

Replacement
#16

ORIGINAL

DG 11-040
Liberty Handout - November 9, 2011 Technical Session
Prepared by Peter Eichler

N.H.P.U.C. Case No. DG 11-040
(Updated April 18, 2012)
Exhibit No. #16
Witness Panel 5

Incremental Cost of Service Analysis
(US\$ millions)

DO NOT REMOVE FROM FILE

No.	Item	Reference	National Grid	Liberty Energy	Variance
Expenses					
1	Granite State expenses	2-111	\$ 16,181	\$ 17,070	\$ 889
2	EnergyNorth expenses		\$ 28,161	\$ 29,036	\$ 875
1+2=3	Total Expenses		\$ 44,342	\$ 46,106	\$ 1,764
Integration Capex					
4	Integration Capex - GS	1-72, ts 3-6	\$ 3,100	\$ 2,266	\$ (834)
5	Integration Capex - EN	1-72, ts 3-6	\$ 7,100	\$ 4,123	\$ (2,977)
4+5=6	Total Integration Capex		\$ 10,200	\$ 6,389	\$ (3,811)
7	Equity Thickness		50%	55%	5%
6*7=8	Equity Component		\$ 5,100	\$ 3,514	\$ (1,586)
9	Return on Equity %		9.54%	9.54%	0%
8*9=10	Return on Equity \$		\$ 487	\$ 335	\$ (151)
11	Tax Gross up		\$ 262	\$ 181	\$ (81)
10+11=12	Revenue Impact of Equity Component of Capital		\$ 749	\$ 516	\$ (233)
13	Debt Thickness		50%	45%	-5%
14	Debt Component		\$ 5,100	\$ 2,875	\$ (2,225)
15	Deb Rate (Estimated for Liberty Utilities)		7.02%	5.50%	-1.5%
14*15=16	Revenue Impact of Debt Component of Capital		\$ 358	\$ 158	\$ (200)
17	Depreciation (8 year depreciation)		\$ 1,275	\$ 799	\$ (476)
12+16+17					
=18	Net Impact of Integration CapEx		\$ 2,382	\$ 1,472	\$ (909)
Capital Structure Impacts					
19	Equity Thickness		50%	55%	5%
20	Equity Return (based on most recent rate case)		9.54%	9.54%	0%
21	Pre-tax Equity Return		14.68%	14.68%	0%
22	Debt Thickness		50%	45%	-5%
23	Debt Cost		7.02%	5.50%	-2%
(19*21)+					
(22*23)=2					
4	Weighted Average Cost of Capital		10.85%	10.55%	-0.3%
25	Forecast Rate Base at Closing		\$ 256,000	\$ 256,000	\$ -
24*25=26	Return on Rate Base at Closing		27,772	27,001	\$ (771)

Summary		2011 Revenues	Impact as % of Revenues
3	Impacts of Incremental Costs	\$ 1,764	0.7%
18	Impacts of Incremental Integration Capex	\$ (909)	-0.4%
26	Impacts of Capital Structure changes	\$ (771)	-0.3%
Equals - Net Impact		\$ 84	0.04%

NATIONAL GRID/LIBERTY ENERGY
DG 11-040

JOINT PETITIONERS' RESPONSES TO
STAFF'S DATA REQUESTS – SET 2

Date Request Received: 05/6/11
Request No. Staff 2-111

Date of Response: 09/02/11
Witness: Gerald Tremblay

REQUEST:

Follow-Up to Petition and Testimony Filings

Reference Tremblay/Bronicheski pre-filed testimony at Bates Stamp 165, lines 10-18 and pre-filed testimony of Ian Robertson at Bates Stamp 20, lines 12-16: Has Algonquin specifically investigated, assessed or analyzed the question of whether the post-closing operating structure for Granite State and EnergyNorth under Liberty Utilities' ownership will be materially the same as or different from the cost structure existing under National Grid's ownership? If so, please provide a copy of any such investigation, assessment or analysis.

RESPONSE:

Liberty Energy NH has reviewed the costs structure currently employed by National Grid, and is in the preliminary stages of assessing the post-closing operating structure for Granite State and Energy North, which based on our experience will be materially similar for the service offering proposed in New Hampshire. Nothing has come to Liberty Energy NH's attention that would lead to the conclusion that it cannot provide similar service offering for similar costs. A copy of this analysis will be provided upon completion.

SUPPLEMENTAL RESPONSE:

Please see Attachment Staff 2-111. The estimated budget is preliminary and based on an analysis of the March 31, 2011 company financials by FERC account and not on a detailed line by line basis. It indicates a minimal increase in costs for both companies of approximately 4%, compared to normalized March 31, 2011 costs for Granite State and EnergyNorth (increased for two years of inflation only). This includes an increase in rent and lease expense for facilities of approximately 1% and an increase in labor costs because of the increased commitment by Liberty Energy NH to staff and provide services directly to the New Hampshire companies.

Granite State Operating & Administration Costs 2011

		National Grid				Liberty Energy	Inflation→	2.50%
(000 USD)	Actuals April to March 2011 Sum '000	Ajustment required to existing P & L	Reference *	Inflation adjustment	Revised April to March 2011 Sum '000	Budget	Variance	Budget 2012
Uncollectible Accounts	904000							
Cust Acct-Misc Expenses	905000	0.4		2.5%	0.41	0.4	-	-
Customer Accts Oper Exp-Elec		1,275.11			1,306.98	1,306.98	-	0
Cust Service-Supervision	907000							
Cust Assistance Expenses	908000	(203.9)	C	2.5%	(208.98)	(209.0)	-	(214)
Info&Instruct Advertising Exp	909000	3.4	(3.50) C	2.5%	(0.06)	(0)	-	(0)
Cust Service-Misc Expenses	910000	81.4		2.5%	83.45	83.4	-	86
Demo & Selling Expenses	912000	(3.1)		2.5%	(3.17)	(3.2)	-	(3)
Sales-Advertising Expense	913000	-		2.5%	-	-	-	-
Sales-Misc Expenses	916000	-		2.5%	-	-	-	-
Cust Service & Info Expenses		(122.13)	(3.50)		(128.77)	(128.8)	-	(132.0)
Administration Expenses-O&M								
A&G-Salaries	920000	10.0		2.5%	10.21	10.2	-	10
A&G - Office Supplies & Other expenses	921000	1,141.9			1,170.4	1,170.4	-	1,199.7
Admin Expense Transferred-CR	922000	1.0		2.5%	1.07	1	-	1
A&G-Outside Services Employed	923000	446.3		2.5%	457.42	457.4	-	469
Property Insurance	924000	389.0		2.5%	398.72	398.7	-	409
Injuries & Damages Insurance	925000	903.4		2.5%	926.03	926.0	-	949
Employee Pensions & Benefits	926000	(1.4)		2.5%	(1.47)	(1)	-	(2)
Regulatory Comm Expenses	928000	579.5		2.5%	593.96	594.0	-	609
A&G - Miscellaneous Expenses	930200	70.4			72.2	14.6	(58)	14.9
A&G-Rents	931000	163.4	E*	2.5%	167.52	258.0	91	264
Administrative Oper Exp-Elec		-			-	-	-	-
A&G Maint-General Plant-Elec	935000	1.3		2.5%	1.31	1.3	-	1
Administrative Maint Expenses								
Subtotal Administration Expenses-O&M		3,705	-		3,797	3,830	33	3,926
O&M Expenses		6,391	661		7,228	7,261	33	7,442
O&M Expenses + Labor		15,125	661		16,181	17,070	889	17,497

Reference *

- A. The amount reimbursed by Fairpoint pertains to 2010 Storm related veg management expense and hence backed out of current year's budget projections. (Storm recoveries dependent on incremental costs only to qualify for refund under the program).
- B. Includes third party credit & collection expenses \$220K, bad debts \$500K, postage expenses \$220K
- C. FERC Account #s 908000 relate to energy efficiency program and the expenses are offset by reimbursements under the program.
- C. Also includes expenses incurred on contractors used in energy efficiency program and other related expenses and reimbursements.
- D. Includes office materials, supplies from contractors, hardware and software expenses and miscellaneous leasing / rent of office equipment.
- E* LE budget considers incremental rent applicable to Granite State. (Total projected rent for both GS and EN being \$450K)

Granite State Operating & Administration Costs 2011

('000 USD)

	National Grid				Liberty Energy		Inflation→	2.50%		
	Actuals	Ajustment	Reference *	Inflation	Revised	Budget			Variance	Budget 2012
	April to March 2011 Sum '000	required to existing P & L		adjustment	April to March 2011 Sum '000					
Labor Costs		8,735			8,953	9,809	857	10,055		
<u>Transmission Expenses-O&M</u>										
Schd, Sys Cntrl & Dispatch Srv	561400	-		2.5%	-	-	-	-		
Trans Oper-Substations	562000	1.3		2.5%	1.34	1.3	-	1		
Trans Oper-Overhead Lines	563000	0.6		2.5%	0.64	0.6	-	1		
Trans Oper-Underground Lines	564000	0.0								
Trans Oper-Wheeling	565000									
Elec Rev Wheeling-Elim	565035									
Sale for Resale-Tran CR-Elim	565037									
Trans Oper-Misc Expenses	566000	1.0		2.5%	1.0	1.0	-	1		
Trans Maint-Supervision & Eng	568000	0.3		2.5%	0.3	0.3	-	0		
Trans Maint-Substations	570000	16.1		2.5%	16.54	16.5	-	17		
Trans Maint-Substation-Trouble	570010	3.1		2.5%	3.14	3.1	-	3		
Trans Maint-Overhead Lines	571000	(8.1)		2.5%	(8.26)	(8.3)	-	(8)		
Trans Maint-Right of Way	571020	1.9		2.5%	1.93	1.9	-	2		
Maint Transmission Facilities										
Subtotal Transmission Expenses-O&M		16.3	-		17	17	-	17		
<u>Distribution Expenses-O&M</u>										
Dist Oper-Supervision & Eng	580000	(84.3)		2.5%	(86.39)	(86.4)	-	(89)		
Dist Oper-Load Dispatching	581000	4.5		2.5%	4.64	5	-	5		
Dist Oper-Substations	582000	166.9		2.5%	171.10	171.1	-	175		
Dist Oper-Overhead Lines	583000	54.6		2.5%	55.97	56.0	-	57		
Dist Oper-Underground Lines	584000	77.6		2.5%	79.51	79.5	-	81		
Dist Oper-Outdoor Lighting	585000	6.0		2.5%	6.16	6.2	-	6		
Dist Oper-Electric Meters	586000	58.1		2.5%	59.58	59.6	-	61		
Dist Oper-CustomerInstallation	587000	24.4		2.5%	25.05	25.0	-	26		
Dist Oper-Misc Expenses	588000	301.0		2.5%	308.53	308.5	-	316		
Dist Oper-Rents	589000	0.8		2.5%	0.82	0.8	-	1		
Rents-Building-Dist-Elim	589001	3.6		2.5%	3.71	3.7	-	4		
Dist Maint-Supervision & Eng	590000	2.4		2.5%	2.49	2.5	-	3		
Dist Maint-Structures	591000	1.8		2.5%	1.84	1.8	-	2		
Dist Maint-Substations	592000	38.5		2.5%	39.46	39.5	-	40		
Dist Maint-Substations-Trouble	592010	10.0		2.5%	10.27	10.3	-	11		
Dist Maint-Overhead Lines	593000	(398.7)	664.10	A	271.99	272.0	-	279		
Dist Maint-OH Lines-Trouble	593010	22.9		2.5%	23.45	23.4	-	24		
Dist Maint-OH Lines-Veg Mgmt	593020	1,214.0		2.5%	1,244.38	1,244.4	-	1,275		
Dist Maint-Underground Lines	594000	(12.4)		2.5%	(12.740)	(13)	-	(13)		
Dist Maint-Line Transformers	595000	16.9		2.5%	17.28	17.3	-	18		
Dist Maint-Outdoor Lighting	596000	(2.1)		2.5%	(2.15)	(2.1)	-	(2)		
Dist Maint-Electric Meters	597000	10.3		2.5%	10.59	10.6	-	11		
Maint Distribution Facilities										
Subtotal Distribution Expenses-O&M		1,517	664		2,236	2,235.5	-	2,291.4		
<u>Customer Expenses-O&M</u>										
Cust Acct-Supervision	901000	4.6		2.5%	4.67	4.7	-	5		
Cust Acct-Meter Reading Exp	902000	27.7		2.5%	28.39	28.4	-	29		
Cust Records & Collection	903000	1,242.5		2.5%	1,273.52	1,273.5	-	1,305		

EnergyNorth Operating & Administration Costs 2011

(000 USD)

O&M Expenses + Labor

National Grid					Liberty Energy	Inflation → 2.50%	
Actuals April to March 2011 Sum '000	Adjustment required to existing P & L	Reference *	Inflation adjustment	Revised April to March 2011 Sum '000	Budget	Variance	Budget 2012
25,925	1,549			28,161	29,036	876	29,762

Reference *

- A. Bad debts for 2010 includes bad debt provision that was reversed following PwC assessment. Assessed bad debt charge off is \$2.5M for EN.
- B. FERC Account #s 908000 relate to energy efficiency program and the expenses are offset by reimbursements under the program.
- C. Includes rental cost of CIS system (\$65K), printing and mailing expenses (\$475K) and amount expended on contractors (\$135K).
- D. Gas marketing and advertising expenses to retain business, advertising at trade shows to promote gas sales.
- E. \$1.4M relating to rate case expense charged to Income Statement - not expected to be incurred therefore excluded from budget.
- F. LE budget considers incremental rent applicable to Granite State. (Total projected rent for both GS and EN being \$450K)

EnergyNorth Operating & Administration Costs 2011

(000 USD)

	National Grid				Liberty Energy		Budget 2012
	Actuals	Adjustment	Reference *	Inflation adjustment	Revised	Variance	
	April to March 2011	required to existing P & L			April to March 2011		
	Sum '000			Sum '000			
Labor Costs	16,977				17,402	546	18,396
Gas Expenses-O&M							
T&D-Meas & Reg Station Expense	857000	61.73		2.5%	63.28	63.28	65
Gas Oper-Trans Rents	860000	-		2.5%	-	-	-
Gas Oper-Dist Supv & Eng	870000	1		2.5%	0.99	0.99	1
Gas Oper-Dist-Mains & Services	874000	669		2.5%	685.67	685.67	703
Gas Oper-Residential Meter Exp	878000	182		2.5%	186.12	186.12	191
Gas Oper-Customer Installation	879000	(38)		2.5%	(38.84)	(38.84)	(40)
Gas Oper-Misc Expenses	880000	55		2.5%	56.52	56.52	58
Gas Maint-Supervision & Eng	885000	74		2.5%	75.47	75.47	77
Gas Maint-Structures	886000	11		2.5%	10.99	10.99	11
Gas Maint-Mains	887000	1,322		2.5%	1,355.43	1,355.43	1,389
Gas Maint-Station Exp-General	889000	138		2.5%	141.72	141.72	145
Gas Maint-Services	892000	448		2.5%	459.04	459.04	471
Gas Maint-Residential MeterExp	893000	23		2.5%	23.24	23.24	24
Maintenance of Other Equipment	894000						
Maintain Gas Facilities							
Subtotal Gas Expenses-O&M	2,946	-			3,020	3,020	3,095
Customer Expenses-O&M							
Cust Acct-Supervision	901000	8		2.5%	8.26	8.26	8
Cust Acct-Meter Reading Exp	902000	51		2.5%	51.93	51.93	53
Cust Records & Collection	903000	769	C	2.5%	788.26	788.26	808
Uncollectible Accounts	904000	(503)	A	2.5%	2,512.25	2,512.25	2,575
Cust Acct-Misc Expenses	905000	1		2.5%	1.06	1.06	1
Customer Accts Oper Exp-Gas	326	2,954			3,362	3,362	3,446
Cust Service-Supervision	907000	(2)		2.5%	(1.86)	(1.86)	(2)
Cust Assistance Expenses	908000	4	B	2.5%	3.61	3.61	4
Info&Instruct Advertising Exp	909000	0		2.5%	0.02	0.02	0
Cust Service-Misc Expenses	910000	3		2.5%	2.69	2.69	3
Demo & Selling Expenses	912000	576	D	2.5%	590.21	590.21	605
Sales-Advertising Expense	913000	134	D	2.5%	137.72	137.72	141
Sales-Misc Expenses	916000	(171)		2.5%	(175.14)	(175.14)	(180)
Cust Service & Info Expenses	544	-			557	557	571
Administration Expenses-O&M							
A&G-Salaries	920000	(5)		2.5%	(5.60)	(5.60)	(6)
A&G - Office Supplies & Other expenses	921000	1,870			1,917	1,917	1,965
Admin Expense Transferred-CR	922000	0		2.5%	0.02	0.02	0
A&G-Outside Services Employed	923000	1,385	E	2.5%	(20.39)	(20.39)	(21)
Property Insurance	924000	9		2.5%	9.33	9.33	10
Injuries & Damages Insurance	925000	805		2.5%	826.44	826.44	847
Employee Pensions & Benefits	926000						
Regulatory Comm Expenses	928000	856		2.5%	877.08	877.08	899
A&G - Miscellaneous Expenses	930200	(22)			(22)	148	152
A&G-Rents	931000	203	F*	2.5%	208.11	367.58	377
Administrative Oper Exp-Elec		-		2.5%	-	-	-
A&G-Maint-General Plant-Gas	932000	30		2.5%	30.75	30.75	32
Administrative Maint Expenses							
Subtotal Administration Expenses-O&M	5,133	(1,405)			3,821	4,151	4,254
O&M Expenses	8,948	1,549			10,759	11,089	11,366

NATIONAL GRID/LIBERTY ENERGY
DG 11-040

JOINT PETITIONERS' RESPONSES TO
STAFF'S DATA REQUESTS – SET 1

Supplemental Response

Date Request Received: 04/04/11
Request No. Staff 1-72

Date of Supplemental Response: 09/02/11
Witness: Gerald Tremblay

Request:

Reference Tremblay/Bronicheski testimony, Bates 165, lines 13-16. Referring to the capital expenditures that will need to be invested to replace existing National Grid systems that belong to the service companies, rather than Granite State and EnergyNorth, please detail the expenditures for Granite State and EnergyNorth.

Response:

An initial estimate of capital expenditure required to replace National Grid systems is being prepared by the team leader for each functional area. Once complete, Liberty Energy will provide the details of the capital expenditures.

SUPPLEMENTAL RESPONSE:

Please see Supplemental Attachment Staff 1-72 for a preliminary estimate of costs to replace National Grid systems.

System		System Cost	Implementation Cost	Total	Granite State	Energy North	Total		
System Operations	System Operations	ArcFM Solution	per quote	130	1,360	1,490	497	993	1,490
		ESRI GIS	Internal estimate	150	130	280	140	140	280
		Responder Software & OASys	per quote assumed 7	275		275	125	150	275
		Allegro	estimate	125	125	250	83	167	250
		Contingency	20%		409	409	152	257	409
System Operations		680		2,024	2,704	997	1,707	2,704	
Customer Service	Front Office Systems	CIS-Cogsdale	per quote	252	520	772	257	515	772
		IVR-Vocantix		50	50	100	50	50	100
		Phones-CISCO	IT Dept	150		150	50	100	150
	Meter Data Management System	MV90- Interval	estimate	100	50	150	50	100	150
		MVRS-Customer non interval	estimate	80	25	105	35	70	105
		Load Calculation system	estimate	200	50	250	83	167	250
	Web Site			50	50	100	50	50	100
		Contingency	20%		325	325	115	210	325
	Customer Care		882		1,070	1,952	691	1,262	1,952
	Financial and Maintenance	Financial and Maintenance Management Systems	GP/Wensoft-day 1	per quote	116	495	612	204	408
GP/Wensoft-day n			Estimate		250	250	83	167	250
Contingency			20%		122	122	41	82	122
Financial and Maintenance Management Systems			116		868	984	328	656	984
Security Systems	Cameras/Gate Controls etc		100	-	100	33	67	100	
IT Infrastructure	Microsoft Servers	Licensing/Local Servers/Exchange Cals/C	1374	206		206	69	137	206
		Systems, Servers and Storage							
	Network	PC including vehicle solutions		75		75	25	50	75
		Mobile Devices		15		15	5	10	15
		Branch office Telecom Connections		14		14	5	9	14
		Network Equipment (firewalls, switches, routers)		80		80	27	53	80
	Radio and Telecommunications		100	50	150	50	100	150	
	Contingency	20%		108	108	36	72	108	
IT Infrastructure		490		158	648	216	432	648	
Total Capital Expenditure		2,268		4,120	6,389	2,266	4,123	6,389	

NATIONAL GRID/LIBERTY ENERGY
DG 11-040
JOINT PETITIONERS' RESPONSES TO
STAFF'S TECH SESSION DATA REQUESTS – SET 3

Date Request Received: 10/18/11
Request No. Staff TS 3-6

Date of Response: 11/02/11
Witness: Timothy F. Horan

REQUEST:

Ref. Staff 3-41 and 3-42, which requested information about IT applications that National Grid may be transitioning to new applications.

- (a) Please provide cost estimates for the “strategic programme to rationalize the US portfolio of application systems” for each of the following years:
- (i) 2012
 - (ii) 2013
 - (iii) 2014
- (b) Please provide costs estimates for each of these application systems in each of the above years:
- CRIS
 - Smallworld GIS
 - PeopleSoft ERP Suite
 - Oracle Financials
 - ABB-S.P.I.D.E.R. EMS to ABB Network-Manager EMS
- (c) Please provide the cost allocation to each National Grid affiliate based on current cost allocation formulas, both percentage and dollar amount for each year.

RESPONSE:

- (a) and (b) Please see Attachments Staff TS 3-6(a) and (b) for EnergyNorth and Granite State’s estimated portion of projected capital expenditures for IT projects through the end of fiscal year 2017.
- (c) Granite State receives approximately 30% of the New Hampshire allocations and EnergyNorth receives approximately 70%. See Attachments Staff TS 3-6(a) and (b) for the dollar amounts.

Capex

Energy North

Distribution/Outage Management System
 ERP Back Office Programme
 Front Office Programme
 US Mobile Strategic Implementation
 CRIS Customer System Conversion

Small World-GIS to ESRI -Gas

Other IT Capex projects

Total IT Capex

Total prior to plan	FY13 Plan	FY14 Plan	FY15 Plan	FY16 Plan	FY17 Plan	Project Totals - FY 2017
-	-	-	-	-	-	-
1.7	0.3	-	-	-	-	2.0
-	-	0.2	0.5	0.3	0.2	1.2
-	-	0.1	0.3	0.2	0.1	0.7
-	-	-	-	0.0	0.6	0.6
0.2	0.1	-	-	-	-	0.2
-	0.7	0.6	0.3	0.5	0.3	2.4
1.9	1.1	1.0	1.0	1.0	1.2	7.1

Note: Total prior to plan includes capex specific to named IT projects prior to FY 2013.

Capex							
Granite State	Total prior to plan	FY13 Plan	FY14 Plan	FY15 Plan	FY16 Plan	FY17 Plan	Project Totals - FY 2017
Distribution/Outage Management System	0.2	0.1	0.1	0.0	-	-	0.3
New England EMS Sysytem	0.1	0.0	0.0	-	-	-	0.1
ERP Back Office Programme	0.7	0.1	-	-	-	-	0.8
Front Office Programme	-	-	0.1	0.2	0.1	0.1	0.5
US Mobile Strategic Implementation	-	-	0.1	0.1	0.1	0.0	0.3
CRIS Customer System Conversion	-	-	-	-	-	-	-
Small World-GIS to ESRI -Electric	-	-	0.0	0.1	-	-	0.1
Other IT Capex projects	-	0.3	0.2	0.1	0.2	0.1	1.0
Total IT Capex	0.9	0.5	0.5	0.5	0.4	0.3	3.1

Note: Total prior to plan includes capex specific to named IT projects prior to FY 2013.