

ISO NY Electric Gas Coordination Working Group Meeting

March 5, 2012

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Topics



- Overview of Spectra Energy Transmission
- Growing Power Generation Demand
- Pipeline Design and Capacity Scheduling Priorities
- Outage Communications
- Expansion Projects

Spectra Energy U.S. Transmission Map





Texas Eastern/Algonquin Gas Transmission New York Area System Map





Algonguin Gas Transmission Company Suite 300-890 Winter Street, Waltham, MA. 02451, Algonguin does not guarantee the accuracy of this map nor the title delineation thereon, nor does Algonguin assume any responsibility or liability for any reliance thereon.

Power Plants Directly Served by Spectra Energy in Northeast





20 GW of power generation load attached to Texas Eastern and Algonquin in the Northeast and New England markets

AGT & Northeast TETLP Power Plants					
#	Plant Name	Capacity (MW)			
1	ANP Bellingham	576			
2	Bellingham	300			
3	Brayton Point	432			
4	Chambersburg	88			
5	CMEEC - Pierce Power	85			
6	Cromby	201			
7	Dartmouth Power	68			
8	Delmarva New Castle	311			
9	Dighton Power	168			
10	Duke Energy Fayette	700			
11	Duke Energy Hanging Rock	600			
12	Duke Energy Madison	1,200			
13	Duke Energy Washington	600			
14	Duke Energy Woodsdale	500			
15	Eddystone	760			
16	EW Brown Generating Station	800			
17	Gray's Ferry	150			
18	Hunterstown	903			
19	Ironwood	765			
20	JK Smith Power Plant	800			
21	Kleen Energy	620			
22	Lake Road	750			
23	Liberty Electric	610			
24	Manchester Street	489			
25	Martins Creek	1.664			
26	Middletown	367			
27	Milford Power	140			
28	Mirant Canal	295			
29	Montville	78			
30	Ocean State Power	500			
31	Ontelaunee	728			
32	Potter Street (BELD I)	77			
33	Genconn Power	200			
34	Fore River	801			
35	Tenaska Rolling Hills	815			
36	Tiverton	267			
37	TMLP	118			
38	Wallingford Energy	244			
39	Waterford	800			
40	Watson Generating (BELD II)	116			
41	West Medway Edison	173			
42	DPL Tait	576			

Growing Power Generation Demand Texas Eastern Market Area – Annual 2011/12

Innovate... Invest... Deliver.

Growing Power Generation Demand Texas Eastern Market Area - Winter 2011/12

Innovate... Invest... Deliver.

Growing Power Generation Demand Algonquin Gas Transmission - Annual 2011/12

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Growing Power Generation Demand Algonquin Gas Transmission - Winter 2011/12

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Key Issue Firm Capacity Held by Power Generators

	<u>Texas Eastern</u>	<u>Algonquin</u>
Non-Coincidental Burn Potential	1,739 MDth / D	890 MDth / D
Coincidental Peak Day (Summer)	1,536 MDth / D	822 MDth / D
Coincidental Peak Day (Winter)	1,193 MDth / D	632 MDth / D
Contracted Mainline Capacity	276 MDth / D	125 MDth / D
Ratio of Generators' Firm Capacity vs. Winter 2011/12 Peak Day	23.1%	19.8%
Ratio of Non-Generators' Firm Capacia vs. Winter 2011/12 Peak Day	ty 123%	120%

- Facilities designed to support **primary firm obligations** even though actual operation may differ from these obligations
- Assumes all primary firm contracts are flowing coincidentally at 100% contract quantity representing a peak day scenario
- No extra capacity exists above the coincidental peak day firm capacity
- Design Considerations quantity, delivery pattern (uniform or transient), pressure, temperature, distance, elevation, pipe wall friction (efficiency), compression HP style/size etc.

Pipeline Capacity Scheduling Priorities

- General hierarchy of transport services
- Priority 1: Primary Receipt to Primary Delivery
- Priority 2: Secondary within contracted path
- Priority 3A: Secondary outside of path if restriction is in contract path
- Priority 3B: Secondary outside of path if restriction is outside the contract path
- Interruptible Transportation
- Imbalance Service
- Park and Loan

Scheduling Gas: The NAESB Gas Nomination Timeline

Cycle	Nomination Deadline	Confirmation Deadline	Scheduling Deadline	Gas Flows
Timely (Cycle 1)	11:30 a.m. the day before the gas flows	3:30 P.M. the day before gas flows	4:30 p.m. the day before the gas flows	9:00 a.m. (next day)
Evening (Cycle 2) (bumping allowed)	6:00 p.m. the day before the gas flows	9:00 p.m . the day before the gas flows	10:00 p.m. the day before the gas flows	9:00 a.m. (next day)
Intraday 1 (Cycle 3) (bumping allowed)	10:00 a.m. the gas day	1:00 p.m. the gas day	2:00 p.m. the gas day	5:00 p.m. (current day)
Intraday 2 (Cycle 4) (no bumping)	5:00 p.m. the gas day	8:00 p.m. the gas day	9:00 p.m. the gas day	9:00 p.m. (current day)

- Actual flow flexibility is limited to nominated/scheduled services on high demand days. Likely, no services other than firm transport are available...No IT
- Delivery Points without scheduled supply nominations will highly likely not be allowed to flow
- Supply/demand imbalances are monitored very closely to insure that all customers receive their scheduled volumes

- There are no operational impediments to serving electric generators provided that the generator has contracted for the appropriate pipeline transportation service.
- Pipelines can meet generator pressure requirements and load variations – when properly contracted
- In the northeast, generators typically access pipeline capacity through the secondary market via capacity release or IT on days when it is not needed by firm customers.
- When a pipeline cannot schedule interruptible transportation, it is not a gas reliability issue. It is a customer contracting issue.
- Pipelines will readily build infrastructure for additional capacity based on a customer's firm contract commitment.

- Algonquin and Texas Eastern's EBB Postings
- Calls as Needed between Gas Control and Scheduling
- Periodic Meetings with Customers
- Communication Postings Occur During All Outages for Material Changes to the Original Plan

2011-2013 Northeast Projects In Service and In Execution

Executing on Projects to Deliver new Supplies to the growing Markets in the Northeast

Northeast Expansion Opportunities

Connecting Marcellus & Utica Supplies to Our Diverse Markets

Questions