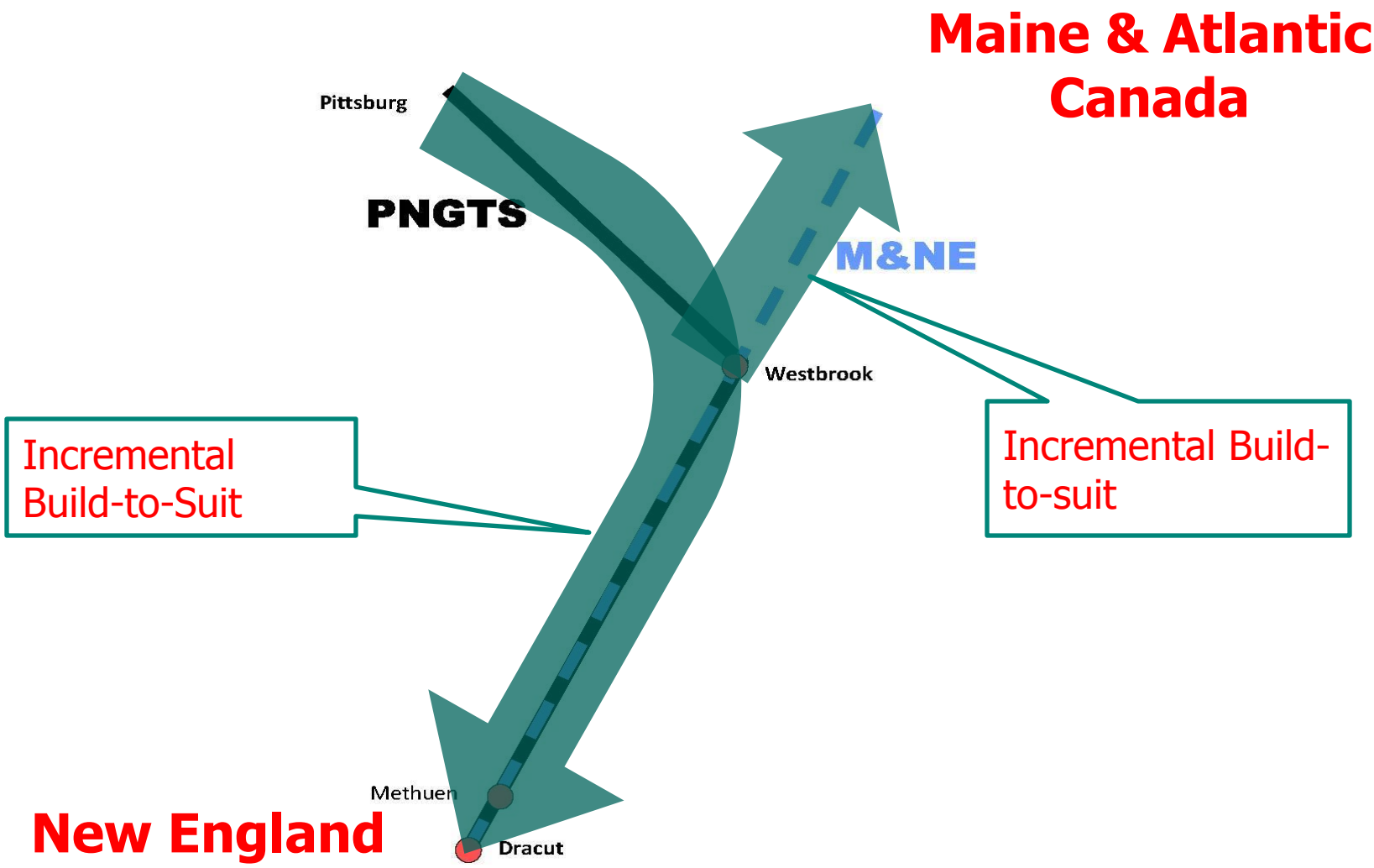
PNGTS' Projects

- **Continent to Coast ("C2C") – Moving Ahead**
  - Approx. 100K Dth/day, 2017 Start
  - No build on PNGTS
- **2018 PNGTS Capacity Offer– New**
  - 100K to New England plus 200K to Maine, Atlantic Canada; 2018 Start
  - Last "No build" capacity on PNGTS
- **2019 PNGTS Capacity Offer– Future**
  - Incremental Build-to-Suit capacity on PNGTS, TCPL for generation load
  - In response to New England State needs

2018 PNGTS Capacity Offer



2019 PNGTS Capacity Offer



October 8, 2015 Maine Natural Gas Conference

New England Pipeline Expansion Update

Greg Crisp, General Manager

Business Development

Spectra Energy

Safe Harbor Statement

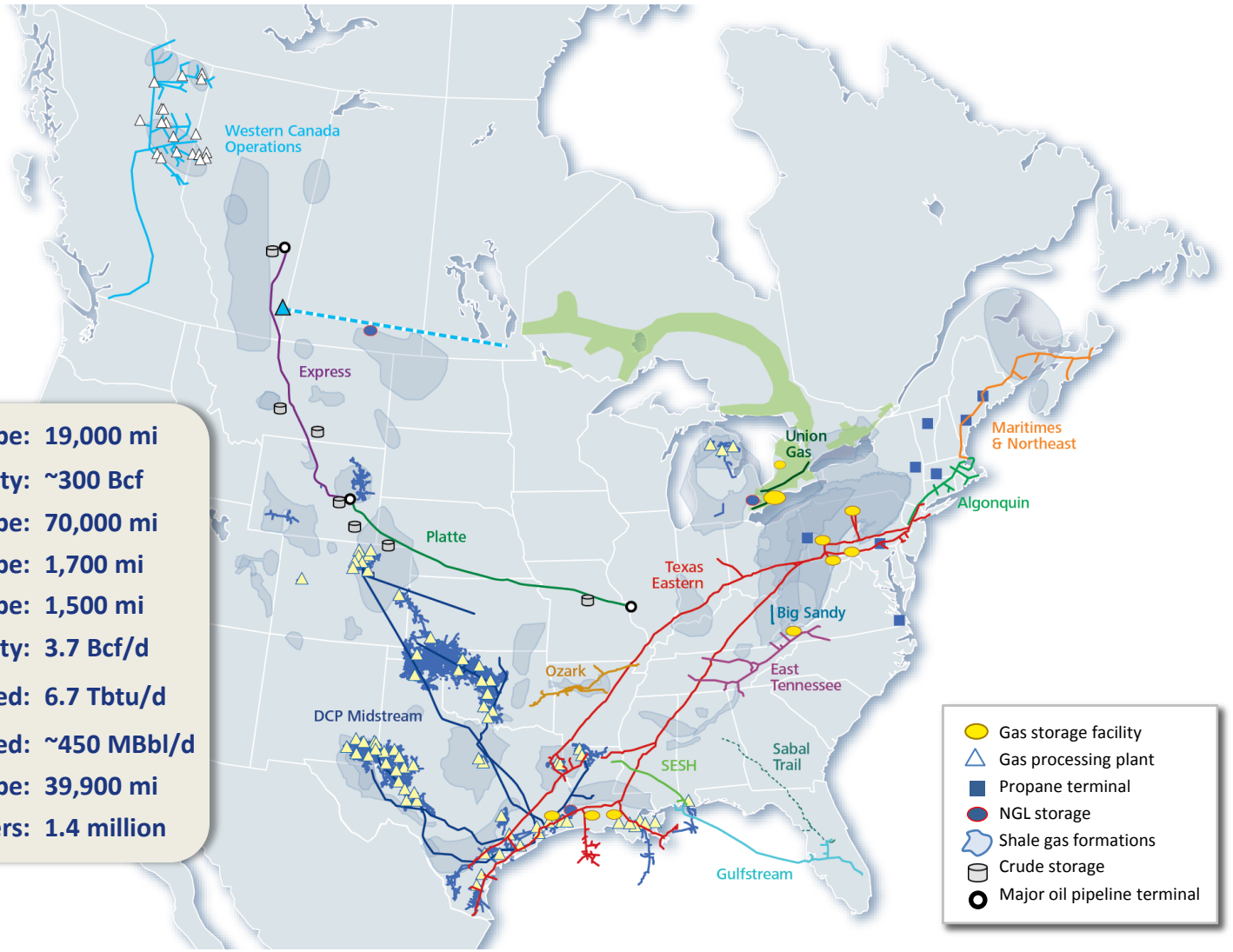
Some of what we'll discuss today concerning future company performance will be forward-looking information within the meanings of the securities laws. Actual results may materially differ from those discussed in these forward-looking statements, and you should refer to the additional information contained in Spectra Energy and Spectra Energy Partners' Forms 10-K and other filings made with the SEC concerning factors that could cause those results to differ from those contemplated in today's discussion. As this is a joint presentation, the terms "we," "our," and "us" refer to Spectra Energy and/or Spectra Energy Partners, as appropriate.

Reg G Disclosure

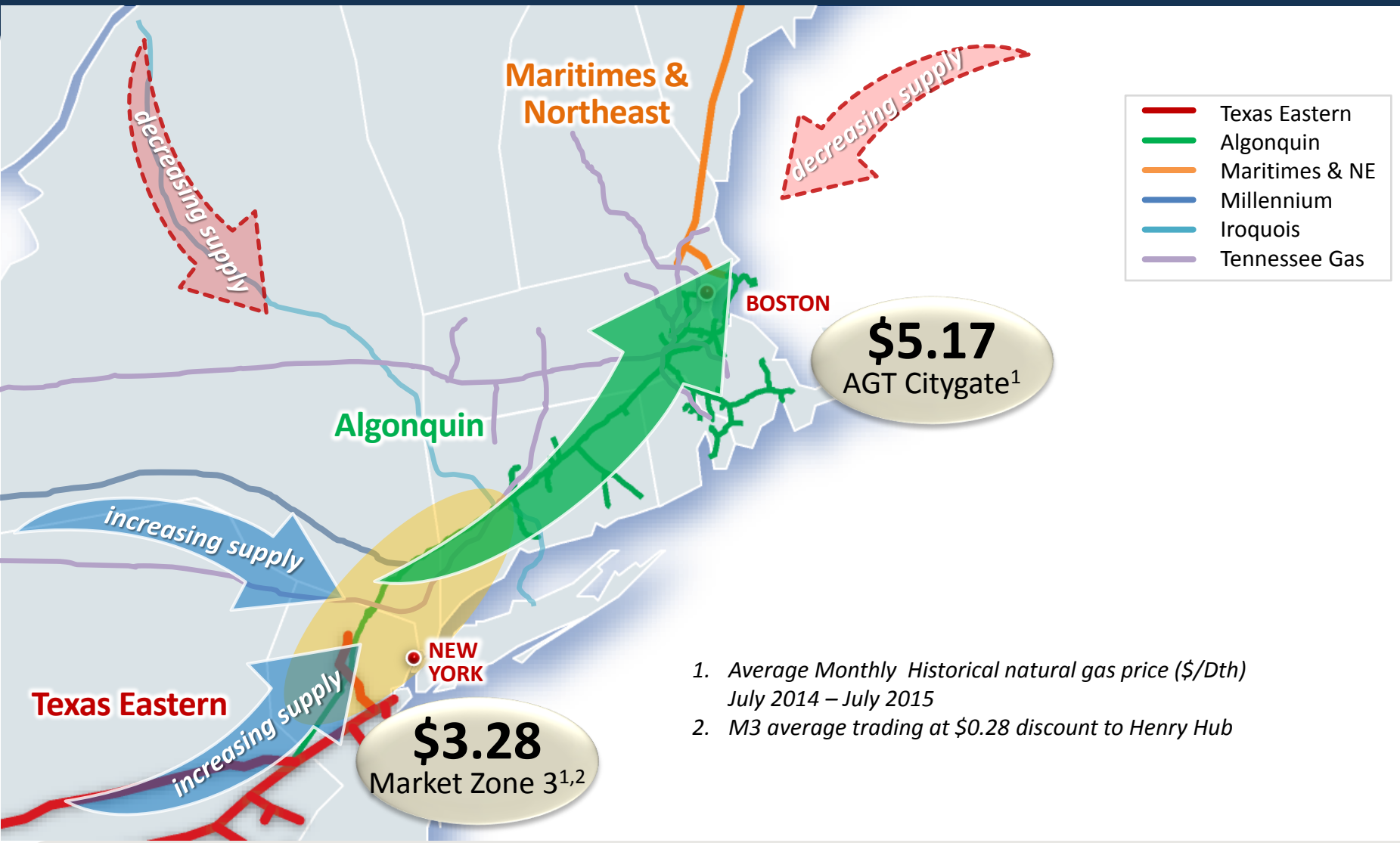
In addition, today's discussion will include certain non-GAAP financial measures as defined under SEC Regulation G. A reconciliation of those measures to the most directly comparable GAAP measures is available on our websites.

Our Strong Portfolio of Assets

Natural Gas Transmission Pipe:	19,000 mi
Natural Gas Storage Capacity:	~300 Bcf
Natural Gas Gathering Pipe:	70,000 mi
Crude Transmission Pipe:	1,700 mi
NGL Transmission Pipe:	1,500 mi
SE Gas Processing Capacity:	3.7 Bcf/d
4Q14 DCP Gathered and Processed:	6.7 Tbtu/d
4Q14 DCP NGLs Produced:	~450 MBbl/d
Distribution Pipe:	39,900 mi
Union Gas Retail Customers:	1.4 million



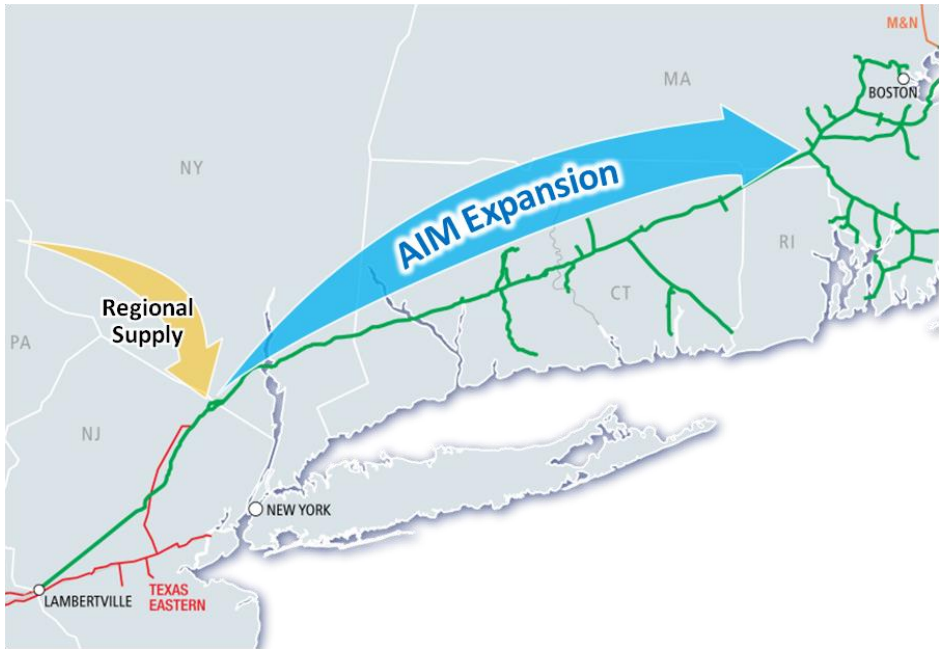
Meeting New England Natural Gas Infrastructure Needs



1. *Average Monthly Historical natural gas price ($/Dth) July 2014 – July 2015*
2. *M3 average trading at $0.28 discount to Henry Hub*

Algonquin Incremental Market
AIM Expansion

Providing growing New England demand with access to abundant regional natural gas supplies



Project Scope:

- ~340 MMcf/d of additional capacity to move Marcellus production to Algonquin city gates
- CapEx: $1 B

Customers :

- LDC affiliates of UIL Holdings, Northeast Utilities, National Grid, NiSource
- City of Norwich
- Middleborough

Project Status:

- Received FERC certificate March 2015
- Commenced construction May 2015
- In-service 2H16

Facilities:

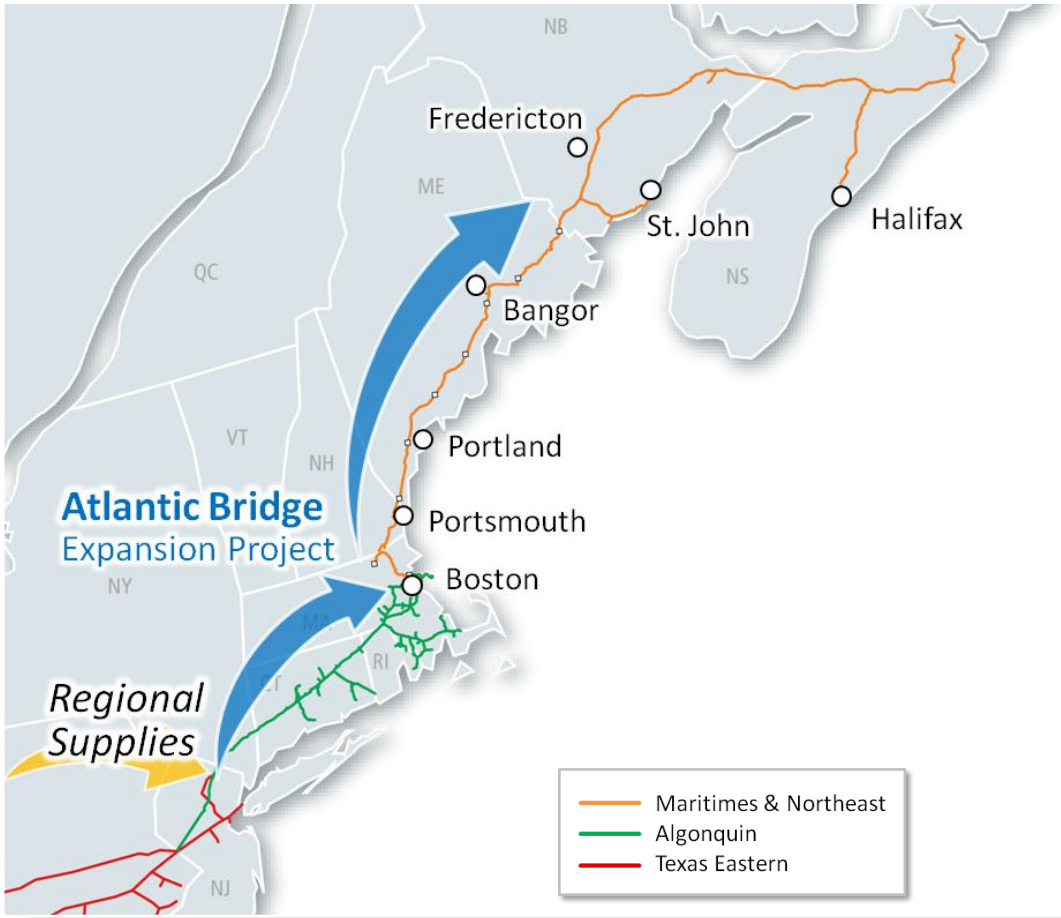
- Take up segments of 26 inch pipeline and replace with 42 inch; one segment of 36 inch loop; reinforcement of existing laterals; construction of new lateral
- Horsepower additions at 5 existing compressor stations
- New meter station installations and modifications to existing meter stations

Cromwell Compressor Station

Cromwell Loop

Atlantic Bridge

Increasing pipeline capacity to allow abundant, economical, regional supplies to flow to New England and Atlantic Canada markets



Project Scope:

- ~133 MMcf/d expansion of the Algonquin and Maritimes Pipelines
- CapEx: $500MM

Customers:

- Various local distribution and industrial companies in New England and Atlantic Canada

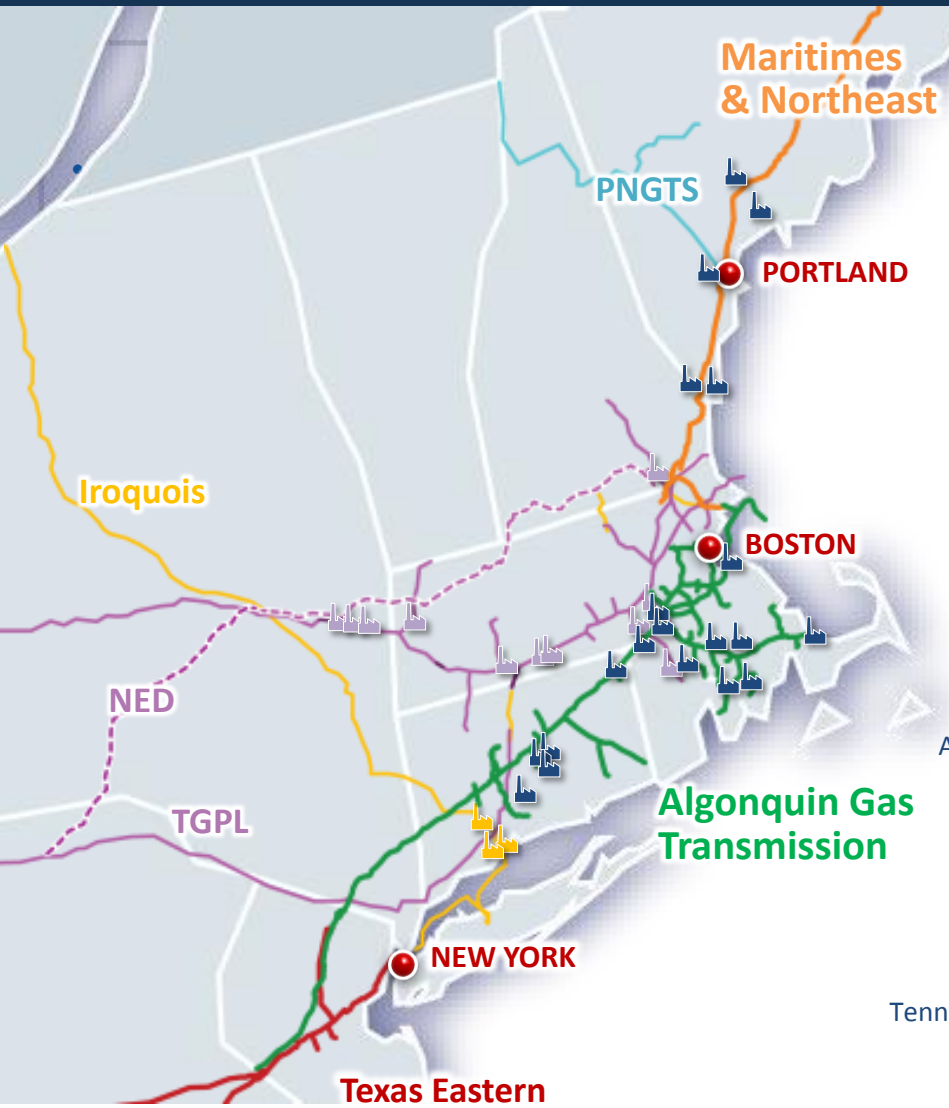
Project Status:

- File FERC Application 2H15
- Receive FERC Certificate 1H17
- In-Service 2H17

Preliminary Facilities:

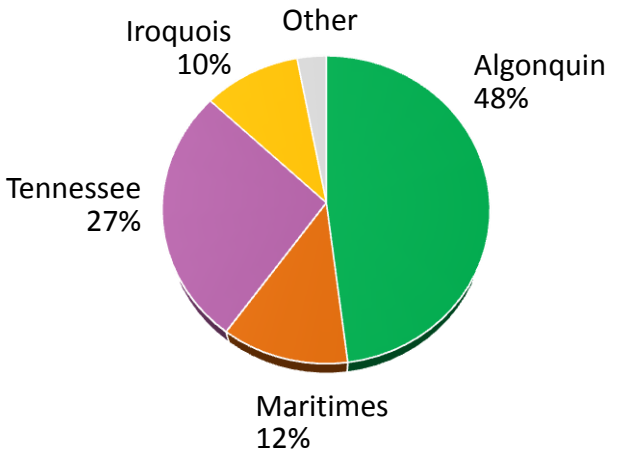
- New compressor station near Weymouth, MA
- Take up 6.4 miles of 26 inch pipeline and replace with 42 inch pipeline in NY & CT
- Compressor station unit upgrades in CT
- One new meter station and various other modifications

Who is Fueling Power Generation in ISO-NE?



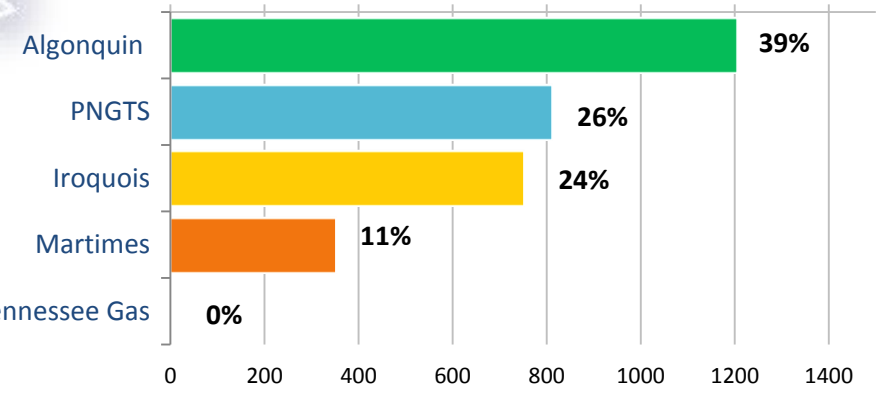
Who Serves ISO-NE Power Plants?

Source: ISO-NE



Who Fuels Power Gen on a Peak Winter Day?

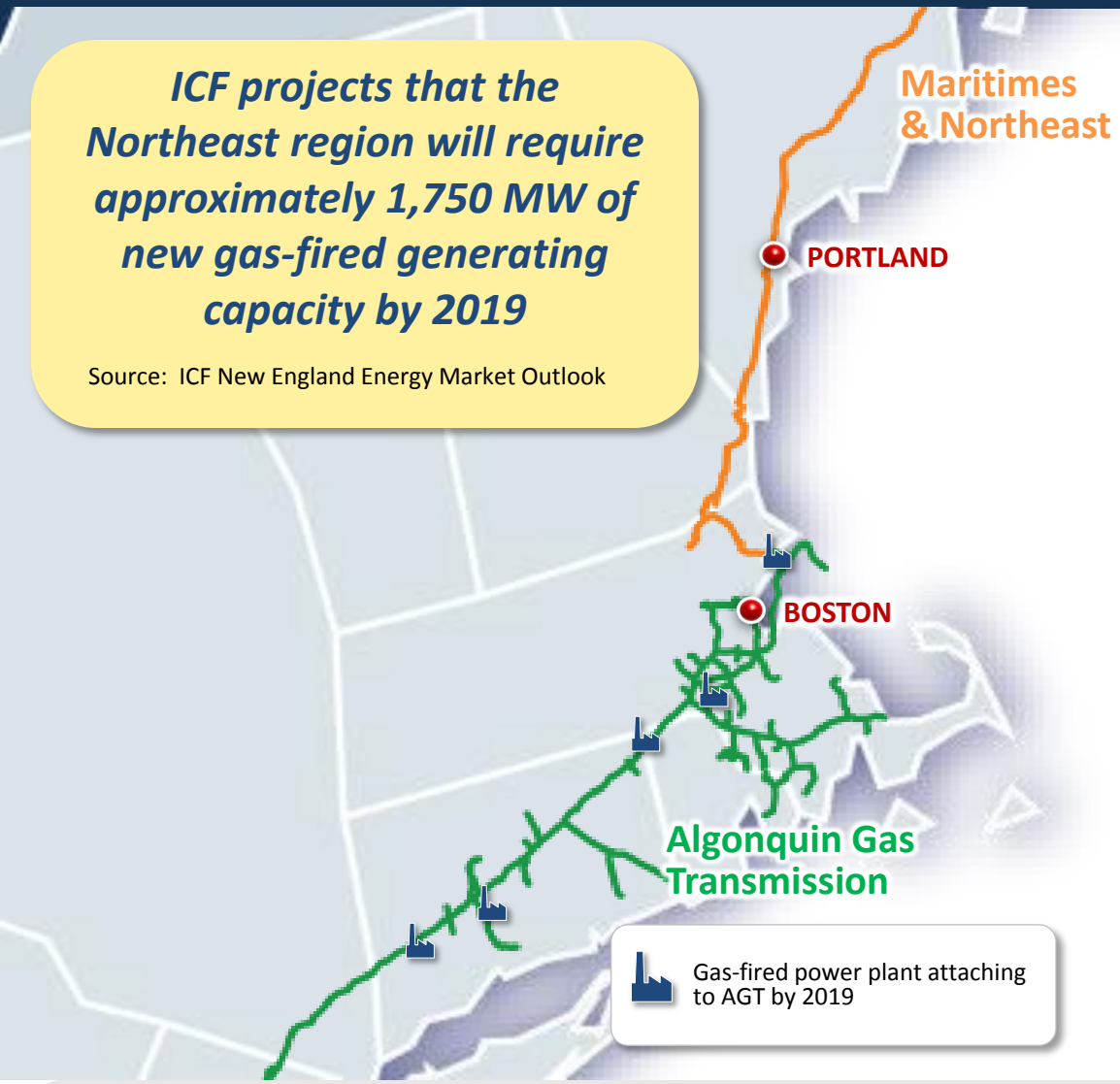
(3,143 MW's, January 7, 2014 AM Peak)



Who is Fueling Future Natural Gas Fired Generation?

ICF projects that the Northeast region will require approximately 1,750 MW of new gas-fired generating capacity by 2019

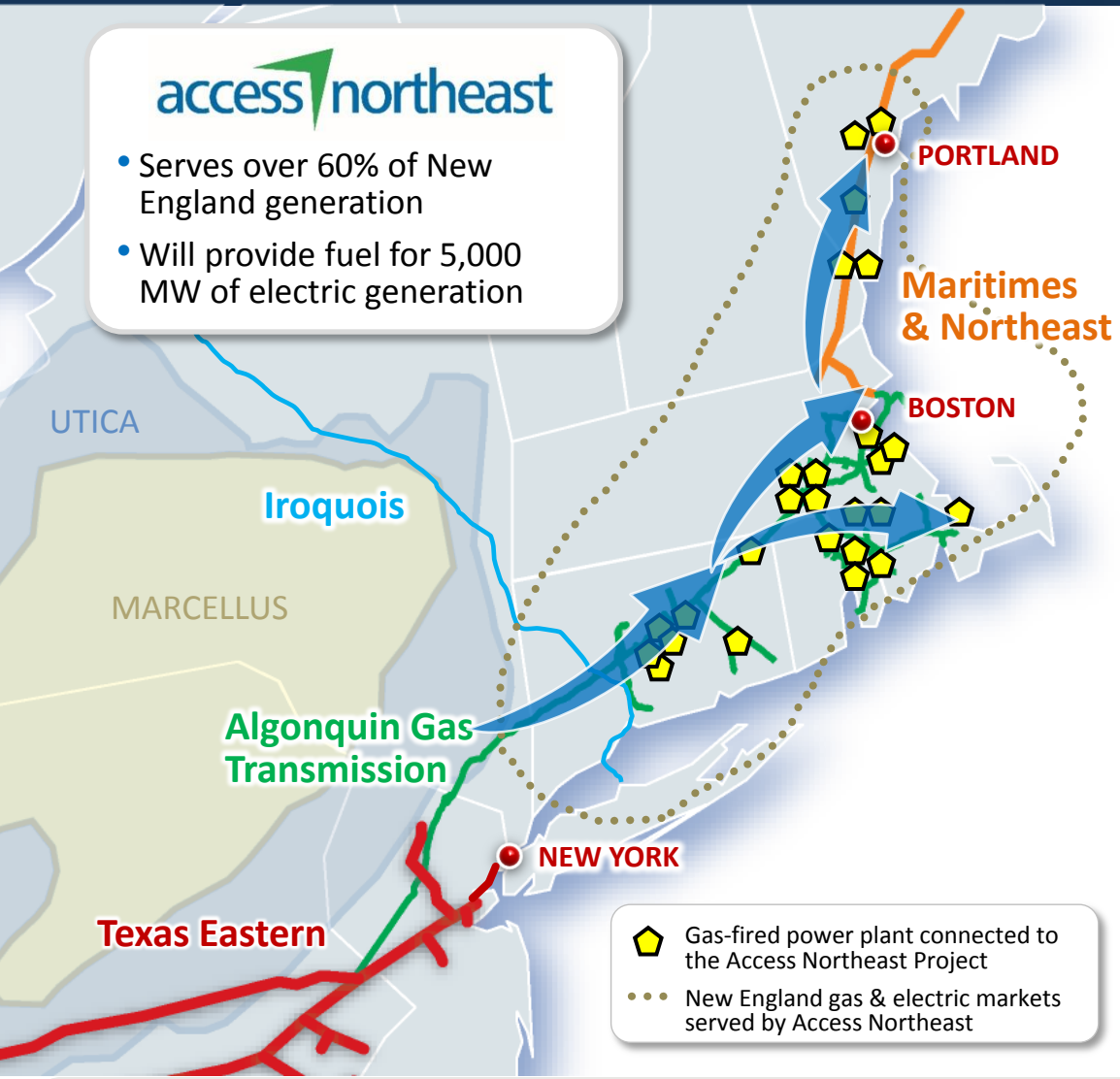
Source: ICF New England Energy Market Outlook



Power Plants Proposed by 2019

Plant	MW	Year
Plants Cleared ISO-NE Capacity Auctions		
Salem Harbor	674	2016
Medway	200	2017
Wallingford	90	2018
Towantic	785	2018
Total	**1,749**	
Plants Not Cleared ISO-NE Capacity Auctions		
Invenergy	1,000	2019
Total	**2,749**	

Access Northeast



A tailored solution for the region's electric energy needs

- Upgrades Existing Pipelines
  - Innovative
  - Cost effective
  - Environmentally responsible approach
- Utilizes local natural gas storage
- Increases natural gas supplies to power plants by 0.9 Bcf /day
  - Ensuring energy security
  - Lowering electric costs
  - Reducing carbon emissions
- Provides rapid response capability – a first of its kind service to electric generators that will:
  - Meet peak winter day needs
  - Back stop intermittent solar and wind-renewable power

KINDER MORGAN

A Different Kind of ENERGY COMPANY

Tennessee Gas Pipeline

NORTHEAST ENERGY DIRECT PIPELINE PROJECT

NATURAL GAS: ENERGY FOR MAINE'S FUTURE

Curtis Cole, Director
Business Development
October 8, 2015

KINDER MORGAN



Forward-Looking Statements / Non-GAAP Financial Measures

This presentation contains forward-looking statements. These forward-looking statements are identified as any statement that does not relate strictly to historical or current facts. In particular, statements, express or implied, concerning future actions, conditions or events, future operating results or the ability to generate revenues, income or cash flow or to pay dividends are forward-looking statements. Forward-looking statements are not guarantees of performance. They involve risks, uncertainties and assumptions. Future actions, conditions or events and future results of operations of Kinder Morgan, Inc. may differ materially from those expressed in these forward-looking statements. Many of the factors that will determine these results are beyond Kinder Morgan's ability to control or predict. These statements are necessarily based upon various assumptions involving judgments with respect to the future, including, among others, the ability to achieve synergies and revenue growth; national, international, regional and local economic, competitive and regulatory conditions and developments; technological developments; capital and credit markets conditions; inflation rates; interest rates; the political and economic stability of oil producing nations; energy markets; weather conditions; environmental conditions; business and regulatory or legal decisions; the pace of deregulation of retail natural gas and electricity and certain agricultural products; the timing and success of business development efforts; terrorism; and other uncertainties. There is no assurance that any of the actions, events or results of the forward-looking statements will occur, or if any of them do, what impact they will have on our results of operations or financial condition. Because of these uncertainties, you are cautioned not to put undue reliance on any forward-looking statement. Please read "Risk Factors" and "Information Regarding Forward-Looking Statements" in our most recent Annual Report on Form 10-K and our subsequently filed Exchange Act reports, which are available through the SEC's EDGAR system at www.sec.gov and on our website at www.kindermorgan.com.

We use non-generally accepted accounting principles ("non-GAAP") financial measures in this presentation. Our reconciliation of non-GAAP financial measures to comparable GAAP measures can be found in the Appendix to our Analyst Day presentation, dated 1/28/2015, on our website at www.kindermorgan.com. These non-GAAP measures should not be considered an alternative to GAAP financial measures.

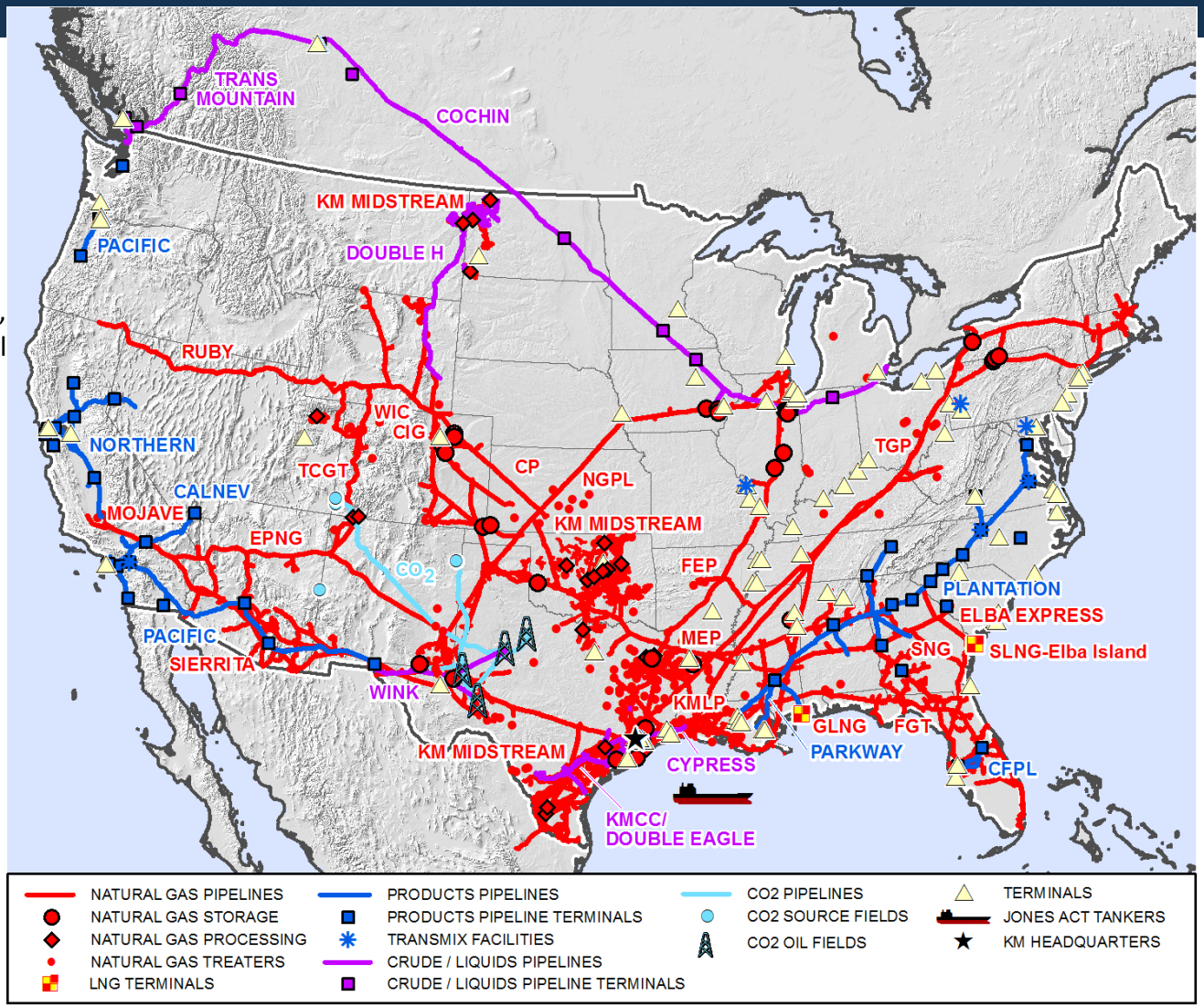
About Kinder Morgan

- Kinder Morgan is one of the largest, most experienced energy companies in North America. We own an interest in or operate approximately 84,000 miles of pipelines and 165 terminals.
- Kinder Morgan employs approximately 11,500 people throughout the United States and Canada.
- We are committed to operating our assets in a safe, ethical and transparent manner.
- We ensure public safety and safe pipeline operations through employee training, regular testing, right-of-way aerial and foot patrols and adherence to our comprehensive Integrity Management plan and procedures.
- Kinder Morgan does not have a Political Action Committee (PAC), or make any political contributions.

Unparalleled Asset Footprint

Largest Energy Infrastructure Company in North America

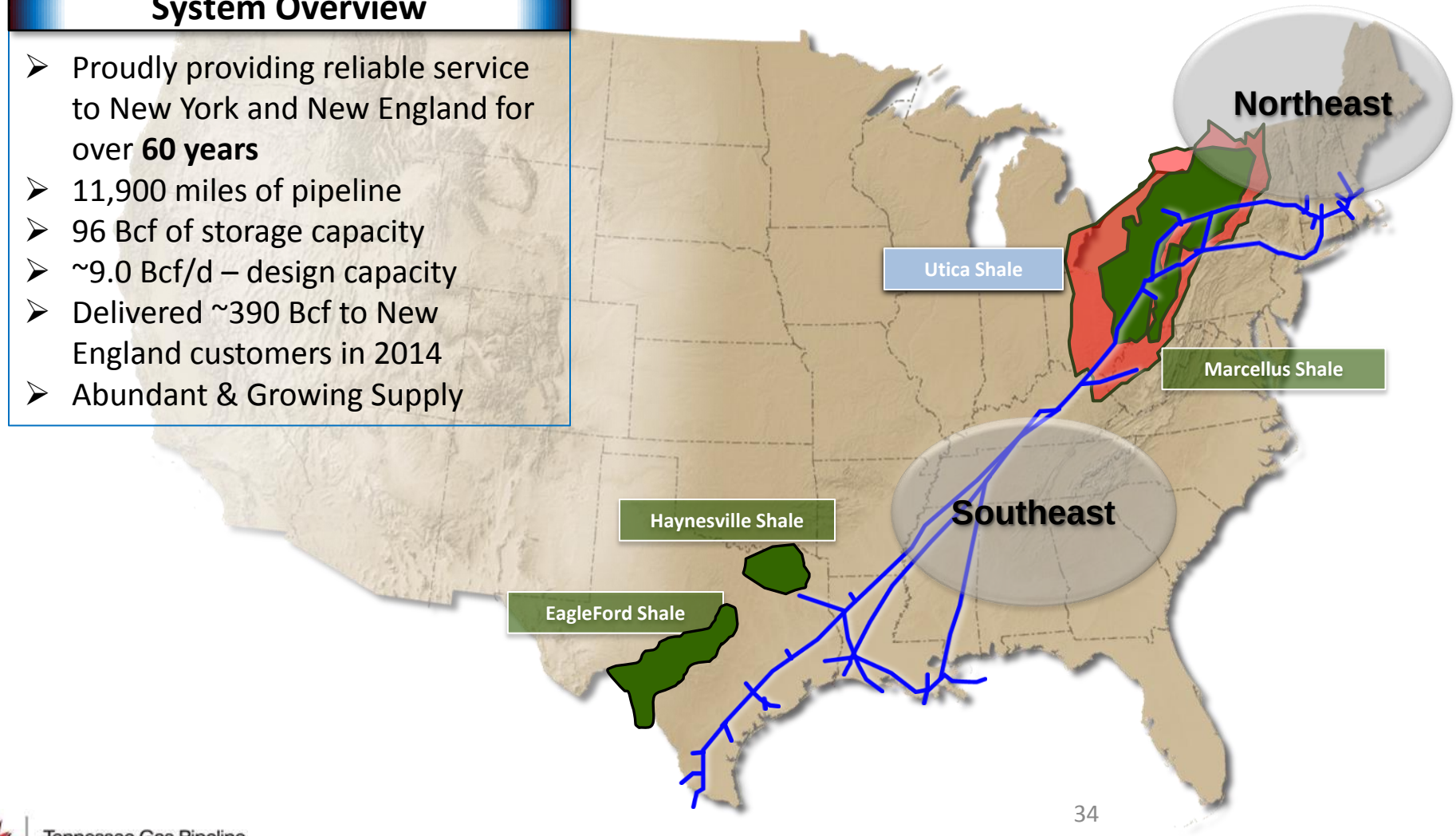
- 3rd largest energy company in N. America with an enterprise value of over $135 billion
- Over $22 billion of currently identified organic growth projects
- Largest natural gas network in N. America, Connected to every important U.S. natural gas resource play, including: **Eagle Ford, Marcellus, Utica, Bakken, Uinta, Haynesville, Fayetteville and Barnett**
- Largest independent transporter of petroleum products in N. America
- Largest transporter of CO_2 in N. America
- Largest independent terminal operator in N. America[(b)]
- Only Oilsands pipe serving West Coast



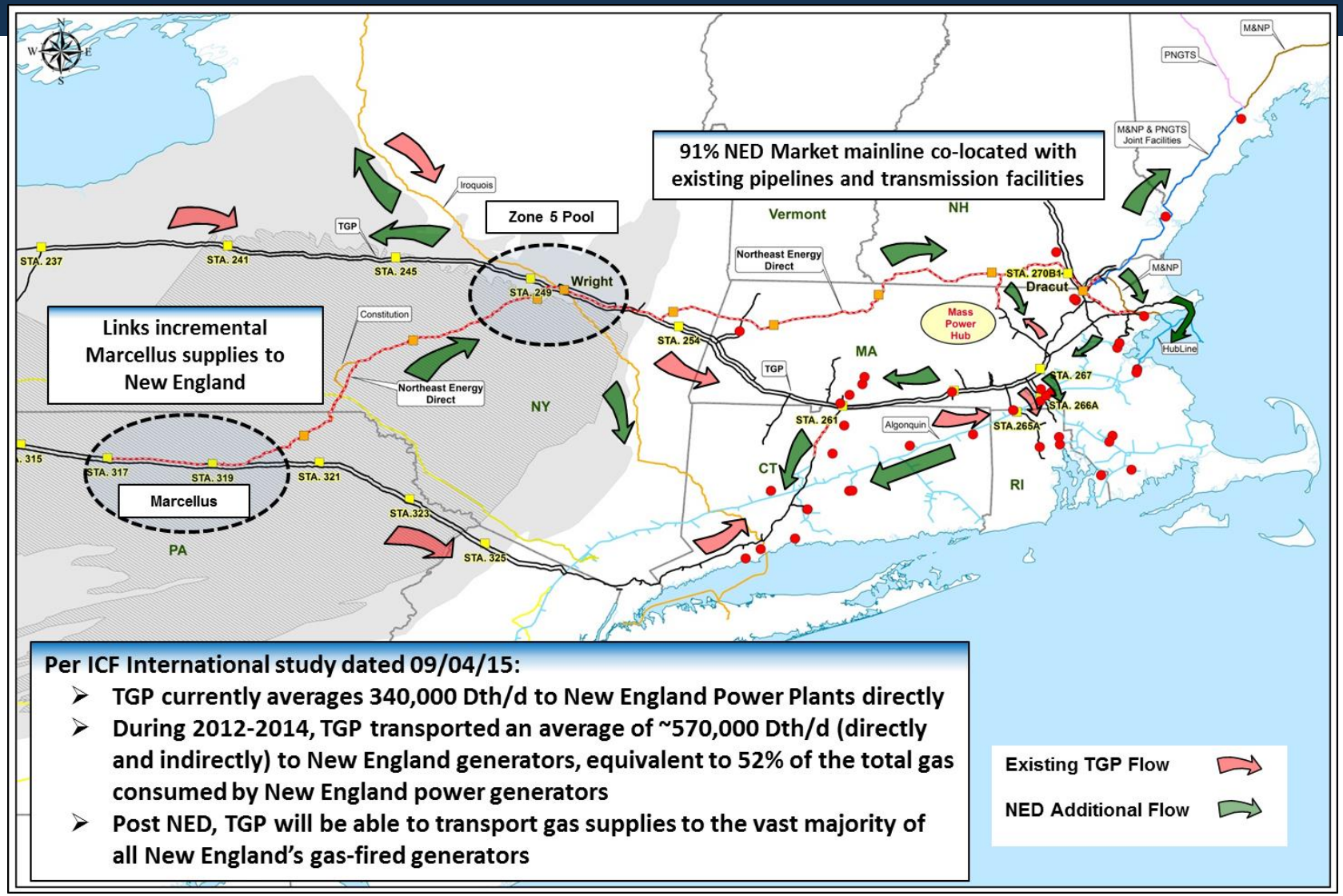
Tennessee Gas Pipeline (TGP)

System Overview

- Proudly providing reliable service to New York and New England for over **60 years**
- 11,900 miles of pipeline
- 96 Bcf of storage capacity
- ~9.0 Bcf/d – design capacity
- Delivered ~390 Bcf to New England customers in 2014
- Abundant & Growing Supply



Northeast Energy Direct Project (NED)



Per ICF International study dated 09/04/15:

- TGP currently averages 340,000 Dth/d to New England Power Plants directly
- During 2012-2014, TGP transported an average of ~570,000 Dth/d (directly and indirectly) to New England generators, equivalent to 52% of the total gas consumed by New England power generators
- Post NED, TGP will be able to transport gas supplies to the vast majority of all New England's gas-fired generators

Northeast Energy Direct – By the Numbers

- Market Path capacity of 1.3 Bcf/d
  - 30-inch pipe constitutes smaller footprint
  - Significantly reduces size of compressor stations
  - Approximately **91%** of the Market mainline path from Wright, N.Y. to Dracut, Mass. runs along existing energy infrastructure corridors

- Supply Path capacity of 1.2 Bcf/d
  - ~132 miles of new and co-located 30" pipeline
  - ~32 miles of 36" looping (TGP 300 Line)
  - Access up to **7 - 8 Bcf/d** of NE Pennsylvania production
  - Access to multiple producers
  - Liquidity at Wright, NY will be sufficient/significant for the market when both NED Supply and Constitution Pipeline **(650,000 Dth/d)** supplies are available at the same pricing location
  - Provides access to **TGP Northern Storage**

Northeast Energy Direct – Timeline

Milestone	Date
Conduct Open Houses (complete)	Jan – Aug 13, 2015
Conduct Community Informational Meetings	Ongoing
File ER Draft #1 (Resource Reports 1 through 12) (complete)	Mar 13, 2015
File ER Draft #2 (Resource Reports 1 through 12)	Jul 2015
FERC holds scoping meetings	Jul – Sep 29, 2015
File certificate application with FERC (includes final ER)	**Oct 2015**
Start Construction	**Jan 2017**
Anticipated in-service date for NED Project (mainline and certain laterals)	**Nov 1, 2018**

Northeast Energy Direct – Supply Path Commitments

Executed over **627,000 Dth/d** of agreements with producers, LDCs and market participants

KINDER MORGAN INC.

KINDER MORGAN ANNOUNCES ADDITIONAL GAS CAPACITY COMMITMENTS TO THE NORTHEAST ENERGY DIRECT PROJECT

New Agreements on the NED Supply Path Provide Additional Link from Abundant Natural Gas Fields in Pennsylvania to Existing, Future Northeast Markets

HOUSTON, Sept. 29, 2015 – Kinder Morgan, Inc. (NYSE: KMI) today announced that its subsidiary, Tennessee Gas Pipeline Company (TGP), has executed agreements with producers, local distribution companies (LDCs) and a New York end-use market participant totaling 627,000 dekatherms per day (Dth/d) for the Supply Path component of the proposed Northeast Energy Direct Project (NED). The agreements will provide a direct supply link from

Liquidity at Wright, NY will be sufficient/significant for the market when both NED Supply and Constitution Pipeline **(650,000 Dth/d)** supplies are available at the same pricing location

Northeast Energy Direct – Market Path Commitments

Executed over **550,000 Dth/d** of Anchor Shipper Precedent Agreements with key New England LDCs

- National Grid (MA) & (RI)
- Liberty Utilities (EnergyNorth Natural Gas) Corp. (NH)
- Columbia Gas of Massachusetts (MA)
- The Berkshire Gas Company (MA)
- Connecticut Natural Gas Corporation (CT)
- Southern Connecticut Gas Corporation (CT)
- Westfield Gas & Electric (MA)
- …and others

Northeast Energy Direct – The Right Solution for EDCs

PowerServe – The Basics

The new PowerServe service is specifically tailored to meet the needs of power generation.

- Power generators will have access to real-time natural gas supply
- Pipeline and natural gas storage facilities will provide the essential backbone of the suite of services offered through PowerServe
- The PowerServe service will be available on NED and TGP's legacy system based on facilities and available capacity

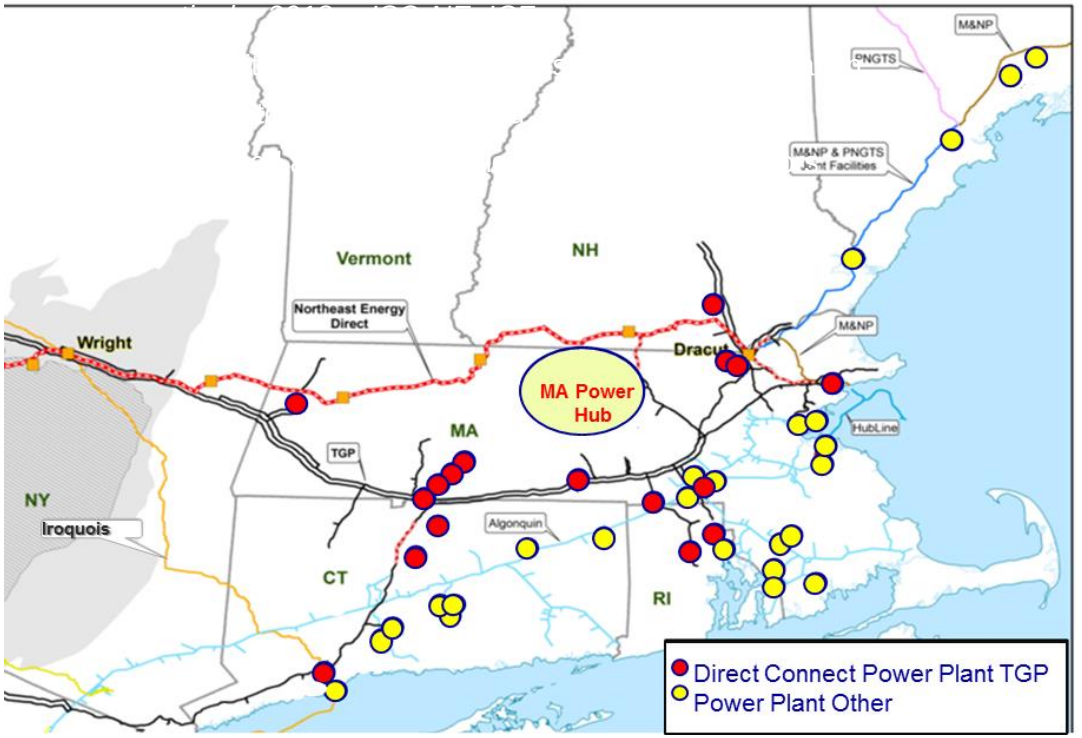
Current Supply to New England Power Generation

- *3,480 MW of coal, oil/gas and nuclear generation is at risk to*

Current TGP Served Power Generation in NE[1]

	Operating Capacity (MW)	Average Generation (GWh)	% of New England Total
TGP Direct Deliveries	4,894	17,080	32%
Indirect Deliveries via Supplying LDC's	827	1,601	3%
Indirect Deliveries via Supplying AGT	3,328	9,142	17%
Total TGP	**9,049**	**27,823**	**52%**

[1] - *Source: ICF Report: New England Energy Market Outlook, 09/04/15*



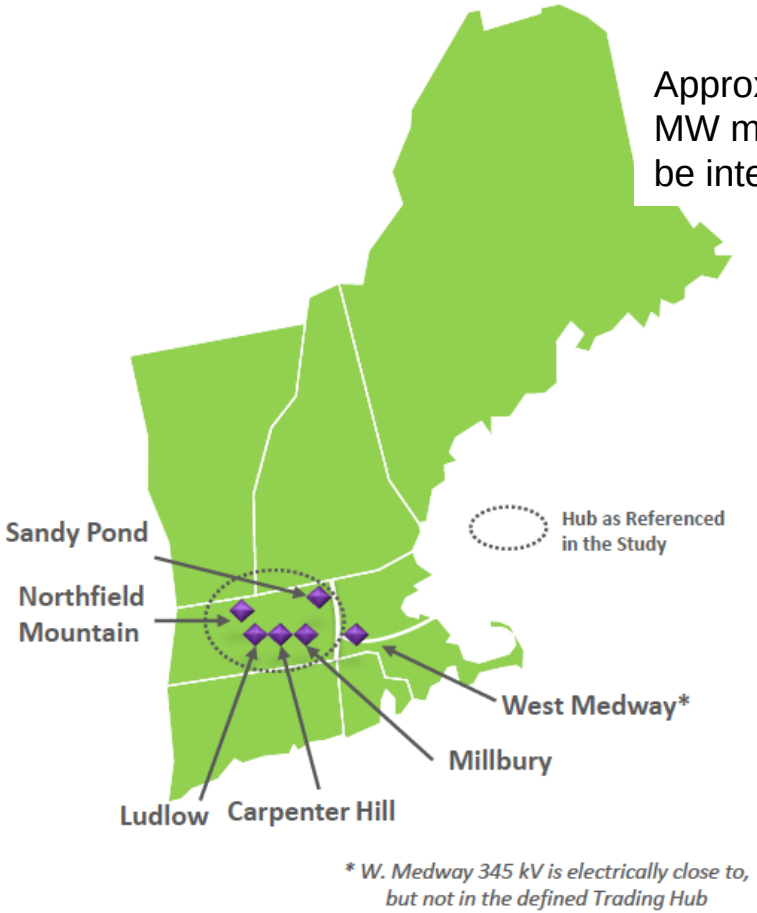
- 3,480 MW of coal, oil/gas and nuclear generation is at risk to retire by 2018 per ISO-NE, ICF
- Proximity to Mass Hub – likely siting of new generation
- Access to M&NP / PNGTS / AGT power load
- Increased ability to serve legacy system generators

Tennessee Gas Pipeline Company, L.L.C.
a Kinder Morgan company

Mass Hub – Ideal Location for New Generation

Application of New England Trading "Hub"

- New England Trading Hub (Hub) is a central trading location in energy market where no significant energy congestion is expected
  - 32 electrical buses/nodes in West-Central Massachusetts make up the Hub
  - Interconnection of new proxy generation at the Hub was represented by six 345 kV buses/nodes*
- Replacement resources needed were envisioned to be integrated at the Hub



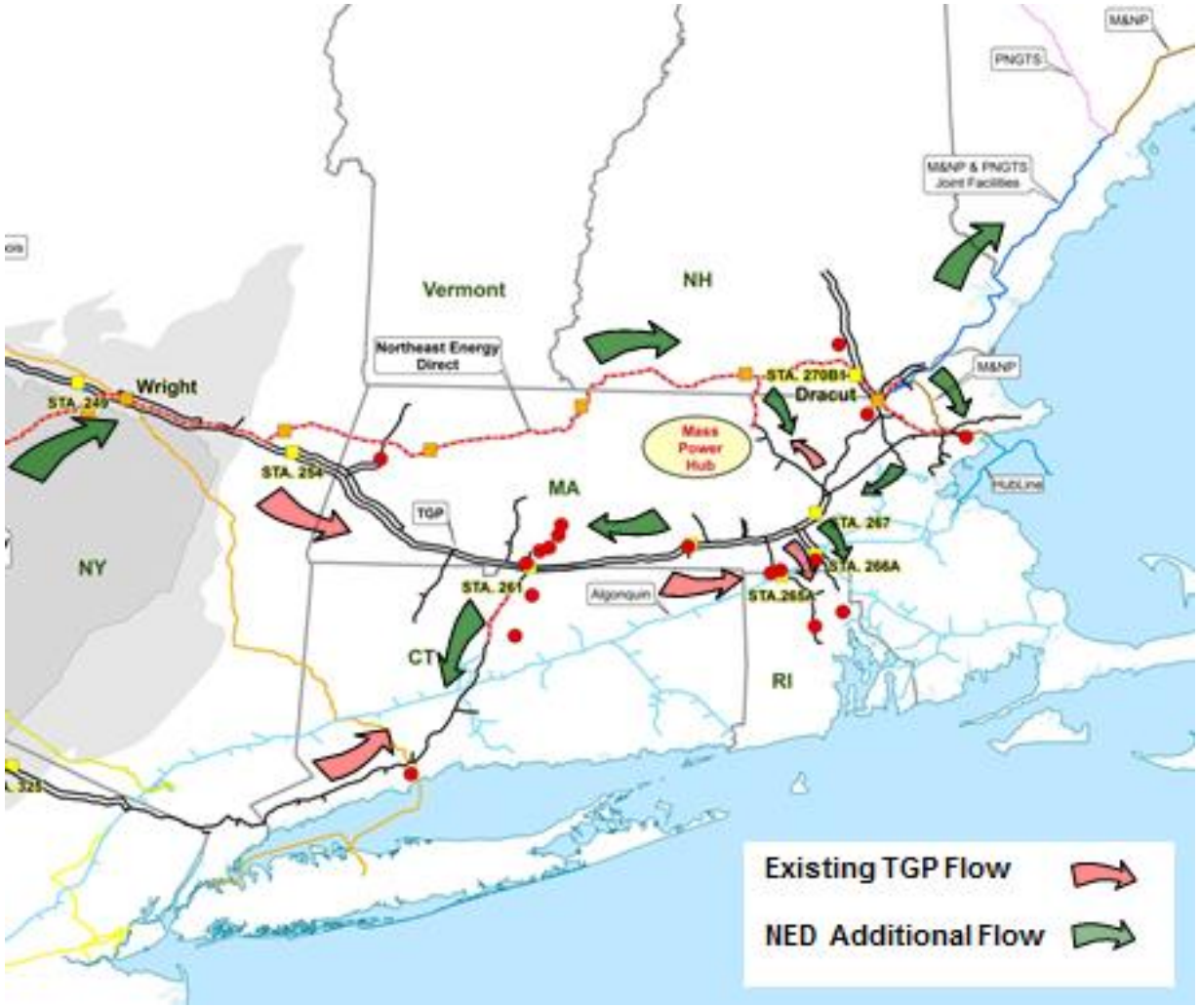
Approximately 5,000 MW may be needed to be integrated into Hub

** W. Medway 345 kV is electrically close to, but not in the defined Trading Hub*

ISO-NE Presentation Excerpts

Northeast Energy Direct – PowerServe Transportation

- **Firm** non-ratable hourly pipeline transportation service with optional **no-notice** component
- TGP will deliver natural gas to the power plant on behalf of Power Generator on a scheduled or no-notice basis
- Transport can be contracted for by Generator, EDC, or Asset Manager
- Offers **immediate response** to the Power Generator's needs on a firm basis during all times of the dispatch schedule
- PowerServe **Open Season** started on Sept. 9 and will close on Oct. 29



Northeast Energy Direct – Bridging Critical Power Gaps

- Balanced approach to solving long-term energy needs includes:
  - Large-scale renewables
  - Enhanced Demand Reduction programs
  - Expanding natural gas pipeline capacity to the region

- Opportunity for EDCs to lower energy costs and increase reliability to gas and power grids

- Natural Gas-Fired Generation Supports Renewables
  - Integrated response: **Not "either-or"**
  - Environmentally cleanest fossil fuel **allows conversion**
  - Provides **necessary and flexible backup source** of generation to support growth in wind and solar

Industry Research Supports the Need for NED

New study by ICF International concludes:

- NED could bring more stable prices, cost savings:
  - New Englanders could have saved approximately **$3.7 billion** in wholesale electricity costs during the 2013-2014 'Polar Vortex' had NED been in service
  - The additional gas capacity that NED would provide could generate **$2.1 billion to $2.8 billion** in annual savings going forward for New England electric consumers under normal weather conditions
  - Further analysis by Kinder Morgan finds that the estimated energy cost savings for 2013-2014 would equate to **$578** if spread across each of New England's 6.4 million households, and average **$437** each year per household over the next 10 years assuming normal weather conditions

Industry Research Supports the Need for NED

Further Conclusions:

- New England's demand for natural gas is projected to grow; current supply is inadequate
  - LDCs in New England project that residential and commercial gas demand will increase by **8 percent** over the next three years
  - The deficit between supply and demand in gas-fired electric generation and residential/commercial heating loads during normal winter weather conditions on a peak day in 2020 could approach **1.5 billion cubic feet (Bcf/d)** and be as high as **1.7 Bcf/d** on a "design day"
  - The duration of such deficits for electric generation during the winter could extend to **63 days** (over 41 percent of winter days)

- NED supports renewables, improves environmental benefits
  - Reduces power sector air emissions - NO_x, SO_2 and CO_2 - by lowering reliance on oil and coal-fired generation
  - Natural gas is a favorable base to the intermittent power production from renewables

NED – New Hampshire PUC Docket No. DG 14-380

- Order issued by the NH PUC approving the Liberty Utilities Precedent Agreement for the NED Market Path
- Excerpts:
  - *"The NED Pipeline will provide opportunities for **significant economic expansion** of EnergyNorth's distribution system and service **both in and outside** EnergyNorth's existing franchise territory."*
  - *"We also find promising the development of multiple pipeline projects to bring Marcellus gas to Wright; the new capacity back to Marcellus would provide EnergyNorth with **direct access to the lowest-priced gas supply** in the United States in place of access to the **highest priced gas** in the United States, **at Dracut**."*
  - *"We disagree with PLAN that EnergyNorth should have considered expansion of its LNG capacity to meet projected growth. The **LNG global market is unstable** and **may compromise the reliability of EnergyNorth's service to customers at the least cost**, particularly on a design day or during a design-season."*

NED – Massachusetts DPU EDC Decision

- DPU finds that "**increasing regional gas capacity will lead to lower wholesale gas and electricity prices** . . . . "innovative solutions" are required to alleviate capacity constraints and the price impact on Massachusetts ratepayers.
- DPU's finds that it has authority to approve contracts entered into by electric distribution companies (EDCs).
- EDC filings must **"demonstrate a competitive and transparent procurement, that avoids conflicts of interest . . . ."**

"TGP supported the utilization of an open and transparent process during its participation in the DPU proceedings.". . ."TGP's initiation last month of its Open Season for its innovative PowerServe transportation solution provides a competitive market alternative that will lead to lower consumer energy costs."

"We believe it is imperative that the states develop and post for comment an alternative competitive solicitation (RFP) process.". . ."Now all states are positioned to move forward on the EDC solution to benefit consumers."

- Kimberly S. Watson, President of TGP

Northeast Energy Direct – Benefits

- Transformative solution that will **lower** gas and electricity prices for all New England consumers
- Direct access to **incremental supply** from the most prolific shale play in North America
- Critical component to any regional solution to address **gas & electric reliability**
- Provides incremental supply to **all** New England **pipelines**
- Directly **replaces** declining Canadian **imports**
- Vital enabler of **renewables** growth efforts

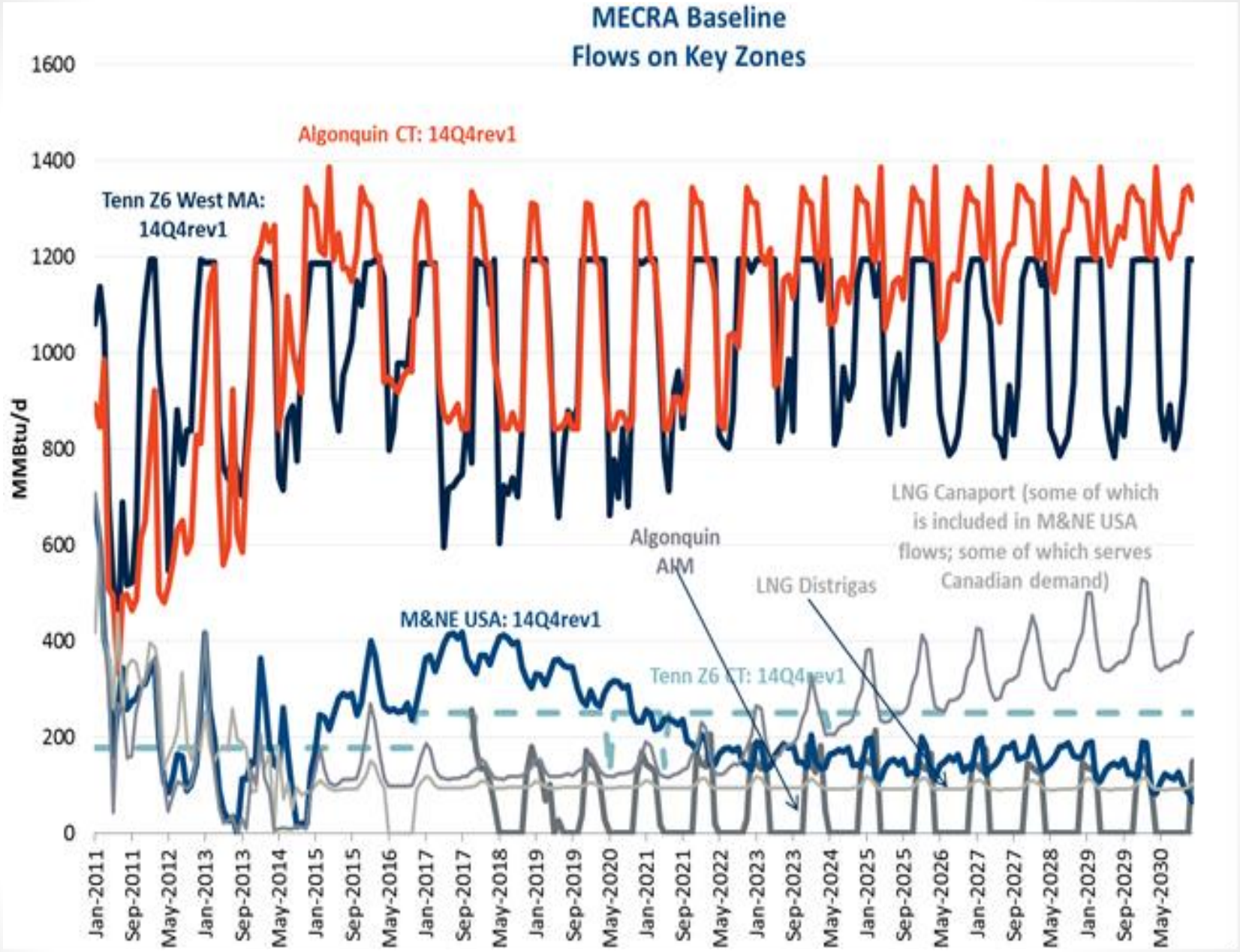
Contacts

Curtis Cole
Director, Business Development
Curtis_Cole@kindermorgan.com
713-420-3373 (office)
832-217-5161 (cell)

Office of the Public Advocate

Natural Gas: Energy for Maine's Future?!
October 8, 2015

Tim Schneider
Maine Public Advocate


MECRA Baseline
Flows on Key Zones
Algonquin CT: 14Q4rev1
Tenn Z6 West MA:
14Q4rev1
M&NE USA: 14Q4rev1
Tenn Z6 CT: 14Q4rev1
Algonquin
AIM
LNG Distrigas
LNG Canaport (some of which
is included in M&NE USA
flows; some of which serves
Canadian demand)
MMBtu/d
1600
1400
1200
1000
800
600
400
200
0
Jan-2011
Sep-2011
May-2012
Jan-2013
Sep-2013
May-2014
Jan-2015
Sep-2015
May-2016
Jan-2017
Sep-2017
May-2018
Jan-2019
Sep-2019
May-2020
Jan-2021
Sep-2021
May-2022
Jan-2023
Sep-2023
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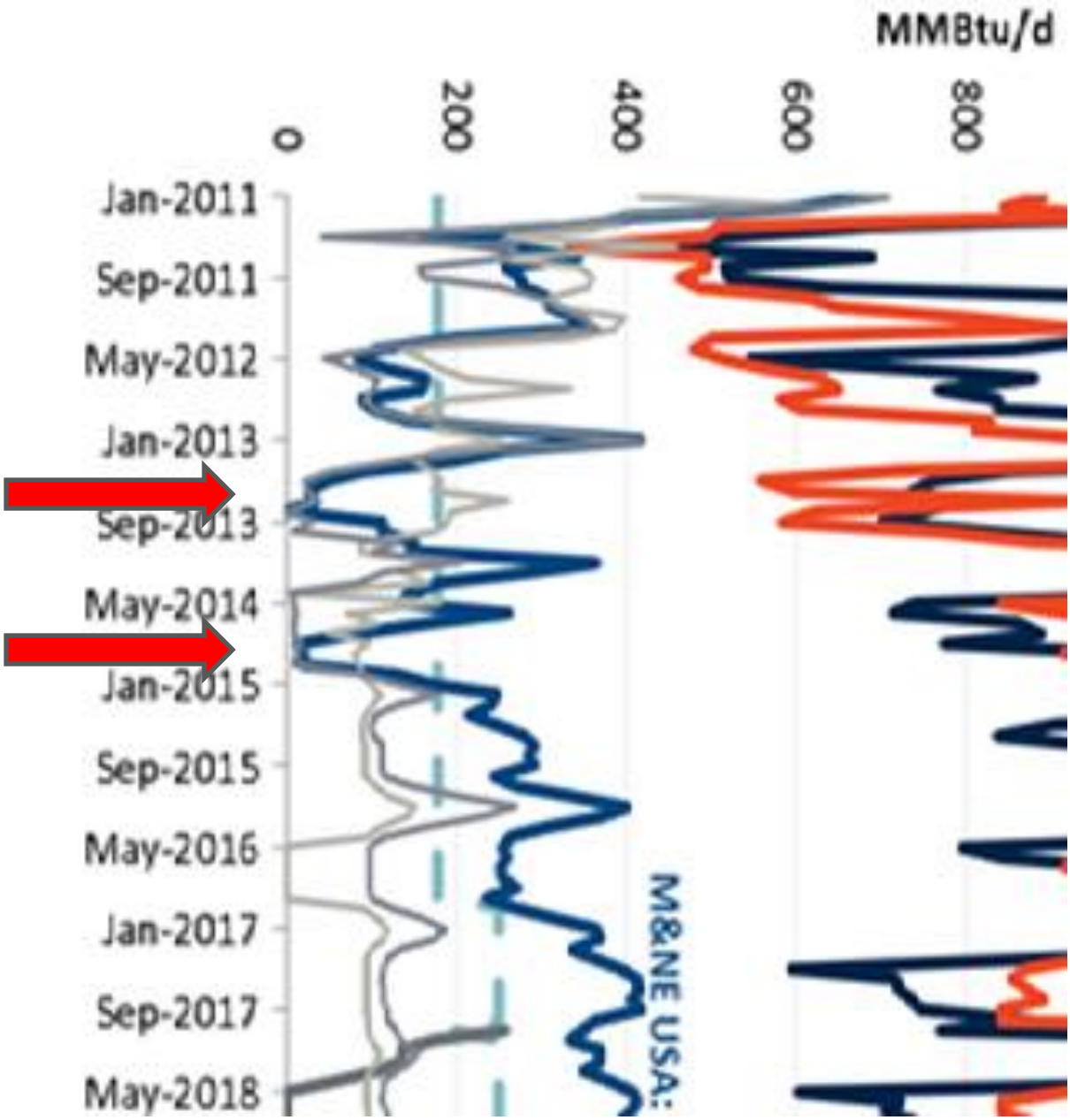
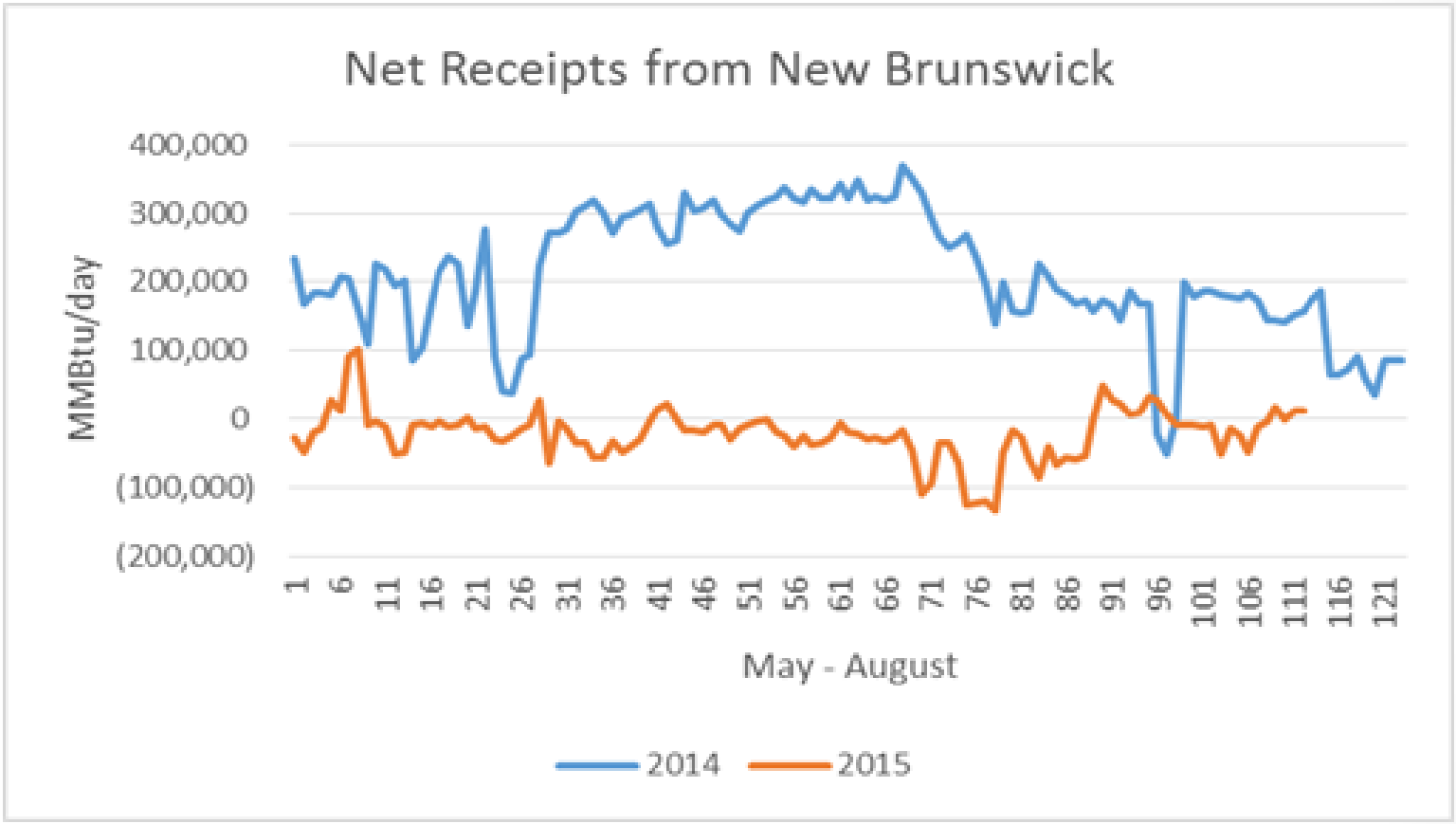
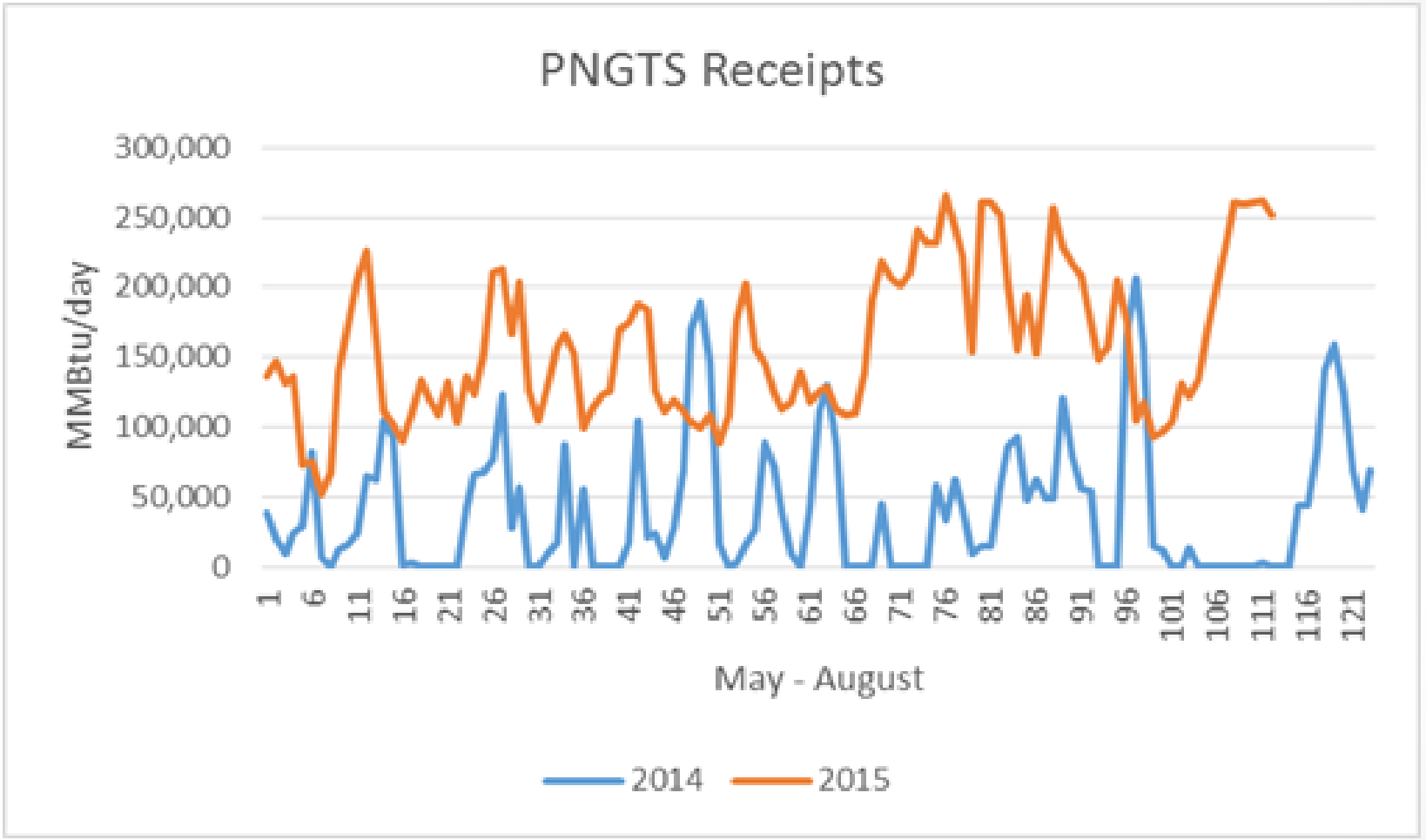
Jan-2029
Sep-2029
May-2030


MMBtu/d
0
200
400
600
800
Jan-2011
Sep-2011
May-2012
Jan-2013
Sep-2013
May-2014
Jan-2015
Sep-2015
May-2016
Jan-2017
Sep-2017
May-2018
M&NE USA:

Deep Panuke goes seasonal

- May 2015: *"To optimize the value of the asset, Encana adopted a seasonal production strategy for Deep Panuke . . . following a very good first quarter in 2015, we are shutdown and plan to resume production as we approach the winter season of higher demand for natural gas".*


Net Receipts from New Brunswick
400,000
300,000
200,000
100,000
0
(100,000)
(200,000)
MMBtu/day
1
6
11
16
21
26
31
36
41
46
51
56
61
66
71
76
81
86
91
96
101
106
111
116
121
May - August
2014
2015


PNGTS Receipts
300,000
250,000
200,000
150,000
100,000
50,000
0
MMBtu/day
1
6
11
16
21
26
31
36
41
46
51
56
61
66
71
76
81
86
91
96
101
106
111
116
121
May - August
2014
2015

ICE Cash Daily Prices (9/2014 – 9/2015)

	PNGTS - ACG		M&N - ACG
Annual	$ 0.28		$ 0.88
Summer	$ 0.90		$ 0.98
Winter	$ (0.45)		$ (0.30)
Annual	5%		17%
Summer	35%		38%
Winter	-5%		-3%

The new normal?!

- Summer:
  - No constraints on Algonquin
  - No production from Deep Panuke
  - No incentive for sendout from Canaport
  - . . . prices higher in Maine than at ACG
- Winter
  - Algonquin constrained
  - Deep Panuke production
  - ACG prices high enough for gas to flow from Canaport
  - . . . prices slightly lower in Maine than at ACG (compared to very high southern NE prices)

What next?!

- Summer:
  - No constraints on Algonquin
  - No production from Deep Panuke
  - No incentive for sendout from Canaport
  - . . . prices higher in Maine than at ACG
- Winter
  - ~~Algonquin constrained~~
  - ~~Deep Panuke production~~
  - ~~ACG prices high enough for gas to flow from Canaport~~
  - . . .