

**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**

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
7 twenty-seven years.

8 Q. What is the purpose of your testimony?

9 A. The purpose of my testimony is to propose transmission prices for effect August 1, 2009
10 under the Transmission Cost Adjustment Mechanism (TCAM). My testimony proposes
11 specific rates and charges for transmission based on the transmission revenue requirement
12 contained in the attachments to Mr. Baumann's June 12, 2009 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 describes the design of transmission pricing for Backup
3 Delivery Service Rate B specifically, and for under all other rate classes in general. For
4 Rate B, the settlement provides that transmission costs be recovered through a demand
5 charge, and it splits the demand charge into two components for rate calculation purposes:
6 a base component and an incremental component¹. The settlement agreement describes the
7 cost allocation for the base component, and it also states that other transmission prices will
8 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 \$0.81 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
27 period was then subtracted from the base component revenue requirement to determine the
28 base component reconciliation (in this case, an under-recovery).

¹ 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
3 for what will occur in the prospective period because there is no reasonable way to forecast
4 Rate B contributions to peak load. The projected billing demand for Rate B was based on
5 historic data, with adjustments that could reasonably be anticipated. For total transmission
6 revenue requirements, we used the data provided in Mr. Baumann's testimony.

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

8 A. The transmission rate calculations were based on billing determinants for the 2008 test
9 year. On Attachment SRH-3, we multiplied the forecasted TCAM rate provided in Mr.
10 Baumann's attachment by test year MWH sales to produce the target transmission revenue
11 for the test year. From that test year revenue requirement, we subtracted special pricing
12 revenue imputed at the average transmission rate level and the Rate B base component
13 revenue which was calculated based on test year billing determinants on Attachment SRH-
14 4. The result of this subtraction is the amount to be recovered from all other customers.
15 Revenue and the resulting rates and charges were determined by proportionally adjusting
16 all currently-effective revenue and rates to the level necessary to recover the transmission
17 revenue requirement net of the Rate B base amount. The allocation of transmission
18 revenue to class under this methodology is shown on Attachment SRH-3.

19 Q. Does this complete your testimony?

20 A. Yes, it does.

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
TRANSMISSION COST ADJUSTMENT MECHANISM (TCAM) CALCULATION
TRANSMISSION RATES PROPOSED FOR EFFECT ON AUGUST 1, 2009

			(1) Current Rates Effective 07/01/2008	(2) 08/01/2009 Proposed Rates
	<u>Rate</u>	<u>Blocks</u>		
	R	All KWH	\$ 0.01035	\$ 0.01303
10	Uncontrolled Water Heating	All KWH	\$ 0.00800	\$ 0.01007
13	Controlled Water Heating	All KWH	\$ 0.00800	\$ 0.01007
16	R-OTOD	On-peak KWH	\$ 0.01035	\$ 0.01303
17		Off-peak KWH	\$ 0.00676	\$ 0.00851
20	G	Load charge (over 5 KW)	\$ 2.68	\$ 3.37
22		First 500 KWH	\$ 0.00964	\$ 0.01213
23		Next 1,000 KWH	\$ 0.00363	\$ 0.00457
24		All additional KWH	\$ 0.00195	\$ 0.00245
27	Space Heating	All KWH	\$ 0.00964	\$ 0.01213
30	G-OTOD	Load charge	\$ 1.77	\$ 2.23
33	LCS	Radio-controlled option	\$ 0.00800	\$ 0.01007
34		8-hour option	\$ 0.00800	\$ 0.01007
35		10 or 11-hour option	\$ 0.00800	\$ 0.01007
38	GV	First 100 KW	\$ 3.58	\$ 4.51
39		All additional KW	\$ 3.58	\$ 4.51
42	LG	Demand charge	\$ 3.52	\$ 4.43
45	B	Demand charge	\$ 0.25	\$ 1.10
48	OL, EOL	All KWH	\$ 0.00708	\$ 0.00891

Notes:

- (1) Current rates are based on a retail average transmission rate of 0.940 ¢/KWH.
 - (2) Proposed rates are based on a retail average transmission rate of 1.195 ¢/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	Base Component Revenue Requirement		
2			
3	Total Transmission Revenue Requirement	\$ 85,216,000	RAB-1, Page 1, Line 13
4			
5	Times Base Component Ratio	<u>0.49542%</u>	SRH-2, Page 2
6			
7	Base Component Forecasted Revenue Requirement	\$ 422,177	
8			
9	Base Component Reconciliation	<u>\$ 399,287</u>	SRH-2 Page 3
10			
11	Base Component Revenue Requirement	\$ 821,464	
12			
13	Rate B Projected Billing Demand	1,011,268	
14			
15	Rate B Base Component (L11/L13)	\$ 0.81	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 7/31/09		
3			Ratio of
4	<u>Rate B</u>	<u>Total PSNH</u>	<u>Rate B to</u>
5			<u>Total PSNH</u>
6	Jul '08	9,345	1,508,181
7	Aug	9,090	1,405,016
8	Sep	1,715	1,365,700
9	Oct	1,368	1,164,590
10	Nov	1,347	1,271,782
11	Dec	10,077	1,416,229
12	Jan '09	1,511	1,360,671
13	Feb	8,871	1,336,775
14	Mar	10,957	1,264,363
15	Apr	9,404	1,139,885
16	May (1)	4,008	1,156,606
17	Jun (1)	9,338	1,536,915
18	Jul(1)	9,345	1,508,181
19	Average	6,644	1,341,146
			0.49542%

(1) Estimated data

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

1	Estimated Base Component Reconciliation, 13 months ending July 31, 2009		
2			
3	Prior Period Transmission Revenue Requirement:		
4			
5	Retail Transmission Operating Costs	\$ 83,342,000	RAB-1, Pages 4 & 5, line 17
6	(Over)/Underrecovery, period ending 6/30/08	\$ 2,006,000	RAB-1, Page 4, line 21
7	Return on monthly (over)/underrecovery, period ending 6/30/09	\$ 77,000	RAB-1, Pages 4 & 5, line 36
8			
9	Prior Period Transmission Revenue Requirement	\$ 85,425,000	
10			
11	Times Base Component Ratio	0.49542%	SRH-2, Page 2
12			
13	Prior Period Base Component Revenue Requirement	\$ 423,213	
14			
15	Base Component Reconciliation for 12-Month Period Ending 6/30/08	\$ (227,971)	SRH-2, Page 5
16			
17	Total Base Component Revenue Requirement	\$ 195,242	
18			
19	Base Component Revenue (actual through 5/09; 6 - 7/09 estimated)	\$ 23,926	
20			
21	Estimated Base Component Reconciliation, 13 months ending 7/31/09	\$ 399,287	

**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 6/30/08		
3			Ratio of
4	<u>Rate B</u>	<u>Total PSNH</u>	<u>Rate B to</u>
5			<u>Total PSNH</u>
6	Jul '07	8,112	1,362,821
7	Aug	5,219	1,670,761
8	Sep	3,996	1,449,552
9	Oct	265	1,117,594
10	Nov	7,536	1,253,042
11	Dec	449	1,408,513
12	Jan '08	7,009	1,423,900
13	Feb	-	1,318,645
14	Mar	1,801	1,217,368
15	Apr	20,340	1,130,794
16	May	8,720	1,190,783
17	Jun	9,338	1,689,904
18			
19	Average	6,065	1,352,806 0.44836%

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, 2008		
2			
3	Prior Period Transmission Revenue Requirement:		
4			
5	Retail Transmission Operating Costs	\$	62,004,000
6	(Over)/Underrecovery, period ending 6/30/07	\$	2,036,000
7	Return on monthly (over)/underrecovery, period ending 6/30/08	\$	<u>(14,000)</u>
8			
9	Prior Period Transmission Revenue Requirement	\$	64,026,000
10			
11	Times Base Component Ratio		<u>0.44836%</u> SRH-2, Page 4
12			
13	Prior Period Base Component Revenue Requirement	\$	287,066
14			
15	Base Component Reconciliation for 12-Month Period Ending 6/30/07	\$	<u>-</u>
16			
17	Total Base Component Revenue Requirement	\$	287,066
18			
19	Actual Base Component Revenue, Period Ending 6/30/08	\$	515,037
20			
21	Actual Base Component Reconciliation, 12 months ending 6/30/08	\$	(227,971)

**PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
TRANSMISSION COST ADJUSTMENT MECHANISM (TCAM) CALCULATION
ALLOCATION OF AUGUST 1, 2009 TRANSMISSION REVENUE TO CLASS
BASED ON BILLING DETERMINANTS FOR THE 2008 TEST YEAR**

1	Retail delivery sales for the 2008 test year			7,970,952	MWH
2	Forecasted TCAM Rate (from Attachment RAB-1, Page 1, Line 17)			\$ 0.01195	per KWH
3	Target transmission revenue based on the test year: Line (1) x Line (2)			\$ 95,253	(000)
4	Special pricing delivery sales included in Line (1)			12,982	MWH
5	Transmission revenue from special pricing at proposed rate level: Line (2) x Line (4)			\$ 155	(000)
6	Rate B Base Component Revenue, based on the test year (from Attachment SRH-4)			\$ 1,002	(000)
7	Transmission revenue to be recovered from all other classes: Line (3) - Line (5) - Line (6)			\$ 94,096	(000)
8					
9					
10					
11		(1)	(2)	(3)	(4)
12					
13		Revenue at	08/01/2009		
14	Standard Tariff Customers	07/01/2008	Revenue	<u>Increase</u>	
15	excluding Rate B Base Component	<u>Rate Level</u>	<u>Target</u>	\$	%
16					
17	Residential Rates R, R-OTOD	\$ 31,883	\$ 40,134	\$ 8,250	25.88%
18					
19	General Service Rates G, G-OTOD	16,903	21,276	4,374	25.88%
20					
21	Primary General Service Rate GV	15,709	19,775	4,065	25.88%
22	GV Rate B - incremental component only	7	9	2	25.88%
23					
24	Large General Service Rate LG	9,669	12,171	2,502	25.88%
25	LG Rate B - incremental component only	277	349	72	25.88%
26					
27	Outdoor Lighting Rates OL, EOL	<u>304</u>	<u>383</u>	<u>79</u>	<u>25.88%</u>
28					
29	Total	\$ 74,753	\$ 94,096	\$ 19,343	25.88%
30					
31					
32	Special Pricing Customers, at Retail Average Rate				
33	Rate LG (12,982 MWH)	122	155	33	27.13%
34					
35					
36	Rate B Base Component				
37	GV Rate B - base component	\$ 1	\$ 26	\$ 25	3950.00%
38	LG Rate B - base component	<u>24</u>	<u>976</u>	<u>952</u>	<u>3950.00%</u>
39	Total	\$ 25	\$ 1,002	\$ 977	3950.00%
40					
41					
42	Total, all customers	\$ 74,900	\$ 95,253	\$ 20,353	27.17%
43					
44					
45	Total Rate B, incremental plus base:				
46	Rate GV	\$ 8	\$ 35	\$ 27	339.80%
47	Rate LG	<u>301</u>	<u>1,325</u>	<u>1,023</u>	<u>339.81%</u>
48	Total	\$ 309	\$ 1,360	\$ 1,050	339.81%

Notes:

- (1) The result of applying rates effective July 1, 2008 to test year billing determinants.
- (2) Special pricing revenue was imputed at the overall average rate. 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 2008 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	31,735	\$ 0.81	\$ 25,705.35	\$ 9,188.11	\$ 0.29	\$ 1.10
10 Rate B customers on Rate LG	<u>1,204,724</u>	\$ 0.81	<u>975,826.44</u>	<u>348,787.03</u>	\$ 0.29	\$ 1.10
13 Total Rate B customers	1,236,459		\$ 1,001,531.79	\$ 357,975.13		

(2) From Attachment SRH-2, Page 1.

(3) Column (1) x Column (2).

(4) From Attachment SRH-3, Column (2), Lines 22 and 25.

(5) Column (4) / Column (1).

(6) Column (2) + Column (5).