

EXHIBITS JAR 1-28

DG 17-198

JOHN A. ROSENKRANZ

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PROFESSIONAL EXPERIENCE

North Side Energy, LLC, Acton, MA 2006 – Present
PRINCIPAL

Consultant to energy companies, government agencies and natural gas consumers. Project areas include:

- Gas distribution company resource planning and procurement practices.
- Fuel supply for power generation and electric-gas interface issues.
- Natural gas transmission and storage cost allocation.
- Market studies and avoided cost analysis.

Calpine Corporation, Boston, MA 2000 – 2006
DIRECTOR, GAS ORIGINATION

Developed and implemented fuel supply plans for gas-fired power plants in the Northeast U.S. and Eastern Canada. Negotiated and managed contracts with natural gas suppliers and transporters.

- Testified on the availability of natural gas supply and pipeline delivery capacity to support the permitting of a gas-fired power plant in the Midwest.
- Part of a commercial/legal team that obtained favorable arbitration decisions enforcing long-term natural gas contracts.

PG&E Gas Transmission, Boston, MA and Portland, OR 1997 – 1999
DIRECTOR, BUSINESS DEVELOPMENT

Identified and managed development projects and investment opportunities involving natural gas pipelines, underground storage and LNG peaking plants.

- Project manager for a natural gas storage feasibility study in the Pacific Northwest.
- Owner representative and management committee member for the Iroquois Gas Transmission System and Portland Natural Gas Transmission System partnerships.

J. Makowski Co. (acquired by U.S. Generating Company), Boston, MA 1992 – 1997
MANAGER, PROJECT DEVELOPMENT

Supervised a team that provided project management and marketing support for natural gas pipeline and storage projects. Conducted regional gas market studies for internal projects and outside clients.

VICE PRESIDENT - EnerPro, Inc., Chicago, IL 1990 – 1992
Gas supply consultant to gas distribution companies. Helped clients define gas portfolio objectives, draft requests for proposals, evaluate suppliers, and negotiate long-term gas purchase contracts.

MANAGER, GAS MODELING GROUP - Planmetrics, Inc., Chicago, IL 1986 – 1990
Provided consulting support to gas supply planners at local distribution companies.

ADVISORY ECONOMIST - Chicago Board of Trade, Chicago, IL 1983 – 1986
Researched commodity markets for futures and options trading potential. Prepared a natural gas futures trading proposal that was submitted to the Commodity Futures Trading Commission.

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EDUCATION

Graduate study in Economics - Northwestern University, Evanston, IL
Completed all course and examination requirements for Ph.D.

Bachelor of Arts, Economics - George Washington University, Washington, DC

REGULATORY PROCEEDINGS

Natural Gas Supply Planning and Cost of Gas

Bangor Natural Gas Company Request for Contract Approvals

Case#: Maine PUC Docket 2019-00105

Client: Maine Public Advocate

Scope: Testimony on proposed long-term pipeline transportation service agreements.

Maine Natural Gas Underbilling Investigation

Case#: Maine PUC Docket 2017-0209

Client: Maine Public Advocate

Scope: Testimony on the cost of gas impact of utility billing errors.

Berkshire Gas Company 2016 Integrated Resource Plan

Case#: Massachusetts DPU Docket 16-103

Client: Town of Montague

Scope: Testimony on alternatives to ending Berkshire's moratorium on new gas service.

Berkshire Gas Company Long Term Contract Approval

Case#: Massachusetts DPU Docket 15-178

Client: Town of Montague

Scope: Testimony on alternatives to a proposed long-term pipeline transportation contract.

Northern Utilities, Inc. Retail Choice Program

Case#: Maine PUC Docket 2014-00132

Client: Maine Public Advocate

Scope: Testimony and surrebuttal testimony on proposed changes to retail choice program

Northern Utilities, Inc. Cost of Gas

Case#: Maine PUC Docket 2015-00041

Client: Maine Public Advocate

Scope: Testimony on the distribution of pipeline rate refund.

Liberty Utilities (EnergyNorth) Proposed Transportation Agreement with Tennessee Gas Pipeline

Case #: New Hampshire PUC Docket 14-380

Client: Pipe Line Awareness Network for the Northeast, Inc.

Scope: Testimony on alternatives to a proposed long-term pipeline transportation contract.

Northern Utilities, Inc. Integrated Resource Plans

Case #: Maine PUC Dockets 2015-00018 and 2011-00526

Client: Maine Public Advocate

Scope: Prepare discovery requests and participate in technical conferences.

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Northern Utilities, Inc. Cost of Gas Factor Cases

Case #: Annual, 2012 to present.

Client: Maine Public Advocate

Scope: Review cost of gas filings. Prepare discovery requests and participate in technical conferences.

New Jersey Natural Gas Company Basic Gas Supply Service Reviews

Case #: Annual. 2012 to 2017.

Client: New Jersey Division of Rate Counsel

Scope: Draft discovery requests, prepare written report, and support settlement negotiations.

South Jersey Gas Company Basic Gas Supply Service Reviews

Case #: Annual. 2013 to present

Client: New Jersey Division of Rate Counsel

Scope: Draft discovery requests, prepare written report, and support settlement negotiations.

Elizabethtown Gas Capacity Management Plan

Case#: New Jersey BPU Docket GO13040272

Client: New Jersey Division of Rate Counsel

Scope: Prepare discovery requests and participate in settlement negotiations.

Northern Utilities Hedging Program Review

Case #: Maine PUC Docket 2012-00448

Client: Maine Public Advocate

Scope: Review proposed changes to hedge program. Participate in technical conferences

UNS Gas Inc. Rate Case

Case #: Arizona Corporation Commission Docket No. G-04204A-11-0158

Client: Arizona Corporation Commission Utilities Division Staff

Scope: Review gas procurement activities. Testimony with findings and recommendations.

Cost Allocation and Rates

Union Gas 2014 Rate Case

Case #: Ontario Energy Board Case EB-2013-0365

Client: Canadian Manufacturers & Exporters and other consumer groups

Scope: Testimony recommending changes to the allocation of transmission costs.

Union Gas 2013 Rate Case

Case #: Ontario Energy Board Case EB-2011-00210

Client: Canadian Manufacturers & Exporters and other consumer groups

Scope: Testimony on the allocation of storage and transmission costs.

Union Gas 2010 Earning Sharing and Deferral Accounts Proceeding

Case #: Ontario Energy Board Case EB-2011-0038

Client: Canadian Manufacturers & Exporters and other consumer groups

Scope: Testimony on allocation of storage costs and margins between utility and non-utility operations.

Northern Utilities Approval of Affiliated Interest Transaction

Case #: Maine PUC Dockets 2011-00302, 2012-00393, and 2013-00259

Client: Maine Public Advocate

Scope: Review proposed contract with pipeline affiliate. Examine rate implications for sales customers.

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Northern Utilities, Inc. Rate Case

Case #: Maine PUC Docket 2011-00092

Client: Maine Public Advocate

Scope: Filed testimony on cost issues related to gas supply activities.

Florida Gas Transmission Rate Case

Case #: FERC Docket No. RP10-21

Client: Atlantic Power Corporation

Scope: Support Atlantic Power's participation in shipper group opposing rate increase.

Granite State Gas Transmission, Inc. Rate Case

Case #: FERC Docket No. RP10-896

Clients: Maine Public Advocate and MPUC Staff

Scope: Review rate case application. Participate in settlement negotiations.

Maritimes & Northeast Rate Case

Case #: FERC Docket No. RP04-360

Client: Calpine Corporation

Scope: Testimony on distance-based rates.

Natural Gas Markets

Merger of The Southern Company and AGL Resources, Inc.

Case #: New Jersey BPU Docket GM15101196

Client: New Jersey Division of Rate Counsel

Scope: Testimony on potential affiliate preference in asset management arrangement.

Union Gas 2016 Dawn Parkway Expansion Project

Case #: Ontario Energy Board Case EB-2014-0261

Client: Canadian Manufacturers & Exporters and other consumer groups

Scope: Testimony on market developments that may reduce Northeast U.S. companies' demand for Canadian gas transportation services.

Ontario Natural Gas Market Review

Case #: Ontario Energy Board Cases EB-2014-0289 and EB-2010-0199

Client: Canadian Manufacturers & Exporters and other consumer groups

Scope: Written and oral submissions on natural gas market issues.

Enbridge Gas Distribution GTA Project

Case #: Ontario Energy Board Case EB-2012-0451

Client: Green Energy Coalition

Scope: Prepare discovery requests on the need for a proposed expansion project.

Portland Natural Gas Transmission System Rate Case

Case #: FERC Docket RP10-729

Client: Maine Public Advocate

Scope: Rebuttal testimony on the market risks faced by the pipeline.

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Natural Gas for Power Generation

New Jersey Natural Gas Service Agreement for Red Oak Power

Case #: New Jersey BPU Docket GO13010059

Client: New Jersey Division of Rate Counsel

Scope: Prepare discovery requests and participate in settlement negotiations.

Ontario Integrated Power System Plan

Case #: OEB Case EB-2007-0707

Client: Ontario Power Authority

Scope: Report on the implications of increased gas-fired power generation for the Ontario gas market.

Natural Gas Electricity Interface Review

Case #: OEB Case EB-2005-0551

Client: Association of Power Producers of Ontario

Scope: Written evidence on power generators' gas service needs. Expert witness at hearing.

Greenfield Energy Centre Leave to Construct

Case#: Ontario Energy Board Case EB-2005-0441

Client: Greenfield Energy Centre

Scope: Witness supporting a generator's application to construct its own gas supply pipeline.

Mankato Energy Center

Case #: Minnesota PUC Case IP-6345/CN-03-1884

Client: Calpine Corporation

Scope: Testimony on the availability of natural gas for power generation in Minnesota.

Wisconsin Electric Power

Case #: Wisconsin PSC Case 05-CE-130

Client: Calpine Corporation

Scope: Rebuttal testimony on the availability of natural gas for power generation in Wisconsin.

Rulemaking

Storage and Transportation Access Rules

Case #: Ontario Energy Board Case EB-2008-0052

Client: Ontario Energy Board Staff

Scope: Report on transporter and storage operator conduct and reporting requirements in other jurisdictions. Assist Staff in drafting proposed rules and reviewing intervenor comments.

Guidelines for Pre-Approval of Long-Term Gas Supply Contracts

Case #: Ontario Energy Board Case EB-2008-0280

Client: Ontario Energy Board Staff

Scope: Assist Board Staff in evaluating policy options.

**Granite Bridge Pipeline
EPC Construction Cost Estimates**

<u>Items</u>	<u>Average Cost Estimate</u>
Conventional Construction	\$ 72,761,282
HDD Construction	\$ 22,696,064
Pipe Materials	\$ 356,638
Pipe	\$ 16,151,974
Gate Stations	\$ 8,899,413
Workspace	\$ 4,140,567
Environmental	\$ 3,353,102
NDE/Inspection	\$ 7,173,248
Traffic Control	\$ 3,993,600
Restoration	\$ 9,835,599
SUB-TOTAL	\$ 149,361,486
Contingency	\$ 12,609,765
Development/Overheads	\$ 5,734,649
TOTAL Capex	\$ 167,705,900
AFUDC	\$ 11,251,476
TOTAL	\$ 178,957,376

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 4

Date Request Received: 6/26/18
Request No. PLAN 4-3

Date of Response: 7/10/18
Respondent: Francisco C. DaFonte
James M. Stephens

REQUEST:

Reference: Killeen/Stephens Direct Testimony, Bates at 203. Please modify Table 11 to show the projected design day deficiency/reserve with Granite Bridge pipeline and LNG included, both with and without propane.

RESPONSE:

The Granite Bridge Project, which consists of the Granite Bridge Pipeline and the Granite Bridge LNG facility, provides the Company with the opportunity to significantly increase the reliability, diversity, flexibility, and resiliency of the gas supply portfolio. By way of example, the vaporization construct allows the Company to run one, two, or all three vaporizers, thus providing EnergyNorth with unprecedented flexibility and reliability (i.e., one of the vaporizers could be in stand-by mode, thus providing reliability should a vaporizer fail or an upstream resource be curtailed). This type of reliability and flexibility is simply not available in the Company's current propane or LNG facilities or in the broader gas supply portfolio. In addition, the Granite Bridge Pipeline provides another physical delivery option for the Company, thus removing the near sole reliance on the Tennessee Gas Pipeline ("TGP") for the delivery of gas supplies from the TGP Mainline to the TGP Concord Lateral to the Company's city-gates.

As shown by Table PLAN 4-3.1 below, and assuming that the propane facilities are retired, the Company's design day requirements exceed the capacity of one vaporizer in 2022/23, or just one year after the in-service date of the Granite Bridge LNG facility. In other words, the Company needs two vaporizers to meet forecasted Design Day demand from almost day one from the in-service date of the Granite Bridge LNG facility. In addition, given the reliance on both vaporizers for demand during extreme weather conditions when equipment is operating at or near capacity, having a third vaporizer to provide reliability is simply prudent planning. By 2035, the Design Day demand is near or above the capacity of two vaporizers, thus requiring all three vaporizers to meet Design Day demand. Lastly, the Granite Bridge LNG facility provides the Company not only with significant reliability and flexibility on Design and peak day conditions, but is a source of 2 Bcf of in-state, physical gas supply at a summer gas price, which

Docket No. DG 17-198 Request No. PLAN 4-3

provides a physical hedge against price volatility that would obviate the need for the Company’s current hedging program.

Table PLAN 4-3.1: EnergyNorth Design Day Resource Shortfall, with Addition of Proposed Resource Options and Excluding Propane (Dth)¹

Split-Year (Nov-Oct)	Revised Design Day Demand (CLF Tech 1-2)	Current Design Day Resources	Excluding Propane				
			Reserve / (Deficiency)	Reserve / (Deficiency), including ENGIE	Reserve / (Deficiency), including ENGIE and TCPL/PNGTS	Reserve / (Deficiency), incl. ENGIE, TCPL/PNGTS, and Granite Bridge LNG (2 Vaporizers)	Reserve / (Deficiency), incl. ENGIE, TCPL/PNGTS, and Granite Bridge LNG (3 Vaporizers)
2017/18	157,848	127,433	(30,415)	(30,415)	(30,415)	(30,415)	(30,415)
2018/19	164,571	120,433	(44,138)	(37,138)	(37,138)	(37,138)	(37,138)
2019/20	167,643	120,433	(47,210)	(40,210)	(40,210)	(40,210)	(40,210)
2020/21	168,942	120,433	(48,509)	(41,509)	(41,509)	(41,509)	(41,509)
2021/22	174,618	120,433	(54,185)	(47,185)	(42,185)	(42,185)	(42,185)
2022/23	184,000	120,433	(63,567)	(63,567)	(58,567)	41,433	91,433
2023/24	188,352	120,433	(67,919)	(67,919)	(62,919)	37,081	87,081
2024/25	192,033	120,433	(71,600)	(71,600)	(66,600)	33,400	83,400
2025/26	195,542	120,433	(75,109)	(75,109)	(70,109)	29,891	79,891
2026/27	198,777	120,433	(78,344)	(78,344)	(73,344)	26,656	76,656
2027/28	201,364	120,433	(80,931)	(80,931)	(75,931)	24,069	74,069
2028/29	204,235	120,433	(83,802)	(83,802)	(78,802)	21,198	71,198
2029/30	206,906	120,433	(86,473)	(86,473)	(81,473)	18,527	68,527
2030/31	209,593	120,433	(89,160)	(89,160)	(84,160)	15,840	65,840
2031/32	212,031	120,433	(91,598)	(91,598)	(86,598)	13,402	63,402
2032/33	214,448	120,433	(94,015)	(94,015)	(89,015)	10,985	60,985
2033/34	216,822	120,433	(96,389)	(96,389)	(91,389)	8,611	58,611
2034/35	218,944	120,433	(98,511)	(98,511)	(93,511)	6,489	56,489
2035/36	220,704	120,433	(100,271)	(100,271)	(95,271)	4,729	54,729
2036/37	222,599	120,433	(102,166)	(102,166)	(97,166)	2,834	52,834
2037/38	224,511	120,433	(104,078)	(104,078)	(99,078)	922	50,922

¹ As discussed in the Direct Testimony of William R. Killeen and James M. Stephens, the 2017/18 Design Day resources include the contract with ENGIE for a combination liquid/vapor service for up to 7,000 Dth per day, which terminates on March 31, 2018.

**Table PLAN 4-3.2: EnergyNorth Design Day Resource Shortfall,
with Addition of Proposed Resource Options and Including Propane (Dth)²**

Split-Year (Nov-Oct)	Revised Design Day Demand (CLF Tech 1- 2)	Including Propane					
		Current Design Day Resources	Reserve / (Deficiency)	Reserve / (Deficiency), including ENGIE	Reserve / (Deficiency), including ENGIE and TCPL/PNGTS	Reserve / (Deficiency), incl. ENGIE, TCPL/PNGTS, and Granite Bridge LNG (2 Vaporizers)	Reserve / (Deficiency), incl. ENGIE, TCPL/PNGTS, and Granite Bridge LNG (3 Vaporizers)
2017/18	157,848	162,033	4,185	4,185	4,185	4,185	4,185
2018/19	164,571	155,033	(9,538)	(2,538)	(2,538)	(2,538)	(2,538)
2019/20	167,643	155,033	(12,610)	(5,610)	(5,610)	(5,610)	(5,610)
2020/21	168,942	155,033	(13,909)	(6,909)	(6,909)	(6,909)	(6,909)
2021/22	174,618	155,033	(19,585)	(12,585)	(7,585)	(7,585)	(7,585)
2022/23	184,000	155,033	(28,967)	(28,967)	(23,967)	76,033	126,033
2023/24	188,352	155,033	(33,319)	(33,319)	(28,319)	71,681	121,681
2024/25	192,033	155,033	(37,000)	(37,000)	(32,000)	68,000	118,000
2025/26	195,542	155,033	(40,509)	(40,509)	(35,509)	64,491	114,491
2026/27	198,777	155,033	(43,744)	(43,744)	(38,744)	61,256	111,256
2027/28	201,364	155,033	(46,331)	(46,331)	(41,331)	58,669	108,669
2028/29	204,235	155,033	(49,202)	(49,202)	(44,202)	55,798	105,798
2029/30	206,906	155,033	(51,873)	(51,873)	(46,873)	53,127	103,127
2030/31	209,593	155,033	(54,560)	(54,560)	(49,560)	50,440	100,440
2031/32	212,031	155,033	(56,998)	(56,998)	(51,998)	48,002	98,002
2032/33	214,448	155,033	(59,415)	(59,415)	(54,415)	45,585	95,585
2033/34	216,822	155,033	(61,789)	(61,789)	(56,789)	43,211	93,211
2034/35	218,944	155,033	(63,911)	(63,911)	(58,911)	41,089	91,089
2035/36	220,704	155,033	(65,671)	(65,671)	(60,671)	39,329	89,329
2036/37	222,599	155,033	(67,566)	(67,566)	(62,566)	37,434	87,434
2037/38	224,511	155,033	(69,478)	(69,478)	(64,478)	35,522	85,522

² As discussed in the Direct Testimony of William R. Killeen and James M. Stephens, the 2017/18 Design Day resources include the contract with ENGIE for a combination liquid/vapor service for up to 7,000 Dth per day, which terminates on March 31, 2018.

Granite Bridge LNG EPC Construction Cost Estimates

		2 Bcf Case	1.2 Bcf Case	1.5 Bcf Case
	Liquefaction (MMscfd)	10	8	8
	Storage (BCF)	2	1.2	1.5
	Vaporization (MMscfd)	150	150	150
ITEM	DESCRIPTION	Full Containment	Full Containment	Full Containment
1	Project Development - General			
a	Site Evaluation/assessment	\$ 235,000	\$ 235,000	\$ 235,000
b	Land Option	\$ 25,000	\$ 25,000	\$ 25,000
c	Preliminary Design	\$ 200,000	\$ 200,000	\$ 200,000
d	Community/Government Outreach	\$ 230,000	\$ 230,000	\$ 230,000
e	EPC RFP & Detailed Construction Estimate	\$ 250,000	\$ 250,000	\$ 250,000
f	SEC Filing/Permitting	\$ 2,260,000	\$ 2,260,000	\$ 2,260,000
	Project Development Subtotal	\$ 3,200,000	\$ 3,200,000	\$ 3,200,000
2	LNG Plant			
a	Pretreatment/Liquefaction System (Nitrogen Closed Loop)	\$ 34,073,000	\$ 29,073,000	\$ 29,073,000
	Gas Pretreatment System			
	Nitrogen Makeup System			
b	Storage Tank (Field Erected with Foundation)	\$ 86,400,000	\$ 69,250,000	\$ 76,750,000
c	LNG Truck Loading Station (Including Truck Scales)	\$ 58,000	\$ 58,000	\$ 58,000
d	Boiloff (Sendout Pressure)	\$ 6,670,000	\$ 6,670,000	\$ 6,670,000
e	Mechanical & Piping Systems	\$ 1,796,000	\$ 1,796,000	\$ 1,796,000
f	Security, Electrical, Instrumentation & Control Systems	\$ 1,604,000	\$ 1,604,000	\$ 1,604,000
g	Fire Water Storage Tank & Pumps	\$ 2,310,000	\$ 2,310,000	\$ 2,310,000
h	Other Materials (Including Operating Spares)	\$ 2,939,000	\$ 2,939,000	\$ 2,939,000
i	Buildings (Erected Less Foundations & Electrical)	\$ 2,178,000	\$ 2,178,000	\$ 2,178,000
j	Electrical Construction Services	\$ 2,556,000	\$ 2,557,000	\$ 2,557,000
k	Vaporization (Shell and Tube, 50% redundancy)	\$ 8,169,000	\$ 8,169,000	\$ 8,169,000
l	M&R Station	\$ 1,750,000	\$ 1,750,000	\$ 1,750,000
m	Generation (3 2.5 MW Units)	\$ 10,237,000	\$ 10,237,000	\$ 10,237,000
n	LNG Tank Trim (with pumps)	\$ 6,376,000	\$ 6,376,000	\$ 6,376,000
o	Union Labor Adder	\$ 6,401,000	\$ 6,401,000	\$ 6,401,000
	LNG Plant Subtotal	\$ 173,517,000	\$ 151,368,000	\$ 158,868,000
3	Land Development			
a	Site Civil	\$ 11,565,186	\$ 11,565,186	\$ 11,565,186
	Site Preparation (Clearing & Rough Grading)			
	Drainage and Ledge Removal			
	Final Grading			
b	Utilities to Site (Electric, Water & Communications)	\$ 678,333	\$ 677,833	\$ 677,833
c	Land: Plant Site (140 Acres)	\$ 4,000,000	\$ 4,000,000	\$ 4,000,000
	Land Acquisition & Development Subtotal	\$ 16,243,519	\$ 16,243,019	\$ 16,243,019
4	EPC Services			
a	Owner's Construction Oversight/Overheads	\$ 26,924,000	\$ 26,924,000	\$ 26,924,000
	EPC Services Subtotal	\$ 26,924,000	\$ 25,924,000	\$ 25,924,000
	Subtotal	\$ 219,884,519	\$ 196,735,019	\$ 204,235,019
	Contingency	\$ 26,493,600	\$ 24,603,674.96	\$ 25,153,674.96
	TOTAL	\$ 246,378,119	\$ 222,338,694	\$ 230,388,694
	AFUDC	\$ 14,082,051	\$ 13,341,733	\$ 13,587,806
	TOTAL	\$ 260,460,170	\$ 235,680,427	\$ 243,976,500

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 8

Date Request Received: 4/1/19
Request No. PLAN 8-11

Date of Response: 4/19/19
Respondent: James M. Stephens
Adam Perry

REQUEST:

Reference: PLAN 5-5. Please update the response to show the revised design day requirements forecast by category through 2038-39.

RESPONSE:

Please see Attachment PLAN 8-11.xlsx. Please note, the Company's demand forecast methodology, as outlined in Figure 17 on Bates 153R of the Direct Testimony of William R. Killeen and James M. Stephens, does not separately forecast Design Day demand for each of the out-of-model adjustments. The Company develops a forecast of total monthly demand, which includes the econometric forecast and out-of-model adjustments (and excludes demand associated with Innovative Natural Gas, LLC) and adjusts the total monthly demand for energy efficiency measures, unaccounted for gas, and unbilled sales. Then, the Company allocates the net monthly demand to a daily basis. As such, the data presented in Attachment PLAN 8-11.xlsx is an estimate of the effect of each out-of-model adjustment on the Design Day.

Low Demand Case
(Staff 5-17.b.ii)

Split-Year	Design Day
2017/2018	157,292
2018/2019	162,668
2019/2020	164,068
2020/2021	163,212
2021/2022	166,310
2022/2023	172,766
2023/2024	174,926
2024/2025	176,707
2025/2026	178,210
2026/2027	179,701
2027/2028	180,750
2028/2029	182,350
2029/2030	183,943
2030/2031	185,747
2031/2032	187,510
2032/2033	189,340
2033/2034	191,269
2034/2035	193,095
2035/2036	194,693
2036/2037	196,534
2037/2038	198,392
2038/2039	200,375

NEW ENGLAND LDC GAS DEMAND FORECASTS

Data Sources

<u>Company</u>	<u>Document</u>	<u>Docket Number</u>
Berkshire Gas	2018 Forecast and Supply Plan	MA DPU 18-107
Bay State Gas	2017 Forecast and Supply Plan	MA DPU 17-166
Boston Gas	2018 Forecast and Supply Plan	MA DPU 18-148
Fitchburg Gas	2019 Forecast and Supply Plan	MA DPU 19-02
Liberty Utilities - MA	2018 Forecast and Supply Plan	MA DPU 18-68
NSTAR Gas	2018 Forecast and Supply Plan	MA DPU 18-47
Narragansett Electric	Gas Long-Range Resource Plan	RI PUC 4816
Connecticut Natural	Forecast of Natural Gas Demand and Supply	CT PURA 18-10-02
Southern Connecticut	Forecast of Natural Gas Demand and Supply	CT PURA 18-10-02
Yankee Gas	Forecast of Natural Gas Demand and Supply	CT PURA 18-10-02
Vermont Gas	2017 Integrated Resource Plan	17-3658-PET
Northern Utilities	2019 Integrated Resource Plan	ME PUC 2019-123
EnergyNorth - Base Case	Petition to Approve Granite Bridge Project	NH PUC DG 17-198
EnergyNorth - Low Case	Petition to Approve Granite Bridge Project	NH PUC DG 17-198

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

Staff Data Requests - Set 5

Date Request Received: 7/9/18
Request No. Staff 5-17

Date of Response: 8/7/18
Respondent: Francisco C. DaFonte

REQUEST:

Per the discussions in the first Technical Session, please provide economic model runs for both the Granite Bridge Pipeline and LNG facility that use alternative inputs for capital costs, customer growth, and load growth that:

- a. Increases capital costs
 - i. Using 25% higher capital cost for each project
 - ii. Using 50% higher capital cost for each project
- b. Decreases customer and load growth:
 - i. Using 50% of the sales and marketing adjustment
 - ii. Using no sales and marketing adjustment
- c. Implements each scenario defined above individually then in combination (eight cases)
 - i. 25% higher capital cost and Company load growth
 - ii. 50% higher capital cost and Company load growth
 - iii. 25% higher capital cost and 50% sales and marketing adjustment
 - iv. 50% higher capital cost and 50% sales and marketing adjustment
 - v. 25% higher capital cost and no sales and marketing adjustment
 - vi. 50% higher capital cost and 50% sales and marketing adjustment
 - vii. Company capital cost and 50% sales and marketing adjustment
 - viii. Company capital cost and no sales and marketing adjustment
- d. Includes
 - i. Levelized cost in dollars per year
 - ii. Cost per customer
 - iii. Cost impact to current customers
 - iv. Cost per dekatherm

(Revised)

REVISED RESPONSE:

- a. As a preliminary matter, with respect to increases in capital costs, the Company notes that a SENDOUT® analysis assuming a 20% higher capital cost for the Granite Bridge LNG facility was previously provided in the response to OCA 2-88R. Further, since the proposed Granite Bridge Pipeline is contained in all SENDOUT® scenarios, any assumed cost increase would impact all scenarios in the same manner. Importantly, as shown in the Company's responses to Staff 5-15 and Staff 2-72, the proposed Granite Bridge Pipeline is significantly more cost-effective than the Concord Lateral expansion, and a proposed 25% or 50% increase in the cost of the proposed Granite Bridge Pipeline remains considerably more cost-effective than an expansion of the Concord Lateral.

In addition, as demonstrated in the response to OCA 2-88R, when making adjustments to the fixed costs of any resource in the SENDOUT® model that is not part of a Resource Mix option, the overall portfolio cost changes only by the difference in the change to the fixed cost of the resource being adjusted. As such, if the Granite Bridge Pipeline and LNG facility costs are increased by the requested 25% or 50%, then the overall portfolio cost would effectively increase by the magnitude of the 25% or 50% requested increase to the Granite Bridge Pipeline and LNG facility.

- i. The results of the requested analysis, using the Company's revised demand forecast provided in the response to CLF Tech 1-2,¹ and assuming a 25% increase in the capital costs for the Granite Bridge Pipeline and LNG facility are provided in Attachment Staff 5-17.a.xlsx.
- ii. The results of the requested analysis, using the Company's revised demand forecast provided in the response to CLF Tech 1-2, and assuming a 50% increase in the capital costs for the Granite Bridge Pipeline and LNG facility are provided in Attachment Staff 5-17.a.xlsx.
- b. With respect to decreases in customer and load growth, the Company has developed a low demand case ("Low Case") that reflects no Sales and Marketing adjustment in the existing service territory, which the Company believes provides a reasonable lower bound with respect to forecasted customer and load growth. In addition, the Company's Low Case results in Design Day demand levels that are consistent with the levels provided by the Office of Consumer Advocate ("OCA") in data request OCA 4-6 as shown in Attachment Staff 5-17.b.xlsx.
- i. As requested, the Company has developed a demand forecast that includes a 50% reduction in the Sales and Marketing adjustment in the existing service territory ("50% Demand Case"); and has rerun the Base Case Prime, Base Case Prime Sensitivity, Alternative Case Prime, and Alternative Case Prime Sensitivity, and alternative tank size SENDOUT® model scenarios (provided in the responses to CLF Tech 1-2 and PLAN 5-4) to reflect the 50% Demand Case. The results of the requested analysis are summarized in Tables Staff 5-17.1 and Staff 5-17.2 below and the detailed SENDOUT® reports are provided in the following confidential attachments:

¹ The new Base Case Prime Scenario, which replaces Exhibit WRK/JMS-4, was provided as Attachment PLAN 5-4.1 in the response to PLAN 5-4.

(Revised)

- Confidential Attachment Staff 5-17.b.i.1 (Base Case Prime - 50% Demand Case)
- Confidential Attachment Staff 5-17.b.i.2 (Base Case Prime Sensitivity - 50% Demand Case)
- Confidential Attachment Staff 5-17.b.i.3 (Alternative Case Prime - 50% Demand Case)
- Confidential Attachment Staff 5-17.b.i.4 (Alternative Case Prime Sensitivity - 50% Demand Case)
- Confidential Attachment Staff 5-17.b.i.5 (Base Case Prime - 1.2 Bcf Tank - 50% Demand Case)
- Confidential Attachment Staff 5-17.b.i.6 (Base Case Prime - 1.5 Bcf Tank - 50% Demand Case)
- Confidential Attachment Staff 5-17.b.i.7 (Base Case Prime - 2.5 Bcf Tank - 50% Demand Case)

Table Staff 5-17.1: EnergyNorth SENDOUT® Model Runs - “Prime 50% Demand Case”

Resource Planning Scenario	Granite Bridge LNG	Propane Facilities	Resource Mix Results			Total System Cost (\$000)	Comparison to Base Case Prime (\$000)
			Dawn (Dth/day)	Repsol (Dth/day)	ENGIE (Dth/day)		
Base Case Prime	2.0 Bcf	No	750	0	0	\$2,432,811	\$ -
Base Case Prime Sensitivity	2.0 Bcf	Yes	750	0	0	\$2,433,441	\$ 630
Alternative Case Prime	No	No	90	85,220	1,430	\$2,559,274	\$ 126,463
Alternative Case Prime Sensitivity	No	Yes	16,990	26,830	7,000	\$2,398,127	\$ (34,684)

Table Staff 5-17.2: EnergyNorth SENDOUT® Model Runs - LNG Tank Size Scenarios - “Prime 50% Demand Case”

Resource Planning Scenario	Granite Bridge LNG	Propane Facilities	Resource Mix Results			Total System Cost (\$000)	Comparison to 2.0 Bcf Tank (\$000)
			Dawn (Dth/day)	Repsol (Dth/day)	ENGIE (Dth/day)		
Base Case Prime	2.0 Bcf	No	750	0	0	\$2,432,811	\$ -
Base Case Prime	1.2 Bcf	No	750	0	0	\$2,429,949	\$ (2,862)
Base Case Prime	1.5 Bcf	No	750	0	0	\$2,437,749	\$ 4,938
Base Case Prime	2.5 Bcf	No	750	0	0	\$2,512,361	\$ 79,550

ii. The Company has rerun its Base Case Prime, Base Case Prime Sensitivity, Alternative Case Prime, and Alternative Case Prime Sensitivity, and alternative tank size SENDOUT® model scenarios (provided in the responses to CLF Tech 1-2 and PLAN 5-4) to reflect the “Low Case” (i.e., no Sales and Marketing adjustment in the existing service territory). The results of the requested analysis are summarized in Tables Staff 5-17.3 and Staff 5-17.4 below and the detailed SENDOUT® reports are provided in the following confidential attachments:

- Confidential Attachment Staff 5-17.b.ii.1 (Base Case Prime - Low Case)

(Revised)

- Confidential Attachment Staff 5-17.b.ii.2 (Base Case Prime Sensitivity - Low Case)
- Confidential Attachment Staff 5-17.b.ii.3 (Alternative Case Prime - Low Case)
- Confidential Attachment Staff 5-17.b.ii.4 (Alternative Case Prime Sensitivity - Low Case)
- Confidential Attachment Staff 5-17.b.ii.5 (Base Case Prime - 1.2 Bcf Tank - Low Case)
- Confidential Attachment Staff 5-17.b.ii.6 (Base Case Prime - 1.5 Bcf Tank - Low Case)
- Confidential Attachment Staff 5-17.b.ii.7 (Base Case Prime - 2.5 Bcf Tank - Low Case)

Table Staff 5-17.3: EnergyNorth SENDOUT® Model Runs - “Prime Low Case”

Resource Planning Scenario	Granite Bridge LNG	Propane Facilities	Resource Mix Results			Total System Cost (\$000)	Comparison to Base Case Prime
			Dawn (Dth/day)	Repsol (Dth/day)	ENGIE (Dth/day)		
Base Case Prime	2.0 Bcf	No	0	0	0	\$2,398,051	\$ -
Base Case Prime Sensitivity	2.0 Bcf	Yes	0	0	0	\$2,398,681	\$ 630
Alternative Case Prime	No	No	0	81,710	1,500	\$2,510,605	\$ 112,554
Alternative Case Prime Sensitivity	No	Yes	16,590	23,710	7,000	\$2,353,467	\$ (44,584)

Table Staff 5-17.4: EnergyNorth SENDOUT® Model Runs - LNG Tank Size Scenarios - “Prime Low Case”

Resource Planning Scenario	Granite Bridge LNG	Propane Facilities	Resource Mix Results			Total System Cost (\$000)	Comparison to 2.0 Bcf Tank (\$000)
			Dawn (Dth/day)	Repsol (Dth/day)	ENGIE (Dth/day)		
Base Case Prime	2.0 Bcf	No	0	0	0	\$2,398,051	\$ -
Base Case Prime	1.2 Bcf	No	0	0	0	\$2,393,523	\$ (4,528)
Base Case Prime	1.5 Bcf	No	0	0	0	\$2,402,325	\$ 4,274
Base Case Prime	2.5 Bcf	No	0	0	0	\$2,477,642	\$ 79,591

The SENDOUT® results summarized in Tables Staff 5-17.3 and Staff 5-17.4 above continue to demonstrate the resiliency of the Base Case Prime portfolio (which includes the 2.0 Bcf Granite Bridge LNG facility) to adjust to various scenarios. Specifically, the Base Case Prime scenario (i.e., with the inclusion of the Granite Bridge Project) results in a total cost that is over \$112 million less than the total portfolio cost of the Alternative Case Prime scenario.

- As discussed in the response to part a. above, and demonstrated in the Company’s response to OCA 2-88R, when making any adjustments to the fixed costs of any resource in the SENDOUT® model that is not part of a Resource Mix option, the overall portfolio cost changes only by the difference in the change to the fixed cost of the resource being adjusted. As such, any combination which includes an increase in the capital costs of the Granite Bridge Pipeline and LNG facility would effectively be equivalent to an increase

(Revised)

in the total portfolio cost by the magnitude of the requested increase to the Granite Bridge Pipeline and LNG facility.

- i. Please see the response to part a.i. above.
 - ii. Please see the response to part a.ii. above.
 - iii. The results of the requested analysis, using the “50% Demand Case,” and assuming a 25% increase in the capital costs for the Granite Bridge Pipeline and LNG facility are provided in Revised Attachment Staff 5-17.c.xlsx.
 - iv. The results of the requested analysis, using the “50% Demand Case,” and assuming a 50% increase in the capital costs for the Granite Bridge Pipeline and LNG facility are provided in Revised Attachment Staff 5-17.c.xlsx.
 - v. The results of the requested analysis, using the “Low Case,” and assuming a 25% increase in the capital costs for the Granite Bridge Pipeline and LNG facility are provided in Revised Attachment Staff 5-17.c.xlsx.
 - vi. Please note, as written this data request is the same as part c.iv; however, the Company assumes this data request was asking for an increase of 50% in capital cost and no Sales and Marketing adjustment. Therefore, the results of the requested analysis, using the “Low Case,” and assuming a 50% increase in the capital costs for the Granite Bridge Pipeline and LNG facility are provided in Revised Attachment Staff 5-17.c.xlsx.
 - vii. Please see the response to part b.i. above.
 - viii. Please see the response to part b.ii. above.
- d. For ease of reference, the Company has developed Revised Attachment Staff 5-17.d.xlsx, which provides the requested information for the following scenarios developed to-date:
- Response to CLF Tech 1-2
 - Response to OCA 6-3
 - Response to Staff 5-17.a
 - Response to Staff 5-17.b.i
 - Response to Staff 5-17.b.ii
 - Response to Staff 5-17.c

Note that the comparison begins in 2021–2022 as that is the anticipated in-service date of the Granite Bridge Pipeline. In addition, with respect to the unit costs (\$/Dth) provided in Revised Attachment Staff 5-17.d.xlsx, the Company notes that the actual/projected weighted average cost-of-gas rate for 2017–2018 is approximately \$6.86/Dth. Applying the weighted average cost-of-gas rate to the average annual residential customer usage of 78 Dth results in a total annual customer cost of approximately \$535.08.² This annual

² The annual customer cost is exclusive of the distribution charge, LDAC and customer charge which are detailed in the Company’s response to Staff 2-72. These distribution related charges are assumed to remain constant for all scenarios as the proposed Granite Bridge Pipeline and Granite Bridge LNG facility costs are included as cost-of-gas components in the SENDOUT® model.

(Revised)

customer cost should be used for comparative purposes in determining current customer cost impact relative to each of the SENDOUT® scenarios requested.

Confidential Attachment Staff 5-17.b.i.1 through Confidential Attachment Staff 5-17.b.i.7 and Confidential Attachment Staff 5-17.b.ii.1 through Confidential Attachment Staff 5-17.b.ii.7 contain third-party pricing information that is “confidential, commercial, or financial information” that is protected from disclosure by RSA 91-A:5, IV. The Commission granted confidential treatment to similar information in Order No. 26,166 (Aug. 1, 2018). Therefore, pursuant to that statute and Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of this information and will submit a motion seeking confidential treatment prior to the final hearing in this docket.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 8

Date Request Received: 4/1/19
Request No. PLAN 8-14

Date of Response: 4/19/19
Respondent: William R. Killeen
William J. Clark

REQUEST:

Reference: PLAN 5-8. Please show exactly how the 8,800 Dth number was calculated. What causes the projected iNATGAS design day requirement to more than double between 2021-22 and 2022-23?

RESPONSE:

As shown in Table 6 of Attachment CLF Tech 1-2.1, the Company forecasts iNATGAS design day volumes to be 4,251 Dth between 2018/19 and 2021/22, consistent with the actual iNATGAS peak day demand in the 2017/18 winter. Starting in 2022/23 and for the remainder of the analysis period, the Company increases the expected design day requirement of iNATGAS to 8,800 Dth.

The forecasted design day volume of 8,800 Dth represents the demand parameters within the special contract between the Company and iNATGAS. As discussed in PLAN 5-8, the Company's special contract with iNATGAS was approved by the Commission in Docket No. 14-091 (also see the response to PLAN 5-6), and the Design Day volume of 8,800 Dth was previously approved by the Commission in Docket No. DG 14-380 (also see Attachment Staff 2-11.a).

This contract parameter was established based on the expectations of the customer and the approximate daily operational limitation of the iNATGAS facility. It is based on an assumption that a maximum of 22 standard CNG trailers can be filled during a design day. Given a maximum capacity of 355 Dth of CNG per trailer, the design day would be approximately 7,800 Dth. However, the facility owner expects that new Titan trailers will be available and could hold up to 400 Dth of CNG, which would increase the design day to approximately 8,800 Dth. In addition, the Maximum Hourly Transportation Quantity for iNATGAS is approximately 720 Mcf per hour, assuming a 12-hour operation, also resulting in a daily volume for design day of approximately 8,800 Dth.

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Given the lack of firm capacity available to other CNG providers in the region, it is reasonable to assume that the iNATGAS facility will experience design throughput on at least a single day.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

Staff Data Requests - Set 8

Date Request Received: 5/3/19
Request No. Staff 8-6

Date of Response: 5/17/19
Respondent: William R. Killeen

REQUEST:

In the Tech Session on April 25, the Company noted that iNATGAS could not take its contract quantity at times during the winter of 2017-2018 because the Company's delivery pressure at the delivery point to iNATGAS was too low. Please provide details of this circumstance, including

- a. On what days did it happen?
- b. What was the delivery pressure on each of those days?
 - i. What is the minimum delivery pressure in the Company's contract with iNATGAS?
- c. What steps did the Company take to address the circumstance when it happened?
- d. What steps has the Company taken to prevent a recurrence?
- e. Did the circumstance recur in the winter of 2018-2019?
 - i. On what days?
 - ii. What was the delivery pressure on each of those days?

RESPONSE:

- a. Attachment Staff 8-6.xlsx provides the low, high, and average pressures that the Company experienced at the Concord gate station off of the Concord Lateral for the last two winter periods. It is the Company's understanding that iNATGAS sized its compressors at its CNG facility in Concord for an inlet pressure range of 450 psig up to 750 psig. As a result, when inlet pressures fall below 450 psig, the iNATGAS compressors run at significantly reduced efficiency directly correlated to the inlet pressure. That said, Liberty is not privy to the business plans of iNATGAS and would not know whether on a specific day iNATGAS chose not to run or run at a lower volume due to low pressure or economics or both. However, the Company did have direct conversation with the president of iNATGAS during the winter of 2017-2018, in which he mentioned his dissatisfaction with the inlet pressures to his compressors at the iNATGAS facility. The Company explained that it could not control the delivery

pressure to the iNATGAS facility as it was directly related to TGP's pressures on the Concord Lateral.

- b. Please see the Company's response to part a above for the requested delivery pressures.
 - i. The minimum pressure to be provided by the Company under its Special Contract with iNATGAS is dependent on the upstream pressure supplied by TGP via the Concord Lateral. Section 8.2 of the Special Contract between the Company and iNATGAS states, "The minimum pressure to be provided to the Customer shall be dependent on the pressure supplied by the pipeline transmission company." The minimum guaranteed pressure from TGP to the Company on the Concord Lateral is 100 psig per its FERC-approved tariff.
- c. As stated in part a above, the Company is simply providing service to iNATGAS based on the pressure it receives from TGP on the Concord Lateral. As such, it does not have any control over the pressures on the Concord Lateral.
- d. Please see the response to part c above which indicates that the Company has no control over the Concord Lateral pressure.
- e. The Company did not receive any pressure complaints from iNATGAS during the 2018–2019 winter. However, as stated in the response to part a above, Liberty is not privy to the business plans of iNATGAS so it does not know the reason iNATGAS used minimal amounts of gas throughout the 2018–2019 winter period.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 8

Date Request Received: 4/1/19
Request No. PLAN 8-15

Date of Response: 4/19/19
Respondent: William R. Killeen

REQUEST:

Please describe Liberty's recent communications with iNATGAS concerning their expected design day and annual gas use.

RESPONSE:

Conversations between the Company and iNATGAS occurred infrequently during the 2018/2019 winter season and focused on understanding and addressing their short-term usage expectations. This type of communication commonly occurs between the Company and larger users on the system during colder weather periods to ensure the Company's short-term demand forecasts reflect the most up-to-date information possible.

REDACTED

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 5

Date Request Received: 7/9/18
Request No. PLAN 5-7

Date of Response: 7/23/18
Respondent: William R. Killeen

REQUEST:

Reference: Attachment CLF Tech 1-2.1, page 8. Please provide a table showing the quantity of gas delivered to iNATGAS each day from December 1, 2016 through June 30, 2018.

RESPONSE:

The gas delivered to iNATGAS each day from December 19, 2016, to July 11, 2018, is shown in Table PLAN 5-7 below. Prior to December 19, 2016, there was no functional meter and no usage.

iNATGAS's usage in the table below is confidential customer information protected from disclosure by RSA 363:38 and RSA 91-A:5, IV. Therefore, pursuant to Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of this information and will submit a motion seeking confidential treatment prior to the final hearing in this docket.

Table PLAN 5-7

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	12/19/16		1.032	
iNATGAS	12/20/16		1.04	
iNATGAS	12/21/16		1.035	
iNATGAS	12/22/16		1.035	
iNATGAS	12/23/16		1.032	
iNATGAS	12/24/16		1.032	
iNATGAS	12/25/16		1.03	
iNATGAS	12/26/16		1.03	
iNATGAS	12/27/16		1.03	
iNATGAS	12/28/16		1.031	
iNATGAS	12/29/16		1.031	
iNATGAS	12/30/16		1.031	
iNATGAS	12/31/16		1.031	
iNATGAS	1/01/17		1.03	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	1/02/17		1.031	
iNATGAS	1/03/17		1.031	
iNATGAS	1/04/17		1.031	
iNATGAS	1/05/17		1.033	
iNATGAS	1/06/17		1.034	
iNATGAS	1/07/17		1.033	
iNATGAS	1/08/17		1.041	
iNATGAS	1/09/17		1.046	
iNATGAS	1/10/17		1.04	
iNATGAS	1/11/17		1.033	
iNATGAS	1/12/17		1.032	
iNATGAS	1/13/17		1.032	
iNATGAS	1/14/17		1.032	
iNATGAS	1/15/17		1.032	
iNATGAS	1/16/17		1.031	
iNATGAS	1/17/17		1.03	
iNATGAS	1/18/17		1.03	
iNATGAS	1/19/17		1.032	
iNATGAS	1/20/17		1.031	
iNATGAS	1/21/17		1.03	
iNATGAS	1/22/17		1.03	
iNATGAS	1/23/17		1.03	
iNATGAS	1/24/17		1.03	
iNATGAS	1/25/17		1.03	
iNATGAS	1/26/17		1.03	
iNATGAS	1/27/17		1.03	
iNATGAS	1/28/17		1.03	
iNATGAS	1/29/17		1.031	
iNATGAS	1/30/17		1.03	
iNATGAS	1/31/17		1.031	
iNATGAS	2/01/17		1.031	
iNATGAS	2/02/17		1.031	
iNATGAS	2/03/17		1.033	
iNATGAS	2/04/17		1.037	
iNATGAS	2/05/17		1.033	
iNATGAS	2/06/17		1.034	
iNATGAS	2/07/17		1.032	
iNATGAS	2/08/17		1.031	
iNATGAS	2/09/17		1.039	
iNATGAS	2/10/17		1.054	
iNATGAS	2/11/17		1.044	
iNATGAS	2/12/17		1.041	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	2/13/17		1.032	
iNATGAS	2/14/17		1.035	
iNATGAS	2/15/17		1.0335	
iNATGAS	2/16/17		1.035	
iNATGAS	2/17/17		1.034	
iNATGAS	2/18/17		1.031	
iNATGAS	2/19/17		1.03	
iNATGAS	2/20/17		1.034	
iNATGAS	2/21/17		1.032	
iNATGAS	2/22/17		1.031	
iNATGAS	2/23/17		1.032	
iNATGAS	2/24/17		1.0315	
iNATGAS	2/25/17		1.03	
iNATGAS	2/26/17		1.031	
iNATGAS	2/27/17		1.03	
iNATGAS	2/28/17		1.03	
iNATGAS	3/01/17		1.0305	
iNATGAS	3/02/17		1.03	
iNATGAS	3/03/17		1.032	
iNATGAS	3/04/17		1.028	
iNATGAS	3/05/17		1.032	
iNATGAS	3/06/17		1.032	
iNATGAS	3/07/17		1.031	
iNATGAS	3/08/17		1.03	
iNATGAS	3/09/17		1.03	
iNATGAS	3/10/17		1.0305	
iNATGAS	3/11/17		1.032	
iNATGAS	3/12/17		1.032	
iNATGAS	3/13/17		1.034	
iNATGAS	3/14/17		1.037	
iNATGAS	3/15/17		1.041	
iNATGAS	3/16/17		1.041	
iNATGAS	3/17/17		1.037	
iNATGAS	3/18/17		1.034	
iNATGAS	3/19/17		1.033	
iNATGAS	3/20/17		1.033	
iNATGAS	3/21/17		1.03	
iNATGAS	3/22/17		1.032	
iNATGAS	3/23/17		1.03	
iNATGAS	3/24/17		1.03	
iNATGAS	3/25/17		1.03	
iNATGAS	3/26/17		1.03	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	3/27/17		1.03	
iNATGAS	3/28/17		1.03	
iNATGAS	3/29/17		1.03	
iNATGAS	3/30/17		1.03	
iNATGAS	3/31/17		1.03	
iNATGAS	4/01/17		1.03	
iNATGAS	4/02/17		1.03	
iNATGAS	4/03/17		1.03	
iNATGAS	4/04/17		1.03	
iNATGAS	4/05/17		1.029	
iNATGAS	4/06/17		1.029	
iNATGAS	4/07/17		1.029	
iNATGAS	4/08/17		1.029	
iNATGAS	4/09/17		1.029	
iNATGAS	4/10/17		1.029	
iNATGAS	4/11/17		1.029	
iNATGAS	4/12/17		1.029	
iNATGAS	4/13/17		1.029	
iNATGAS	4/14/17		1.029	
iNATGAS	4/15/17		1.029	
iNATGAS	4/16/17		1.029	
iNATGAS	4/17/17		1.029	
iNATGAS	4/18/17		1.029	
iNATGAS	4/19/17		1.029	
iNATGAS	4/20/17		1.029	
iNATGAS	4/21/17		1.029	
iNATGAS	4/22/17		1.029	
iNATGAS	4/23/17		1.029	
iNATGAS	4/24/17		1.029	
iNATGAS	4/25/17		1.029	
iNATGAS	4/26/17		1.029	
iNATGAS	4/27/17		1.029	
iNATGAS	4/28/17		1.029	
iNATGAS	4/29/17		1.029	
iNATGAS	4/30/17		1.029	
iNATGAS	5/01/17		1.029	
iNATGAS	5/02/17		1.029	
iNATGAS	5/03/17		1.029	
iNATGAS	5/04/17		1.029	
iNATGAS	5/05/17		1.029	
iNATGAS	5/06/17		1.029	
iNATGAS	5/07/17		1.029	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	5/08/17		1.029	
iNATGAS	5/09/17		1.029	
iNATGAS	5/10/17		1.029	
iNATGAS	5/11/17		1.03	
iNATGAS	5/12/17		1.03	
iNATGAS	5/13/17		1.03	
iNATGAS	5/14/17		1.029	
iNATGAS	5/15/17		1.029	
iNATGAS	5/16/17		1.029	
iNATGAS	5/17/17		1.029	
iNATGAS	5/18/17		1.029	
iNATGAS	5/19/17		1.028	
iNATGAS	5/20/17		1.029	
iNATGAS	5/21/17		1.029	
iNATGAS	5/22/17		1.029	
iNATGAS	5/23/17		1.029	
iNATGAS	5/24/17		1.028	
iNATGAS	5/25/17		1.029	
iNATGAS	5/26/17		1.029	
iNATGAS	5/27/17		1.029	
iNATGAS	5/28/17		1.028	
iNATGAS	5/29/17		1.029	
iNATGAS	5/30/17		1.028	
iNATGAS	5/31/17		1.0285	
iNATGAS	6/01/17		1.029	
iNATGAS	6/02/17		1.0285	
iNATGAS	6/03/17		1.029	
iNATGAS	6/04/17		1.028	
iNATGAS	6/05/17		1.028	
iNATGAS	6/06/17		1.028	
iNATGAS	6/07/17		1.029	
iNATGAS	6/08/17		1.029	
iNATGAS	6/09/17		1.0285	
iNATGAS	6/10/17		1.029	
iNATGAS	6/11/17		1.029	
iNATGAS	6/12/17		1.029	
iNATGAS	6/13/17		1.028	
iNATGAS	6/14/17		1.029	
iNATGAS	6/15/17		1.029	
iNATGAS	6/16/17		1.029	
iNATGAS	6/17/17		1.029	
iNATGAS	6/18/17		1.028	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	6/19/17		1.029	
iNATGAS	6/20/17		1.028	
iNATGAS	6/21/17		1.029	
iNATGAS	6/22/17		1.029	
iNATGAS	6/23/17		1.028	
iNATGAS	6/24/17		1.029	
iNATGAS	6/25/17		1.029	
iNATGAS	6/26/17		1.029	
iNATGAS	6/27/17		1.029	
iNATGAS	6/28/17		1.029	
iNATGAS	6/29/17		1.029	
iNATGAS	6/30/17		1.029	
iNATGAS	7/01/17		1.029	
iNATGAS	7/02/17		1.029	
iNATGAS	7/03/17		1.029	
iNATGAS	7/04/17		1.029	
iNATGAS	7/05/17		1.029	
iNATGAS	7/06/17		1.029	
iNATGAS	7/07/17		1.029	
iNATGAS	7/08/17		1.029	
iNATGAS	7/09/17		1.029	
iNATGAS	7/10/17		1.029	
iNATGAS	7/11/17		1.029	
iNATGAS	7/12/17		1.029	
iNATGAS	7/13/17		1.0285	
iNATGAS	7/14/17		1.029	
iNATGAS	7/15/17		1.029	
iNATGAS	7/16/17		1.029	
iNATGAS	7/17/17		1.029	
iNATGAS	7/18/17		1.029	
iNATGAS	7/19/17		1.028	
iNATGAS	7/20/17		1.027	
iNATGAS	7/21/17		1.0265	
iNATGAS	7/22/17		1.028	
iNATGAS	7/23/17		1.029	
iNATGAS	7/24/17		1.029	
iNATGAS	7/25/17		1.029	
iNATGAS	7/26/17		1.029	
iNATGAS	7/27/17		1.029	
iNATGAS	7/28/17		1.029	
iNATGAS	7/29/17		1.029	
iNATGAS	7/30/17		1.029	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	7/31/17		1.029	
iNATGAS	8/01/17		1.027	
iNATGAS	8/02/17		1.0285	
iNATGAS	8/03/17		1.028	
iNATGAS	8/04/17		1.028	
iNATGAS	8/05/17		1.029	
iNATGAS	8/06/17		1.029	
iNATGAS	8/07/17		1.029	
iNATGAS	8/08/17		1.029	
iNATGAS	8/09/17		1.029	
iNATGAS	8/10/17		1.029	
iNATGAS	8/11/17		1.029	
iNATGAS	8/12/17		1.0295	
iNATGAS	8/13/17		1.029	
iNATGAS	8/14/17		1.029	
iNATGAS	8/15/17		1.0295	
iNATGAS	8/16/17		1.029	
iNATGAS	8/17/17		1.03	
iNATGAS	8/18/17		1.029	
iNATGAS	8/19/17		1.029	
iNATGAS	8/20/17		1.029	
iNATGAS	8/21/17		1.029	
iNATGAS	8/22/17		1.029	
iNATGAS	8/23/17		1.029	
iNATGAS	8/24/17		1.029	
iNATGAS	8/25/17		1.029	
iNATGAS	8/26/17		1.029	
iNATGAS	8/27/17		1.029	
iNATGAS	8/28/17		1.029	
iNATGAS	8/29/17		1.029	
iNATGAS	8/30/17		1.029	
iNATGAS	8/31/17		1.0295	
iNATGAS	9/01/17		1.03	
iNATGAS	9/02/17		1.03	
iNATGAS	9/03/17		1.029	
iNATGAS	9/04/17		1.029	
iNATGAS	9/05/17		1.029	
iNATGAS	9/06/17		1.029	
iNATGAS	9/07/17		1.03	
iNATGAS	9/08/17		1.03	
iNATGAS	9/09/17		1.0295	
iNATGAS	9/10/17		1.029	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	9/11/17		1.029	
iNATGAS	9/12/17		1.029	
iNATGAS	9/13/17		1.029	
iNATGAS	9/14/17		1.029	
iNATGAS	9/15/17		1.0295	
iNATGAS	9/16/17		1.029	
iNATGAS	9/17/17		1.029	
iNATGAS	9/18/17		1.029	
iNATGAS	9/19/17		1.029	
iNATGAS	9/20/17		1.029	
iNATGAS	9/21/17		1.029	
iNATGAS	9/22/17		1.029	
iNATGAS	9/23/17		1.029	
iNATGAS	9/24/17		1.029	
iNATGAS	9/25/17		1.028	
iNATGAS	9/26/17		1.027	
iNATGAS	9/27/17		1.027	
iNATGAS	9/28/17		1.028	
iNATGAS	9/29/17		1.029	
iNATGAS	9/30/17		1.029	
iNATGAS	10/01/17		1.029	
iNATGAS	10/02/17		1.029	
iNATGAS	10/03/17		1.029	
iNATGAS	10/04/17		1.03	
iNATGAS	10/05/17		1.03	
iNATGAS	10/06/17		1.03	
iNATGAS	10/07/17		1.03	
iNATGAS	10/08/17		1.03	
iNATGAS	10/09/17		1.027	
iNATGAS	10/10/17		1.026	
iNATGAS	10/11/17		1.029	
iNATGAS	10/12/17		1.029	
iNATGAS	10/13/17		1.029	
iNATGAS	10/14/17		1.029	
iNATGAS	10/15/17		1.029	
iNATGAS	10/16/17		1.029	
iNATGAS	10/17/17		1.029	
iNATGAS	10/18/17		1.03	
iNATGAS	10/19/17		1.03	
iNATGAS	10/20/17		1.03	
iNATGAS	10/21/17		1.0295	
iNATGAS	10/22/17		1.0295	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	10/23/17		1.029	
iNATGAS	10/24/17		1.0285	
iNATGAS	10/25/17		1.028	
iNATGAS	10/26/17		1.029	
iNATGAS	10/27/17		1.03	
iNATGAS	10/28/17		1.03	
iNATGAS	10/29/17		1.03	
iNATGAS	10/30/17		1.03	
iNATGAS	10/31/17		1.029	
iNATGAS	11/01/17		1.03	
iNATGAS	11/02/17		1.03	
iNATGAS	11/03/17		1.03	
iNATGAS	11/04/17		1.029	
iNATGAS	11/05/17		1.029	
iNATGAS	11/06/17		1.029	
iNATGAS	11/07/17		1.029	
iNATGAS	11/08/17		1.029	
iNATGAS	11/09/17		1.0295	
iNATGAS	11/10/17		1.028	
iNATGAS	11/11/17		1.032	
iNATGAS	11/12/17		1.032	
iNATGAS	11/13/17		1.032	
iNATGAS	11/14/17		1.032	
iNATGAS	11/15/17		1.032	
iNATGAS	11/16/17		1.031	
iNATGAS	11/17/17		1.031	
iNATGAS	11/18/17		1.031	
iNATGAS	11/19/17		1.03	
iNATGAS	11/20/17		1.032	
iNATGAS	11/21/17		1.031	
iNATGAS	11/22/17		1.03	
iNATGAS	11/23/17		1.03	
iNATGAS	11/24/17		1.03	
iNATGAS	11/25/17		1.0295	
iNATGAS	11/26/17		1.03	
iNATGAS	11/27/17		1.03	
iNATGAS	11/28/17		1.03	
iNATGAS	11/29/17		1.03	
iNATGAS	11/30/17		1.03	
iNATGAS	12/01/17		1.03	
iNATGAS	12/02/17		1.03	
iNATGAS	12/03/17		1.03	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	12/04/17		1.0305	
iNATGAS	12/05/17		1.03	
iNATGAS	12/06/17		1.031	
iNATGAS	12/07/17		1.03	
iNATGAS	12/08/17		1.03	
iNATGAS	12/09/17		1.03	
iNATGAS	12/10/17		1.03	
iNATGAS	12/11/17		1.03	
iNATGAS	12/12/17		1.03	
iNATGAS	12/13/17		1.03	
iNATGAS	12/14/17		1.03	
iNATGAS	12/15/17		1.031	
iNATGAS	12/16/17		1.038	
iNATGAS	12/17/17		1.036	
iNATGAS	12/18/17		1.033	
iNATGAS	12/19/17		1.032	
iNATGAS	12/20/17		1.034	
iNATGAS	12/21/17		1.033	
iNATGAS	12/22/17		1.032	
iNATGAS	12/23/17		1.032	
iNATGAS	12/24/17		1.032	
iNATGAS	12/25/17		1.034	
iNATGAS	12/26/17		1.036	
iNATGAS	12/27/17		1.036	
iNATGAS	12/28/17		1.036	
iNATGAS	12/29/17		1.036	
iNATGAS	12/30/17		1.036	
iNATGAS	12/31/17		1.036	
iNATGAS	1/01/18		1.036	
iNATGAS	1/02/18		1.036	
iNATGAS	1/03/18		1.046	
iNATGAS	1/04/18		1.044	
iNATGAS	1/05/18		1.045	
iNATGAS	1/06/18		1.045	
iNATGAS	1/07/18		1.047	
iNATGAS	1/08/18		1.046	
iNATGAS	1/09/18		1.043	
iNATGAS	1/10/18		1.035	
iNATGAS	1/11/18		1.032	
iNATGAS	1/12/18		1.03	
iNATGAS	1/13/18		1.033	
iNATGAS	1/14/18		1.034	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	1/15/18		1.035	
iNATGAS	1/16/18		1.038	
iNATGAS	1/17/18		1.036	
iNATGAS	1/18/18		1.036	
iNATGAS	1/19/18		1.033	
iNATGAS	1/20/18		1.031	
iNATGAS	1/21/18		1.03	
iNATGAS	1/22/18		1.03	
iNATGAS	1/23/18		1.03	
iNATGAS	1/24/18		1.033	
iNATGAS	1/25/18		1.034	
iNATGAS	1/26/18		1.034	
iNATGAS	1/27/18		1.034	
iNATGAS	1/28/18		1.034	
iNATGAS	1/29/18		1.034	
iNATGAS	1/30/18		1.034	
iNATGAS	1/31/18		1.034	
iNATGAS	2/01/18		1.034	
iNATGAS	2/02/18		1.034	
iNATGAS	2/03/18		1.037	
iNATGAS	2/04/18		1.034	
iNATGAS	2/05/18		1.035	
iNATGAS	2/06/18		1.036	
iNATGAS	2/07/18		1.0375	
iNATGAS	2/08/18		1.038	
iNATGAS	2/09/18		1.036	
iNATGAS	2/10/18		1.035	
iNATGAS	2/11/18		1.033	
iNATGAS	2/12/18		1.034	
iNATGAS	2/13/18		1.036	
iNATGAS	2/14/18		1.033	
iNATGAS	2/15/18		1.031	
iNATGAS	2/16/18		1.031	
iNATGAS	2/17/18		1.031	
iNATGAS	2/18/18		1.031	
iNATGAS	2/19/18		1.031	
iNATGAS	2/20/18		1.03	
iNATGAS	2/21/18		1.03	
iNATGAS	2/22/18		1.03	
iNATGAS	2/23/18		1.03	
iNATGAS	2/24/18		1.03	
iNATGAS	2/25/18		1.03	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	2/26/18		1.03	
iNATGAS	2/27/18		1.03	
iNATGAS	2/28/18		1.03	
iNATGAS	3/01/18		1.03	
iNATGAS	3/02/18		1.03	
iNATGAS	3/03/18		1.03	
iNATGAS	3/04/18		1.03	
iNATGAS	3/05/18		1.031	
iNATGAS	3/06/18		1.031	
iNATGAS	3/07/18		1.031	
iNATGAS	3/08/18		1.032	
iNATGAS	3/09/18		1.032	
iNATGAS	3/10/18		1.031	
iNATGAS	3/11/18		1.031	
iNATGAS	3/12/18		1.031	
iNATGAS	3/13/18		1.035	
iNATGAS	3/14/18		1.033	
iNATGAS	3/15/18		1.031	
iNATGAS	3/16/18		1.033	
iNATGAS	3/17/18		1.032	
iNATGAS	3/18/18		1.032	
iNATGAS	3/19/18		1.034	
iNATGAS	3/20/18		1.033	
iNATGAS	3/21/18		1.034	
iNATGAS	3/22/18		1.0315	
iNATGAS	3/23/18		1.032	
iNATGAS	3/24/18		1.031	
iNATGAS	3/25/18		1.032	
iNATGAS	3/26/18		1.032	
iNATGAS	3/27/18		1.033	
iNATGAS	3/28/18		1.031	
iNATGAS	3/29/18		1.031	
iNATGAS	3/30/18		1.03	
iNATGAS	3/31/18		1.03	
iNATGAS	4/01/18		1.03	
iNATGAS	4/02/18		1.032	
iNATGAS	4/03/18		1.032	
iNATGAS	4/04/18		1.032	
iNATGAS	4/05/18		1.032	
iNATGAS	4/06/18		1.033	
iNATGAS	4/07/18		1.031	
iNATGAS	4/08/18		1.032	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	4/09/18		1.032	
iNATGAS	4/10/18		1.033	
iNATGAS	4/11/18		1.031	
iNATGAS	4/12/18		1.031	
iNATGAS	4/13/18		1.031	
iNATGAS	4/14/18		1.031	
iNATGAS	4/15/18		1.034	
iNATGAS	4/16/18		1.034	
iNATGAS	4/17/18		1.031	
iNATGAS	4/18/18		1.031	
iNATGAS	4/19/18		1.031	
iNATGAS	4/20/18		1.03	
iNATGAS	4/21/18		1.03	
iNATGAS	4/22/18		1.029	
iNATGAS	4/23/18		1.029	
iNATGAS	4/24/18		1.029	
iNATGAS	4/25/18		1.03	
iNATGAS	4/26/18		1.03	
iNATGAS	4/27/18		1.029	
iNATGAS	4/28/18		1.029	
iNATGAS	4/29/18		1.029	
iNATGAS	4/30/18		1.03	
iNATGAS	5/01/18		1.029	
iNATGAS	5/02/18		1.029	
iNATGAS	5/03/18		1.029	
iNATGAS	5/04/18		1.029	
iNATGAS	5/05/18		1.029	
iNATGAS	5/06/18		1.029	
iNATGAS	5/07/18		1.029	
iNATGAS	5/08/18		1.029	
iNATGAS	5/09/18		1.029	
iNATGAS	5/10/18		1.029	
iNATGAS	5/11/18		1.029	
iNATGAS	5/12/18		1.029	
iNATGAS	5/13/18		1.029	
iNATGAS	5/14/18		1.0285	
iNATGAS	5/15/18		1.029	
iNATGAS	5/16/18		1.029	
iNATGAS	5/17/18		1.029	
iNATGAS	5/18/18		1.029	
iNATGAS	5/19/18		1.029	
iNATGAS	5/20/18		1.029	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	5/21/18		1.029	
iNATGAS	5/22/18		1.029	
iNATGAS	5/23/18		1.029	
iNATGAS	5/24/18		1.029	
iNATGAS	5/25/18		1.029	
iNATGAS	5/26/18		1.029	
iNATGAS	5/27/18		1.029	
iNATGAS	5/28/18		1.029	
iNATGAS	5/29/18		1.029	
iNATGAS	5/30/18		1.029	
iNATGAS	5/31/18		1.029	
iNATGAS	6/01/18		1.03	
iNATGAS	6/02/18		1.03	
iNATGAS	6/03/18		1.029	
iNATGAS	6/04/18		1.029	
iNATGAS	6/05/18		1.029	
iNATGAS	6/06/18		1.029	
iNATGAS	6/07/18		1.029	
iNATGAS	6/08/18		1.029	
iNATGAS	6/09/18		1.029	
iNATGAS	6/10/18		1.029	
iNATGAS	6/11/18		1.029	
iNATGAS	6/12/18		1.029	
iNATGAS	6/13/18		1.029	
iNATGAS	6/14/18		1.029	
iNATGAS	6/15/18		1.0285	
iNATGAS	6/16/18		1.028	
iNATGAS	6/17/18		1.029	
iNATGAS	6/18/18		1.029	
iNATGAS	6/19/18		1.029	
iNATGAS	6/20/18		1.029	
iNATGAS	6/21/18		1.028	
iNATGAS	6/22/18		1.029	
iNATGAS	6/23/18		1.029	
iNATGAS	6/24/18		1.029	
iNATGAS	6/25/18		1.029	
iNATGAS	6/26/18		1.03	
iNATGAS	6/27/18		1.03	
iNATGAS	6/28/18		1.029	
iNATGAS	6/29/18		1.029	
iNATGAS	6/30/18		1.029	
iNATGAS	7/01/18		1.029	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	7/02/18		1.029	
iNATGAS	7/03/18		1.029	
iNATGAS	7/04/18		1.028	
iNATGAS	7/05/18		1.0285	
iNATGAS	7/06/18		1.029	
iNATGAS	7/07/18		1.029	
iNATGAS	7/08/18		1.029	
iNATGAS	7/09/18		1.029	
iNATGAS	7/10/18		1.029	
iNATGAS	7/11/18		1.029	

REDACTED

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
 Granite Bridge Project

PLAN Data Requests - Set 8

Date Request Received: 4/1/19
 Request No. PLAN 8-13

Date of Response: 4/19/19
 Respondent: William R. Killeen

REQUEST:

Reference: PLAN 5-7. Please update the response with actual iNATGAS gas use through 3/31/2019.

RESPONSE:

The gas delivered to iNATGAS each day from December 19, 2016, to March 31, 2019, is shown in Table PLAN 8-13. Please recall that as stated in PLAN 5-7, prior to December 19, 2016, there was no functional meter and no usage.

iNATGAS's usage in the table below is confidential customer information protected from disclosure by RSA 363:38 and RSA 91-A:5, IV. Therefore, pursuant to Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of this information and will submit a motion seeking confidential treatment prior to the final hearing in this docket.

Table PLAN 8-13

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	12/19/2016		1.032	
iNATGAS	12/20/2016		1.04	
iNATGAS	12/21/2016		1.035	
iNATGAS	12/22/2016		1.035	
iNATGAS	12/23/2016		1.032	
iNATGAS	12/24/2016		1.032	
iNATGAS	12/25/2016		1.03	
iNATGAS	12/26/2016		1.03	
iNATGAS	12/27/2016		1.03	
iNATGAS	12/28/2016		1.031	
iNATGAS	12/29/2016		1.031	
iNATGAS	12/30/2016		1.031	
iNATGAS	12/31/2016		1.031	
iNATGAS	1/1/2017		1.03	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	1/2/2017		1.031	
iNATGAS	1/3/2017		1.031	
iNATGAS	1/4/2017		1.031	
iNATGAS	1/5/2017		1.033	
iNATGAS	1/6/2017		1.034	
iNATGAS	1/7/2017		1.033	
iNATGAS	1/8/2017		1.041	
iNATGAS	1/9/2017		1.046	
iNATGAS	1/10/2017		1.04	
iNATGAS	1/11/2017		1.033	
iNATGAS	1/12/2017		1.032	
iNATGAS	1/13/2017		1.032	
iNATGAS	1/14/2017		1.032	
iNATGAS	1/15/2017		1.032	
iNATGAS	1/16/2017		1.031	
iNATGAS	1/17/2017		1.03	
iNATGAS	1/18/2017		1.03	
iNATGAS	1/19/2017		1.032	
iNATGAS	1/20/2017		1.031	
iNATGAS	1/21/2017		1.03	
iNATGAS	1/22/2017		1.03	
iNATGAS	1/23/2017		1.03	
iNATGAS	1/24/2017		1.03	
iNATGAS	1/25/2017		1.03	
iNATGAS	1/26/2017		1.03	
iNATGAS	1/27/2017		1.03	
iNATGAS	1/28/2017		1.03	
iNATGAS	1/29/2017		1.031	
iNATGAS	1/30/2017		1.03	
iNATGAS	1/31/2017		1.031	
iNATGAS	2/1/2017		1.031	
iNATGAS	2/2/2017		1.031	
iNATGAS	2/3/2017		1.033	
iNATGAS	2/4/2017		1.037	
iNATGAS	2/5/2017		1.033	
iNATGAS	2/6/2017		1.034	
iNATGAS	2/7/2017		1.032	
iNATGAS	2/8/2017		1.031	
iNATGAS	2/9/2017		1.039	
iNATGAS	2/10/2017		1.054	
iNATGAS	2/11/2017		1.044	
iNATGAS	2/12/2017		1.041	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	2/13/2017		1.032	
iNATGAS	2/14/2017		1.035	
iNATGAS	2/15/2017		1.0335	
iNATGAS	2/16/2017		1.035	
iNATGAS	2/17/2017		1.034	
iNATGAS	2/18/2017		1.031	
iNATGAS	2/19/2017		1.03	
iNATGAS	2/20/2017		1.034	
iNATGAS	2/21/2017		1.032	
iNATGAS	2/22/2017		1.031	
iNATGAS	2/23/2017		1.032	
iNATGAS	2/24/2017		1.0315	
iNATGAS	2/25/2017		1.03	
iNATGAS	2/26/2017		1.031	
iNATGAS	2/27/2017		1.03	
iNATGAS	2/28/2017		1.03	
iNATGAS	3/1/2017		1.0305	
iNATGAS	3/2/2017		1.03	
iNATGAS	3/3/2017		1.032	
iNATGAS	3/4/2017		1.028	
iNATGAS	3/5/2017		1.032	
iNATGAS	3/6/2017		1.032	
iNATGAS	3/7/2017		1.031	
iNATGAS	3/8/2017		1.03	
iNATGAS	3/9/2017		1.03	
iNATGAS	3/10/2017		1.0305	
iNATGAS	3/11/2017		1.032	
iNATGAS	3/12/2017		1.032	
iNATGAS	3/13/2017		1.034	
iNATGAS	3/14/2017		1.037	
iNATGAS	3/15/2017		1.041	
iNATGAS	3/16/2017		1.041	
iNATGAS	3/17/2017		1.037	
iNATGAS	3/18/2017		1.034	
iNATGAS	3/19/2017		1.033	
iNATGAS	3/20/2017		1.033	
iNATGAS	3/21/2017		1.03	
iNATGAS	3/22/2017		1.032	
iNATGAS	3/23/2017		1.03	
iNATGAS	3/24/2017		1.03	
iNATGAS	3/25/2017		1.03	
iNATGAS	3/26/2017		1.03	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	3/27/2017		1.03	
iNATGAS	3/28/2017		1.03	
iNATGAS	3/29/2017		1.03	
iNATGAS	3/30/2017		1.03	
iNATGAS	3/31/2017		1.03	
iNATGAS	4/1/2017		1.03	
iNATGAS	4/2/2017		1.03	
iNATGAS	4/3/2017		1.03	
iNATGAS	4/4/2017		1.03	
iNATGAS	4/5/2017		1.029	
iNATGAS	4/6/2017		1.029	
iNATGAS	4/7/2017		1.029	
iNATGAS	4/8/2017		1.029	
iNATGAS	4/9/2017		1.029	
iNATGAS	4/10/2017		1.029	
iNATGAS	4/11/2017		1.029	
iNATGAS	4/12/2017		1.029	
iNATGAS	4/13/2017		1.029	
iNATGAS	4/14/2017		1.029	
iNATGAS	4/15/2017		1.029	
iNATGAS	4/16/2017		1.029	
iNATGAS	4/17/2017		1.029	
iNATGAS	4/18/2017		1.029	
iNATGAS	4/19/2017		1.029	
iNATGAS	4/20/2017		1.029	
iNATGAS	4/21/2017		1.029	
iNATGAS	4/22/2017		1.029	
iNATGAS	4/23/2017		1.029	
iNATGAS	4/24/2017		1.029	
iNATGAS	4/25/2017		1.029	
iNATGAS	4/26/2017		1.029	
iNATGAS	4/27/2017		1.029	
iNATGAS	4/28/2017		1.029	
iNATGAS	4/29/2017		1.029	
iNATGAS	4/30/2017		1.029	
iNATGAS	5/1/2017		1.029	
iNATGAS	5/2/2017		1.029	
iNATGAS	5/3/2017		1.029	
iNATGAS	5/4/2017		1.029	
iNATGAS	5/5/2017		1.029	
iNATGAS	5/6/2017		1.029	
iNATGAS	5/7/2017		1.029	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	5/8/2017		1.029	
iNATGAS	5/9/2017		1.029	
iNATGAS	5/10/2017		1.029	
iNATGAS	5/11/2017		1.03	
iNATGAS	5/12/2017		1.03	
iNATGAS	5/13/2017		1.03	
iNATGAS	5/14/2017		1.029	
iNATGAS	5/15/2017		1.029	
iNATGAS	5/16/2017		1.029	
iNATGAS	5/17/2017		1.029	
iNATGAS	5/18/2017		1.029	
iNATGAS	5/19/2017		1.028	
iNATGAS	5/20/2017		1.029	
iNATGAS	5/21/2017		1.029	
iNATGAS	5/22/2017		1.029	
iNATGAS	5/23/2017		1.029	
iNATGAS	5/24/2017		1.028	
iNATGAS	5/25/2017		1.029	
iNATGAS	5/26/2017		1.029	
iNATGAS	5/27/2017		1.029	
iNATGAS	5/28/2017		1.028	
iNATGAS	5/29/2017		1.029	
iNATGAS	5/30/2017		1.028	
iNATGAS	5/31/2017		1.0285	
iNATGAS	6/1/2017		1.029	
iNATGAS	6/2/2017		1.0285	
iNATGAS	6/3/2017		1.029	
iNATGAS	6/4/2017		1.028	
iNATGAS	6/5/2017		1.028	
iNATGAS	6/6/2017		1.028	
iNATGAS	6/7/2017		1.029	
iNATGAS	6/8/2017		1.029	
iNATGAS	6/9/2017		1.0285	
iNATGAS	6/10/2017		1.029	
iNATGAS	6/11/2017		1.029	
iNATGAS	6/12/2017		1.029	
iNATGAS	6/13/2017		1.028	
iNATGAS	6/14/2017		1.029	
iNATGAS	6/15/2017		1.029	
iNATGAS	6/16/2017		1.029	
iNATGAS	6/17/2017		1.029	
iNATGAS	6/18/2017		1.028	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	6/19/2017		1.029	
iNATGAS	6/20/2017		1.028	
iNATGAS	6/21/2017		1.029	
iNATGAS	6/22/2017		1.029	
iNATGAS	6/23/2017		1.028	
iNATGAS	6/24/2017		1.029	
iNATGAS	6/25/2017		1.029	
iNATGAS	6/26/2017		1.029	
iNATGAS	6/27/2017		1.029	
iNATGAS	6/28/2017		1.029	
iNATGAS	6/29/2017		1.029	
iNATGAS	6/30/2017		1.029	
iNATGAS	7/1/2017		1.029	
iNATGAS	7/2/2017		1.029	
iNATGAS	7/3/2017		1.029	
iNATGAS	7/4/2017		1.029	
iNATGAS	7/5/2017		1.029	
iNATGAS	7/6/2017		1.029	
iNATGAS	7/7/2017		1.029	
iNATGAS	7/8/2017		1.029	
iNATGAS	7/9/2017		1.029	
iNATGAS	7/10/2017		1.029	
iNATGAS	7/11/2017		1.029	
iNATGAS	7/12/2017		1.029	
iNATGAS	7/13/2017		1.0285	
iNATGAS	7/14/2017		1.029	
iNATGAS	7/15/2017		1.029	
iNATGAS	7/16/2017		1.029	
iNATGAS	7/17/2017		1.029	
iNATGAS	7/18/2017		1.029	
iNATGAS	7/19/2017		1.028	
iNATGAS	7/20/2017		1.027	
iNATGAS	7/21/2017		1.0265	
iNATGAS	7/22/2017		1.028	
iNATGAS	7/23/2017		1.029	
iNATGAS	7/24/2017		1.029	
iNATGAS	7/25/2017		1.029	
iNATGAS	7/26/2017		1.029	
iNATGAS	7/27/2017		1.029	
iNATGAS	7/28/2017		1.029	
iNATGAS	7/29/2017		1.029	
iNATGAS	7/30/2017		1.029	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	7/31/2017		1.029	
iNATGAS	8/1/2017		1.027	
iNATGAS	8/2/2017		1.0285	
iNATGAS	8/3/2017		1.028	
iNATGAS	8/4/2017		1.028	
iNATGAS	8/5/2017		1.029	
iNATGAS	8/6/2017		1.029	
iNATGAS	8/7/2017		1.029	
iNATGAS	8/8/2017		1.029	
iNATGAS	8/9/2017		1.029	
iNATGAS	8/10/2017		1.029	
iNATGAS	8/11/2017		1.029	
iNATGAS	8/12/2017		1.0295	
iNATGAS	8/13/2017		1.029	
iNATGAS	8/14/2017		1.029	
iNATGAS	8/15/2017		1.0295	
iNATGAS	8/16/2017		1.029	
iNATGAS	8/17/2017		1.03	
iNATGAS	8/18/2017		1.029	
iNATGAS	8/19/2017		1.029	
iNATGAS	8/20/2017		1.029	
iNATGAS	8/21/2017		1.029	
iNATGAS	8/22/2017		1.029	
iNATGAS	8/23/2017		1.029	
iNATGAS	8/24/2017		1.029	
iNATGAS	8/25/2017		1.029	
iNATGAS	8/26/2017		1.029	
iNATGAS	8/27/2017		1.029	
iNATGAS	8/28/2017		1.029	
iNATGAS	8/29/2017		1.029	
iNATGAS	8/30/2017		1.029	
iNATGAS	8/31/2017		1.0295	
iNATGAS	9/1/2017		1.03	
iNATGAS	9/2/2017		1.03	
iNATGAS	9/3/2017		1.029	
iNATGAS	9/4/2017		1.029	
iNATGAS	9/5/2017		1.029	
iNATGAS	9/6/2017		1.029	
iNATGAS	9/7/2017		1.03	
iNATGAS	9/8/2017		1.03	
iNATGAS	9/9/2017		1.0295	
iNATGAS	9/10/2017		1.029	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	9/11/2017		1.029	
iNATGAS	9/12/2017		1.029	
iNATGAS	9/13/2017		1.029	
iNATGAS	9/14/2017		1.029	
iNATGAS	9/15/2017		1.0295	
iNATGAS	9/16/2017		1.029	
iNATGAS	9/17/2017		1.029	
iNATGAS	9/18/2017		1.029	
iNATGAS	9/19/2017		1.029	
iNATGAS	9/20/2017		1.029	
iNATGAS	9/21/2017		1.029	
iNATGAS	9/22/2017		1.029	
iNATGAS	9/23/2017		1.029	
iNATGAS	9/24/2017		1.029	
iNATGAS	9/25/2017		1.028	
iNATGAS	9/26/2017		1.027	
iNATGAS	9/27/2017		1.027	
iNATGAS	9/28/2017		1.028	
iNATGAS	9/29/2017		1.029	
iNATGAS	9/30/2017		1.029	
iNATGAS	10/1/2017		1.029	
iNATGAS	10/2/2017		1.029	
iNATGAS	10/3/2017		1.029	
iNATGAS	10/4/2017		1.03	
iNATGAS	10/5/2017		1.03	
iNATGAS	10/6/2017		1.03	
iNATGAS	10/7/2017		1.03	
iNATGAS	10/8/2017		1.03	
iNATGAS	10/9/2017		1.027	
iNATGAS	10/10/2017		1.026	
iNATGAS	10/11/2017		1.029	
iNATGAS	10/12/2017		1.029	
iNATGAS	10/13/2017		1.029	
iNATGAS	10/14/2017		1.029	
iNATGAS	10/15/2017		1.029	
iNATGAS	10/16/2017		1.029	
iNATGAS	10/17/2017		1.029	
iNATGAS	10/18/2017		1.03	
iNATGAS	10/19/2017		1.03	
iNATGAS	10/20/2017		1.03	
iNATGAS	10/21/2017		1.0295	
iNATGAS	10/22/2017		1.0295	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	10/23/2017		1.029	
iNATGAS	10/24/2017		1.0285	
iNATGAS	10/25/2017		1.028	
iNATGAS	10/26/2017		1.029	
iNATGAS	10/27/2017		1.03	
iNATGAS	10/28/2017		1.03	
iNATGAS	10/29/2017		1.03	
iNATGAS	10/30/2017		1.03	
iNATGAS	10/31/2017		1.029	
iNATGAS	11/1/2017		1.03	
iNATGAS	11/2/2017		1.03	
iNATGAS	11/3/2017		1.03	
iNATGAS	11/4/2017		1.029	
iNATGAS	11/5/2017		1.029	
iNATGAS	11/6/2017		1.029	
iNATGAS	11/7/2017		1.029	
iNATGAS	11/8/2017		1.029	
iNATGAS	11/9/2017		1.0295	
iNATGAS	11/10/2017		1.028	
iNATGAS	11/11/2017		1.032	
iNATGAS	11/12/2017		1.032	
iNATGAS	11/13/2017		1.032	
iNATGAS	11/14/2017		1.032	
iNATGAS	11/15/2017		1.032	
iNATGAS	11/16/2017		1.031	
iNATGAS	11/17/2017		1.031	
iNATGAS	11/18/2017		1.031	
iNATGAS	11/19/2017		1.03	
iNATGAS	11/20/2017		1.032	
iNATGAS	11/21/2017		1.031	
iNATGAS	11/22/2017		1.03	
iNATGAS	11/23/2017		1.03	
iNATGAS	11/24/2017		1.03	
iNATGAS	11/25/2017		1.0295	
iNATGAS	11/26/2017		1.03	
iNATGAS	11/27/2017		1.03	
iNATGAS	11/28/2017		1.03	
iNATGAS	11/29/2017		1.03	
iNATGAS	11/30/2017		1.03	
iNATGAS	12/1/2017		1.03	
iNATGAS	12/2/2017		1.03	
iNATGAS	12/3/2017		1.03	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	12/4/2017		1.0305	
iNATGAS	12/5/2017		1.03	
iNATGAS	12/6/2017		1.031	
iNATGAS	12/7/2017		1.03	
iNATGAS	12/8/2017		1.03	
iNATGAS	12/9/2017		1.03	
iNATGAS	12/10/2017		1.03	
iNATGAS	12/11/2017		1.03	
iNATGAS	12/12/2017		1.03	
iNATGAS	12/13/2017		1.03	
iNATGAS	12/14/2017		1.03	
iNATGAS	12/15/2017		1.031	
iNATGAS	12/16/2017		1.038	
iNATGAS	12/17/2017		1.036	
iNATGAS	12/18/2017		1.033	
iNATGAS	12/19/2017		1.032	
iNATGAS	12/20/2017		1.034	
iNATGAS	12/21/2017		1.033	
iNATGAS	12/22/2017		1.032	
iNATGAS	12/23/2017		1.032	
iNATGAS	12/24/2017		1.032	
iNATGAS	12/25/2017		1.034	
iNATGAS	12/26/2017		1.036	
iNATGAS	12/27/2017		1.036	
iNATGAS	12/28/2017		1.036	
iNATGAS	12/29/2017		1.036	
iNATGAS	12/30/2017		1.036	
iNATGAS	12/31/2017		1.036	
iNATGAS	1/1/2018		1.036	
iNATGAS	1/2/2018		1.036	
iNATGAS	1/3/2018		1.046	
iNATGAS	1/4/2018		1.044	
iNATGAS	1/5/2018		1.045	
iNATGAS	1/6/2018		1.045	
iNATGAS	1/7/2018		1.047	
iNATGAS	1/8/2018		1.046	
iNATGAS	1/9/2018		1.043	
iNATGAS	1/10/2018		1.035	
iNATGAS	1/11/2018		1.032	
iNATGAS	1/12/2018		1.03	
iNATGAS	1/13/2018		1.033	
iNATGAS	1/14/2018		1.034	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	1/15/2018		1.035	
iNATGAS	1/16/2018		1.038	
iNATGAS	1/17/2018		1.036	
iNATGAS	1/18/2018		1.036	
iNATGAS	1/19/2018		1.033	
iNATGAS	1/20/2018		1.031	
iNATGAS	1/21/2018		1.03	
iNATGAS	1/22/2018		1.03	
iNATGAS	1/23/2018		1.03	
iNATGAS	1/24/2018		1.033	
iNATGAS	1/25/2018		1.034	
iNATGAS	1/26/2018		1.034	
iNATGAS	1/27/2018		1.034	
iNATGAS	1/28/2018		1.034	
iNATGAS	1/29/2018		1.034	
iNATGAS	1/30/2018		1.034	
iNATGAS	1/31/2018		1.034	
iNATGAS	2/1/2018		1.034	
iNATGAS	2/2/2018		1.034	
iNATGAS	2/3/2018		1.037	
iNATGAS	2/4/2018		1.034	
iNATGAS	2/5/2018		1.035	
iNATGAS	2/6/2018		1.036	
iNATGAS	2/7/2018		1.0375	
iNATGAS	2/8/2018		1.038	
iNATGAS	2/9/2018		1.036	
iNATGAS	2/10/2018		1.035	
iNATGAS	2/11/2018		1.033	
iNATGAS	2/12/2018		1.034	
iNATGAS	2/13/2018		1.036	
iNATGAS	2/14/2018		1.033	
iNATGAS	2/15/2018		1.031	
iNATGAS	2/16/2018		1.031	
iNATGAS	2/17/2018		1.031	
iNATGAS	2/18/2018		1.031	
iNATGAS	2/19/2018		1.031	
iNATGAS	2/20/2018		1.03	
iNATGAS	2/21/2018		1.03	
iNATGAS	2/22/2018		1.03	
iNATGAS	2/23/2018		1.03	
iNATGAS	2/24/2018		1.03	
iNATGAS	2/25/2018		1.03	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	2/26/2018		1.03	
iNATGAS	2/27/2018		1.03	
iNATGAS	2/28/2018		1.03	
iNATGAS	3/1/2018		1.03	
iNATGAS	3/2/2018		1.03	
iNATGAS	3/3/2018		1.03	
iNATGAS	3/4/2018		1.03	
iNATGAS	3/5/2018		1.031	
iNATGAS	3/6/2018		1.031	
iNATGAS	3/7/2018		1.031	
iNATGAS	3/8/2018		1.032	
iNATGAS	3/9/2018		1.032	
iNATGAS	3/10/2018		1.031	
iNATGAS	3/11/2018		1.031	
iNATGAS	3/12/2018		1.031	
iNATGAS	3/13/2018		1.035	
iNATGAS	3/14/2018		1.033	
iNATGAS	3/15/2018		1.031	
iNATGAS	3/16/2018		1.033	
iNATGAS	3/17/2018		1.032	
iNATGAS	3/18/2018		1.032	
iNATGAS	3/19/2018		1.034	
iNATGAS	3/20/2018		1.033	
iNATGAS	3/21/2018		1.034	
iNATGAS	3/22/2018		1.0315	
iNATGAS	3/23/2018		1.032	
iNATGAS	3/24/2018		1.031	
iNATGAS	3/25/2018		1.032	
iNATGAS	3/26/2018		1.032	
iNATGAS	3/27/2018		1.033	
iNATGAS	3/28/2018		1.031	
iNATGAS	3/29/2018		1.031	
iNATGAS	3/30/2018		1.03	
iNATGAS	3/31/2018		1.03	
iNATGAS	4/1/2018		1.03	
iNATGAS	4/2/2018		1.032	
iNATGAS	4/3/2018		1.032	
iNATGAS	4/4/2018		1.032	
iNATGAS	4/5/2018		1.032	
iNATGAS	4/6/2018		1.033	
iNATGAS	4/7/2018		1.031	
iNATGAS	4/8/2018		1.032	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	4/9/2018		1.032	
iNATGAS	4/10/2018		1.033	
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iNATGAS	4/12/2018		1.031	
iNATGAS	4/13/2018		1.031	
iNATGAS	4/14/2018		1.031	
iNATGAS	4/15/2018		1.034	
iNATGAS	4/16/2018		1.034	
iNATGAS	4/17/2018		1.031	
iNATGAS	4/18/2018		1.031	
iNATGAS	4/19/2018		1.031	
iNATGAS	4/20/2018		1.03	
iNATGAS	4/21/2018		1.03	
iNATGAS	4/22/2018		1.029	
iNATGAS	4/23/2018		1.029	
iNATGAS	4/24/2018		1.029	
iNATGAS	4/25/2018		1.03	
iNATGAS	4/26/2018		1.03	
iNATGAS	4/27/2018		1.029	
iNATGAS	4/28/2018		1.029	
iNATGAS	4/29/2018		1.029	
iNATGAS	4/30/2018		1.03	
iNATGAS	5/1/2018		1.029	
iNATGAS	5/2/2018		1.029	
iNATGAS	5/3/2018		1.029	
iNATGAS	5/4/2018		1.029	
iNATGAS	5/5/2018		1.029	
iNATGAS	5/6/2018		1.029	
iNATGAS	5/7/2018		1.029	
iNATGAS	5/8/2018		1.029	
iNATGAS	5/9/2018		1.029	
iNATGAS	5/10/2018		1.029	
iNATGAS	5/11/2018		1.029	
iNATGAS	5/12/2018		1.029	
iNATGAS	5/13/2018		1.029	
iNATGAS	5/14/2018		1.0285	
iNATGAS	5/15/2018		1.029	
iNATGAS	5/16/2018		1.029	
iNATGAS	5/17/2018		1.029	
iNATGAS	5/18/2018		1.029	
iNATGAS	5/19/2018		1.029	
iNATGAS	5/20/2018		1.029	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	5/21/2018		1.029	
iNATGAS	5/22/2018		1.029	
iNATGAS	5/23/2018		1.029	
iNATGAS	5/24/2018		1.029	
iNATGAS	5/25/2018		1.029	
iNATGAS	5/26/2018		1.029	
iNATGAS	5/27/2018		1.029	
iNATGAS	5/28/2018		1.029	
iNATGAS	5/29/2018		1.029	
iNATGAS	5/30/2018		1.029	
iNATGAS	5/31/2018		1.029	
iNATGAS	6/1/2018		1.03	
iNATGAS	6/2/2018		1.03	
iNATGAS	6/3/2018		1.029	
iNATGAS	6/4/2018		1.029	
iNATGAS	6/5/2018		1.029	
iNATGAS	6/6/2018		1.029	
iNATGAS	6/7/2018		1.029	
iNATGAS	6/8/2018		1.029	
iNATGAS	6/9/2018		1.029	
iNATGAS	6/10/2018		1.029	
iNATGAS	6/11/2018		1.029	
iNATGAS	6/12/2018		1.029	
iNATGAS	6/13/2018		1.029	
iNATGAS	6/14/2018		1.029	
iNATGAS	6/15/2018		1.0285	
iNATGAS	6/16/2018		1.028	
iNATGAS	6/17/2018		1.029	
iNATGAS	6/18/2018		1.029	
iNATGAS	6/19/2018		1.029	
iNATGAS	6/20/2018		1.029	
iNATGAS	6/21/2018		1.028	
iNATGAS	6/22/2018		1.029	
iNATGAS	6/23/2018		1.029	
iNATGAS	6/24/2018		1.029	
iNATGAS	6/25/2018		1.029	
iNATGAS	6/26/2018		1.03	
iNATGAS	6/27/2018		1.03	
iNATGAS	6/28/2018		1.029	
iNATGAS	6/29/2018		1.029	
iNATGAS	6/30/2018		1.029	
iNATGAS	7/1/2018		1.029	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	7/2/2018		1.029	
iNATGAS	7/3/2018		1.029	
iNATGAS	7/4/2018		1.028	
iNATGAS	7/5/2018		1.0285	
iNATGAS	7/6/2018		1.029	
iNATGAS	7/7/2018		1.029	
iNATGAS	7/8/2018		1.029	
iNATGAS	7/9/2018		1.029	
iNATGAS	7/10/2018		1.029	
iNATGAS	7/11/2018		1.029	
iNATGAS	7/12/2018		1.029	
iNATGAS	7/13/2018		1.029	
iNATGAS	7/14/2018		1.029	
iNATGAS	7/15/2018		1.029	
iNATGAS	7/16/2018		1.029	
iNATGAS	7/17/2018		1.029	
iNATGAS	7/18/2018		1.028	
iNATGAS	7/19/2018		1.029	
iNATGAS	7/20/2018		1.028	
iNATGAS	7/21/2018		1.029	
iNATGAS	7/22/2018		1.029	
iNATGAS	7/23/2018		1.029	
iNATGAS	7/24/2018		1.029	
iNATGAS	7/25/2018		1.029	
iNATGAS	7/26/2018		1.029	
iNATGAS	7/27/2018		1.029	
iNATGAS	7/28/2018		1.029	
iNATGAS	7/29/2018		1.029	
iNATGAS	7/30/2018		1.028	
iNATGAS	7/31/2018		1.028	
iNATGAS	8/1/2018		1.028	
iNATGAS	8/2/2018		1.028	
iNATGAS	8/3/2018		1.029	
iNATGAS	8/4/2018		1.029	
iNATGAS	8/5/2018		1.029	
iNATGAS	8/6/2018		1.029	
iNATGAS	8/7/2018		1.029	
iNATGAS	8/8/2018		1.029	
iNATGAS	8/9/2018		1.029	
iNATGAS	8/10/2018		1.028	
iNATGAS	8/11/2018		1.029	
iNATGAS	8/12/2018		1.029	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	8/13/2018		1.029	
iNATGAS	8/14/2018		1.029	
iNATGAS	8/15/2018		1.029	
iNATGAS	8/16/2018		1.029	
iNATGAS	8/17/2018		1.029	
iNATGAS	8/18/2018		1.029	
iNATGAS	8/19/2018		1.029	
iNATGAS	8/20/2018		1.029	
iNATGAS	8/21/2018		1.029	
iNATGAS	8/22/2018		1.029	
iNATGAS	8/23/2018		1.029	
iNATGAS	8/24/2018		1.029	
iNATGAS	8/25/2018		1.0285	
iNATGAS	8/26/2018		1.029	
iNATGAS	8/27/2018		1.028	
iNATGAS	8/28/2018		1.0275	
iNATGAS	8/29/2018		1.028	
iNATGAS	8/30/2018		1.028	
iNATGAS	8/31/2018		1.0285	
iNATGAS	9/1/2018		1.029	
iNATGAS	9/2/2018		1.028	
iNATGAS	9/3/2018		1.029	
iNATGAS	9/4/2018		1.0285	
iNATGAS	9/5/2018		1.0285	
iNATGAS	9/6/2018		1.029	
iNATGAS	9/7/2018		1.029	
iNATGAS	9/8/2018		1.029	
iNATGAS	9/9/2018		1.029	
iNATGAS	9/10/2018		1.029	
iNATGAS	9/11/2018		1.029	
iNATGAS	9/12/2018		1.029	
iNATGAS	9/13/2018		1.029	
iNATGAS	9/14/2018		1.029	
iNATGAS	9/15/2018		1.029	
iNATGAS	9/16/2018		1.0285	
iNATGAS	9/17/2018		1.029	
iNATGAS	9/18/2018		1.029	
iNATGAS	9/19/2018		1.028	
iNATGAS	9/20/2018		1.028	
iNATGAS	9/21/2018		1.028	
iNATGAS	9/22/2018		1.028	
iNATGAS	9/23/2018		1.028	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	9/24/2018		1.029	
iNATGAS	9/25/2018		1.0285	
iNATGAS	9/26/2018		1.027	
iNATGAS	9/27/2018		1.0295	
iNATGAS	9/28/2018		1.03	
iNATGAS	9/29/2018		1.03	
iNATGAS	9/30/2018		1.03	
iNATGAS	10/1/2018		1.026	
iNATGAS	10/2/2018		1.028	
iNATGAS	10/3/2018		1.029	
iNATGAS	10/4/2018		1.028	
iNATGAS	10/5/2018		1.029	
iNATGAS	10/6/2018		1.029	
iNATGAS	10/7/2018		1.0295	
iNATGAS	10/8/2018		1.029	
iNATGAS	10/9/2018		1.028	
iNATGAS	10/10/2018		1.0285	
iNATGAS	10/11/2018		1.029	
iNATGAS	10/12/2018		1.029	
iNATGAS	10/13/2018		1.029	
iNATGAS	10/14/2018		1.03	
iNATGAS	10/15/2018		1.03	
iNATGAS	10/16/2018		1.03	
iNATGAS	10/17/2018		1.03	
iNATGAS	10/18/2018		1.029	
iNATGAS	10/19/2018		1.0305	
iNATGAS	10/20/2018		1.029	
iNATGAS	10/21/2018		1.029	
iNATGAS	10/22/2018		1.03	
iNATGAS	10/23/2018		1.03	
iNATGAS	10/24/2018		1.031	
iNATGAS	10/25/2018		1.031	
iNATGAS	10/26/2018		1.032	
iNATGAS	10/27/2018		1.031	
iNATGAS	10/28/2018		1.03	
iNATGAS	10/29/2018		1.03	
iNATGAS	10/30/2018		1.03	
iNATGAS	10/31/2018		1.03	
iNATGAS	11/1/2018		1.031	
iNATGAS	11/2/2018		1.03	
iNATGAS	11/3/2018		1.03	
iNATGAS	11/4/2018		1.03	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	11/5/2018		1.03	
iNATGAS	11/6/2018		1.03	
iNATGAS	11/7/2018		1.03	
iNATGAS	11/8/2018		1.03	
iNATGAS	11/9/2018		1.03	
iNATGAS	11/10/2018		1.031	
iNATGAS	11/11/2018		1.031	
iNATGAS	11/12/2018		1.031	
iNATGAS	11/13/2018		1.033	
iNATGAS	11/14/2018		1.032	
iNATGAS	11/15/2018		1.031	
iNATGAS	11/16/2018		1.031	
iNATGAS	11/17/2018		1.031	
iNATGAS	11/18/2018		1.031	
iNATGAS	11/19/2018		1.031	
iNATGAS	11/20/2018		1.031	
iNATGAS	11/21/2018		1.032	
iNATGAS	11/22/2018		1.032	
iNATGAS	11/23/2018		1.034	
iNATGAS	11/24/2018		1.033	
iNATGAS	11/25/2018		1.032	
iNATGAS	11/26/2018		1.034	
iNATGAS	11/27/2018		1.033	
iNATGAS	11/28/2018		1.035	
iNATGAS	11/29/2018		1.034	
iNATGAS	11/30/2018		1.034	
iNATGAS	12/1/2018		1.032	
iNATGAS	12/2/2018		1.031	
iNATGAS	12/3/2018		1.031	
iNATGAS	12/4/2018		1.035	
iNATGAS	12/5/2018		1.036	
iNATGAS	12/6/2018		1.037	
iNATGAS	12/7/2018		1.035	
iNATGAS	12/8/2018		1.036	
iNATGAS	12/9/2018		1.036	
iNATGAS	12/10/2018		1.038	
iNATGAS	12/11/2018		1.036	
iNATGAS	12/12/2018		1.038	
iNATGAS	12/13/2018		1.034	
iNATGAS	12/14/2018		1.033	
iNATGAS	12/15/2018		1.031	
iNATGAS	12/16/2018		1.034	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	12/17/2018		1.034	
iNATGAS	12/18/2018		1.036	
iNATGAS	12/19/2018		1.032	
iNATGAS	12/20/2018		1.032	
iNATGAS	12/21/2018		1.03	
iNATGAS	12/22/2018		1.031	
iNATGAS	12/23/2018		1.031	
iNATGAS	12/24/2018		1.032	
iNATGAS	12/25/2018		1.033	
iNATGAS	12/26/2018		1.032	
iNATGAS	12/27/2018		1.032	
iNATGAS	12/28/2018		1.033	
iNATGAS	12/29/2018		1.032	
iNATGAS	12/30/2018		1.032	
iNATGAS	12/31/2018		1.031	
iNATGAS	1/1/2019		1.035	
iNATGAS	1/2/2019		1.035	
iNATGAS	1/3/2019		1.034	
iNATGAS	1/4/2019		1.034	
iNATGAS	1/5/2019		1.034	
iNATGAS	1/6/2019		1.034	
iNATGAS	1/7/2019		1.038	
iNATGAS	1/8/2019		1.033	
iNATGAS	1/9/2019		1.033	
iNATGAS	1/10/2019		1.0375	
iNATGAS	1/11/2019		1.038	
iNATGAS	1/12/2019		1.037	
iNATGAS	1/13/2019		1.042	
iNATGAS	1/14/2019		1.039	
iNATGAS	1/15/2019		1.036	
iNATGAS	1/16/2019		1.037	
iNATGAS	1/17/2019		1.055	
iNATGAS	1/18/2019		1.046	
iNATGAS	1/19/2019		1.052	
iNATGAS	1/20/2019		1.051	
iNATGAS	1/21/2019		1.052	
iNATGAS	1/22/2019		1.05	
iNATGAS	1/23/2019		1.0385	
iNATGAS	1/24/2019		1.032	
iNATGAS	1/25/2019		1.0385	
iNATGAS	1/26/2019		1.036	
iNATGAS	1/27/2019		1.035	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	1/28/2019		1.036	
iNATGAS	1/29/2019		1.0385	
iNATGAS	1/30/2019		1.042	
iNATGAS	1/31/2019		1.046	
iNATGAS	2/1/2019		1.049	
iNATGAS	2/2/2019		1.041	
iNATGAS	2/3/2019		1.037	
iNATGAS	2/4/2019		1.036	
iNATGAS	2/5/2019		1.032	
iNATGAS	2/6/2019		1.032	
iNATGAS	2/7/2019		1.032	
iNATGAS	2/8/2019		1.031	
iNATGAS	2/9/2019		1.035	
iNATGAS	2/10/2019		1.036	
iNATGAS	2/11/2019		1.036	
iNATGAS	2/12/2019		1.037	
iNATGAS	2/13/2019		1.033	
iNATGAS	2/14/2019		1.033	
iNATGAS	2/15/2019		1.032	
iNATGAS	2/16/2019		1.032	
iNATGAS	2/17/2019		1.032	
iNATGAS	2/18/2019		1.032	
iNATGAS	2/19/2019		1.032	
iNATGAS	2/20/2019		1.032	
iNATGAS	2/21/2019		1.031	
iNATGAS	2/22/2019		1.03	
iNATGAS	2/23/2019		1.031	
iNATGAS	2/24/2019		1.031	
iNATGAS	2/25/2019		1.032	
iNATGAS	2/26/2019		1.038	
iNATGAS	2/27/2019		1.036	
iNATGAS	2/28/2019		1.036	
iNATGAS	3/1/2019		1.035	
iNATGAS	3/2/2019		1.034	
iNATGAS	3/3/2019		1.032	
iNATGAS	3/4/2019		1.038	
iNATGAS	3/5/2019		1.036	
iNATGAS	3/6/2019		1.039	
iNATGAS	3/7/2019		1.04	
iNATGAS	3/8/2019		1.037	
iNATGAS	3/9/2019		1.033	
iNATGAS	3/10/2019		1.032	

Customer	Date	MCF	BtuFactor	Dth
iNATGAS	3/11/2019		1.034	
iNATGAS	3/12/2019		1.033	
iNATGAS	3/13/2019		1.031	
iNATGAS	3/14/2019		1.03	
iNATGAS	3/15/2019		1.03	
iNATGAS	3/16/2019		1.03	
iNATGAS	3/17/2019		1.03	
iNATGAS	3/18/2019		1.03	
iNATGAS	3/19/2019		1.032	
iNATGAS	3/20/2019		1.031	
iNATGAS	3/21/2019		1.03	
iNATGAS	3/22/2019		1.03	
iNATGAS	3/23/2019		1.031	
iNATGAS	3/24/2019		1.031	
iNATGAS	3/25/2019		1.032	
iNATGAS	3/26/2019		1.033	
iNATGAS	3/27/2019		1.032	
iNATGAS	3/28/2019		1.03	
iNATGAS	3/29/2019		1.031	
iNATGAS	3/30/2019		1.0295	
iNATGAS	3/31/2019		1.03	

REDACTED

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

Staff Data Requests - Set 6

Date Request Received: 4/4/19
Request No. Staff 6-7

Date of Response: 4/19/19
Respondent: Francisco C. DaFonte

REQUEST:

Staff requests that certain SENDOUT runs presented in Table 2 at page 52 of the Supplemental Direct Testimony of Francisco C. DaFonte and William R. Killeen be repeated with the following specific changes. All other inputs and specifications should be the same, in order that the requested cases can be compared directly with the cases reported in Table 2.

If possible, use the Company's *Alternative Case Sensitivity Supplemental* to evaluate the impact of the Granite Bridge Pipeline on commodity costs. Can this be done by replacing the Granite Bridge Pipeline with expansion of the Concord Lateral, then re-running the case?

RESPONSE:

For context and convenience, the Company provides the following, which was submitted on August 20, 2018, in response to Staff 5-15:

As stated in the Company's response to OCA 2-88R and its initial response to Staff 5-15, when making any adjustments to the fixed costs of any resource in the SENDOUT® model that is not part of a resource mix option, the overall portfolio cost changes only by the difference in the change to the fixed cost of the resource being altered. As such, by replacing the fixed cost of the Granite Bridge Pipeline with the fixed cost of the Concord Lateral expansion, the total cost impact in the requested Alternative Case Prime Sensitivity case would effectively be the difference in the fixed costs of the two pipeline options....

The results of replacing the Granite Bridge Pipeline with a 75,000 Dth/day expansion of the Concord Lateral were provided in the Company's initial response to Staff 5-15 in Confidential Attachment Staff 5-15.xlsx. Note that the comparison of the two options begins in 2021–2022 as that is the anticipated in-service date of the Granite Bridge Pipeline. As shown in Confidential Attachment Staff 5-15.xlsx, subtracting the total Granite Bridge Pipeline cost from 2021–2022 through 2037–2038 (column D) from the Concord Lateral Expansion Cost for the same period (column E) yields the total cost difference between the two pipeline options.

Given Staff's desire to review another proof of the comparison of the fixed costs concept, which was previously submitted as the Company's response to OCA 2-88R, the Company took the additional step to run the SENDOUT® model. The results are provided as Confidential Attachment Staff 5-15.1. Specifically, the Company revised its Alternative Case Prime Sensitivity by replacing the Granite Bridge Pipeline cost with the mid-point range of the indicative rates provided by Tennessee Gas Pipeline to expand the Concord Lateral capacity by 75,000 Dth per day (i.e., the same assumption used in Confidential Attachment Staff 5-15.xlsx). In order to maintain the SENDOUT® schematic integrity provided in the Company's response to OCA 2-75, and for ease of reference, the Company maintained the same labeling convention in SENDOUT® for the upstream supply options, i.e. "Repsol to101" and "PNGTS2RT101," and simply replaced the Granite Bridge Pipeline option with the Concord Lateral Expansion option (shown as "Con Lat Ex" in Confidential Attachment Staff 5-15.1).

Subtracting the total "Net Cost" of the Alternative Case Prime Sensitivity scenario (see page 64 of Confidential Attachment PLAN 5-4.4) from the total "Net Cost" of this new scenario (see page 64 of Confidential Attachment Staff 5-15.1), results in the exact same cost difference as previously provided by the Company in Confidential Attachment Staff 5-15.xlsx.

In addition, the Company provided the following response to OCA 2-72:

[W]ith respect to the Granite Bridge Pipeline interconnection with the Joint Facilities (i.e., the "node" referenced in the question), it is important to note that the supplies available at the Dracut point are the same supplies that are available to the Company using the proposed Granite Bridge Pipeline (e.g., expansion on PNGTS, imported LNG from Canaport, and off-shore Nova Scotia production until field shutdown). In other words, the Granite Bridge Pipeline originates at a point on the Joint Facilities just upstream of Dracut and, therefore, the Company would have access to supplies that are flowing on the Joint Facilities either on Granite Bridge Pipeline or at Dracut. The Granite Bridge Pipeline has the additional benefit of providing service from the proposed Granite Bridge LNG facility, which a TGP Concord Lateral expansion does not.

Based on the above context, in the Company's Alternative Case Sensitivity Supplemental scenario, the impact of replacing the Granite Bridge Pipeline with an expansion of the TGP Concord Lateral would result in a higher cost to the EnergyNorth customers. This higher cost can be calculated as the difference between the lower cost associated with the cost-of-service of the Granite Bridge Pipeline and the higher cost associated with the TGP Concord Lateral expansion. Specifically, the annual cost-of-service for the Granite Bridge Pipeline is approximately \$17.6 million¹ as compared to the annual cost for the TGP Concord Lateral estimated at approximately [REDACTED];² or an annual cost difference of approximately [REDACTED].

¹ See, Supplemental Testimony of Francisco C. DaFonte and William R. Killeen at Bates 034.

² See, Confidential Attachment Staff 5-15.

The shaded (or redacted) information above relates to the estimated costs for TGP to upgrade the Concord Lateral, which information is protected from disclosure by RSA 91-A:5, IV, as “confidential, commercial, or financial information” of a third party. TGP provided this estimate to Liberty under the terms of a non-disclosure agreement which requires the Company to maintain its confidentiality, and the Commission granted confidential treatment of this information in Order No. 26,166 (Aug. 1, 2018). Therefore, pursuant to that statute and Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of this information and will submit a motion confirming confidential treatment prior to the final hearing in this docket.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
 Granite Bridge Project

PLAN Data Requests - Set 4

Date Request Received: 6/26/18
 Request No. PLAN 4-4

Date of Response: 7/10/18
 Respondent: William R. Killeen

REQUEST:

Please provide a table showing the maximum daily quantity that Tennessee is obligated to deliver on a firm basis at each Liberty meter on the Concord Lateral under the firm transportation contracts that are currently in effect.

RESPONSE:

The Company has a total Maximum Daily Quantity (“MDQ”) on the Concord Lateral of 106,833 Dth/day. However, different gate stations have different entitlements. The Company cannot flow more than the 106,833 Dth/day but is entitled to deliver certain MDQs at each gate as shown below. The sum of these delivery point capacities by meter exceeds the 106,833 Dth/day total contractual MDQ. The Company has delivery point capacity on certain of its legacy contracts that allows it to deliver specified volumes to various meters. While the delivered volumes to each meter on a contract may exceed the total contract MDQ, Liberty cannot deliver, in aggregate, more than the MDQ on the contract. Stated simply, there is more meter capacity than there is contract capacity. For example, on contract #8587, if the Company nominated / delivered the full Meter Point Quantity at Laconia of 13,894 Dth/day, it would not be able to nominate / deliver the full Meter Point Quantity at Manchester (16,000 Dth/day), as the remaining MDQ on the contract would be 11,513 Dth/day.

METER POINT QUANTITIES									
BY CONTRACT									
Contract No.		#8587	#632	#11234	#2302	#95346	#72694	#42076	
Contract MDQ		25,407	15,265	9,039	3,122	4,000	30,000	20,000	106,833
Meter Name	Meter #								
Manchester	420133	16,000	12,624	8,107	1,589	0	0	12,000	50,320
Nashua	420132	23,081	12,624	4,240	1,589	0	0	8,000	49,534
Hooksett	420254	1,322	1,322	2,050	0	0	0	0	4,694
Laconia	420426	13,894	12,624	2,982	0	4,000	30,000	0	63,500
Suncook	420451	1,000	1,000	0	0	0	0	0	2,000
Londonderry	420632	559	2,641	0	0	0	0	0	3,200
		55,856	42,835	17,379	3,178	4,000	30,000	20,000	173,248

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 8

Date Request Received: 4/1/19
Request No. PLAN 8-1

Date of Response: 4/19/19
Respondent: William R. Killen

REQUEST:

Reference: PLAN 1-1. Please update the response to include actual peak day information for the 2018-19 winter

RESPONSE:

Please see Attachment PLAN 8-1 for the requested information.

EnergyNorth Peak Day Data in Recent Years
(Therms)

Winter	15/16	16/17	17/18	18/19
Peak Day	02/14/2016	12/15/2016	01/01/2018	01/21/2019
EDD	65	62	70	70
Requirements	1,392,710	1,234,410	1,482,290	1,519,670
Resources				
Pipeline Supplies by meter:				
20132 Nashua	441,900	459,540	508,930	508,150
20133 Manchester	308,240	331,070	336,860	351,070
20254 Hookset	19,490	17,100	20,550	21,400
20426 Concord	281,310	258,560	315,130	269,680
20451 Suncook	21,390	18,090	22,300	23,710
20632 Londonderry	103,760	89,040	120,530	123,510
49858 Pelham	-	-	-	1,350
Berlin	5,450	5,340	5,620	5,470
Propane	157,460	-	80,560	96,380
Manchester	59,070	-	42,450	43,800
Nashua	89,780	-	38,110	50,000
Tilton	8,610	-	-	2,580
LNG	53,710	55,670	71,810	118,950
Manchester	18,390	18,980	36,770	37,920
Concord	-	2,370	-	29,910
Tilton	34,420	33,530	34,480	49,340
Boiloff	900	790	560	1,780
Total Resources	1,392,710	1,234,410	1,482,290	1,519,670
Granite Ridge Power Plant Usage (Therms)	160*	871,840	773,260	1,166,290

* Granite Ridge Power Plant was down for maintenance

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 1

Date Request Received: 5/29/18
Request No. PLAN 1-4

Date of Response: 6/8/18
Respondent: Francisco C. DaFonte

REQUEST:

What is the capacity of the Hudson lateral that supplies the Nashua market area? If EnergyNorth's Design Day Demand increases as shown on Table 7 of the Killeen and Stephens Direct Testimony, does EnergyNorth expect that it may be necessary to expand or otherwise modify the TGP Hudson lateral within the next ten years? Does the response to this question change if the Nashua propane peaking facility is taken out of service?

RESPONSE:

The Hudson Lateral is an 8-inch diameter pipe with a length of 3.58 miles. Using the Colebrook-White equations for calculating pipe flow, Table PLAN 1-4 provides the calculated maximum hourly flow limits and maximum daily flow limits at varying inlet pressures on the Tennessee Concord Lateral assuming a minimum delivery pressure in Nashua of 200 psig.

Table PLAN 1-4

Inlet Pressure (PSIG)	Max Flow (Mcfh)	Max Daily Flow (Mcf)
250	860	20,640
300	1287	30,888
350	1656	39,744
400	2000	48,000
450	2332	55,968
500	2654	63,696
550	2973	71,352

As shown in Table PLAN 1-4 above, assuming a 550 psig inlet pressure to the Hudson Lateral, the maximum daily capacity of the Lateral would be over 71,000 Dth. For reference purposes, the Company's highest historical flow at the Nashua gate occurred on a 71 effective degree day on January 6, 2018, with a volume of 54,720 Dth. The Company did not use any propane from its Nashua facility during this day. Given the added pressure support of the Granite Bridge Pipeline interconnect in Manchester coupled with the fact that the Hudson Lateral is downstream

of Tennessee's Pelham compressor station, it is likely that the inlet pressures to the Hudson Lateral will exceed 550 psig.

Given the calculated maximum capacity on the Hudson Lateral of approximately 71,000 Dth compared to the Company's historical high usage in its Nashua service territory of approximately 55,000 Dth, there is approximately 16,000 Dth of additional capacity on the Hudson Lateral to meet Nashua's future growth. However, since the Company has continued to expand its distribution system across its service territories, it is now less than two miles away from directly connecting the Londonderry service territory with the Nashua service territory. The connection of the two service territories should occur within the next few years. By connecting the two distribution systems, the Company will be able to flow additional gas from the Londonderry gate station into Nashua, which will help to reduce the volumes taken through the Nashua meter. Thus, the additional capacity available on the Hudson Lateral coupled with the ability to flow additional supplies from the Londonderry gate station into Nashua, should allow the Company to meet its expected growth forecast without the need to expand the Hudson Lateral.

As stated earlier, the Nashua propane facility was not utilized during the historical peak flow day in Nashua so none of the assumptions stated earlier would change absent the Nashua propane facility.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 8

Date Request Received: 4/1/19
Request No. PLAN 8-18

Date of Response: 4/19/19
Respondent: Francisco C. DaFonte

REQUEST:

Reference: PLAN 1-4 and PLAN 6-5. Given the information contained in Attachment PLAN 6-5--that TGP estimates the Hudson Lateral capacity to be approximately 65,910 Dth/day—is Liberty still confident that no upgrades to the Hudson Lateral will be necessary during the 20-year planning horizon if the Nashua propane facility is retired? Please explain.

RESPONSE:

Yes, the Company is still confident that no upgrades to the Hudson Lateral will be necessary during the 20-year planning horizon if the Nashua propane facility is retired. As discussed in the Company's responses to PLAN 1-4 and PLAN 6-6, Liberty continues to expand its distribution system between Londonderry and Nashua/Hudson as it adds new customers. By further integrating the two systems, the Company would be able to flow gas from its Londonderry gate station into its Nashua/Hudson distribution system, which would back off on the volume of gas needed to flow on the Hudson Lateral to serve its Nashua/Hudson distribution systems.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 6

Date Request Received: 8/13/18
Request No. PLAN 6-5

Date of Response: 8/24/18
Respondent: Francisco C. DaFonte

REQUEST:

Please provide all documents and communications with TGP related to Liberty's plans to connect the Granite Bridge Pipeline to the TGP Concord Lateral.

RESPONSE:

Please see Confidential Attachment PLAN 6-5.

Confidential Attachment PLAN 6-5 contains confidential third-party business information which is protected from disclosure by RSA 91-A:5, IV, as "confidential, commercial, or financial information" of a third party. Therefore, pursuant to that statute and Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of the redacted information and will submit a motion seeking confidential treatment prior to the final hearing in this docket.

Chico DaFonte

From: Sculley, Coralie Carter <Coralie_Sculley@kindermorgan.com>
Sent: Friday, June 29, 2018 2:44 PM
To: Chico DaFonte
Subject: FW: Concord Lateral & Meters Capacity to Accommodate Manchester Receipts [REDACTED]

Chico, as a follow-up to our meeting in Boston, we have reviewed your request to determine if there is [REDACTED] using the assumptions in Scenario II below.

We should be able to do [REDACTED] from the new Manchester meter location [REDACTED]. Please note that this scenario, as well as the ones below, assume that the new Manchester receipt meter is connected to both of our lines rather than a single tap into only one of the lines. For that proposed size of interconnect dual taps would be advisable for reliability anyway.

From: Sculley, Coralie Carter
Sent: Friday, June 08, 2018 11:43 AM
To: 'Chico DaFonte'
Cc: Stokdyk, Michael A (Mike); Ochoa, Ernesto A
Subject: Concord Lateral & Meters Capacity to Accommodate Manchester Receipts

Chico, per our conference call earlier this week, please see our initial responses below. Keep in mind that this is for discussion purposes only and represents a very high level assessment of TGP's existing facilities and is based on recent historical operational flow information which can change at any time.

METER CAPACITIES REQUEST:

	NASHUA	MANCHESTER	HOOKSETT	LACONIA	SUNCOOK	LONDONDERRY
EBB Capacity (MMBtu)	62,064	67,628	2,476	60,000	1,210	12,068
Requested Capacity (MMBtu)	71,439	53,891	2,649	45,745	2,881	15,341
Excess/(Shortfall)	(9,375)	13,737	(-173)	14,255	(1,671)	(3,273)

This preliminary check indicates that Nashua, Hooksett, Suncook and Londonderry will need at least some enhancements to handle the requested quantities to meet Tennessee's design and operating specifications for safety and accuracy of measurement.

NASHUA METER AND LATERAL:

Liberty requested TGP assess its facilities and operational ability to re-direct existing Concord Lateral firm quantities from Nashua to Liberty's other meters downstream (north) on the Lateral in conjunction with supplying those downstream meters from the proposed new Manchester Interconnect.

Meter:

Our records indicate that Liberty can deliver 38,910 Dth/d to Nashua on a firm primary basis with existing contracts. That results in an incremental 23,154 Dth/d of Nashua meter capacity available. Therefore, contracting for firm volumes, if available, in excess of 62,064 Dth/d per your Meter Capacities request above requires a meter expansion.

Lateral:

Preliminary analysis of the lateral indicates TGP can flow an incremental 27,000 Dth/d before velocity and pressure issues would require some looping of the Nashua Lateral. So, the lateral has a little more capacity than the meter, but would also need some work when Liberty's desired total primary firm quantities exceed 65,910 Dth/d.

LONG TERM FLOW SCENARIOS:

Scenario I Liberty's Long Term Requirements

Assumptions:

- All Liberty existing firm primary contract quantities re-directed to base of Nashua Lateral
- Receipt at proposed Manchester Interconnect of 120,507 Dth/d projected demand delivered to the meters and in quantities shown above (net Nashua quantity)

Preliminary Assessment:

It appears that TGP's existing pipe assets are capable of handling the flows predicated by such a scenario. Again, keeping in mind that it is difficult to anticipate what all the other flows and conditions on the pipeline will be at such a future date

Scenario II Liberty's Long Term Requirements [REDACTED]

Assumptions:

- All Liberty existing firm primary contract quantities re-directed to base of Nashua Lateral
- Receipt at proposed Manchester Interconnect of 120,507 Dth/d delivered to the meters and in quantities shown above (net Nashua quantity)

- [REDACTED] Though Liberty envisions a limited [REDACTED] which is what we assumed)

Preliminary Assessment:

This does not appear to be a viable option as the 6" and 12" pipe we have at Manchester would require that the Manchester receipt pressures exceed our MAOP of 750# in order to [REDACTED]

Please let me know if you have any questions or clarifications. We can discuss further on Tuesday when we get together.

From: Chico DaFonte [<mailto:Chico.DaFonte@libertyutilities.com>]
Sent: Monday, June 04, 2018 6:01 PM
To: Sculley, Coralie Carter; Stokdyk, Michael A (Mike)
Subject: Meter Capacities

[This email message was received from the Internet and came from outside of Kinder Morgan]

Coralie and Mike,

Thank you for taking the time to discuss the Concord Lateral flow dynamics with me today. As we discussed, below are the meter capacities that we would like to be able to have over the next 10 or so years [REDACTED] Let me know fi you have any questions.

Regards,

NASHUA	MANCHESTER	HOOKSET	CONCORD	SUNCOOK	LONDONDERRY
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MMBtu	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu
71,439	53,891	2,649	45,745	2,881	15,341

Chico DaFonte | Liberty Utilities (New Hampshire) | VP Regulated Infrastructure Development - Gas
P: 603-216-3531 | C: 508-868-2271 | E: Chico.DaFonte@libertyutilities.com
15 Buttrick Road, Londonderry, NH 03053

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 3

Date Request Received: 6/11/18
Request No. PLAN 3-1

Date of Response: 6/25/18
Respondent: Francisco C. DaFonte

REQUEST:

Reference CONFIDENTIAL Attachment OCA 2-46, page 3 of 22.

- a. [REDACTED]
- b. [REDACTED]
- c. [REDACTED]
- d. [REDACTED]

RESPONSE:

- a. [REDACTED]
- b. [REDACTED]
- c. [REDACTED]

d. [REDACTED]

This question and response contain substantial and interwoven references to the confidential Tennessee Gas Pipeline information contained in Confidential Attachment OCA 2-46, which consists of the TGP pricing and closely related terms for which the Company sought protective treatment in the Motion for Protective Order filed at the outset of this docket. This information was provided to the Company on condition of confidentiality and TGP has declined to authorize public disclosure. The statutory basis for confidentiality is RSA 91-A:5, IV, which protects “confidential, commercial, or financial information,” especially of a third party.

Therefore, pursuant to that statute and Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of this information and will submit a motion seeking confidential treatment prior to the final hearing in this docket.

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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Report 1

NOV 2018 thru OCT 2019

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2101	JAN 19, 2019	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	162.67
Other Variable Cost	342	Carrying Cost	311			System Unserved	0.00
		Other Variable Cost	0			Total	162.67
Total Variable	██████	Total Variable	404	Total Variable	2101		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	2660	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	85106
						Total Revenue	0
						Net Cost	85106

Avg Cost of Served Demand 5.685 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 4.244 USD/DT
(Supply Cost/LDC Purchase)

Class	Demand Summary					Served	Unserved	Revenue	Peak Served	Peak Unserved
	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.					
ENGINormal	14970.1	0.0	14970.1	0.0	14970.1	14970.1	0.0	0	162.7	0.0
Total	14970.1	0.0	14970.1	0.0	14970.1	14970.1	0.0	0	162.7	0.0

Source	Supply Summary			Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
	Total Take	Max Take	Surplus							
ENGUSGC	2334.6	18250.0	15915.4			3.0807	7192	0	7192	3.0807
ENGNiagara	900.0	1167.3	267.3			2.8098	2529	0	2529	2.8098
ENGPNGTS	254.2	365.0	110.8			3.4678	882	0	882	3.4678
ENGC3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6644.6	6690.4	45.8			2.1110	14027	0	14027	2.1110
DliqWinter	250.0	250.0	0.0			██████████	██████████	██████████	██████████	██████████
Dracut 20	2249.9	7315.4	5065.5			7.6532	17219	0	17219	7.6532
ENGC3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DliqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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Report 1 (Continued) 10:57:40

NOV 2018 thru OCT 2019

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGDawn	705.4	2190.0	1484.6			3.3050	2331	0	2331	3.3050
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	706.3	10973.0	10266.8			9.7280	6871	0	6871	9.7280
Engie Combo	630.0	630.0	0.0							
DAWN5	326.3	651.2	324.9							
Total	15183.1									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	321.0	321.6	0	0.0	12	95	0.0	-1	126	130	4
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	953	1043	90
ENGFSMA	1482	95	1766.0	1731.5	0	18.9	1498	96	0.0	16	2573	3075	503
ENGDominion	103	100	112.4	110.2	0	2.2	103	100	0.0	0	178	219	41
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1164	1388	223
ENGHON	246	100	238.3	238.3	0	0.0	246	100	0.0	0	427	488	61
GranBrdgLNG	0	N/A	0.0	0.0	0	0.0	0	N/A	0.0	0	0	0	0
Total	2591	N/A	3319.4	3277.6	0	26.8	2606	N/A	5.6	15	5422	6344	922

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2334.6	0.0	2334.6	7882.5	5547.9	0	5043	0	5043	2.1602
ENGTGP2Stg	94.2	1.9	92.2	7882.5	7790.3	24	0	0	24	0.2572
ENGTGPLong	6035.1	0.0	6035.1	8698.1	2662.9	0	0	0	0	0.0000
ENGTGPBND	900.0	5.6	894.4	1139.5	245.2	77	267	0	344	0.3824
ENGTGPShort	2789.5	23.7	2765.8	10262.0	7496.2	314	2688	0	3002	1.0761
TrCanCharges	697.3	8.0	689.3	1477.2	787.8	0	698	0	698	1.0003
IroqCharges	689.3	4.3	685.1	1477.2	792.1	61	640	0	701	1.0168
ENGPNGTS	254.2	2.5	251.7	365.0	113.3	0	312	0	312	1.2283
ENGLNG	321.6	0.0	321.6	10950.0	10628.4	0	0	0	0	0.0000
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000
Dracut 30	1262.4	2.7	1259.7	10950.0	9690.3	55	4388	0	4443	3.5196

Scen 1542 OCA 12-18.b.1(BC Sup 2.0wCBG Lo Dem)
- Draw 0

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Report 1 (Continued) 10:57:40

NOV 2018 thru OCT 2019

Cost and Flow Summary

Units: MDT, USD (000)

=====											
Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
UnionCharges	705.4	8.0	697.3	1477.2	779.8	0	140	0	140	0.1985	
Dracut 20	2020.0	4.2	2015.8	7300.0	5284.2	88	1134	0	1221	0.6046	
ENGTGPZ4	2240.5	62.4	2178.0	9125.0	6947.0	667	0	0	667	0.2976	
Z4toTGPLH	3890.2	33.1	3857.1	7665.0	3807.9	438	0	0	438	0.1126	
Z4toStg	2754.4	9.1	2745.3	7882.5	5137.2	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	0.0	0.0	0.0	651.2	651.2	0	█	0	█	0.0000	
DAWN5Dracut	326.3	0.0	326.3	651.2	324.9	10	0	0	10	0.0309	
Total		165.6				2101	█		█	0.6576	

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2019 thru OCT 2020

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2120	JAN 19, 2020	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	164.07
Other Variable Cost	346	Carrying Cost	313			System Unserved	0.00
		Other Variable Cost	0			Total	164.07
Total Variable	██████	Total Variable	407	Total Variable	2120		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	2686	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	82304
						Total Revenue	0
						Net Cost	82304

Avg Cost of Served Demand 5.421 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.892 USD/DT
(Supply Cost/LDC Purchase)

Class	Demand Summary					Served	Unserved	Revenue	Peak Served	Peak Unserved
	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.					
ENGINormal	15182.6	0.0	15182.6	0.0	15182.6	15182.6	0.0	0	164.1	0.0
Total	15182.6	0.0	15182.6	0.0	15182.6	15182.6	0.0	0	164.1	0.0

Supply Summary

Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2320.8	18300.0	15979.2			2.8339	6577	0	6577	2.8339
ENGNiagara	829.8	1170.5	340.6			2.3983	1990	0	1990	2.3983
ENGPNGTS	338.2	366.0	27.8			2.9498	998	0	998	2.9498
ENGC3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6691.4	6698.7	7.3			1.8996	12711	0	12711	1.8996
DLiqWinter	250.0	250.0	0.0							
Dracut 20	2053.6	7335.4	5281.8			7.6845	15781	0	15781	7.6845
ENGC3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DLiqSummer	21.0	21.0	0.0							

NOV 2019 thru OCT 2020

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGDawn	712.4	2196.0	1483.6			2.8820	2053	0	2053	2.8820
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	558.6	11003.1	10444.5			9.5333	5325	0	5325	9.5333
Engie Combo	630.0	630.0	0.0							
DAWN5	814.8	1622.1	807.3							
Total	15381.5									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	321.0	321.0	0	0.0	12	95	0.0	0	130	126	-4
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1043	1043	-0
ENGFSMA	1498	96	1757.0	1738.2	0	18.8	1498	96	0.0	0	3075	2822	-253
ENGDominion	103	100	111.7	109.5	0	2.2	103	100	0.0	0	219	203	-16
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1388	1279	-109
ENGHON	246	100	245.7	245.7	0	0.0	246	100	0.0	0	488	458	-30
GranBrdgLNG	0	N/A	0.0	0.0	0	0.0	0	N/A	0.0	0	0	0	0
Total	2606	N/A	3317.0	3290.4	0	26.7	2606	N/A	5.6	0	6344	5930	-413

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2320.8	0.0	2320.8	7904.1	5583.4	0	5043	0	5043	2.1731
ENGTGP2Stg	93.5	1.9	91.6	7904.1	7812.6	24	0	0	24	0.2572
ENGTGPLong	6070.5	0.0	6070.5	8719.7	2649.2	0	0	0	0	0.0000
ENGTGPBND	829.8	5.1	824.7	1142.7	318.0	71	267	0	338	0.4075
ENGTGPShort	2802.9	23.8	2779.1	10290.1	7511.0	316	2688	0	3003	1.0715
TrCanCharges	704.2	8.1	696.1	1481.2	785.1	0	698	0	698	0.9905
IroqCharges	696.1	4.3	691.8	1481.2	789.4	62	640	0	702	1.0077
ENGPNGTS	338.2	3.4	334.8	366.0	31.2	1	312	0	312	0.9237
ENGLNG	321.0	0.0	321.0	10980.0	10659.0	0	0	0	0	0.0000
ENGPropane	160.8	0.0	160.8	6370.0	6209.2	0	0	0	0	0.0000
ENGC3Truck	160.8	0.0	160.8	4392.0	4231.2	161	0	0	161	1.0000
Dracut 30	1190.6	2.5	1188.1	10980.0	9791.9	52	4388	0	4440	3.7292

Scen 1542 OCA 12-18.b.1(BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2019 thru OCT 2020

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary

Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
UnionCharges	712.4	8.1	704.2	1481.2	777.0	0	140	0	140	0.1965
Dracut 20	2236.4	4.7	2231.8	7320.0	5088.2	97	1134	0	1231	0.5503
ENGTGPZ4	2227.3	62.1	2165.2	9150.0	6984.8	663	0	0	663	0.2976
Z4toTGPLH	3938.7	33.5	3905.2	7686.0	3780.8	444	0	0	444	0.1126
Z4toStg	2752.7	9.1	2743.6	7904.1	5160.5	136	0	0	136	0.0495
Engie2CG	580.0	0.0	580.0	1064.0	484.0	19	0	0	19	0.0335
GranBrdgPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000
LNGtoRT101	0.0	0.0	0.0	56821.5	56821.5	0	0	0	0	0.0000
LNGtoLNG	0.0	0.0	0.0	2928.0	2928.0	0	0	0	0	0.0000
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	0.0	0.0	0.0	1622.1	1622.1	0	█	0	█	0.0000
DAWN5Dracut	814.8	0.0	814.8	1622.1	807.3	25	0	0	25	0.0309
Total		166.6				2120	█		█	0.7019

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2020 thru OCT 2021

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2134	JAN 19, 2021	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	163.21
Other Variable Cost	349	Carrying Cost	300			System Unserved	0.00
		Other Variable Cost	0			Total	163.21
Total Variable	██████	Total Variable	393	Total Variable	2134		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	2711	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	81874
						Total Revenue	0
						Net Cost	81874

Avg Cost of Served Demand 5.304 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.777 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	15436.8	0.0	15436.8	0.0	15436.8	15436.8	0.0	0	163.2	0.0
Total	15436.8	0.0	15436.8	0.0	15436.8	15436.8	0.0	0	163.2	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2309.2	18250.0	15940.8			2.6964	6227	0	6227	2.6964
ENGNiagara	912.8	1167.3	254.4			2.2602	2063	0	2063	2.2602
ENGPNGTS	341.4	365.0	23.6			2.8461	972	0	972	2.8461
ENG3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6686.2	6690.4	4.2			1.8040	12062	0	12062	1.8040
DLiqWinter	250.0	250.0	0.0			██████████	██████████	██████████	██████████	██████████
Dracut 20	2021.3	7315.4	5294.0			7.2525	14660	0	14660	7.2525
ENG3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2020 thru OCT 2021

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGDawn	711.3	2190.0	1478.7			2.7284	1941	0	1941	2.7284
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	670.8	10973.0	10302.3			9.8982	6640	0	6640	9.8982
Engie Combo	630.0	630.0	0.0							
DAWN5	922.0	1825.0	903.0							
Total	15636.9									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	321.0	320.4	0	0.0	13	100	0.0	1	126	127	1
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1043	1043	0
ENGFSMA	1498	96	1760.0	1741.2	0	18.8	1498	96	0.0	0	2822	2670	-153
ENGDominion	103	100	110.8	108.6	0	2.2	103	100	0.0	0	203	194	-9
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1279	1214	-65
ENGHON	246	100	241.9	241.9	0	0.0	246	100	0.0	0	458	433	-25
GranBrdgLNG	0	N/A	0.0	0.0	0	0.0	0	N/A	0.0	0	0	0	0
Total	2606	N/A	3315.4	3288.1	0	26.7	2607	N/A	5.6	1	5930	5680	-251

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2309.2	0.0	2309.2	7882.5	5573.3	0	5043	0	5043	2.1840	
ENGTGP2Stg	94.1	1.9	92.2	7882.5	7790.4	24	0	0	24	0.2572	
ENGTGPLong	6055.6	0.0	6055.6	8698.1	2642.4	0	0	0	0	0.0000	
ENGTGPBND	912.8	5.7	907.2	1139.5	232.4	78	267	0	345	0.3782	
ENGTGPShort	2801.2	23.8	2777.4	10262.0	7484.5	316	2688	0	3003	1.0721	
TrCanCharges	703.2	8.1	695.1	1477.2	782.1	0	698	0	698	0.9920	
IroqCharges	695.1	4.3	690.8	1477.2	786.4	62	640	0	701	1.0091	
ENGPNGTS	341.4	3.4	338.0	365.0	27.0	1	312	0	312	0.9152	
ENGLNG	320.4	0.0	320.4	10950.0	10629.6	0	0	0	0	0.0000	
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000	
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000	
Dracut 30	1297.6	2.7	1294.9	10950.0	9655.1	56	4388	0	4445	3.4253	

Scen 1542 OCA 12-18.b.1(BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2020 thru OCT 2021

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
UnionCharges	711.3	8.1	703.2	1477.2	774.0	0	140	0	140	0.1968
Dracut 20	2316.5	4.9	2311.7	7300.0	4988.3	101	1134	0	1234	0.5328
ENGTGPZ4	2215.2	61.7	2153.4	9125.0	6971.6	659	0	0	659	0.2976
Z4toTGPH	3935.7	33.5	3902.2	7665.0	3762.8	443	0	0	443	0.1126
Z4toStg	2750.5	9.1	2741.4	7882.5	5141.1	136	0	0	136	0.0495
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335
GranBrdgPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	0.0	0.0	0.0	1825.0	1825.0	0	█	0	█	0.0000
DAWN5Dracut	922.0	0.0	922.0	1825.0	903.0	28	0	0	28	0.0309
Total		167.2				2134	█		█	0.7073

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2021 thru OCT 2022

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	48	Transportation Cost	2142	JAN 19, 2022	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	166.31
Other Variable Cost	353	Carrying Cost	285			System Unserved	0.00
		Other Variable Cost	0			Total	166.31
Total Variable	████	Total Variable	378	Total Variable	2142		
Demand/Reservation Co	████	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	2738	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	████	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	81512
						Total Revenue	0
						Net Cost	81512

Avg Cost of Served Demand 5.231 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.720 USD/DT
(Supply Cost/LDC Purchase)

Class	Demand Summary					Served	Unserved	Revenue	Peak Served	Peak Unserved
	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.					
ENGINormal	15582.4	0.0	15582.4	0.0	15582.4	15582.4	0.0	0	166.3	0.0
Total	15582.4	0.0	15582.4	0.0	15582.4	15582.4	0.0	0	166.3	0.0

Supply Summary

Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2311.1	18250.0	15938.9			2.6652	6160	0	6160	2.6652
ENGNiagara	939.7	1167.3	227.6			2.2259	2092	0	2092	2.2259
ENGPNGTS	343.8	365.0	21.2			2.8203	970	0	970	2.8203
ENG3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6687.1	6690.4	3.3			1.6728	11186	0	11186	1.6728
DliqWinter	250.0	250.0	0.0			██████████	██████████	██████████	██████████	██████████
Dracut 20	2110.3	7315.4	5205.1			7.4187	15656	0	15656	7.4187
ENG3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DliqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2021 thru OCT 2022

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGDawn	715.1	2190.0	1474.9			2.7028	1933	0	1933	2.7028
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	685.8	10973.0	10287.2			9.0682	6219	0	6219	9.0682
Engie Combo	630.0	630.0	0.0							
DAWN5	927.9	1825.0	897.1							
Total	15782.5									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	321.0	321.0	0	0.0	13	100	0.0	0	127	127	0
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1043	1043	0
ENGFSMA	1498	96	1762.8	1743.9	0	18.9	1498	96	0.0	0	2670	2478	-192
ENGDominion	103	100	110.5	108.4	0	2.2	103	100	0.0	0	194	180	-13
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1214	1129	-85
ENGHON	246	100	239.1	239.1	0	0.0	246	100	0.0	0	433	403	-30
GranBrdgLNG	0	N/A	0.0	0.0	0	0.0	0	N/A	0.0	0	0	0	0
Total	2607	N/A	3315.1	3288.4	0	26.7	2607	N/A	5.6	0	5680	5360	-320

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2311.1	0.0	2311.1	7882.5	5571.4	0	5043	0	5043	2.1822	
ENGTGP2Stg	94.1	1.9	92.2	7882.5	7790.4	24	0	0	24	0.2572	
ENGTGPLong	6058.6	0.0	6058.6	8698.1	2639.5	0	0	0	0	0.0000	
ENGTGPBND	939.7	5.8	933.8	1139.5	205.7	80	267	0	348	0.3699	
ENGTGPShort	2800.9	23.8	2777.1	10262.0	7484.8	315	2688	0	3003	1.0722	
TrCanCharges	707.0	8.1	698.8	1477.2	778.3	0	698	0	698	0.9867	
IroqCharges	698.8	4.3	694.5	1477.2	782.6	62	640	0	702	1.0042	
ENGPNGTS	343.8	3.4	340.4	365.0	24.6	1	312	0	312	0.9088	
ENGLNG	321.0	0.0	321.0	10950.0	10629.0	0	0	0	0	0.0000	
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000	
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000	
Dracut 30	1300.2	2.7	1297.4	10950.0	9652.6	56	4388	0	4445	3.4186	

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2021 thru OCT 2022

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
UnionCharges	715.1	8.1	707.0	1477.2	770.2	0	140	0	140	0.1958
Dracut 20	2423.8	5.1	2418.7	7300.0	4881.3	105	1134	0	1239	0.5111
ENGTGPZ4	2217.0	61.8	2155.2	9125.0	6969.8	660	0	0	660	0.2976
Z4toTGPLH	3936.9	33.5	3903.4	7665.0	3761.6	443	0	0	443	0.1126
Z4toStg	2750.2	9.1	2741.1	7882.5	5141.4	136	0	0	136	0.0495
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335
GranBrdgPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	0.0	0.0	0.0	1825.0	1825.0	0	█	0	█	0.0000
DAWN5Dracut	927.9	0.0	927.9	1825.0	897.1	29	0	0	29	0.0309
Total		167.8				2142	█		█	0.7036

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1

NOV 2022 thru OCT 2023

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	████	Transportation Cost	████	JAN 19, 2023	
Penalty Cost	0	Withdrawal Cost	████	Other Variable Cost	0	System Served	172.77
Other Variable Cost	328	Carrying Cost	████			System Unserved	0.00
		Other Variable Cost	0			Total	172.77
Total Variable	████	Total Variable	████	Total Variable	████		
Demand/Reservation Co	████	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	2670	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	████	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	118759
						Total Revenue	0
						Net Cost	118759

Avg Cost of Served Demand 7.166 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.657 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	16572.1	0.0	16572.1	0.0	16572.1	16572.1	0.0	0	172.8	0.0
Total	16572.1	0.0	16572.1	0.0	16572.1	16572.1	0.0	0	172.8	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2340.9	18250.0	15909.1			2.6914	6300	0	6300	2.6914
ENGNiagara	1146.6	1167.3	20.6			2.2416	2570	0	2570	2.2416
ENGPNGTS	350.0	365.0	15.0			2.8199	987	0	987	2.8199
ENGC3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6690.4	6690.4	0.0			1.5680	10490	0	10490	1.5680
DLiqWinter	250.0	250.0	0.0							
Dracut 20	2447.0	7315.4	4868.3			7.0317	17207	0	17207	7.0317
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1055.8	2190.0	1134.2			2.6206	2767	0	2767	2.6206

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1 (Continued)

NOV 2022 thru OCT 2023

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	1155.0	10973.0	9818.1			8.1172	9375	0	9375	8.1172
Engie Combo	630.0	630.0	0.0							
DAWN5	1814.7	1825.0	10.3							
Total	17972.2									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	332.9	332.9	0	0.0	13	100	0.0	0	127	105	-22
ENGPropane	77	100	91.7	168.5	0	0.0	0	0	0.0	-77	1043	160	-883
ENGFSMA	1498	96	1766.5	1747.6	0	18.9	1498	96	0.0	0	2478	2318	-160
ENGDominion	103	100	109.4	107.3	0	2.1	103	100	0.0	0	180	165	-15
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1129	1061	-68
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	403	378	-25
GranBrdgLNG	0	N/A											
Total	2607	N/A											

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2340.9	0.0	2340.9	7882.5	5541.7	0	5043	0	5043	2.1544
ENGTGP2Stg	94.2	1.9	92.2	7882.5	7790.3	24	0	0	24	0.2572
ENGTGPLong	6092.5	0.0	6092.5	8698.1	2605.6	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2799.3	23.8	2775.5	10262.0	7486.5	315	2688	0	3003	1.0728
TrCanCharges	1043.8	12.0	1031.8	1477.2	445.4	0	698	0	698	0.6683
IroqCharges	1031.8	6.4	1025.4	1477.2	451.7	92	640	0	731	0.7088
ENGPNGTS	350.0	3.5	346.5	365.0	18.5	1	312	0	312	0.8927
ENGLNG	332.9	0.0	332.9	10950.0	10617.1	0	0	0	0	0.0000
ENGPropane	168.5	0.0	168.5	6335.0	6166.5	0	0	0	0	0.0000
ENG3Truck	91.7	0.0	91.7	4380.0	4288.3	92	0	0	92	1.0000
Dracut 30	2280.5	4.8	2275.7	10950.0	8674.3	99	4388	0	4487	1.9677
UnionCharges	1055.8	12.0	1043.8	1477.2	433.3	0	140	0	140	0.1326

Scen 1542 OCA 12-18.b.1(BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2022 thru OCT 2023

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Dracut 20	1321.5	2.8	1318.7	7300.0	5981.3	57	1134	0	1191	0.9013
ENGTGPZ4	2246.7	62.6	2184.1	9125.0	6940.9	669	0	0	669	0.2976
Z4toTGPLH	3941.9	33.5	3908.4	7665.0	3756.6	444	0	0	444	0.1126
Z4toStg	2748.5	9.1	2739.4	7882.5	5143.1	136	0	0	136	0.0495
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	32.9	0.0	32.9	2920.0	2887.1	16	0	0	16	0.5000
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1814.7	0.0	1814.7	1825.0	10.3	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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SENDOUT® Version 14.1.1 REP 1
Report 1

NOV 2023 thru OCT 2024

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	██████	Transportation Cost	██████	JAN 19, 2024	
Penalty Cost	0	Withdrawal Cost	██████	Other Variable Cost	0	System Served	174.93
Other Variable Cost	0	Carrying Cost	██████			System Unserved	0.00
		Other Variable Cost	0			Total	174.93
Total Variable	██████	Total Variable	██████	Total Variable	██████		
Demand/Reservation Co	0	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	110880
						Total Revenue	0
						Net Cost	110880

Avg Cost of Served Demand 6.587 USD/DT (System Cost/Served Dem.)
Avg Cost of Gas Purchased 2.872 USD/DT (Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	16832.0	0.0	16832.0	0.0	16832.0	16832.0	0.0	0	174.9	0.0
Total	16832.0	0.0	16832.0	0.0	16832.0	16832.0	0.0	0	174.9	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2362.2	18300.0	15937.8			2.7629	6526	0	6526	2.7629
ENGNiagara	1149.8	1170.5	20.7			2.3388	2689	0	2689	2.3388
ENGPNGTS	356.0	366.0	10.0			2.8989	1032	0	1032	2.8989
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6698.7	6698.7	0.0			1.6985	11378	0	11378	1.6985
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2191.2	7335.4	5144.2			5.3092	11634	0	11634	5.3092
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1002.6	2196.0	1193.4			2.7124	2720	0	2720	2.7124

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2023 thru OCT 2024

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	1515.3	11003.1	9487.8			5.4873	8315	0	8315	5.4873
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1821.0	1830.0	9.0							
Total	17096.8									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	99.7	99.7	0	0.0	13	100	0.0	0	105	118	13
ENGFSMA	1498	96	1764.3	1745.4	0	18.9	1498	96	0.0	0	2318	2521	203
ENGDominion	103	100	111.2	109.0	0	2.2	103	100	0.0	0	165	178	13
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1061	1153	92
ENGHON	246	100	237.9	237.9	0	0.0	246	100	0.0	0	378	403	25
GranBrdgLNG													
Total													

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2362.2	0.0	2362.2	7904.1	5542.0	0	5043	0	5043	2.1350
ENGTGP2Stg	94.2	1.9	92.2	7904.1	7811.9	24	0	0	24	0.2572
ENGTGPLong	6118.8	0.0	6118.8	8719.7	2600.9	0	0	0	0	0.0000
ENGTGPBND	1149.8	7.1	1142.7	1142.7	0.0	98	267	0	365	0.3179
ENGTGPShort	2801.9	23.8	2778.1	10290.1	7512.0	316	2688	0	3003	1.0719
TrCanCharges	991.2	11.4	979.8	1481.2	501.4	0	698	0	698	0.7038
IroqCharges	979.8	6.1	973.7	1481.2	507.5	87	640	0	727	0.7417
ENGPNGTS	356.0	3.6	352.4	366.0	13.6	1	312	0	312	0.8777
ENGLNG	99.7	0.0	99.7	10980.0	10880.3	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6370.0	6370.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4392.0	4392.0	0	0	0	0	0.0000
Dracut 30	2789.1	5.9	2783.2	10980.0	8196.8	121	4388	0	4509	1.6168
UnionCharges	1002.6	11.4	991.2	1481.2	490.0	0	140	0	140	0.1396
Dracut 20	917.4	1.9	915.5	7320.0	6404.5	40	1134	0	1174	1.2792

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2023 thru OCT 2024

Cost and Flow Summary

Units: MDT, USD (000)

=====										
Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2268.0	63.2	2204.8	9150.0	6945.2	675	0	0	675	0.2976
Z4toTGPLH	3947.6	33.6	3914.0	7686.0	3772.0	445	0	0	445	0.1126
Z4toStg	2751.1	9.1	2742.1	7904.1	5162.1	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1064.0	1064.0	0	0	0	0	0.0000
GranBrdgPL				73200.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000
LNGtoRT101				56821.5			0	0		
LNGtoLNG	99.7	0.0	99.7	2928.0	2828.3	50	0	0	50	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1821.0	0.0	1821.0	1830.0	9.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1830.0	1830.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1

NOV 2024 thru OCT 2025

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	██████	Transportation Cost	██████	JAN 19, 2025	
Penalty Cost	0	Withdrawal Cost	██████	Other Variable Cost	0	System Served	176.71
Other Variable Cost	0	Carrying Cost	██████			System Unserved	0.00
		Other Variable Cost	0			Total	176.71
Total Variable	██████	Total Variable	██████	Total Variable	██████		
Demand/Reservation Co	0	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	113666
						Total Revenue	0
						Net Cost	113666

Avg Cost of Served Demand 6.712 USD/DT (System Cost/Served Dem.)
Avg Cost of Gas Purchased 3.013 USD/DT (Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	16935.9	0.0	16935.9	0.0	16935.9	16935.9	0.0	0	176.7	0.0
Total	16935.9	0.0	16935.9	0.0	16935.9	16935.9	0.0	0	176.7	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2349.2	18250.0	15900.8			2.8556	6708	0	6708	2.8556
ENGNiagara	1146.6	1167.3	20.6			2.4557	2816	0	2816	2.4557
ENGPNGTS	356.0	365.0	9.0			2.9676	1056	0	1056	2.9676
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			1.8482	12365	0	12365	1.8482
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2269.0	7315.4	5046.4			5.3222	12076	0	12076	5.3222
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1017.4	2190.0	1172.6			2.8059	2855	0	2855	2.8059

Scen 1542 OCA 12-18.b.1(BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1 (Continued)

NOV 2024 thru OCT 2025

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	1556.2	10973.0	9416.9			5.7699	8979	0	8979	5.7699
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1816.8	1825.0	8.2							
Total	17201.6									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	100.4	100.4	0	0.0	13	100	0.0	0	118	125	7
ENGFSMA	1498	96	1768.9	1749.9	0	18.9	1498	96	0.0	0	2521	2756	235
ENGDominion	103	100	110.6	108.4	0	2.2	103	100	0.0	0	178	195	16
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1153	1258	105
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	403	439	36
GranBrdgLNG													
Total													

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2349.2	0.0	2349.2	7882.5	5533.4	0	5043	0	5043	2.1468
ENGTGP2Stg	96.6	2.0	94.6	7882.5	7787.9	25	0	0	25	0.2572
ENGTGPLong	6095.8	0.0	6095.8	8698.1	2602.3	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2804.0	23.8	2780.1	10262.0	7481.8	316	2688	0	3003	1.0712
TrCanCharges	1005.8	11.6	994.2	1477.2	482.9	0	698	0	698	0.6936
IroqCharges	994.2	6.2	988.1	1477.2	489.1	88	640	0	728	0.7322
ENGPNGTS	356.0	3.6	352.4	365.0	12.6	1	312	0	312	0.8777
ENGLNG	100.4	0.0	100.4	10950.0	10849.6	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000
Dracut 30	3033.1	6.4	3026.7	10950.0	7923.3	132	4388	0	4520	1.4902
UnionCharges	1017.4	11.6	1005.8	1477.2	471.3	0	140	0	140	0.1376
Dracut 20	792.1	1.7	790.4	7300.0	6509.6	34	1134	0	1168	1.4747

Scen 1542 OCA 12-18.b.1(BC Sup 2.0wCBG Lo Dem)

- Draw 0

Ventyx

SENDOUT® Version 14.1.1

REP 1

09-Apr-2019

Report 1 (Continued)

10:57:40

NOV 2024 thru OCT 2025

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary

Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2252.6	62.8	2189.8	9125.0	6935.2	670	0	0	670	0.2976
Z4toTGPLH	3939.5	33.5	3906.1	7665.0	3758.9	444	0	0	444	0.1126
Z4toStg	2750.9	9.1	2741.8	7882.5	5140.8	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	100.4	0.0	100.4	2920.0	2819.6	50	0	0	50	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1816.8	0.0	1816.8	1825.0	8.2	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1

NOV 2025 thru OCT 2026

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2026	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	178.21
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	178.21
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	116802
						Total Revenue	0
						Net Cost	116802

Avg Cost of Served Demand 6.839 USD/DT (System Cost/Served Dem.)
Avg Cost of Gas Purchased 3.168 USD/DT (Supply Cost/LDC Purchase)

Class	Demand Summary					Served	Unserved	Revenue	Peak Served	Peak Unserved
	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.					
ENGINormal	17078.4	0.0	17078.4	0.0	17078.4	17078.4	0.0	0	178.2	0.0
Total	17078.4	0.0	17078.4	0.0	17078.4	17078.4	0.0	0	178.2	0.0

Source	Supply Summary			Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
	Total Take	Max Take	Surplus							
ENGUSGC	2349.7	18250.0	15900.3			2.9745	6989	0	6989	2.9745
ENGNiagara	1146.6	1167.3	20.6			2.5834	2962	0	2962	2.5834
ENGPNGTS	358.0	365.0	7.0			3.0689	1099	0	1099	3.0689
ENG3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.0008	13386	0	13386	2.0008
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2443.8	7315.4	4871.6			5.2700	12879	0	12879	5.2700
ENG3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	974.9	2190.0	1215.1			2.9299	2856	0	2856	2.9299

Scen 1542 OCA 12-18.b.1(BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2025 thru OCT 2026

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	1562.4	10973.0	9410.7			6.1322	9581	0	9581	6.1322
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1817.6	1825.0	7.4							
Total	17343.4									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	100.5	100.5	0	0.0	13	100	0.0	0	125	130	5
ENGFSMA	1498	96	1767.8	1748.9	0	18.9	1498	96	0.0	0	2756	2979	223
ENGDominion	103	100	110.8	108.7	0	2.2	103	100	0.0	0	195	210	16
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1258	1356	98
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	439	475	36
GranBrdgLNG													
Total													

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2349.7	0.0	2349.7	7882.5	5532.8	0	5043	0	5043	2.1463
ENGTGP2Stg	95.7	2.0	93.8	7882.5	7788.8	25	0	0	25	0.2572
ENGTGPLong	6098.4	0.0	6098.4	8698.1	2599.7	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2801.9	23.8	2778.1	10262.0	7483.8	316	2688	0	3003	1.0719
TrCanCharges	963.8	11.1	952.7	1477.2	524.4	0	698	0	698	0.7238
IroqCharges	952.7	5.9	946.8	1477.2	530.4	85	640	0	724	0.7603
ENGPNGTS	358.0	3.6	354.4	365.0	10.6	1	312	0	312	0.8728
ENGLNG	100.5	0.0	100.5	10950.0	10849.5	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000
Dracut 30	3006.0	6.3	2999.7	10950.0	7950.3	130	4388	0	4519	1.5033
UnionCharges	974.9	11.1	963.8	1477.2	513.4	0	140	0	140	0.1436
Dracut 20	1000.2	2.1	998.1	7300.0	6301.9	43	1134	0	1177	1.1769

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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SENDOUT® Version 14.1.1 REP 1 09-Apr-2019
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NOV 2025 thru OCT 2026

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2254.0	62.8	2191.2	9125.0	6933.8	671	0	0	671	0.2976
Z4toTGPLH	3940.7	33.5	3907.2	7665.0	3757.8	444	0	0	444	0.1126
Z4toStg	2749.7	9.1	2740.6	7882.5	5141.9	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	100.5	0.0	100.5	2920.0	2819.5	50	0	0	50	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1817.6	0.0	1817.6	1825.0	7.4	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1

NOV 2026 thru OCT 2027

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	████	Transportation Cost	████	JAN 19, 2027	
Penalty Cost	0	Withdrawal Cost	████	Other Variable Cost	0	System Served	179.70
Other Variable Cost	0	Carrying Cost	████			System Unserved	0.00
		Other Variable Cost	0			Total	179.70
Total Variable	████	Total Variable	████	Total Variable	████		
Demand/Reservation Co	0	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	119492
						Total Revenue	0
						Net Cost	119492

Avg Cost of Served Demand 6.945 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.297 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	17206.4	0.0	17206.4	0.0	17206.4	17206.4	0.0	0	179.7	0.0
Total	17206.4	0.0	17206.4	0.0	17206.4	17206.4	0.0	0	179.7	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2350.2	18250.0	15899.8			3.0659	7206	0	7206	3.0659
ENGNiagara	1146.6	1167.3	20.6			2.6881	3082	0	3082	2.6881
ENGPNGTS	359.0	365.0	6.0			3.1413	1128	0	1128	3.1413
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.1318	14262	0	14262	2.1318
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2360.7	7315.4	4954.6			5.5052	12996	0	12996	5.5052
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	979.3	2190.0	1210.7			3.0193	2957	0	2957	3.0193

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 09-Apr-2019
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NOV 2026 thru OCT 2027

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	1767.3	10973.0	9205.7			6.0045	10612	0	10612	6.0045
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1818.3	1825.0	6.7							
Total	17471.9									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	100.5	100.5	0	0.0	13	100	0.0	0	130	134	5
ENGFSMA	1498	96	1767.8	1748.9	0	18.9	1498	96	0.0	0	2979	3180	201
ENGDominion	103	100	111.5	109.4	0	2.2	103	100	0.0	0	210	225	14
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1356	1446	90
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	475	509	33
GranBrdgLNG													
Total													

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2350.2	0.0	2350.2	7882.5	5532.3	0	5043	0	5043	2.1459
ENGTGP2Stg	96.4	2.0	94.5	7882.5	7788.1	25	0	0	25	0.2572
ENGTGPLong	6098.2	0.0	6098.2	8698.1	2599.9	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2802.6	23.8	2778.8	10262.0	7483.2	316	2688	0	3003	1.0716
TrCanCharges	968.2	11.1	957.0	1477.2	520.1	0	698	0	698	0.7205
IroqCharges	957.0	5.9	951.1	1477.2	526.1	85	640	0	725	0.7572
ENGPNGTS	359.0	3.6	355.4	365.0	9.6	1	312	0	312	0.8703
ENGLNG	100.5	0.0	100.5	10950.0	10849.5	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000
Dracut 30	3187.1	6.7	3180.4	10950.0	7769.6	138	4388	0	4527	1.4203
UnionCharges	979.3	11.2	968.2	1477.2	509.0	0	140	0	140	0.1430
Dracut 20	941.0	2.0	939.0	7300.0	6361.0	41	1134	0	1175	1.2482

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)

- Draw 0

Ventyx

SENDOUT® Version 14.1.1

REP 1

09-Apr-2019

Report 1 (Continued)

10:57:40

NOV 2026 thru OCT 2027

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary

Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2253.8	62.8	2190.9	9125.0	6934.1	671	0	0	671	0.2976
Z4toTGPLH	3940.7	33.5	3907.2	7665.0	3757.8	444	0	0	444	0.1126
Z4toStg	2749.7	9.1	2740.6	7882.5	5141.9	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	100.5	0.0	100.5	2920.0	2819.5	50	0	0	50	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1818.3	0.0	1818.3	1825.0	6.7	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 09-Apr-2019
Report 1 10:57:40

NOV 2027 thru OCT 2028

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	██████	Transportation Cost	██████	JAN 19, 2028	
Penalty Cost	0	Withdrawal Cost	██████	Other Variable Cost	0	System Served	180.75
Other Variable Cost	0	Carrying Cost	██████			System Unserved	0.00
		Other Variable Cost	0			Total	180.75
Total Variable	██████	Total Variable	██████	Total Variable	██████		
Demand/Reservation Co	0	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	130451
						Total Revenue	0
						Net Cost	130451

Avg Cost of Served Demand 7.504 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.409 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	17383.7	0.0	17383.7	0.0	17383.7	17383.7	0.0	0	180.8	0.0
Total	17383.7	0.0	17383.7	0.0	17383.7	17383.7	0.0	0	180.8	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2406.9	18300.0	15893.1			3.1544	7592	0	7592	3.1544
ENGNiagara	1149.8	1170.5	20.7			2.7871	3205	0	3205	2.7871
ENGPNGTS	363.0	366.0	3.0			3.2230	1170	0	1170	3.2230
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6698.7	6698.7	0.0			2.2523	15087	0	15087	2.2523
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2927.9	7335.4	4407.5			5.2773	15451	0	15451	5.2773
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1355.8	2196.0	840.2			3.0444	4128	0	4128	3.0444

Scen 1542 OCA 12-18.b.1(BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
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NOV 2027 thru OCT 2028

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	1738.0	11003.1	9265.1			6.2003	10776	0	10776	6.2003
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1826.8	1830.0	3.2							
Total	18466.8									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	99.8	99.8	0	0.0	13	100	0.0	0	134	141	6
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3180	3368	188
ENGDominion	103	100	111.9	109.7	0	2.2	103	100	0.0	0	225	239	14
ENGNFG	671	100	721.3	715.6	0	5.7	671	100	5.7	0	1446	1534	87
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	509	540	32
GranBrdgLNG													
Total													

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2406.9	0.0	2406.9	7904.1	5497.3	0	5043	0	5043	2.0954
ENGTGP2Stg	104.6	2.1	102.5	7904.1	7801.7	27	0	0	27	0.2572
ENGTGPLong	6152.1	0.0	6152.1	8719.7	2567.6	0	0	0	0	0.0000
ENGTGPBND	1149.8	7.1	1142.7	1142.7	0.0	98	267	0	365	0.3179
ENGTGPShort	2812.0	23.9	2788.1	10290.1	7502.0	317	2688	0	3004	1.0684
TrCanCharges	1340.4	15.4	1324.9	1481.2	156.3	0	698	0	698	0.5204
IroqCharges	1324.9	8.2	1316.7	1481.2	164.5	118	640	0	757	0.5716
ENGPNGTS	363.0	3.6	359.4	366.0	6.6	1	312	0	312	0.8608
ENGLNG	99.8	0.0	99.8	10980.0	10880.2	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6370.0	6370.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4392.0	4392.0	0	0	0	0	0.0000
Dracut 30	3636.3	7.6	3628.6	10980.0	7351.4	158	4388	0	4546	1.2502
UnionCharges	1355.8	15.4	1340.4	1481.2	140.8	0	140	0	140	0.1033
Dracut 20	1029.7	2.2	1027.5	7320.0	6292.5	45	1134	0	1178	1.1444

Scen 1542 OCA 12-18.b.1(BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 09-Apr-2019
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NOV 2027 thru OCT 2028

Cost and Flow Summary

Units: MDT, USD (000)

=====										
Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2302.3	64.2	2238.1	9150.0	6911.9	685	0	0	685	0.2976
Z4toTGPLH	3947.6	33.6	3914.0	7686.0	3772.0	445	0	0	445	0.1126
Z4toStg	2751.1	9.1	2742.1	7904.1	5162.1	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1064.0	1064.0	0	0	0	0	0.0000
GranBrdgPL				73200.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000
LNGtoRT101				56821.5			0	0		
LNGtoLNG	99.8	0.0	99.8	2928.0	2828.2	50	0	0	50	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1826.8	0.0	1826.8	1830.0	3.2	56		0		
DAWN5Dracut	0.0	0.0	0.0	1830.0	1830.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1

NOV 2028 thru OCT 2029

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2029	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	182.35
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	182.35
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	128190
						Total Revenue	0
						Net Cost	128190

Avg Cost of Served Demand 7.336 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.211 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	17474.2	0.0	17474.2	0.0	17474.2	17474.2	0.0	0	182.4	0.0
Total	17474.2	0.0	17474.2	0.0	17474.2	17474.2	0.0	0	182.4	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2389.4	18250.0	15860.6			3.2086	7666	0	7666	3.2086
ENGNiagara	1146.6	1167.3	20.6			2.8226	3237	0	3237	2.8226
ENGPNGTS	362.0	365.0	3.0			3.2528	1178	0	1178	3.2528
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.2789	15247	0	15247	2.2789
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2537.7	7315.4	4777.6			4.7561	12070	0	12070	4.7561
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1353.6	2190.0	836.4			3.0816	4171	0	4171	3.0816

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
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NOV 2028 thru OCT 2029

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	1470.9	10973.0	9502.2			5.3826	7917	0	7917	5.3826
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1825.0	1825.0	0.0							
Total	17775.7									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	91.6	91.6	0	0.0	13	100	0.0	0	141	135	-5
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3368	3401	33
ENGDominion	103	100	112.2	110.0	0	2.2	103	100	0.0	0	239	241	3
ENGNFG	671	100	721.8	716.1	0	5.7	671	100	5.7	0	1534	1549	15
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	540	549	9
GranBrdgLNG													
Total													

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2389.4	0.0	2389.4	7882.5	5493.2	0	5043	0	5043	2.1107
ENGTGP2Stg	105.1	2.1	103.0	7882.5	7779.5	27	0	0	27	0.2572
ENGTGPLong	6126.0	0.0	6126.0	8698.1	2572.1	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2812.8	23.9	2788.9	10262.0	7473.0	317	2688	0	3004	1.0681
TrCanCharges	1338.2	15.4	1322.8	1477.2	154.3	0	698	0	698	0.5213
IroqCharges	1322.8	8.2	1314.6	1477.2	162.5	117	640	0	757	0.5724
ENGPNGTS	362.0	3.6	358.4	365.0	6.6	1	312	0	312	0.8631
ENGLNG	91.6	0.0	91.6	10950.0	10858.4	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000
Dracut 30	3052.6	6.4	3046.2	10950.0	7903.8	133	4388	0	4521	1.4810
UnionCharges	1353.6	15.4	1338.2	1477.2	138.9	0	140	0	140	0.1034
Dracut 20	956.0	2.0	954.0	7300.0	6346.0	41	1134	0	1175	1.2293

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2028 thru OCT 2029

Cost and Flow Summary

Units: MDT, USD (000)

=====										
Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2284.2	63.7	2220.6	9125.0	6904.4	680	0	0	680	0.2976
Z4toTGPLH	3938.9	33.5	3905.5	7665.0	3759.5	444	0	0	444	0.1126
Z4toStg	2751.5	9.1	2742.4	7882.5	5140.2	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	91.6	0.0	91.6	2920.0	2828.4	46	0	0	46	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1

NOV 2029 thru OCT 2030

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	██████	Transportation Cost	██████	JAN 19, 2030	
Penalty Cost	0	Withdrawal Cost	██████	Other Variable Cost	0	System Served	183.94
Other Variable Cost	0	Carrying Cost	██████			System Unserved	0.00
		Other Variable Cost	0			Total	183.94
Total Variable	██████	Total Variable	██████	Total Variable	██████		
Demand/Reservation Co	0	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	129672
						Total Revenue	0
						Net Cost	129672

Avg Cost of Served Demand 7.355 USD/DT (System Cost/Served Dem.)
Avg Cost of Gas Purchased 3.265 USD/DT (Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	17629.9	0.0	17629.9	0.0	17629.9	17629.9	0.0	0	183.9	0.0
Total	17629.9	0.0	17629.9	0.0	17629.9	17629.9	0.0	0	183.9	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2389.9	18250.0	15860.1			3.2406	7745	0	7745	3.2406
ENGNiagara	1146.6	1167.3	20.6			2.8509	3269	0	3269	2.8509
ENGPNGTS	362.0	365.0	3.0			3.2853	1189	0	1189	3.2853
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.3017	15399	0	15399	2.3017
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2538.4	7315.4	4776.9			4.7816	12138	0	12138	4.7816
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1355.7	2190.0	834.3			3.1123	4219	0	4219	3.1123

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
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NOV 2029 thru OCT 2030

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	1623.8	10973.0	9349.3			5.5047	8938	0	8938	5.5047
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1825.0	1825.0	0.0							
Total	17931.8									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	91.6	91.6	0	0.0	13	100	0.0	0	135	136	1
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3401	3434	33
ENGDominion	103	100	112.2	110.0	0	2.2	103	100	0.0	0	241	243	2
ENGNFG	671	100	722.4	716.7	0	5.7	671	100	5.7	0	1549	1563	15
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	549	555	6
GranBrdgLNG													
Total													

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2389.9	0.0	2389.9	7882.5	5492.7	0	5043	0	5043	2.1103
ENGTGP2Stg	105.8	2.2	103.6	7882.5	7778.9	27	0	0	27	0.2572
ENGTGPLong	6125.9	0.0	6125.9	8698.1	2572.2	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2813.4	23.9	2789.5	10262.0	7472.5	317	2688	0	3005	1.0679
TrCanCharges	1340.3	15.4	1324.9	1477.2	152.3	0	698	0	698	0.5205
IroqCharges	1324.9	8.2	1316.7	1477.2	160.5	118	640	0	757	0.5716
ENGPNGTS	362.0	3.6	358.4	365.0	6.6	1	312	0	312	0.8631
ENGLNG	91.6	0.0	91.6	10950.0	10858.4	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000
Dracut 30	3276.8	6.9	3269.9	10950.0	7680.1	142	4388	0	4531	1.3826
UnionCharges	1355.7	15.4	1340.3	1477.2	136.9	0	140	0	140	0.1033
Dracut 20	885.4	1.9	883.5	7300.0	6416.5	38	1134	0	1172	1.3238

NOV 2029 thru OCT 2030

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary

Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2284.1	63.7	2220.4	9125.0	6904.6	680	0	0	680	0.2976
Z4toTGPLH	3938.9	33.5	3905.5	7665.0	3759.5	444	0	0	444	0.1126
Z4toStg	2751.5	9.1	2742.4	7882.5	5140.2	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	91.6	0.0	91.6	2920.0	2828.4	46	0	0	46	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1

NOV 2030 thru OCT 2031

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2031	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	185.75
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	185.75
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	131272
						Total Revenue	0
						Net Cost	131272

Avg Cost of Served Demand 7.376 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.321 USD/DT
(Supply Cost/LDC Purchase)

Class	Demand Summary					Served	Unserved	Revenue	Peak Served	Peak Unserved
	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.					
ENGINormal	17797.3	0.0	17797.3	0.0	17797.3	17797.3	0.0	0	185.7	0.0
Total	17797.3	0.0	17797.3	0.0	17797.3	17797.3	0.0	0	185.7	0.0

Source	Supply Summary			Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
	Total Take	Max Take	Surplus							
ENGUSGC	2390.5	18250.0	15859.5			3.2729	7824	0	7824	3.2729
ENGNiagara	1146.6	1167.3	20.6			2.8794	3302	0	3302	2.8794
ENGPNGTS	362.0	365.0	3.0			3.3182	1201	0	1201	3.3182
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.3247	15553	0	15553	2.3247
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2631.5	7315.4	4683.8			4.8190	12681	0	12681	4.8190
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1357.5	2190.0	832.5			3.1432	4267	0	4267	3.1432

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2030 thru OCT 2031

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	1696.8	10973.0	9276.3			5.6452	9579	0	9579	5.6452
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1825.0	1825.0	0.0							
Total	18100.4									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	93.1	93.1	0	0.0	13	100	0.0	0	136	138	2
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3434	3467	34
ENGDominion	103	100	112.2	110.0	0	2.2	103	100	0.0	0	243	246	2
ENGNFG	671	100	723.0	717.3	0	5.7	671	100	5.7	0	1563	1578	15
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	555	561	5
GranBrdgLNG													
Total													

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2390.5	0.0	2390.5	7882.5	5492.0	0	5043	0	5043	2.1097
ENGTGP2Stg	106.4	2.2	104.2	7882.5	7778.3	27	0	0	27	0.2572
ENGTGPLong	6125.9	0.0	6125.9	8698.1	2572.2	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2814.1	23.9	2790.1	10262.0	7471.8	317	2688	0	3005	1.0677
TrCanCharges	1342.1	15.4	1326.6	1477.2	150.5	0	698	0	698	0.5198
IroqCharges	1326.6	8.2	1318.4	1477.2	158.7	118	640	0	757	0.5710
ENGPNGTS	362.0	3.6	358.4	365.0	6.6	1	312	0	312	0.8631
ENGLNG	93.1	0.0	93.1	10950.0	10856.9	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000
Dracut 30	3398.3	7.1	3391.1	10950.0	7558.9	148	4388	0	4536	1.3348
UnionCharges	1357.5	15.5	1342.1	1477.2	135.1	0	140	0	140	0.1031
Dracut 20	930.0	2.0	928.1	7300.0	6371.9	40	1134	0	1174	1.2624

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2030 thru OCT 2031

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2284.1	63.7	2220.4	9125.0	6904.6	680	0	0	680	0.2976
Z4toTGPLH	3938.9	33.5	3905.5	7665.0	3759.5	444	0	0	444	0.1126
Z4toStg	2751.5	9.1	2742.4	7882.5	5140.2	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	93.1	0.0	93.1	2920.0	2826.9	47	0	0	47	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2031 thru OCT 2032

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	██████	Transportation Cost	██████	JAN 19, 2032	
Penalty Cost	0	Withdrawal Cost	██████	Other Variable Cost	0	System Served	187.51
Other Variable Cost	0	Carrying Cost	██████			System Unserved	0.00
		Other Variable Cost	0			Total	187.51
Total Variable	██████	Total Variable	██████	Total Variable	██████		
Demand/Reservation Co	0	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	133213
						Total Revenue	0
						Net Cost	133213

Avg Cost of Served Demand 7.389 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.382 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	18028.6	0.0	18028.6	0.0	18028.6	18028.6	0.0	0	187.5	0.0
Total	18028.6	0.0	18028.6	0.0	18028.6	18028.6	0.0	0	187.5	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2405.0	18300.0	15895.0			3.3061	7951	0	7951	3.3061
ENGNiagara	1149.8	1170.5	20.7			2.9089	3345	0	3345	2.9089
ENGPNGTS	363.0	366.0	3.0			3.3583	1219	0	1219	3.3583
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6698.7	6698.7	0.0			2.3485	15732	0	15732	2.3485
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2660.1	7335.4	4675.3			4.8020	12774	0	12774	4.8020
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1363.3	2196.0	832.7			3.1754	4329	0	4329	3.1754

NOV 2031 thru OCT 2032

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	1864.5	11003.1	9138.6			5.8298	10870	0	10870	5.8298
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1830.0	1830.0	0.0							
Total	18334.4									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	98.1	98.1	0	0.0	13	100	0.0	0	138	142	3
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3467	3501	34
ENGDominion	103	100	112.2	110.0	0	2.2	103	100	0.0	0	246	248	2
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1578	1593	15
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	561	566	5
GranBrdgLNG													
Total													

Transportation Summary										
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2405.0	0.0	2405.0	7904.1	5499.2	0	5043	0	5043	2.0970
ENGTGP2Stg	107.1	2.2	104.9	7904.1	7799.2	28	0	0	28	0.2572
ENGTGPLong	6147.5	0.0	6147.5	8719.7	2572.2	0	0	0	0	0.0000
ENGTGPBND	1149.8	7.1	1142.7	1142.7	0.0	98	267	0	365	0.3179
ENGTGPShort	2814.7	23.9	2790.8	10290.1	7499.3	317	2688	0	3005	1.0675
TrCanCharges	1347.8	15.5	1332.3	1481.2	148.9	0	698	0	698	0.5176
IroqCharges	1332.3	8.3	1324.0	1481.2	157.2	118	640	0	758	0.5689
ENGPNGTS	363.0	3.6	359.4	366.0	6.6	1	312	0	312	0.8608
ENGLNG	98.1	0.0	98.1	10980.0	10881.9	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6370.0	6370.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4392.0	4392.0	0	0	0	0	0.0000
Dracut 30	3509.0	7.4	3501.6	10980.0	7478.4	152	4388	0	4541	1.2940
UnionCharges	1363.3	15.5	1347.8	1481.2	133.4	0	140	0	140	0.1027
Dracut 20	1015.6	2.1	1013.5	7320.0	6306.5	44	1134	0	1178	1.1597

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2031 thru OCT 2032

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary

Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2297.9	64.0	2233.8	9150.0	6916.2	684	0	0	684	0.2976
Z4toTGPLH	3947.2	33.6	3913.7	7686.0	3772.3	445	0	0	445	0.1126
Z4toStg	2751.5	9.1	2742.4	7904.1	5161.8	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1064.0	1064.0	0	0	0	0	0.0000
GranBrdgPL				73200.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000
LNGtoRT101				56821.5			0	0		
LNGtoLNG	98.1	0.0	98.1	2928.0	2829.9	49	0	0	49	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1830.0	0.0	1830.0	1830.0	0.0	57		0		
DAWN5Dracut	0.0	0.0	0.0	1830.0	1830.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2032 thru OCT 2033

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2033	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	189.34
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	189.34
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	134603
						Total Revenue	0
						Net Cost	134603

Avg Cost of Served Demand 7.422 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.437 USD/DT
(Supply Cost/LDC Purchase)

Class	Demand Summary					Served	Unserved	Revenue	Peak Served	Peak Unserved
	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.					
ENGINormal	18136.5	0.0	18136.5	0.0	18136.5	18136.5	0.0	0	189.3	0.0
Total	18136.5	0.0	18136.5	0.0	18136.5	18136.5	0.0	0	189.3	0.0

Source	Supply Summary			Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
	Total Take	Max Take	Surplus							
ENGUSGC	2392.4	18250.0	15857.6			3.3386	7987	0	7987	3.3386
ENGNiagara	1146.6	1167.3	20.6			2.9372	3368	0	3368	2.9372
ENGPNGTS	362.0	365.0	3.0			3.3849	1225	0	1225	3.3849
ENG3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.3715	15866	0	15866	2.3715
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2749.2	7315.4	4566.2			4.9541	13620	0	13620	4.9541
ENG3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1360.9	2190.0	829.1			3.2062	4363	0	4363	3.2062

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2032 thru OCT 2033

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	1915.4	10973.0	9057.7			5.8106	11129	0	11129	5.8106
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1825.0	1825.0	0.0							
Total	18441.8									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	98.1	98.1	0	0.0	13	100	0.0	0	142	143	1
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3501	3536	34
ENGDominion	103	100	111.6	109.4	0	2.2	103	100	0.0	0	248	250	2
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1593	1609	15
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	566	572	6
GranBrdgLNG													
Total													

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2392.4	0.0	2392.4	7882.5	5490.2	0	5043	0	5043	2.1081
ENGTGP2Stg	107.1	2.2	105.0	7882.5	7777.6	28	0	0	28	0.2572
ENGTGPLong	6127.6	0.0	6127.6	8698.1	2570.5	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2814.2	23.9	2790.3	10262.0	7471.7	317	2688	0	3005	1.0677
TrCanCharges	1345.4	15.5	1329.9	1477.2	147.3	0	698	0	698	0.5185
IroqCharges	1329.9	8.2	1321.7	1477.2	155.5	118	640	0	758	0.5698
ENGPNGTS	362.0	3.6	358.4	365.0	6.6	1	312	0	312	0.8631
ENGLNG	98.1	0.0	98.1	10950.0	10851.9	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000
Dracut 30	3593.4	7.5	3585.9	10950.0	7364.1	156	4388	0	4544	1.2646
UnionCharges	1360.9	15.5	1345.4	1477.2	131.8	0	140	0	140	0.1029
Dracut 20	1071.1	2.2	1068.9	7300.0	6231.1	46	1134	0	1180	1.1018

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)

- Draw 0

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NOV 2032 thru OCT 2033

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary

Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2285.2	63.7	2221.5	9125.0	6903.5	680	0	0	680	0.2976
Z4toTGPLH	3939.5	33.5	3906.1	7665.0	3758.9	444	0	0	444	0.1126
Z4toStg	2750.9	9.1	2741.8	7882.5	5140.8	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	98.1	0.0	98.1	2920.0	2821.9	49	0	0	49	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2033 thru OCT 2034

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	██████	Transportation Cost	██████	JAN 19, 2034	
Penalty Cost	0	Withdrawal Cost	██████	Other Variable Cost	0	System Served	191.27
Other Variable Cost	0	Carrying Cost	██████			System Unserved	0.00
		Other Variable Cost	0			Total	191.27
Total Variable	██████	Total Variable	██████	Total Variable	██████		
Demand/Reservation Co	0	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	136359
						Total Revenue	0
						Net Cost	136359

Avg Cost of Served Demand 7.447 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.498 USD/DT
(Supply Cost/LDC Purchase)

Class	Demand Summary					Served	Unserved	Revenue	Peak Served	Peak Unserved
	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.					
ENGINormal	18310.5	0.0	18310.5	0.0	18310.5	18310.5	0.0	0	191.3	0.0
Total	18310.5	0.0	18310.5	0.0	18310.5	18310.5	0.0	0	191.3	0.0

Source	Supply Summary			Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
	Total Take	Max Take	Surplus							
ENGUSGC	2393.6	18250.0	15856.4			3.3719	8071	0	8071	3.3719
ENGNiagara	1146.6	1167.3	20.6			2.9666	3402	0	3402	2.9666
ENGPNGTS	362.0	365.0	3.0			3.4187	1238	0	1238	3.4187
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.3952	16025	0	16025	2.3952
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2703.5	7315.4	4611.9			5.0153	13559	0	13559	5.0153
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1362.4	2190.0	827.6			3.2381	4412	0	4412	3.2381

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2033 thru OCT 2034

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	2132.8	10973.0	8840.3			5.8767	12534	0	12534	5.8767
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1825.0	1825.0	0.0							
Total	18616.2									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	98.1	98.1	0	0.0	13	100	0.0	0	143	144	1
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3536	3570	35
ENGDominion	103	100	111.6	109.4	0	2.2	103	100	0.0	0	250	253	2
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1609	1624	15
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	572	577	6
GranBrdgLNG													
Total													

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2393.6	0.0	2393.6	7882.5	5489.0	0	5043	0	5043	2.1070
ENGTGP2Stg	107.1	2.2	105.0	7882.5	7777.6	28	0	0	28	0.2572
ENGTGPLong	6129.9	0.0	6129.9	8698.1	2568.2	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2813.0	23.9	2789.1	10262.0	7472.9	317	2688	0	3005	1.0681
TrCanCharges	1346.9	15.5	1331.4	1477.2	145.8	0	698	0	698	0.5179
IroqCharges	1331.4	8.3	1323.1	1477.2	154.0	118	640	0	758	0.5693
ENGPNGTS	362.0	3.6	358.4	365.0	6.6	1	312	0	312	0.8631
ENGLNG	98.1	0.0	98.1	10950.0	10851.9	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000
Dracut 30	3761.6	7.9	3753.7	10950.0	7196.3	163	4388	0	4552	1.2100
UnionCharges	1362.4	15.5	1346.9	1477.2	130.3	0	140	0	140	0.1028
Dracut 20	1074.6	2.3	1072.3	7300.0	6227.7	47	1134	0	1180	1.0984

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2033 thru OCT 2034

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2286.4	63.7	2222.7	9125.0	6902.3	680	0	0	680	0.2976
Z4toTGPLH	3940.7	33.5	3907.2	7665.0	3757.8	444	0	0	444	0.1126
Z4toStg	2749.7	9.1	2740.6	7882.5	5141.9	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	98.1	0.0	98.1	2920.0	2821.9	49	0	0	49	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2034 thru OCT 2035

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	██████	Transportation Cost	██████	JAN 19, 2035	
Penalty Cost	0	Withdrawal Cost	██████	Other Variable Cost	0	System Served	193.09
Other Variable Cost	0	Carrying Cost	██████			System Unserved	0.00
		Other Variable Cost	0			Total	193.09
Total Variable	██████	Total Variable	██████	Total Variable	██████		
Demand/Reservation Co	0	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	138140
						Total Revenue	0
						Net Cost	138140

Avg Cost of Served Demand 7.477 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.558 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	18475.6	0.0	18475.6	0.0	18475.6	18475.6	0.0	0	193.1	0.0
Total	18475.6	0.0	18475.6	0.0	18475.6	18475.6	0.0	0	193.1	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2394.7	18250.0	15855.3			3.4056	8155	0	8155	3.4056
ENGNiagara	1146.6	1167.3	20.6			2.9963	3436	0	3436	2.9963
ENGPNGTS	362.0	365.0	3.0			3.4529	1250	0	1250	3.4529
ENG3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.4191	16185	0	16185	2.4191
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2813.1	7315.4	4502.2			5.0901	14319	0	14319	5.0901
ENG3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1363.8	2190.0	826.2			3.2704	4460	0	4460	3.2704

NOV 2034 thru OCT 2035

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	2196.6	10973.0	8776.4			5.9701	13114	0	13114	5.9701
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1825.0	1825.0	0.0							
Total	18792.2									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	98.3	98.3	0	0.0	13	100	0.0	0	144	147	3
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3570	3605	35
ENGDominion	103	100	111.6	109.4	0	2.2	103	100	0.0	0	253	255	2
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1624	1639	16
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	577	583	6
GranBrdgLNG													
Total													

Transportation Summary										
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2394.7	0.0	2394.7	7882.5	5487.9	0	5043	0	5043	2.1060
ENGTGP2Stg	107.1	2.2	105.0	7882.5	7777.6	28	0	0	28	0.2572
ENGTGPLong	6131.0	0.0	6131.0	8698.1	2567.1	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2813.0	23.9	2789.1	10262.0	7472.9	317	2688	0	3005	1.0681
TrCanCharges	1348.3	15.5	1332.8	1477.2	144.4	0	698	0	698	0.5174
IroqCharges	1332.8	8.3	1324.5	1477.2	152.7	118	640	0	758	0.5688
ENGPNGTS	362.0	3.6	358.4	365.0	6.6	1	312	0	312	0.8631
ENGLNG	98.3	0.0	98.3	10950.0	10851.7	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000
Dracut 30	3740.2	7.9	3732.3	10950.0	7217.7	162	4388	0	4551	1.2167
UnionCharges	1363.8	15.5	1348.3	1477.2	128.9	0	140	0	140	0.1027
Dracut 20	1269.6	2.7	1266.9	7300.0	6033.1	55	1134	0	1189	0.9364

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2034 thru OCT 2035

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2287.5	63.8	2223.8	9125.0	6901.2	681	0	0	681	0.2976
Z4toTGPLH	3940.7	33.5	3907.2	7665.0	3757.8	444	0	0	444	0.1126
Z4toStg	2749.7	9.1	2740.6	7882.5	5141.9	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	98.3	0.0	98.3	2920.0	2821.7	49	0	0	49	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2035 thru OCT 2036

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2036	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	194.69
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	194.69
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	140123
						Total Revenue	0
						Net Cost	140123

Avg Cost of Served Demand 7.494 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.620 USD/DT
(Supply Cost/LDC Purchase)

Class	Demand Summary					Served	Unserved	Revenue	Peak Served	Peak Unserved
	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.					
ENGINormal	18699.0	0.0	18699.0	0.0	18699.0	18699.0	0.0	0	194.7	0.0
Total	18699.0	0.0	18699.0	0.0	18699.0	18699.0	0.0	0	194.7	0.0

Source	Supply Summary			Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
	Total Take	Max Take	Surplus							
ENGUSGC	2409.4	18300.0	15890.6			3.4402	8289	0	8289	3.4402
ENGNiagara	1149.8	1170.5	20.7			3.0270	3480	0	3480	3.0270
ENGPNGTS	363.0	366.0	3.0			3.4947	1269	0	1269	3.4947
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6698.7	6698.7	0.0			2.4439	16371	0	16371	2.4439
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2937.4	7335.4	4398.0			5.1304	15070	0	15070	5.1304
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1369.0	2196.0	827.0			3.3039	4523	0	4523	3.3039

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2035 thru OCT 2036

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	2249.5	11003.1	8753.6			6.1314	13793	0	13793	6.1314
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1830.0	1830.0	0.0							
Total	19006.8									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	98.3	98.3	0	0.0	13	100	0.0	0	147	149	2
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3605	3640	35
ENGDominion	103	100	112.2	110.0	0	2.2	103	100	0.0	0	255	258	2
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1639	1655	16
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	583	589	6
GranBrdgLNG													
Total													

Transportation Summary										
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2409.4	0.0	2409.4	7904.1	5494.7	0	5043	0	5043	2.0932
ENGTGP2Stg	107.1	2.2	105.0	7904.1	7799.2	28	0	0	28	0.2572
ENGTGPLong	6151.8	0.0	6151.8	8719.7	2567.9	0	0	0	0	0.0000
ENGTGPBND	1149.8	7.1	1142.7	1142.7	0.0	98	267	0	365	0.3179
ENGTGPShort	2814.8	23.9	2790.8	10290.1	7499.3	317	2688	0	3005	1.0675
TrCanCharges	1353.4	15.6	1337.8	1481.2	143.4	0	698	0	698	0.5154
IroqCharges	1337.8	8.3	1329.6	1481.2	151.6	119	640	0	758	0.5669
ENGPNGTS	363.0	3.6	359.4	366.0	6.6	1	312	0	312	0.8608
ENGLNG	98.3	0.0	98.3	10980.0	10881.7	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6370.0	6370.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4392.0	4392.0	0	0	0	0	0.0000
Dracut 30	3815.6	8.0	3807.6	10980.0	7172.4	166	4388	0	4554	1.1935
UnionCharges	1369.0	15.6	1353.4	1481.2	127.8	0	140	0	140	0.1023
Dracut 20	1371.4	2.9	1368.5	7320.0	5951.5	60	1134	0	1193	0.8701

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2035 thru OCT 2036

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary

Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2302.2	64.2	2238.1	9150.0	6911.9	685	0	0	685	0.2976
Z4toTGPLH	3947.2	33.6	3913.7	7686.0	3772.3	445	0	0	445	0.1126
Z4toStg	2751.5	9.1	2742.4	7904.1	5161.8	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1064.0	1064.0	0	0	0	0	0.0000
GranBrdgPL				73200.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000
LNGtoRT101				56821.5			0	0		
LNGtoLNG	98.3	0.0	98.3	2928.0	2829.7	49	0	0	49	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1830.0	0.0	1830.0	1830.0	0.0	57		0		
DAWN5Dracut	0.0	0.0	0.0	1830.0	1830.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 09-Apr-2019
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NOV 2036 thru OCT 2037

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	████	Transportation Cost	████	JAN 19, 2037	
Penalty Cost	0	Withdrawal Cost	████	Other Variable Cost	0	System Served	196.53
Other Variable Cost	0	Carrying Cost	████			System Unserved	0.00
		Other Variable Cost	0			Total	196.53
Total Variable	████	Total Variable	████	Total Variable	████		
Demand/Reservation Co	0	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	141596
						Total Revenue	0
						Net Cost	141596

Avg Cost of Served Demand 7.531 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.678 USD/DT
(Supply Cost/LDC Purchase)

Class	Demand Summary					Served	Unserved	Revenue	Peak Served	Peak Unserved
	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.					
ENGINormal	18802.6	0.0	18802.6	0.0	18802.6	18802.6	0.0	0	196.5	0.0
Total	18802.6	0.0	18802.6	0.0	18802.6	18802.6	0.0	0	196.5	0.0

Source	Supply Summary			Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
	Total Take	Max Take	Surplus							
ENGUSGC	2396.8	18250.0	15853.2			3.4740	8326	0	8326	3.4740
ENGNiagara	1146.6	1167.3	20.6			3.0565	3505	0	3505	3.0565
ENGPNGTS	362.8	365.0	2.2			3.5279	1280	0	1280	3.5279
ENG3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.4678	16510	0	16510	2.4678
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2954.7	7315.4	4360.7			5.1838	15317	0	15317	5.1838
ENG3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1365.7	2190.0	824.3			3.3361	4556	0	4556	3.3361

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
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NOV 2036 thru OCT 2037

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	2367.6	10973.0	8605.4			6.2196	14725	0	14725	6.2196
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1825.0	1825.0	0.0							
Total	19109.6									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	98.3	98.3	0	0.0	13	100	0.0	0	149	151	2
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3640	3676	36
ENGDominion	103	100	111.0	108.8	0	2.2	103	100	0.0	0	258	260	3
ENGNFG	671	100	728.2	722.5	0	5.8	671	100	5.7	0	1655	1671	16
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	589	594	6
GranBrdgLNG													
Total													

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2396.8	0.0	2396.8	7882.5	5485.8	0	5043	0	5043	2.1042
ENGTGP2Stg	111.7	2.3	109.4	7882.5	7773.1	29	0	0	29	0.2572
ENGTGPLong	6129.2	0.0	6129.2	8698.1	2568.9	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2816.8	23.9	2792.9	10262.0	7469.1	317	2688	0	3005	1.0668
TrCanCharges	1350.2	15.5	1334.6	1477.2	142.5	0	698	0	698	0.5167
IroqCharges	1334.6	8.3	1326.4	1477.2	150.8	118	640	0	758	0.5681
ENGPNGTS	362.8	3.6	359.1	365.0	5.9	1	312	0	312	0.8613
ENGLNG	98.3	0.0	98.3	10950.0	10851.7	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000
Dracut 30	3919.4	8.2	3911.2	10950.0	7038.8	170	4388	0	4558	1.1630
UnionCharges	1365.7	15.6	1350.2	1477.2	127.0	0	140	0	140	0.1025
Dracut 20	1402.9	2.9	1399.9	7300.0	5900.1	61	1134	0	1195	0.8515

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)

- Draw 0

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NOV 2036 thru OCT 2037

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary

Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2285.1	63.7	2221.4	9125.0	6903.6	680	0	0	680	0.2976
Z4toTGPLH	3941.3	33.5	3907.8	7665.0	3757.2	444	0	0	444	0.1126
Z4toStg	2749.1	9.1	2740.0	7882.5	5142.5	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	98.3	0.0	98.3	2920.0	2821.7	49	0	0	49	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)

Ventyx

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NOV 2037 thru OCT 2038

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	██████	Transportation Cost	██████	JAN 19, 2038	
Penalty Cost	0	Withdrawal Cost	██████	Other Variable Cost	0	System Served	198.39
Other Variable Cost	0	Carrying Cost	██████			System Unserved	0.00
		Other Variable Cost	0			Total	198.39
Total Variable	██████	Total Variable	██████	Total Variable	██████		
Demand/Reservation Co	0	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	143481
						Total Revenue	0
						Net Cost	143481

Avg Cost of Served Demand 7.561 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.742 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	18976.8	0.0	18976.8	0.0	18976.8	18976.8	0.0	0	198.4	0.0
Total	18976.8	0.0	18976.8	0.0	18976.8	18976.8	0.0	0	198.4	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2398.2	18250.0	15851.8			3.5087	8415	0	8415	3.5087
ENGNiagara	1146.6	1167.3	20.6			3.0871	3540	0	3540	3.0871
ENGPNGTS	364.0	365.0	1.0			3.5723	1300	0	1300	3.5723
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.4924	16675	0	16675	2.4924
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	3174.0	7315.4	4141.3			5.2317	16605	0	16605	5.2317
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1366.1	2190.0	823.9			3.3694	4603	0	4603	3.3694

Scen 1542 OCA 12-18.b.1(BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2037 thru OCT 2038

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	2319.7	10973.0	8653.3			6.4197	14892	0	14892	6.4197
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1825.0	1825.0	0.0							
Total	19284.1									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	98.3	98.3	0	0.0	13	100	0.0	0	151	152	1
ENGFSMA	1498	96	1777.5	1758.4	0	19.0	1498	96	0.0	0	3676	3712	36
ENGDominion	103	100	111.0	108.8	0	2.2	103	100	0.0	0	260	263	3
ENGNFG	671	100	728.2	722.5	0	5.8	671	100	5.7	0	1671	1687	16
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	594	600	6
GranBrdgLNG													
Total													

Transportation Summary										
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2398.2	0.0	2398.2	7882.5	5484.3	0	5043	0	5043	2.1029
ENGTGP2Stg	113.9	2.3	111.5	7882.5	7771.0	29	0	0	29	0.2572
ENGTGPLong	6128.5	0.0	6128.5	8698.1	2569.6	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2818.9	24.0	2794.9	10262.0	7467.0	318	2688	0	3005	1.0661
TrCanCharges	1350.5	15.5	1335.0	1477.2	142.1	0	698	0	698	0.5165
IroqCharges	1335.0	8.3	1326.7	1477.2	150.4	118	640	0	758	0.5680
ENGPNGTS	364.0	3.6	360.4	365.0	4.6	1	312	0	312	0.8584
ENGLNG	98.3	0.0	98.3	10950.0	10851.7	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000
Dracut 30	4015.5	8.4	4007.1	10950.0	6942.9	174	4388	0	4563	1.1363
UnionCharges	1366.1	15.6	1350.5	1477.2	126.6	0	140	0	140	0.1025
Dracut 20	1478.2	3.1	1475.1	7300.0	5824.9	64	1134	0	1198	0.8103

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2037 thru OCT 2038

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2284.4	63.7	2220.7	9125.0	6904.3	680	0	0	680	0.2976
Z4toTGPLH	3941.3	33.5	3907.8	7665.0	3757.2	444	0	0	444	0.1126
Z4toStg	2749.1	9.1	2740.0	7882.5	5142.5	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	98.3	0.0	98.3	2920.0	2821.7	49	0	0	49	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2038 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2039	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	200.37
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	200.37
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	137894
						Total Revenue	0
						Net Cost	137894

Avg Cost of Served Demand 7.197 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.862 USD/DT
(Supply Cost/LDC Purchase)

Class	Demand Summary					Served	Unserved	Revenue	Peak Served	Peak Unserved
	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.					
ENGINormal	19159.8	0.0	19159.8	0.0	19159.8	19159.8	0.0	0	200.4	0.0
Total	19159.8	0.0	19159.8	0.0	19159.8	19159.8	0.0	0	200.4	0.0

Source	Supply Summary			Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
	Total Take	Max Take	Surplus							
ENGUSGC	2359.9	18250.0	15890.1			3.5487	8375	0	8375	3.5487
ENGNiagara	1146.6	1167.3	20.6			3.1179	3575	0	3575	3.1179
ENGPNGTS	364.0	365.0	1.0			3.6081	1313	0	1313	3.6081
ENG3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.5174	16842	0	16842	2.5174
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2303.3	7315.4	5012.1			6.0346	13900	0	13900	6.0346
ENG3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	798.0	2190.0	1392.0			3.5395	2824	0	2824	3.5395

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
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NOV 2038 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	2405.1	10973.0	8567.9			6.5978	15869	0	15869	6.5978
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1493.0	1825.0	332.0							
Total	17560.3									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	97.1	97.8	0	0.0	12	95	0.0	-1	152	162	10
ENGFSMA	1498	96	1760.9	1757.7	0	18.8	1482	95	0.0	-16	3712	3711	-1
ENGDominion	103	100	111.9	109.7	0	2.2	103	100	0.0	0	263	266	3
ENGNFG	671	100	728.2	722.5	0	5.8	671	100	5.7	0	1687	1705	18
ENGHON	246	100	238.7	238.7	0	0.0	246	100	0.0	0	600	608	7
GranBrdgLNG													
Total													

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2359.9	0.0	2359.9	7882.5	5522.6	0	5043	0	5043	2.1370
ENGTGP2Stg	115.8	2.4	113.4	7882.5	7769.1	30	0	0	30	0.2572
ENGTGPLong	6103.1	0.0	6103.1	8698.1	2595.0	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2822.8	24.0	2798.8	10262.0	7463.1	318	2688	0	3006	1.0648
TrCanCharges	788.9	9.1	779.8	1477.2	697.4	0	698	0	698	0.8843
IroqCharges	779.8	4.8	775.0	1477.2	702.2	69	640	0	709	0.9092
ENGPNGTS	364.0	3.6	360.4	365.0	4.6	1	312	0	312	0.8584
ENGLNG	97.8	0.0	97.8	10950.0	10852.2	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000
Dracut 30	3217.1	6.8	3210.3	10950.0	7739.7	140	4388	0	4528	1.4075
UnionCharges	798.0	9.1	788.9	1477.2	688.3	0	140	0	140	0.1755
Dracut 20	1491.4	3.1	1488.2	7300.0	5811.8	65	1134	0	1198	0.8036

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

Ventyx
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NOV 2038 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

=====										
Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2244.1	62.5	2181.6	9125.0	6943.4	668	0	0	668	0.2976
Z4toTGPLH	3955.1	33.6	3921.5	7665.0	3743.5	445	0	0	445	0.1126
Z4toStg	2735.3	9.0	2726.3	7882.5	5156.2	135	0	0	135	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	97.1	0.0	97.1	2920.0	2822.9	49	0	0	49	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1493.0	0.0	1493.0	1825.0	332.0	46		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2018 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████████	Injection Cost	████████	Transportation Cost	████████	JAN 19, 2039	
Penalty Cost	0	Withdrawal Cost	████████	Other Variable Cost	0	System Served	200.37
Other Variable Cost	1719	Carrying Cost	████████			System Unserved	0.00
		Other Variable Cost	0			Total	200.37
Total Variable	████████	Total Variable	████████	Total Variable	████████		
Demand/Reservation Co	████████	Demand Cost	████████	Demand Cost	████████		
Other Fixed Cost	13464	Other Fixed Cost	20435	Other Fixed Cost	0		
Total Fixed	████████	Total Fixed	████████	Total Fixed	████████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████████	Net Storage Cost	████████	Net Trans Cost	████████	Total Gas Cost	2535390
						Total Revenue	0
						Net Cost	2535390

Avg Cost of Served Demand 6.953 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.499 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	364671.1	0.0	364671.1	0.0	364671.1	364671.1	0.0	0	200.4	0.0
Total	364671.1	0.0	364671.1	0.0	364671.1	364671.1	0.0	0	200.4	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	49754.3	383500.0	333745.7			3.1411	156281	0	156281	3.1411
ENGNiagara	23087.7	24528.7	1441.0			2.7484	63455	0	63455	2.7484
ENGPNGTS	7408.4	7670.0	261.6			3.2334	23954	0	23954	3.2334
ENGC3Winter	458.7	1926.6	1467.9			15.0000	6881	0	6881	15.0000
ENG-Z4	140479.3	140539.9	60.6			2.1595	303361	0	303361	2.1595
DLiqWinter	1250.0	1250.0	0.0							
Dracut 20	53077.7	153722.8	100645.1			5.6071	297610	0	297610	5.6071
ENGC3Summer	276.4	1962.6	1686.2			10.0000	2764	0	2764	10.0000
DLiqSummer	84.0	84.0	0.0							

Scen 1542 OCA 12-18.b.1 (BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2018 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGDawn	23646.1	46020.0	22373.9			3.0985	73268	0	73268	3.0985
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	34158.3	230584.2	196425.9			6.3250	216052	0	216052	6.3250
Engie Combo	3150.0	3150.0	0.0							
DAWN5	33659.2	36968.3	3309.1							
Total	370490.1									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	3178.6	3179.2	0	0.0	12	95	0.0	-1	126	162	36
ENGPropane	77	100	735.1	811.9	0	0.0	0	0	0.0	-77	953	160	-793
ENGFSMA	1482	95	37172.7	36775.0	0	397.7	1482	95	0.0	0	2573	3711	1138
ENGDominion	103	100	2340.2	2294.6	0	45.6	103	100	0.0	0	178	266	88
ENGNFG	671	100	15179.6	15059.7	0	119.9	671	100	119.0	0	1164	1705	541
ENGHON	246	100	4974.6	4974.6	0	0.0	246	100	0.0	0	427	608	180
GranBrdgLNG	0	N/A											
Total	2591	N/A											

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	49754.3	0.0	49754.3	165641.3	115887.0	0	105908	0	105908	2.1286
ENGTGP2Stg	2151.8	44.0	2107.8	165641.3	163533.5	554	0	0	554	0.2572
ENGTGPLong	128302.0	0.0	128302.0	182768.0	54466.0	0	0	0	0	0.0000
ENGTGPBND	23087.7	143.1	22944.6	23945.7	1001.2	1971	5614	0	7585	0.3285
ENGTGPShort	58984.8	501.4	58483.5	215642.1	157158.6	6644	56441	0	63085	1.0695
TrCanCharges	23376.8	268.8	23108.0	31040.5	7932.5	0	14649	0	14649	0.6267
IroqCharges	23108.0	143.3	22964.7	31040.5	8075.8	2051	13435	0	15485	0.6701
ENGPNGTS	7408.4	74.1	7334.3	7670.0	335.7	13	6548	0	6561	0.8857
ENGLNG	3179.2	0.0	3179.2	230100.0	226920.8	0	0	0	0	0.0000
ENGPropane	811.9	0.0	811.9	133210.0	132398.1	0	0	0	0	0.0000
ENGC3Truck	735.1	0.0	735.1	92040.0	91304.9	735	0	0	735	1.0000
Dracut 30	62282.2	130.8	62151.4	230100.0	167948.6	2704	92155	0	94858	1.5230

Scen 1542 OCA 12-18.b.1(BC Sup 2.0wCBG Lo Dem)
- Draw 0

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NOV 2018 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

=====										
Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
UnionCharges	23646.1	269.3	23376.8	31040.5	7663.7	0	2940	0	2940	0.1243
Dracut 20	27944.8	58.7	27886.1	153400.0	125513.9	1213	23807	0	25020	0.8954
ENGTGPZ4	47602.5	1326.7	46275.8	191750.0	145474.2	14165	0	0	14165	0.2976
Z4toTGPLH	82729.4	703.2	82026.2	161070.0	79043.8	9318	0	0	9318	0.1126
Z4toStg	57749.9	190.6	57559.3	165641.3	108082.0	2861	0	0	2861	0.0495
Engie2CG	2900.0	0.0	2900.0	22232.0	19332.0	97	0	0	97	0.0335
GranBrdgPL				1241800.0		0		0		
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	158800.0	158800.0	0	0	0	0	0.0000
LNGtoRT101				1190767.5			0	0		
LNGtoLNG	1594.6	0.0	1594.6	61360.0	59765.4	797	0	0	797	0.5000
Engie2ENGLNG	250.0	0.0	250.0	1050.0	800.0	250	0	0	250	1.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	30668.2	0.0	30668.2	36968.3	6300.1	948		0		
DAWN5Dracut	2991.0	0.0	2991.0	36968.3	33977.3	92	0	0	92	0.0309
Total										

RESOURCE MIX RESULTS

Units: MDT

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	Contract	Start Date	End Date	Min Level	Max Level	Result MDQ
	-----	-----	-----	-----	-----	-----
Supplies	DAWN	NOV 2022	OCT 2039	0.00	150.00	0.00
	Repsol 40	NOV 2022	OCT 2039	0.00	150.00	0.00
	Engie Combo	NOV 2023	OCT 2039	0.00	7.00	0.00

	Contract	Start Date	End Date	Min Level	Max Level	Result MDQ
	-----	-----	-----	-----	-----	-----
Segments	Repsol to101	NOV 2021	OCT 2039	0.00	150.00	0.00
	Dawn2Dracut	NOV 2021	OCT 2039	0.00	150.00	0.00
	DAWNTCPL	NOV 2021	OCT 2039	0.00	150.00	0.00
	PNGTS2RT101	NOV 2021	OCT 2039	0.00	150.00	0.00

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2018 thru OCT 2019

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	48	Transportation Cost	2101	JAN 19, 2019	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	162.67
Other Variable Cost	339	Carrying Cost	310			System Unserved	0.00
		Other Variable Cost	0			Total	162.67
Total Variable	████	Total Variable	404	Total Variable	2101		
Demand/Reservation Co	████	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	2660	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	████	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	85103
						Total Revenue	0
						Net Cost	85103

Avg Cost of Served Demand 5.685 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 4.244 USD/DT
(Supply Cost/LDC Purchase)

Class	Demand Summary					Served	Unserved	Revenue	Peak Served	Peak Unserved
	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.					
ENGINormal	14970.1	0.0	14970.1	0.0	14970.1	14970.1	0.0	0	162.7	0.0
Total	14970.1	0.0	14970.1	0.0	14970.1	14970.1	0.0	0	162.7	0.0

Source	Supply Summary			Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
	Total Take	Max Take	Surplus							
ENGUSGC	2334.6	18250.0	15915.4			3.0807	7192	0	7192	3.0807
ENGINiagara	900.0	1167.3	267.3			2.8098	2529	0	2529	2.8098
ENGPNGTS	254.2	365.0	110.8			3.4678	882	0	882	3.4678
ENGC3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6644.6	6690.4	45.8			2.1110	14027	0	14027	2.1110
DLiqWinter	250.0	250.0	0.0			██████████	██████████	██████████	██████████	██████████
Dracut 20	2269.5	7315.4	5045.9			7.7287	17540	0	17540	7.7287
ENGC3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2018 thru OCT 2019

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGDawn	705.4	2190.0	1484.6			3.3050	2331	0	2331	3.3050
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	686.7	10973.0	10286.4			9.5379	6549	0	6549	9.5379
Engie Combo	630.0	630.0	0.0							
DAWN5	326.3	651.2	324.9							
Total	15183.1									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	321.0	321.6	0	0.0	12	95	0.0	-1	126	130	4
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	953	1043	90
ENGFSMA	1482	95	1766.0	1731.5	0	18.9	1498	96	0.0	16	2573	3075	503
ENGDominion	103	100	112.4	110.2	0	2.2	103	100	0.0	0	178	219	41
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1164	1388	223
ENGHON	246	100	238.3	238.3	0	0.0	246	100	0.0	0	427	488	61
Total	2591	97	3319.4	3277.6	0	26.8	2606	98	5.6	15	5422	6343	922

Transportation Summary													
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost			
ENGTGPProd	2334.6	0.0	2334.6	7882.5	5547.9	0	5043	0	5043	2.1602			
ENGTGP2Stg	94.2	1.9	92.2	7882.5	7790.3	24	0	0	24	0.2572			
ENGTGPLong	6035.1	0.0	6035.1	8698.1	2662.9	0	0	0	0	0.0000			
ENGTGPBND	900.0	5.6	894.4	1139.5	245.2	77	267	0	344	0.3824			
ENGTGPShort	2789.5	23.7	2765.8	10262.0	7496.2	314	2688	0	3002	1.0761			
TrCanCharges	697.3	8.0	689.3	1477.2	787.8	0	698	0	698	1.0003			
IroqCharges	689.3	4.3	685.1	1477.2	792.1	61	640	0	701	1.0168			
ENGPNGTS	254.2	2.5	251.7	365.0	113.3	0	312	0	312	1.2283			
ENGLNG	321.6	0.0	321.6	9307.5	8985.9	0	0	0	0	0.0000			
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000			
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000			
Dracut 30	915.8	1.9	913.9	10950.0	10036.1	40	4388	0	4428	4.8352			
UnionCharges	705.4	8.0	697.3	1477.2	779.8	0	140	0	140	0.1985			

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2018 thru OCT 2019

Cost and Flow Summary

Units: MDT, USD (000)

=====											
Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
Dracut 20	2366.6	5.0	2361.7	7300.0	4938.3	103	1134	0	1236	0.5224	
ENGTGPZ4	2240.5	62.4	2178.0	9125.0	6947.0	667	0	0	667	0.2976	
Z4toTGPLH	3890.2	33.1	3857.1	7665.0	3807.9	438	0	0	438	0.1126	
Z4toStg	2754.4	9.1	2745.3	7882.5	5137.2	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	0.0	0.0	0.0	651.2	651.2	0	█	0	█	0.0000	
DAWN5Dracut	326.3	0.0	326.3	651.2	324.9	10	0	0	10	0.0309	
Total		165.6				2101	█		█	0.6576	

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2019 thru OCT 2020

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2120	JAN 19, 2020	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	164.07
Other Variable Cost	340	Carrying Cost	313			System Unserved	0.00
		Other Variable Cost	0			Total	164.07
Total Variable	██████	Total Variable	407	Total Variable	2120		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	2686	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	82298
						Total Revenue	0
						Net Cost	82298

Avg Cost of Served Demand 5.421 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.892 USD/DT
(Supply Cost/LDC Purchase)

Class	Demand Summary					Served	Unserved	Revenue	Peak Served	Peak Unserved
	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.					
ENGINormal	15182.6	0.0	15182.6	0.0	15182.6	15182.6	0.0	0	164.1	0.0
Total	15182.6	0.0	15182.6	0.0	15182.6	15182.6	0.0	0	164.1	0.0

Source	Supply Summary			Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
	Total Take	Max Take	Surplus							
ENGUSGC	2320.8	18300.0	15979.2			2.8339	6577	0	6577	2.8339
ENGNiagara	829.8	1170.5	340.6			2.3983	1990	0	1990	2.3983
ENGPNGTS	338.2	366.0	27.8			2.9498	998	0	998	2.9498
ENGC3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6691.4	6698.7	7.3			1.8996	12711	0	12711	1.8996
DliqWinter	250.0	250.0	0.0							
Dracut 20	2113.5	7335.4	5221.9			7.6608	16191	0	16191	7.6608
ENGC3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DliqSummer	21.0	21.0	0.0							

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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NOV 2019 thru OCT 2020

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGDawn	712.4	2196.0	1483.6			2.8820	2053	0	2053	2.8820
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	498.8	11003.1	10504.4			9.8557	4916	0	4916	9.8557
Engie Combo	630.0	630.0	0.0							
DAWN5	814.8	1622.1	807.3							
Total	15381.5									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	321.0	321.0	0	0.0	12	95	0.0	0	130	125	-5
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1043	1043	0
ENGFSMA	1498	96	1757.0	1738.2	0	18.8	1498	96	0.0	0	3075	2822	-253
ENGDominion	103	100	111.7	109.5	0	2.2	103	100	0.0	0	219	203	-16
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1388	1279	-109
ENGHON	246	100	245.7	245.7	0	0.0	246	100	0.0	0	488	458	-30
Total	2606	98	3317.0	3290.4	0	26.7	2606	98	5.6	0	6343	5930	-413

Transportation Summary													
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost			
ENGTGPProd	2320.8	0.0	2320.8	7904.1	5583.4	0	5043	0	5043	2.1731			
ENGTGP2Stg	93.5	1.9	91.6	7904.1	7812.6	24	0	0	24	0.2572			
ENGTGPLong	6070.5	0.0	6070.5	8719.7	2649.2	0	0	0	0	0.0000			
ENGTGPBND	829.8	5.1	824.7	1142.7	318.0	71	267	0	338	0.4075			
ENGTGPShort	2802.9	23.8	2779.1	10290.1	7511.0	316	2688	0	3003	1.0715			
TrCanCharges	704.2	8.1	696.1	1481.2	785.1	0	698	0	698	0.9905			
IroqCharges	696.1	4.3	691.8	1481.2	789.4	62	640	0	702	1.0077			
ENGPNGTS	338.2	3.4	334.8	366.0	31.2	1	312	0	312	0.9237			
ENGLNG	321.0	0.0	321.0	9333.0	9012.0	0	0	0	0	0.0000			
ENGPropane	160.8	0.0	160.8	6370.0	6209.2	0	0	0	0	0.0000			
ENGC3Truck	160.8	0.0	160.8	4392.0	4231.2	161	0	0	161	1.0000			
Dracut 30	1024.7	2.2	1022.5	10980.0	9957.5	44	4388	0	4433	4.3261			
UnionCharges	712.4	8.1	704.2	1481.2	777.0	0	140	0	140	0.1965			

Scen1546 ACS Sup w Low Demand
 - Draw 0

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NOV 2019 thru OCT 2020

Cost and Flow Summary

Units: MDT, USD (000)

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 Transportation Summary

Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Dracut 20	2402.4	5.0	2397.4	7320.0	4922.6	104	1134	0	1238	0.5153
ENGTGPZ4	2227.3	62.1	2165.2	9150.0	6984.8	663	0	0	663	0.2976
Z4toTGPLH	3938.7	33.5	3905.2	7686.0	3780.8	444	0	0	444	0.1126
Z4toStg	2752.7	9.1	2743.6	7904.1	5160.5	136	0	0	136	0.0495
Engie2CG	580.0	0.0	580.0	1064.0	484.0	19	0	0	19	0.0335
GranBrdgPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000
LNGtoRT101	0.0	0.0	0.0	56821.5	56821.5	0	0	0	0	0.0000
LNGtoLNG	0.0	0.0	0.0	2928.0	2928.0	0	0	0	0	0.0000
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	0.0	0.0	0.0	1622.1	1622.1	0	█	0	█	0.0000
DAWN5Dracut	814.8	0.0	814.8	1622.1	807.3	25	0	0	25	0.0309
Total		166.6				2120	█		█	0.7019

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2020 thru OCT 2021

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	48	Transportation Cost	2134	JAN 19, 2021	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	163.21
Other Variable Cost	340	Carrying Cost	300			System Unserved	0.00
		Other Variable Cost	0			Total	163.21
Total Variable	████	Total Variable	393	Total Variable	2134		
Demand/Reservation Co	████	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	2711	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	████	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	81865
						Total Revenue	0
						Net Cost	81865

Avg Cost of Served Demand 5.303 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.777 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	15436.8	0.0	15436.8	0.0	15436.8	15436.8	0.0	0	163.2	0.0
Total	15436.8	0.0	15436.8	0.0	15436.8	15436.8	0.0	0	163.2	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2309.2	18250.0	15940.8			2.6964	6227	0	6227	2.6964
ENGNiagara	912.8	1167.3	254.4			2.2602	2063	0	2063	2.2602
ENGPNGTS	341.4	365.0	23.6			2.8461	972	0	972	2.8461
ENGC3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6686.2	6690.4	4.2			1.8040	12062	0	12062	1.8040
DLiqWinter	250.0	250.0	0.0							
Dracut 20	1997.4	7315.4	5318.0			7.6007	15182	0	15182	7.6007
ENGC3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DLiqSummer	21.0	21.0	0.0							

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2020 thru OCT 2021

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGDawn	711.3	2190.0	1478.7			2.7284	1941	0	1941	2.7284
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	694.7	10973.0	10278.3			8.8059	6118	0	6118	8.8059
Engie Combo	630.0	630.0	0.0							
DAWN5	922.0	1825.0	903.0							
Total	15636.9									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	321.0	320.4	0	0.0	13	100	0.0	1	125	126	1
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1043	1043	0
ENGFSMA	1498	96	1760.0	1741.2	0	18.8	1498	96	0.0	0	2822	2670	-153
ENGDominion	103	100	110.8	108.6	0	2.2	103	100	0.0	0	203	194	-9
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1279	1214	-65
ENGHON	246	100	241.9	241.9	0	0.0	246	100	0.0	0	458	433	-25
Total	2606	98	3315.4	3288.1	0	26.7	2607	98	5.6	1	5930	5679	-251

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2309.2	0.0	2309.2	7882.5	5573.3	0	5043	0	5043	2.1840
ENGTGP2Stg	94.1	1.9	92.2	7882.5	7790.4	24	0	0	24	0.2572
ENGTGPLong	6055.6	0.0	6055.6	8698.1	2642.4	0	0	0	0	0.0000
ENGTGPBND	912.8	5.7	907.2	1139.5	232.4	78	267	0	345	0.3782
ENGTGPShort	2801.2	23.8	2777.4	10262.0	7484.5	316	2688	0	3003	1.0721
TrCanCharges	703.2	8.1	695.1	1477.2	782.1	0	698	0	698	0.9920
IroqCharges	695.1	4.3	690.8	1477.2	786.4	62	640	0	701	1.0091
ENGPNGTS	341.4	3.4	338.0	365.0	27.0	1	312	0	312	0.9152
ENGLNG	320.4	0.0	320.4	9307.5	8987.1	0	0	0	0	0.0000
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000
Dracut 30	1194.6	2.5	1192.1	10950.0	9757.9	52	4388	0	4440	3.7168
UnionCharges	711.3	8.1	703.2	1477.2	774.0	0	140	0	140	0.1968

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2020 thru OCT 2021

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary

Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Dracut 20	2419.5	5.1	2414.5	7300.0	4885.5	105	1134	0	1239	0.5120
ENGTGPZ4	2215.2	61.7	2153.4	9125.0	6971.6	659	0	0	659	0.2976
Z4toTGPLH	3935.7	33.5	3902.2	7665.0	3762.8	443	0	0	443	0.1126
Z4toStg	2750.5	9.1	2741.4	7882.5	5141.1	136	0	0	136	0.0495
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335
GranBrdgPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	0.0	0.0	0.0	1825.0	1825.0	0	█	0	█	0.0000
DAWN5Dracut	922.0	0.0	922.0	1825.0	903.0	28	0	0	28	0.0309
Total		167.2				2134	█		█	0.7073

Scen1546 ACS Sup w Low Demand
- Draw 0

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Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	48	Transportation Cost	2142	JAN 19, 2022	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	166.31
Other Variable Cost	340	Carrying Cost	285			System Unserved	0.00
		Other Variable Cost	0			Total	166.31
Total Variable	████	Total Variable	378	Total Variable	2142		
Demand/Reservation Co	████	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	2738	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	████	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	81564
						Total Revenue	0
						Net Cost	81564

Avg Cost of Served Demand 5.234 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.723 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	15582.4	0.0	15582.4	0.0	15582.4	15582.4	0.0	0	166.3	0.0
Total	15582.4	0.0	15582.4	0.0	15582.4	15582.4	0.0	0	166.3	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2311.0	18250.0	15939.0			2.6652	6159	0	6159	2.6652
ENGNiagara	939.7	1167.3	227.6			2.2259	2092	0	2092	2.2259
ENGPNGTS	343.8	365.0	21.2			2.8203	970	0	970	2.8203
ENGC3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6687.1	6690.4	3.3			1.6728	11186	0	11186	1.6728
DliqWinter	250.0	250.0	0.0			██████████	██████████	██████████	██████████	██████████
Dracut 20	1954.5	7315.4	5360.8			7.6804	15012	0	15012	7.6804
ENGC3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DliqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2021 thru OCT 2022

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGDawn	715.1	2190.0	1474.9			2.7028	1933	0	1933	2.7028
DAWN	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	841.7	10973.0	10131.3			8.2308	6928	0	6928	8.2308
Engie Combo	630.0	630.0	0.0							
DAWN5	927.9	1825.0	897.1							
Total	15782.5									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	321.0	321.0	0	0.0	13	100	0.0	0	126	127	1
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1043	1043	0
ENGFSMA	1498	96	1762.8	1743.9	0	18.9	1498	96	0.0	0	2670	2478	-192
ENGDominion	103	100	110.5	108.4	0	2.2	103	100	0.0	0	194	180	-13
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1214	1129	-85
ENGHON	246	100	239.1	239.1	0	0.0	246	100	0.0	0	433	403	-30
Total	2607	98	3315.1	3288.4	0	26.7	2607	98	5.6	0	5679	5359	-320

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2311.0	0.0	2311.0	7882.5	5571.6	0	5043	0	5043	2.1823
ENGTGP2Stg	94.1	1.9	92.2	7882.5	7790.4	24	0	0	24	0.2572
ENGTGPLong	6058.5	0.0	6058.5	8698.1	2639.6	0	0	0	0	0.0000
ENGTGPBND	939.7	5.8	933.8	1139.5	205.7	80	267	0	348	0.3699
ENGTGPShort	2800.9	23.8	2777.1	10262.0	7484.8	315	2688	0	3003	1.0722
TrCanCharges	706.9	8.1	698.8	1477.2	778.4	0	698	0	698	0.9868
IroqCharges	698.8	4.3	694.5	1477.2	782.7	62	640	0	702	1.0043
ENGPNGTS	343.8	3.4	340.4	365.0	24.6	1	312	0	312	0.9088
ENGLNG	321.0	0.0	321.0	9307.5	8986.5	0	0	0	0	0.0000
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000
Dracut 30	1233.9	2.6	1231.3	10950.0	9718.7	54	4388	0	4442	3.5998
UnionCharges	715.1	8.1	706.9	1477.2	770.2	0	140	0	140	0.1958

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2021 thru OCT 2022

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
Dracut 20	2490.2	5.2	2485.0	7300.0	4815.0	108	1134	0	1242	0.4987	
ENGTGPZ4	2216.9	61.8	2155.1	9125.0	6969.9	660	0	0	660	0.2976	
Z4toTGPLH	3936.9	33.5	3903.4	7665.0	3761.6	443	0	0	443	0.1126	
Z4toStg	2750.2	9.1	2741.1	7882.5	5141.4	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	0.0	0.0	0.0	1825.0	1825.0	0	█	0	█	0.0000	
DAWN5Dracut	927.9	0.0	927.9	1825.0	897.1	29	0	0	29	0.0309	
Total		167.7				2142	█		█	0.7036	

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2022 thru OCT 2023

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	48	Transportation Cost	2070	JAN 19, 2023	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	172.77
Other Variable Cost	28	Carrying Cost	266			System Unserved	0.00
		Other Variable Cost	0			Total	172.77
Total Variable	████	Total Variable	359	Total Variable	2070		
Demand/Reservation Co	████	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	████	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	107078
						Total Revenue	0
						Net Cost	107078

Avg Cost of Served Demand 6.461 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.968 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	16572.1	0.0	16572.1	0.0	16572.1	16572.1	0.0	0	172.8	0.0
Total	16572.1	0.0	16572.1	0.0	16572.1	16572.1	0.0	0	172.8	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2335.3	18250.0	15914.7			2.6920	6287	0	6287	2.6920
ENGNiagara	1097.1	1167.3	70.2			2.2479	2466	0	2466	2.2479
ENGPNGTS	348.6	365.0	16.4			2.8227	984	0	984	2.8227
ENG3Winter	52.0	91.7	39.7			15.0000	781	0	781	15.0000
ENG-Z4	6690.3	6690.4	0.1			1.5680	10490	0	10490	1.5680
Dracut 20	1798.0	7315.4	5517.4			5.9968	10782	0	10782	5.9968
ENG3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	737.5	2190.0	1452.5			2.7184	2005	0	2005	2.7184

Scen1546 ACS Sup w Low Demand
- Draw 0

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Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary											
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost	
DAWN	0.0	54750.0	54750.0			0.0000	0	0	0	0.0000	
Repsol 40	1433.0	1433.0	0.0								
Dracut 30	507.5	10973.0	10465.5			5.1669	2622	0	2622	5.1669	
Engie Combo	630.0	630.0	0.0								
DAWN5	1099.8	1825.0	725.2								
Total	16819.3										

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	71.0	71.6	0	0.0	12	95	0.0	-1	127	124	-3
ENGPropane	77	100	121.1	121.1	0	0.0	77	100	0.0	0	1043	1043	0
ENGFSMA	1498	96	1766.5	1747.6	0	18.9	1498	96	0.0	0	2478	2316	-162
ENGDominion	103	100	110.6	108.4	0	2.2	103	100	0.0	0	180	169	-12
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1129	1058	-71
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	403	378	-25
Total	2607	98	3026.2	3000.0	0	26.8	2606	98	5.6	-1	5359	5088	-272

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2335.3	0.0	2335.3	7882.5	5547.2	0	5043	0	5043	2.1596	
ENGTGP2Stg	94.2	1.9	92.2	7882.5	7790.3	24	0	0	24	0.2572	
ENGTGPLong	6084.6	0.0	6084.6	8698.1	2613.5	0	0	0	0	0.0000	
ENGTGPBND	1097.1	6.8	1090.3	1139.5	49.2	94	267	0	361	0.3290	
ENGTGPShort	2801.6	23.8	2777.8	10262.0	7484.2	316	2688	0	3003	1.0720	
TrCanCharges	729.1	8.4	720.7	1477.2	756.4	0	698	0	698	0.9567	
IroqCharges	720.7	4.5	716.3	1477.2	760.9	64	640	0	704	0.9764	
ENGPNGTS	348.6	3.5	345.2	365.0	19.8	1	312	0	312	0.8961	
ENGLNG	71.6	0.0	71.6	9307.5	9235.9	0	0	0	0	0.0000	
ENGPropane	121.1	0.0	121.1	6335.0	6213.9	0	0	0	0	0.0000	
ENGC3Truck	121.1	0.0	121.1	4380.0	4258.9	121	0	0	121	1.0000	
Dracut 30	1255.9	2.6	1253.3	10950.0	9696.7	55	4388	0	4443	3.5375	
UnionCharges	737.5	8.4	729.1	1477.2	748.0	0	140	0	140	0.1898	
Dracut 20	1049.6	2.2	1047.4	7300.0	6252.6	46	1134	0	1179	1.1236	

Scen1546 ACS Sup w Low Demand
- Draw 0

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Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPZ4	2241.1	62.5	2178.7	9125.0	6946.3	667	0	0	667	0.2976	
Z4toTGPLH	3939.4	33.5	3905.9	7665.0	3759.1	444	0	0	444	0.1126	
Z4toStg	2750.9	9.1	2741.8	7882.5	5140.8	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	2489.8	5.2	2484.6	73000.0	70515.4	0		0			
Repsol to101	1433.0	43.0	1390.0	12684.0	11294.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	1099.8	0.0	1099.8	1825.0	725.2	34		0			
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000	
Total		215.4				2070					

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2023 thru OCT 2024

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	48	Transportation Cost	2096	JAN 19, 2024	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	174.93
Other Variable Cost	28	Carrying Cost	270			System Unserved	0.00
		Other Variable Cost	0			Total	174.93
Total Variable	████	Total Variable	364	Total Variable	2096		
Demand/Reservation Co	████	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	████	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	110331
						Total Revenue	0
						Net Cost	110331

Avg Cost of Served Demand 6.555 USD/DT (System Cost/Served Dem.)
Avg Cost of Gas Purchased 4.096 USD/DT (Supply Cost/LDC Purchase)

Class	Demand Summary					Served	Unserved	Revenue	Peak Served	Peak Unserved
	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.					
ENGINormal	16832.0	0.0	16832.0	0.0	16832.0	16832.0	0.0	0	174.9	0.0
Total	16832.0	0.0	16832.0	0.0	16832.0	16832.0	0.0	0	174.9	0.0

Source	Supply Summary			Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
	Total Take	Max Take	Surplus							
ENGUSGC	2351.0	18300.0	15949.0			2.7633	6496	0	6496	2.7633
ENGNiagara	1105.6	1170.5	64.9			2.3441	2592	0	2592	2.3441
ENGPNGTS	352.6	366.0	13.4			2.8982	1022	0	1022	2.8982
ENGC3Winter	62.8	91.7	28.9			15.0000	942	0	942	15.0000
ENG-Z4	6698.7	6698.7	0.0			1.6985	11377	0	11377	1.6985
Dracut 20	1819.2	7335.4	5516.2			6.0588	11022	0	11022	6.0588
ENGC3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	744.5	2196.0	1451.5			2.7908	2078	0	2078	2.7908

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2023 thru OCT 2024

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	54900.0	54900.0			0.0000	0	0	0	0.0000
Repsol 40	1433.0	1433.0	0.0							
Dracut 30	658.0	11003.1	10345.1			5.7438	3779	0	3779	5.7438
Engie Combo	630.0	630.0	0.0							
DAWN5	1135.6	1830.0	694.4							
Total	17081.0									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.0	0	0.0	12	95	0.0	0	124	127	3
ENGPropane	77	100	131.9	131.9	0	0.0	77	100	0.0	0	1043	1043	0
ENGFSMA	1498	96	1767.0	1748.1	0	18.9	1498	96	0.0	0	2316	2516	200
ENGDominion	103	100	110.9	108.7	0	2.2	103	100	0.0	0	169	182	14
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1058	1150	92
ENGHON	246	100	237.3	237.3	0	0.0	246	100	0.0	0	378	403	25
Total	2606	98	3038.9	3012.1	0	26.8	2606	98	5.6	0	5088	5421	334

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2351.0	0.0	2351.0	7904.1	5553.2	0	5043	0	5043	2.1452
ENGTGP2Stg	94.7	1.9	92.7	7904.1	7811.4	24	0	0	24	0.2572
ENGTGPLong	6106.2	0.0	6106.2	8719.7	2613.5	0	0	0	0	0.0000
ENGTGPBND	1105.6	6.9	1098.8	1142.7	43.9	94	267	0	362	0.3271
ENGTGPShort	2803.6	23.8	2779.7	10290.1	7510.4	316	2688	0	3003	1.0713
TrCanCharges	736.0	8.5	727.5	1481.2	753.7	0	698	0	698	0.9478
IroqCharges	727.5	4.5	723.0	1481.2	758.2	65	640	0	704	0.9681
ENGPNGTS	352.6	3.5	349.0	366.0	17.0	1	312	0	312	0.8862
ENGLNG	71.0	0.0	71.0	9333.0	9262.0	0	0	0	0	0.0000
ENGPropane	131.9	0.0	131.9	6370.0	6238.1	0	0	0	0	0.0000
ENGC3Truck	131.9	0.0	131.9	4392.0	4260.1	132	0	0	132	1.0000
Dracut 30	1320.7	2.8	1318.0	10980.0	9662.0	57	4388	0	4446	3.3661
UnionCharges	744.5	8.5	736.0	1481.2	745.2	0	140	0	140	0.1881
Dracut 20	1156.5	2.4	1154.0	7320.0	6166.0	50	1134	0	1184	1.0237

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2023 thru OCT 2024

Cost and Flow Summary

Units: MDT, USD (000)

=====										
Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2256.3	62.9	2193.4	9150.0	6956.6	671	0	0	671	0.2976
Z4toTGPLH	3946.3	33.5	3912.8	7686.0	3773.2	444	0	0	444	0.1126
Z4toStg	2752.3	9.1	2743.2	7904.1	5160.9	136	0	0	136	0.0495
Engie2CG	580.0	0.0	580.0	1064.0	484.0	19	0	0	19	0.0335
GranBrdgPL	2525.7	5.3	2520.4	73200.0	70679.6	0	█	0	█	█
Repsol to101	1433.0	43.0	1390.0	12718.8	11328.8	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000
LNGtoRT101	0.0	0.0	0.0	56821.5	56821.5	0	0	0	0	0.0000
LNGtoLNG	0.0	0.0	0.0	2928.0	2928.0	0	0	0	0	0.0000
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1135.6	0.0	1135.6	1830.0	694.4	35	█	0	█	█
DAWN5Dracut	0.0	0.0	0.0	1830.0	1830.0	0	0	0	0	0.0000
Total		216.6				2096	█		█	█

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2024 thru OCT 2025

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2106	JAN 19, 2025	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	176.71
Other Variable Cost	28	Carrying Cost	288			System Unserved	0.00
		Other Variable Cost	0			Total	176.71
Total Variable	██████	Total Variable	382	Total Variable	2106		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	113329
						Total Revenue	0
						Net Cost	113329

Avg Cost of Served Demand 6.692 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 4.244 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	16935.9	0.0	16935.9	0.0	16935.9	16935.9	0.0	0	176.7	0.0
Total	16935.9	0.0	16935.9	0.0	16935.9	16935.9	0.0	0	176.7	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2339.0	18250.0	15911.0			2.8560	6680	0	6680	2.8560
ENGNiagara	1105.9	1167.3	61.3			2.4602	2721	0	2721	2.4602
ENGPNGTS	352.8	365.0	12.2			2.9682	1047	0	1047	2.9682
ENG3Winter	72.1	91.7	19.6			15.0000	1081	0	1081	15.0000
ENG-Z4	6690.4	6690.4	0.0			1.8482	12365	0	12365	1.8482
Dracut 20	1925.0	7315.4	5390.4			6.2515	12034	0	12034	6.2515
ENG3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	743.1	2190.0	1446.9			2.8831	2142	0	2142	2.8831

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2024 thru OCT 2025

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	54750.0	54750.0			0.0000	0	0	0	0.0000
Repsol 40	1433.0	1433.0	0.0							
Dracut 30	652.7	10973.0	10320.3			5.9158	3861	0	3861	5.9158
Engie Combo	630.0	630.0	0.0							
DAWN5	1150.7	1825.0	674.3							
Total	17184.8									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.0	0	0.0	12	95	0.0	0	127	130	4
ENGPropane	77	100	141.2	141.2	0	0.0	77	100	0.0	0	1043	1043	0
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	2516	2751	235
ENGDominion	103	100	110.8	108.6	0	2.2	103	100	0.0	0	182	197	14
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1150	1255	105
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	403	439	36
Total	2606	98	3055.2	3028.4	0	26.9	2606	98	5.6	0	5421	5816	394

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2339.0	0.0	2339.0	7882.5	5543.6	0	5043	0	5043	2.1562
ENGTGP2Stg	103.7	2.1	101.6	7882.5	7780.9	27	0	0	27	0.2572
ENGTGPLong	6079.3	0.0	6079.3	8698.1	2618.8	0	0	0	0	0.0000
ENGTGPBND	1105.9	6.9	1099.1	1139.5	40.5	94	267	0	362	0.3271
ENGTGPShort	2810.6	23.9	2786.7	10262.0	7475.3	317	2688	0	3004	1.0689
TrCanCharges	734.6	8.4	726.2	1477.2	751.0	0	698	0	698	0.9496
IroqCharges	726.2	4.5	721.7	1477.2	755.5	64	640	0	704	0.9697
ENGPNGTS	352.8	3.5	349.3	365.0	15.7	1	312	0	312	0.8856
ENGLNG	71.0	0.0	71.0	9307.5	9236.5	0	0	0	0	0.0000
ENGPropane	141.2	0.0	141.2	6335.0	6193.8	0	0	0	0	0.0000
ENGC3Truck	141.2	0.0	141.2	4380.0	4238.8	141	0	0	141	1.0000
Dracut 30	1312.9	2.8	1310.2	10950.0	9639.8	57	4388	0	4445	3.3858
UnionCharges	743.1	8.5	734.6	1477.2	742.5	0	140	0	140	0.1884
Dracut 20	1264.8	2.7	1262.1	7300.0	6037.9	55	1134	0	1189	0.9398

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2024 thru OCT 2025

Cost and Flow Summary

Units: MDT, USD (000)

=====											
Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPZ4	2235.3	62.3	2173.0	9125.0	6952.0	665	0	0	665	0.2976	
Z4toTGPLH	3939.9	33.5	3906.4	7665.0	3758.6	444	0	0	444	0.1126	
Z4toStg	2750.5	9.1	2741.5	7882.5	5141.1	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	2540.7	5.3	2535.4	73000.0	70464.6	0		0			
Repsol to101	1433.0	43.0	1390.0	12684.0	11294.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	1150.7	0.0	1150.7	1825.0	674.3	36		0			
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000	
Total		216.4				2106					

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1

NOV 2025 thru OCT 2026

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2118	JAN 19, 2026	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	178.21
Other Variable Cost	29	Carrying Cost	306			System Unserved	0.00
		Other Variable Cost	0			Total	178.21
Total Variable	██████	Total Variable	400	Total Variable	2118		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	116651
						Total Revenue	0
						Net Cost	116651

Avg Cost of Served Demand 6.830 USD/DT (System Cost/Served Dem.)
Avg Cost of Gas Purchased 4.399 USD/DT (Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	17078.4	0.0	17078.4	0.0	17078.4	17078.4	0.0	0	178.2	0.0
Total	17078.4	0.0	17078.4	0.0	17078.4	17078.4	0.0	0	178.2	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2338.5	18250.0	15911.5			2.9747	6956	0	6956	2.9747
ENGNiagara	1108.9	1167.3	58.4			2.5878	2870	0	2870	2.5878
ENGPNGTS	356.9	365.0	8.1			3.0708	1096	0	1096	3.0708
ENG3Winter	79.5	91.7	12.2			15.0000	1193	0	1193	15.0000
ENG-Z4	6690.4	6690.4	0.0			2.0008	13386	0	13386	2.0008
Dracut 20	1957.0	7315.4	5358.3			6.4054	12536	0	12536	6.4054
ENG3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	745.5	2190.0	1444.5			2.9997	2236	0	2236	2.9997

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2025 thru OCT 2026

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary											
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost	
DAWN	0.0	54750.0	54750.0			0.0000	0	0	0	0.0000	
Repsol 40	1433.0	1433.0	0.0								
Dracut 30	727.4	10973.0	10245.6			6.1888	4502	0	4502	6.1888	
Engie Combo	630.0	630.0	0.0								
DAWN5	1170.3	1825.0	654.7								
Total	17327.6										

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.0	0	0.0	12	95	0.0	0	130	134	4
ENGPropane	77	100	148.6	148.6	0	0.0	77	100	0.0	0	1043	1043	0
ENGFSMA	1498	96	1767.8	1748.9	0	18.9	1498	96	0.0	0	2751	2978	227
ENGDominion	103	100	110.7	108.5	0	2.2	103	100	0.0	0	197	212	16
ENGNFG	671	100	721.0	715.3	0	5.7	671	100	5.7	0	1255	1356	101
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	439	476	36
Total	2606	98	3055.1	3028.4	0	26.8	2606	98	5.7	0	5816	6200	384

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2338.5	0.0	2338.5	7882.5	5544.1	0	5043	0	5043	2.1566	
ENGTGP2Stg	96.6	2.0	94.6	7882.5	7787.9	25	0	0	25	0.2572	
ENGTGPLong	6086.3	0.0	6086.3	8698.1	2611.7	0	0	0	0	0.0000	
ENGTGPBND	1108.9	6.9	1102.0	1139.5	37.5	95	267	0	362	0.3264	
ENGTGPShort	2803.1	23.8	2779.2	10262.0	7482.7	316	2688	0	3003	1.0715	
TrCanCharges	737.0	8.5	728.5	1477.2	748.6	0	698	0	698	0.9465	
IroqCharges	728.5	4.5	724.0	1477.2	753.1	65	640	0	704	0.9669	
ENGPNGTS	356.9	3.6	353.4	365.0	11.6	1	312	0	312	0.8754	
ENGLNG	71.0	0.0	71.0	9307.5	9236.5	0	0	0	0	0.0000	
ENGPropane	148.6	0.0	148.6	6335.0	6186.4	0	0	0	0	0.0000	
ENGC3Truck	148.6	0.0	148.6	4380.0	4231.4	149	0	0	149	1.0000	
Dracut 30	1418.0	3.0	1415.1	10950.0	9534.9	62	4388	0	4450	3.1380	
UnionCharges	745.5	8.5	737.0	1477.2	740.1	0	140	0	140	0.1878	
Dracut 20	1266.4	2.7	1263.8	7300.0	6036.2	55	1134	0	1189	0.9386	

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2025 thru OCT 2026

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPZ4	2241.9	62.5	2179.4	9125.0	6945.6	667	0	0	667	0.2976	
Z4toTGPLH	3940.5	33.5	3907.0	7665.0	3758.0	444	0	0	444	0.1126	
Z4toStg	2749.9	9.1	2740.9	7882.5	5141.7	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	2560.3	5.4	2555.0	73000.0	70445.0	0		0			
Repsol to101	1433.0	43.0	1390.0	12684.0	11294.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	1170.3	0.0	1170.3	1825.0	654.7	36		0			
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000	
Total		216.8				2118					

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2026 thru OCT 2027

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2131	JAN 19, 2027	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	179.70
Other Variable Cost	29	Carrying Cost	323			System Unserved	0.00
		Other Variable Cost	0			Total	179.70
Total Variable	██████	Total Variable	417	Total Variable	2131		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	119507
						Total Revenue	0
						Net Cost	119507

Avg Cost of Served Demand 6.945 USD/DT (System Cost/Served Dem.)
Avg Cost of Gas Purchased 4.528 USD/DT (Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	17206.4	0.0	17206.4	0.0	17206.4	17206.4	0.0	0	179.7	0.0
Total	17206.4	0.0	17206.4	0.0	17206.4	17206.4	0.0	0	179.7	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2339.6	18250.0	15910.4			3.0662	7174	0	7174	3.0662
ENGNiagara	1110.6	1167.3	56.7			2.6922	2990	0	2990	2.6922
ENGPNGTS	358.0	365.0	7.0			3.1431	1125	0	1125	3.1431
ENG3Winter	86.9	91.7	4.9			15.0000	1303	0	1303	15.0000
ENG-Z4	6690.4	6690.4	0.0			2.1318	14262	0	14262	2.1318
Dracut 20	1941.2	7315.4	5374.2			6.6527	12914	0	12914	6.6527
ENG3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	747.5	2190.0	1442.5			3.0877	2308	0	2308	3.0877

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2026 thru OCT 2027

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	54750.0	54750.0			0.0000	0	0	0	0.0000
Repsol 40	1433.0	1433.0	0.0							
Dracut 30	844.8	10973.0	10128.3			6.1443	5190	0	5190	6.1443
Engie Combo	630.0	630.0	0.0							
DAWN5	1184.0	1825.0	641.0							
Total	17456.0									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.0	0	0.0	12	95	0.0	0	134	137	3
ENGPropane	77	100	156.0	156.0	0	0.0	77	100	0.0	0	1043	1043	0
ENGFSMA	1498	96	1768.4	1749.4	0	18.9	1498	96	0.0	0	2978	3181	202
ENGDominion	103	100	110.7	108.5	0	2.2	103	100	0.0	0	212	226	14
ENGNFG	671	100	721.5	715.8	0	5.7	671	100	5.7	0	1356	1447	91
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	476	509	33
Total	2606	98	3063.6	3036.8	0	26.8	2606	98	5.7	0	6200	6543	344

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2339.6	0.0	2339.6	7882.5	5542.9	0	5043	0	5043	2.1556
ENGTGP2Stg	97.8	2.0	95.8	7882.5	7786.8	25	0	0	25	0.2572
ENGTGPLong	6086.4	0.0	6086.4	8698.1	2611.7	0	0	0	0	0.0000
ENGTGPBND	1110.6	6.9	1103.7	1139.5	35.8	95	267	0	362	0.3261
ENGTGPShort	2804.2	23.8	2780.4	10262.0	7481.6	316	2688	0	3004	1.0711
TrCanCharges	738.9	8.5	730.4	1477.2	746.7	0	698	0	698	0.9440
IroqCharges	730.4	4.5	725.9	1477.2	751.2	65	640	0	705	0.9646
ENGPNGTS	358.0	3.6	354.4	365.0	10.6	1	312	0	312	0.8728
ENGLNG	71.0	0.0	71.0	9307.5	9236.5	0	0	0	0	0.0000
ENGPropane	156.0	0.0	156.0	6335.0	6179.0	0	0	0	0	0.0000
ENGC3Truck	156.0	0.0	156.0	4380.0	4224.0	156	0	0	156	1.0000
Dracut 30	1710.7	3.6	1707.1	10950.0	9242.9	74	4388	0	4463	2.6087
UnionCharges	747.5	8.5	738.9	1477.2	738.2	0	140	0	140	0.1873
Dracut 20	1075.3	2.3	1073.0	7300.0	6227.0	47	1134	0	1180	1.0977

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2026 thru OCT 2027

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPZ4	2241.9	62.5	2179.4	9125.0	6945.6	667	0	0	667	0.2976	
Z4toTGPLH	3940.5	33.5	3907.0	7665.0	3758.0	444	0	0	444	0.1126	
Z4toStg	2749.9	9.1	2740.9	7882.5	5141.7	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	2574.0	5.4	2568.6	73000.0	70431.4	0		0			
Repsol to101	1433.0	43.0	1390.0	12684.0	11294.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	1184.0	0.0	1184.0	1825.0	641.0	37		0			
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000	
Total		217.1				2131					

Scen1546 ACS Sup w Low Demand
- Draw 0

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SENDOUT® Version 14.1.1 REP 1
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NOV 2027 thru OCT 2028

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2149	JAN 19, 2028	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	180.75
Other Variable Cost	29	Carrying Cost	346			System Unserved	0.00
		Other Variable Cost	0			Total	180.75
Total Variable	██████	Total Variable	440	Total Variable	2149		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	122345
						Total Revenue	0
						Net Cost	122345

Avg Cost of Served Demand 7.038 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 4.641 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	17383.7	0.0	17383.7	0.0	17383.7	17383.7	0.0	0	180.8	0.0
Total	17383.7	0.0	17383.7	0.0	17383.7	17383.7	0.0	0	180.8	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2354.7	18300.0	15945.3			3.1585	7437	0	7437	3.1585
ENGNiagara	1116.5	1170.5	54.0			2.7909	3116	0	3116	2.7909
ENGPNGTS	362.1	366.0	3.9			3.2245	1168	0	1168	3.2245
ENG3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6698.7	6698.7	0.0			2.2523	15087	0	15087	2.2523
Dracut 20	2008.2	7335.4	5327.2			6.6487	13352	0	13352	6.6487
ENG3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	753.5	2196.0	1442.5			3.1742	2392	0	2392	3.1742

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2027 thru OCT 2028

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary											
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost	
DAWN	0.0	54900.0	54900.0			0.0000	0	0	0	0	0.0000
Repsol 40	1433.0	1433.0	0.0								
Dracut 30	884.8	11003.1	10118.3			6.5025	5754	0	5754	6.5025	
Engie Combo	630.0	630.0	0.0								
DAWN5	1211.1	1830.0	618.9								
Total	17634.4										

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	70.9	0	0.0	12	95	0.0	0	137	141	4
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1043	1043	0
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3181	3369	188
ENGDominion	103	100	111.3	109.1	0	2.2	103	100	0.0	0	226	238	12
ENGNFG	671	100	722.0	716.3	0	5.7	671	100	5.7	0	1447	1535	88
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	509	540	31
Total	2606	98	3076.5	3049.6	0	26.9	2607	98	5.7	0	6543	6867	323

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2354.7	0.0	2354.7	7904.1	5549.5	0	5043	0	5043	2.1418	
ENGTGP2Stg	105.3	2.2	103.2	7904.1	7801.0	27	0	0	27	0.2572	
ENGTGPLong	6101.3	0.0	6101.3	8719.7	2618.4	0	0	0	0	0.0000	
ENGTGPBND	1116.5	6.9	1109.5	1142.7	33.1	95	267	0	363	0.3248	
ENGTGPShort	2812.1	23.9	2788.2	10290.1	7501.9	317	2688	0	3004	1.0684	
TrCanCharges	745.0	8.6	736.4	1481.2	744.8	0	698	0	698	0.9364	
IroqCharges	736.4	4.6	731.8	1481.2	749.4	65	640	0	705	0.9575	
ENGPNGTS	362.1	3.6	358.5	366.0	7.5	1	312	0	312	0.8628	
ENGLNG	70.9	0.0	70.9	9333.0	9262.1	0	0	0	0	0.0000	
ENGPropane	160.8	0.0	160.8	6370.0	6209.2	0	0	0	0	0.0000	
ENGC3Truck	160.8	0.0	160.8	4392.0	4231.2	161	0	0	161	1.0000	
Dracut 30	1582.6	3.3	1579.3	10980.0	9400.7	69	4388	0	4457	2.8163	
UnionCharges	753.5	8.6	745.0	1481.2	736.2	0	140	0	140	0.1858	
Dracut 20	1310.4	2.8	1307.7	7320.0	6012.3	57	1134	0	1191	0.9085	

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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NOV 2027 thru OCT 2028

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPZ4	2249.4	62.7	2186.7	9150.0	6963.3	669	0	0	669	0.2976	
Z4toTGPLH	3948.2	33.6	3914.6	7686.0	3771.4	445	0	0	445	0.1126	
Z4toStg	2750.5	9.1	2741.5	7904.1	5162.7	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1064.0	484.0	19	0	0	19	0.0335	
GranBrdgPL	2601.1	5.5	2595.6	73200.0	70604.4	0	█	0	█	█	
Repsol to101	1433.0	43.0	1390.0	12718.8	11328.8	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56821.5	56821.5	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2928.0	2928.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	1211.1	0.0	1211.1	1830.0	618.9	37	█	0	█	█	
DAWN5Dracut	0.0	0.0	0.0	1830.0	1830.0	0	0	0	0	0.0000	
Total		218.2				2149	█		█	█	

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1

NOV 2028 thru OCT 2029

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2149	JAN 19, 2029	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	182.35
Other Variable Cost	30	Carrying Cost	355			System Unserved	0.00
		Other Variable Cost	0			Total	182.35
Total Variable	██████	Total Variable	449	Total Variable	2149		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	124054
						Total Revenue	0
						Net Cost	124054

Avg Cost of Served Demand 7.099 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 4.713 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	17474.2	0.0	17474.2	0.0	17474.2	17474.2	0.0	0	182.4	0.0
Total	17474.2	0.0	17474.2	0.0	17474.2	17474.2	0.0	0	182.4	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2342.3	18250.0	15907.7			3.2132	7526	0	7526	3.2132
ENGNiagara	1116.1	1167.3	51.2			2.8264	3155	0	3155	2.8264
ENGPNGTS	361.2	365.0	3.8			3.2541	1175	0	1175	3.2541
ENG3Winter	91.7	91.7	0.0			15.1500	1390	0	1390	15.1500
ENG-Z4	6690.4	6690.4	0.0			2.2789	15247	0	15247	2.2789
Dracut 20	2070.4	7315.4	5245.0			6.8405	14163	0	14163	6.8405
ENG3Summer	69.1	93.5	24.4			10.1000	698	0	698	10.1000
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	753.5	2190.0	1436.5			3.2180	2425	0	2425	3.2180

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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Report 1 (Continued) 12:20:37

NOV 2028 thru OCT 2029

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	54750.0	54750.0			0.0000	0	0	0	0.0000
Repsol 40	1433.0	1433.0	0.0							
Dracut 30	919.1	10973.0	10054.0			6.6681	6129	0	6129	6.6681
Engie Combo	630.0	630.0	0.0							
DAWN5	1226.9	1825.0	598.1							
Total	17724.7									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.1	0	0.0	12	95	0.0	-0	141	143	1
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1043	1052	10
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3369	3402	33
ENGDominion	103	100	110.7	108.5	0	2.2	103	100	0.0	0	238	241	3
ENGNFG	671	100	722.6	716.9	0	5.7	671	100	5.7	0	1535	1550	15
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	540	549	9
Total	2607	98	3076.5	3049.7	0	26.9	2606	98	5.7	-0	6867	6937	70

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2342.3	0.0	2342.3	7882.5	5540.3	0	5043	0	5043	2.1531
ENGTGP2Stg	105.9	2.2	103.8	7882.5	7778.8	27	0	0	27	0.2572
ENGTGPLong	6081.0	0.0	6081.0	8698.1	2617.1	0	0	0	0	0.0000
ENGTGPBND	1116.1	6.9	1109.2	1139.5	30.4	95	267	0	363	0.3249
ENGTGPShort	2812.1	23.9	2788.2	10262.0	7473.8	317	2688	0	3004	1.0684
TrCanCharges	744.9	8.6	736.4	1477.2	740.8	0	698	0	698	0.9364
IroqCharges	736.4	4.6	731.8	1477.2	745.3	65	640	0	705	0.9575
ENGPNGTS	361.2	3.6	357.6	365.0	7.4	1	312	0	312	0.8650
ENGLNG	71.1	0.0	71.1	9307.5	9236.4	0	0	0	0	0.0000
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000
Dracut 30	1822.2	3.8	1818.4	10950.0	9131.6	79	4388	0	4467	2.4517
UnionCharges	753.5	8.6	744.9	1477.2	732.2	0	140	0	140	0.1858
Dracut 20	1167.3	2.5	1164.9	7300.0	6135.1	51	1134	0	1184	1.0146

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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NOV 2028 thru OCT 2029

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPZ4	2236.3	62.3	2174.0	9125.0	6951.0	665	0	0	665	0.2976	
Z4toTGPLH	3940.5	33.5	3907.0	7665.0	3758.0	444	0	0	444	0.1126	
Z4toStg	2749.9	9.1	2740.9	7882.5	5141.7	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	2616.9	5.5	2611.4	73000.0	70388.6	0		0			
Repsol to101	1433.0	43.0	1390.0	12684.0	11294.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	1226.9	0.0	1226.9	1825.0	598.1	38		0			
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000	
Total		218.0				2149					

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 09-Apr-2019
Report 1 12:20:37

NOV 2029 thru OCT 2030

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	48	Transportation Cost	2156	JAN 19, 2030	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	183.94
Other Variable Cost	30	Carrying Cost	359			System Unserved	0.00
		Other Variable Cost	0			Total	183.94
Total Variable	████	Total Variable	453	Total Variable	2156		
Demand/Reservation Co	████	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	████	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	125880
						Total Revenue	0
						Net Cost	125880

Avg Cost of Served Demand 7.140 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 4.774 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	17629.9	0.0	17629.9	0.0	17629.9	17629.9	0.0	0	183.9	0.0
Total	17629.9	0.0	17629.9	0.0	17629.9	17629.9	0.0	0	183.9	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2343.2	18250.0	15906.8			3.2453	7604	0	7604	3.2453
ENGNiagara	1118.6	1167.3	48.7			2.8544	3193	0	3193	2.8544
ENGPNGTS	361.3	365.0	3.7			3.2865	1187	0	1187	3.2865
ENG3Winter	91.7	91.7	0.0			15.3015	1404	0	1404	15.3015
ENG-Z4	6690.4	6690.4	0.0			2.3017	15399	0	15399	2.3017
Dracut 20	2209.2	7315.4	5106.2			6.9842	15429	0	15429	6.9842
ENG3Summer	69.1	93.5	24.4			10.2010	705	0	705	10.2010
DLiqSummer	21.0	21.0	0.0			██████████	██████████	0	██████████	██████████
ENGDawn	758.2	2190.0	1431.8			3.2486	2463	0	2463	3.2486

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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NOV 2029 thru OCT 2030

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	54750.0	54750.0			0.0000	0	0	0	0.0000
Repsol 40	1433.0	1433.0	0.0							
Dracut 30	905.6	10973.0	10067.5			6.8031	6161	0	6161	6.8031
Engie Combo	630.0	630.0	0.0							
DAWN5	1249.6	1825.0	575.4							
Total	17880.9									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.0	0	0.0	12	95	0.0	0	143	144	1
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1052	1062	10
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3402	3435	33
ENGDominion	103	100	110.7	108.5	0	2.2	103	100	0.0	0	241	243	3
ENGNFG	671	100	723.2	717.5	0	5.7	671	100	5.7	0	1550	1565	15
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	549	555	6
Total	2606	98	3077.1	3050.2	0	26.9	2606	98	5.7	0	6937	7004	67

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2343.2	0.0	2343.2	7882.5	5539.3	0	5043	0	5043	2.1523
ENGTGP2Stg	106.6	2.2	104.4	7882.5	7778.2	27	0	0	27	0.2572
ENGTGPLong	6081.3	0.0	6081.3	8698.1	2616.8	0	0	0	0	0.0000
ENGTGPBND	1118.6	6.9	1111.7	1139.5	27.9	95	267	0	363	0.3243
ENGTGPShort	2812.7	23.9	2788.8	10262.0	7473.2	317	2688	0	3004	1.0682
TrCanCharges	749.6	8.6	741.0	1477.2	736.2	0	698	0	698	0.9306
IroqCharges	741.0	4.6	736.4	1477.2	740.8	66	640	0	706	0.9521
ENGPNGTS	361.3	3.6	357.7	365.0	7.3	1	312	0	312	0.8649
ENGLNG	71.0	0.0	71.0	9307.5	9236.5	0	0	0	0	0.0000
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000
Dracut 30	1646.8	3.5	1643.4	10950.0	9306.6	71	4388	0	4460	2.7081
UnionCharges	758.2	8.6	749.6	1477.2	727.6	0	140	0	140	0.1847
Dracut 20	1467.9	3.1	1464.8	7300.0	5835.2	64	1134	0	1197	0.8157

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1 (Continued)

NOV 2029 thru OCT 2030

Cost and Flow Summary

Units: MDT, USD (000)

=====											
Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPZ4	2236.6	62.3	2174.3	9125.0	6950.7	666	0	0	666	0.2976	
Z4toTGPLH	3940.5	33.5	3907.0	7665.0	3758.0	444	0	0	444	0.1126	
Z4toStg	2749.9	9.1	2740.9	7882.5	5141.7	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	2639.6	5.5	2634.1	73000.0	70365.9	0		0			
Repsol to101	1433.0	43.0	1390.0	12684.0	11294.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	1249.6	0.0	1249.6	1825.0	575.4	39		0			
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000	
Total		218.5				2156					

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 09-Apr-2019
Report 1 12:20:37

NOV 2030 thru OCT 2031

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	48	Transportation Cost	2163	JAN 19, 2031	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	185.75
Other Variable Cost	30	Carrying Cost	362			System Unserved	0.00
		Other Variable Cost	0			Total	185.75
Total Variable	████	Total Variable	456	Total Variable	2163		
Demand/Reservation Co	████	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	████	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	127862
						Total Revenue	0
						Net Cost	127862

Avg Cost of Served Demand 7.184 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 4.838 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	17797.3	0.0	17797.3	0.0	17797.3	17797.3	0.0	0	185.7	0.0
Total	17797.3	0.0	17797.3	0.0	17797.3	17797.3	0.0	0	185.7	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2344.1	18250.0	15905.9			3.2777	7683	0	7683	3.2777
ENGNiagara	1120.8	1167.3	46.4			2.8826	3231	0	3231	2.8826
ENGPNGTS	361.3	365.0	3.7			3.3193	1199	0	1199	3.3193
ENG3Winter	91.7	91.7	0.0			15.4545	1418	0	1418	15.4545
ENG-Z4	6690.4	6690.4	0.0			2.3247	15553	0	15553	2.3247
Dracut 20	2211.8	7315.4	5103.6			7.1453	15804	0	15804	7.1453
ENG3Summer	69.1	93.5	24.4			10.3030	712	0	712	10.3030
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	763.1	2190.0	1426.9			3.2796	2503	0	2503	3.2796

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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Report 1 (Continued) 12:20:37

NOV 2030 thru OCT 2031

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	54750.0	54750.0			0.0000	0	0	0	0.0000
Repsol 40	1433.0	1433.0	0.0							
Dracut 30	1041.8	10973.0	9931.2			6.9484	7239	0	7239	6.9484
Engie Combo	630.0	630.0	0.0							
DAWN5	1270.5	1825.0	554.5							
Total	18048.8									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.0	0	0.0	12	95	0.0	0	144	145	1
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1062	1072	10
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3435	3469	34
ENGDominion	103	100	110.7	108.5	0	2.2	103	100	0.0	0	243	246	2
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1565	1579	14
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	555	561	5
Total	2606	98	3076.5	3049.6	0	26.9	2606	98	5.7	0	7004	7071	67

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2344.1	0.0	2344.1	7882.5	5538.4	0	5043	0	5043	2.1514
ENGTGP2Stg	107.1	2.2	105.0	7882.5	7777.6	28	0	0	28	0.2572
ENGTGPLong	6082.8	0.0	6082.8	8698.1	2615.3	0	0	0	0	0.0000
ENGTGPBND	1120.8	6.9	1113.9	1139.5	25.6	96	267	0	363	0.3239
ENGTGPShort	2812.1	23.9	2788.2	10262.0	7473.8	317	2688	0	3004	1.0684
TrCanCharges	754.4	8.7	745.7	1477.2	731.4	0	698	0	698	0.9247
IroqCharges	745.7	4.6	741.1	1477.2	736.0	66	640	0	706	0.9466
ENGPNGTS	361.3	3.6	357.7	365.0	7.3	1	312	0	312	0.8647
ENGLNG	71.0	0.0	71.0	9307.5	9236.5	0	0	0	0	0.0000
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000
Dracut 30	1917.9	4.0	1913.9	10950.0	9036.1	83	4388	0	4472	2.3315
UnionCharges	763.1	8.7	754.4	1477.2	722.7	0	140	0	140	0.1835
Dracut 20	1335.7	2.8	1332.9	7300.0	5967.1	58	1134	0	1192	0.8922

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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NOV 2030 thru OCT 2031

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPZ4	2237.0	62.3	2174.6	9125.0	6950.4	666	0	0	666	0.2976	
Z4toTGPLH	3941.6	33.5	3908.1	7665.0	3756.9	444	0	0	444	0.1126	
Z4toStg	2748.8	9.1	2739.7	7882.5	5142.8	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	2660.6	5.6	2655.0	73000.0	70345.0	0	█	0	█	█	
Repsol to101	1433.0	43.0	1390.0	12684.0	11294.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	1270.5	0.0	1270.5	1825.0	554.5	39	█	0	█	█	
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000	
Total		219.0				2163	█		█	█	

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 09-Apr-2019
Report 1 12:20:37

NOV 2031 thru OCT 2032

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2178	JAN 19, 2032	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	187.51
Other Variable Cost	30	Carrying Cost	365			System Unserved	0.00
		Other Variable Cost	0			Total	187.51
Total Variable	██████	Total Variable	459	Total Variable	2178		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	130137
						Total Revenue	0
						Net Cost	130137

Avg Cost of Served Demand 7.218 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 4.900 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	18028.6	0.0	18028.6	0.0	18028.6	18028.6	0.0	0	187.5	0.0
Total	18028.6	0.0	18028.6	0.0	18028.6	18028.6	0.0	0	187.5	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2358.8	18300.0	15941.2			3.3109	7810	0	7810	3.3109
ENGNiagara	1126.1	1170.5	44.4			2.9120	3279	0	3279	2.9120
ENGPNGTS	362.4	366.0	3.6			3.3594	1217	0	1217	3.3594
ENG3Winter	91.7	91.7	0.0			15.6091	1432	0	1432	15.6091
ENG-Z4	6698.7	6698.7	0.0			2.3485	15732	0	15732	2.3485
Dracut 20	2313.9	7335.4	5021.5			7.2341	16739	0	16739	7.2341
ENG3Summer	69.1	93.5	24.4			10.4060	719	0	719	10.4060
DLiqSummer	21.0	21.0	0.0			██████████	██████████	0	██████████	██████████
ENGDawn	772.0	2196.0	1424.0			3.3117	2557	0	2557	3.3117

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1 (Continued)

NOV 2031 thru OCT 2032

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary											
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost	
DAWN	0.0	54900.0	54900.0			0.0000	0	0	0	0	0.0000
Repsol 40	1433.0	1433.0	0.0								
Dracut 30	1104.5	11003.1	9898.6			7.1604	7909	0	7909	7.1604	
Engie Combo	630.0	630.0	0.0								
DAWN5	1300.0	1830.0	530.0								
Total	18281.3										

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.0	0	0.0	12	95	0.0	0	145	147	1
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1072	1082	10
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3469	3502	33
ENGDominion	103	100	111.0	108.8	0	2.2	103	100	0.0	0	246	248	3
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1579	1594	15
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	561	566	5
Total	2606	98	3078.0	3051.1	0	26.9	2606	98	5.7	0	7071	7138	67

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2358.8	0.0	2358.8	7904.1	5545.3	0	5043	0	5043	2.1381	
ENGTGP2Stg	107.1	2.2	105.0	7904.1	7799.2	28	0	0	28	0.2572	
ENGTGPLong	6103.8	0.0	6103.8	8719.7	2615.9	0	0	0	0	0.0000	
ENGTGPBND	1126.1	7.0	1119.1	1142.7	23.5	96	267	0	363	0.3228	
ENGTGPShort	2813.6	23.9	2789.7	10290.1	7500.4	317	2688	0	3005	1.0679	
TrCanCharges	763.2	8.8	754.5	1481.2	726.7	0	698	0	698	0.9140	
IroqCharges	754.5	4.7	749.8	1481.2	731.4	67	640	0	707	0.9367	
ENGPNGTS	362.4	3.6	358.8	366.0	7.2	1	312	0	312	0.8622	
ENGLNG	71.0	0.0	71.0	9333.0	9262.0	0	0	0	0	0.0000	
ENGPropane	160.8	0.0	160.8	6370.0	6209.2	0	0	0	0	0.0000	
ENGC3Truck	160.8	0.0	160.8	4392.0	4231.2	161	0	0	161	1.0000	
Dracut 30	2033.2	4.3	2028.9	10980.0	8951.1	88	4388	0	4477	2.2018	
UnionCharges	772.0	8.8	763.2	1481.2	718.0	0	140	0	140	0.1814	
Dracut 20	1385.3	2.9	1382.3	7320.0	5937.7	60	1134	0	1194	0.8618	

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2031 thru OCT 2032

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPZ4	2251.7	62.8	2188.9	9150.0	6961.1	670	0	0	670	0.2976	
Z4toTGPLH	3948.4	33.6	3914.9	7686.0	3771.1	445	0	0	445	0.1126	
Z4toStg	2750.3	9.1	2741.2	7904.1	5163.0	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1064.0	484.0	19	0	0	19	0.0335	
GranBrdgPL	2690.0	5.6	2684.4	73200.0	70515.6	0	█	0	█	█	
Repsol to101	1433.0	43.0	1390.0	12718.8	11328.8	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56821.5	56821.5	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2928.0	2928.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	1300.0	0.0	1300.0	1830.0	530.0	40	█	0	█	█	
DAWN5Dracut	0.0	0.0	0.0	1830.0	1830.0	0	0	0	0	0.0000	
Total		220.2				2178	█		█	█	

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1

NOV 2032 thru OCT 2033

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	48	Transportation Cost	2179	JAN 19, 2033	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	189.34
Other Variable Cost	31	Carrying Cost	370			System Unserved	0.00
		Other Variable Cost	0			Total	189.34
Total Variable	████	Total Variable	464	Total Variable	2179		
Demand/Reservation Co	████	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	████	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	131961
						Total Revenue	0
						Net Cost	131961

Avg Cost of Served Demand 7.276 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 4.971 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	18136.5	0.0	18136.5	0.0	18136.5	18136.5	0.0	0	189.3	0.0
Total	18136.5	0.0	18136.5	0.0	18136.5	18136.5	0.0	0	189.3	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2346.5	18250.0	15903.5			3.3434	7845	0	7845	3.3434
ENGNiagara	1124.7	1167.3	42.6			2.9401	3307	0	3307	2.9401
ENGPNGTS	361.5	365.0	3.5			3.3858	1224	0	1224	3.3858
ENG3Winter	91.7	91.7	0.0			15.7652	1446	0	1446	15.7652
ENG-Z4	6690.4	6690.4	0.0			2.3715	15866	0	15866	2.3715
Dracut 20	2364.8	7315.4	4950.6			7.3567	17397	0	17397	7.3567
ENG3Summer	69.1	93.5	24.4			10.5101	726	0	726	10.5101
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	772.4	2190.0	1417.6			3.3425	2582	0	2582	3.3425

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2032 thru OCT 2033

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	54750.0	54750.0			0.0000	0	0	0	0.0000
Repsol 40	1433.0	1433.0	0.0							
Dracut 30	1166.7	10973.0	9806.3			7.4171	8654	0	8654	7.4171
Engie Combo	630.0	630.0	0.0							
DAWN5	1317.2	1825.0	507.8							
Total	18389.1									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.0	0	0.0	12	95	0.0	0	147	148	1
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1082	1092	10
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3502	3537	36
ENGDominion	103	100	110.7	108.5	0	2.2	103	100	0.0	0	248	251	3
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1594	1610	16
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	566	572	6
Total	2606	98	3076.5	3049.6	0	26.9	2606	98	5.7	0	7138	7210	71

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2346.5	0.0	2346.5	7882.5	5536.0	0	5043	0	5043	2.1492
ENGTGP2Stg	107.1	2.2	105.0	7882.5	7777.6	28	0	0	28	0.2572
ENGTGPLong	6085.1	0.0	6085.1	8698.1	2613.0	0	0	0	0	0.0000
ENGTGPBND	1124.7	7.0	1117.7	1139.5	21.8	96	267	0	363	0.3230
ENGTGPShort	2812.1	23.9	2788.2	10262.0	7473.8	317	2688	0	3004	1.0684
TrCanCharges	763.6	8.8	754.8	1477.2	722.3	0	698	0	698	0.9136
IroqCharges	754.8	4.7	750.1	1477.2	727.0	67	640	0	707	0.9363
ENGPNGTS	361.5	3.6	357.9	365.0	7.1	1	312	0	312	0.8644
ENGLNG	71.0	0.0	71.0	9307.5	9236.5	0	0	0	0	0.0000
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000
Dracut 30	1984.0	4.2	1979.9	10950.0	8970.1	86	4388	0	4474	2.2552
UnionCharges	772.4	8.8	763.6	1477.2	713.6	0	140	0	140	0.1813
Dracut 20	1547.5	3.2	1544.3	7300.0	5755.7	67	1134	0	1201	0.7760

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2032 thru OCT 2033

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPZ4	2239.4	62.4	2177.0	9125.0	6948.0	666	0	0	666	0.2976	
Z4toTGPLH	3941.6	33.5	3908.1	7665.0	3756.9	444	0	0	444	0.1126	
Z4toStg	2748.8	9.1	2739.7	7882.5	5142.8	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	2707.2	5.7	2701.6	73000.0	70298.4	0	█	0	█	█	
Repsol to101	1433.0	43.0	1390.0	12684.0	11294.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	1317.2	0.0	1317.2	1825.0	507.8	41	█	0	█	█	
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000	
Total		220.0				2179	█		█	█	

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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Report 1 12:20:37

NOV 2033 thru OCT 2034

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	48	Transportation Cost	2187	JAN 19, 2034	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	191.27
Other Variable Cost	31	Carrying Cost	374			System Unserved	0.00
		Other Variable Cost	0			Total	191.27
Total Variable	████	Total Variable	468	Total Variable	2187		
Demand/Reservation Co	████	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	████	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	134153
						Total Revenue	0
						Net Cost	134153

Avg Cost of Served Demand 7.327 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 5.041 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	18310.5	0.0	18310.5	0.0	18310.5	18310.5	0.0	0	191.3	0.0
Total	18310.5	0.0	18310.5	0.0	18310.5	18310.5	0.0	0	191.3	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2348.2	18250.0	15901.8			3.3768	7929	0	7929	3.3768
ENGNiagara	1126.2	1167.3	41.0			2.9693	3344	0	3344	2.9693
ENGPNGTS	361.5	365.0	3.5			3.4195	1236	0	1236	3.4195
ENG3Winter	91.7	91.7	0.0			15.9228	1461	0	1461	15.9228
ENG-Z4	6690.4	6690.4	0.0			2.3952	16025	0	16025	2.3952
Dracut 20	2431.1	7315.4	4884.2			7.4668	18153	0	18153	7.4668
ENG3Summer	69.1	93.5	24.4			10.6152	733	0	733	10.6152
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	776.1	2190.0	1413.9			3.3745	2619	0	2619	3.3745

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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NOV 2033 thru OCT 2034

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	54750.0	54750.0			0.0000	0	0	0	0.0000
Repsol 40	1433.0	1433.0	0.0							
Dracut 30	1245.7	10973.0	9727.4			7.6595	9541	0	9541	7.6595
Engie Combo	630.0	630.0	0.0							
DAWN5	1339.5	1825.0	485.5							
Total	18563.6									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.0	0	0.0	12	95	0.0	0	148	149	1
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1092	1102	10
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3537	3572	35
ENGDominion	103	100	110.7	108.5	0	2.2	103	100	0.0	0	251	253	3
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1610	1626	15
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	572	577	6
Total	2606	98	3076.5	3049.6	0	26.9	2606	98	5.7	0	7210	7280	70

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2348.2	0.0	2348.2	7882.5	5534.3	0	5043	0	5043	2.1477
ENGTGP2Stg	107.1	2.2	105.0	7882.5	7777.6	28	0	0	28	0.2572
ENGTGPLong	6086.8	0.0	6086.8	8698.1	2611.3	0	0	0	0	0.0000
ENGTGPBND	1126.2	7.0	1119.3	1139.5	20.3	96	267	0	363	0.3227
ENGTGPShort	2812.1	23.9	2788.2	10262.0	7473.8	317	2688	0	3004	1.0684
TrCanCharges	767.2	8.8	758.4	1477.2	718.8	0	698	0	698	0.9092
IroqCharges	758.4	4.7	753.7	1477.2	723.5	67	640	0	707	0.9323
ENGPNGTS	361.5	3.6	357.9	365.0	7.1	1	312	0	312	0.8643
ENGLNG	71.0	0.0	71.0	9307.5	9236.5	0	0	0	0	0.0000
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000
Dracut 30	2249.5	4.7	2244.8	10950.0	8705.2	98	4388	0	4486	1.9942
UnionCharges	776.1	8.8	767.2	1477.2	709.9	0	140	0	140	0.1804
Dracut 20	1427.3	3.0	1424.3	7300.0	5875.7	62	1134	0	1196	0.8377

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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NOV 2033 thru OCT 2034

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPZ4	2241.1	62.5	2178.6	9125.0	6946.4	667	0	0	667	0.2976	
Z4toTGPLH	3941.6	33.5	3908.1	7665.0	3756.9	444	0	0	444	0.1126	
Z4toStg	2748.8	9.1	2739.7	7882.5	5142.8	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	2729.5	5.7	2723.8	73000.0	70276.2	0		0			
Repsol to101	1433.0	43.0	1390.0	12684.0	11294.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	1339.5	0.0	1339.5	1825.0	485.5	41		0			
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000	
Total		220.5				2187					

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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NOV 2034 thru OCT 2035

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2194	JAN 19, 2035	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	193.09
Other Variable Cost	31	Carrying Cost	378			System Unserved	0.00
		Other Variable Cost	0			Total	193.09
Total Variable	██████	Total Variable	472	Total Variable	2194		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	136306
						Total Revenue	0
						Net Cost	136306

Avg Cost of Served Demand 7.378 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 5.111 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	18475.6	0.0	18475.6	0.0	18475.6	18475.6	0.0	0	193.1	0.0
Total	18475.6	0.0	18475.6	0.0	18475.6	18475.6	0.0	0	193.1	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2350.1	18250.0	15899.9			3.4104	8015	0	8015	3.4104
ENGNiagara	1127.7	1167.3	39.6			2.9988	3382	0	3382	2.9988
ENGPNGTS	361.6	365.0	3.4			3.4536	1249	0	1249	3.4536
ENG3Winter	91.7	91.7	0.0			16.0820	1475	0	1475	16.0820
ENG-Z4	6690.4	6690.4	0.0			2.4191	16185	0	16185	2.4191
Dracut 20	2507.6	7315.4	4807.7			7.5169	18849	0	18849	7.5169
ENG3Summer	69.1	93.5	24.4			10.7214	741	0	741	10.7214
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	779.3	2190.0	1410.7			3.4071	2655	0	2655	3.4071

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2034 thru OCT 2035

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	54750.0	54750.0			0.0000	0	0	0	0.0000
Repsol 40	1433.0	1433.0	0.0							
Dracut 30	1306.7	10973.0	9666.3			7.9938	10446	0	10446	7.9938
Engie Combo	630.0	630.0	0.0							
DAWN5	1361.0	1825.0	464.0							
Total	18729.2									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.0	0	0.0	12	95	0.0	0	149	151	2
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1102	1112	10
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3572	3607	35
ENGDominion	103	100	110.7	108.5	0	2.2	103	100	0.0	0	253	256	3
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1626	1641	16
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	577	583	6
Total	2606	98	3076.5	3049.6	0	26.9	2606	98	5.7	0	7280	7350	71

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2350.1	0.0	2350.1	7882.5	5532.5	0	5043	0	5043	2.1460
ENGTGP2Stg	107.1	2.2	105.0	7882.5	7777.6	28	0	0	28	0.2572
ENGTGPLong	6088.6	0.0	6088.6	8698.1	2609.5	0	0	0	0	0.0000
ENGTGPBND	1127.7	7.0	1120.7	1139.5	18.9	96	267	0	364	0.3224
ENGTGPShort	2812.1	23.9	2788.2	10262.0	7473.8	317	2688	0	3004	1.0684
TrCanCharges	770.4	8.9	761.5	1477.2	715.6	0	698	0	698	0.9055
IroqCharges	761.5	4.7	756.8	1477.2	720.3	68	640	0	707	0.9288
ENGPNGTS	361.6	3.6	358.0	365.0	7.0	1	312	0	312	0.8641
ENGLNG	71.0	0.0	71.0	9307.5	9236.5	0	0	0	0	0.0000
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000
Dracut 30	2181.5	4.6	2177.0	10950.0	8773.0	95	4388	0	4483	2.0550
UnionCharges	779.3	8.9	770.4	1477.2	706.8	0	140	0	140	0.1797
Dracut 20	1632.8	3.4	1629.4	7300.0	5670.6	71	1134	0	1205	0.7377

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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Report 1 (Continued) 12:20:37

NOV 2034 thru OCT 2035

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary

Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2242.9	62.5	2180.4	9125.0	6944.6	667	0	0	667	0.2976
Z4toTGPLH	3941.6	33.5	3908.1	7665.0	3756.9	444	0	0	444	0.1126
Z4toStg	2748.8	9.1	2739.7	7882.5	5142.8	136	0	0	136	0.0495
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335
GranBrdgPL	2751.0	5.8	2745.2	73000.0	70254.8	0	█	0	█	█
Repsol to101	1433.0	43.0	1390.0	12684.0	11294.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1361.0	0.0	1361.0	1825.0	464.0	42	█	0	█	█
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total		221.0				2194	█		█	█

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 09-Apr-2019
Report 1 12:20:37

NOV 2035 thru OCT 2036

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2209	JAN 19, 2036	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	194.69
Other Variable Cost	32	Carrying Cost	381			System Unserved	0.00
		Other Variable Cost	0			Total	194.69
Total Variable	██████	Total Variable	475	Total Variable	2209		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	138678
						Total Revenue	0
						Net Cost	138678

Avg Cost of Served Demand 7.416 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 5.175 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	18699.0	0.0	18699.0	0.0	18699.0	18699.0	0.0	0	194.7	0.0
Total	18699.0	0.0	18699.0	0.0	18699.0	18699.0	0.0	0	194.7	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2365.7	18300.0	15934.3			3.4449	8150	0	8150	3.4449
ENGNiagara	1132.1	1170.5	38.3			3.0294	3430	0	3430	3.0294
ENGPNGTS	362.7	366.0	3.3			3.4953	1268	0	1268	3.4953
ENG3Winter	91.7	91.7	0.0			16.2429	1490	0	1490	16.2429
ENG-Z4	6698.7	6698.7	0.0			2.4439	16371	0	16371	2.4439
Dracut 20	2593.7	7335.4	4741.7			7.7213	20027	0	20027	7.7213
ENG3Summer	69.1	93.5	24.4			10.8286	748	0	748	10.8286
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	787.0	2196.0	1409.0			3.4406	2708	0	2708	3.4406

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2035 thru OCT 2036

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	54900.0	54900.0			0.0000	0	0	0	0.0000
Repsol 40	1433.0	1433.0	0.0							
Dracut 30	1378.9	11003.1	9624.2			7.9369	10944	0	10944	7.9369
Engie Combo	630.0	630.0	0.0							
DAWN5	1390.0	1830.0	440.0							
Total	18953.7									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.0	0	0.0	12	95	0.0	0	151	152	1
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1112	1122	10
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3607	3642	35
ENGDominion	103	100	111.0	108.8	0	2.2	103	100	0.0	0	256	259	3
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1641	1657	16
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	583	589	6
Total	2606	98	3078.0	3051.1	0	26.9	2606	98	5.7	0	7350	7421	71

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2365.7	0.0	2365.7	7904.1	5538.5	0	5043	0	5043	2.1318
ENGTGP2Stg	107.1	2.2	105.0	7904.1	7799.2	28	0	0	28	0.2572
ENGTGPLong	6110.5	0.0	6110.5	8719.7	2609.2	0	0	0	0	0.0000
ENGTGPBND	1132.1	7.0	1125.1	1142.7	17.5	97	267	0	364	0.3215
ENGTGPShort	2813.6	23.9	2789.7	10290.1	7500.4	317	2688	0	3005	1.0679
TrCanCharges	778.1	8.9	769.1	1481.2	712.1	0	698	0	698	0.8965
IroqCharges	769.1	4.8	764.4	1481.2	716.8	68	640	0	708	0.9205
ENGPNGTS	362.7	3.6	359.0	366.0	7.0	1	312	0	312	0.8616
ENGLNG	71.0	0.0	71.0	9333.0	9262.0	0	0	0	0	0.0000
ENGPropane	160.8	0.0	160.8	6370.0	6209.2	0	0	0	0	0.0000
ENGC3Truck	160.8	0.0	160.8	4392.0	4231.2	161	0	0	161	1.0000
Dracut 30	2481.8	5.2	2476.6	10980.0	8503.4	108	4388	0	4496	1.8116
UnionCharges	787.0	9.0	778.1	1481.2	703.1	0	140	0	140	0.1779
Dracut 20	1490.8	3.1	1487.7	7320.0	5832.3	65	1134	0	1198	0.8039

Scen1546 ACS Sup w Low Demand
- Draw 0

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NOV 2035 thru OCT 2036

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPZ4	2258.5	62.9	2195.6	9150.0	6954.4	672	0	0	672	0.2976	
Z4toTGPLH	3948.4	33.6	3914.9	7686.0	3771.1	445	0	0	445	0.1126	
Z4toStg	2750.3	9.1	2741.2	7904.1	5163.0	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1064.0	484.0	19	0	0	19	0.0335	
GranBrdgPL	2780.1	5.8	2774.2	73200.0	70425.8	0		0			
Repsol to101	1433.0	43.0	1390.0	12718.8	11328.8	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56821.5	56821.5	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2928.0	2928.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	1390.0	0.0	1390.0	1830.0	440.0	43		0			
DAWN5Dracut	0.0	0.0	0.0	1830.0	1830.0	0	0	0	0	0.0000	
Total		222.2				2209					

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 09-Apr-2019
Report 1 12:20:37

NOV 2036 thru OCT 2037

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2210	JAN 19, 2037	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	196.53
Other Variable Cost	32	Carrying Cost	385			System Unserved	0.00
		Other Variable Cost	0			Total	196.53
Total Variable	██████	Total Variable	480	Total Variable	2210		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	140629
						Total Revenue	0
						Net Cost	140629

Avg Cost of Served Demand 7.479 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 5.249 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	18802.6	0.0	18802.6	0.0	18802.6	18802.6	0.0	0	196.5	0.0
Total	18802.6	0.0	18802.6	0.0	18802.6	18802.6	0.0	0	196.5	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2353.9	18250.0	15896.1			3.4788	8189	0	8189	3.4788
ENGNiagara	1130.2	1167.3	37.1			3.0587	3457	0	3457	3.0587
ENGPNGTS	361.7	365.0	3.3			3.5228	1274	0	1274	3.5228
ENG3Winter	91.7	91.7	0.0			16.4053	1505	0	1505	16.4053
ENG-Z4	6690.4	6690.4	0.0			2.4678	16510	0	16510	2.4678
Dracut 20	2685.2	7315.4	4630.2			7.8534	21088	0	21088	7.8534
ENG3Summer	69.1	93.5	24.4			10.9369	756	0	756	10.9369
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	786.8	2190.0	1403.2			3.4728	2732	0	2732	3.4728

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 09-Apr-2019
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NOV 2036 thru OCT 2037

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
DAWN	0.0	54750.0	54750.0			0.0000	0	0	0	0.0000
Repsol 40	1433.0	1433.0	0.0							
Dracut 30	1398.2	10973.0	9574.8			8.1527	11399	0	11399	8.1527
Engie Combo	630.0	630.0	0.0							
DAWN5	1406.0	1825.0	419.0							
Total	19057.2									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.0	0	0.0	12	95	0.0	0	152	154	1
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1122	1132	10
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3642	3677	35
ENGDominion	103	100	110.7	108.5	0	2.2	103	100	0.0	0	259	261	3
ENGNFG	671	100	728.2	722.5	0	5.8	671	100	5.7	0	1657	1674	17
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	589	595	6
Total	2606	98	3081.0	3054.0	0	26.9	2606	98	5.7	0	7421	7493	72

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2353.9	0.0	2353.9	7882.5	5528.6	0	5043	0	5043	2.1425
ENGTGP2Stg	111.7	2.3	109.4	7882.5	7773.1	29	0	0	29	0.2572
ENGTGPLong	6087.8	0.0	6087.8	8698.1	2610.3	0	0	0	0	0.0000
ENGTGPBND	1130.2	7.0	1123.2	1139.5	16.4	96	267	0	364	0.3219
ENGTGPShort	2816.5	23.9	2792.6	10262.0	7469.4	317	2688	0	3005	1.0669
TrCanCharges	777.8	8.9	768.9	1477.2	708.3	0	698	0	698	0.8969
IroqCharges	768.9	4.8	764.1	1477.2	713.1	68	640	0	708	0.9208
ENGPNGTS	361.7	3.6	358.1	365.0	6.9	1	312	0	312	0.8638
ENGLNG	71.0	0.0	71.0	9307.5	9236.5	0	0	0	0	0.0000
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000
Dracut 30	2507.9	5.3	2502.6	10950.0	8447.4	109	4388	0	4497	1.7932
UnionCharges	786.8	9.0	777.8	1477.2	699.3	0	140	0	140	0.1780
Dracut 20	1575.5	3.3	1572.2	7300.0	5727.8	68	1134	0	1202	0.7630

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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NOV 2036 thru OCT 2037

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPZ4	2242.2	62.5	2179.7	9125.0	6945.3	667	0	0	667	0.2976	
Z4toTGPLH	3941.6	33.5	3908.1	7665.0	3756.9	444	0	0	444	0.1126	
Z4toStg	2748.8	9.1	2739.7	7882.5	5142.8	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	2796.1	5.9	2790.2	73000.0	70209.8	0	█	0	█	█	
Repsol to101	1433.0	43.0	1390.0	12684.0	11294.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	1406.0	0.0	1406.0	1825.0	419.0	43	█	0	█	█	
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000	
Total		222.0				2210	█		█	█	

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 09-Apr-2019
Report 1 12:20:37

NOV 2037 thru OCT 2038

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2218	JAN 19, 2038	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	198.39
Other Variable Cost	32	Carrying Cost	389			System Unserved	0.00
		Other Variable Cost	0			Total	198.39
Total Variable	██████	Total Variable	484	Total Variable	2218		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	142947
						Total Revenue	0
						Net Cost	142947

Avg Cost of Served Demand 7.533 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 5.321 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	18976.8	0.0	18976.8	0.0	18976.8	18976.8	0.0	0	198.4	0.0
Total	18976.8	0.0	18976.8	0.0	18976.8	18976.8	0.0	0	198.4	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2355.9	18250.0	15894.1			3.5134	8277	0	8277	3.5134
ENGNiagara	1131.3	1167.3	36.0			3.0891	3495	0	3495	3.0891
ENGPNGTS	361.8	365.0	3.2			3.5579	1287	0	1287	3.5579
ENG3Winter	91.7	91.7	0.0			16.5693	1520	0	1520	16.5693
ENG-Z4	6690.4	6690.4	0.0			2.4924	16675	0	16675	2.4924
Dracut 20	2723.6	7315.4	4591.7			7.9426	21633	0	21633	7.9426
ENG3Summer	69.1	93.5	24.4			11.0462	763	0	763	11.0462
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	791.0	2190.0	1399.0			3.5059	2773	0	2773	3.5059

Scen1546 ACS Sup w Low Demand
- Draw 0

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SENDOUT® Version 14.1.1 REP 1 09-Apr-2019
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NOV 2037 thru OCT 2038

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary											
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost	
DAWN	0.0	54750.0	54750.0			0.0000	0	0	0	0.0000	
Repsol 40	1433.0	1433.0	0.0								
Dracut 30	1503.8	10973.0	9469.3			8.3736	12592	0	12592	8.3736	
Engie Combo	630.0	630.0	0.0								
DAWN5	1429.4	1825.0	395.6								
Total	19232.0										

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.0	0	0.0	12	95	0.0	0	154	155	1
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1132	1143	10
ENGFSMA	1498	96	1777.5	1758.4	0	19.0	1498	96	0.0	0	3677	3713	36
ENGDominion	103	100	110.4	108.2	0	2.2	103	100	0.0	0	261	264	3
ENGNFG	671	100	728.2	722.5	0	5.8	671	100	5.7	0	1674	1691	17
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	595	600	6
Total	2606	98	3082.8	3055.9	0	26.9	2606	98	5.7	0	7493	7566	73

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2355.9	0.0	2355.9	7882.5	5526.6	0	5043	0	5043	2.1407	
ENGTGP2Stg	113.9	2.3	111.5	7882.5	7771.0	29	0	0	29	0.2572	
ENGTGPLong	6088.0	0.0	6088.0	8698.1	2610.1	0	0	0	0	0.0000	
ENGTGPBND	1131.3	7.0	1124.3	1139.5	15.2	97	267	0	364	0.3217	
ENGTGPShort	2818.3	24.0	2794.4	10262.0	7467.6	317	2688	0	3005	1.0663	
TrCanCharges	782.0	9.0	773.0	1477.2	704.2	0	698	0	698	0.8921	
IroqCharges	773.0	4.8	768.2	1477.2	709.0	69	640	0	708	0.9164	
ENGPNGTS	361.8	3.6	358.2	365.0	6.8	1	312	0	312	0.8637	
ENGLNG	71.0	0.0	71.0	9307.5	9236.5	0	0	0	0	0.0000	
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000	
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000	
Dracut 30	2634.8	5.5	2629.2	10950.0	8320.8	114	4388	0	4503	1.7090	
UnionCharges	791.0	9.0	782.0	1477.2	695.2	0	140	0	140	0.1770	
Dracut 20	1592.6	3.3	1589.3	7300.0	5710.7	69	1134	0	1203	0.7552	

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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NOV 2037 thru OCT 2038

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPZ4	2242.1	62.5	2179.6	9125.0	6945.4	667	0	0	667	0.2976	
Z4toTGPLH	3941.9	33.5	3908.4	7665.0	3756.6	444	0	0	444	0.1126	
Z4toStg	2748.5	9.1	2739.4	7882.5	5143.1	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	2819.4	5.9	2813.5	73000.0	70186.5	0	█	0	█	█	
Repsol to101	1433.0	43.0	1390.0	12684.0	11294.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	1429.4	0.0	1429.4	1825.0	395.6	44	█	0	█	█	
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000	
Total		222.6				2218	█		█	█	

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1
Report 1

NOV 2038 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	48	Transportation Cost	2227	JAN 19, 2039	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	200.37
Other Variable Cost	33	Carrying Cost	392			System Unserved	0.00
		Other Variable Cost	0			Total	200.37
Total Variable	██████	Total Variable	486	Total Variable	2227		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	94	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	145383
						Total Revenue	0
						Net Cost	145383

Avg Cost of Served Demand 7.588 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 5.400 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	19159.8	0.0	19159.8	0.0	19159.8	19159.8	0.0	0	200.4	0.0
Total	19159.8	0.0	19159.8	0.0	19159.8	19159.8	0.0	0	200.4	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2357.8	18250.0	15892.2			3.5485	8367	0	8367	3.5485
ENGNiagara	1132.4	1167.3	34.9			3.1199	3533	0	3533	3.1199
ENGPNGTS	361.8	365.0	3.2			3.5934	1300	0	1300	3.5934
ENG3Winter	91.7	91.7	0.0			16.7350	1535	0	1535	16.7350
ENG-Z4	6690.4	6690.4	0.0			2.5174	16842	0	16842	2.5174
Dracut 20	2718.9	7315.4	4596.4			8.1115	22055	0	22055	8.1115
ENG3Summer	69.1	93.5	24.4			11.1567	771	0	771	11.1567
DLiqSummer	21.0	21.0	0.0			██████████	██████████	██████████	██████████	██████████
ENGDawn	795.2	2190.0	1394.8			3.5394	2815	0	2815	3.5394

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 09-Apr-2019
Report 1 (Continued) 12:20:37

NOV 2038 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary											
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost	
DAWN	0.0	54750.0	54750.0			0.0000	0	0	0	0	0.0000
Repsol 40	1433.0	1433.0	0.0								
Dracut 30	1660.3	10973.0	9312.7			8.4725	14067	0	14067	8.4725	
Engie Combo	630.0	630.0	0.0								
DAWN5	1438.0	1825.0	387.0								
Total	19399.8										

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	71.0	71.0	0	0.0	12	95	0.0	0	155	157	2
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1143	1153	11
ENGFSMA	1498	96	1761.7	1758.4	0	18.9	1482	95	0.0	-16	3713	3711	-2
ENGDominion	103	100	110.4	108.2	0	2.2	103	100	0.0	0	264	266	3
ENGNFG	671	100	728.2	722.5	0	5.8	671	100	5.7	0	1691	1707	15
ENGHON	246	100	236.8	236.8	0	0.0	246	100	0.0	0	600	607	6
Total	2606	98	3068.9	3057.7	0	26.8	2591	97	5.7	-16	7566	7600	34

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2357.8	0.0	2357.8	7882.5	5524.7	0	5043	0	5043	2.1390	
ENGTGP2Stg	115.8	2.4	113.4	7882.5	7769.1	30	0	0	30	0.2572	
ENGTGPLong	6103.6	0.0	6103.6	8698.1	2594.5	0	0	0	0	0.0000	
ENGTGPBND	1132.4	7.0	1125.4	1139.5	14.1	97	267	0	364	0.3214	
ENGTGPShort	2820.2	24.0	2796.2	10262.0	7465.8	318	2688	0	3005	1.0656	
TrCanCharges	786.2	9.0	777.1	1477.2	700.0	0	698	0	698	0.8873	
IroqCharges	777.1	4.8	772.3	1477.2	704.8	69	640	0	709	0.9120	
ENGPNGTS	361.8	3.6	358.2	365.0	6.8	1	312	0	312	0.8635	
ENGLNG	71.0	0.0	71.0	9307.5	9236.5	0	0	0	0	0.0000	
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000	
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000	
Dracut 30	2389.6	5.0	2384.6	10950.0	8565.4	104	4388	0	4492	1.8798	
UnionCharges	795.2	9.1	786.2	1477.2	691.0	0	140	0	140	0.1761	
Dracut 20	1989.7	4.2	1985.5	7300.0	5314.5	86	1134	0	1220	0.6132	

Scen1546 ACS Sup w Low Demand
- Draw 0

Ventyx
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NOV 2038 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary

Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2242.0	62.5	2179.5	9125.0	6945.5	667	0	0	667	0.2976
Z4toTGPLH	3957.7	33.6	3924.1	7665.0	3740.9	446	0	0	446	0.1126
Z4toStg	2732.7	9.0	2723.6	7882.5	5158.9	135	0	0	135	0.0495
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335
GranBrdgPL	2828.0	5.9	2822.1	73000.0	70177.9	0	█	0	█	█
Repsol to101	1433.0	43.0	1390.0	12684.0	11294.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1438.0	0.0	1438.0	1825.0	387.0	44	█	0	█	█
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total		223.2				2227	█		█	█

Scen1546 ACS Sup w Low Demand
- Draw 0

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Report 1z 12:20:37

NOV 2018 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████████	Injection Cost	1004	Transportation Cost	45236	JAN 19, 2039	
Penalty Cost	0	Withdrawal Cost	969	Other Variable Cost	0	System Served	200.37
Other Variable Cost	1872	Carrying Cost	7117			System Unserved	0.00
		Other Variable Cost	0			Total	200.37
Total Variable	████████	Total Variable	9089	Total Variable	45236		
Demand/Reservation Co	████████	Demand Cost	████████	Demand Cost	████████		
Other Fixed Cost	12401	Other Fixed Cost	20435	Other Fixed Cost	0		
Total Fixed	████████	Total Fixed	████████	Total Fixed	████████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████████	Net Storage Cost	████████	Net Trans Cost	████████	Total Gas Cost	2498059
						Total Revenue	0
						Net Cost	2498059

Avg Cost of Served Demand 6.850 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 4.653 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	364671.1	0.0	364671.1	0.0	364671.1	364671.1	0.0	0	200.4	0.0
Total	364671.1	0.0	364671.1	0.0	364671.1	364671.1	0.0	0	200.4	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	49200.2	383500.0	334299.8			3.1419	154581	0	154581	3.1419
ENGNiagara	22613.1	24528.7	1915.6			2.7520	62232	0	62232	2.7520
ENGPNGTS	7387.4	7670.0	282.6			3.2325	23880	0	23880	3.2325
ENG3Winter	1821.3	1926.6	105.3			15.5157	28258	0	28258	15.5157
ENG-Z4	140479.1	140539.9	60.8			2.1595	303361	0	303361	2.1595
DLiqWinter	1000.0	1000.0	0.0							
Dracut 20	46613.8	153722.8	107109.1			7.2490	337901	0	337901	7.2490
ENG3Summer	1451.0	1962.6	511.6			10.3250	14982	0	14982	10.3250
DLiqSummer	441.0	441.0	0.0							

Scen1546 ACS Sup w Low Demand
- Draw 0

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Report 1z (Continued) 12:20:37

NOV 2018 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGDawn	15850.3	46020.0	30169.7			3.1703	50250	0	50250	3.1703
DAWN	0.0	931350.0	931350.0			0.0000	0	0	0	0.0000
Repsol 40	24361.4	24361.4	0.0							
Dracut 30	20628.3	230584.2	209955.9			7.5284	155299	0	155299	7.5284
Engie Combo	13230.0	13230.0	0.0							
DAWN5	24670.5	36968.3	12297.7							
Total	369747.4									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	2491.0	2491.6	0	0.0	12	95	0.0	-1	126	157	31
ENGPropane	77	100	3272.3	3272.3	0	0.0	77	100	0.0	0	953	1153	200
ENGFSMA	1482	95	37183.2	36785.4	0	397.9	1482	95	0.0	0	2573	3711	1138
ENGDominion	103	100	2327.6	2282.2	0	45.4	103	100	0.0	0	178	266	88
ENGNFG	671	100	15183.4	15063.5	0	119.9	671	100	119.0	0	1164	1707	542
ENGHON	246	100	4973.1	4973.1	0	0.0	246	100	0.0	0	427	607	179
Total	2591	97	65430.6	64868.0	0	563.2	2591	97	119.0	-1	5422	7600	2179

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	49200.2	0.0	49200.2	165641.3	116441.2	0	105908	0	105908	2.1526
ENGTGP2Stg	2164.8	44.2	2120.5	165641.3	163520.8	557	0	0	557	0.2572
ENGTGPLong	127762.9	0.0	127762.9	182768.0	55005.1	0	0	0	0	0.0000
ENGTGPBND	22613.1	140.2	22472.9	23945.7	1472.8	1930	5614	0	7544	0.3336
ENGTGPShort	58985.1	501.4	58483.8	215642.1	157158.3	6644	56441	0	63085	1.0695
TrCanCharges	15669.8	180.2	15489.6	31040.5	15550.9	0	14649	0	14649	0.9349
IroqCharges	15489.6	96.0	15393.6	31040.5	15646.9	1375	13435	0	14809	0.9561
ENGPNGTS	7387.4	73.9	7313.6	7670.0	356.4	13	6548	0	6561	0.8882
ENGLNG	2491.6	0.0	2491.6	195585.0	193093.4	0	0	0	0	0.0000
ENGPropane	3272.3	0.0	3272.3	133210.0	129937.7	0	0	0	0	0.0000
ENG3Truck	3272.3	0.0	3272.3	92040.0	88767.7	3272	0	0	3272	1.0000
Dracut 30	36819.2	77.3	36741.9	230100.0	193358.1	1598	92155	0	93753	2.5463
UnionCharges	15850.3	180.5	15669.8	31040.5	15370.7	0	2940	0	2940	0.1855

Scen1546 ACS Sup w Low Demand
- Draw 0

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Report 1z (Continued) 12:20:37

NOV 2018 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

=====										
Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Dracut 20	33413.9	70.2	33343.8	153400.0	120056.2	1450	23807	0	25258	0.7559
ENGTGPZ4	47035.4	1310.9	45724.5	191750.0	146025.5	13996	0	0	13996	0.2976
Z4toTGPLH	82741.7	703.3	82038.4	161070.0	79031.6	9320	0	0	9320	0.1126
Z4toStg	57737.4	190.5	57546.8	165641.3	108094.5	2860	0	0	2860	0.0495
Engie2CG	12180.0	0.0	12180.0	22232.0	10052.0	408	0	0	408	0.0335
GranBrdgPL	45310.1	95.2	45214.9	1241800.0	1196585.1	0	█	0	█	█
Repsol to101	24361.4	730.8	23630.6	215767.8	192137.3	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	158800.0	158800.0	0	0	0	0	0.0000
LNGtoRT101	0.0	0.0	0.0	1190767.5	1190767.5	0	0	0	0	0.0000
LNGtoLNG	0.0	0.0	0.0	61360.0	61360.0	0	0	0	0	0.0000
Engie2ENGLNG	1050.0	0.0	1050.0	1050.0	0.0	1050	0	0	1050	1.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	21679.5	0.0	21679.5	36968.3	15288.8	670	█	0	█	█
DAWN5Dracut	2991.0	0.0	2991.0	36968.3	33977.3	92	0	0	92	0.0309
Total		4394.7				45236	█		█	█

RESOURCE MIX RESULTS

Units: MDT

=====

	Contract	Start Date	End Date	Min Level	Max Level	Result MDQ
	-----	-----	-----	-----	-----	-----
Supplies	DAWN	NOV 2022	OCT 2039	0.00	150.00	150.00
	Repsol 40	NOV 2022	OCT 2039	0.00	150.00	35.83
	Engie Combo	NOV 2022	OCT 2039	0.00	7.00	7.00

	Contract	Start Date	End Date	Min Level	Max Level	Result MDQ
	-----	-----	-----	-----	-----	-----
Segments	Repsol to101	NOV 2022	OCT 2039	0.00	150.00	34.75
	Dawn2Dracut	NOV 2022	OCT 2039	0.00	150.00	0.00
	DAWNTCPL	NOV 2022	OCT 2039	0.00	150.00	0.00
	PNGTS2RT101	NOV 2022	OCT 2039	0.00	150.00	0.00

REVISED

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 8

Date Request Received: 4/1/19
Request No. PLAN 8-16

Date of Response: 5/3/19
Respondent: William R. Killeen

REQUEST:

For the 2.0 Bcf Base Case, for all years, please provide (a) design day supply and disposition reports, and (b) daily injection, withdrawal and inventory results for Granite Bridge LNG.

RESPONSE:

- a) Please see Attachment PLAN 8-16.a.
- b) Please see the following attachments for the daily injection, daily withdrawal, and daily inventory results, respectively, for the Granite Bridge LNG in the 2.0 Bcf Base Case Supplemental – Customer Benefit Guarantee scenario:
 - Attachment PLAN 8-16.b.1.
 - Attachment PLAN 8-16.b.2.
 - Attachment PLAN 8-16.b.3.

REVISED RESPONSE:

- a) Please see Confidential Attachment PLAN 8-16.a.
- b) Please see the following confidential attachments for the daily injection, daily withdrawal, and daily inventory results, respectively, for the Granite Bridge LNG in the 2.0 Bcf Base Case Supplemental – Customer Benefit Guarantee scenario:
 - Confidential Attachment PLAN 8-16.b.1,
 - Confidential Attachment PLAN 8-16.b.2, and
 - Confidential Attachment PLAN 8-16.b.3

Confidential Attachment PLAN 8-16.a contains third party pricing information that is “confidential, commercial, or financial information” that is protected from disclosure by RSA 91-A:5, IV, and for which the Commission granted confidential treatment of similar information in Order No. 26,166 (Aug. 1, 2018). Therefore, pursuant to that statute and Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of this information and will submit a motion seeking confidential treatment prior to the final hearing in this docket.

Docket No. DG 17-198 Request No. PLAN 8-16 (Revised)

Confidential Attachment PLAN 8-16.b.1, Confidential Attachment PLAN 8-16.b.2, and Confidential Attachment PLAN 8-16.b.3 contain details of the Calpine MOU, the terms of which the Company sought confidential treatment through a motion submitted with its supplemental filing. The Company incorporates that motion here.

The terms of the Calpine MOU are confidential pursuant to RSA 91-A:5, IV, which exempts from public disclosure records that constitute “confidential, commercial, or financial information.” *See* Order No. 25,861 at 4-6 (Jan. 22, 2016). Pricing and other material terms of the MOU are also presumed to be confidential in cost of gas proceedings pursuant to Puc 201.06(a)(11), an explicit acknowledgment that terms in gas supply contracts warrant confidential treatment in the first instance. Finally, the Company and Calpine have an expectation of privacy in key terms included in the MOU based on existing Commission practice. *See* Order No. 25,861.

Because Confidential Attachment PLAN 8-16.b.1, Confidential Attachment PLAN 8-16.b.2, and Confidential Attachment PLAN 8-16.b.3 are files from which the confidential information cannot reasonably be redacted, the Company asserts confidentiality as to the entire documents and a redacted version will not be provided. Therefore, pursuant to Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of Confidential Attachment PLAN 8-16.b.1, Confidential Attachment PLAN 8-16.b.2, and Confidential Attachment PLAN 8-16.b.3 and will submit a motion seeking confidential treatment prior to the final hearing in this docket.

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
- Draw 0

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Report 9B 10:30:47

Peak Subperiod Demand Forecast by Class

JAN 19, 2019		Daily System Activity	Units: MDT
AREA	ENGINormal		
ENGINormal	164.6		
TOTAL	164.6		

Peak Subperiod Demand Summary

JAN 19, 2019

Daily System Activity

Units: MDT

=====

AREA	FORECAST	TOTAL SERVED	TOTAL UNSERVED
	TOTAL DEMAND		
ENGI Demand	164.6	164.6	0.0
ThirtyDay	0.0	0.0	0.0
=====			
TOTAL	164.6	164.6	0.0

=====

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
 - Draw 0

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JAN 19, 2019

Daily System Activity

Units: MDT

Demand	Suppl.	Unsup.	Supplies	Take	Storages	Adj (-With)	With. (-Inj)	With Fuel	Inj Fuel	Ending Inv.	% Full	Transport	Deliv.	Fuel
----- Served -----														
ENGINormal	164.5		ENGUSGC	13.75	ENGLNG		2.60			5	38	ENGTGPProd	13.75	
			ENGNiagara	3.14	ENGPropane		24.60			4	5	ENGTGP2Stg		
			ENGPNGTS	1.00	ENGFSMA		19.42			938	60	ENGTGPLong	21.60	
			ENGC3Winter	10.00	ENGDominion		0.93			57	55	ENGTGPBND	3.12	0.02
			ENG-Z4	8.30	ENGNFG		6.10	0.05		390	58	ENGTGPShort	28.11	0.24
			DLiqWinter	17.00	ENGHON		1.96			150	61	TrCanCharges	4.00	0.05
			Dracut 20	20.04	GranBrdgLNG							IroqCharges	3.98	0.02
			ENGC3Summer									ENGPNGTS	0.99	0.01
			DLiqSummer									ENGLNG	19.60	
			ENGDawn	4.09								ENGPropane	34.60	
			DAWN									ENGC3Truck	10.00	
			Repsol 40									Dracut 30	25.57	0.05
			Dracut 30	23.84								UnionCharges	4.05	0.05
			Engie Combo	7.00								Dracut 20	20.00	0.04
			DAWN5	1.78								ENGTGPZ4	13.37	0.38
												Z4toTGPLH	8.23	0.07
												Z4toStg		
												Engie2CG	7.00	
												GranBrdgPL		
												Repsol to101		
												Repsol2Drac		
												LNGtoRT101		
												LNGtoLNG		
												Engie2ENGLNG		
												Dawn2Dracut		
												DAWN5		
												DAWN5Dracut	1.78	
Total	164.5		Total	109.9	Total		55.60	0.05		1544		Total		0.94

Peak Subperiod Demand Forecast by Class

JAN 19, 2020		Daily System Activity	Units: MDT
AREA	ENGINormal		
ENGINormal	167.6		
TOTAL	167.6		

Peak Subperiod Demand Summary

JAN 19, 2020

Daily System Activity

Units: MDT

=====

AREA	FORECAST	TOTAL SERVED	TOTAL UNSERVED
	TOTAL DEMAND		
ENGI Demand	167.6	167.6	0.0
ThirtyDay	0.0	0.0	0.0
=====			
TOTAL	167.6	167.6	0.0

=====

JAN 19, 2020

Daily System Activity

Units: MDT

Demand	Suppl.	Unsup.	Supplies	Take	Storages	Adj (-With)	With. (-Inj)	With Fuel	Inj Fuel	Ending Inv.	% Full	Transport	Deliv.	Fuel
----- Served -----														
ENGINormal	167.6		ENGUSGC	13.75	ENGLNG		2.60			3	21	ENGTGPProd	13.75	
			ENGNiagara	3.14	ENGPropane		24.60			6	8	ENGTGP2Stg		
			ENGPNGTS	1.00	ENGFSMA		19.42			954	61	ENGTGPLong	21.60	
			ENGC3Winter	10.00	ENGDominion		0.93			59	58	ENGTGPBND	3.12	0.02
			ENG-Z4	8.30	ENGNFG		6.10	0.05		396	59	ENGTGPShort	28.11	0.24
			DLiqWinter	17.00	ENGHON		1.96			152	62	TrCanCharges	4.00	0.05
			Dracut 20	20.04	GranBrdgLNG							IroqCharges	3.98	0.02
			ENGC3Summer									ENGPNGTS	0.99	0.01
			DLiqSummer									ENGLNG	19.60	
			ENGDawn	4.09								ENGPropane	34.60	
			DAWN									ENGC3Truck	10.00	
			Repsol 40									Dracut 30	28.64	0.06
			Dracut 30	24.27								UnionCharges	4.05	0.05
			Engie Combo	7.00								Dracut 20	20.00	0.04
			DAWN5	4.43								ENGTGPZ4	13.37	0.38
												Z4toTGPLH	8.23	0.07
												Z4toStg		
												Engie2CG	7.00	
												GranBrdgPL		
												Repsol to101		
												Repsol2Drac		
												LNGtoRT101		
												LNGtoLNG		
												Engie2ENGLNG		
												Dawn2Dracut		
												DAWN5		
												DAWN5Dracut	4.43	
Total	167.6		Total	113.0	Total		55.60	0.05		1571		Total		0.94

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
- Draw 0

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Peak Subperiod Demand Forecast by Class

JAN 19, 2021		Daily System Activity	Units: MDT
AREA	ENGINormal		
ENGINormal	168.9		
TOTAL	168.9		

Peak Subperiod Demand Summary

JAN 19, 2021

Daily System Activity

Units: MDT

=====

AREA	FORECAST	TOTAL SERVED	TOTAL UNSERVED
	TOTAL DEMAND		
ENGI Demand	168.9	168.9	0.0
ThirtyDay	0.0	0.0	0.0
=====			
TOTAL	168.9	168.9	0.0

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
 - Draw 0

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JAN 19, 2021

Daily System Activity

Units: MDT

Demand	Suppl.	Unsup.	Supplies	Take	Storages	Adj (-With)	With. (-Inj)	With Fuel	Inj Fuel	Ending Inv.	% Full	Transport	Deliv.	Fuel
----- Served -----														
ENGINormal	168.9		ENGUSGC	13.75	ENGLNG		2.60			3	21	ENGTGPPProd	13.75	
			ENGNiagara	3.14	ENGPropane		24.60			8	10	ENGTGP2Stg		
			ENGPNGTS	1.00	ENGFSMA		19.42			954	61	ENGTGPLong	21.60	
			ENGC3Winter	10.00	ENGDominion		0.93			60	59	ENGTGPBND	3.12	0.02
			ENG-Z4	8.30	ENGNFG		6.10	0.05		390	58	ENGTGPShort	28.11	0.24
			DLiqWinter	17.00	ENGHON		1.96			154	63	TrCanCharges	4.00	0.05
			Dracut 20	20.04	GranBrdgLNG							IroqCharges	3.98	0.02
			ENGC3Summer									ENGPNGTS	0.99	0.01
			DLiqSummer									ENGLNG	19.60	
			ENGDawn	4.09								ENGPropane	34.60	
			DAWN									ENGC3Truck	10.00	
			Repsol 40									Dracut 30	29.94	0.06
			Dracut 30	25.01								UnionCharges	4.05	0.05
			Engie Combo	7.00								Dracut 20	20.00	0.04
			DAWN5	5.00								ENGTGPZ4	13.37	0.38
												Z4toTGPLH	8.23	0.07
												Z4toStg		
												Engie2CG	7.00	
												GranBrdgPL		
												Repsol to101		
												Repsol2Drac		
												LNGtoRT101		
												LNGtoLNG		
												Engie2ENGLNG		
												Dawn2Dracut		
												DAWN5		
												DAWN5Dracut	5.00	
Total	168.9		Total	114.3	Total		55.60	0.05		1569		Total		0.95

Peak Subperiod Demand Forecast by Class

JAN 19, 2022		Daily System Activity	Units: MDT
AREA	ENGINormal		
ENGINormal	174.6		
TOTAL	174.6		

Peak Subperiod Demand Summary

JAN 19, 2022

Daily System Activity

Units: MDT

=====

AREA	FORECAST	TOTAL SERVED	TOTAL UNSERVED
	TOTAL DEMAND		
ENGI Demand	174.6	174.6	0.0
ThirtyDay	0.0	0.0	0.0
=====			
TOTAL	174.6	174.6	0.0

=====

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
 - Draw 0

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JAN 19, 2022

Daily System Activity

Units: MDT

Demand	Suppl.	Unsup.	Supplies	Take	Storages	Adj (-With)	With. (-Inj)	With Fuel	Inj Fuel	Ending Inv.	% Full	Transport	Deliv.	Fuel
----- Served -----														
ENGINormal	174.6		ENGUSGC	13.75	ENGLNG		8.50					ENGTGPProd	13.75	
			ENGNiagara	3.14	ENGPropane		24.60			15	20	ENGTGP2Stg		
			ENGPNGTS	1.00	ENGFSMA		19.42			954	61	ENGTGPLong	21.60	
			ENGC3Winter	10.00	ENGDominion		0.93			61	60	ENGTGPBND	3.12	0.02
			ENG-Z4	8.30	ENGNFG		6.10	0.05		390	58	ENGTGPShort	28.11	0.24
			DLiqWinter	17.00	ENGHON		1.96			154	63	TrCanCharges	4.00	0.05
			Dracut 20	14.76	GranBrdgLNG							IroqCharges	3.98	0.02
			ENGC3Summer									ENGPNGTS	0.99	0.01
			DLiqSummer									ENGLNG	25.50	
			ENGDawn	4.09								ENGPropane	34.60	
			DAWN									ENGC3Truck	10.00	
			Repsol 40									Dracut 30	29.72	0.06
			Dracut 30	30.06								UnionCharges	4.05	0.05
			Engie Combo	7.00								Dracut 20	20.00	0.04
			DAWN5	5.00								ENGTGPZ4	13.37	0.38
												Z4toTGPLH	8.23	0.07
												Z4toStg		
												Engie2CG	7.00	
												GranBrdgPL		
												Repsol to101		
												Repsol2Drac		
												LNGtoRT101		
												LNGtoLNG		
												Engie2ENGLNG		
												Dawn2Dracut		
												DAWN5		
												DAWN5Dracut	5.00	
Total	174.6		Total	114.1	Total		61.50	0.05		1575		Total		0.95

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
- Draw 0

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Peak Subperiod Demand Forecast by Class

JAN 19, 2023		Daily System Activity	Units: MDT
AREA	ENGINormal		
ENGINormal	183.4		
TOTAL	183.4		

Peak Subperiod Demand Summary

JAN 19, 2023

Daily System Activity

Units: MDT

=====

AREA	FORECAST		
	TOTAL DEMAND	TOTAL SERVED	TOTAL UNSERVED
ENGI Demand	183.4	183.4	0.0
ThirtyDay	0.0	0.0	0.0
=====			
TOTAL	183.4	183.4	0.0

=====

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
 - Draw 0

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JAN 19, 2023

Daily System Activity

Units: MDT

Demand	Suppl.	Unsup.	Supplies	Take	Storages	Adj (-With)	With. (-Inj)	With Fuel	Inj Fuel	Ending Inv.	% Full	Transport	Deliv.	Fuel
----- Served -----														
ENGINormal	183.4		ENGUSGC	13.75	ENGLNG		10.00					ENGTGPPProd	13.75	
			ENGNiagara	3.14	ENGPropane		24.60			15	20	ENGTGP2Stg		
			ENGPNGTS	1.00	ENGFSMA		19.42			954	61	ENGTGPLong	21.60	
			ENGC3Winter	10.00	ENGDominion		0.93			61	60	ENGTGPBND	3.12	0.02
			ENG-Z4	8.30	ENGNFG		6.10	0.05		391	58	ENGTGPShort	28.11	0.24
			DLiqWinter	20.00	ENGHON		1.96			155	63	TrCanCharges	4.00	0.05
			Dracut 20	20.04	GranBrdgLNG							IroqCharges	3.98	0.02
			ENGC3Summer									ENGPNGTS	0.99	0.01
			ENGDawn	4.09								ENGLNG	30.00	
			DAWN									ENGPropane	34.60	
			Repsol 40									ENGC3Truck	10.00	
			Dracut 30	29.08								Dracut 30	30.00	0.06
			Engie Combo	7.00								UnionCharges	4.05	0.05
			DAWN5	5.00								Dracut 20	19.02	0.04
												ENGTGPZ4	13.37	0.38
												Z4toTGPLH	8.23	0.07
												Z4toStg		
												Engie2CG	7.00	
												GranBrdgPL	4.99	0.01
												Repsol to101		
												Repsol2Drac		
												LNGtoRT101		
												LNGtoLNG		
												Engie2ENGLNG		
												Dawn2Dracut		
												DAWN5	5.00	
												DAWN5Dracut		
Total	183.4		Total	121.4	Total		63.00	0.05		1576		Total		0.96

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee

- Draw 0

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Peak Subperiod Demand Forecast by Class

JAN 19, 2024

Daily System Activity

Units: MDT

AREA	ENGINormal
ENGINormal	187.6
TOTAL	187.6

Peak Subperiod Demand Summary

JAN 19, 2024

Daily System Activity

Units: MDT

=====			
AREA	FORECAST TOTAL DEMAND	TOTAL SERVED	TOTAL UNSERVED
ENGI Demand	187.6	187.6	0.0
ThirtyDay	0.0	0.0	0.0
=====			
TOTAL	187.6	187.6	0.0

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
- Draw 0

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JAN 19, 2024

Daily System Activity

Units: MDT

Demand	Suppl.	Unsup.	Supplies	Take	Storages	Adj (-With)	With. (-Inj)	With Fuel	Inj Fuel	Ending Inv.	% Full	Transport	Deliv.	Fuel
--- Served ---														
ENGINormal	187.6		ENGUSGC	13.75	ENGLNG		11.30					ENGTGPProd	13.75	
			ENGNiagara	3.14	ENGFSMA		19.42			934	60	ENGTGP2Stg		
			ENGPNGTS	1.00	ENGDominion		0.93			60	59	ENGTGPLong	21.60	
			ENGC3Winter		ENGNFG		6.10	0.05		402	60	ENGTGPBND	3.12	0.02
			ENG-Z4	8.30	ENGHON		1.96			155	63	ENGTGPShort	28.11	0.24
			DLiqWinter		GranBrdgLNG							TrCanCharges	4.00	0.05
			Dracut 20									IroqCharges	3.98	0.02
			ENGC3Summer									ENGPNGTS	0.99	0.01
			ENGDawn	4.09								ENGLNG	11.30	
			DAWN									ENGPropane		
			Repsol 40									ENGC3Truck		
			Dracut 30									Dracut 30		
			Engie Combo									UnionCharges	4.05	0.05
			DAWN5	5.00								Dracut 20		
												ENGTGPZ4	13.37	0.38
												Z4toTGPLH	8.23	0.07
												Z4toStg		
												Engie2CG		
												GranBrdgPL		
												Repsol to101		
												Repsol2Drac		
												LNGtoRT101		
												LNGtoLNG		
												Engie2ENGLNG		
												Dawn2Dracut		
												DAWN5	5.00	
												DAWN5Dracut		
Total	187.6		Total	35.28	Total							Total		

Peak Subperiod Demand Forecast by Class

JAN 19, 2025

Daily System Activity

Units: MDT

AREA	ENGINormal
ENGINormal	191.5
TOTAL	191.5

Peak Subperiod Demand Summary

JAN 19, 2025		Daily System Activity		Units: MDT
AREA	FORECAST TOTAL DEMAND	TOTAL SERVED	TOTAL UNSERVED	
ENGI Demand	191.5	191.5	0.0	
ThirtyDay	0.0	0.0	0.0	
TOTAL	191.5	191.5	0.0	

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
- Draw 0

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JAN 19, 2025

Daily System Activity

Units: MDT

Demand	Suppl.	Unsup.	Supplies	Take	Storages	Adj (-With)	With. (-Inj)	With Fuel	Inj Fuel	Ending Inv.	% Full	Transport	Deliv.	Fuel
----- Served -----														
ENGINormal	191.5		ENGUSGC	13.75	ENGLNG			12.60				ENGTGPProd	13.75	
			ENGNiagara	3.14	ENGFSMA			19.42		937	60	ENGTGP2Stg		
			ENGPNGTS	1.00	ENGDominion			0.93		62	60	ENGTGPLong	21.60	
			ENGC3Winter		ENGNFG			6.10	0.05	402	60	ENGTGPBND	3.12	0.02
			ENG-Z4	8.30	ENGHON			1.96		155	63	ENGTGPShort	28.11	0.24
			DLiqWinter		GranBrdgLNG							TrCanCharges	4.00	0.05
			Dracut 20	2.61								IroqCharges	3.98	0.02
			ENGC3Summer									ENGPNGTS	0.99	0.01
			ENGDawn	4.09								ENGLNG	12.60	
			DAWN									ENGPropane		
			Repsol 40									ENGC3Truck		
			Dracut 30									Dracut 30	2.61	0.01
			Engie Combo									UnionCharges	4.05	0.05
			DAWN5	5.00								Dracut 20		
												ENGTGPZ4	13.37	0.38
												Z4toTGPLH	8.23	0.07
												Z4toStg		
												Engie2CG		
												GranBrdgPL		
												Repsol to101		
												Repsol2Drac		
												LNGtoRT101		
												LNGtoLNG		
												Engie2ENGLNG		
												Dawn2Dracut		
												DAWN5	5.00	
												DAWN5Dracut		
Total	191.5		Total	37.90	Total							Total		

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee

- Draw 0

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Peak Subperiod Demand Forecast by Class

JAN 19, 2026

Daily System Activity

Units: MDT

AREA	ENGINormal
ENGINormal	195.0
TOTAL	195.0

Peak Subperiod Demand Summary

JAN 19, 2026

Daily System Activity

Units: MDT

AREA	FORECAST		
	TOTAL DEMAND	TOTAL SERVED	TOTAL UNSERVED
ENGI Demand	195.0	195.0	0.0
ThirtyDay	0.0	0.0	0.0
TOTAL	195.0	195.0	0.0

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
- Draw 0

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JAN 19, 2026

Daily System Activity

Units: MDT

Demand	Suppl.	Unsup.	Supplies	Take	Storages	Adj (-With)	With. (-Inj)	With Fuel	Inj Fuel	Ending Inv.	% Full	Transport	Deliv.	Fuel
----- Served -----														
ENGINormal	194.9		ENGUSGC	13.75	ENGLNG			12.60				ENGTGPProd	13.75	
			ENGNiagara	3.14	ENGFSMA			19.42		940	60	ENGTGP2Stg		
			ENGPNGTS	1.00	ENGDominion			0.93		62	60	ENGTGPLong	21.60	
			ENGC3Winter		ENGNFG			6.10	0.05	402	60	ENGTGPBND	3.12	0.02
			ENG-Z4	8.30	ENGHON			1.96		155	63	ENGTGPShort	28.11	0.24
			DLiqWinter		GranBrdgLNG							TrCanCharges	4.00	0.05
			Dracut 20	6.07								IroqCharges	3.98	0.02
			ENGC3Summer									ENGPNGTS	0.99	0.01
			ENGDawn	4.09								ENGLNG	12.60	
			DAWN									ENGPropane		
			Repsol 40									ENGC3Truck		
			Dracut 30									Dracut 30	6.06	0.01
			Engie Combo									UnionCharges	4.05	0.05
			DAWN5	5.00								Dracut 20		
												ENGTGPZ4	13.37	0.38
												Z4toTGPLH	8.23	0.07
												Z4toStg		
												Engie2CG		
												GranBrdgPL		
												Repsol to101		
												Repsol2Drac		
												LNGtoRT101		
												LNGtoLNG		
												Engie2ENGLNG		
												Dawn2Dracut		
												DAWN5	5.00	
												DAWN5Dracut		
Total	194.9		Total	41.36	Total							Total		

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
- Draw 0

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Peak Subperiod Demand Forecast by Class

JAN 19, 2027		Daily System Activity	Units: MDT
AREA	ENGINormal		
ENGINormal	198.2		
TOTAL	198.2		

Peak Subperiod Demand Summary

JAN 19, 2027

Daily System Activity

Units: MDT

=====

AREA	FORECAST		
	TOTAL DEMAND	TOTAL SERVED	TOTAL UNSERVED
ENGI Demand	198.2	198.2	0.0
ThirtyDay	0.0	0.0	0.0
=====			
TOTAL	198.2	198.2	0.0

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
- Draw 0

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JAN 19, 2027

Daily System Activity

Units: MDT

Demand	Suppl.	Unsup.	Supplies	Take	Storages	Adj (-With)	With. (-Inj)	With Fuel	Inj Fuel	Ending Inv.	% Full	Transport	Deliv.	Fuel
----- Served -----														
ENGINormal	198.1		ENGUSGC	13.75	ENGLNG			12.60				ENGTGPProd	13.75	
			ENGNiagara	3.14	ENGFSMA			19.42		943	60	ENGTGP2Stg		
			ENGPNGTS	1.00	ENGDominion			0.93		62	61	ENGTGPLong	21.60	
			ENGC3Winter		ENGNFG			6.10	0.05	402	60	ENGTGPBND	3.12	0.02
			ENG-Z4	8.30	ENGHON			1.96		156	64	ENGTGPShort	28.11	0.24
			DLiqWinter		GranBrdgLNG							TrCanCharges	4.00	0.05
			Dracut 20	9.26								IroqCharges	3.98	0.02
			ENGC3Summer									ENGPNGTS	0.99	0.01
			ENGDawn	4.09								ENGLNG	12.60	
			DAWN									ENGPropane		
			Repsol 40									ENGC3Truck		
			Dracut 30									Dracut 30	9.24	0.02
			Engie Combo									UnionCharges	4.05	0.05
			DAWN5	5.00								Dracut 20		
												ENGTGPZ4	13.37	0.38
												Z4toTGPLH	8.23	0.07
												Z4toStg		
												Engie2CG		
												GranBrdgPL		
												Repsol to101		
												Repsol2Drac		
												LNGtoRT101		
												LNGtoLNG		
												Engie2ENGLNG		
												Dawn2Dracut		
												DAWNTCPL		
												PNGTS2RT101		
												DAWN5	5.00	
												DAWN5Dracut		
Total	198.1		Total	44.54	Total							Total		

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
- Draw 0

Ventyx
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Peak Subperiod Demand Forecast by Class

JAN 19, 2028		Daily System Activity	Units: MDT
AREA	ENGINormal		
ENGINormal	200.7		
TOTAL	200.7		

Peak Subperiod Demand Summary

JAN 19, 2028

Daily System Activity

Units: MDT

=====

AREA	FORECAST		
	TOTAL DEMAND	TOTAL SERVED	TOTAL UNSERVED
ENGI Demand	200.7	200.7	0.0
ThirtyDay	0.0	0.0	0.0
=====			
TOTAL	200.7	200.7	0.0

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
- Draw 0

Ventyx
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JAN 19, 2028

Daily System Activity

Units: MDT

Demand	Suppl.	Unsup.	Supplies	Take	Storages	Adj (-With)	With. (-Inj)	With Fuel	Inj Fuel	Ending Inv.	% Full	Transport	Deliv.	Fuel
----- Served -----														
ENGINormal	200.7		ENGUSGC	13.75	ENGLNG			12.60				ENGTGPProd	13.75	
			ENGNiagara	3.14	ENGFSMA			19.42		964	62	ENGTGP2Stg		
			ENGPNGTS	1.00	ENGDominion			0.93		63	61	ENGTGPLong	21.60	
			ENGC3Winter		ENGNFG			6.10	0.05	404	60	ENGTGPBND	3.12	0.02
			ENG-Z4	8.30	ENGHON			1.96		160	65	ENGTGPShort	28.11	0.24
			DLiqWinter		GranBrdgLNG							TrCanCharges	4.00	0.05
			Dracut 20	11.80								IroqCharges	3.98	0.02
			ENGC3Summer									ENGPNGTS	0.99	0.01
			ENGDawn	4.09								ENGLNG	12.60	
			DAWN									ENGPropane		
			Repsol 40									ENGC3Truck		
			Dracut 30									Dracut 30	11.77	0.02
			Engie Combo									UnionCharges	4.05	0.05
			DAWN5	5.00								Dracut 20		
												ENGTGPZ4	13.37	0.38
												Z4toTGPLH	8.23	0.07
												Z4toStg		
												Engie2CG		
												GranBrdgPL		
												Repsol to101		
												Repsol2Drac		
												LNGtoRT101		
												LNGtoLNG		
												Engie2ENGLNG		
												Dawn2Dracut		
												DAWN5	5.00	
												DAWN5Dracut		
Total	200.7		Total	47.08	Total							Total		

Peak Subperiod Demand Forecast by Class

JAN 19, 2029

Daily System Activity

Units: MDT

AREA	ENGINormal
ENGINormal	203.5
TOTAL	203.5

Peak Subperiod Demand Summary

JAN 19, 2029

Daily System Activity

Units: MDT

AREA	FORECAST		
	TOTAL DEMAND	TOTAL SERVED	TOTAL UNSERVED
ENGI Demand	203.5	203.5	0.0
ThirtyDay	0.0	0.0	0.0
TOTAL	203.5	203.5	0.0

Scen 1520 2.0 Bcf BC Supp Customer Benefit Guarantee
- Draw 0

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JAN 19, 2029

Daily System Activity

Units: MDT

Demand	Suppl.	Unsup.	Supplies	Take	Storages	Adj (-With)	With. (-Inj)	With Fuel	Inj Fuel	Ending Inv.	% Full	Transport	Deliv.	Fuel
----- Served -----														
ENGINormal	203.5		ENGUSGC	13.75	ENGLNG		0.10			0	1	ENGTGPProd	13.75	
			ENGNiagara	3.14	ENGFSMA		19.42			917	59	ENGTGP2Stg		
			ENGPNGTS	1.00	ENGDominion		0.93			60	59	ENGTGPLong	21.60	
			ENGC3Winter		ENGNFG		6.10	0.05		402	60	ENGTGPBND	3.12	0.02
			ENG-Z4	8.30	ENGHON		1.96			156	63	ENGTGPShort	28.11	0.24
			DLiqWinter		GranBrdgLNG							TrCanCharges	4.00	0.05
			Dracut 20									IroqCharges	3.98	0.02
			ENGC3Summer									ENGPNGTS	0.99	0.01
			ENGDawn	4.09								ENGLNG	0.10	
			DAWN									ENGPropane		
			Repsol 40									ENGC3Truck		
			Dracut 30									Dracut 30		
			Engie Combo									UnionCharges	4.05	0.05
			DAWN5	5.00								Dracut 20		
												ENGTGPZ4	13.37	0.38
												Z4toTGPLH	8.23	0.07
												Z4toStg		
												Engie2CG		
												GranBrdgPL		
												Repsol to101		
												Repsol2Drac		
												LNGtoRT101		
												LNGtoLNG		
												Engie2ENGLNG		
												Dawn2Dracut		
												DAWN5	5.00	
												DAWN5Dracut		
Total	203.5		Total	35.28	Total							Total		

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

Staff Data Requests - Set 7

Date Request Received: 4/29/19
Request No. Staff 7-28

Date of Response: 5/13/19
Respondent: Francisco C. DaFonte

REQUEST:

- a. What is the distance of the Pipeline from Manchester to the location of the LNG outlet in Epping and what is the cost of this portion? Please include breakout for AFUDC. Present in manner similar to Plan 8-9.1
- b. What is the distance from the LNG inlet in Epping to the transfer point from the Maritimes in Exeter and what is the associated cost of this portion? Please include breakout for AFUDC Present in manner similar to Plan 8-9.1

RESPONSE:

- a. The total distance of the proposed Granite Bridge Pipeline is approximately 26.5 miles. The distance from the proposed Manchester meter station to the site of the proposed Granite Bridge LNG facility in Epping is approximately 16.5 miles. The distance from the proposed Granite Bridge LNG site in Epping to the proposed Exeter meter station is approximately 10 miles.

The updated cost estimates for the Granite Bridge Pipeline, which were based on estimates provided by independent EPCs, are not available by the requested segments. Each portion of the pipeline route has its own characteristics and design features (jack and bore, horizontal directional drill, size of workspace, proximity to environmental or historic resources, etc.) that results in specific costs for construction in that area.

However, for the purpose of responding to the question, Attachment Staff 7-28 provides a cost estimate of the portion of the proposed Granite Bridge Pipeline from the proposed Manchester meter station to the site of the proposed Granite Bridge LNG facility in Epping. Specifically, the Company, by taking the average capex estimate submitted by the EPCs, and dividing it by the 26.5 miles resulted in an estimated cost per mile of approximately \$6.1 million. This estimate includes contingency, development/overhead costs, and AFUDC in a format similar to the Company's responses to Staff 7-10 and PLAN 8-9.1. The Company then applied the calculated cost per mile to the 10 mile distance between the proposed Granite Bridge LNG site in Epping and the proposed Exeter meter station to establish the estimated capex total of approximately \$61 million for that 10 mile portion of the pipeline. Subtracting the 10 mile capex estimate from the

Docket No. DG 17-198 Request No. Staff 7-28

26.5 mile capex estimate yields the estimated capex total of approximately \$101 million for the 16.5 mile portion from the proposed Manchester meter station to the site of the proposed Granite Bridge LNG facility in Epping. Development/overhead costs were also added to the 16.5 mile estimated capex total under the assumption that these development costs would not be materially different from those for the full 26.5 mile length of the proposed Granite Bridge Pipeline. AFUDC of approximately \$8.5 million was then calculated based on the new estimated capex total of approximately \$107 million for a total estimated project cost of approximately \$115 million and an estimated annual revenue requirement of approximately \$11.5 million.

- b. Please see the response to part a above. While the Company would not construct the 10 mile portion of the proposed Granite Bridge Pipeline between the proposed Granite Bridge LNG site in Epping and the proposed Exeter meter station without the 16.5 mile portion, for the purposes of responding to the question, the Company has simply showed the cost to be the difference between the overall cost of the entire Granite Bridge Pipeline and the cost of the 16.5 mile portion requested in part a above.

Granite Bridge Pipeline
16.5 Mile and 10 Mile Cost Estimates

Average Capex Estimate	\$	149,361,486
Contingency	\$	12,609,765
TOTAL Capex	\$	<u>161,971,251</u>
Cost per Mile	\$	6,112,123
10 Mile Capex Total Cost	\$	61,121,227
16.5 Mile Capex Total	\$	100,850,024
Development/Overheads	\$	<u>5,734,649</u>
16.5 Mile Capex Total w/Dev Cost	\$	<u>106,584,673</u>
AFUDC	\$	<u>8,537,835</u>
Total Project Cost	\$	<u>115,122,509</u>
16.5 Mile Revenue Requirement	\$	11,461,034

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 1

Date Request Received: 5/29/18
Request No. PLAN 1-7

Date of Response: 6/8/18
Respondent: Francisco C. DaFonte

REQUEST:

Did EnergyNorth consider any sites for a new LNG peaking facility that are within its existing market areas? If so, please describe each site, and explain why the site is inferior to the Epping location.

RESPONSE:

The Company's existing LNG facilities are connected directly to its distribution systems in Manchester, Concord, and Tilton. As such, they can only provide a service to those specific market areas. The Company determined that in order to maximize the benefit of any new LNG facility, it needed to be connected to the TGP Concord Lateral either directly or through a new pipeline. By connecting to the TGP Concord Lateral, vaporized LNG could be distributed to all of the Company's service territories along the Concord Lateral as opposed to a single service territory as is the case with the Company's existing LNG facilities. In addition, locating a new LNG facility near the northern end of the TGP Concord Lateral would help to increase pressures at the end of the lateral while adding a secondary supply source that could be used to flow additional supply north or south on the TGP Concord Lateral.

In evaluating the appropriate size of the LNG facility, the Company considered its growing peak winter shortfall and the inevitable replacement of its aging propane facilities. As discussed in the Company's response to Staff 1-11, the minimum required LNG tank capacity was determined to be approximately 1.2 Bcf. As shown in the Company's economic analysis throughout the instant Docket, a 2 Bcf LNG storage tank was determined to be the optimal size.

In researching potential sites, the Company considered the use of its existing property on Broken Bridge Road in Concord, but the site is within one mile of the Concord airport runway which does not meet the NFPA 59A-2001 standards for the proximity of LNG facilities to nearby airports. Since Route 101 was designated as an Energy Infrastructure Corridor and effectively connected existing pipeline infrastructure, the Joint Facilities, along eastern New Hampshire with existing pipeline infrastructure, the TGP Concord Lateral, in central New Hampshire, it made considerable sense to construct the Granite Bridge Pipeline to connect this existing infrastructure, since the proposed Granite Bridge Pipeline would be located completely within

the New Hampshire Department of Transportation (“NHDOT”) right-of way. In addition, building the Granite Bridge Pipeline would give the Company access to supply options on the Joint Facilities and would be able to go into service prior to the Granite Bridge LNG facility. Further, it would be able to meet the Company’s growing long-term demand in the event the Granite Bridge LNG facility was not built. With all this in mind, it made infinitely more sense for the Company to conduct a suitable LNG site search along Route 101. As it turned out, the site search uncovered an abandoned quarry on a 140 acre parcel of land in Epping, New Hampshire. The abandoned quarry is directly adjacent to Route 101 and, thus, does not require any facilities required to connect the proposed Granite Bridge LNG facility with the proposed Granite Bridge Pipeline to be sited on any private property. Also, because the quarry constitutes previously disturbed land, the environmental impacts are significantly minimized. In addition, because the bottom of the quarry has been dug out about 35 feet, it allows the LNG tank to become less visible to the Epping community. Lastly, from a safety perspective, the quarry acts as natural impoundment area for the LNG tank in the highly unlikely event that the proposed full containment LNG tank were to encounter a leak or spill.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 5

Date Request Received: 7/9/18
Request No. PLAN 5-1

Date of Response: 7/23/18
Respondent: Francisco C. DaFonte

REQUEST:

Reference: PLAN 2-4(a). Please provide the scope of work and results for all studies that Liberty undertook or commissioned within the last five years to identify new locations within its existing franchise area for siting a new LNG storage and peaking facility of any size. If Liberty did not evaluate any locations within its existing franchise area other than property that it already owns, as the response to PLAN 1-7 indicates, please confirm that Liberty undertook no such evaluations.

RESPONSE:

For the reasons stated in the Company's response to PLAN 1-7, no other LNG sites, other than its own Concord site, were considered within the Company's existing service territory.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

OCA Data Requests - Set 2

Date Request Received: 4/5/18
Request No. OCA 2-72

Date of Response: 4/27/18
Respondent: Francisco C. DaFonte
James M. Stephens

REQUEST:

Direct Testimony of Mr. Killeen and Mr. Stephens: Bates page 186, lines 14-17.

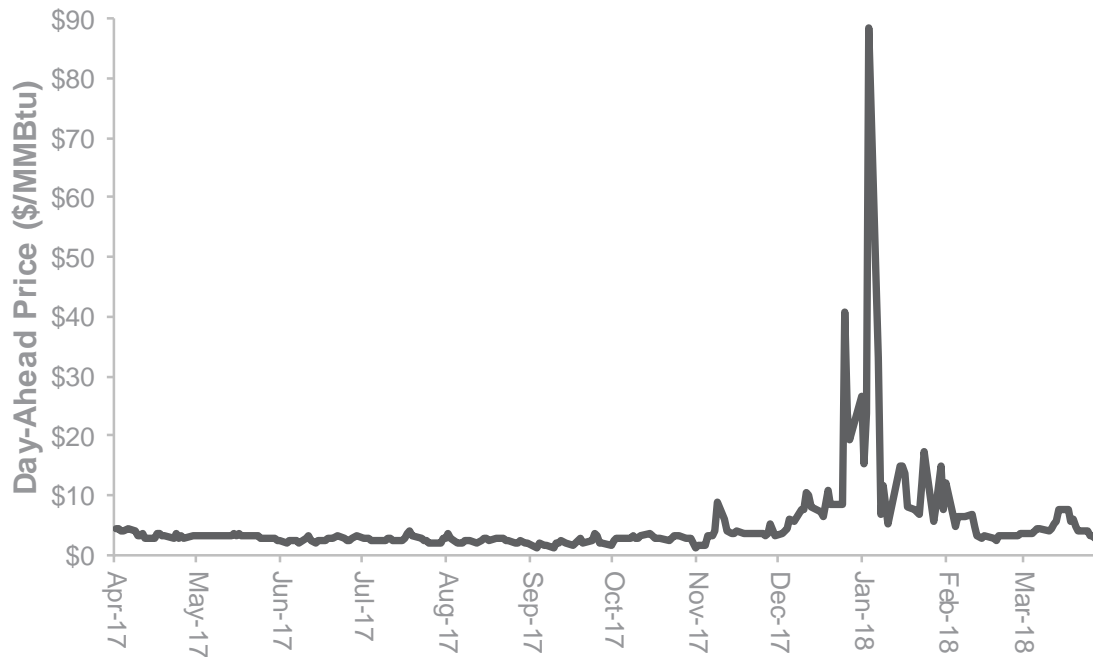
- a. Please discuss the level of liquidity on the PNGTS path and how that plays out for the “node” where the proposed Granite Bridge pipeline connects with the PNGTS pipeline.
- b. Please indicate, after the PNGTS expansion becomes operational, how would the capacity on the PNGTS be expected to be subscribed?
- c. Please explain whether there would be any excess firm capacity on the PNGTS path that can accommodate more than 5000 Dth per day supply for the Granite Bridge pipeline ten years into the future.
- d. If the answer to part c. is yes, please provide your best estimate as to what can be accommodated yearly, incrementally over the precedent-agreement based 5000 Dth per day contract for the period 2022-2032.
- e. If the answer to part c. is yes, please explain what the Company expects to do with the excess capacity.
- f. If the answer to part c. is yes, has the Company modeled its strategy with respect to release of excess firm capacity, in the SENDOUT runs?
- g. If the answer to part f. is yes, please describe what was modeled in the SENDOUT runs.

RESPONSE:

- a. The proposed Portland XPress (“PXP”) Project consists of firm transportation on Union Gas Limited, the TransCanada PipeLines Limited (“TCPL”) Canadian Mainline, and Portland Natural Gas Transmission System (“PNGTS”) and originates at the Dawn Hub, which is one of the most liquid natural gas supply points in North America. With respect to the Granite Bridge Pipeline interconnection with the Joint Facilities (i.e., the “node” referenced in the question), it is important to note that the supplies available at the Dracut point are the same supplies that are available to the Company using the proposed Granite

Bridge Pipeline (e.g., expansion on PNGTS, imported LNG from Canaport, and off-shore Nova Scotia production until field shutdown). In other words, the Granite Bridge Pipeline originates at a point on the Joint Facilities just upstream of Dracut and, therefore, the Company would have access to supplies that are flowing on the Joint Facilities either on Granite Bridge Pipeline or at Dracut. The Granite Bridge Pipeline has the additional benefit of providing service from the proposed Granite Bridge LNG facility, which a TGP Concord Lateral expansion does not.

Since the Company will be able to liquefy natural gas supplies during the off-peak period, the Granite Bridge LNG facility not only provides up to 155,250 Dth per day of re-vaporized LNG on the Granite Bridge Pipeline, but at a cost that reflects the summer price of natural gas, which has generally been significantly lower than the price of winter supplies. Specifically, the chart below is the daily price of supplies at Dracut from April 1, 2017, through March 31, 2018.



As shown in the chart, the price at Dracut can and has exceeded \$20 per MMBtu on numerous observations during the winter period (i.e., November to March). Conversely, the Company can liquify gas supplies at summer prices that are much lower than the winter prices thus providing a physical gas cost hedge for its customers.

- b. In general, pipeline capacity is subscribed by firm shippers of the pipeline. The project shippers (i.e., the firm capacity holders) on the PXP Project are LDCs in New England or Maritimes Canada, which will utilize their firm capacity to meet the demand requirements of their customers (e.g., during the winter season to meet the heat sensitive load). Should a shipper or customer wish to subscribe to more capacity, it would contact PNGTS to initiate that request. The ability of PNGTS to meet that request will depend on several commercial, operational, and regulatory factors. Lastly, it is important to note that the PNGTS expansion for the PXP Project is using available capacity and the next capacity buildout will likely require incremental facilities.

- c. The PXP Project is underpinned by 20- to 22-year term contracts by eight project shippers, all of which are LDCs that need to serve the firm demand of their customers. Therefore, it is unlikely that an LDC would relinquish its capacity ten years in the future. With respect to “excess firm capacity,” please note that available capacity on PNGTS after the implementation of the final phase of the PXP Project will be determined by PNGTS at its sole discretion.
- d. Please see the response to part c.
- e. Should the Company receive approval to construct and operate the Granite Bridge Project and to execute a long-term firm transportation contract associated with the PXP Project, it would attempt to mitigate the fixed costs associated with these resources as it does today with all of EnergyNorth’s assets in the gas supply portfolio. See, for example, Bates 204R of the Direct Testimony of William R. Killeen and James M. Stephens, which provides examples of certain of the Company’s resource optimization strategies.
- f. The SENDOUT® runs do not include an estimate for capacity mitigation for any of the resource options considered by the Company including the proposed Granite Bridge LNG facility.
- g. Please see the response to part f.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 1

Date Request Received: 5/29/18
Request No. PLAN 1-5

Date of Response: 6/8/18
Respondent: Francisco C. DaFonte

REQUEST:

Under EnergyNorth's proposal, and using EnergyNorth's existing distribution mains, which market areas would be able to receive gas directly from the Granite Bridge Pipeline, and which market areas would need to be supplied indirectly, through the TGP Concord Lateral?

RESPONSE:

The Company is not proposing to build a direct interconnect from the proposed Granite Bridge Pipeline to its existing distribution system at this time, and thus all market areas would still need to be supplied indirectly through the TGP Concord Lateral. However, as the Company builds out its distribution system in the Manchester area, a direct connect with the Granite Bridge Pipeline may be warranted.

MODIFIED GAS SUPPLY STRATEGY EXAMPLE

EnergyNorth's resource evaluation assumes that the Granite Bridge Pipeline is constructed, and that the Company either (a) contracts for upstream gas supplies that feed into the new pipeline from the Joint Facilities, or (b) builds an LNG peaking facility near the mid-point of the pipeline in Epping. In response to data requests, EnergyNorth also considered a scenario that substitutes a 75,000 Dth/day expansion of the TGP Concord Lateral for the Granite Bridge Pipeline, but does not include any new on-system LNG.

The modified supply strategy example pairs a smaller TGP Concord Lateral expansion with a new on-system LNG facility. Cost estimates are developed for the Base Case and Low Case demand forecasts using the following assumptions:

1. EnergyNorth contracts with TGP for 30,000 Dth/day of new gas transportation service from Dracut to Nashua and Londonderry starting in November 2022. The capital cost to expand the Concord Lateral is assumed to be \$60 million, which corresponds to an annual reservation charge of \$12.5 million.
2. EnergyNorth extends the CLNG winter peaking supply, and contracts for additional winter peaking supply delivered at Dracut until a new on-system LNG facility is in service.
3. The LNG facility capacities for this example are the same as the Granite Bridge LNG Base Case with a 2.0 Bcf tank, and include the Customer Benefit Guarantee. The new LNG peaking facility is assumed to be located adjacent to the Concord Lateral to minimize interconnection costs. This is a conservative assumption to demonstrate that the potential cost savings are substantial, even with an LNG facility that is likely to be larger than needed.
4. With the Base Case demand forecast the LNG facility is brought on line in 2025. For the Low Demand case the LNG facility is deferred to 2028.
5. The Granite Bridge Pipeline and on-system LNG facility costs are not levelized.

The attached tables show the annual costs for EnergyNorth's preferred supply strategy and the modified supply strategy example for the two demand forecast cases for the 21-year period ending October 2039.

Granite Bridge Project - Base Case Demand						
	Base	GBPL	GBPL	GBLNG	GBLNG	Annual Cost
	Case	Levelized	Annualized	Levelized	Annualized	(\$000)
	(A)	(B)	(C)	(D)	(E)	(F)
2018-19	86,688					86,688
2019-20	85,093					85,093
2020-21	86,234					86,234
2021-22	87,757					87,757
2022-23	128,781	17,633	22,833	11,843	16,646	138,784
2023-24	118,786	17,633	22,253	20,302	27,978	131,082
2024-25	123,203	17,633	21,697	20,302	26,956	133,921
2025-26	128,048	17,633	21,161	20,302	25,919	137,193
2026-27	132,305	17,633	20,644	20,302	24,934	139,948
2027-28	144,884	17,633	20,146	25,260	28,956	151,093
2028-29	141,343	17,633	19,664	28,802	31,598	146,170
2029-30	143,651	17,633	19,198	28,802	30,719	147,133
2030-31	146,008	17,633	18,734	28,802	29,844	148,151
2031-32	148,735	17,633	18,270	28,802	28,971	149,541
2032-33	150,688	17,633	17,807	28,802	28,098	150,158
2033-34	153,108	17,633	17,343	28,802	27,227	151,243
2034-35	155,428	17,633	16,880	28,802	26,357	152,230
2035-36	158,197	17,633	16,417	28,802	25,487	153,666
2036-37	160,003	17,633	15,954	28,802	24,619	154,141
2037-38	162,535	17,633	15,491	28,802	23,805	155,396
2038-39	157,643	17,633	15,028	28,802	23,133	149,369
Sum						2,834,991
Col. A	PLAN 10-1R					
Cols. B - E	OCA 12.2.a					
Col. F	[A] - [B] + [C] - [D] + [E]					

Granite Bridge Project - Low Demand						
	Low Demand	GBPL	GBPL	GBLNG	GBLNG	Annual Cost
	Case	Levelized	Annualized	Levelized	Annualized	(\$000)
	(A)	(B)	(C)	(D)	(E)	(F)
2018-19	85,106					85,106
2019-20	82,304					82,304
2020-21	81,874					81,874
2021-22	81,512					81,512
2022-23	118,759	17,633	22,833	11,843	16,646	128,762
2023-24	110,880	17,633	22,253	20,302	27,978	123,176
2024-25	113,666	17,633	21,697	20,302	26,956	124,384
2025-26	116,802	17,633	21,161	20,302	25,919	125,947
2026-27	119,492	17,633	20,644	20,302	24,934	127,135
2027-28	130,451	17,633	20,146	25,260	28,956	136,660
2028-29	128,190	17,633	19,664	28,802	31,598	133,017
2029-30	129,672	17,633	19,198	28,802	30,719	133,154
2030-31	131,272	17,633	18,734	28,802	29,844	133,415
2031-32	133,213	17,633	18,270	28,802	28,971	134,019
2032-33	134,603	17,633	17,807	28,802	28,098	134,073
2033-34	136,359	17,633	17,343	28,802	27,227	134,494
2034-35	138,140	17,633	16,880	28,802	26,357	134,942
2035-36	140,123	17,633	16,417	28,802	25,487	135,592
2036-37	141,596	17,633	15,954	28,802	24,619	135,734
2037-38	143,481	17,633	15,491	28,802	23,805	136,342
2038-39	137,894	17,633	15,028	28,802	23,133	129,620
Sum						2,571,262
Col. A	OCA 12-18.b.1					
Cols. B - E	OCA 12.2.a					
Col. F	[A] - [B] + [C] - [D] + [E]					

Modified Supply Strategy Example - Base Demand

	Base Case	GBPL	Concord	GBLNG	GBLNG	Annual Cost
	2025 LNG	Levelized	Lateral	Levelized	Annualized	(\$000)
	(A)	(B)	(C)	(D)	(E)	(F)
2018-19	86,688					86,688
2019-20	85,093					85,093
2020-21	86,234					86,234
2021-22	87,765					87,765
2022-23	114,356	17,633	12,500			109,223
2023-24	119,347	17,633	12,500			114,214
2024-25	139,770	17,633	12,500	12,530	17,576	139,682
2025-26	129,250	17,633	12,500	21,481	29,546	132,182
2026-27	133,477	17,633	12,500	21,481	28,475	135,338
2027-28	137,742	17,633	12,500	21,481	27,388	138,516
2028-29	140,461	17,633	12,500	21,481	26,356	140,204
2029-30	151,731	17,633	12,500	26,439	30,333	150,492
2030-31	147,187	17,633	12,500	29,981	32,932	145,005
2031-32	149,914	17,633	12,500	29,981	32,010	146,810
2032-33	151,866	17,633	12,500	29,981	31,093	147,845
2033-34	154,286	17,633	12,500	29,981	30,178	149,350
2034-35	156,604	17,633	12,500	29,981	29,263	150,753
2035-36	159,374	17,633	12,500	29,981	28,349	152,609
2036-37	161,181	17,633	12,500	29,981	27,436	153,504
2037-38	163,712	17,633	12,500	29,981	26,525	155,123
2038-39	158,821	17,633	12,500	29,981	25,614	149,321
Sum						2,755,951
Col. A	OCA 12-2					
Col. B	OCA 12.2.a					
Col. C	Estimated cost for 30,000 Dth/day of incremental service to Nashua.					
Cols. D - E	OCA 13-5					
Col. F	[A] - [B] + [C] - [D] + [E]					

Modified Supply Strategy Example - Low Demand						
	Low Demand	GBPL	Concord	GBLNG	GBLNG	Annual Cost
	2027 LNG	Levelized	Lateral	Levelized	Annualized	((\$000))
	(A)	(B)	(C)	(D)	(E)	(F)
2018-19	85,106					85,106
2019-20	82,305					82,305
2020-21	81,875					81,875
2021-22	81,504					81,504
2022-23	106,105	17,633	12,500			100,972
2023-24	109,459	17,633	12,500			104,326
2024-25	112,548	17,633	12,500			107,415
2025-26	115,946	17,633	12,500			110,813
2026-27	118,882	17,633	12,500			113,749
2027-28	139,017	17,633	12,500	13,810	19,190	139,264
2028-29	127,214	17,633	12,500	23,675	32,274	130,680
2029-30	128,748	17,633	12,500	23,675	31,130	131,070
2030-31	130,478	17,633	12,500	23,675	29,969	131,639
2031-32	132,567	17,633	12,500	23,675	28,867	132,626
2032-33	142,527	17,633	12,500	28,633	32,777	141,537
2033-34	139,741	17,633	12,500	32,175	35,312	137,745
2034-35	141,478	17,633	12,500	32,175	34,327	138,497
2035-36	143,506	17,633	12,500	32,175	33,348	139,547
2036-37	145,012	17,633	12,500	32,175	32,370	140,075
2037-38	146,861	17,633	12,500	32,175	31,394	140,947
2038-39	141,269	17,633	12,500	32,175	30,418	134,379
Sum						2,506,072
Col. A	PLAN 12-3R					
Col. B	OCA 12.2.a					
Col. C	Estimated cost for 30,000 Dth/day of incremental service to Nashua.					
Cols. D - E	OCA 13-6					
Col. F	[A] - [B] + [C] - [D] + [E]					

REVISED

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

PLAN Data Requests - Set 10

Date Request Received: 5/29/19
Request No. PLAN 10-1

Date of Response: 6/19/19
Respondent: Francisco C. DaFonte

REQUEST:

Reference: FCD/WRK-2. Please run the Base Case with the following changes: (a) For the 2022-23 winter season, limit the daily supply from existing LNG to 12,600 Dth and solve for the “Repsol 40” contract quantity; (b) Do not reduce the Granite Bridge LNG minimum inventory or boil-off for the period that the Customer Benefit Guarantee is in effect.

RESPONSE:

The Company reran the SENDOUT® run for the 2.0 Bcf Base Case Supplemental – Customer Benefit Guarantee scenario as requested, and the results are provided as Confidential Attachment PLAN 10-1.

Confidential Attachment PLAN 10-1 contains third party pricing information that is “confidential, commercial, or financial information” which is protected from disclosure by RSA 91-A:5, IV, and for which the Commission granted confidential treatment of similar information in Order No. 26,166 (Aug. 1, 2018). Therefore, pursuant to that order, statute, and Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of this information and will submit a motion confirming confidential treatment prior to the final hearing in this docket.

REVISED RESPONSE:

The Company has corrected an error in the specification of the requested SENDOUT® model run, and the revised results are provided as Confidential Attachment PLAN 10-1 (Revised).

Confidential Attachment PLAN 10-1 (Revised) contains third party pricing information that is “confidential, commercial, or financial information” which is protected from disclosure by RSA 91-A:5, IV, and for which the Commission granted confidential treatment of similar information in Order No. 26,166 (Aug. 1, 2018). Therefore, pursuant to that order, statute, and Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of this information and will submit a motion confirming confidential treatment prior to the final hearing in this docket.

Scen 1565 Repsol RM 1 yr only
- Draw 0

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SENDOUT® Version 14.1.1 REP 1 17-Jun-2019
Report 1 13:24:14

NOV 2018 thru OCT 2019

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	48	Transportation Cost	2117	JAN 19, 2019	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	164.57
Other Variable Cost	342	Carrying Cost	313			System Unserved	0.00
Total Variable	████	Other Variable Cost	0	Total Variable	2117	Total	164.57
		Total Variable	407				
Demand/Reservation Co	████	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	2660	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	████	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	86688
						Total Revenue	0
						Net Cost	86688

Avg Cost of Served Demand 5.690 USD/DT (System Cost/Served Dem.)
Avg Cost of Gas Purchased 4.272 USD/DT (Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	15235.4	0.0	15235.4	0.0	15235.4	15235.4	0.0	0	164.6	0.0
Total	15235.4	0.0	15235.4	0.0	15235.4	15235.4	0.0	0	164.6	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2339.8	18250.0	15910.2			3.0798	7206	0	7206	3.0798
ENGINiagara	910.8	1167.3	256.4			2.8024	2553	0	2553	2.8024
ENGPNGTS	289.4	365.0	75.6			3.3231	962	0	962	3.3231
ENGC3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6684.0	6690.4	6.4			2.1110	14110	0	14110	2.1110
DLiqWinter	250.0	250.0	0.0							
Dracut 20	2286.0	7315.4	5029.3			7.7060	17616	0	17616	7.7060
ENGC3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DLiqSummer	21.0	21.0	0.0							

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 17-Jun-2019
Report 1 (Continued) 13:24:14

NOV 2018 thru OCT 2019

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGDawn	713.9	2190.0	1476.1			3.2953	2353	0	2353	3.2953
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	829.4	10973.0	10143.7			9.3974	7794	0	7794	9.3974
Engie Combo	630.0	630.0	0.0							
DAWN5	334.7	651.2	316.5							
Total	15449.9									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	321.0	321.6	0	0.0	12	95	0.0	-1	126	131	5
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	953	1043	90
ENGFSMA	1482	95	1770.4	1735.8	0	18.9	1498	96	0.0	16	2573	3080	507
ENGDominion	103	100	112.4	110.2	0	2.2	103	100	0.0	0	178	220	41
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1164	1391	227
ENGHON	246	100	237.2	237.2	0	0.0	246	100	0.0	0	427	488	61
GranBrdgLNG	0	N/A	0.0	0.0	0	0.0	0	N/A	0.0	0	0	0	0
Total	2591	N/A	3322.7	3280.9	0	26.8	2606	N/A	5.6	15	5422	6352	931

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2339.8	0.0	2339.8	7882.5	5542.7	0	5043	0	5043	2.1554	
ENGTGP2Stg	97.5	2.0	95.5	7882.5	7787.0	25	0	0	25	0.2572	
ENGTGPLong	6076.0	0.0	6076.0	8698.1	2622.1	0	0	0	0	0.0000	
ENGTGPBND	910.8	5.6	905.2	1139.5	234.3	78	267	0	345	0.3789	
ENGTGPShort	2792.8	23.7	2769.0	10262.0	7492.9	315	2688	0	3002	1.0750	
TrCanCharges	705.8	8.1	697.7	1477.2	779.5	0	698	0	698	0.9883	
IroqCharges	697.7	4.3	693.4	1477.2	783.8	62	640	0	702	1.0057	
ENGPNGTS	289.4	2.9	286.5	365.0	78.5	1	312	0	312	1.0793	
ENGLNG	321.6	0.0	321.6	10950.0	10628.4	0	0	0	0	0.0000	
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000	
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000	
Dracut 30	802.1	1.7	800.4	10950.0	10149.6	35	4388	0	4423	5.5143	
UnionCharges	713.9	8.1	705.8	1477.2	771.3	0	140	0	140	0.1961	

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2018 thru OCT 2019

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
Dracut 20	2647.9	5.6	2642.4	7300.0	4657.6	115	1134	0	1249	0.4715	
ENGTGPZ4	2242.3	62.5	2179.8	9125.0	6945.2	667	0	0	667	0.2976	
Z4toTGPLH	3929.6	33.4	3896.2	7665.0	3768.8	443	0	0	443	0.1126	
Z4toStg	2754.4	9.1	2745.3	7882.5	5137.2	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	0.0	0.0	0.0	651.2	651.2	0	█	0	█	0.0000	
DAWN5Dracut	334.7	0.0	334.7	651.2	316.5	10	0	0	10	0.0309	
Total		167.1				2117	█		█	0.6503	

NOV 2019 thru OCT 2020

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	48	Transportation Cost	2148	JAN 19, 2020	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	167.64
Other Variable Cost	346	Carrying Cost	315			System Unserved	0.00
Total Variable	█	Other Variable Cost	0	Total Variable	2148	Total	167.64
Demand/Reservation Co	█	Total Variable	409				
Other Fixed Cost	2686	Demand Cost	█	Demand Cost	█		
Total Fixed	█	Other Fixed Cost	973	Other Fixed Cost	0		
		Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	85093
						Total Revenue	0
						Net Cost	85093

Avg Cost of Served Demand 5.438 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.952 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	15648.5	0.0	15648.5	0.0	15648.5	15648.5	0.0	0	167.6	0.0
Total	15648.5	0.0	15648.5	0.0	15648.5	15648.5	0.0	0	167.6	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2326.3	18300.0	15973.7			2.8332	6591	0	6591	2.8332
ENGNiagara	959.2	1170.5	211.3			2.3512	2255	0	2255	2.3512
ENGPNGTS	342.9	366.0	23.1			2.9378	1007	0	1007	2.9378
ENGC3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6694.2	6698.7	4.5			1.8996	12716	0	12716	1.8996
DLiqWinter	250.0	250.0	0.0							
Dracut 20	2212.8	7335.4	5122.6			7.4894	16573	0	16573	7.4894
ENGC3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DLiqSummer	21.0	21.0	0.0							

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2019 thru OCT 2020

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGDawn	726.0	2196.0	1470.0			2.8725	2085	0	2085	2.8725
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	691.1	11003.1	10312.0			10.0092	6917	0	6917	10.0092
Engie Combo	630.0	630.0	0.0							
DAWN5	835.3	1622.1	786.9							
Total	15849.6									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	321.0	321.0	0	0.0	12	95	0.0	0	131	126	-5
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1043	1043	0
ENGFSMA	1498	96	1762.8	1743.9	0	18.9	1498	96	0.0	0	3080	2829	-251
ENGDominion	103	100	111.7	109.5	0	2.2	103	100	0.0	0	220	204	-16
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1391	1279	-112
ENGHON	246	100	240.4	240.4	0	0.0	246	100	0.0	0	488	458	-30
GranBrdgLNG	0	N/A	0.0	0.0	0	0.0	0	N/A	0.0	0	0	0	0
Total	2606	N/A	3317.6	3290.9	0	26.7	2606	N/A	5.6	0	6352	5938	-414

Transportation Summary												
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost		
ENGTGPProd	2326.3	0.0	2326.3	7904.1	5577.9	0	5043	0	5043	2.1680		
ENGTGP2Stg	94.1	1.9	92.2	7904.1	7812.0	24	0	0	24	0.2572		
ENGTGPLong	6078.0	0.0	6078.0	8719.7	2641.7	0	0	0	0	0.0000		
ENGTGPBND	959.2	5.9	953.2	1142.7	189.4	82	267	0	349	0.3641		
ENGTGPShort	2803.4	23.8	2779.6	10290.1	7510.5	316	2688	0	3003	1.0714		
TrCanCharges	717.7	8.3	709.5	1481.2	771.7	0	698	0	698	0.9720		
IroqCharges	709.5	4.4	705.1	1481.2	776.1	63	640	0	703	0.9905		
ENGPNGTS	342.9	3.4	339.4	366.0	26.6	1	312	0	312	0.9112		
ENGLNG	321.0	0.0	321.0	10980.0	10659.0	0	0	0	0	0.0000		
ENGPropane	160.8	0.0	160.8	6370.0	6209.2	0	0	0	0	0.0000		
ENGC3Truck	160.8	0.0	160.8	4392.0	4231.2	161	0	0	161	1.0000		
Dracut 30	919.0	1.9	917.0	10980.0	10063.0	40	4388	0	4428	4.8187		
UnionCharges	726.0	8.3	717.7	1481.2	763.5	0	140	0	140	0.1929		

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2019 thru OCT 2020

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
Dracut 20	2820.2	5.9	2814.3	7320.0	4505.7	122	1134	0	1256	0.4454	
ENGTGPZ4	2232.2	62.2	2170.0	9150.0	6980.0	664	0	0	664	0.2976	
Z4toTGPLH	3941.5	33.5	3908.0	7686.0	3778.0	444	0	0	444	0.1126	
Z4toStg	2752.7	9.1	2743.6	7904.1	5160.5	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1064.0	484.0	19	0	0	19	0.0335	
GranBrdgPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56821.5	56821.5	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2928.0	2928.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	0.0	0.0	0.0	1622.1	1622.1	0	█	0	█	0.0000	
DAWN5Dracut	835.3	0.0	835.3	1622.1	786.9	26	0	0	26	0.0309	
Total		168.7				2148	█		█	0.6903	

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2020 thru OCT 2021

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	48	Transportation Cost	2177	JAN 19, 2021	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	168.94
Other Variable Cost	349	Carrying Cost	299			System Unserved	0.00
Total Variable	█	Other Variable Cost	0	Total Variable	2177	Total	168.94
		Total Variable	393				
Demand/Reservation Co	█	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	2711	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	█	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	86234
						Total Revenue	0
						Net Cost	86234

Avg Cost of Served Demand 5.339 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.876 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	16150.3	0.0	16150.3	0.0	16150.3	16150.3	0.0	0	168.9	0.0
Total	16150.3	0.0	16150.3	0.0	16150.3	16150.3	0.0	0	168.9	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2319.6	18250.0	15930.4			2.6954	6252	0	6252	2.6954
ENGNiagara	1065.6	1167.3	101.7			2.2282	2374	0	2374	2.2282
ENGPNGTS	343.6	365.0	21.4			2.8407	976	0	976	2.8407
ENGC3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6689.1	6690.4	1.3			1.8040	12067	0	12067	1.8040
DLiqWinter	250.0	250.0	0.0							
Dracut 20	2259.2	7315.4	5056.2			7.6387	17257	0	17257	7.6387
ENGC3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DLiqSummer	21.0	21.0	0.0							

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2020 thru OCT 2021

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGDawn	731.0	2190.0	1459.0			2.7187	1987	0	1987	2.7187
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	894.8	10973.0	10078.2			8.7297	7812	0	7812	8.7297
Engie Combo	630.0	630.0	0.0							
DAWN5	988.6	1825.0	836.4							
Total	16353.4									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	321.0	320.4	0	0.0	13	100	0.0	1	126	127	1
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1043	1043	0
ENGFSMA	1498	96	1765.0	1746.2	0	18.9	1498	96	0.0	0	2829	2669	-160
ENGDominion	103	100	110.3	108.1	0	2.2	103	100	0.0	0	204	195	-9
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1279	1218	-62
ENGHON	246	100	237.5	237.5	0	0.0	246	100	0.0	0	458	433	-25
GranBrdgLNG	0	N/A	0.0	0.0	0	0.0	0	N/A	0.0	0	0	0	0
Total	2606	N/A	3315.5	3288.2	0	26.7	2607	N/A	5.6	1	5938	5684	-255

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2319.6	0.0	2319.6	7882.5	5563.0	0	5043	0	5043	2.1742
ENGTGP2Stg	94.2	1.9	92.2	7882.5	7790.3	24	0	0	24	0.2572
ENGTGPLong	6068.5	0.0	6068.5	8698.1	2629.6	0	0	0	0	0.0000
ENGTGPBND	1065.6	6.6	1059.0	1139.5	80.5	91	267	0	358	0.3362
ENGTGPShort	2801.3	23.8	2777.5	10262.0	7484.5	316	2688	0	3003	1.0721
TrCanCharges	722.7	8.3	714.4	1477.2	762.8	0	698	0	698	0.9652
IroqCharges	714.4	4.4	710.0	1477.2	767.2	63	640	0	703	0.9843
ENGPNGTS	343.6	3.4	340.2	365.0	24.8	1	312	0	312	0.9093
ENGLNG	320.4	0.0	320.4	10950.0	10629.6	0	0	0	0	0.0000
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000
Dracut 30	1217.1	2.6	1214.6	10950.0	9735.4	53	4388	0	4441	3.6489
UnionCharges	731.0	8.3	722.7	1477.2	754.4	0	140	0	140	0.1915

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2020 thru OCT 2021

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
Dracut 20	2925.5	6.1	2919.4	7300.0	4380.6	127	1134	0	1261	0.4309	
ENGTGPZ4	2225.4	62.0	2163.4	9125.0	6961.6	662	0	0	662	0.2976	
Z4toTGPLH	3938.6	33.5	3905.1	7665.0	3759.9	444	0	0	444	0.1126	
Z4toStg	2750.5	9.1	2741.5	7882.5	5141.1	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
Repsol to101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	0.0	0.0	0.0	1825.0	1825.0	0	█	0	█	0.0000	
DAWN5Dracut	988.6	0.0	988.6	1825.0	836.4	31	0	0	31	0.0309	
Total		170.1				2177	█		█	0.6889	

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2021 thru OCT 2022

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████	Injection Cost	48	Transportation Cost	2201	JAN 19, 2022	
Penalty Cost	0	Withdrawal Cost	46	Other Variable Cost	0	System Served	174.62
Other Variable Cost	353	Carrying Cost	283			System Unserved	0.00
Total Variable	████	Other Variable Cost	0	Total Variable	2201	Total	174.62
		Total Variable	376				
Demand/Reservation Co	████	Demand Cost	████	Demand Cost	████		
Other Fixed Cost	2738	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	████	Total Fixed	████	Total Fixed	████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████	Net Storage Cost	████	Net Trans Cost	████	Total Gas Cost	87755
						Total Revenue	0
						Net Cost	87755

Avg Cost of Served Demand 5.297 USD/DT (System Cost/Served Dem.)
Avg Cost of Gas Purchased 3.870 USD/DT (Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	16566.0	0.0	16566.0	0.0	16566.0	16566.0	0.0	0	174.6	0.0
Total	16566.0	0.0	16566.0	0.0	16566.0	16566.0	0.0	0	174.6	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2326.2	18250.0	15923.8			2.6639	6197	0	6197	2.6639
ENGNiagara	1083.5	1167.3	83.7			2.1993	2383	0	2383	2.1993
ENGPNGTS	346.4	365.0	18.6			2.8143	975	0	975	2.8143
ENGC3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6689.6	6690.4	0.8			1.6727	11190	0	11190	1.6727
DLiqWinter	250.0	250.0	0.0							
Dracut 20	2402.3	7315.4	4913.1			7.2347	17380	0	17380	7.2347
ENGC3Summer	69.1	93.5	24.4			10.0000	691	0	691	10.0000
DLiqSummer	21.0	21.0	0.0							

Scen 1565 Repsol RM 1 yr only
- Draw 0

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Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGDawn	742.0	2190.0	1448.0			2.6914	1997	0	1997	2.6914
Repsol 40	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 30	1056.2	10973.0	9916.9			9.4378	9968	0	9968	9.4378
Engie Combo	630.0	630.0	0.0							
DAWN5	1061.2	1825.0	763.8							
Total	16769.3									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	321.0	321.6	0	0.0	12	95	0.0	-1	127	124	-2
ENGPropane	77	100	160.8	160.8	0	0.0	77	100	0.0	0	1043	1043	0
ENGFSMA	1498	96	1767.5	1748.6	0	18.9	1498	96	0.0	0	2669	2475	-194
ENGDominion	103	100	109.7	107.5	0	2.1	103	100	0.0	0	195	181	-14
ENGNFG	671	100	720.9	715.2	0	5.7	671	100	5.6	0	1218	1130	-88
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	433	403	-30
GranBrdgLNG	0	N/A	0.0	0.0	0	0.0	0	N/A	0.0	0	0	0	0
Total	2607	N/A	3315.9	3289.8	0	26.7	2606	N/A	5.6	-1	5684	5356	-328

Transportation Summary												
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost		
ENGTGPProd	2326.2	0.0	2326.2	7882.5	5556.3	0	5043	0	5043	2.1680		
ENGTGP2Stg	95.2	1.9	93.2	7882.5	7789.3	24	0	0	24	0.2572		
ENGTGPLong	6075.0	0.0	6075.0	8698.1	2623.1	0	0	0	0	0.0000		
ENGTGPBND	1083.5	6.7	1076.8	1139.5	62.7	92	267	0	360	0.3321		
ENGTGPShort	2801.7	23.8	2777.9	10262.0	7484.1	316	2688	0	3003	1.0719		
TrCanCharges	733.6	8.4	725.2	1477.2	752.0	0	698	0	698	0.9509		
IroqCharges	725.2	4.5	720.7	1477.2	756.5	64	640	0	704	0.9710		
ENGPNGTS	346.4	3.5	343.0	365.0	22.0	1	312	0	312	0.9019		
ENGLNG	321.6	0.0	321.6	10950.0	10628.4	0	0	0	0	0.0000		
ENGPropane	160.8	0.0	160.8	6335.0	6174.2	0	0	0	0	0.0000		
ENGC3Truck	160.8	0.0	160.8	4380.0	4219.2	161	0	0	161	1.0000		
Dracut 30	1435.7	3.0	1432.7	10950.0	9517.3	62	4388	0	4451	3.0999		
UnionCharges	742.0	8.5	733.6	1477.2	743.6	0	140	0	140	0.1887		

Scen 1565 Repsol RM 1 yr only
- Draw 0

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Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary											
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
Dracut 20	3083.9	6.5	3077.4	7300.0	4222.6	134	1134	0	1268	0.4110	
ENGTGPZ4	2231.0	62.2	2168.9	9125.0	6956.1	664	0	0	664	0.2976	
Z4toTGPLH	3939.7	33.5	3906.2	7665.0	3758.8	444	0	0	444	0.1126	
Z4toStg	2749.9	9.1	2740.9	7882.5	5141.7	136	0	0	136	0.0495	
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335	
GranBrdgPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
Repsol to101	0.0	0.0	0.0	6006.2	6006.2	0	0	0	0	0.0000	
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000	
LNGtoRT101	0.0	0.0	0.0	56666.3	56666.3	0	0	0	0	0.0000	
LNGtoLNG	0.0	0.0	0.0	2920.0	2920.0	0	0	0	0	0.0000	
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000	
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWNTCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000	
DAWN5	0.0	0.0	0.0	1825.0	1825.0	0	█	0	█	0.0000	
DAWN5Dracut	1061.2	0.0	1061.2	1825.0	763.8	33	0	0	33	0.0309	
Total		171.6				2201	█		█	0.6779	

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2022 thru OCT 2023

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	██████	Injection Cost	██████	Transportation Cost	██████	JAN 19, 2023	
Penalty Cost	0	Withdrawal Cost	██████	Other Variable Cost	0	System Served	183.41
Other Variable Cost	328	Carrying Cost	██████			System Unserved	0.00
		Other Variable Cost	0			Total	183.41
Total Variable	██████	Total Variable	██████	Total Variable	██████		
Demand/Reservation Co	██████	Demand Cost	██████	Demand Cost	██████		
Other Fixed Cost	2670	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	██████	Total Fixed	██████	Total Fixed	██████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	██████	Net Storage Cost	██████	Net Trans Cost	██████	Total Gas Cost	128780
						Total Revenue	0
						Net Cost	128780

Avg Cost of Served Demand 7.236 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.937 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	17796.0	0.0	17796.0	0.0	17796.0	17796.0	0.0	0	183.4	0.0
Total	17796.0	0.0	17796.0	0.0	17796.0	17796.0	0.0	0	183.4	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2373.6	18250.0	15876.4			2.6886	6381	0	6381	2.6886
ENGNiagara	1146.6	1167.3	20.6			2.2416	2570	0	2570	2.2416
ENGPNGTS	351.0	365.0	14.0			2.8210	990	0	990	2.8210
ENGC3Winter	91.7	91.7	0.0			15.0000	1376	0	1376	15.0000
ENG-Z4	6690.4	6690.4	0.0			1.5680	10490	0	10490	1.5680
DLiqWinter	250.0	250.0	0.0							
Dracut 20	2859.5	7315.4	4455.8			6.4436	18426	0	18426	6.4436
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1257.7	2190.0	932.3			2.5870	3254	0	3254	2.5870

Scen 1565 Repsol RM 1 yr only
- Draw 0

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Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
Repsol 40	678.6	678.6	0.0							
Dracut 30	1067.5	10973.0	9905.6			7.3936	7892	0	7892	7.3936
Engie Combo	630.0	630.0	0.0							
DAWN5	1819.0	1825.0	6.0							
Total	19215.6									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	12	95	332.9	332.3	0	0.0	13	100	0.0	1	124	94	-30
ENGPropane	77	100	91.7	168.5	0	0.0	0	0	0.0	-77	1043	160	-883
ENGFSMA	1498	96	1772.0	1753.0	0	19.0	1498	96	0.0	0	2475	2322	-153
ENGDominion	103	100	110.4	108.2	0	2.2	103	100	0.0	0	181	166	-15
ENGNFG	671	100	723.5	717.8	0	5.7	671	100	5.7	0	1130	1062	-68
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	403	378	-25
GranBrdgLNG	0	N/A											
Total	2606	N/A											

Transportation Summary										
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPPProd	2373.6	0.0	2373.6	7882.5	5509.0	0	5043	0	5043	2.1248
ENGTGP2Stg	103.5	2.1	101.4	7882.5	7781.2	27	0	0	27	0.2572
ENGTGPLong	6115.2	0.0	6115.2	8698.1	2582.9	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2808.3	23.9	2784.4	10262.0	7477.6	316	2688	0	3004	1.0697
TrCanCharges	1243.4	14.3	1229.1	1477.2	248.1	0	698	0	698	0.5610
IroqCharges	1229.1	7.6	1221.4	1477.2	255.7	109	640	0	749	0.6093
ENGPNGTS	351.0	3.5	347.5	365.0	17.5	1	312	0	312	0.8901
ENGLNG	332.3	0.0	332.3	10950.0	10617.7	0	0	0	0	0.0000
ENGPropane	168.5	0.0	168.5	6335.0	6166.5	0	0	0	0	0.0000
ENGC3Truck	91.7	0.0	91.7	4380.0	4288.3	92	0	0	92	1.0000
Dracut 30	1677.6	3.5	1674.0	10950.0	9276.0	73	4388	0	4461	2.6593
UnionCharges	1257.7	14.3	1243.4	1477.2	233.8	0	140	0	140	0.1113
Dracut 20	2249.4	4.7	2244.7	7300.0	5055.3	98	1134	0	1231	0.5474

Scen 1565 Repsol RM 1 yr only
- Draw 0

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Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPZ4	2270.1	63.3	2206.8	9125.0	6918.2	676	0	0	676	0.2976
Z4toTGPLH	3941.9	33.5	3908.4	7665.0	3756.6	444	0	0	444	0.1126
Z4toStg	2748.5	9.1	2739.4	7882.5	5143.1	136	0	0	136	0.0495
Engie2CG	580.0	0.0	580.0	1057.0	477.0	19	0	0	19	0.0335
GranBrdgPL				73000.0		0		0		
Repsol to101	678.6	20.4	658.2	6006.2	5348.0	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	32.9	0.0	32.9	2920.0	2887.1	16	0	0	16	0.5000
Engie2ENGLNG	50.0	0.0	50.0	50.0	0.0	50	0	0	50	1.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1819.0	0.0	1819.0	1825.0	6.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

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Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2024	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	187.62
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	187.62
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	118786
						Total Revenue	0
						Net Cost	118786

Avg Cost of Served Demand 6.497 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.059 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	18283.3	0.0	18283.3	0.0	18283.3	18283.3	0.0	0	187.6	0.0
Total	18283.3	0.0	18283.3	0.0	18283.3	18283.3	0.0	0	187.6	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2366.1	18300.0	15933.9			2.7627	6537	0	6537	2.7627
ENGNiagara	1149.8	1170.5	20.7			2.3388	2689	0	2689	2.3388
ENGPNGTS	356.7	366.0	9.3			2.9047	1036	0	1036	2.9047
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6698.7	6698.7	0.0			1.6985	11378	0	11378	1.6985
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2624.6	7335.4	4710.9			5.1365	13481	0	13481	5.1365
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1267.8	2196.0	928.2			2.6658	3380	0	3380	2.6658

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2023 thru OCT 2024

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
Dracut 30	2282.9	11003.1	8720.2			5.9105	13493	0	13493	5.9105
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1828.7	1830.0	1.3							
Total	18575.3									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	122.9	122.9	0	0.0	13	100	0.0	0	94	108	14
ENGFSMA	1498	96	1772.0	1753.0	0	19.0	1498	96	0.0	0	2322	2522	201
ENGDominion	103	100	112.2	110.0	0	2.2	103	100	0.0	0	166	179	14
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1062	1152	90
ENGHON	246	100	236.1	236.1	0	0.0	246	100	0.0	0	378	404	25
GranBrdgLNG													
Total													

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2366.1	0.0	2366.1	7904.1	5538.0	0	5043	0	5043	2.1315	
ENGTGP2Stg	103.7	2.1	101.6	7904.1	7802.6	27	0	0	27	0.2572	
ENGTGPLong	6113.0	0.0	6113.0	8719.7	2606.7	0	0	0	0	0.0000	
ENGTGPBND	1149.8	7.1	1142.7	1142.7	0.0	98	267	0	365	0.3179	
ENGTGPShort	2811.4	23.9	2787.5	10290.1	7502.6	317	2688	0	3004	1.0686	
TrCanCharges	1253.4	14.4	1239.0	1481.2	242.3	0	698	0	698	0.5566	
IroqCharges	1239.0	7.7	1231.3	1481.2	249.9	110	640	0	750	0.6051	
ENGPNGTS	356.7	3.6	353.2	366.0	12.8	1	312	0	312	0.8758	
ENGLNG	122.9	0.0	122.9	10980.0	10857.1	0	0	0	0	0.0000	
ENGPropane	0.0	0.0	0.0	6370.0	6370.0	0	0	0	0	0.0000	
ENG3Truck	0.0	0.0	0.0	4392.0	4392.0	0	0	0	0	0.0000	
Dracut 30	3585.4	7.5	3577.9	10980.0	7402.1	156	4388	0	4544	1.2674	
UnionCharges	1267.8	14.4	1253.4	1481.2	227.8	0	140	0	140	0.1104	
Dracut 20	1322.1	2.8	1319.3	7320.0	6000.7	57	1134	0	1191	0.9009	
ENGTGPZ4	2262.4	63.1	2199.4	9150.0	6950.6	673	0	0	673	0.2976	
Z4toTGPLH	3947.2	33.6	3913.7	7686.0	3772.3	445	0	0	445	0.1126	

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2023 thru OCT 2024

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2751.5	9.1	2742.4	7904.1	5161.8	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1064.0	1064.0	0	0	0	0	0.0000
GranBrdgPL				73200.0		0		0		
Repsol to101	0.0	0.0	0.0	6022.7	6022.7	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000
LNGtoRT101				56821.5			0	0		
LNGtoLNG	122.9	0.0	122.9	2928.0	2805.1	61	0	0	61	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1828.7	0.0	1828.7	1830.0	1.3	57		0		
DAWN5Dracut	0.0	0.0	0.0	1830.0	1830.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2024 thru OCT 2025

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2025	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	191.54
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	191.54
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	123203
						Total Revenue	0
						Net Cost	123203

Avg Cost of Served Demand 6.622 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.240 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	18605.3	0.0	18605.3	0.0	18605.3	18605.3	0.0	0	191.5	0.0
Total	18605.3	0.0	18605.3	0.0	18605.3	18605.3	0.0	0	191.5	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2354.5	18250.0	15895.5			2.8554	6723	0	6723	2.8554
ENGNiagara	1146.6	1167.3	20.6			2.4557	2816	0	2816	2.4557
ENGPNGTS	358.0	365.0	7.0			2.9827	1068	0	1068	2.9827
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			1.8482	12365	0	12365	1.8482
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	2827.4	7315.4	4488.0			5.2752	14915	0	14915	5.2752
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1281.8	2190.0	908.2			2.7638	3543	0	3543	2.7638

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2024 thru OCT 2025

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
Dracut 30	2401.9	10973.0	8571.1			6.1463	14763	0	14763	6.1463
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1824.6	1825.0	0.4							
Total	18885.3									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	127.9	127.9	0	0.0	13	100	0.0	0	108	114	6
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	2522	2755	233
ENGDominion	103	100	110.4	108.2	0	2.2	103	100	0.0	0	179	196	17
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1152	1255	103
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	404	440	36
GranBrdgLNG													
Total													

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2354.5	0.0	2354.5	7882.5	5528.1	0	5043	0	5043	2.1420	
ENGTGP2Stg	107.1	2.2	105.0	7882.5	7777.6	28	0	0	28	0.2572	
ENGTGPLong	6093.1	0.0	6093.1	8698.1	2605.0	0	0	0	0	0.0000	
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185	
ENGTGPShort	2811.8	23.9	2787.9	10262.0	7474.1	317	2688	0	3004	1.0685	
TrCanCharges	1267.2	14.6	1252.7	1477.2	224.5	0	698	0	698	0.5505	
IroqCharges	1252.7	7.8	1244.9	1477.2	232.3	111	640	0	751	0.5995	
ENGPNGTS	358.0	3.6	354.4	365.0	10.6	1	312	0	312	0.8728	
ENGLNG	127.9	0.0	127.9	10950.0	10822.1	0	0	0	0	0.0000	
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000	
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000	
Dracut 30	3536.4	7.4	3529.0	10950.0	7421.0	154	4388	0	4542	1.2843	
UnionCharges	1281.8	14.6	1267.2	1477.2	209.9	0	140	0	140	0.1092	
Dracut 20	1692.9	3.6	1689.3	7300.0	5610.7	73	1134	0	1207	0.7131	
ENGTGPZ4	2247.3	62.6	2184.7	9125.0	6940.3	669	0	0	669	0.2976	
Z4toTGPLH	3941.9	33.5	3908.4	7665.0	3756.6	444	0	0	444	0.1126	

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2024 thru OCT 2025

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2748.5	9.1	2739.4	7882.5	5143.1	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	6006.2	6006.2	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	127.9	0.0	127.9	2920.0	2792.1	64	0	0	64	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1824.6	0.0	1824.6	1825.0	0.4	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2025 thru OCT 2026

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2026	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	194.99
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
Total Variable	█	Other Variable Cost	0	Total Variable	█	Total	194.99
		Total Variable	█				
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	128047
						Total Revenue	0
						Net Cost	128047

Avg Cost of Served Demand 6.758 USD/DT (System Cost/Served Dem.)
Avg Cost of Gas Purchased 3.434 USD/DT (Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	18947.4	0.0	18947.4	0.0	18947.4	18947.4	0.0	0	195.0	0.0
Total	18947.4	0.0	18947.4	0.0	18947.4	18947.4	0.0	0	195.0	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2355.4	18250.0	15894.6			2.9743	7006	0	7006	2.9743
ENGNiagara	1146.6	1167.3	20.6			2.5834	2962	0	2962	2.5834
ENGPNGTS	360.0	365.0	5.0			3.0768	1108	0	1108	3.0768
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.0008	13386	0	13386	2.0008
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	3035.3	7315.4	4280.1			5.4992	16692	0	16692	5.4992
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1137.4	2190.0	1052.6			2.8984	3297	0	3297	2.8984

Scen 1565 Repsol RM 1 yr only
- Draw 0

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Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
Dracut 30	2674.1	10973.0	8298.9			6.1196	16365	0	16365	6.1196
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1824.8	1825.0	0.2							
Total	19224.0									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	126.8	126.8	0	0.0	13	100	0.0	0	114	118	4
ENGFSMA	1498	96	1775.1	1756.1	0	19.0	1498	96	0.0	0	2755	2960	204
ENGDominion	103	100	110.4	108.2	0	2.2	103	100	0.0	0	196	212	16
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1255	1354	99
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	440	475	36
GranBrdgLNG													
Total													

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2355.4	0.0	2355.4	7882.5	5527.2	0	5043	0	5043	2.1412	
ENGTGP2Stg	106.9	2.2	104.7	7882.5	7777.8	28	0	0	28	0.2572	
ENGTGPLong	6094.2	0.0	6094.2	8698.1	2603.9	0	0	0	0	0.0000	
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185	
ENGTGPShort	2811.6	23.9	2787.7	10262.0	7474.3	317	2688	0	3004	1.0686	
TrCanCharges	1124.4	12.9	1111.5	1477.2	365.7	0	698	0	698	0.6204	
IroqCharges	1111.5	6.9	1104.6	1477.2	372.6	99	640	0	738	0.6643	
ENGPNGTS	360.0	3.6	356.4	365.0	8.6	1	312	0	312	0.8679	
ENGLNG	126.8	0.0	126.8	10950.0	10823.2	0	0	0	0	0.0000	
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000	
ENG3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000	
Dracut 30	3998.4	8.4	3990.0	10950.0	6960.0	174	4388	0	4562	1.1409	
UnionCharges	1137.4	13.0	1124.4	1477.2	352.8	0	140	0	140	0.1231	
Dracut 20	1711.0	3.6	1707.4	7300.0	5592.6	74	1134	0	1208	0.7060	
ENGTGPZ4	2248.4	62.7	2185.8	9125.0	6939.2	669	0	0	669	0.2976	
Z4toTGPLH	3941.9	33.5	3908.4	7665.0	3756.6	444	0	0	444	0.1126	

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2025 thru OCT 2026

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2748.5	9.1	2739.4	7882.5	5143.1	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	6006.2	6006.2	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	126.8	0.0	126.8	2920.0	2793.2	63	0	0	63	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1824.8	0.0	1824.8	1825.0	0.2	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2026 thru OCT 2027

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2027	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	198.17
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	198.17
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	132304
						Total Revenue	0
						Net Cost	132304

Avg Cost of Served Demand 6.872 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.597 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	19251.6	0.0	19251.6	0.0	19251.6	19251.6	0.0	0	198.2	0.0
Total	19251.6	0.0	19251.6	0.0	19251.6	19251.6	0.0	0	198.2	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2357.4	18250.0	15892.6			3.0657	7227	0	7227	3.0657
ENGINiagara	1146.6	1167.3	20.6			2.6881	3082	0	3082	2.6881
ENGPNGTS	360.0	365.0	5.0			3.1419	1131	0	1131	3.1419
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.1318	14262	0	14262	2.1318
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	3194.8	7315.4	4120.6			5.6217	17960	0	17960	5.6217
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1154.5	2190.0	1035.5			2.9862	3448	0	3448	2.9862

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2026 thru OCT 2027

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
Dracut 30	2800.2	10973.0	8172.8			6.3441	17765	0	17765	6.3441
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1825.0	1825.0	0.0							
Total	19528.9									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	125.3	125.3	0	0.0	13	100	0.0	0	118	122	3
ENGFSMA	1498	96	1775.1	1756.1	0	19.0	1498	96	0.0	0	2960	3160	200
ENGDominion	103	100	109.8	107.6	0	2.1	103	100	0.0	0	212	226	14
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1354	1444	91
ENGHON	246	100	234.9	234.9	0	0.0	246	100	0.0	0	475	509	33
GranBrdgLNG													
Total													

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2357.4	0.0	2357.4	7882.5	5525.2	0	5043	0	5043	2.1394
ENGTGP2Stg	106.9	2.2	104.7	7882.5	7777.8	28	0	0	28	0.2572
ENGTGPLong	6096.7	0.0	6096.7	8698.1	2601.4	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2811.0	23.9	2787.1	10262.0	7474.9	317	2688	0	3004	1.0688
TrCanCharges	1141.4	13.1	1128.2	1477.2	348.9	0	698	0	698	0.6112
IroqCharges	1128.2	7.0	1121.2	1477.2	355.9	100	640	0	740	0.6558
ENGPNGTS	360.0	3.6	356.4	365.0	8.6	1	312	0	312	0.8679
ENGLNG	125.3	0.0	125.3	10950.0	10824.7	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000
ENG3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000
Dracut 30	4223.8	8.9	4214.9	10950.0	6735.1	183	4388	0	4572	1.0824
UnionCharges	1154.5	13.1	1141.4	1477.2	335.8	0	140	0	140	0.1213
Dracut 20	1771.3	3.7	1767.5	7300.0	5532.5	77	1134	0	1211	0.6835
ENGTGPZ4	2250.4	62.7	2187.7	9125.0	6937.3	670	0	0	670	0.2976
Z4toTGPLH	3942.5	33.5	3909.0	7665.0	3756.0	444	0	0	444	0.1126

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2026 thru OCT 2027

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2747.9	9.1	2738.8	7882.5	5143.7	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	6006.2	6006.2	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	125.3	0.0	125.3	2920.0	2794.7	63	0	0	63	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
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NOV 2027 thru OCT 2028

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2028	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	200.70
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	200.70
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	144884
						Total Revenue	0
						Net Cost	144884

Avg Cost of Served Demand 7.397 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.732 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	19586.6	0.0	19586.6	0.0	19586.6	19586.6	0.0	0	200.7	0.0
Total	19586.6	0.0	19586.6	0.0	19586.6	19586.6	0.0	0	200.7	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2419.3	18300.0	15880.7			3.1540	7630	0	7630	3.1540
ENGNiagara	1149.8	1170.5	20.7			2.7871	3205	0	3205	2.7871
ENGPNGTS	363.0	366.0	3.0			3.2230	1170	0	1170	3.2230
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6698.7	6698.7	0.0			2.2523	15087	0	15087	2.2523
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	3747.9	7335.4	3587.5			5.5190	20684	0	20684	5.5190
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1372.7	2196.0	823.3			3.0428	4177	0	4177	3.0428

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
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NOV 2027 thru OCT 2028

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
Dracut 30	3115.3	11003.1	7887.8			6.3341	19732	0	19732	6.3341
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1830.0	1830.0	0.0							
Total	20696.5									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	122.7	122.7	0	0.0	13	100	0.0	0	122	131	9
ENGFSMA	1498	96	1775.3	1756.3	0	19.0	1498	96	0.0	0	3160	3369	209
ENGDominion	103	100	109.8	107.6	0	2.1	103	100	0.0	0	226	238	12
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1444	1533	89
ENGHON	246	100	233.7	233.7	0	0.0	246	100	0.0	0	509	539	31
GranBrdgLNG													
Total													

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2419.3	0.0	2419.3	7904.1	5484.9	0	5043	0	5043	2.0846	
ENGTGP2Stg	107.1	2.2	105.0	7904.1	7799.2	28	0	0	28	0.2572	
ENGTGPLong	6166.1	0.0	6166.1	8719.7	2553.6	0	0	0	0	0.0000	
ENGTGPBND	1149.8	7.1	1142.7	1142.7	0.0	98	267	0	365	0.3179	
ENGTGPShort	2810.1	23.9	2786.2	10290.1	7503.9	317	2688	0	3004	1.0691	
TrCanCharges	1357.0	15.6	1341.4	1481.2	139.8	0	698	0	698	0.5141	
IroqCharges	1341.4	8.3	1333.1	1481.2	148.1	119	640	0	759	0.5657	
ENGPNGTS	363.0	3.6	359.4	366.0	6.6	1	312	0	312	0.8608	
ENGLNG	122.7	0.0	122.7	10980.0	10857.3	0	0	0	0	0.0000	
ENGPropane	0.0	0.0	0.0	6370.0	6370.0	0	0	0	0	0.0000	
ENGC3Truck	0.0	0.0	0.0	4392.0	4392.0	0	0	0	0	0.0000	
Dracut 30	4853.1	10.2	4842.9	10980.0	6137.1	211	4388	0	4599	0.9476	
UnionCharges	1372.7	15.6	1357.0	1481.2	124.2	0	140	0	140	0.1020	
Dracut 20	2010.0	4.2	2005.8	7320.0	5314.2	87	1134	0	1221	0.6074	
ENGTGPZ4	2312.1	64.4	2247.7	9150.0	6902.3	688	0	0	688	0.2976	
Z4toTGPLH	3952.0	33.6	3918.4	7686.0	3767.6	445	0	0	445	0.1126	

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2027 thru OCT 2028

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2746.7	9.1	2737.6	7904.1	5166.5	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1064.0	1064.0	0	0	0	0	0.0000
GranBrdgPL				73200.0		0		0		
Repsol to101	0.0	0.0	0.0	6022.7	6022.7	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000
LNGtoRT101				56821.5			0	0		
LNGtoLNG	122.7	0.0	122.7	2928.0	2805.3	61	0	0	61	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5CPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1830.0	0.0	1830.0	1830.0	0.0	57		0		
DAWN5Dracut	0.0	0.0	0.0	1830.0	1830.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2028 thru OCT 2029

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2029	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	203.52
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	203.52
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	141343
						Total Revenue	0
						Net Cost	141343

Avg Cost of Served Demand 7.141 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.483 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	19794.3	0.0	19794.3	0.0	19794.3	19794.3	0.0	0	203.5	0.0
Total	19794.3	0.0	19794.3	0.0	19794.3	19794.3	0.0	0	203.5	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2403.6	18250.0	15846.4			3.2080	7711	0	7711	3.2080
ENGINiagara	1146.6	1167.3	20.6			2.8226	3237	0	3237	2.8226
ENGPNGTS	364.0	365.0	1.0			3.2663	1189	0	1189	3.2663
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.2789	15247	0	15247	2.2789
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	3496.7	7315.4	3818.7			4.8082	16813	0	16813	4.8082
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1369.7	2190.0	820.3			3.0803	4219	0	4219	3.0803

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2028 thru OCT 2029

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary											
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost	
Dracut 30	2807.1	10973.0	8166.0			5.7041	16012	0	16012	5.7041	
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000	
DAWN5	1825.0	1825.0	0.0								
Total	20103.0										

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	113.7	113.7	0	0.0	13	100	0.0	0	131	128	-2
ENGFSMA	1498	96	1773.4	1754.4	0	19.0	1498	96	0.0	0	3369	3402	33
ENGDominion	103	100	111.6	109.4	0	2.2	103	100	0.0	0	238	241	3
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1533	1548	15
ENGHON	246	100	236.9	236.9	0	0.0	246	100	0.0	0	539	549	9
GranBrdgLNG													
Total													

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2403.6	0.0	2403.6	7882.5	5479.0	0	5043	0	5043	2.0983	
ENGTGP2Stg	107.1	2.2	105.0	7882.5	7777.6	28	0	0	28	0.2572	
ENGTGPLong	6139.6	0.0	6139.6	8698.1	2558.5	0	0	0	0	0.0000	
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185	
ENGTGPShort	2813.0	23.9	2789.1	10262.0	7472.9	317	2688	0	3005	1.0681	
TrCanCharges	1354.1	15.6	1338.5	1477.2	138.6	0	698	0	698	0.5152	
IroqCharges	1338.5	8.3	1330.2	1477.2	146.9	119	640	0	759	0.5667	
ENGPNGTS	364.0	3.6	360.4	365.0	4.6	1	312	0	312	0.8584	
ENGLNG	113.7	0.0	113.7	10950.0	10836.3	0	0	0	0	0.0000	
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000	
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000	
Dracut 30	4492.2	9.4	4482.8	10950.0	6467.2	195	4388	0	4583	1.0203	
UnionCharges	1369.7	15.6	1354.1	1477.2	123.1	0	140	0	140	0.1022	
Dracut 20	1811.6	3.8	1807.8	7300.0	5492.2	79	1134	0	1212	0.6692	
ENGTGPZ4	2296.4	64.0	2232.4	9125.0	6892.6	683	0	0	683	0.2976	
Z4toTGPLH	3940.7	33.5	3907.2	7665.0	3757.8	444	0	0	444	0.1126	

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2028 thru OCT 2029

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2749.7	9.1	2740.6	7882.5	5141.9	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	6006.2	6006.2	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	113.7	0.0	113.7	2920.0	2806.3	57	0	0	57	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2029 thru OCT 2030

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2030	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	206.14
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	206.14
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	143650
						Total Revenue	0
						Net Cost	143650

Avg Cost of Served Demand 7.163 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.552 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	20053.4	0.0	20053.4	0.0	20053.4	20053.4	0.0	0	206.1	0.0
Total	20053.4	0.0	20053.4	0.0	20053.4	20053.4	0.0	0	206.1	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2405.7	18250.0	15844.3			3.2401	7795	0	7795	3.2401
ENGNiagara	1146.6	1167.3	20.6			2.8509	3269	0	3269	2.8509
ENGPNGTS	364.0	365.0	1.0			3.2990	1201	0	1201	3.2990
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.3017	15399	0	15399	2.3017
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	3593.5	7315.4	3721.8			4.7899	17213	0	17213	4.7899
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1370.1	2190.0	819.9			3.1110	4262	0	4262	3.1110

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2029 thru OCT 2030

Cost and Flow Summary

Units: MDT, USD (000)

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Supply Summary											
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost	
Dracut 30	2967.0	10973.0	8006.1			5.9070	17526	0	17526	5.9070	
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000	
DAWN5	1825.0	1825.0	0.0								
Total	20362.3										

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Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	116.0	116.0	0	0.0	13	100	0.0	0	128	129	1
ENGFSMA	1498	96	1773.4	1754.4	0	19.0	1498	96	0.0	0	3402	3435	33
ENGDominion	103	100	111.0	108.8	0	2.2	103	100	0.0	0	241	243	2
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1548	1563	15
ENGHON	246	100	236.9	236.9	0	0.0	246	100	0.0	0	549	555	6
GranBrdgLNG													
Total													

=====											
Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2405.7	0.0	2405.7	7882.5	5476.9	0	5043	0	5043	2.0964	
ENGTGP2Stg	107.1	2.2	105.0	7882.5	7777.6	28	0	0	28	0.2572	
ENGTGPLong	6142.3	0.0	6142.3	8698.1	2555.8	0	0	0	0	0.0000	
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185	
ENGTGPShort	2812.4	23.9	2788.5	10262.0	7473.4	317	2688	0	3004	1.0683	
TrCanCharges	1354.5	15.6	1338.9	1477.2	138.3	0	698	0	698	0.5150	
IroqCharges	1338.9	8.3	1330.6	1477.2	146.6	119	640	0	759	0.5666	
ENGPNGTS	364.0	3.6	360.4	365.0	4.6	1	312	0	312	0.8584	
ENGLNG	116.0	0.0	116.0	10950.0	10834.0	0	0	0	0	0.0000	
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000	
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000	
Dracut 30	4738.8	10.0	4728.8	10950.0	6221.2	206	4388	0	4594	0.9695	
UnionCharges	1370.1	15.6	1354.5	1477.2	122.7	0	140	0	140	0.1022	
Dracut 20	1821.7	3.8	1817.9	7300.0	5482.1	79	1134	0	1213	0.6657	
ENGTGPZ4	2298.5	64.1	2234.5	9125.0	6890.5	684	0	0	684	0.2976	
Z4toTGPLH	3941.3	33.5	3907.8	7665.0	3757.2	444	0	0	444	0.1126	

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2029 thru OCT 2030

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2749.1	9.1	2740.0	7882.5	5142.5	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	6006.2	6006.2	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	116.0	0.0	116.0	2920.0	2804.0	58	0	0	58	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
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NOV 2030 thru OCT 2031

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2031	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	208.77
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	208.77
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	146007
						Total Revenue	0
						Net Cost	146007

Avg Cost of Served Demand 7.191 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.622 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	20303.1	0.0	20303.1	0.0	20303.1	20303.1	0.0	0	208.8	0.0
Total	20303.1	0.0	20303.1	0.0	20303.1	20303.1	0.0	0	208.8	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2407.8	18250.0	15842.2			3.2724	7879	0	7879	3.2724
ENGNiagara	1146.6	1167.3	20.6			2.8794	3302	0	3302	2.8794
ENGPNGTS	364.0	365.0	1.0			3.3320	1213	0	1213	3.3320
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.3247	15553	0	15553	2.3247
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	3671.3	7315.4	3644.1			4.8909	17956	0	17956	4.8909
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1370.4	2190.0	819.6			3.1421	4306	0	4306	3.1421

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2030 thru OCT 2031

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
Dracut 30	3136.8	10973.0	7836.2			5.9752	18743	0	18743	5.9752
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1825.0	1825.0	0.0							
Total	20612.3									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	114.8	114.8	0	0.0	13	100	0.0	0	129	130	1
ENGFSMA	1498	96	1773.4	1754.4	0	19.0	1498	96	0.0	0	3435	3469	34
ENGDominion	103	100	109.8	107.6	0	2.1	103	100	0.0	0	243	246	2
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1563	1578	15
ENGHON	246	100	236.9	236.9	0	0.0	246	100	0.0	0	555	560	5
GranBrdgLNG													
Total													

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2407.8	0.0	2407.8	7882.5	5474.8	0	5043	0	5043	2.0946	
ENGTGP2Stg	107.1	2.2	105.0	7882.5	7777.6	28	0	0	28	0.2572	
ENGTGPLong	6145.5	0.0	6145.5	8698.1	2552.6	0	0	0	0	0.0000	
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185	
ENGTGPShort	2811.3	23.9	2787.4	10262.0	7474.6	317	2688	0	3004	1.0687	
TrCanCharges	1354.8	15.6	1339.2	1477.2	137.9	0	698	0	698	0.5149	
IroqCharges	1339.2	8.3	1330.9	1477.2	146.2	119	640	0	759	0.5664	
ENGPNGTS	364.0	3.6	360.4	365.0	4.6	1	312	0	312	0.8584	
ENGLNG	114.8	0.0	114.8	10950.0	10835.2	0	0	0	0	0.0000	
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000	
ENG3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000	
Dracut 30	4906.4	10.3	4896.1	10950.0	6053.9	213	4388	0	4601	0.9378	
UnionCharges	1370.4	15.6	1354.8	1477.2	122.3	0	140	0	140	0.1022	
Dracut 20	1901.6	4.0	1897.7	7300.0	5402.3	83	1134	0	1216	0.6396	
ENGTGPZ4	2300.6	64.1	2236.5	9125.0	6888.5	685	0	0	685	0.2976	
Z4toTGPLH	3942.5	33.5	3909.0	7665.0	3756.0	444	0	0	444	0.1126	

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2030 thru OCT 2031

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2747.9	9.1	2738.8	7882.5	5143.7	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	6006.2	6006.2	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	114.8	0.0	114.8	2920.0	2805.2	57	0	0	57	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

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Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2031 thru OCT 2032

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2032	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	211.15
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	211.15
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	148735
						Total Revenue	0
						Net Cost	148735

Avg Cost of Served Demand 7.218 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.699 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	20607.0	0.0	20607.0	0.0	20607.0	20607.0	0.0	0	211.2	0.0
Total	20607.0	0.0	20607.0	0.0	20607.0	20607.0	0.0	0	211.2	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2424.4	18300.0	15875.6			3.3056	8014	0	8014	3.3056
ENGNiagara	1149.8	1170.5	20.7			2.9089	3345	0	3345	2.9089
ENGPNGTS	365.0	366.0	1.0			3.3722	1231	0	1231	3.3722
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6698.7	6698.7	0.0			2.3485	15732	0	15732	2.3485
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	3875.5	7335.4	3459.9			4.9753	19282	0	19282	4.9753
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1374.9	2196.0	821.1			3.1743	4364	0	4364	3.1743

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2031 thru OCT 2032

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
Dracut 30	3198.8	11003.1	7804.3			6.1352	19625	0	19625	6.1352
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1830.0	1830.0	0.0							
Total	20917.0									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	113.4	113.4	0	0.0	13	100	0.0	0	130	131	1
ENGFSMA	1498	96	1773.4	1754.4	0	19.0	1498	96	0.0	0	3469	3503	34
ENGDominion	103	100	110.4	108.2	0	2.2	103	100	0.0	0	246	248	2
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1578	1593	15
ENGHON	246	100	235.8	235.8	0	0.0	246	100	0.0	0	560	566	5
GranBrdgLNG													
Total													

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2424.4	0.0	2424.4	7904.1	5479.7	0	5043	0	5043	2.0802	
ENGTGP2Stg	107.1	2.2	105.0	7904.1	7799.2	28	0	0	28	0.2572	
ENGTGPLong	6170.4	0.0	6170.4	8719.7	2549.3	0	0	0	0	0.0000	
ENGTGPBND	1149.8	7.1	1142.7	1142.7	0.0	98	267	0	365	0.3179	
ENGTGPShort	2810.8	23.9	2786.9	10290.1	7503.2	317	2688	0	3004	1.0688	
TrCanCharges	1359.2	15.6	1343.6	1481.2	137.6	0	698	0	698	0.5132	
IroqCharges	1343.6	8.3	1335.2	1481.2	146.0	119	640	0	759	0.5649	
ENGPNGTS	365.0	3.7	361.3	366.0	4.7	1	312	0	312	0.8561	
ENGLNG	113.4	0.0	113.4	10980.0	10866.6	0	0	0	0	0.0000	
ENGPropane	0.0	0.0	0.0	6370.0	6370.0	0	0	0	0	0.0000	
ENGC3Truck	0.0	0.0	0.0	4392.0	4392.0	0	0	0	0	0.0000	
Dracut 30	4957.3	10.4	4946.9	10980.0	6033.1	215	4388	0	4604	0.9286	
UnionCharges	1374.9	15.7	1359.2	1481.2	122.0	0	140	0	140	0.1018	
Dracut 20	2116.9	4.4	2112.5	7320.0	5207.5	92	1134	0	1226	0.5789	
ENGTGPZ4	2317.2	64.6	2252.7	9150.0	6897.3	690	0	0	690	0.2976	
Z4toTGPLH	3951.3	33.6	3917.7	7686.0	3768.3	445	0	0	445	0.1126	

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2031 thru OCT 2032

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2747.4	9.1	2738.3	7904.1	5165.8	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1064.0	1064.0	0	0	0	0	0.0000
GranBrdgPL				73200.0		0		0		
Repsol to101	0.0	0.0	0.0	6022.7	6022.7	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000
LNGtoRT101				56821.5			0	0		
LNGtoLNG	113.4	0.0	113.4	2928.0	2814.6	57	0	0	57	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5CPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1830.0	0.0	1830.0	1830.0	0.0	57		0		
DAWN5Dracut	0.0	0.0	0.0	1830.0	1830.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2032 thru OCT 2033

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2033	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	213.52
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	213.52
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	150687
						Total Revenue	0
						Net Cost	150687

Avg Cost of Served Demand 7.259 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.766 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	20758.9	0.0	20758.9	0.0	20758.9	20758.9	0.0	0	213.5	0.0
Total	20758.9	0.0	20758.9	0.0	20758.9	20758.9	0.0	0	213.5	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2412.7	18250.0	15837.3			3.3381	8054	0	8054	3.3381
ENGNiagara	1146.6	1167.3	20.6			2.9372	3368	0	3368	2.9372
ENGPNGTS	364.0	365.0	1.0			3.3990	1237	0	1237	3.3990
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.3715	15866	0	15866	2.3715
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	3789.7	7315.4	3525.6			5.1121	19373	0	19373	5.1121
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1371.1	2190.0	818.9			3.2051	4395	0	4395	3.2051

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2032 thru OCT 2033

Cost and Flow Summary

Units: MDT, USD (000)

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Supply Summary											
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost	
Dracut 30	3468.4	10973.0	7504.7			6.1178	21219	0	21219	6.1178	
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000	
DAWN5	1825.0	1825.0	0.0								
Total	21068.0										

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Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	114.2	114.2	0	0.0	13	100	0.0	0	131	131	0
ENGFSMA	1498	96	1773.4	1754.4	0	19.0	1498	96	0.0	0	3503	3537	34
ENGDominion	103	100	109.8	107.6	0	2.1	103	100	0.0	0	248	250	2
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1593	1608	15
ENGHON	246	100	234.6	234.6	0	0.0	246	100	0.0	0	566	571	6
GranBrdgLNG													
Total													

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Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2412.7	0.0	2412.7	7882.5	5469.8	0	5043	0	5043	2.0903	
ENGTGP2Stg	107.1	2.2	105.0	7882.5	7777.6	28	0	0	28	0.2572	
ENGTGPLong	6152.6	0.0	6152.6	8698.1	2545.5	0	0	0	0	0.0000	
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185	
ENGTGPShort	2809.0	23.9	2785.1	10262.0	7476.8	316	2688	0	3004	1.0694	
TrCanCharges	1355.5	15.6	1339.9	1477.2	137.2	0	698	0	698	0.5146	
IroqCharges	1339.9	8.3	1331.6	1477.2	145.5	119	640	0	759	0.5662	
ENGPNGTS	364.0	3.6	360.4	365.0	4.6	1	312	0	312	0.8584	
ENGLNG	114.2	0.0	114.2	10950.0	10835.8	0	0	0	0	0.0000	
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000	
ENG3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000	
Dracut 30	5079.2	10.7	5068.6	10950.0	5881.4	220	4388	0	4609	0.9074	
UnionCharges	1371.1	15.6	1355.5	1477.2	121.6	0	140	0	140	0.1021	
Dracut 20	2178.8	4.6	2174.3	7300.0	5125.7	95	1134	0	1228	0.5637	
ENGTGPZ4	2305.6	64.3	2241.3	9125.0	6883.7	686	0	0	686	0.2976	
Z4toTGPLH	3944.8	33.5	3911.2	7665.0	3753.8	444	0	0	444	0.1126	

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2032 thru OCT 2033

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2745.6	9.1	2736.6	7882.5	5146.0	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	6006.2	6006.2	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	114.2	0.0	114.2	2920.0	2805.8	57	0	0	57	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
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NOV 2033 thru OCT 2034

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2034	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	215.84
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	215.84
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	153107
						Total Revenue	0
						Net Cost	153107

Avg Cost of Served Demand 7.301 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.842 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	20970.2	0.0	20970.2	0.0	20970.2	20970.2	0.0	0	215.8	0.0
Total	20970.2	0.0	20970.2	0.0	20970.2	20970.2	0.0	0	215.8	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2414.5	18250.0	15835.5			3.3715	8140	0	8140	3.3715
ENGNiagara	1146.6	1167.3	20.6			2.9666	3402	0	3402	2.9666
ENGPNGTS	364.0	365.0	1.0			3.4330	1250	0	1250	3.4330
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.3952	16025	0	16025	2.3952
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	3851.9	7315.4	3463.5			5.2085	20063	0	20063	5.2085
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1371.2	2190.0	818.8			3.2372	4439	0	4439	3.2372

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
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NOV 2033 thru OCT 2034

Cost and Flow Summary

Units: MDT, USD (000)

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Supply Summary											
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost	
Dracut 30	3615.4	10973.0	7357.6			6.2382	22554	0	22554	6.2382	
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000	
DAWN5	1825.0	1825.0	0.0								
Total	21279.1										

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Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	114.2	114.2	0	0.0	13	100	0.0	0	131	132	1
ENGFSMA	1498	96	1773.4	1754.4	0	19.0	1498	96	0.0	0	3537	3571	35
ENGDominion	103	100	109.2	107.0	0	2.1	103	100	0.0	0	250	253	2
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1608	1624	15
ENGHON	246	100	233.3	233.3	0	0.0	246	100	0.0	0	571	577	6
GranBrdgLNG													
Total													

=====											
Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2414.5	0.0	2414.5	7882.5	5468.0	0	5043	0	5043	2.0887	
ENGTGP2Stg	107.1	2.2	105.0	7882.5	7777.6	28	0	0	28	0.2572	
ENGTGPLong	6156.2	0.0	6156.2	8698.1	2541.9	0	0	0	0	0.0000	
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185	
ENGTGPShort	2807.1	23.9	2783.3	10262.0	7478.7	316	2688	0	3004	1.0701	
TrCanCharges	1355.6	15.6	1340.0	1477.2	137.1	0	698	0	698	0.5146	
IroqCharges	1340.0	8.3	1331.7	1477.2	145.5	119	640	0	759	0.5662	
ENGPNGTS	364.0	3.6	360.4	365.0	4.6	1	312	0	312	0.8584	
ENGLNG	114.2	0.0	114.2	10950.0	10835.8	0	0	0	0	0.0000	
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000	
ENG3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000	
Dracut 30	5051.6	10.6	5041.0	10950.0	5909.0	219	4388	0	4608	0.9121	
UnionCharges	1371.2	15.6	1355.6	1477.2	121.6	0	140	0	140	0.1021	
Dracut 20	2415.7	5.1	2410.6	7300.0	4889.4	105	1134	0	1239	0.5127	
ENGTGPZ4	2307.4	64.3	2243.0	9125.0	6882.0	687	0	0	687	0.2976	
Z4toTGPLH	3946.7	33.5	3913.1	7665.0	3751.9	445	0	0	445	0.1126	

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
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NOV 2033 thru OCT 2034

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary

Segment (cont)	Fuel		Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
	Total Flow	Consumed								
Z4toStg	2743.7	9.1	2734.7	7882.5	5147.9	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	6006.2	6006.2	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	114.2	0.0	114.2	2920.0	2805.8	57	0	0	57	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5TCPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2034 thru OCT 2035

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2035	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	217.91
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	217.91
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	155427
						Total Revenue	0
						Net Cost	155427

Avg Cost of Served Demand 7.346 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 3.917 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	21158.1	0.0	21158.1	0.0	21158.1	21158.1	0.0	0	217.9	0.0
Total	21158.1	0.0	21158.1	0.0	21158.1	21158.1	0.0	0	217.9	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2416.1	18250.0	15833.9			3.4051	8227	0	8227	3.4051
ENGNiagara	1146.6	1167.3	20.6			2.9963	3436	0	3436	2.9963
ENGPNGTS	364.0	365.0	1.0			3.4673	1262	0	1262	3.4673
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.4191	16185	0	16185	2.4191
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	3956.4	7315.4	3359.0			5.3147	21027	0	21027	5.3147
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1371.3	2190.0	818.7			3.2695	4484	0	4484	3.2695

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2034 thru OCT 2035

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary

Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
Dracut 30	3696.3	10973.0	7276.7			6.3653	23528	0	23528	6.3653
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1825.0	1825.0	0.0							
Total	21466.1									

Storage Summary

Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	113.4	113.4	0	0.0	13	100	0.0	0	132	133	0
ENGFSMA	1498	96	1773.4	1754.4	0	19.0	1498	96	0.0	0	3571	3606	35
ENGDominion	103	100	109.2	107.0	0	2.1	103	100	0.0	0	253	255	2
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1624	1639	16
ENGHON	246	100	232.2	232.2	0	0.0	246	100	0.0	0	577	582	6
GranBrdgLNG													
Total													

Transportation Summary

Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
ENGTGPProd	2416.1	0.0	2416.1	7882.5	5466.5	0	5043	0	5043	2.0874
ENGTGP2Stg	107.1	2.2	105.0	7882.5	7777.6	28	0	0	28	0.2572
ENGTGPLong	6158.9	0.0	6158.9	8698.1	2539.2	0	0	0	0	0.0000
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185
ENGTGPShort	2806.0	23.9	2782.1	10262.0	7479.9	316	2688	0	3004	1.0705
TrCanCharges	1355.7	15.6	1340.1	1477.2	137.1	0	698	0	698	0.5146
IroqCharges	1340.1	8.3	1331.8	1477.2	145.4	119	640	0	759	0.5661
ENGPNGTS	364.0	3.6	360.4	365.0	4.6	1	312	0	312	0.8584
ENGLNG	113.4	0.0	113.4	10950.0	10836.6	0	0	0	0	0.0000
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000
ENG3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000
Dracut 30	5329.9	11.2	5318.7	10950.0	5631.3	231	4388	0	4620	0.8667
UnionCharges	1371.3	15.6	1355.7	1477.2	121.5	0	140	0	140	0.1021
Dracut 20	2322.8	4.9	2317.9	7300.0	4982.1	101	1134	0	1235	0.5315
ENGTGPZ4	2308.9	64.4	2244.6	9125.0	6880.4	687	0	0	687	0.2976
Z4toTGPLH	3947.8	33.6	3914.3	7665.0	3750.7	445	0	0	445	0.1126

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2034 thru OCT 2035

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2742.6	9.1	2733.5	7882.5	5149.0	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	6006.2	6006.2	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	113.4	0.0	113.4	2920.0	2806.6	57	0	0	57	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

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SENDOUT® Version 14.1.1 REP 1 17-Jun-2019
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NOV 2035 thru OCT 2036

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2036	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	219.62
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	219.62
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	158196
						Total Revenue	0
						Net Cost	158196

Avg Cost of Served Demand 7.393 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 4.002 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	21399.4	0.0	21399.4	0.0	21399.4	21399.4	0.0	0	219.6	0.0
Total	21399.4	0.0	21399.4	0.0	21399.4	21399.4	0.0	0	219.6	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2431.2	18300.0	15868.8			3.4397	8363	0	8363	3.4397
ENGNiagara	1149.8	1170.5	20.7			3.0270	3480	0	3480	3.0270
ENGPNGTS	365.0	366.0	1.0			3.5092	1281	0	1281	3.5092
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6698.7	6698.7	0.0			2.4439	16371	0	16371	2.4439
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	4119.5	7335.4	3215.9			5.4076	22276	0	22276	5.4076
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1375.5	2196.0	820.5			3.3031	4543	0	4543	3.3031

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2035 thru OCT 2036

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
Dracut 30	3737.4	11003.1	7265.7			6.5659	24540	0	24540	6.5659
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1830.0	1830.0	0.0							
Total	21707.1									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	112.6	112.6	0	0.0	13	100	0.0	0	133	134	1
ENGFSMA	1498	96	1773.4	1754.4	0	19.0	1498	96	0.0	0	3606	3641	35
ENGDominion	103	100	109.2	107.0	0	2.1	103	100	0.0	0	255	258	2
ENGNFG	671	100	723.7	718.0	0	5.7	671	100	5.7	0	1639	1655	16
ENGHON	246	100	229.8	229.8	0	0.0	246	100	0.0	0	582	588	6
GranBrdgLNG													
Total													

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2431.2	0.0	2431.2	7904.1	5472.9	0	5043	0	5043	2.0744	
ENGTGP2Stg	107.1	2.2	104.9	7904.1	7799.2	28	0	0	28	0.2572	
ENGTGPLong	6184.2	0.0	6184.2	8719.7	2535.5	0	0	0	0	0.0000	
ENGTGPBND	1149.8	7.1	1142.7	1142.7	0.0	98	267	0	365	0.3179	
ENGTGPShort	2803.6	23.8	2779.8	10290.1	7510.3	316	2688	0	3003	1.0713	
TrCanCharges	1359.8	15.6	1344.2	1481.2	137.0	0	698	0	698	0.5130	
IroqCharges	1344.2	8.3	1335.8	1481.2	145.4	119	640	0	759	0.5647	
ENGPNGTS	365.0	3.7	361.3	366.0	4.7	1	312	0	312	0.8561	
ENGLNG	112.6	0.0	112.6	10980.0	10867.4	0	0	0	0	0.0000	
ENGPropane	0.0	0.0	0.0	6370.0	6370.0	0	0	0	0	0.0000	
ENG3Truck	0.0	0.0	0.0	4392.0	4392.0	0	0	0	0	0.0000	
Dracut 30	5544.2	11.6	5532.6	10980.0	5447.4	241	4388	0	4629	0.8349	
UnionCharges	1375.5	15.7	1359.8	1481.2	121.4	0	140	0	140	0.1018	
Dracut 20	2312.7	4.9	2307.8	7320.0	5012.2	100	1134	0	1234	0.5336	
ENGTGPZ4	2324.1	64.8	2259.3	9150.0	6890.7	692	0	0	692	0.2976	
Z4toTGPLH	3958.5	33.6	3924.8	7686.0	3761.2	446	0	0	446	0.1126	

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 17-Jun-2019
Report 1 (Continued) 13:24:14

NOV 2035 thru OCT 2036

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2740.2	9.0	2731.2	7904.1	5173.0	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1064.0	1064.0	0	0	0	0	0.0000
GranBrdgPL				73200.0		0		0		
Repsol to101	0.0	0.0	0.0	6022.7	6022.7	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7600.0	7600.0	0	0	0	0	0.0000
LNGtoRT101				56821.5			0	0		
LNGtoLNG	112.6	0.0	112.6	2928.0	2815.4	56	0	0	56	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1830.0	0.0	1830.0	1830.0	0.0	57		0		
DAWN5Dracut	0.0	0.0	0.0	1830.0	1830.0	0	0	0	0	0.0000
Total										

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Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 17-Jun-2019
Report 1 13:24:14

NOV 2036 thru OCT 2037

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2037	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	221.46
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	221.46
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	160003
						Total Revenue	0
						Net Cost	160003

Avg Cost of Served Demand 7.444 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 4.068 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	21495.4	0.0	21495.4	0.0	21495.4	21495.4	0.0	0	221.5	0.0
Total	21495.4	0.0	21495.4	0.0	21495.4	21495.4	0.0	0	221.5	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2418.2	18250.0	15831.8			3.4735	8400	0	8400	3.4735
ENGNiagara	1146.6	1167.3	20.6			3.0565	3505	0	3505	3.0565
ENGPNGTS	364.0	365.0	1.0			3.5370	1287	0	1287	3.5370
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.4678	16510	0	16510	2.4678
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	4164.3	7315.4	3151.1			5.4824	22830	0	22830	5.4824
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1371.4	2190.0	818.6			3.3353	4574	0	4574	3.3353

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 17-Jun-2019
Report 1 (Continued) 13:24:14

NOV 2036 thru OCT 2037

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
Dracut 30	3822.4	10973.0	7150.6			6.6753	25516	0	25516	6.6753
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1825.0	1825.0	0.0							
Total	21802.3									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	110.7	110.7	0	0.0	13	100	0.0	0	134	134	1
ENGFSMA	1498	96	1773.4	1754.4	0	19.0	1498	96	0.0	0	3641	3677	36
ENGDominion	103	100	109.2	107.0	0	2.1	103	100	0.0	0	258	260	3
ENGNFG	671	100	727.6	721.9	0	5.7	671	100	5.7	0	1655	1671	16
ENGHON	246	100	228.6	228.6	0	0.0	246	100	0.0	0	588	594	6
GranBrdgLNG													
Total													

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2418.2	0.0	2418.2	7882.5	5464.4	0	5043	0	5043	2.0856	
ENGTGP2Stg	111.1	2.3	108.9	7882.5	7773.7	29	0	0	29	0.2572	
ENGTGPLong	6160.5	0.0	6160.5	8698.1	2537.5	0	0	0	0	0.0000	
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185	
ENGTGPShort	2806.3	23.9	2782.4	10262.0	7479.5	316	2688	0	3004	1.0704	
TrCanCharges	1355.7	15.6	1340.2	1477.2	137.0	0	698	0	698	0.5145	
IroqCharges	1340.2	8.3	1331.8	1477.2	145.3	119	640	0	759	0.5661	
ENGPNGTS	364.0	3.6	360.4	365.0	4.6	1	312	0	312	0.8584	
ENGLNG	110.7	0.0	110.7	10950.0	10839.3	0	0	0	0	0.0000	
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000	
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000	
Dracut 30	5629.3	11.8	5617.5	10950.0	5332.5	244	4388	0	4633	0.8230	
UnionCharges	1371.4	15.6	1355.7	1477.2	121.4	0	140	0	140	0.1021	
Dracut 20	2357.4	5.0	2352.4	7300.0	4947.6	102	1134	0	1236	0.5243	
ENGTGPZ4	2307.1	64.3	2242.8	9125.0	6882.2	687	0	0	687	0.2976	
Z4toTGPLH	3951.4	33.6	3917.8	7665.0	3747.2	445	0	0	445	0.1126	

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 17-Jun-2019
Report 1 (Continued) 13:24:14

NOV 2036 thru OCT 2037

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2739.0	9.0	2730.0	7882.5	5152.6	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	6006.2	6006.2	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	110.7	0.0	110.7	2920.0	2809.3	55	0	0	55	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 17-Jun-2019
Report 1 13:24:14

NOV 2037 thru OCT 2038

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2038	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	223.32
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	223.32
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	162534
						Total Revenue	0
						Net Cost	162534

Avg Cost of Served Demand 7.500 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 4.151 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	21670.7	0.0	21670.7	0.0	21670.7	21670.7	0.0	0	223.3	0.0
Total	21670.7	0.0	21670.7	0.0	21670.7	21670.7	0.0	0	223.3	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2418.9	18250.0	15831.1			3.5082	8486	0	8486	3.5082
ENGNiagara	1146.6	1167.3	20.6			3.0871	3540	0	3540	3.0871
ENGPNGTS	364.0	365.0	1.0			3.5723	1300	0	1300	3.5723
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.4924	16675	0	16675	2.4924
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	4214.9	7315.4	3100.5			5.6538	23830	0	23830	5.6538
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	1371.4	2190.0	818.6			3.3686	4620	0	4620	3.3686

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 17-Jun-2019
Report 1 (Continued) 13:24:14

NOV 2037 thru OCT 2038

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
Dracut 30	3945.7	10973.0	7027.3			6.7544	26651	0	26651	6.7544
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1825.0	1825.0	0.0							
Total	21976.9									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	109.1	109.1	0	0.0	13	100	0.0	0	134	135	0
ENGFSMA	1498	96	1775.5	1756.5	0	19.0	1498	96	0.0	0	3677	3713	36
ENGDominion	103	100	109.5	107.3	0	2.1	103	100	0.0	0	260	263	3
ENGNFG	671	100	727.1	721.4	0	5.7	671	100	5.7	0	1671	1687	16
ENGHON	246	100	227.6	227.6	0	0.0	246	100	0.0	0	594	600	6
GranBrdgLNG													
Total													

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	2418.9	0.0	2418.9	7882.5	5463.6	0	5043	0	5043	2.0849	
ENGTGP2Stg	112.7	2.3	110.4	7882.5	7772.1	29	0	0	29	0.2572	
ENGTGPLong	6160.5	0.0	6160.5	8698.1	2537.6	0	0	0	0	0.0000	
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185	
ENGTGPShort	2807.1	23.9	2783.2	10262.0	7478.8	316	2688	0	3004	1.0701	
TrCanCharges	1355.7	15.6	1340.2	1477.2	137.0	0	698	0	698	0.5145	
IroqCharges	1340.2	8.3	1331.8	1477.2	145.3	119	640	0	759	0.5661	
ENGPNGTS	364.0	3.6	360.4	365.0	4.6	1	312	0	312	0.8584	
ENGLNG	109.1	0.0	109.1	10950.0	10840.9	0	0	0	0	0.0000	
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000	
ENG3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000	
Dracut 30	5683.0	11.9	5671.1	10950.0	5278.9	247	4388	0	4635	0.8156	
UnionCharges	1371.4	15.6	1355.7	1477.2	121.4	0	140	0	140	0.1021	
Dracut 20	2477.6	5.2	2472.4	7300.0	4827.6	108	1134	0	1241	0.5010	
ENGTGPZ4	2306.2	64.3	2241.9	9125.0	6883.1	686	0	0	686	0.2976	
Z4toTGPLH	3952.2	33.6	3918.6	7665.0	3746.4	445	0	0	445	0.1126	

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 17-Jun-2019
Report 1 (Continued) 13:24:14

NOV 2037 thru OCT 2038

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2738.2	9.0	2729.2	7882.5	5153.3	136	0	0	136	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	6006.2	6006.2	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	109.1	0.0	109.1	2920.0	2810.9	55	0	0	55	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 17-Jun-2019
Report 1 13:24:14

NOV 2038 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	█	Injection Cost	█	Transportation Cost	█	JAN 19, 2039	
Penalty Cost	0	Withdrawal Cost	█	Other Variable Cost	0	System Served	225.31
Other Variable Cost	0	Carrying Cost	█			System Unserved	0.00
		Other Variable Cost	0			Total	225.31
Total Variable	█	Total Variable	█	Total Variable	█		
Demand/Reservation Co	0	Demand Cost	█	Demand Cost	█		
Other Fixed Cost	0	Other Fixed Cost	973	Other Fixed Cost	0		
Total Fixed	0	Total Fixed	█	Total Fixed	█		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	█	Net Storage Cost	█	Net Trans Cost	█	Total Gas Cost	157641
						Total Revenue	0
						Net Cost	157641

Avg Cost of Served Demand 7.213 USD/DT
(System Cost/Served Dem.)

Avg Cost of Gas Purchased 4.325 USD/DT
(Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	21855.0	0.0	21855.0	0.0	21855.0	21855.0	0.0	0	225.3	0.0
Total	21855.0	0.0	21855.0	0.0	21855.0	21855.0	0.0	0	225.3	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	2402.0	18250.0	15848.0			3.5454	8516	0	8516	3.5454
ENGNiagara	1146.6	1167.3	20.6			3.1179	3575	0	3575	3.1179
ENGPNGTS	364.0	365.0	1.0			3.6081	1313	0	1313	3.6081
ENGC3Winter	0.0	91.7	91.7			0.0000	0	0	0	0.0000
ENG-Z4	6690.4	6690.4	0.0			2.5174	16842	0	16842	2.5174
DLiqWinter	0.0	0.0	0.0			0.0000	0	0	0	0.0000
Dracut 20	3134.4	7315.4	4181.0			6.5767	20614	0	20614	6.5767
ENGC3Summer	0.0	93.5	93.5			0.0000	0	0	0	0.0000
ENGDawn	951.1	2190.0	1238.9			3.4867	3316	0	3316	3.4867

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 17-Jun-2019
Report 1 (Continued) 13:24:14

NOV 2038 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary										
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
Dracut 30	3743.4	10973.0	7229.6			7.2794	27250	0	27250	7.2794
Engie Combo	0.0	0.0	0.0			0.0000	0	0	0	0.0000
DAWN5	1825.0	1825.0	0.0							
Total	20256.9									

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	106.8	107.4	0	0.0	12	95	0.0	-1	135	137	2
ENGFSMA	1498	96	1759.7	1756.5	0	18.8	1482	95	0.0	-16	3713	3710	-3
ENGDominion	103	100	109.8	107.6	0	2.1	103	100	0.0	0	263	264	1
ENGNFG	671	100	726.5	720.8	0	5.7	671	100	5.7	0	1687	1707	20
ENGHON	246	100	231.7	231.7	0	0.0	246	100	0.0	0	600	607	7
GranBrdgLNG													
Total													

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPPProd	2402.0	0.0	2402.0	7882.5	5480.5	0	5043	0	5043	2.0996	
ENGTGP2Stg	114.1	2.3	111.7	7882.5	7770.8	29	0	0	29	0.2572	
ENGTGPLong	6155.9	0.0	6155.9	8698.1	2542.2	0	0	0	0	0.0000	
ENGTGPBND	1146.6	7.1	1139.5	1139.5	0.0	98	267	0	365	0.3185	
ENGTGPShort	2810.9	23.9	2787.0	10262.0	7475.0	317	2688	0	3004	1.0688	
TrCanCharges	940.2	10.8	929.4	1477.2	547.7	0	698	0	698	0.7419	
IroqCharges	929.4	5.8	923.7	1477.2	553.5	82	640	0	722	0.7771	
ENGPNGTS	364.0	3.6	360.4	365.0	4.6	1	312	0	312	0.8584	
ENGLNG	107.4	0.0	107.4	10950.0	10842.6	0	0	0	0	0.0000	
ENGPropane	0.0	0.0	0.0	6335.0	6335.0	0	0	0	0	0.0000	
ENGC3Truck	0.0	0.0	0.0	4380.0	4380.0	0	0	0	0	0.0000	
Dracut 30	4467.4	9.4	4458.1	10950.0	6491.9	194	4388	0	4582	1.0257	
UnionCharges	951.1	10.8	940.2	1477.2	536.9	0	140	0	140	0.1472	
Dracut 20	2410.4	5.1	2405.3	7300.0	4894.7	105	1134	0	1238	0.5137	
ENGTGPZ4	2288.0	63.8	2224.2	9125.0	6900.8	681	0	0	681	0.2976	
Z4toTGPLH	3965.4	33.7	3931.7	7665.0	3733.3	447	0	0	447	0.1126	

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1 17-Jun-2019
Report 1 (Continued) 13:24:14

NOV 2038 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Z4toStg	2725.0	9.0	2716.0	7882.5	5166.5	135	0	0	135	0.0495
Engie2CG	0.0	0.0	0.0	1057.0	1057.0	0	0	0	0	0.0000
GranBrdgPL				73000.0		0		0		
Repsol to101	0.0	0.0	0.0	6006.2	6006.2	0	0	0	0	0.0000
Repsol2Drac	0.0	0.0	0.0	7550.0	7550.0	0	0	0	0	0.0000
LNGtoRT101				56666.3			0	0		
LNGtoLNG	106.8	0.0	106.8	2920.0	2813.2	53	0	0	53	0.5000
Engie2ENGLNG	0.0	0.0	0.0	50.0	50.0	0	0	0	0	0.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	1825.0	0.0	1825.0	1825.0	0.0	56		0		
DAWN5Dracut	0.0	0.0	0.0	1825.0	1825.0	0	0	0	0	0.0000
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2018 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

Supply Costs		Storage Costs		Transportation Costs		Peak Subperiod	
Commodity Cost	████████	Injection Cost	████████	Transportation Cost	████████	JAN 19, 2039	
Penalty Cost	0	Withdrawal Cost	████████	Other Variable Cost	0	System Served	225.31
Other Variable Cost	1719	Carrying Cost	████████			System Unserved	0.00
Total Variable	████████	Other Variable Cost	0	Total Variable	████████	Total	225.31
		Total Variable	████████				
Demand/Reservation Co	████████	Demand Cost	████████	Demand Cost	████████		
Other Fixed Cost	13464	Other Fixed Cost	20435	Other Fixed Cost	0		
Total Fixed	████████	Total Fixed	████████	Total Fixed	████████		
Sup Release Revenue	0	Sto Release Revenue	0	Cap Release Revenue	0		
Net Supply Cost	████████	Net Storage Cost	████████	Net Trans Cost	████████	Total Gas Cost	2799101
						Total Revenue	0
						Net Cost	2799101

Avg Cost of Served Demand 6.892 USD/DT (System Cost/Served Dem.)
Avg Cost of Gas Purchased 3.781 USD/DT (Supply Cost/LDC Purchase)

Demand Summary										
Class	Demand Before DSM	DSM Impact	Net Demand	Imbal. Served	Demand After Unb.	Served	Unserved	Revenue	Peak Served	Peak Unserved
ENGINormal	406135.6	0.0	406135.6	0.0	406135.6	406135.6	0.0	0	225.3	0.0
Total	406135.6	0.0	406135.6	0.0	406135.6	406135.6	0.0	0	225.3	0.0

Supply Summary										
Source	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost
ENGUSGC	50093.0	383500.0	333407.0			3.1408	157334	0	157334	3.1408
ENGNiagara	23524.6	24528.7	1004.1			2.7353	64346	0	64346	2.7353
ENGPNGTS	7477.0	7670.0	193.0			3.2349	24187	0	24187	3.2349
ENGC3Winter	458.7	1926.6	1467.9			15.0000	6881	0	6881	15.0000
ENG-Z4	140526.9	140539.9	13.0			2.1594	303459	0	303459	2.1594
DLiqWinter	1250.0	1250.0	0.0							
Dracut 20	69317.8	153722.8	84405.1			5.6589	392261	0	392261	5.6589
ENGC3Summer	276.4	1962.6	1686.2			10.0000	2764	0	2764	10.0000
DLiqSummer	84.0	84.0	0.0							

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2018 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

Supply Summary											
Source (cont)	Total Take	Max Take	Surplus	Take Under Daily Min	Take Under Other Min	Av Comm Cost	Total Var Cost	Total Fix Cost	Net Cost	Average Net Cost	
ENGDawn	25052.9	46020.0	20967.1			3.0751	77041	0	77041	3.0751	
Repsol 40	678.6	678.6	0.0								
Dracut 30	55952.2	230584.2	174632.0			6.5353	365664	0	365664	6.5353	
Engie Combo	3150.0	3150.0	0.0								
DAWN5	34256.7	36968.3	2711.5								
Total	412098.8										

Storage Summary													
Storage	Starting Balance	% Full	Total Inj.	Total With.	NetInv Adj.	Inj Fuel	Final Balance	% Full	With. Fuel	Diff in Balance	Start Value	Final Value	Diff in Value
ENGLNG	13	100	3481.5	3482.2	0	0.0	12	95	0.0	-1	126	137	11
ENGPropane	77	100	735.1	811.9	0	0.0	0	0	0.0	-77	953	160	-793
ENGFSMA	1482	95	37206.1	36808.0	0	398.1	1482	95	0.0	0	2573	3710	1137
ENGDominion	103	100	2315.3	2270.1	0	45.1	103	100	0.0	0	178	264	86
ENGNFG	671	100	15196.9	15076.9	0	120.1	671	100	119.1	0	1164	1707	543
ENGHON	246	100	4924.9	4924.9	0	0.0	246	100	0.0	0	427	607	179
GranBrdgLNG	0	N/A											
Total	2591	N/A											

Transportation Summary											
Segment	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost	
ENGTGPProd	50093.0	0.0	50093.0	165641.3	115548.3	0	105908	0	105908	2.1142	
ENGTGP2Stg	2211.2	45.2	2166.0	165641.3	163475.3	569	0	0	569	0.2572	
ENGTGPLong	128702.4	0.0	128702.4	182768.0	54065.6	0	0	0	0	0.0000	
ENGTGPBND	23524.6	145.9	23378.8	23945.7	567.0	2008	5614	0	7622	0.3240	
ENGTGPShort	58960.8	501.2	58459.7	215642.1	157182.4	6641	56441	0	63082	1.0699	
TrCanCharges	24767.5	284.8	24482.7	31040.5	6557.8	0	14649	0	14649	0.5915	
IroqCharges	24482.7	151.8	24330.9	31040.5	6709.6	2173	13435	0	15607	0.6375	
ENGPNGTS	7477.0	74.8	7402.2	7670.0	267.8	13	6548	0	6561	0.8775	
ENGLNG	3482.2	0.0	3482.2	230100.0	226617.8	0	0	0	0	0.0000	
ENGPropane	811.9	0.0	811.9	133210.0	132398.1	0	0	0	0	0.0000	
ENGC3Truck	735.1	0.0	735.1	92040.0	91304.9	735	0	0	735	1.0000	
Dracut 30	82128.1	172.5	81955.6	230100.0	148144.4	3565	92155	0	95720	1.1655	
UnionCharges	25052.9	285.4	24767.5	31040.5	6273.0	0	2940	0	2940	0.1174	

Scen 1565 Repsol RM 1 yr only
- Draw 0

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NOV 2018 thru OCT 2039

Cost and Flow Summary

Units: MDT, USD (000)

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Transportation Summary										
Segment (cont)	Total Flow	Fuel Consumed	Delivered	Max Flow	Surplus	Var Cost	Fix Cost	Cap Rel Revenue	Net Cost	Average Net Cost
Dracut 20	46361.5	97.4	46264.2	153400.0	107135.8	2012	23807	0	25820	0.5569
ENGTGPZ4	47881.8	1334.5	46547.3	191750.0	145202.7	14248	0	0	14248	0.2976
Z4toTGPLH	82859.4	704.3	82155.1	161070.0	78914.9	9333	0	0	9333	0.1126
Z4toStg	57667.5	190.3	57477.2	165641.3	108164.1	2857	0	0	2857	0.0495
Engie2CG	2900.0	0.0	2900.0	22232.0	19332.0	97	0	0	97	0.0335
GranBrdgPL				1241800.0		0		0		
Repsol to101	678.6	20.4	658.2	108177.8	107519.6	0	0	0	0	0.0001
Repsol2Drac	0.0	0.0	0.0	158800.0	158800.0	0	0	0	0	0.0000
LNGtoRT101				1190767.5			0	0		
LNGtoLNG	1897.5	0.0	1897.5	61360.0	59462.5	949	0	0	949	0.5000
Engie2ENGLNG	250.0	0.0	250.0	1050.0	800.0	250	0	0	250	1.0000
Dawn2Dracut	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN2CPL	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
PNGTS2RT101	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0000
DAWN5	31037.1	0.0	31037.1	36968.3	5931.2	959		0		
DAWN5Dracut	3219.7	0.0	3219.7	36968.3	33748.6	99	0	0	99	0.0309
Total										

Scen 1565 Repsol RM 1 yr only
- Draw 0

Ventyx
SENDOUT® Version 14.1.1 REP 1X 17-Jun-2019
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RESOURCE MIX RESULTS

Units: MDT

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	Contract	Start Date	End Date	Min Level	Max Level	Result MDQ
Supplies	Repsol 40	NOV 2022	MAR 2023	0.00	150.00	16.96
	Engie Combo	NOV 2023	OCT 2039	0.00	7.00	0.00

	Contract	Start Date	End Date	Min Level	Max Level	Result MDQ
Segments	Repsol to101	NOV 2021	OCT 2039	0.00	150.00	16.46
	Dawn2Dracut	NOV 2021	OCT 2039	0.00	150.00	0.00
	DAWNTCPL	NOV 2021	OCT 2039	0.00	150.00	0.00
	PNGTS2RT101	NOV 2021	OCT 2039	0.00	150.00	0.00

Redacted Attachment OCA 12-2.a
Levelized and Annualized Supplemental Cases
(\$ in 000's)

Gas Year	A	B	C	D	E	F	G	H	I	J	J-A+B-C+D	K	K-A+B-E+F	L	L-A+B-G+H	M	M-A+B	N	N-A+B
	Granite Bridge Pipeline (Levelized)	Granite Bridge Pipeline (Annualized)	2.0 Bcf Granite Bridge LNG (Levelized)	2.0 Bcf Granite Bridge LNG (Annualized)	1.2 Bcf Granite Bridge LNG (Levelized)	1.2 Bcf Granite Bridge LNG (Annualized)	1.5 Bcf Granite Bridge LNG (Levelized)	1.5 Bcf Granite Bridge LNG (Annualized)		Scenario 1520 Base Case Supplemental - CBG (2.0 Bcf) (Levelized)	Scenario 1520 Base Case Supplemental - CBG (2.0 Bcf) (Annualized)	Scenario 1523 Base Case Supplemental (1.2 Bcf) (Levelized)	Scenario 1523 Base Case Supplemental (1.2 Bcf) (Annualized)	Scenario 1524 Base Case Supplemental (1.5 Bcf) (Levelized)	Scenario 1524 Base Case Supplemental (1.5 Bcf) (Annualized)	Scenario 1522 Alternative Case Supplemental (Levelized)	Scenario 1522 Alternative Case Supplemental (Annualized)	Scenario 1516 Alternative Case Sensitivity Supplemental (Levelized)	Scenario 1516 Alternative Case Sensitivity Supplemental (Levelized)
2018-2019										\$86,685	\$86,685	\$86,687	\$86,687	\$86,687	\$86,687	\$86,685	\$86,685	\$86,685	\$86,685
2019-2020										\$85,092	\$85,092	\$85,093	\$85,093	\$85,093	\$85,093	\$85,087	\$85,087	\$85,087	\$85,087
2020-2021										\$86,234	\$86,234	\$86,234	\$86,234	\$86,234	\$86,234	\$86,224	\$86,224	\$86,224	\$86,224
2021-2022										\$87,764	\$87,764	\$87,764	\$87,764	\$87,764	\$87,764	\$86,879	\$86,879	\$87,807	\$87,807
2022-2023	\$17,633	\$22,833	\$11,843	\$16,646	\$15,371	\$19,670	\$15,850	\$20,318		\$126,812	\$136,815	\$130,374	\$139,873	\$131,849	\$141,516	\$130,190	\$135,389	\$118,168	\$123,368
2023-2024	\$17,633	\$22,253	\$20,302	\$27,978	\$26,350	\$33,219	\$27,171	\$34,310		\$118,664	\$130,960	\$124,857	\$136,345	\$123,789	\$135,548	\$134,263	\$138,883	\$122,553	\$127,173
2024-2025	\$17,633	\$21,697	\$20,302	\$26,956	\$26,350	\$32,298	\$27,171	\$33,355		\$123,119	\$133,836	\$129,053	\$139,065	\$127,903	\$138,151	\$138,194	\$142,257	\$126,771	\$130,834
2025-2026	\$17,633	\$21,161	\$20,302	\$25,919	\$26,350	\$31,364	\$27,171	\$32,387		\$127,962	\$137,107	\$133,583	\$142,125	\$132,375	\$141,119	\$142,535	\$146,062	\$131,356	\$134,883
2026-2027	\$17,633	\$20,644	\$20,302	\$24,934	\$26,350	\$30,478	\$27,171	\$31,468		\$132,222	\$139,865	\$137,540	\$144,679	\$136,277	\$143,585	\$146,276	\$149,287	\$135,459	\$138,470
2027-2028	\$17,633	\$20,146	\$20,302	\$24,436	\$26,350	\$29,582	\$27,171	\$30,558		\$144,845	\$151,053	\$141,517	\$147,314	\$140,219	\$146,154	\$150,041	\$152,553	\$139,523	\$142,035
2028-2029	\$17,633	\$19,664	\$20,302	\$23,938	\$26,350	\$28,682	\$27,171	\$29,644		\$141,337	\$146,164	\$143,869	\$148,375	\$142,521	\$147,134	\$152,158	\$154,188	\$142,038	\$144,069
2029-2030	\$17,633	\$19,198	\$20,302	\$23,472	\$26,350	\$28,216	\$27,171	\$29,178		\$143,641	\$147,122	\$146,330	\$149,579	\$144,921	\$148,248	\$154,372	\$155,936	\$144,592	\$146,156
2030-2031	\$17,633	\$18,734	\$20,302	\$22,996	\$26,350	\$27,766	\$27,171	\$28,728		\$145,999	\$148,142	\$148,837	\$150,835	\$147,373	\$149,420	\$156,598	\$157,698	\$147,202	\$148,303
2031-2032	\$17,633	\$18,270	\$20,302	\$22,532	\$26,350	\$27,530	\$27,171	\$28,492		\$148,726	\$149,532	\$151,706	\$152,456	\$150,237	\$151,006	\$159,103	\$159,740	\$150,065	\$150,701
2032-2033	\$17,633	\$17,807	\$20,302	\$22,076	\$26,350	\$27,074	\$27,171	\$28,036		\$150,679	\$150,149	\$153,856	\$153,357	\$152,309	\$151,800	\$160,914	\$161,087	\$152,267	\$152,441
2033-2034	\$17,633	\$17,343	\$20,302	\$21,713	\$26,350	\$26,895	\$27,171	\$27,657		\$153,098	\$151,234	\$156,457	\$154,711	\$154,882	\$153,097	\$163,070	\$162,779	\$154,771	\$154,481
2034-2035	\$17,633	\$16,880	\$20,302	\$21,257	\$26,350	\$26,439	\$27,171	\$27,901		\$155,419	\$152,221	\$159,012	\$156,021	\$157,417	\$154,356	\$165,117	\$164,363	\$157,172	\$156,419
2035-2036	\$17,633	\$16,417	\$20,302	\$20,791	\$26,350	\$26,029	\$27,171	\$27,759		\$158,189	\$153,658	\$162,053	\$157,817	\$160,430	\$156,095	\$167,419	\$166,203	\$159,796	\$158,579
2036-2037	\$17,633	\$15,954	\$20,302	\$20,335	\$26,350	\$25,573	\$27,171	\$28,143		\$159,995	\$154,133	\$164,106	\$158,626	\$162,393	\$156,785	\$169,011	\$167,331	\$161,750	\$160,071
2037-2038	\$17,633	\$15,491	\$20,302	\$19,879	\$26,350	\$24,819	\$27,171	\$26,489		\$162,527	\$155,388	\$166,904	\$160,230	\$165,080	\$158,250	\$171,075	\$168,932	\$164,175	\$162,032
2038-2039	\$17,633	\$15,028	\$20,302	\$19,423	\$26,350	\$24,363	\$27,171	\$25,019		\$157,641	\$149,367	\$165,349	\$157,611	\$162,324	\$154,407	\$173,218	\$170,612	\$166,707	\$164,101
Totals	\$299,767	\$319,517	\$435,125	\$451,246	\$436,971	\$450,838	\$450,582	\$465,203		\$2,796,648	\$2,832,520	\$2,861,181	\$2,894,797	\$2,838,078	\$2,872,449	\$2,978,425	\$2,998,175	\$2,820,168	\$2,839,918

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

OCA Data Requests - Set 12

Date Request Received: 3/27/19
Request No. OCA 12-2

Date of Response: 4/19/19
Respondent: Francisco C. DaFonte

REQUEST:

Refer to Supplemental Direct Testimony of Francisco C. DaFonte and William R. Killen, Table 2, Bates page 56.

- a. For each of the SENDOUT runs, i.e. FCD/WRK-2, FCD/WRK-3, FCD/WRK-4, FCD/WRK-5, and FCD/WRK-6, please model the initial costs associated with the proposed Granite Bridge pipeline and Granite Bridge LNG facility as annualized (non-levelized) costs and provide a table in live EXCEL format listing columns as the SENDOUT runs noted above, and the rows as years November 2018 through October 2019 to November 2038 through October 2039, and report the annual Net Costs (non-levelized). Also, please include columns that report the annualized build-out costs for Granite Bridge pipeline, and Granite Bridge LNG facility, respectively. Also, add another column to show the adjustment for the Calpine MOU/Customer Benefit Guarantee, as relevant. If it is convenient to capture the information requested in separate EXCEL worksheets for the different runs, please do so.
- b. Please provide a table akin to Table 2, Liberty Utilities' Supplemental Testimony, Bates page 56 that summarizes the SENDOUT runs (with the project costs non-levelized) requested in part a. above in live EXCEL format.

RESPONSE:

- a. Please see Confidential Attachment OCA 12-2.a.xlsx.
- b. As a preliminary matter, Table 2 on Bates 056 of the Supplemental Direct Testimony of Francisco C. DaFonte and William R. Killeen has been updated to correct a typographical error; specifically, the volumes reported in the Resource Mix Results are now expressed as Dth/day to match the column label.

Table 2: Updated SENDOUT® Model Results (Levelized)

Resource Planning Scenario	Reference - Confidential Exhibit	Granite Bridge LNG	Propane Facilities	Resource Mix Results			Total System Cost (\$000)	Comparison to Base Case - Supplemental Customer Benefit Guarantee (\$000)
				Dawn (Dth/day)	Repsol (Dth/day)	ENGIE (Dth/day)		
Base Case Supplemental - Customer Benefit Guarantee	FCD/WRK-2	2.0 Bcf	No	0	0	0	\$2,796,648	\$ -
Alternative Case Supplemental	FCD/WRK-3	No	No	0	103,380	510	\$2,978,425	\$ 181,777
Alternative Case Sensitivity Supplemental	FCD/WRK-4	No	Yes	0	60,940	7,000	\$2,820,168	\$ 23,520
Base Case Supplemental	FCD/WRK-5	1.2 Bcf	No	0	0	4,190	\$2,861,181	\$ 64,533
Base Case Supplemental	FCD/WRK-6	1.5 Bcf	No	0	0	1,970	\$2,838,078	\$ 41,430

Please see Table OCA 12-2.b below and Attachment OCA 12-2.b.xlsx for a summary of the results of the five SENDOUT® runs (with the project costs annualized/non-levelized) requested in part a. above.

Table OCA 12-2.b: Updated SENDOUT® Model Results (Annualized)

Resource Planning Scenario	Reference - Confidential Exhibit	Granite Bridge LNG	Propane Facilities	Resource Mix Results			Total System Cost - Annualized (\$000)	Comparison to Base Case Supplemental - Customer Benefit Guarantee (\$000)
				Dawn (Dth/day)	Repsol (Dth/day)	ENGIE (Dth/day)		
Base Case Supplemental - Customer Benefit Guarantee	FCD/WRK-2	2.0 Bcf	No	0	0	0	\$ 2,832,520	\$ -
Alternative Case Supplemental	FCD/WRK-3	No	No	0	103,380	510	\$ 2,998,175	\$ 165,656
Alternative Case Sensitivity Supplemental	FCD/WRK-4	No	Yes	0	60,940	7,000	\$ 2,839,918	\$ 7,398
Base Case Supplemental (1.2 Bcf)	FCD/WRK-5	1.2 Bcf	No	0	0	4,190	\$ 2,894,797	\$ 62,278
Base Case Supplemental (1.5 Bcf)	FCD/WRK-6	1.5 Bcf	No	0	0	1,970	\$ 2,872,449	\$ 39,930

Confidential Attachment OCA 12-2.a.xlsx contains the dollar amounts of the Customer Benefit Guarantee, which are the same as the value of the Calpine MOU, that is, the purpose of the Customer Benefit Guarantee is to hold customers harmless from the value of the negotiated MOU. Therefore, the Customer Benefit Guarantee dollar amounts are confidential for the same reasons as the terms of the MOU, for which the Company filed a motion for confidential treatment along with the supplemental filing. The Company incorporates that motion here.

The Customer Benefit Guarantee figures are confidential pursuant to RSA 91-A:5, IV, which exempts from public disclosure records that constitute “confidential, commercial, or financial information.” See Order No. 25,861 at 4-6 (Jan. 22, 2016). Pricing and other material terms of the MOU are also presumed to be confidential in cost of gas proceedings pursuant to Puc 201.06(a)(11), an explicit acknowledgment that terms in gas supply contracts warrant confidential treatment in the first instance. Finally, the Company and Calpine have an expectation of privacy in key terms included in the MOU based on existing Commission practice. See Order No. 25,861.

Because Confidential Attachment OCA 12-2.a.xlsx is an Excel file, the confidential information cannot be redacted in a manner that would preclude one from being able to “back into” the confidential information. Therefore, the Company asserts confidentiality as to the entire Excel file and a redacted version will not be provided.

Therefore, pursuant to Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of this information and will submit a motion seeking confidential treatment prior to the final hearing in this docket.

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities

DG 17-198

Petition to Approve Firm Supply and Transportation Agreements and the
Granite Bridge Project

OCA Data Requests - Set 13

Date Request Received: 5/3/19
Request No. OCA 13-5

Date of Response: 5/17/19
Respondent: Francisco C. DaFonte

REQUEST:

Refer to Company's Response to Staff 6-4. Using the same inputs as Confidential Attachment 6-4, please model the initial costs associated with the proposed Granite Bridge pipeline and Granite Bridge LNG facility as annualized (non-levelized) costs and provide a table in live EXCEL format listing the annual Net Costs (non-levelized) columns for years November 2018 through October 2019 to November 2038 through October 2039. Also, please include columns that report the annualized build-out costs for Granite Bridge pipeline and Granite Bridge LNG facility, and other relevant input data, respectively.

RESPONSE:

As stated in the Company's responses to Staff 5-17 (Revised) and OCA 2-88R, when making any adjustments to the fixed costs of any resource in the SENDOUT® model that are not part of a resource mix option, the overall portfolio cost changes only by the difference in the change to the fixed cost of the resource being altered. As such, Confidential Attachment OCA 13-5.xlsx provides the SENDOUT® model results based on the annualized (non-levelized) costs for the Granite Bridge LNG facility for the Base Case Supplemental – Customer Benefit Guarantee assuming no Sales and Marketing adjustments in the existing service territory ("Low Demand Case") and a 2-year delay in the availability of the proposed Granite Bridge LNG facility provided in the Company's revised response to Staff 6-4.

Confidential Attachment OCA 13-5.xlsx contains the dollar amounts of the Customer Benefit Guarantee, which are the same as the value of the Calpine MOU, that is, the purpose of the Customer Benefit Guarantee is to assume the risk of the value of the negotiated MOU. Therefore, the Customer Benefit Guarantee dollar amounts are confidential for the same reasons as the terms of the MOU, for which the Company filed a motion for confidential treatment along with the supplemental filing. The Company incorporates that motion here.

The Customer Benefit Guarantee figures are confidential pursuant to RSA 91-A:5, IV, which exempts from public disclosure records that constitute "confidential, commercial, or financial information." See Order No. 25,861 at 4-6 (Jan. 22, 2016). Pricing and other material terms of the MOU are also presumed to be confidential in cost of gas proceedings pursuant to Puc

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201.06(a)(11), an explicit acknowledgment that terms in gas supply contracts warrant confidential treatment in the first instance. Finally, the Company and Calpine have an expectation of privacy in key terms included in the MOU based on existing Commission practice. *See* Order No. 25,861.

Because Confidential Attachment OCA 13-5.xlsx is an Excel file, the confidential information cannot be redacted in a manner that would preclude one from being able to “back into” the confidential information. The Company thus asserts confidentiality as to the entire Excel file and a redacted version will not be provided. Therefore, pursuant to Puc 203.08(d), the Company has a good faith basis to seek confidential treatment of Confidential Attachment OCA 13-5.xlsx and will submit a motion seeking confidential treatment prior to the final hearing in this docket.