

<b>ORIGINAL</b>	
N.H.P.U.C. Case No.	<i>DE 11-133</i>
Exhibit No.	<i># 8</i>
Witness	<i>Panai</i>
DO NOT REMOVE FROM FILE	
Docket DE 11-133 Exhibit No. 2	

**STATE OF NEW HAMPSHIRE  
BEFORE THE PUBLIC UTILITY COMMISSION**

**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
TRANSMISSION COST ADJUSTMENT MECHANISM**

**PREPARED TESTIMONY OF  
STEPHEN R. HALL**

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- 1 Q. Please state your name, business address and your present position.
- 2 A. My name is Stephen R. Hall. My business address is PSNH Energy Park, 780 North  
3 Commercial Street, Manchester, New Hampshire. I am Rate and Regulatory Services  
4 Manager for Public Service Company of New Hampshire ("PSNH").
- 5 Q. Have you previously testified before the Commission?
- 6 A. Yes, I have testified on numerous occasions before the Commission over the past thirty  
7 years.
- 8 Q. What is the purpose of your testimony?
- 9 A. The purpose of my testimony is to propose transmission prices for effect July 1, 2011 under  
10 the Transmission Cost Adjustment Mechanism (TCAM). My testimony proposes specific  
11 rates and charges for transmission based on the transmission revenue requirement contained  
12 in the attachments to Mr. Baumann's testimony.
- 13 Q. Have you calculated specific rates and charges for transmission for all rate classes?
- 14 A. Yes, we have. The proposed rates and charges are included in Attachment SRH-1.
- 15 Q. Please describe generally the transmission pricing rate design contained in Attachment  
16 SRH-1.

1 A. The design of transmission prices was contained in the settlement agreement in Docket No.  
2 DE 06-028. The settlement agreement describes the design of transmission pricing for  
3 Backup Delivery Service Rate B specifically, and for all other rate classes in general. For  
4 Rate B, the settlement agreement provides that transmission costs be recovered through a  
5 demand charge, and it splits the demand charge into two components for rate calculation  
6 purposes: a base component and an incremental component<sup>1</sup>. The settlement agreement  
7 describes the cost allocation for the base component, and it also states that other  
8 transmission prices will be calculated through an equi-proportional adjustment.

9 Q. Please describe how the base component of the Rate B demand charge was determined.

10 A. First, the ratio of average Rate B demands to average total PSNH demands at the time of  
11 the monthly NU system peaks was calculated. The calculation of that ratio is shown on  
12 Page 2 of Attachment SRH-2. Once the ratio was calculated, the Rate B base component  
13 revenue requirement for the forecast period was determined by multiplying the ratio by the  
14 total transmission revenue requirement for the forecast period included in Mr. Baumann's  
15 Attachment RAB-1. The Rate B base component forecasted revenue requirement is shown  
16 on line 7 of Page 1 of Attachment SRH-2. The base component reconciliation from the  
17 prior period was then added to the base component forecasted revenue requirement to  
18 determine the total base component revenue requirement (line 11 of Page 1 of Attachment  
19 SRH-2). The Rate B base component rate was then determined by dividing the total base  
20 component revenue requirement by projected billing demand. As shown on Page 1 of  
21 Attachment SRH-2, that calculation produces a Rate B base component rate of \$0.31 per  
22 kW or kVA per month.

23 Q. How did you calculate the base component reconciliation?

24 A. The base component reconciliation calculation is shown on Page 3 of Attachment SRH-2.  
25 It was calculated by multiplying the prior period transmission revenue requirement by the  
26 base component ratio for the prior period. The base component revenue for the prior period  
27 was then subtracted from the base component revenue requirement to determine the base  
28 component reconciliation (in this case, an over-recovery).

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<sup>1</sup> For billing purposes, the two components are summed so only one demand charge is billed.

1 Q. How did you forecast the data to perform the calculations described above?

2 A. For the contribution to the monthly NU system peaks, we used historical data as a proxy for  
3 what will occur in the prospective period because there is no other reasonable way to  
4 forecast Rate B contributions to peak load. The projected billing demand for Rate B was  
5 based on actual data for the reconciliation period, with adjustments that could reasonably  
6 be anticipated. For total transmission revenue requirements, we used the data provided in  
7 Mr. Baumann's testimony.

8 Q. How did you calculate all other transmission rates and charges?

9 A. The transmission rate calculations were based on billing determinants for the 2009 test  
10 year, as proformed in Docket No. DE 09-035. On Attachment SRH-3, we multiplied the  
11 forecasted TCAM rate provided in Mr. Baumann's attachment by test year MWH sales to  
12 produce the target transmission revenue for the test year. From that test year revenue  
13 requirement, we subtracted the Rate B base component revenue which was calculated based  
14 on test year billing determinants on Attachment SRH-4. The result of this subtraction is the  
15 amount to be recovered from all other customers. Revenue and the resulting rates and  
16 charges were determined by proportionally adjusting all currently-effective revenue and  
17 rates to the level necessary to recover the transmission revenue requirement net of the Rate  
18 B base amount. The allocation of transmission revenue to class under this methodology is  
19 shown on Attachment SRH-3.

20 Q. Does this complete your testimony?

21 A. Yes, it does.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
TRANSMISSION COST ADJUSTMENT MECHANISM (TCAM) CALCULATION  
TRANSMISSION RATES PROPOSED FOR EFFECT ON JULY 1, 2011

			(1) Current Rates Effective 07/01/2010	(2) Proposed Rates Effective 07/01/2011
	<u>Rate</u>	<u>Blocks</u>		
7	R	All KWH	\$ 0.01625	\$ 0.01293
10	Uncontrolled Water Heating	All KWH	\$ 0.01255	\$ 0.00999
13	Controlled Water Heating	All KWH	\$ 0.01255	\$ 0.00999
16	R-OTOD	On-peak KWH	\$ 0.01625	\$ 0.01293
17		Off-peak KWH	\$ 0.01060	\$ 0.00843
20	G	Load charge (over 5 KW)	\$ 4.20	\$ 3.34
22		First 500 KWH	\$ 0.01513	\$ 0.01204
23		Next 1,000 KWH	\$ 0.00569	\$ 0.00453
24		All additional KWH	\$ 0.00306	\$ 0.00243
27	Space Heating	All KWH	\$ 0.01513	\$ 0.01204
30	G-OTOD	Load charge	\$ 2.77	\$ 2.20
33	LCS	Radio-controlled option	\$ 0.01255	\$ 0.00999
34		8-hour option	\$ 0.01255	\$ 0.00999
35		10 or 11-hour option	\$ 0.01255	\$ 0.00999
38	GV	First 100 KW	\$ 5.62	\$ 4.47
39		All additional KW	\$ 5.62	\$ 4.47
42	LG	Demand charge	\$ 5.52	\$ 4.39
45	B	Demand charge	\$ 1.31	\$ 0.60
48	OL, EOL	All KWH	\$ 0.01111	\$ 0.00884

Notes:

(1) Current rates are based on a retail average transmission rate of 1.501 ¢/KWH.

(2) Proposed rates are based on a retail average transmission rate of 1.189 ¢/KWH.

The calculation of the Rate B charge is shown on Attachment SRH-4. All other rates have been calculated by equi-proportionally adjusting current rates by the ratio necessary to recover the remaining transmission revenue requirement.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
TRANSMISSION COST ADJUSTMENT MECHANISM (TCAM) CALCULATION  
RATE B CUSTOMERS

1	<b>Base Component Revenue Requirement</b>		
2			
3	Total Transmission Revenue Requirement	\$ 93,189,000	RAB-1, Page 1, Line 16
4			
5	Times Base Component Ratio	<u>0.54824%</u>	SRH-2, Page 2
6			
7	Base Component Forecasted Revenue Requirement	\$ 510,900	
8			
9	Base Component Reconciliation	<u>\$ (154,278)</u>	SRH-2 Page 3
10			
11	Base Component Revenue Requirement	\$ 356,623	
12			
13	Rate B Projected Billing Demand	1,164,072	
14			
15	Rate B Base Component (L11/L13)	\$ 0.31	per kW or kVA

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
TRANSMISSION COST ADJUSTMENT MECHANISM (TCAM) CALCULATION  
RATE B CUSTOMERS

1 Contribution to NU System Peak (KW)			
2 Period Ending 6/30/11			Ratio of
3			Rate B to
4	<u>Rate B</u>	<u>Total PSNH</u>	<u>Total PSNH</u>
5			
6 Jul '10	7,108	1,726,147	
7 Aug	3,975	1,618,185	
8 Sep	3,274	1,644,490	
9 Oct	2,815	1,137,214	
10 Nov	2,259	1,210,291	
11 Dec	1,784	1,357,380	
12 Jan '11	2,925	1,389,597	
13 Feb	2,003	1,300,448	
14 Mar	1,505	1,218,783	
15 Apr	43,954	1,080,579	
16 May (1)	8,836	1,118,000	
17 Jun (1)	8,904	1,495,000	
18 Average	7,445	1,358,010	0.54824%

(1) Estimated data based on average of each month's contribution to peak during last three years.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
TRANSMISSION COST ADJUSTMENT MECHANISM (TCAM) CALCULATION  
RATE B CUSTOMERS

1	Estimated Base Component Reconciliation, 12 months ending June 30, 2011		
2			
3	Prior Period Transmission Revenue Requirement:		
4			
5	Retail Transmission Operating Costs	\$ 96,630,000	RAB-1, Pages 4 & 5, line 21
6	(Over)/Underrecovery, period ending 6/30/10	\$ 11,177,000	RAB-1, Page 3, line 44
7	Return on monthly (over)/underrecovery, period ending 6/30/11	\$ <u>118,000</u>	RAB-1, Pages 4 & 5, line 40
8			
9	Prior Period Transmission Revenue Requirement	\$ 107,925,000	
10			
11	Times Base Component Ratio	<u>0.54824%</u>	SRH-2, Page 2
12			
13	Prior Period Base Component Revenue Requirement	\$ 591,689	
14			
15	Base Component Reconciliation for 12-Month Period Ending 6/30/10	\$ <u>235,442</u>	SRH-2, Page 5, line 21
16			
17	Total Base Component Revenue Requirement	\$ 827,131	
18			
19	Base Component Revenue (actual through 5/11; 6/11 estimated)	\$ <u>981,409</u>	
20			
21	Estimated Base Component Reconciliation, 12 months ending 6/30/11	\$ (154,278)	

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
TRANSMISSION COST ADJUSTMENT MECHANISM (TCAM) CALCULATION  
RATE B CUSTOMERS

1 Actual Contribution to NU System Peak (KW)			
2 Period Ending 6/30/10			Ratio of
3			Rate B to
4	<u>Rate B</u>	<u>Total PSNH</u>	<u>Total PSNH</u>
5			
6 Jul '09	1,922	1,389,093	
7 Aug	2,898	1,559,154	
8 Sep	3,401	1,184,316	
9 Oct	14,157	1,121,400	
10 Nov	5,300	1,196,094	
11 Dec	44,138	1,430,449	
12 Jan '10	3,281	1,286,070	
13 Feb	1,350	1,275,081	
14 Mar	6,084	1,175,853	
15 Apr	7,004	1,042,901	
16 May	11,350	1,501,073	
17 Jun	4,126	1,436,529	
18			
19 Average	8,751	1,299,834	0.67323%

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
TRANSMISSION COST ADJUSTMENT MECHANISM (TCAM) CALCULATION  
RATE B CUSTOMERS

1	Actual Base Component Reconciliation, 12 months ending June 30, 2010		
2			
3	Prior Period Transmission Revenue Requirement:		
4			
5	Retail Transmission Operating Costs	\$ 98,599,000	RAB-1, P3, L21 & 2010 RAB-1 P4, L21
6	(Over)/Underrecovery, period ending 6/30/09	\$ 3,805,000	2010 RAB-1, P3, L44
7	Return on monthly (over)/underrecovery, period ending 6/30/10	\$ <u>78,000</u>	RAB-1, P3, L40 & 2010 RAB-1, P4, L40
8			
9	Prior Period Transmission Revenue Requirement	\$ 102,482,000	
10			
11	Times Base Component Ratio	<u>0.67323%</u>	SRH-2, Page 4
12			
13	Prior Period Base Component Revenue Requirement	\$ 689,943	
14			
15	Base Component Reconciliation for 12-Month Period Ending 6/30/09	\$ <u>137,065</u>	2010 SRH-2, P5, L21
16			
17	Total Base Component Revenue Requirement	\$ 827,008	
18			
19	Actual Base Component Revenue, Period Ending 6/30/10	\$ <u>591,566</u>	
20			
21	Actual Base Component Reconciliation, 12 months ending 6/30/10	\$ 235,442	

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
TRANSMISSION COST ADJUSTMENT MECHANISM (TCAM) CALCULATION  
ALLOCATION OF JULY 1, 2011 TRANSMISSION REVENUE TO CLASS  
BASED ON BILLING DETERMINANTS FOR THE 2009 TEST YEAR

1	Retail delivery sales for the 2009 test year			7,657,472	MWH
2	Forecasted TCAM Rate (from Attachment RAB-1, Page 1, Line 20)			\$	0.01189 per KWH
3	Target transmission revenue based on the test year: Line (1) x Line (2)			\$	91,047 (000)
4	Rate B Base Component Revenue, based on the test year (from Attachment SRH-4)			\$	302 (000)
5	Transmission revenue to be recovered from all other classes: Line (3) - Line (4)			\$	90,745 (000)
6					
7					
8					
9		(1)	(2)	(3)	(4)
10					
11		Revenue at	07/01/2011		
12	<b>Transmission revenue</b>	07/01/2010	Revenue		<u>Increase</u>
13	<b>excluding Rate B Base Component</b>	<u>Rate Level</u>	<u>Target</u>	<u>\$</u>	<u>%</u>
14					
15	Residential Rates R, R-OTOD	\$ 49,132	\$ 39,093	\$ (10,040)	-20.43%
16					
17	General Service Rates G, G-OTOD	25,935	20,635	(5,300)	-20.43%
18					
19	Primary General Service Rate GV	23,851	18,977	(4,874)	-20.43%
20	GV Rate B - incremental component only	11	9	(2)	-20.43%
21					
22	Large General Service Rate LG	14,323	11,396	(2,927)	-20.43%
23	LG Rate B - incremental component only	340	270	(69)	-20.43%
24					
25	Outdoor Lighting Rates OL, EOL	<u>459</u>	<u>365</u>	<u>(94)</u>	<u>-20.43%</u>
26					
27	<b>Total</b>	<b>\$ 114,050</b>	<b>\$ 90,745</b>	<b>\$ (23,305)</b>	<b>-20.43%</b>
28					
29					
30	<b>Rate B Base Component</b>				
31	GV Rate B - base component	\$ 29	\$ 9	\$ (19)	-67.37%
32	LG Rate B - base component	<u>896</u>	<u>293</u>	<u>(604)</u>	<u>-67.37%</u>
33	<b>Total</b>	<b>\$ 925</b>	<b>\$ 302</b>	<b>\$ (623)</b>	<b>-67.37%</b>
34					
35					
36	<b>Total, all customers</b>	<b>\$ 114,976</b>	<b>\$ 91,047</b>	<b>\$ (23,928)</b>	<b>-20.81%</b>
37					
38					
39	Total Rate B, incremental plus base:				
40	Rate GV: Line (20) + Line (31)	\$ 40	\$ 18	\$ (22)	-54.47%
41	Rate LG: Line (23) + Line (32)	<u>1,236</u>	<u>563</u>	<u>(673)</u>	<u>-54.47%</u>
42	<b>Total</b>	<b>\$ 1,276</b>	<b>\$ 581</b>	<b>\$ (695)</b>	<b>-54.47%</b>

Notes:

- (1) The result of applying rates effective July 1, 2010 to test year billing determinants.
- (2) The Rate B base component was taken from Attachment SRH-4. Revenue targets for all other classes were calculated by equi-proportionally adjusting current revenues.
- (3) Column (2) - Column (1).
- (4) Column (3) / Column (1).

**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE  
TRANSMISSION COST ADJUSTMENT MECHANISM (TCAM) CALCULATION  
CALCULATION OF TRANSMISSION REVENUE AND RATES FOR RATE B CUSTOMERS  
BASED ON SETTLEMENT AGREEMENT ARTICLE V, SECTION 5.1.1. AND  
BILLING DETERMINANTS FOR THE 2009 TEST YEAR**

	(1)	(2)	(3)	(4)	(5)	(6)
	Test Year	Base	Revenue from	Allocated	Incremental	Total Base
	Billing	Component	Base	Revenue from	Component	Plus
	<u>Demand</u>	<u>of Rate</u>	<u>Component</u>	<u>Incremental</u>	<u>of Rate</u>	<u>Incremental</u>
				<u>Component</u>		<u>Rate</u>
7 Rate B customers on Rate GV	30,468	\$ 0.31	\$ 9,445.08	\$ 8,727.19	\$ 0.29	\$ 0.60
10 Rate B customers on Rate LG	<u>943,642</u>	\$ 0.31	<u>292,529.02</u>	<u>270,294.94</u>	\$ 0.29	\$ 0.60
13 Total Rate B customers	974,110		\$ 301,974.10	\$ 279,022.14		

- (2) From Attachment SRH-2, Page 1.
- (3) Column (1) x Column (2).
- (4) From Attachment SRH-3, Column (2), Lines 20 and 23.
- (5) Column (4) / Column (1).
- (6) Column (2) + Column (5).