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March 27, 2019

Debra Howland
Executive Director and Secretary
New Hampshire Public Utilities Commission
21 S. Fruit St., Suite 10
Concord, New Hampshire 03301-2429

Re: DG 16-855, Petition for Approval of Sixth Amendment to Special Contract-
REDACTED Updated Schedule 1-9

Dear Director Howland:

Pursuant to Order No. 26,107 issued by the Commission on February 28, 2018 in the above-captioned docket, enclosed please find 1 public copy and 7 confidential copies of a document labeled "Updated Schedule 1-9"

Pursuant to N.H. Admin. R. Puc 201.04 (C) (1) and (2), each page of the enclosed document has been marked confidential in the upper right hand corner, and confidential information that has been redacted from the public versions of the documents has been designated in the enclosed documents by shading.

Please contact me if there any questions about this filing. Thank you for your assistance and cooperation in this matter.

Respectfully submitted,

George H. Simmons Jr.

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Foss Mfg. Special Contract

Northern Utilities, Inc. Marginal Cost Estimate template

Redacted

Updated Schedule 1-9
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Escalating Marginal Costs using GDPLEV from Bureau of Economic Analysis data:

- 1) Go to -> <http://www.bea.gov/national/index.htm> web page;
- 2) Click on the link for *Current-Dollar and "Real" Gross Domestic Product*;
- 3) Update annual "GDP in billions of current dollars" and "GDP in billions of chained 2012 dollars" data in the table below;
- 4) Forecast years GDP estimates use EIA Energy Outlook projections (Table 20 Macroeconomics Indicators);
- Go to -> <http://www.eia.doe.gov/oiaf/aeo/index.html> web page;
- 5) Update prior to start of each contract year.

Adjustment escalators to Marginal Costs				Marginal Cost Study Escalation Factor Calculation
GDP in billions of current dollars	GDP in billions of chained 2012 dollars	GDP Chain-type Price Index (2012=1.000)		
1998	9,062.8	12,038.3	0.7528	
1999	9,630.7	12,610.5	0.7637	
2000	10,252.3	13,131.0	0.7808	
2001	10,581.8	13,262.1	0.7979	
2002	10,936.4	13,493.1	0.8105	
2003	11,458.2	13,879.1	0.8256	
2004	12,213.7	14,406.4	0.8478	
2005	13,036.6	14,912.5	0.8742	
2006	13,814.6	15,338.3	0.9007	
2007	14,451.9	15,626.0	0.9249	
2008	14,712.8	15,604.7	0.9428	
2009	14,448.9	15,208.8	0.9500	
2010	14,992.1	15,598.8	0.9611	
2011	15,542.6	15,840.7	0.9812	
2012	16,197.0	16,197.0	1.0000	
2013	16,784.9	16,495.4	1.0176	
2014	17,521.7	16,899.8	1.0368	
2015	18,219.3	17,386.7	1.0479	
2016	18,707.2	17,659.2	1.0593	
2017	19,485.4	18,050.7	1.0795	
2018	20,500.6	18,571.3	1.1039	1.1039
2019			1.1273	
2020			1.1568	1.1322
Calculation of Escalation Factor ->				1.0257

ANNUALIZED MARGINAL COST ESTIMATE

A	B	C	D	E	F	G	H
			DG 17-070 Compliance Filing MCS (Tables 9 & 11)	DG 17-070 Compliance Filing MCS Adj. (Table 14)	Feb 2020 Est 1.0257		Notes
1	Escalation Factor		Begin Confidential				
2	Marginal Cost Data						
3	Customer Charge						E3 x F1
4	Pressure Support						E4 x F1
5	Main Reinforcement (per Dth)						E5 x F1
6	Main Extension (per Dth)						E6 x F1
7	Adjusted MCS (Table 14)						
8							
9	Customer Data						
10	Annual Usage					Dth	3-2018 to 2-2019 Annual Usage
11	Design Day Usage					Dth	Customer MDTQ
12							Avg Dth per day
13	Marginal Revenue Requirement						
14	Customer Charge						F3 x 12
15	Pressure Support						F4 x F11
16	Main Reinforcement						F5 x F11
17	Main Extension						F6 x F11
18	Total						Sum(F14..F17)
19							
20	Marginal Cost Floor - All Components						
21	Revenue Requirement						F18
22	Customer Charge						F3 x 12
23	Remaining Revenue						F21 - F22
24	Volumetric Charge						F23 / F10
)End Confidential							

Note:

All marginal costs adjusted for revenue constraints from Table 14 in Compliance Filing MCS
Customer Charge from Table - 12, in Compliance Filing MCS
Main Reinforcement Cost from Table - 9 in Compliance Filing MCS
Main Extension Cost from Table - 9 in Compliance Filing MCS
2018 thru 2020 GDP Chain-type Price Index from EIA Annual Energy Outlook 2019

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CPI	Year	Paste Area
	2000	169.800
	2001	175.800
	2002	177.800
	2003	183.100
	2004	186.200
	2005	191.800
	2006	198.700
	2007	203.499
	2008	211.693
	2009	212.193
	2010	216.741
	2011	221.309
	2012	227.663
	2013	232.166
	2014	234.781
	2015	234.722
	2016	237.111
	2017	243.603
	2018	248.991
	2019	252.776

Inflation Factor Template			Annual Special Contract Rate Adjustment Template		
CPI-U Year	CPI-U, NSA, 12 months, Feb. - Feb.	Inflation Factor	March 1 Contract Rate Year	Monthly Customer Charge	Notes

Pursuant to the contract: In no event shall fluctuations in the CPI-U reduce the Special Transportation Rates or Charges below the then current Special Transportation Rates and Charges.

[illegible]

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