NEW HAMPSHIRE ELECTRIC COOPERTIVE, INC.

NHPUC Docket No. DE 10-188

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Program Cost-Effectiveness - 2012 PLAN

			Pr	esei	nt Value							
	Total					-	maar on • voorse	n ≡ concession 939 i s		• • • • • • • • • • • • • • • • • • • •	_	
	Resource						lember	Annual	Lifetime	Winter	Summer	Number of
	Benefit/Cost				lity Costs		Costs	MWh	MWh	kW	kW	Members
	Ratio	Ben	efit (\$000)		(\$000)	(\$000)	Savings	Savings	Savings	Savings	Served
Residential Programs				0.00		000						
ENERGY STAR Homes	4.6	\$	1,307.4	\$	160.9	\$	126.0	59.2	915.1	11.9	23.6	57
Home Performance w/Energy Star	2.5	\$	542.3	\$	180.8	\$	31.9	342.1	5,474.4	115.3	115.3	59
ENERGY STAR Lighting *1	2.3	\$	405.2	\$	108.1	\$	64.3	1,281.2	6,791.2	298.1	79.2	39,467
ENERGY STAR Appliances	1.4	\$	396.0	\$	142.1	\$	140.9	360.3	3,674.5	49.6	44.5	1,914
Home Energy Assistance	2.2	\$	477.1	\$	215.6	\$	-	73.6	883.4	24.8	24.8	61
High Efficiency Heat Pump	<u>2.3</u>	\$	657.4	\$	138.4	\$	148.1	408.6	10,214.7	107.3	6.1	20
Subtotal Residential	2.6	\$	3,785.4	\$	946.0	\$	511.2	2,525.1	27,953.2	607.0	293.5	41,578
Commercial/Industrial Programs												
New Construction / Major Renovation	1.2	\$	480.1	\$	129.4	\$	265.7	386.9	5,803.3	49.3	75.6	14
Large C&I Retrofit	1.0	\$	477.4	\$	148.0	\$	312.0	461.9	6,004.8	56.3	86.2	23
Small C&I Retrofit	1.3	\$	390.6	\$	165.0	\$	128.1	370.4	4,815.5	46.0	74.5	31
Other (Education)	0.0	\$	-	\$	35.6	\$	-	Æ	-	-	15	-
Smart Start	0.0	\$		\$	13.4	\$	-				-	-
Subtotal C&I	1.1		1,348.1		491.4		705.8	1,219.2	16,623.7	151.6	236.3	68
Total		\$	5,133.5	\$	1,437.3	\$:	1,217.1	3,744.3	44,576.8	758.6	529.8	41,646

Note 1: Plan included 9,867 members purchasing a total of 39,467 lighting products (4 per member)

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Program Cost-Effectiveness - 2012 ACTUAL

				Pre	sent Valu	e					
	Total Resource Benefit/Cost	ı	Benefit	Uti	ility Costs	1	Member	Lifetime MWh	Winter kW	Summer kW	Number of Members
	Ratio		(\$000)		(\$000)	Co	osts (\$000)	Savings	Savings	Savings	Served
Residential Programs			***************************************								
ENERGY STAR Homes	3.76	\$	1,276.4	\$	170.0	\$	169.3	1,311.9	14.8	6.1	77
Home Performance with Energy Star	2.75	\$	220.4	\$	56.8	\$	23.3	706.4	15.0	14.9	19
ENERGY STAR Lighting	1.52	\$	365.9	\$	100.6	\$	140.7	5,979.6	225.2	59.9	29,053
ENERGY STAR Appliances	1.49	\$	400.4	\$	135.1	\$	134.0	3,807.9	49.2	46.6	2,256
Home Energy Assistance	1.13	\$	294.5	\$	261.2	\$	\ .	891.8	29.8	29.8	64
High Efficiency Heat Pump	3.70	\$	516.5	\$	49.9	\$	89.5	6,673.1	72.5	1.4	11
Subtotal Residential	2.31	\$	3,074.2	\$	773.7	\$	557.0	19,370.7	406.5	158.7	31,480
Commercial/Industrial Programs											
New Construction / Major Renovation	2.04	\$	583.1	\$	145.1	\$	141.2	7,213.1	63.1	88.2	18
Large C&I Retrofit	1.56	\$	1,009.1	\$	191.6	\$	453.8	14,589.6	210.3	114.2	23
Small C&I Retrofit	1.02	\$	496.2	\$	283.0	\$	203.5	6,029.2	59.4	102.0	67
Other (Education)	0.00	\$	-	\$	18.0	\$	i i) -	÷	-
Smart Start	0.00	\$	=	\$	3.0	\$	=	,	, 	-	2
Subtotal C&I	1.45	\$	2,088.4	\$	640.7	\$	798.6	27,831.9	332.8	304.4	108
Total		\$	5,162.6	\$	1,414.4	\$	1,355.6	47,202.7	739.3	463.1	31,588

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Present Value Benefits - 2012 PLAN

			CAP	ACITY			ENE	RGY		
	Total Benefits (\$000)	Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Non Electric Resource
Residential Programs										
ENERGY STAR Homes	\$1,307	\$24,267	\$0	\$4,979	\$16,381	\$14,014	\$18,001	\$13,190	\$10,913	\$1,205,673
Home Performance w/Energy Star	\$542	\$113,798	\$0	\$24,000	\$78,965	\$94,196	\$122,401	\$49,046	\$59,883	\$0
ENERGY STAR Lighting *1	\$405	\$16,635	\$0	\$5,785	\$19,033	\$105,555	\$136,059	\$55,471	\$66,674	\$0
ENERGY STAR Appliances	\$396	\$18,414	\$0	\$5,953	\$19,586	\$59,366	\$77,453	\$32,447	\$38,104	\$144,663
Home Energy Assistance	\$477	\$14,086	\$0	\$3,962	\$13,036	\$14,612	\$19,069	\$7,676	\$9,288	\$395,405
High Efficiency Heat Pump	\$657	\$11,485	\$0	\$1,871	\$6,155	\$206,492	\$402,307	\$15,790	\$13,252	\$0
Subtotal Residential	\$3,785	\$198,684	\$0	\$46,549	\$153,156	\$494,236	\$775,289	\$173,619	\$198,114	\$1,745,741
Commercial/Industrial Programs										
New Construction / Major Renovation	\$480	\$66,604	\$0	\$14,835	\$48,811	\$98,094	\$91,379	\$91,362	\$69,036	\$0
Large C&I Retrofit	\$477	\$57,742	\$0	\$14,825	\$48,778	\$115,321	\$100,486	\$82,651	\$57,595	\$0
Small C&I Retrofit	\$391	\$49,901	\$0	\$12,812	\$42,154	\$103,461	\$81,063	\$59,766	\$41,434	\$0
Other (Education)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Smart Start	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal C&I	\$1,348	\$174,246	\$0	\$42,472	\$139,743	\$316,876	\$272,928		\$168,065	<u>\$0</u> \$0
577.	waterson.	**********		1 700 0 00		1	• 01.00 CO CO CO	0.000	14	
Total	\$5,133	\$372,930	\$0	\$89,022	\$292,898	\$811,112	\$1,048,217	\$407,398	\$366,179	\$1,745,741

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Present Value Benefits - 2012 ACTUAL

		CAPACITY								
	Total Benefits (\$000)	Summer Generation	Winter Generation	Transmission	Distribution	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Non Electric Resource
Residential Programs		A_25000000000000000000000000000000000000								
ENERGY STAR Homes	\$1,276	\$6,057	\$0	\$1,260	\$4,144	\$23,513	\$33,640	\$10,482	\$12,268	\$1,185,047
Home Performance w/Energy Star	\$220	\$14,685	\$0	\$3,097	\$10,190	\$12,155	\$15,794	\$6,329	\$7,727	\$150,456
ENERGY STAR Lighting *1	\$366	\$16,301	\$0	\$4,990	\$16,417	\$95,250	\$122,853	\$49,848	\$60,218	\$0
ENERGY STAR Appliances	\$400	\$19,849	\$0	\$6,330	\$20,827	\$61,308	\$79,990	\$34,475	\$39,683	\$137,955
Home Energy Assistance	\$295	\$11,944	\$0	\$4,044	\$13,304	\$14,457	\$18,857	\$7,595	\$9,167	\$215,141
High Efficiency Heat Pump	\$517	\$2,681	\$0	\$437	\$1,437	\$137,296	\$271,347	\$3,287	\$3,891	\$96,161
Subtotal Residential	\$3,074	\$71,517	\$0	\$20,158	\$66,319	\$343,979	\$542,481	\$112,016	\$132,954	\$1,784,760
Commercial/Industrial Programs										
New Construction / Major Renovation	\$583	\$77,705	\$0	\$17,308	\$56,947	\$128,025	\$133,312	\$89,222	\$80,543	\$0
Large C&I Retrofit	\$1,009	\$76,538	\$0	\$19,651	\$64,656	\$301,259	\$403,064	\$88,603	\$55,356	\$0
Small C&I Retrofit	\$496	\$65,366	\$0	\$16,930	\$55,704	\$136,419	\$96,819	\$76,242	\$48,737	\$0
Other (Education)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Smart Start	\$0	\$0	\$0	\$0	\$0	<u>\$0</u>	\$0	\$0	\$0	\$0
Subtotal C&I	\$2,088	\$219,609	\$0		\$177,307	\$565,703	\$633,195			\$0
Total	\$5,163	\$291,126	\$0	\$74,047	\$243,626	\$909,682	\$1,175,676	\$366,083	\$317,590	\$1,784,760

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Shareholder Incentive Calculation 2012

	Planned	<u>Actual</u>
Commercial/Industrial Incentive		
1. Benefit/Cost Ratio	1.09	1.39
2. Threshold Benefit / Cost Ratio ¹	1.00	
3. Lifetime kWh Savings	16,623,664	27,831,937
4. Threshold Lifetime kWh Savings (65%) ²	10,805,382	
5. Budget	\$491,355	\$515,923
6. Benefit / Cost Percentage of Budget	4.00%	
7. Lifetime kWh Percentage of Budget	4.00%	
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8. C/I Member Incentive	\$39,308	\$58,963
9. Cap (12%)	\$58,963	
Residential Incentive		
10. Benefit / Cost Ratio	2.47	2.23
11. Threshold Benefit / Cost Ratio ¹	1.00	
12. Lifetime kWh Savings	27,953,151	19,370,729
13. Threshhold Lifetime kWh Savings (65%) ²	18,169,548	
14. Budget	\$945,950	\$773,687
15. Benefit / Cost Percentage of Budget	4.00%	
16. Lifetime kWh Percentage of Budget	4.00%	
17. Residential Incentive	\$75,676	\$49,363
18. Cap (12%)	\$113,514	
19. TOTAL INCENTIVE EARNED		\$108,325
		+===,===

Notes

- 1. Actual Benefit / Cost Ratio for each sector must be greater than or equal to 1.0.
- 2. Actual Lifetime kWh Savings for each sector must be greater than or equal to 65% of projected savings.
- 3. Actual Commercial/Industrial spending was reduced from \$640,715 to \$515,923 for calculating the incenitve in accordance with NHPUC Order No. 25,189.

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Planned Versus Actual Benefit / Cost Ratio by Sector 2012

		<u>Planned</u>		<u>Actual</u>
Commercial & Industrial:	_		_	
Benefits (Value) From Eligible Programs	\$	1,348,109	\$	2,088,405
2. Implementation Expenses	\$	491,355	\$	640,715
Customer Contribution	\$	745,136	\$	857,585
Estimated Member Incentive	\$	39,308	\$	58,962.60
5. Total Costs Including Member Incentive	\$	1,236,491	22.5	1,498,300
3. Total costs including Member incentive	Ą	1,230,431	Ą	1,438,300
5. Benefit/Cost Ratio - C&I Sector		1.09		1.39
Residential:				
6. Benefits (Value) From Eligible Programs	\$	3,785,389	\$	3,074,186
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7. Implementation Expenses	\$	945,950	\$	773,687
8. Customer Contribution	\$	586,906	\$	606,314
Estimated Member Incentive	\$	75,676	\$	49,363
5. Total Costs Including Member Incentive	\$	1,532,856	\$	1,380,001
10. Benefit/Cost Ratio - Residential Sector		2.47		2.23

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Actual Lifetime Energy Savings by Sector and Program 2012

	Lifetime kWh Savings			
	<u>Planned</u>	<u>Actual</u>		
Commercial & Industrial:				
New Equipment & Construction	5,803,325	7,213,135		
Large C&I Retrofit	6,004,825	14,589,612		
Small Business Energy Solutions	4,815,514	6,029,190		
Education	0	0		
Other	<u>o</u>	<u>o</u>		
Total Commercial & Industrial Included for Incentive Calculation	16,623,664	27,831,937		
Residential:				
Home Energy Assistance Program	883,391	891,810		
Home Performance with Energy Star	5,474,363	706,402		
ENERGY STAR Homes Program	915,068	1,311,908		
ENERGY STAR Appliance Program	3,674,464	3,807,913		
ENERGY STAR Lighting Program	6,791,203	5,979,622		
High Efficiency Heat Pump Program	10,214,662	6,673,074		
Total Residential Included for Incentive Calculation	27,953,151	19,370,729		

2012 End of Year Reconciliation

		2012
Carry Forward Balance	\$	569,440
Funding:		
System Benefit Charge	\$	1,351,510
Forward Capacity Market	\$	54,015
Interest		24,804
Total Funding for 2011 Energy Efficiency Programs	\$	1,430,328
Expenses: Energy Efficiency Expenditures FCM Expenses Member Incentive - 2011 ¹ Member Incentive - 2012 ²	\$ \$ \$	1,414,067 14,205 101,926 108,325
Total 2011 Program Expenses	\$	1,638,522
Carry Forward Balance	\$	361,246

^{2. 2011} member incentive accrued in 2011 and booked in 2012

^{3. 2012} member incentive accrued in 2012 and booked in 2013

add FCM revenue, subtract FCM expenses

\$361,108.46