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Request IR-1:

Reference: ENSC Evidence, page 16, lines 25-26. “Both of these changes are incremental to the electrical load forecast in the 2009 IRP Update.”

Please provide a copy of the load forecast used in the 2009 IRP Update, as well as NSPI’s actual Net System Requirements in 2009 and 2010, and NSPI’s current forecast Net System Requirements for 2011.

Response IR-1:

a) The electrical load forecast used for the 2009 IRP update is provided below.

Year	Cumulative Demand			System Peak Incl DSM
	Base Case Load	Savings	DSM	
	Forecast	Profile	DSM	
	Total Peak	Peak	Total Peak	
	MW	MW	MW	
2008	2192	2.1		2,190
2009	2219	8.9		2,210
2010	2219	25.8		2,193
2011	2230	56.7		2,173
2012	2249	100.7		2,148
2013	2266	164.2		2,102
2014	2284	221.5		2,062
2015	2300	278.9		2,021
2016	2313	336.3		1,977
2017	2327	392.1		1,935
2018	2343	446.5		1,896
2019	2359	499.5		1,859
2020	2372	551.3		1,821
2021	2385	602.0		1,783
2022	2399	651.6		1,748
2023	2412	700.2		1,712
2024	2425	747.9		1,677
2025	2436	794.8		1,641
2026	2448	841.0		1,607
2027	2460	886.5		1,573
2028	2471	931.3		1,540
2029	2482	975.6		1,507
2030	2494	1019.4		1,474
2031	2505	1062.8		1,442
2032	2516	1105.7		1,410

Year	Base Case	Cumulative	System Load Incl
	Load Forecast	Energy	
		Profile	
		DSM	
	Energy	Energy	DSM
	GWh	GWh	GWh
2008	12,539	16.1	12,523
2009	12,478	66.3	12,411
2010	12,547	149.0	12,398
2011	12,615	294.8	12,320
2012	12,725	499.6	12,225
2013	12,821	804.9	12,016
2014	12,918	1080.7	11,837
2015	13,008	1356.5	11,651
2016	13,082	1632.3	11,449
2017	13,156	1900.7	11,256
2018	13,241	2162.1	11,079
2019	13,326	2417.1	10,909
2020	13,400	2666.0	10,734
2021	13,468	2909.4	10,559
2022	13,545	3147.5	10,398
2023	13,617	3380.8	10,236
2024	13,686	3609.7	10,077
2025	13,748	3834.5	9,913
2026	13,814	4055.4	9,759
2027	13,879	4272.8	9,607
2028	13,944	4487.1	9,457
2029	14,008	4698.3	9,310
2030	14,072	4906.9	9,165
2031	14,136	5113.1	9,023
2032	14,199	5317.0	8,882

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b) The table below provides the Net System Requirement for 2009, 2010 and 2011.

Year	Net System Requirement (GWh)
2009 (actual)	12,073.4
2010 (actual)	12,157.7
2011 (forecast)	12,412.0

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Request IR-2:

Reference: ENSC Evidence, page 17, lines 13-14. “ENSC recognizes the significant savings contributions that could be realized from NSPI initiatives such as conversion of street lights to Light-Emitting Diode (LED)...”

Please provide ENSC’s best available estimate of the potential GWh and MW savings that may be available if NSPI converts existing street lights to LEDs. (For purposes of this response, a simple high-level estimate of the available potential is sufficient.)

Response IR-2:

ENSC estimates potential savings of approximately 40 GWh and 10 MW.

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Request IR-3:

Reference: ENSC Evidence, page 17, lines 21-30. 19

- a) **Please identify other jurisdictions in which DSM screening tests are applied at the program level and not at the measure level.**
- b) **Please provide the “DSM Technical Tables” in the same form as Attachment 1 to Appendix A of NSPI’s Evidence for the 2011 Plan, dated February 26, 2010.**
- c) **For each proposed measure in the 2012 Plan that does not meet the TRC test, please provide an explanation of the “strategic or long-term benefits” that ENSC believes will result from the inclusion of that measure in the 2012 Plan.**
- d) **Please specify the avoided cost of energy and capacity that were used as part of the TRC test for the 2012 programs. If these figures are different than the figures used by NSPI to calculate the TRC test for the 2011 programs, please explain why.**

Response IR-3:

- a) The majority of the regions of which ENSC is aware do not require a positive TRC at the measure level. Where TRC is the primary test, it is sometimes used for information purposes, and sometimes as a requirement. When it is used as a formal requirement, it is typically applied at the program level (with exceptions), and sometimes only at the plan level. In some cases, measure-level TRC is provided for information purposes.

Based on a 2008 survey conducted by Dunskey Energy Consulting of eight Canadian and U.S. non-utility DSM administrators, none required positive TRC at the measure level, although one (Oregon) held it as a formal objective. The others (Maine, New York (2),

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New Brunswick, Ontario, Vermont and Wisconsin) focused either on the program or plan levels. Those that focused on the program level always allowed for exceptions.

Among utility administrators, a variety of approaches are used. For example, Hydro-Quebec, Manitoba Hydro and BC Hydro all focus on cost-effectiveness at the program level. However, all three allow for exceptions (e.g. low-income programs) and BC Hydro notably includes some non-energy benefits in its analyses.

b) Please refer to Attachment 1.

The C&I Measure Characterizations provided in Tables 12 through 16 show a measure only once, even if the measure applies to more than one C&I program. Such a measure may vary by the last five columns, due to a difference in:

- Present Value of Avoided Cost Benefits
- Program Administrative Costs
- Total Resource Cost Test Ratio

and, as a result, may differ in terms of:

- \$/first year annual kWh energy savings
- Lifetime Levelized \$/kWh savings

All measure characterizations are provided in Synapse IR-1, Confidential Attachment 1, filed electronically.

c) Please refer to Avon IR-3a.

d) Please refer to Multeese IR-5a.

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DSM Technical Tables**Residential**

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Table 1: Residential--Efficient Products--Program Results by Measure

Measure Name --savings at generator --2012 \$	For Plan Year 2012					
	A Peak Demand Savings (kW)	B First Year Energy Savings (MWh)	C Total Avoided Cost Benefits (\$)	D TRC Costs (\$)	E = C - D Total Net Resource Benefits (\$)	F = C / D TRC (Ratio)
CFL: Screw-In (<=15W), direct install	13	125	\$75,560	\$23,656	\$51,904	3.2
CFL: Screw-In (16-24W), direct install	10	96	\$57,785	\$17,264	\$40,521	3.3
CFL: Screw-In (>=25W), direct install	49	491	\$296,841	\$94,547	\$202,294	3.1
CFL: Torchiere	58	442	\$360,343	\$171,229	\$189,114	2.1
LED Holiday Lights (300 bulb string)	44	136	\$207,188	\$125,855	\$81,333	1.6
Convection Oven	87	702	\$1,136,555	\$899,709	\$236,847	1.3
Gas Range (Fuel Switch)	155	1,254	\$1,944,251	\$1,700,278	\$243,973	1.1
Refrigerator Recycling - removal of secondary refrigerator	980	6,147	\$2,698,827	\$1,167,449	\$1,531,378	2.3
Freezer Recycling - removal of secondary freezer	269	1,994	\$713,019	\$381,698	\$331,321	1.9
Clothes Dryer - Gas Fuel Switch	336	2,730	\$2,732,987	\$1,712,127	\$1,020,860	1.6
Low Flow Showerhead (base 2.0 GPM, efficient 1.25 GPM)	475	2,568	\$2,375,671	\$504,112	\$1,871,559	4.7
Faucet Aerator	160	713	\$665,765	\$166,591	\$499,174	4.0
Program Total	2,637	17,397	\$13,264,791	\$6,964,515	\$6,300,277	1.9

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Table 2: Residential--Existing Houses--Program Results by Measure

Measure Name --savings at generator --2012 \$	For Plan Year 2012					
	A Peak Demand Savings (kW)	B First Year Energy Savings (MWh)	C Total Avoided Cost Benefits (\$)	D TRC Costs (\$)	E = C - D Total Net Resource Benefits (\$)	F = C / D TRC (Ratio)
Non-Low Income						
Hot Water Heater, electric high efficiency heater	96	430	\$522,148	\$262,740	\$259,408	2.0
Hot Water Heater Tank Wrap	31	136	\$82,254	\$86,074	-\$3,820	1.0
Hot Water Heater Pipe Insulation	20	90	\$100,816	\$42,031	\$58,785	2.4
Heat Pump Water Heater	19	105	\$134,651	\$69,969	\$64,682	1.9
Solar Hot Water Heater, replacing electric water heater	0	41	\$52,379	\$141,165	-\$88,786	0.4
Tankless Electric Water Heater	7	40	\$63,240	\$71,146	-\$7,906	0.9
Drain Water Heat Recovery (30-42% efficient)	0	5	\$8,672	\$8,170	\$502	1.1
Drain Water Heat Recovery (42% efficient or higher)	0	56	\$89,187	\$58,764	\$30,422	1.5
Energy Star Windows (Efficient measure U=0.27, base measure U=0.37)	89	301	\$550,088	\$564,761	-\$14,673	1.0
Basement and Wall Insulation	92	312	\$571,290	\$470,253	\$101,037	1.2
Add R9 to Base R12R13-R30	373	1,453	\$2,610,274	\$1,511,159	\$1,099,115	1.7
Air Sealing (30% reduction)	112	436	\$783,271	\$404,251	\$379,020	1.9
Energy Star Doors	85	332	\$596,013	\$418,779	\$177,234	1.4
Ductless, Mini-Split Heat Pump, 10.0 HSPF, 14.5 SEER (Heating savings only)	121	411	\$582,999	\$722,160	-\$139,160	0.8
Air Source HP w/o electric resistance backup	121	470	\$658,282	\$753,782	-\$95,499	0.9
Programmable Thermostat	27	92	\$87,028	\$54,926	\$32,102	1.6
SF Integrated Condensing Natural Gas Water Heater/Boiler (0.9 EF, 90% AFUE)	54	143	\$271,230	\$93,383	\$177,847	2.9
SF CEE Tier 3 Natural Gas Furnace (AFUE=94%)	63	190	\$352,881	\$74,141	\$278,740	4.8
SF Energy Star Natural Gas Boiler (AFUE=85%)	64	191	\$420,488	\$112,422	\$308,066	3.7
SF Condensing Natural Gas Boiler with Controls (AFUE=95%)	64	190	\$420,194	\$116,872	\$303,322	3.6
SF Energy Star Oil Furnace (AFUE=85%)	141	427	\$793,982	\$192,091	\$601,891	4.1
SF High Efficiency Cord Wood Stove (EF=0.75)	156	585	\$1,056,777	\$109,732	\$947,045	9.6
SF Cord Wood fired Furnace (60% efficiency)	235	712	\$1,323,304	\$292,752	\$1,030,552	4.5
SF High Efficiency Wood fired Boiler (Efficiency = 85% low heating value)	239	697	\$1,302,578	\$455,107	\$847,471	2.9
SF High Efficiency Wood Pellet Stove (EF=0.80)	94	350	\$491,354	\$65,900	\$425,454	7.5
SF Energy Star Natural Gas Condensing Water Heater (0.8 EF)	17	122	\$143,608	\$50,325	\$93,282	2.9
SF Energy Star Natural Gas On-Demand, Whole Home Tankless Water Heater (0.95 EF)	17	121	\$206,170	\$60,853	\$145,317	3.4
SF Energy Star Solar Water Heating (1.2 EF see Source Note 10) – drain back system/with natural gas backup	54	395	\$670,053	\$304,377	\$365,676	2.2
SF Energy Star Solar Water Heating (1.2 EF see Source Note 10) – drain back system/with Oil backup	54	395	\$670,053	\$371,280	\$298,773	1.8
MF Condensing Natural Gas Boiler with Controls (AFUE=95%)	717	1,040	\$2,706,948	\$792,236	\$1,914,712	3.4

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Table 2: Residential--Existing Houses--Program Results by Measure (continued)

Measure Name --savings at generator --2012 \$	For Plan Year 2012					
	A Peak Demand Savings (kW)	B First Year Energy Savings (MWh)	C Total Avoided Cost Benefits (\$)	D TRC Costs (\$)	E = C - D Total Net Resource Benefits (\$)	F = C / D TRC (Ratio)
Low Income						
CFL: Screw-In (<=15W), direct install	2	15	\$9,111	\$15,404	-\$6,293	0.6
CFL: Screw-In (16-24W), direct install	1	12	\$6,968	\$11,681	-\$4,713	0.6
CFL: Screw-In (>=25W), direct install	6	59	\$35,793	\$60,710	-\$24,917	0.6
CFL: Torchiere	6	43	\$34,982	\$52,351	-\$17,368	0.7
LED Holiday Lights (300 bulb string)	2	6	\$8,879	\$10,252	-\$1,374	0.9
Energy Star Refrigerator	13	168	\$219,975	\$395,710	-\$175,734	0.6
Refrigerator Recycling - removal of secondary refrigerator	22	277	\$121,815	\$286,431	-\$164,616	0.4
Freezer Recycling - removal of secondary freezer	15	73	\$26,025	\$76,712	-\$50,686	0.3
Energy Star Freezer	6	74	\$96,665	\$116,987	-\$20,322	0.8
Hot Water Heater Tank Wrap	31	140	\$84,742	\$161,389	-\$76,646	0.5
Hot Water Heater Pipe Insulation	7	31	\$34,483	\$30,296	\$4,188	1.1
Low Flow Showerhead (base 2.0 GPM, efficient 1.25 GPM)	14	63	\$58,860	\$73,304	-\$14,444	0.8
Faucet Aerator	10	47	\$43,541	\$49,759	-\$6,218	0.9
Drain Water Heat Recovery (30-42% efficient)	0	2	\$2,868	\$3,641	-\$773	0.8
Drain Water Heat Recovery (42% efficient or higher)	0	19	\$29,495	\$29,087	\$408	1.0
Basement and Wall Insulation	30	103	\$188,807	\$208,990	-\$20,183	0.9
Add R9 to Base R12R13- R30	123	480	\$862,622	\$748,565	\$114,057	1.2
Air Sealing (30% reduction)	37	144	\$258,865	\$208,375	\$50,489	1.2
Energy Star Doors	28	110	\$196,978	\$195,301	\$1,677	1.0
Programmable Thermostat	6	54	\$48,944	\$56,228	-\$7,284	0.9
ENERGY STAR® Dehumidifier	22	36	\$57,420	\$51,813	\$5,607	1.1
Power Bar	5	37	\$16,139	\$41,906	-\$25,767	0.4
SF Integrated Condensing Natural Gas Water Heater/Boiler (0.9 EF, 90% AFUE)	18	47	\$89,687	\$30,879	\$58,808	2.9
SF CEE Tier 3 Natural Gas Furnace (AFUE=94%)	21	63	\$116,687	\$24,516	\$92,170	4.8
SF Energy Star Natural Gas Boiler (AFUE=85%)	21	63	\$139,042	\$37,174	\$101,868	3.7
SF Condensing Natural Gas Boiler with Controls (AFUE=95%)	21	63	\$138,945	\$38,646	\$100,299	3.6
SF Energy Star Oil Furnace (AFUE=85%)	47	141	\$262,545	\$63,518	\$199,027	4.1
SF High Efficiency Cord Wood Stove (EF=0.75)	52	194	\$349,443	\$36,285	\$313,158	9.6
SF Cord Wood fired Furnace (60% efficiency)	78	236	\$437,575	\$96,804	\$340,771	4.5
SF High Efficiency Wood fired Boiler (Efficiency = 85% low heating value)	79	230	\$430,722	\$150,490	\$280,232	2.9
SF High Efficiency Wood Pellet Stove (EF=0.80)	31	116	\$162,475	\$21,791	\$140,684	7.5
SF Energy Star Natural Gas Condensing Water Heater (0.8 EF)	6	40	\$47,487	\$16,641	\$30,846	2.9
SF Energy Star Natural Gas On-Demand, Whole Home Tankless Water Heater (0.95 EF)	6	40	\$68,174	\$20,122	\$48,052	3.4
SF Energy Star Solar Water Heating (1.2 EF see Source Note 10) – drain back system/with natural gas backup	18	131	\$221,565	\$100,648	\$120,918	2.2
SF Energy Star Solar Water Heating (1.2 EF see Source Note 10) – drain back system/with Oil backup	18	131	\$221,565	\$122,771	\$98,795	1.8
MF Condensing Natural Gas Boiler with Controls (AFUE=95%)	237	344	\$895,103	\$261,968	\$633,135	3.4
Program Total	4,202	14,097	\$24,347,206	\$12,638,745	\$11,708,461	1.9

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Table 3: Residential--New Houses--Program Results by Measure

Measure Name --savings at generator --2012 \$	For Plan Year 2012					
	A Peak Demand Savings (kW)	B First Year Energy Savings (MWh)	C Total Avoided Cost Benefits (\$)	D TRC Costs (\$)	E = C - D Total Net Resource Benefits (\$)	F = C / D TRC (Ratio)
EnerGuide83 Homes	4	14	\$25,020	\$19,243	\$5,777	1.3
EnerGuide84 Homes	11	40	\$72,280	\$53,090	\$19,190	1.4
EnerGuide85 Homes	14	54	\$97,300	\$69,446	\$27,854	1.4
EnerGuide86 Homes	28	104	\$187,650	\$131,332	\$56,318	1.4
EnerGuide87 Homes	52	194	\$350,281	\$241,689	\$108,592	1.4
EnerGuide88 Homes	426	1,597	\$2,882,866	\$1,967,747	\$915,119	1.5
EnerGuide89 Homes	948	3,555	\$6,417,643	\$4,343,436	\$2,074,207	1.5
Program Total	1,482	5,558	\$10,033,041	6,825,983	\$3,207,057.29	1.5

Table 4: Residential--Home Energy Report--Program Results by Measure

Measure Name --savings at generator --2012 \$	For Plan Year 2012					
	A Peak Demand Savings (kW)	B First Year Energy Savings (MWh)	C Total Avoided Cost Benefits (\$)	D TRC Costs (\$)	E = C - D Total Net Resource Benefits (\$)	F = C / D TRC (Ratio)
Home Energy Report	3.0	12,987	\$1,349,701	\$901,875	\$447,826	1.5
Program Total	3.0	12,987	\$1,349,701	\$901,875	\$447,826	1.5

NON-CONFIDENTIAL**Table 5: Residential--Efficient Products--Measure Characterizations**

Measure Name --savings at generator --2012 \$	Measure Life (Years)	Peak Demand Savings per Unit (Watts)	Annual Energy Savings per Unit (kWh)	One-Time Incremental Measure Cost (\$)	Present Value of Avoided Cost Benefits (\$)	Program Admin. Cost (\$)	Total Resource Benefit-Cost (Ratio)	Program \$/first year annual kWh Savings	Lifetime Levelized Program \$/kWh Savings
CFL: Screw-In (<=15W), direct install	7	4	38	\$3	\$27	\$4	3.2	\$0.15	\$0.028
CFL: Screw-In (16-24W), direct install	7	5	45	\$3	\$32	\$5	3.3	\$0.14	\$0.027
CFL: Screw-In (>=25W), direct install	7	6	57	\$4	\$41	\$7	3.1	\$0.15	\$0.028
CFL: Torchiere	9	32	241	\$65	\$218	\$28	2.1	\$0.23	\$0.035
LED Holiday Lights (300 bulb string)	16	6	19	\$15	\$28	\$2	1.6	\$0.44	\$0.046
Convection Oven	19	11	86	\$100	\$126	\$10	1.3	\$0.58	\$0.056
Gas Range (Fuel Switch)	18	80	646	\$800	\$918	\$75	1.1	\$0.61	\$0.060
Refrigerator Recycling - removal of secondary refrigerator	5	196	1,229	\$90	\$721	\$143	2.3	\$0.15	\$0.035
Freezer Recycling - removal of secondary freezer	4	163	1,205	\$90	\$575	\$141	1.9	\$0.15	\$0.043
Clothes Dryer - Gas Fuel Switch	11	84	683	\$349	\$721	\$80	1.6	\$1.41	\$0.042
Low Flow Showerhead (base 2.0 GPM, efficient 1.25 GPM)	10	78	419	\$33	\$429	\$49	4.7	\$0.32	\$0.021
Faucet Aerator	10	19	86	\$10	\$89	\$10	4.0	\$0.53	\$0.023

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Table 6: Residential--Existing Houses--Measure Characterizations

Measure Name --savings at generator --2012 \$	Measure Life (Years)	Peak Demand Savings per	Annual Energy Savings per	One-Time Incremental Measure Cost	Present Value of Avoided Cost	Program Admin. Cost (\$)	Total Resource Benefit- Cost	Program \$/first year annual kWh	Lifetime Levelized Program \$/kWh
Non-Low-Income									
Hot Water Heater, electric high efficiency heater	13	64	286	\$51	\$356	\$123	2.0	\$0.53	\$0.063
Hot Water Heater Tank Wrap	7	93	415	\$84	\$306	\$179	1.0	\$0.54	\$0.100
Hot Water Heater Pipe Insulation	12	34	151	\$6	\$165	\$65	2.4	\$0.45	\$0.056
Heat Pump Water Heater	14	552	2,982	\$700	\$3,507	\$1,285	1.9	\$0.56	\$0.063
Solar Hot Water Heater, replacing electric water heater	15	11	2,346	\$7,000	\$2,595	\$1,011	0.4	\$2.07	\$0.225
Tankless Electric Water Heater	18	204	1,102	\$1,500	\$1,493	\$475	0.9	\$1.18	\$0.116
Drain Water Heat Recovery (30-42% efficient)	20	3	586	\$623	\$756	\$253	1.1	\$1.02	\$0.094
Drain Water Heat Recovery (42% efficient or higher)	20	6	1,205	\$740	\$1,555	\$520	1.5	\$0.77	\$0.071
Energy Star Windows (Efficient measure U=0.27, base measure U=0.37)	20	204	691	\$1,000	\$1,047	\$298	1.0	\$1.02	\$0.094
Basement and Wall Insulation	20	1,148	3,888	\$4,178	\$5,889	\$1,676	1.2	\$1.02	\$0.095
Add R9 to Base R12R13-R30	20	928	3,616	\$2,203	\$5,369	\$1,559	1.7	\$0.77	\$0.071
Air Sealing (30% reduction)	20	209	814	\$404	\$1,209	\$351	1.9	\$0.70	\$0.065
Energy Star Doors	20	159	619	\$515	\$920	\$267	1.4	\$0.89	\$0.083
Ductless, Mini-Split Heat Pump, 10.0 HSPF, 14.5 SEER (Heating savings only)	15	1,779	6,027	\$8,000	\$7,826	\$2,598	0.8	\$1.16	\$0.126
Air Source HP w/o electric resistance backup	15	4,272	16,649	\$19,500	\$21,193	\$7,176	0.9	\$1.08	\$0.117
Programmable Thermostat	10	88	297	\$50	\$297	\$128	1.6	\$0.52	\$0.074
SF Integrated Condensing Natural Gas Water Heater/Boiler (0.9 EF, 90% AFUE)	20	11,497	30,322	\$18,312	\$47,893	\$1,516	2.9	\$0.38	\$0.036
SF CEE Tier 3 Natural Gas Furnace (AFUE=94%)	20	9,964	30,251	\$10,295	\$46,618	\$1,513	4.8	\$0.24	\$0.022
SF Energy Star Natural Gas Boiler (AFUE=85%)	25	10,167	30,349	\$16,386	\$51,713	\$1,517	3.7	\$0.35	\$0.029
SF Condensing Natural Gas Boiler with Controls (AFUE=95%)	25	10,167	30,323	\$17,096	\$51,677	\$1,516	3.6	\$0.36	\$0.030
SF Energy Star Oil Furnace (AFUE=85%)	20	9,964	30,251	\$12,083	\$46,618	\$1,513	4.1	\$0.27	\$0.025
SF High Efficiency Cord Wood Stove (EF=0.75)	20	6,629	24,861	\$3,417	\$37,106	\$1,243	9.6	\$0.13	\$0.012
SF Cord Wood fired Furnace (60% efficiency)	20	9,964	30,251	\$10,920	\$46,618	\$1,513	4.5	\$0.25	\$0.023
SF High Efficiency Wood fired Boiler (Efficiency = 85% low heating value)	20	10,167	29,587	\$17,848	\$45,920	\$1,479	2.9	\$0.38	\$0.036
SF High Efficiency Wood Pellet Stove (EF=0.80)	15	6,629	24,750	\$3,427	\$31,689	\$1,237	7.5	\$0.13	\$0.014
SF Energy Star Natural Gas Condensing Water Heater (0.8 EF)	13	835	5,978	\$2,173	\$6,550	\$299	2.9	\$0.25	\$0.030
SF Energy Star Natural Gas On-Demand, Whole Home Tankless Water Heater (0.95 EF)	20	823	5,965	\$2,690	\$8,310	\$298	3.4	\$0.30	\$0.028
SF Energy Star Solar Water Heating (1.2 EF see Source Note 10) – drain back system/with natural gas backup	20	823	5,965	\$4,301	\$8,310	\$298	2.2	\$0.45	\$0.042
MF Condensing Natural Gas Boiler with Controls (AFUE=95%)	25	52,853	76,583	\$54,534	\$153,667	\$3,829	3.4	\$0.44	\$0.037

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Table 6: Residential--Existing Houses--Measure Characterizations (continued)

Measure Name --savings at generator --2012 \$	Measure Life (Years)	Peak Demand Savings per	Annual Energy Savings per	One-Time Incremental Measure Cost	Present Value of Avoided Cost	Program Admin. Cost (\$)	Total Resource Benefit- Cost	Program \$/first year annual kWh	Lifetime Levelized Program \$/kWh
Low Income									
CFL: Screw-In (<=15W), direct install	7	4	38	\$3	\$31	\$36	0.6	\$1.02	\$0.198
CFL: Screw-In (16-24W), direct install	7	5	45	\$3	\$37	\$43	0.6	\$1.01	\$0.196
CFL: Screw-In (>=25W), direct install	7	6	57	\$4	\$47	\$54	0.6	\$1.03	\$0.198
CFL: Torchiere	9	32	241	\$65	\$251	\$229	0.7	\$1.22	\$0.189
LED Holiday Lights (300 bulb string)	16	6	19	\$15	\$32	\$18	0.9	\$1.76	\$0.184
Energy Star Refrigerator	15	7	92	\$129	\$133	\$87	0.6	\$2.35	\$0.255
Refrigerator Recycling - removal of secondary refrigerator	5	87	1,093	\$90	\$706	\$1,038	0.4	\$1.03	\$0.250
Freezer Recycling - removal of secondary freezer	4	178	867	\$90	\$496	\$824	0.3	\$1.05	\$0.310
Energy Star Freezer	15	5	63	\$40	\$91	\$60	0.8	\$1.58	\$0.171
Hot Water Heater Tank Wrap	7	93	415	\$84	\$382	\$394	0.5	\$1.15	\$0.212
Hot Water Heater Pipe Insulation	12	34	151	\$6	\$206	\$144	1.1	\$0.99	\$0.123
Low Flow Showerhead (base 2.0 GPM, efficient 1.25 GPM)	10	35	157	\$33	\$189	\$149	0.8	\$1.16	\$0.164
Faucet Aerator	10	19	86	\$10	\$103	\$81	0.9	\$1.07	\$0.151
Drain Water Heat Recovery (30-42% efficient)	20	3	586	\$623	\$945	\$557	0.8	\$2.01	\$0.187
Drain Water Heat Recovery (42% efficient or higher)	20	6	1,205	\$740	\$1,944	\$1,145	1.0	\$1.56	\$0.145
Basement and Wall Insulation	20	1,148	3,888	\$4,178	\$7,361	\$3,694	0.9	\$2.02	\$0.188
Add R9 to Base R12R13-R30	20	928	3,616	\$2,203	\$6,712	\$3,435	1.2	\$1.56	\$0.145
Air Sealing (30% reduction)	20	209	814	\$404	\$1,511	\$773	1.2	\$1.45	\$0.135
Energy Star Doors	20	159	619	\$515	\$1,150	\$588	1.0	\$1.78	\$0.166
Programmable Thermostat	10	60	528	\$50	\$598	\$502	0.9	\$1.04	\$0.147
ENERGY STAR® Dehumidifier	15	256	413	\$200	\$781	\$392	1.1	\$1.43	\$0.156
Power Bar	5	11	79	\$15	\$53	\$75	0.4	\$1.14	\$0.277
SF Integrated Condensing Natural Gas Water Heater/Boiler (0.9 EF, 90% AFUE)	20	11,497	30,322	\$18,312	\$59,866	\$1,516	2.9	\$0.65	\$0.061
SF CEE Tier 3 Natural Gas Furnace (AFUE=94%)	20	9,964	30,251	\$10,295	\$58,272	\$1,513	4.8	\$0.39	\$0.036
SF Energy Star Natural Gas Boiler (AFUE=85%)	25	10,167	30,349	\$16,386	\$64,641	\$1,517	3.7	\$0.59	\$0.050
SF Condensing Natural Gas Boiler with Controls (AFUE=95%)	25	10,167	30,323	\$17,096	\$64,596	\$1,516	3.6	\$0.61	\$0.052
SF Energy Star Oil Furnace (AFUE=85%)	20	9,964	30,251	\$12,083	\$58,272	\$1,513	4.1	\$0.45	\$0.042
SF High Efficiency Cord Wood Stove (EF=0.75)	20	6,629	24,861	\$3,417	\$46,382	\$1,243	9.6	\$0.19	\$0.017
SF Cord Wood fired Furnace (60% efficiency)	20	9,964	30,251	\$10,920	\$58,272	\$1,513	4.5	\$0.41	\$0.038
SF High Efficiency Wood fired Boiler (Efficiency = 85% low heating value)	20	10,167	29,587	\$17,848	\$57,400	\$1,479	2.9	\$0.65	\$0.061
SF High Efficiency Wood Pellet Stove (EF=0.80)	15	6,629	24,750	\$3,427	\$39,612	\$1,237	7.5	\$0.19	\$0.020
SF Energy Star Natural Gas Condensing Water Heater (0.8 EF)	13	835	5,978	\$2,173	\$8,187	\$299	2.9	\$0.41	\$0.049
SF Energy Star Natural Gas On-Demand, Whole Home Tankless Water Heater (0.95 EF)	20	823	5,965	\$2,690	\$10,388	\$298	3.4	\$0.50	\$0.047
SF Energy Star Solar Water Heating (1.2 EF see Source Note 10) – drain back system/with natural gas backup	20	823	5,965	\$4,301	\$10,388	\$298	2.2	\$0.77	\$0.072
SF Energy Star Solar Water Heating (1.2 EF see Source Note 10) – drain back system/with Oil backup	20	823	5,965	\$5,312	\$10,388	\$298	1.8	\$0.94	\$0.087
MF Condensing Natural Gas Boiler with Controls (AFUE=95%)	25	52,853	76,583	\$54,534	\$192,084	\$3,829	3.4	\$0.76	\$0.064

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Table 7: Residential--New Houses--Measure Characterizations

Measure Name --savings at generator --2012 \$	Measure Life (Years)	Peak Demand Savings per Unit (Watts)	Annual Energy Savings per Unit (kWh)	One-Time Incremental Measure Cost (\$)	Present Value of Avoided Cost Benefits (\$)	Program Admin. Cost (\$)	Total Resource Benefit- Cost (Ratio)	\$/first year annual kWh Savings	Lifetime Levelized \$/kWh Savings
EnerGuide83 Homes	20	800	3,000	\$2,665	\$3,358	\$1,500	1.3	\$1.39	\$0.13
EnerGuide84 Homes	20	1067	4,000	\$3,554	\$4,851	\$1,750	1.4	\$1.33	\$0.12
EnerGuide85 Homes	20	1333	5,000	\$4,442	\$6,530	\$2,000	1.4	\$1.29	\$0.12
EnerGuide86 Homes	20	1600	6,000	\$5,331	\$8,396	\$2,250	1.4	\$1.26	\$0.12
EnerGuide87 Homes	20	1867	7,000	\$6,219	\$10,448	\$2,500	1.4	\$1.25	\$0.12
EnerGuide88 Homes	20	2133	8,000	\$7,107	\$12,687	\$2,750	1.5	\$1.23	\$0.11
EnerGuide89 Homes	20	2400	9,000	\$7,996	\$15,112	\$3,000	1.5	\$1.22	\$0.11

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Table 8: Residential--Home Energy Report--Measure Characterizations

Measure Name --savings at generator --2012 \$	Measure Life (Years)	Peak Demand Savings per Unit (Watts)	Annual Energy Savings per Unit (kWh)	One-Time Incremental Measure Cost (\$)	Present Value of Avoided Cost Benefits (\$)	Program Admin. Cost (\$)	Total Resource Benefit- Cost (Ratio)	\$/first year annual kWh Savings	Lifetime Levelized \$/kWh Savings
Home Energy Report	1	47	202	\$0.00	\$32	\$14	1.5	\$0.07	\$2.30

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Table 9: Commercial--Prescriptive Retrofit (includes ROB and RET decisions)-- Program Results by Measure

Measure Name --savings at generator --2012 \$	For Plan Year 2012					
	A	B	C	D	E = C - D	F = C / D
	Peak Demand Savings (kW)	First Year Energy Savings (MWh)	Total Avoided Cost Benefits (\$)	TRC Costs (\$)	Total Net Resource Benefits (\$)	TRC (Ratio)
100W MH HID fixture- indoor	8	41	\$55,496	\$12,969	\$42,527	4.3
100W MH HID fixture- outdoor	18	109	\$146,621	\$43,040	\$103,581	3.4
175W PS MH HID fixture- indoor	30	347	\$453,871	\$58,449	\$395,421	7.8
175W PS MH HID fixture- outdoor	91	533	\$721,654	\$100,509	\$621,145	7.2
250W PS MH HID fixture- indoor	25	268	\$352,358	\$55,282	\$297,076	6.4
250W PS MH HID fixture- outdoor	75	454	\$613,512	\$107,908	\$505,604	5.7
50W MH HID fixture- outdoor	8	58	\$77,500	\$31,302	\$46,198	2.5
75W MH HID fixture- outdoor	3	19	\$26,136	\$23,465	\$2,671	1.1
CFL - Hard-wired weighted Watts	95	1042	\$1,122,162	\$185,940	\$936,222	6.0
CFL - Screw-in weighted Watts	154	1511	\$414,677	\$212,366	\$202,311	2.0
Delamping w/Reflectors (2 lamp)	401	1803	\$2,490,403	\$683,243	\$1,807,160	3.6
Electronic Ballast - Dimming	98	1016	\$719,043	\$992,572	(\$273,529)	0.7
LED - Hard-wired weighted Watts	33	358	\$385,773	\$187,873	\$197,900	2.1
LED - Screw-in weighted Watts	51	552	\$287,036	\$289,759	(\$2,723)	1.0
LED Exit	18	204	\$283,000	\$135,273	\$147,727	2.1
LED Strip Light	8	238	\$190,680	\$52,590	\$138,090	3.6
Occupancy Sensor Motion Detector	90	796	\$564,477	\$261,259	\$303,218	2.2
Outdoor Lighting Controls	0	50	\$34,666	\$29,396	\$5,270	1.2
Super T8	152	659	\$913,543	\$987,580	(\$74,036)	0.9
T5 Interior High Bay Fluorescent Fixture	13	103	\$137,037	\$32,693	\$104,345	4.2
T8 Interior High Bay Fluorescent Fixture	13	103	\$136,355	\$24,423	\$111,932	5.6
T5 w/Electronic Ballast	742	3373	\$4,655,256	\$2,113,997	\$2,541,259	2.2
Programable Thermostat	8	42	\$42,373	\$8,509	\$33,864	5.0
Split/Packaged Air Conditioner (65 - 135 kBtu/h)	0	5	\$6,281	\$12,907	(\$6,625)	0.5
Split/Packaged Air Conditioner (<65 kBtu/h)	0	4	\$5,562	\$8,233	(\$2,671)	0.7
Split/Packaged Heat Pump (65 - 135 kBtu/h)	19	66	\$92,943	\$28,257	\$64,685	3.3
Split/Packaged Heat Pump (<65 kBtu/h)	15	54	\$75,829	\$29,004	\$46,825	2.6
Ground Source Heat Pump (<65 kBtu/h)	15	32	\$63,372	\$36,349	\$27,023	1.7
Water Source Heat Pump (<65 kBtu/h)	4	16	\$29,210	\$24,172	\$5,038	1.2
Air Receiver / Tank for Screw Compressor	1,326	5583	\$5,228,991	\$756,792	\$4,472,199	6.9
Air-Entraining Air Nozzle	83	352	\$489,191	\$51,576	\$437,616	9.5
Air Compressor Cycling Air Dryer	406	1283	\$1,223,794	\$542,398	\$681,397	2.3
Hot Water Circulation Pump Time Clock	0	4	\$5,426	\$1,792	\$3,634	3.0
Outside Air Economizer for Coolers	90	270	\$258,247	\$158,076	\$100,170	1.6
Zero Energy Door	14	87	\$80,109	\$24,487	\$55,622	3.3
Intelligent Defrost Control	110	78	\$93,113	\$56,093	\$37,019	1.7
Program Total	4,217	21,512	\$22,475,697	\$8,360,533	\$14,115,165	2.7

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Table 10: Commercial--Custom Retrofits -- Program Results by Measure

Measure Name --savings at generator --2012 \$	For Plan Year 2011					
	A	B	C	D	E = C - D	F = C / D
	Peak Demand Savings (kW)	First Year Energy Savings (MWh)	Total Avoided Cost Benefits (\$)	TRC Costs (\$)	Total Net Resource Benefits (\$)	TRC (Ratio)
100W MH HID fixture- indoor	4	18	\$25,278	\$5,911	\$19,367	4.3
100W MH HID fixture- outdoor	11	71	\$95,508	\$28,075	\$67,433	3.4
175W PS MH HID fixture- indoor	14	158	\$206,737	\$26,655	\$180,082	7.8
175W PS MH HID fixture- outdoor	55	341	\$460,429	\$64,338	\$396,091	7.2
250W PS MH HID fixture- indoor	17	175	\$229,519	\$36,190	\$193,328	6.3
250W PS MH HID fixture- outdoor	45	286	\$385,603	\$67,992	\$317,611	5.7
50W MH HID fixture- outdoor	7	48	\$64,193	\$25,941	\$38,252	2.5
75W MH HID fixture- outdoor	2	13	\$17,566	\$15,808	\$1,758	1.1
Delamping w/Reflectors (2 lamp)	246	1,107	\$1,529,173	\$419,884	\$1,109,289	3.6
Electronic Ballast - Dimming	61	632	\$447,264	\$618,159	-\$170,894	0.7
LED Exit	12	135	\$187,151	\$89,451	\$97,701	2.1
LED Strip Light	5	148	\$118,828	\$32,795	\$86,033	3.6
Occupancy Sensor Motion Detector	55	496	\$351,264	\$162,646	\$188,618	2.2
Outdoor Lighting Controls	0	35	\$24,311	\$20,285	\$4,026	1.2
Super T8	94	410	\$567,660	\$610,324	-\$42,664	0.9
T5 Interior High Bay Fluorescent Fixture	26	207	\$274,892	\$65,795	\$209,097	4.2
T8 Interior High Bay Fluorescent Fixture	28	227	\$301,675	\$54,167	\$247,508	5.6
T5 w/Electronic Ballast	468	2,115	\$2,920,326	\$1,313,604	\$1,606,722	2.2
Retrocommissioning	108	1,630	\$1,465,259	\$1,836,086	-\$370,827	0.8
EMS System	411	1,455	\$2,056,094	\$1,452,529	\$603,565	1.4
Economizer	0	992	\$877,375	\$1,490,968	-\$613,593	0.6
Tune-up/Advanced Diagnostics	43	581	\$351,596	\$1,236,590	-\$884,994	0.3
Adjustable Speed Drives for Fans & Pumps	1,546	11,109	\$14,858,904	\$2,400,904	\$12,458,000	6.2
Compressed Air Controls	46	313	\$420,168	\$1,559,135	-\$1,138,967	0.3
Hot Water Circulation Pump Time Clock	180	1,825	\$2,401,827	\$758,993	\$1,642,835	3.2
Convection Oven	96	443	\$413,319	\$200,383	\$212,936	2.1
Spray Nozzles	75	906	\$397,919	\$153,990	\$243,929	2.6
Motor Upgrade for Fans & Compressors	159	716	\$989,070	\$184,471	\$804,599	5.4
Single Line to Multiplex Compressor	8	126	\$134,519	\$515,044	-\$380,525	0.3
Multiplex system with oversized condenser	1	3	\$3,801	\$22,444	-\$18,643	0.2
High efficiency, low temperature compressor	13	85	\$93,391	\$70,310	\$23,081	1.3
Evap Fan Controller for Med. Temp Walk-in	107	2,040	\$2,784,338	\$367,146	\$2,417,192	7.6
Night Covers	98	22	\$9,629	\$48,199	-\$38,570	0.2
Anti-sweat Heater Controls	9	54	\$59,470	\$354,119	-\$294,650	0.2
Glass Doors on Low and Med. Temperature Displays	5	47	\$51,186	\$58,036	-\$6,850	0.9
Custom	1,300	8,933	\$11,978,438	\$6,698,023	\$5,280,415	1.8
Program Total	5,353	37,904	47,553,681	\$23,065,391	\$24,488,290	2.1

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Table 11: Commercial--Small Business Direct Install-- Program Results by Measure

Measure Name --savings at generator --2012 \$	For Plan Year 2011					
	A Peak Demand Savings (kW)	B First Year Energy Savings (MWh)	C Total Avoided Cost Benefits (\$)	D TRC Costs (\$)	E = C - D Total Net Resource Benefits (\$)	F = C / D TRC (Ratio)
100W MH HID fixture- outdoor	15	110	\$146,624	\$49,670	\$96,954	3.0
175W PS MH HID fixture- outdoor	75	530	\$709,718	\$131,033	\$578,685	5.4
250W PS MH HID fixture- outdoor	61	447	\$597,732	\$132,272	\$465,460	4.5
50W MH HID fixture- outdoor	10	68	\$91,397	\$40,973	\$50,425	2.2
75W MH HID fixture- outdoor	3	20	\$26,505	\$25,134	\$1,372	1.1
CFL - Hard-wired weighted Watts	77	834	\$899,093	\$198,704	\$700,389	4.5
CFL - Screw-in weighted Watts	127	1,211	\$332,198	\$241,796	\$90,402	1.4
Delamping w/Reflectors (2 lamp)	403	1,811	\$2,501,785	\$792,899	\$1,708,886	3.2
Electronic Ballast - Dimming	97	1,002	\$709,112	\$1,036,083	-\$326,971	0.7
LED - Hard-wired weighted Watts	27	290	\$312,060	\$168,880	\$143,180	1.8
LED - Screw-in weighted Watts	41	449	\$233,625	\$262,071	-\$28,446	0.9
LED Exit	17	198	\$274,222	\$142,645	\$131,577	1.9
LED Strip Light	8	230	\$184,099	\$64,346	\$119,753	2.9
Occupancy Sensor Motion Detector	83	751	\$532,277	\$291,285	\$240,992	1.8
Outdoor Lighting Controls	0	52	\$36,736	\$32,813	\$3,923	1.1
Super T8	153	673	\$931,329	\$1,032,775	-\$101,446	0.9
T5 w/Electronic Ballast	750	3,357	\$4,638,622	\$2,217,298	\$2,421,324	2.1
Evap Fan Controller for Med. Temp Walk-in	107	2,040	\$2,784,338	\$367,146	\$2,417,192	7.6
Anti-sweat Heater Controls	9	54	\$59,470	\$354,119	-\$294,650	0.2
Glass Doors on Low and Med. Temperature Displays	5	47	\$51,186	\$58,036	-\$6,850	0.9
Outside Air Economizer for Coolers	90	270	\$258,247	\$158,076	\$100,170	1.6
Program Total	2,278	14,734	\$16,671,732	\$7,917,416	\$8,754,316	2.1

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Table 12: Office--Measure Characterizations

Measure Name --savings at generator --2012 \$	Measure Life (Years)	Peak Demand Savings per Unit (Watts)	Annual Energy Savings per Unit (kWh)	One-Time Incremental Measure Cost (\$)	Present Value of Avoided Cost Benefits (\$)	Program Admin. Cost (\$)	Total Resource Benefit- Cost (Ratio)	Program \$/first year annual kWh Savings	Lifetime Levelized Program \$/kWh Savings
100W MH HID fixture- outdoor	15	37	274	\$73	\$368	\$35	3.4	\$0.19	\$0.021
175W PS MH HID fixture- outdoor	15	156	1,105	\$67	\$1,488	\$141	7.1	\$0.15	\$0.016
250W PS MH HID fixture- indoor	15	101	844	\$71	\$1,122	\$108	6.3	\$0.15	\$0.017
250W PS MH HID fixture- outdoor	15	89	653	\$71	\$877	\$83	5.7	\$0.16	\$0.017
50W MH HID fixture- outdoor	15	44	314	\$130	\$423	\$40	2.5	\$0.25	\$0.027
75W MH HID fixture- outdoor	15	13	100	\$108	\$135	\$13	1.1	\$0.45	\$0.049
CFL - Hard-wired weighted Watts	12	27	258	\$15	\$296	\$33	5.8	\$0.14	\$0.018
CFL - Screw-in weighted Watts	3	64	246	\$4	\$101	\$31	1.9	\$0.20	\$0.075
Delamping w/Reflectors (2 lamp)	15	44	171	\$50	\$245	\$22	3.3	\$0.22	\$0.023
Electronic Ballast - Dimming	8	8	151	\$156	\$126	\$19	0.6	\$0.44	\$0.073
LED - Hard-wired weighted Watts	12	14	135	\$60	\$154	\$17	1.9	\$0.26	\$0.033
LED - Screw-in weighted Watts	6	14	135	\$60	\$92	\$17	0.9	\$0.26	\$0.054
LED Exit	16	11	122	\$65	\$165	\$16	2.1	\$0.29	\$0.030
LED Strip Light	9	11	317	\$30	\$286	\$40	3.6	\$0.16	\$0.024
Occupancy Sensor Motion Detector	8	87	574	\$89	\$507	\$73	2.5	\$0.17	\$0.029
Outdoor Lighting Controls	8	-	239	\$105	\$193	\$30	1.2	\$0.26	\$0.043
Super T8	15	9	33	\$51	\$47	\$4	0.8	\$0.59	\$0.064
T5 Interior High Bay Fluorescent Fixture	15	95	703	\$146	\$943	\$90	4.0	\$0.19	\$0.021
T8 Interior High Bay Fluorescent Fixture	15	140	1,032	\$124	\$1,384	\$132	5.4	\$0.16	\$0.018
T5 w/Electronic Ballast	15	27	103	\$57	\$148	\$13	2.1	\$0.29	\$0.032
Programable Thermostat	11	214	1,365	\$86	\$1,522	\$174	5.3	\$0.15	\$0.019
Split/Packaged Air Conditioner (65 - 135 kBtu/h)	15	-	51	\$125	\$63	\$6	0.5	\$0.87	\$0.094
Split/Packaged Air Conditioner (<65 kBtu/h)	15	-	60	\$104	\$74	\$8	0.7	\$0.65	\$0.070
Split/Packaged Heat Pump (65 - 135 kBtu/h)	15	130	446	\$135	\$650	\$57	3.3	\$0.22	\$0.024
Split/Packaged Heat Pump (<65 kBtu/h)	15	119	440	\$180	\$634	\$56	2.6	\$0.25	\$0.027
Ground Source Heat Pump (<65 kBtu/h)	20	610	1,312	\$1,313	\$2,428	\$167	1.7	\$0.43	\$0.040
Water Source Heat Pump (<65 kBtu/h)	20	174	661	\$900	\$1,108	\$84	1.2	\$0.54	\$0.050
Air Receiver / Tank for Screw Compressor	10	2,849	11,996	\$96	\$13,074	\$1,529	6.9	\$0.13	\$0.018
Air-Entraining Air Nozzle	15	176	743	\$14	\$1,054	\$95	9.5	\$0.13	\$0.014
Air Compressor Cycling Air Dryer	10	858	2,707	\$795	\$3,074	\$345	2.3	\$0.22	\$0.030
Hot Water Circulation Pump Time Clock	15	107	987	\$312	\$1,304	\$126	3.0	\$0.22	\$0.024

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Table 13: Retail--Measure Characterizations

Measure Name --savings at generator --2011 \$	Measure Life (Years)	Peak Demand Savings per Unit (Watts)	Annual Energy Savings per Unit (kWh)	One-Time Incremental Measure Cost (\$)	Present Value of Avoided Cost Benefits (\$)	Program Admin. Cost (\$)	Total Resource Benefit- Cost (Ratio)	Program \$/first year annual kWh Savings	Lifetime Levelized Program \$/kWh Savings
100W MH HID fixture- outdoor	15	37	274	\$73	\$368	\$35	3.4	\$0.19	\$0.020
175W PS MH HID fixture- outdoor	15	156	1,105	\$67	\$1,488	\$141	7.1	\$0.15	\$0.016
250W PS MH HID fixture- indoor	15	83	852	\$71	\$1,120	\$109	6.2	\$0.15	\$0.017
250W PS MH HID fixture- outdoor	15	89	653	\$71	\$877	\$83	5.7	\$0.16	\$0.017
50W MH HID fixture- outdoor	15	44	314	\$130	\$423	\$40	2.5	\$0.25	\$0.027
75W MH HID fixture- outdoor	15	13	100	\$108	\$135	\$13	1.1	\$0.45	\$0.049
CFL - Hard-wired weighted Watts	12	27	262	\$15	\$300	\$33	5.9	\$0.14	\$0.018
CFL - Screw-in weighted Watts	3	24	249	\$4	\$93	\$32	1.9	\$0.20	\$0.075
Delamping w/Reflectors (2 lamp)	15	44	182	\$50	\$258	\$23	3.5	\$0.21	\$0.023
Electronic Ballast - Dimming	8	8	170	\$156	\$142	\$22	0.7	\$0.40	\$0.067
LED - Hard-wired weighted Watts	12	14	137	\$60	\$157	\$17	1.9	\$0.26	\$0.032
LED - Screw-in weighted Watts	6	14	137	\$60	\$94	\$17	0.9	\$0.26	\$0.054
LED Exit	16	11	122	\$65	\$165	\$16	2.1	\$0.29	\$0.030
LED Strip Light	9	11	317	\$30	\$286	\$40	3.6	\$0.16	\$0.024
Occupancy Sensor Motion Detector	8	28	391	\$89	\$330	\$50	2.0	\$0.20	\$0.033
Outdoor Lighting Controls	8	-	239	\$105	\$193	\$30	1.2	\$0.26	\$0.043
Super T8	15	9	35	\$51	\$50	\$4	0.9	\$0.56	\$0.060
T5 Interior High Bay Fluorescent Fixture	15	95	711	\$146	\$953	\$91	4.0	\$0.19	\$0.021
T8 Interior High Bay Fluorescent Fixture	15	140	1,045	\$124	\$1,400	\$133	5.4	\$0.16	\$0.018
T5 w/Electronic Ballast	15	27	110	\$57	\$156	\$14	2.2	\$0.28	\$0.031
Programable Thermostat	11	214	1,098	\$86	\$1,249	\$140	5.0	\$0.15	\$0.020
Split/Packaged Air Conditioner (65 - 135 kBtu/h)	15	-	51	\$125	\$63	\$6	0.5	\$0.87	\$0.094
Split/Packaged Air Conditioner (<65 kBtu/h)	15	-	60	\$104	\$74	\$8	0.7	\$0.65	\$0.070
Split/Packaged Heat Pump (65 - 135 kBtu/h)	15	130	446	\$135	\$650	\$57	3.3	\$0.22	\$0.024
Split/Packaged Heat Pump (<65 kBtu/h)	15	119	440	\$180	\$634	\$56	2.6	\$0.25	\$0.027
Ground Source Heat Pump (<65 kBtu/h)	20	610	1,312	\$1,313	\$2,428	\$167	1.7	\$0.43	\$0.040
Water Source Heat Pump (<65 kBtu/h)	20	174	661	\$900	\$1,108	\$84	1.2	\$0.54	\$0.050
Air Receiver / Tank for Screw Compressor	10	2,849	11,996	\$96	\$13,074	\$1,529	6.9	\$0.13	\$0.018
Air-Entraining Air Nozzle	15	176	743	\$14	\$1,054	\$95	9.5	\$0.13	\$0.014
Air Compressor Cycling Air Dryer	10	858	2,707	\$795	\$3,074	\$345	2.3	\$0.22	\$0.030
Hot Water Circulation Pump Time Clock	15	107	1,143	\$312	\$1,498	\$146	3.3	\$0.21	\$0.023

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Table 14: Education--Measure Characterizations

Measure Name --savings at generator --2012 \$	Measure Life (Years)	Peak Demand Savings per Unit (Watts)	Annual Energy Savings per Unit (kWh)	One-Time Incremental Measure Cost (\$)	Present Value of Avoided Cost Benefits (\$)	Program Admin. Cost (\$)	Total Resource Benefit- Cost (Ratio)	Program \$/first year annual kWh Savings	Lifetime Levelized Program \$/kWh Savings
100W MH HID fixture- outdoor	15	37	274	\$73	\$368	\$35	3.4	\$0.17	\$0.019
175W PS MH HID fixture- outdoor	15	156	1,105	\$67	\$1,488	\$141	7.1	\$0.15	\$0.016
250W PS MH HID fixture- indoor	15	58	1,183	\$71	\$1,512	\$151	6.9	\$0.15	\$0.016
250W PS MH HID fixture- outdoor	15	89	653	\$71	\$877	\$83	5.7	\$0.16	\$0.017
50W MH HID fixture- outdoor	15	44	314	\$130	\$423	\$40	2.5	\$0.25	\$0.027
75W MH HID fixture- outdoor	15	13	100	\$108	\$135	\$13	1.1	\$0.45	\$0.049
CFL - Hard-wired weighted Watts	12	27	365	\$15	\$412	\$47	6.4	\$0.14	\$0.017
CFL - Screw-in weighted Watts	3	24	348	\$4	\$128	\$44	2.0	\$0.19	\$0.074
Delamping w/Reflectors (2 lamp)	15	44	253	\$50	\$347	\$32	4.2	\$0.19	\$0.020
Electronic Ballast - Dimming	8	42	237	\$156	\$212	\$30	0.9	\$0.32	\$0.054
LED - Hard-wired weighted Watts	12	14	190	\$60	\$214	\$24	2.4	\$0.22	\$0.028
LED - Screw-in weighted Watts	6	14	190	\$60	\$128	\$24	1.2	\$0.22	\$0.046
LED Exit	16	11	122	\$65	\$165	\$16	2.1	\$0.29	\$0.030
LED Strip Light	9	11	317	\$30	\$286	\$40	3.6	\$0.16	\$0.024
Occupancy Sensor Motion Detector	8	28	390	\$89	\$329	\$50	2.0	\$0.20	\$0.033
Outdoor Lighting Controls	8	-	239	\$105	\$193	\$30	1.2	\$0.26	\$0.043
Super T8	15	9	49	\$51	\$67	\$6	1.2	\$0.44	\$0.047
T5 Interior High Bay Fluorescent Fixture	15	95	993	\$146	\$1,303	\$127	4.8	\$0.17	\$0.019
T8 Interior High Bay Fluorescent Fixture	15	140	1,459	\$124	\$1,915	\$186	6.2	\$0.15	\$0.017
T5 w/Electronic Ballast	15	27	153	\$57	\$209	\$19	2.7	\$0.24	\$0.026
Programable Thermostat	11	214	881	\$86	\$1,029	\$112	4.6	\$0.16	\$0.021
Split/Packaged Air Conditioner (65 - 135 kBtu/h)	15	-	51	\$125	\$63	\$6	0.5	\$0.87	\$0.094
Split/Packaged Air Conditioner (<65 kBtu/h)	15	-	60	\$104	\$74	\$8	0.7	\$0.65	\$0.070
Split/Packaged Heat Pump (65 - 135 kBtu/h)	15	130	446	\$135	\$650	\$57	3.3	\$0.22	\$0.024
Split/Packaged Heat Pump (<65 kBtu/h)	15	119	440	\$180	\$634	\$56	2.6	\$0.25	\$0.027
Ground Source Heat Pump (<65 kBtu/h)	20	610	1,312	\$1,313	\$2,428	\$167	1.7	\$0.43	\$0.040
Water Source Heat Pump (<65 kBtu/h)	20	174	661	\$900	\$1,108	\$84	1.2	\$0.54	\$0.050
Air Receiver / Tank for Screw Compressor	10	2,849	11,996	\$96	\$13,074	\$1,529	6.9	\$0.13	\$0.018
Air-Entraining Air Nozzle	15	176	743	\$14	\$1,054	\$95	9.5	\$0.13	\$0.014
Air Compressor Cycling Air Dryer	10	858	2,707	\$795	\$3,074	\$345	2.3	\$0.22	\$0.030
Hot Water Circulation Pump Time Clock	15	107	987	\$312	\$1,304	\$126	3.0	\$0.22	\$0.024
Outside Air Economizer for Coolers	10	1,946	5,840	\$2,679	\$6,685	\$745	1.6	\$0.27	\$0.037
Zero Energy Door	10	310	1,885	\$290	\$1,975	\$240	3.3	\$0.17	\$0.025
Intelligent Defrost Control	10	1,194	843	\$500	\$1,488	\$107	1.7	\$0.31	\$0.043

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Table 15: Other--Measure Characterizations

Measure Name --savings at generator --2011 \$	Measure Life (Years)	Peak Demand Savings per Unit (Watts)	Annual Energy Savings per Unit (kWh)	One-Time Incremental Measure Cost (\$)	Present Value of Avoided Cost Benefits (\$)	Program Admin. Cost (\$)	Total Resource Benefit- Cost (Ratio)	Program \$/first year annual kWh Savings	Lifetime Levelized Program \$/kWh Savings
100W MH HID fixture- outdoor	15	37	274	\$73	\$368	\$35	3.4	\$0.18	\$0.020
175W PS MH HID fixture- outdoor	15	156	1,105	\$67	\$1,488	\$141	7.1	\$0.15	\$0.016
250W PS MH HID fixture- indoor	15	81	960	\$71	\$1,252	\$122	6.5	\$0.15	\$0.016
250W PS MH HID fixture- outdoor	15	89	653	\$71	\$877	\$83	5.7	\$0.16	\$0.017
50W MH HID fixture- outdoor	15	44	314	\$130	\$423	\$40	2.5	\$0.25	\$0.027
75W MH HID fixture- outdoor	15	13	100	\$108	\$135	\$13	1.1	\$0.45	\$0.049
CFL - Hard-wired weighted Watts	12	27	296	\$15	\$337	\$38	6.1	\$0.14	\$0.018
CFL - Screw-in weighted Watts	3	24	282	\$4	\$105	\$36	2.0	\$0.20	\$0.075
Delamping w/Reflectors (2 lamp)	15	44	202	\$50	\$283	\$26	3.7	\$0.20	\$0.022
Electronic Ballast - Dimming	8	19	186	\$156	\$160	\$24	0.7	\$0.38	\$0.063
LED - Hard-wired weighted Watts	12	14	154	\$60	\$175	\$20	2.1	\$0.24	\$0.030
LED - Screw-in weighted Watts	6	14	154	\$60	\$105	\$20	1.0	\$0.24	\$0.051
LED Exit	16	11	122	\$65	\$165	\$16	2.1	\$0.29	\$0.030
LED Strip Light	9	11	317	\$30	\$286	\$40	3.6	\$0.16	\$0.024
Occupancy Sensor Motion Detector	8	56	452	\$89	\$393	\$58	2.2	\$0.19	\$0.031
Outdoor Lighting Controls	8	-	239	\$105	\$193	\$30	1.2	\$0.26	\$0.043
Super T8	15	9	37	\$51	\$53	\$5	0.9	\$0.53	\$0.058
T5 Interior High Bay Fluorescent Fixture	15	95	803	\$146	\$1,067	\$102	4.3	\$0.18	\$0.020
T8 Interior High Bay Fluorescent Fixture	15	140	1,179	\$124	\$1,567	\$150	5.7	\$0.16	\$0.017
T5 w/Electronic Ballast	15	27	122	\$57	\$171	\$16	2.3	\$0.27	\$0.029
Programable Thermostat	11	214	1,115	\$86	\$1,267	\$142	5.0	\$0.15	\$0.020

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Table 15: Other--Measure Characterizations (continued)

Measure Name --savings at generator --2011 \$	Measure Life (Years)	Peak Demand Savings per Unit (Watts)	Annual Energy Savings per Unit (kWh)	One-Time Incremental Measure Cost (\$)	Present Value of Avoided Cost Benefits (\$)	Program Admin. Cost (\$)	Total Resource Benefit- Cost (Ratio)	\$/first year annual kWh Savings	Lifetime Levelized \$/kWh Savings
Split/Packaged Air Conditioner (65 - 135 kBtu/h)	15	-	51	\$125	\$63	\$6	0.5	\$0.87	\$0.094
Split/Packaged Air Conditioner (<65 kBtu/h)	15	-	60	\$104	\$74	\$8	0.7	\$0.65	\$0.070
Split/Packaged Heat Pump (65 - 135 kBtu/h)	15	130	446	\$135	\$650	\$57	3.3	\$0.22	\$0.024
Split/Packaged Heat Pump (<65 kBtu/h)	15	119	440	\$180	\$634	\$56	2.6	\$0.25	\$0.027
Ground Source Heat Pump (<65 kBtu/h)	20	610	1,312	\$1,313	\$2,428	\$167	1.7	\$0.43	\$0.040
Water Source Heat Pump (<65 kBtu/h)	20	174	661	\$900	\$1,108	\$84	1.2	\$0.54	\$0.050
Air Receiver / Tank for Screw Compressor	10	2,849	11,996	\$96	\$13,074	\$1,529	6.9	\$0.13	\$0.018
Air-Entraining Air Nozzle	15	176	743	\$14	\$1,054	\$95	9.5	\$0.13	\$0.014
Air Compressor Cycling Air Dryer	10	858	2,707	\$795	\$3,074	\$345	2.3	\$0.22	\$0.030
Hot Water Circulation Pump Time Clock	15	107	987	\$312	\$1,304	\$126	3.0	\$0.22	\$0.024
Outside Air Economizer for Coolers	10	1,946	5,840	\$2,679	\$6,685	\$745	1.6	\$0.27	\$0.037
Zero Energy Door	10	310	1,885	\$290	\$1,975	\$240	3.3	\$0.17	\$0.025
Intelligent Defrost Control	10	1,194	843	\$500	\$1,488	\$107	1.7	\$0.31	\$0.043
Retrocommissioning	10	107	1,620	\$1,582	\$1,606	\$207	0.9	\$0.34	\$0.048
EMS System	15	160	570	\$494	\$827	\$73	1.5	\$0.32	\$0.035
Economizer	10	-	120	\$153	\$114	\$15	0.7	\$0.41	\$0.058
Tune-up/Advanced Diagnostics	7	5	75	\$144	\$57	\$10	0.4	\$0.55	\$0.102
Adjustable Speed Drives for Fans & Pumps	15	398	2,884	\$219	\$3,875	\$368	6.6	\$0.14	\$0.016
Convection Oven	10	392	1,804	\$585	\$1,945	\$230	2.4	\$0.20	\$0.028
Spray Nozzles	5	306	3,686	\$156	\$2,147	\$471	3.4	\$0.14	\$0.033
Motor Upgrade for Fans & Compressors	15	346	1,558	\$202	\$2,191	\$199	5.5	\$0.16	\$0.017
Single Line to Multiplex Compressor	12	34	558	\$2,206	\$624	\$71	0.3	\$1.00	\$0.124
Multiplex system with oversized condenser	12	10	68	\$428	\$79	\$9	0.2	\$1.52	\$0.190
High efficiency, low temperature compressor	12	172	1,095	\$767	\$1,295	\$140	1.4	\$0.28	\$0.035
Evap Fan Controller for Med. Temp Walk-in	16	144	2,759	\$144	\$3,664	\$352	7.4	\$0.14	\$0.015
Night Covers	5	65	14	\$30	\$30	\$2	0.9	\$0.58	\$0.141
Anti-sweat Heater Controls	12	24	142	\$915	\$169	\$18	0.2	\$1.54	\$0.193
Glass Doors on Low and Med. Temperature Displays	12	16	160	\$175	\$183	\$20	0.9	\$0.37	\$0.046

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Table 16: Industrial--Measure Characterizations

Measure Name --savings at generator --2011 \$	Measure Life (Years)	Peak Demand Savings per Unit (Watts)	Annual Energy Savings per Unit (kWh)	One-Time Incremental Measure Cost (\$)	Present Value of Avoided Cost Benefits (\$)	Program Admin. Cost (\$)	Total Resource Benefit- Cost (Ratio)	Program \$/first year annual kWh Savings	Lifetime Levelized Program \$/kWh Savings
100W MH HID fixture- indoor	15	74	380	\$73	\$526	\$48	4.3	\$0.19	\$0.020
100W MH HID fixture- outdoor	15	74	258	\$73	\$376	\$33	3.5	\$0.21	\$0.023
175W PS MH HID fixture- indoor	15	140	1,621	\$67	\$2,115	\$207	7.8	\$0.14	\$0.015
175W PS MH HID fixture- outdoor	15	309	1,042	\$67	\$1,523	\$133	7.4	\$0.15	\$0.016
250W PS MH HID fixture- indoor	15	80	951	\$71	\$1,240	\$121	6.5	\$0.15	\$0.016
250W PS MH HID fixture- outdoor	15	177	616	\$71	\$896	\$79	5.8	\$0.16	\$0.018
50W MH HID fixture- outdoor	15	88	311	\$130	\$452	\$40	2.6	\$0.25	\$0.027
75W MH HID fixture- outdoor	15	26	99	\$108	\$143	\$13	1.2	\$0.45	\$0.049
CFL - Hard-wired weighted Watts	12	26	307	\$15	\$349	\$39	6.1	\$0.14	\$0.018
CFL - Screw-in weighted Watts	3	24	276	\$4	\$103	\$35	2.0	\$0.13	\$0.050
Delamping w/Reflectors (2 lamp)	15	44	200	\$50	\$281	\$25	3.7	\$0.20	\$0.022
Electronic Ballast - Dimming	8	19	184	\$156	\$158	\$23	0.7	\$0.38	\$0.063
LED - Hard-wired weighted Watts	12	14	152	\$60	\$173	\$19	2.1	\$0.25	\$0.031
LED - Screw-in weighted Watts	6	14	152	\$60	\$104	\$19	1.0	\$0.25	\$0.051
LED Exit	16	11	121	\$65	\$164	\$15	2.1	\$0.29	\$0.030
LED Strip Light	9	11	314	\$30	\$284	\$40	3.6	\$0.16	\$0.024
Occupancy Sensor Motion Detector	8	55	448	\$89	\$389	\$57	2.2	\$0.19	\$0.031
Outdoor Lighting Controls	8	-	128	\$105	\$104	\$16	0.7	\$0.37	\$0.062
Super T8	15	8	35	\$51	\$50	\$4	0.9	\$0.56	\$0.061
T5 Interior High Bay Fluorescent Fixture	15	94	752	\$146	\$1,004	\$96	4.1	\$0.19	\$0.020
T8 Interior High Bay Fluorescent Fixture	15	139	1,103	\$124	\$1,473	\$141	5.5	\$0.16	\$0.017
T5 w/Electronic Ballast	15	19	93	\$57	\$129	\$12	1.9	\$0.31	\$0.034
Split/Packaged Air Conditioner (65 - 135 kBtu/h)	15	-	50	\$125	\$62	\$6	0.5	\$0.87	\$0.095
Split/Packaged Air Conditioner (<65 kBtu/h)	15	-	59	\$104	\$74	\$8	0.7	\$0.65	\$0.071
Split/Packaged Heat Pump (65 - 135 kBtu/h)	15	128	442	\$135	\$644	\$56	3.3	\$0.22	\$0.024
Split/Packaged Heat Pump (<65 kBtu/h)	15	117	436	\$180	\$628	\$56	2.6	\$0.25	\$0.027
Ground Source Heat Pump (<65 kBtu/h)	20	604	1,299	\$1,313	\$2,405	\$166	1.7	\$0.43	\$0.040
Water Source Heat Pump (<65 kBtu/h)	20	172	655	\$900	\$1,098	\$84	1.2	\$0.54	\$0.050
Adjustable Speed Drives for Fans & Pumps	15	395	2,857	\$219	\$3,839	\$365	6.6	\$0.14	\$0.016
Compressed Air Controls	15	32	218	\$1,060	\$294	\$28	0.3	\$1.20	\$0.130
Air Receiver / Tank for Screw Compressor	10	2,823	11,883	\$96	\$12,951	\$1,515	6.9	\$0.13	\$0.018
Air-Entraining Air Nozzle	15	175	736	\$14	\$1,044	\$94	9.5	\$0.13	\$0.014
Air Compressor Cycling Air Dryer	10	850	2,682	\$795	\$3,045	\$342	2.3	\$0.22	\$0.031
Custom	15	62,422	428,793	\$266,763	\$578,585	\$54,757	1.8	\$0.26	\$0.029

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1 **Request IR-4:**

2
3 **Reference: ENSC Evidence, page 29. 6**

4
5 **Please list and explain the types of performance-based mechanisms that ENSC believes may be**
6 **appropriate for a non-profit entity in circumstances where ENSC a) exceeds its targets at the**
7 **Board-approved investment levels, or b) fails to achieve its targets at the Board-approved**
8 **investment levels.**

9
10 **Response IR-4:**

11
12 ENSC anticipates that these issues would form a part of the discussion in the process it is
13 proposing for the summer or fall of 2011.

14
15 Please refer to Multeese IR-14.

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Request IR-5:

Please confirm that the financing options considered will include options that could be “virtually subsidy-free” (e.g. fully repayable loans) as described by Duncan MacAdam in his testimony in last year’s DSM hearing. If such options will not be considered, please explain why not.

Response IR-5:

Confirmed.

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1 **Request IR-6:**

2
3 **Reference: ENSC Evidence, page 33, lines 9-16.**

4
5 **Please provide a detailed breakdown of ENSC's calculation showing the GWh and MW**
6 **savings associated with the adoption of the Residential New Construction Code (on**
7 **January 1, 2010) and the Federal Standard for General-Service Lamps (starting on**
8 **January 1, 2012).**

9
10 **Response IR-6:**

11
12 **Please refer to Multeese IR-6.**

13
14 **Demand savings were derived from the energy savings estimates by applying a coincident peak**
15 **factor.**

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Request IR-7:**Reference: ENSC Evidence, page 33, lines 22-28. 2**

a) Please provide ENSC's best available estimate of the potential GWh and MW savings that could be realized for each of these codes or standards if they were to be adopted by January 1, 2012. (For purposes of this response, a simple high-level estimate of the available potential is sufficient.)

b) Please identify the steps that ENSC plans to take to encourage the adoption of these new codes and standards for 2012.

Response IR-7:

a) Please refer to Multeese IR-6.

b) ENSC will continue to engage the provincial government in support of codes and standards within its jurisdiction, by providing technical and other assistance in support of the development and adoption of the linear fluorescent lighting standard. ENSC may provide assistance in support of a baseline study to determine the extent of compliance with the new residential code. ENSC will engage with and participate in national discussions on codes and standards through established committees and working groups, including, most notably, implementation of the general purpose lighting standard and development of the revised model code for new commercial buildings construction. It may provide technical and other assistance as needed in support of these initiatives.

Please refer to EAC IR-36 and EAC-IR-37.

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Request IR-8:

Reference: NMR Group Inc. 2010 Evaluation Report, Executive Summary, pages 18-52.

Please describe, in general, how ENSC proposes to respond to recommendations: DI-R6, BER-R1, and NH-R1.

Response IR-8:

Efficient Products Direct Install (DI-R6):

With established cost effectiveness and efficiency of this program, the current approach is economic in terms of acquiring the savings potential of these measures. During the evaluation of the 2010 program, respondents cited lack of time and financing as reasons for not having converted their facility to compact fluorescent lighting or light emitting diode exit signs. Furthermore, this component of the Efficient Products Program is approaching the limits of its electricity savings potential with almost all of the savings already achieved.

Business Energy Rebates (BER-R1):

ENSC has added a question to the BER application form to assess the impact of the program incentive. Participants answer the following question through a yes/no check box: "Is the incentive provided by the program required in order to move the project forward?"

New Houses (NH-R1):

ENSC continues to monitor the achievability of higher EnerGuide results and is currently considering increasing the minimum program entry requirement from an EnerGuide rating of 83 to 85. ENSC agrees that the use of a rating system provides opportunities to raise the minimum requirements in future years.

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Request IR-9:

Reference: NMR Group Inc. 2010 Evaluation Report, Executive Summary, page 3, five bullets at the end of the page.

Please provide ENSC's comments regarding the points made in each bullet.

Response IR-9:

The five bullets are included below with ENSC's comments following each bullet.

- “The Low Income Households program has historically been challenged in the recruitment of eligible participants and, despite notable efforts in 2010 to diversify recruitment sources, continues to struggle with this limitation.”

Please refer to CA IR-7.

- “The BER [Business Energy Rebates] program was a new program in the portfolio, and given the time required to build awareness and generate interest in a new program, it is reasonable to expect that the impact of the BER program will be greater in 2011.”

Agreed.

- “The SLC [Smart Lighting Choices] program appears to have performed well in 2010. However, the province is expected to enact legislation in the future mandating that all T8 lighting sold in Nova Scotia be High Performance (HP) T8 lighting. This legislation will render the SLC program in its present form superfluous.”

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1 Agreed.

- 2
- 3 • “Despite falling short of goals in 2010, the net energy impacts of the SBLS [Small
- 4 Business Lighting Solutions] program have increased steadily since 2008. In
- 5 2010, the expansion of the program from two pilot regions to the entire province
- 6 appears to have had no negative effect on customer satisfaction.”

7

8 Agreed. As shown in section 3.10 of the NMR Group 2010 SBLS Evaluation

9 Report:

10

11 “The great majority of 2010 respondents (97%) reported that they were satisfied

12 with the program overall, and seven out of ten (70%) reported they were ‘very

13 satisfied.’ More than eight out of ten 2010 respondents reported that they were

14 ‘satisfied’ with all aspects of the program.”

- 15
- 16 • “The 2010 Nova Scotia building code raised energy efficiency standards to a
- 17 minimum EnerGuide rating of 80. The New Houses program can enhance savings
- 18 by setting significant stretch goals for participants, who now are able to exceed
- 19 the program’s threshold EnerGuide rating of 83 and be eligible to receive
- 20 incentives simply by installing a heat pump.”

21

22 Please refer to NPB IR-8.

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Request IR-10:

Reference: NMR Group Inc. 2010 Evaluation Report, Executive Summary, pages 4-6, Section 1.3, Program Data Tracking.

Please provide ENSC's comments on how it plans to respond to concerns over data tracking and quality.

Response IR-10:

ENSC agrees with the evaluator's recommendations in regards to program data tracking. Standards, reporting protocols, enhanced auditing and site inspections are being implemented. Furthermore, ENSC will make the 2011 evaluation team aware of Small Business Direct Install participants with multiple meters.

The centralized data system is being enhanced to implement recommendations from the 2010 evaluation and verification report, staff and consultants. In particular, reporting functions are being enhanced.

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Request IR-11:**Reference: NMR Group Inc. 2010 Evaluation Report, Executive Summary, page 7, final paragraph.****Please provide ENSC's response on how it is (or anticipates) responding to the challenge identified.****Response IR-11:**

ENSC acknowledges the challenge of achieving its 2011 energy savings goals and also fully embraces it. ENSC is proud of the smooth transition of DSM programming and its organizational growth to effectively deliver on targets in 2010. The DSM programming for 2011 has been developed with the knowledge of reduced reliance on CFLs due to the increased adoption of the technology.

ENSC recognizes that Nova Scotians are embracing energy efficiency. With that momentum in mind, marketing and communications efforts are celebrating the real successes of Nova Scotians in building a culture of efficiency and sustainability. Efficiency Nova Scotia reinforces that positive momentum in reaching out to a wide variety of stakeholders, through regular contact from dedicated staff, alliances with trades people and groups and a corporate commitment to informal and formal meetings and gatherings with Nova Scotians.