

NorthWestern Energy South Dakota DSM Program Cost Effectiveness Calculations												
	07/01/2014 - 06/30/2015			07/01/2014 - 12/31/2016			07/01/2015 - 06/30/2016			07/01/2015 - 12/31/2016		
	PAC Test	TRC Test	RIM Test	PAC Test	TRC Test	RIM Test	PAC Test	TRC Test	RIM Test	PAC Test	TRC Test	RIM Test
E+ Residential Home Energy Audits - Electric	0.12	0.12	0.09	0.14	0.14	0.10	0.17	0.17	0.11	0.16	0.16	0.11
E+ Residential Home Energy Audits - Gas	0.19	0.19	0.14	0.25	0.25	0.16	0.30	0.30	0.18	0.29	0.29	0.18
Commercial Electric Programs	1.37	0.84	0.32	2.60	1.39	0.32	2.34	1.23	0.31	2.83	1.48	0.32
Residential Electric Programs	0.16	0.15	0.12	0.17	0.15	0.12	0.20	0.18	0.12	0.19	0.18	0.12
Commercial Natural Gas Programs	0.01	0.01	0.01	2.50	0.85	0.45	0.27	0.25	0.22	3.93	0.97	0.47
Residential Natural Gas Programs	0.72	0.55	0.40	1.33	0.77	0.38	2.03	0.91	0.38	1.80	0.87	0.37

PAC- Program Administrator Cost Test also known as the Utility Cost Test (UCT)

TRC- Total Resource Cost Test

RIM- Ratepayer Impact Measure Test

South Dakota

4/24/2017

Program savings for 07/01/2014 - 06/30/2015

	kW	kWh	dKt	NWE Program	Incremental Customer	Total Program	Program Savings	Program Resource	NWE PAC	NWE TRC	RIM
	<u>Savings</u>	<u>Savings</u>	<u>Savings</u>	<u>Cost</u>	<u>Cost</u>	<u>Cost</u>	<u>Life</u>	<u>Value</u>	<u>Test</u>	<u>Test</u>	<u>Test</u>
1 E+ Residential Home Energy Audits - Electric	34	159,332	-	\$ 267,445	\$ -	\$ 267,445	10	\$ 30,800	0.12	0.12	0.09
2 E+ Residential Home Energy Audits - Gas	-	-	1,747	\$ 268,369	\$ -	\$ 268,369	10	\$ 49,759	0.19	0.19	0.14
3 Commercial Electric Programs	135	1,047,094	-	\$ 228,888	\$ 147,142	\$ 376,029	18	\$ 314,396	1.37	0.84	0.32
4 Residential Electric Programs	276	214,092	-	\$ 183,375	\$ 15,759	\$ 199,134	15	\$ 29,246	0.16	0.15	0.12
5 Commercial Natural Gas Programs	-	-	16	\$ 72,175	\$ 1,234	\$ 73,409	13	\$ 555	0.01	0.01	0.01
6 Residential Natural Gas Programs	-	-	1,322	\$ 79,246	\$ 23,651	\$ 102,898	18	\$ 56,947	0.72	0.55	0.40
Totals	444	1,420,518	3,084	\$ 1,099,498	\$ 187,786	\$ 1,287,284		\$ 481,703	0.44	0.37	0.22

Program savings for 07/01/2014 - 06/30/2015

	kW	kWh	dKt	NWE Program	Incremental Customer	Total Program	Program Savings	Program Resource	NWE PAC	NWE TRC	RIM
	<u>Savings</u>	<u>Savings</u>	<u>Savings</u>	<u>Cost</u>	<u>Cost</u>	<u>Cost</u>	<u>Life</u>	<u>Value</u>	<u>Test</u>	<u>Test</u>	<u>Test</u>
1 E+ Residential Home Energy Audits - Electric	34	159,332	-	\$ 267,445	\$ -	\$ 267,445	10	\$ 30,800	0.12	0.12	0.09
2 E+ Residential Home Energy Audits - Gas	-	-	1,747	\$ 268,369	\$ -	\$ 268,369	10	\$ 49,759	0.19	0.19	0.14
3 E+ Commercial Lighting Rebate Program	135	716,854	-	\$ 108,736	\$ 120,291	\$ 229,026	19	\$ 223,029	2.05	0.97	0.34
4 E+ Residential Lighting Program	276	203,159	-	\$ 139,875	\$ 13,766	\$ 153,641	6	\$ 25,435	0.18	0.17	0.12
5 E+ Commercial EX Electric Rebate Program	-	330,240	-	\$ 92,310	\$ 26,851	\$ 119,161	16	\$ 91,367	0.99	0.77	0.30
6 E+ Commercial NC Electric Rebate Program	-	-	-	\$ -	\$ -	\$ -	-	\$ -	NA	NA	NA
7 E+ Residential EX Electric Rebate Program	-	10,933	-	\$ 15,658	\$ 1,993	\$ 17,651	23	\$ 3,811	0.24	0.22	0.15
8 E+ Residential NC Electric Rebate Program	-	-	-	\$ -	\$ -	\$ -	-	\$ -	NA	NA	NA
9 E+ Commercial EX Gas Rebate Program	-	-	16	\$ 44,349	\$ 1,234	\$ 45,583	13	\$ 555	0.01	0.01	0.01
10 E+ Residential EX Gas Rebate Program	-	-	1,322	\$ 51,421	\$ 23,651	\$ 75,072	18	\$ 56,947	1.11	0.76	0.40
11 E+ Business Partners Program - electric	-	-	-	\$ -	\$ -	\$ -	-	\$ -	NA	NA	NA
12 E+ Business Partners Program - gas	-	-	-	\$ -	\$ -	\$ -	-	\$ -	NA	NA	NA
13 General Electric	-	-	-	\$ 55,685	\$ -	\$ 55,685	-	\$ -	NA	NA	NA
14 General Gas	-	-	-	\$ 55,651	\$ -	\$ 55,651	-	\$ -	NA	NA	NA
Totals	444	1,420,518	3,084	\$ 1,099,498	\$ 187,786	\$ 1,287,284		\$ 481,703	0.44	0.37	0.22

Notes:

- Analysis to determine program cost-effectiveness **trends**. This analysis is not considered an in-depth third party program evaluation for free-riders, spillover, or realization rates.
- All NWE reported savings are post SBW program evaluation savings and based on the rebate program savings for 07/01/2014 - 06/30/2015.
- Resource Value is determined using the 2014-15 RVSS, and coming on-line in 2015, and using weighted average program lives.
- Program Savings Life based on weighted average project/measure life, rounded to the nearest whole number.
Sum of (project measure life * project measure savings) / program savings (kWh or dKt)
- Total Program Cost based on invoices/data from customer/contractor, minus NWE rebate/incentive, plus NWE program cost for Commercial Lighting. Customer cost is not considered incremental.
- Total Program Cost based on weighted average measure cost from resource potential assessments, minus rebate/incentive, plus NWE program cost.
- Total Program Cost based on SBW average project/measure cost, minus rebate/incentive, plus NWE program cost for Residential Lighting.
- PAC and TRC tests are based on NWE Program Resource Savings Life.
- PAC and TRC based on NWE Reported savings which incorporate SBW savings adjustments, updated potential assessment study data, ENERGY STAR calculator adjustments, and building code changes.
- For programs #11 - #14 there are no savings to report for the time frame of 07/01/2014 - 06/30/2015.

Program Administrator Cost (PAC) test = Resource value of savings based on program savings life, divided by total utility program cost.

Program Total Resource Cost (TRC) test = Resource value of savings based on program savings life, divided by societal program cost.

Alternate method when incremental customer costs are unknown: SBW Evaluation Report Program 4.5 year TRC / PAC = X. Program 2015 PAC * X = current 2015 TRC.

South Dakota

4/24/2017

Program savings for 07/01/2014 - 12/31/2016

		kW	kWh	dKt	NWE Program	Incremental Customer	Total Program	Program Savings	Program Resource	NWE PAC	NWE TRC	RIM
		<u>Savings</u>	<u>Savings</u>	<u>Savings</u>	<u>Cost</u>	<u>Cost</u>	<u>Cost</u>	<u>Life</u>	<u>Value</u>	<u>Test</u>	<u>Test</u>	<u>Test</u>
1	E+ Residential Home Energy Audits - Electric	96	446,516	-	\$ 602,301	\$ -	\$ 602,301	10	\$ 85,075	0.14	0.14	0.10
2	E+ Residential Home Energy Audits - Gas	-	-	5,619	\$ 603,169	\$ -	\$ 603,169	10	\$ 148,147	0.25	0.25	0.16
3	Commercial Electric Programs	1,309	12,446,345	-	\$ 1,446,975	\$ 1,258,662	\$ 2,705,637	20	\$ 3,765,356	2.60	1.39	0.32
4	Residential Electric Programs	304	254,178	-	\$ 229,608	\$ 19,357	\$ 248,965	20	\$ 38,243	0.17	0.15	0.12
5	Commercial Natural Gas Programs	-	-	12,388	\$ 197,667	\$ 383,451	\$ 581,118	20	\$ 493,335	2.50	0.85	0.45
6	Residential Natural Gas Programs	-	-	6,392	\$ 182,149	\$ 134,074	\$ 316,223	17	\$ 242,162	1.33	0.77	0.38
	Totals	1,709	13,147,040	24,398	\$ 3,261,869	\$ 1,795,545	\$ 5,057,414		\$ 4,772,318	1.46	0.94	0.30

Program savings for 07/01/2014 - 09/30/2016

		kW	kWh	dKt	NWE Program	Incremental Customer	Total Program	Program Savings	Program Resource	NWE PAC	NWE TRC	RIM
		<u>Savings</u>	<u>Savings</u>	<u>Savings</u>	<u>Cost</u>	<u>Cost</u>	<u>Cost</u>	<u>Life</u>	<u>Value</u>	<u>Test</u>	<u>Test</u>	<u>Test</u>
1	E+ Residential Home Energy Audits - Electric	96	446,516	-	\$ 602,301	\$ -	\$ 602,301	10	\$ 85,075	0.14	0.14	0.10
2	E+ Residential Home Energy Audits - Gas	-	-	5,619	\$ 603,169	\$ -	\$ 603,169	10	\$ 148,147	0.25	0.25	0.16
3	E+ Commercial Lighting Rebate Program	1,309	7,007,993	-	\$ 727,956	\$ 725,336	\$ 1,453,292	20	\$ 2,131,630	2.93	1.47	0.32
4	E+ Residential Lighting Program	304	224,115	-	\$ 154,063	\$ 15,730	\$ 169,793	6	\$ 28,018	0.18	0.17	0.12
5	E+ Commercial EX Electric Rebate Program	-	3,789,809	-	\$ 443,134	\$ 329,496	\$ 772,630	20	\$ 1,133,592	2.56	1.47	0.31
6	E+ Commercial NC Electric Rebate Program	-	175,179	-	\$ 67,834	\$ 16,081	\$ 83,915	20	\$ 53,146	0.78	0.63	0.24
7	E+ Residential EX Electric Rebate Program	-	27,269	-	\$ 34,387	\$ 3,028	\$ 37,415	23	\$ 9,211	0.27	0.25	0.15
8	E+ Residential NC Electric Rebate Program	-	2,795	-	\$ 12,975	\$ 599	\$ 13,575	30	\$ 1,014	0.08	0.07	0.06
9	E+ Commercial EX Gas Rebate Program	-	-	12,388	\$ 157,633	\$ 383,451	\$ 541,084	20	\$ 493,335	3.13	0.91	0.45
10	E+ Residential EX Gas Rebate Program	-	-	6,392	\$ 153,984	\$ 134,074	\$ 288,057	17	\$ 242,162	1.57	0.84	0.38
11	E+ Business Partners Program - electric	-	1,473,364	-	\$ 179,868	\$ 187,750	\$ 367,618	20	\$ 446,988	2.49	1.22	0.31
12	E+ Business Partners Program - gas	-	-	-	\$ 11,868	\$ -	\$ 11,868	-	\$ -	NA	NA	NA
13	General Electric	-	-	-	\$ 56,364	\$ -	\$ 56,364	-	\$ -	NA	NA	NA
14	General Gas	-	-	-	\$ 56,331	\$ -	\$ 56,331	-	\$ -	NA	NA	NA
	Totals	1,709	13,147,040	24,398	\$ 3,261,869	\$ 1,795,545	\$ 5,057,414		\$ 4,772,318	1.46	0.94	0.30

Notes:

- Analysis to determine program cost-effectiveness **trends**. This analysis is not considered an in-depth third party program evaluation for free-riders, spillover, or realization rates.
- All NWE reported savings are post SBW program evaluation savings and based on the rebate program savings for 07/01/2014 - 12/31/2016.
- Resource Value is determined using the 2014-15 RVSS and 2015-16 RVSS, and using weighted average program lives.
- Program Savings Life based on weighted average project/measure life, rounded to the nearest whole number.
Sum of (project measure life * project measure savings) / program savings (kWh or dKt)
- Total Program Cost based on invoices/data from customer/contractor, minus NWE rebate/incentive, plus NWE program cost for Commercial Lighting. Customer cost is not considered incremental.
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- Total Program Cost based on SBW average project/measure cost, minus rebate/incentive, plus NWE program cost for Residential Lighting.
- PAC and TRC tests are based on NWE Program Resource Savings Life.
- PAC and TRC based on NWE Reported savings which incorporate SBW savings adjustments, updated potential assessment study data, ENERGY STAR calculator adjustments, and building code changes.
- For programs #12 - #14 there are no savings to report for the time frame of 07/01/2014 - 12/31/2016.

Program Administrator Cost (PAC) test = Resource value of savings based on program savings life, divided by total utility program cost.

Program Total Resource Cost (TRC) test = Resource value of savings based on program savings life, divided by societal program cost.

Alternate method when incremental customer costs are unknown: SBW Evaluation Report Program 4.5 year TRC / PAC = X. Program 2015 PAC * X = current 2015 TRC.

South Dakota

4/24/2017

Program savings for 07/01/2015 - 06/30/2016

	kW	kWh	dKt	NWE Program	Incremental Customer	Total Program	Program Savings	Program Resource	NWE PAC	NWE TRC	RIM
	<u>Savings</u>	<u>Savings</u>	<u>Savings</u>	<u>Cost</u>	<u>Cost</u>	<u>Cost</u>	<u>Life</u>	<u>Value</u>	<u>Test</u>	<u>Test</u>	<u>Test</u>
1 E+ Residential Home Energy Audits - Electric	40	180,092	-	\$ 203,472	\$ -	\$ 203,472	10	\$ 34,036	0.17	0.17	0.11
2 E+ Residential Home Energy Audits - Gas	-	-	2,413	\$ 203,472	\$ -	\$ 203,472	10	\$ 61,316	0.30	0.30	0.18
3 Commercial Electric Programs	466	3,437,349	-	\$ 450,434	\$ 403,352	\$ 853,786	21	\$ 1,053,972	2.34	1.23	0.31
4 Residential Electric Programs	27	30,629	-	\$ 29,624	\$ 2,920	\$ 32,544	19	\$ 5,934	0.20	0.18	0.12
5 Commercial Natural Gas Programs	-	-	177	\$ 23,898	\$ 1,893	\$ 25,791	17	\$ 6,464	0.27	0.25	0.22
6 Residential Natural Gas Programs	-	-	3,396	\$ 61,160	\$ 74,666	\$ 135,826	17	\$ 124,064	2.03	0.91	0.38
Totals	533	3,648,070	5,986	\$ 972,059	\$ 482,832	\$ 1,454,891		\$ 1,285,786	1.32	0.88	0.29

Program savings for 07/01/2015 - 06/30/2016

	kW	kWh	dKt	NWE Program	Incremental Customer	Total Program	Program Savings	Program Resource	NWE PAC	NWE TRC	RIM
	<u>Savings</u>	<u>Savings</u>	<u>Savings</u>	<u>Cost</u>	<u>Cost</u>	<u>Cost</u>	<u>Life</u>	<u>Value</u>	<u>Test</u>	<u>Test</u>	<u>Test</u>
1 E+ Residential Home Energy Audits - Electric	40	180,092	-	\$ 203,472	\$ -	\$ 203,472	10	\$ 34,036	0.17	0.17	0.11
2 E+ Residential Home Energy Audits - Gas	-	-	2,413	\$ 203,472	\$ -	\$ 203,472	10	\$ 61,316	0.30	0.30	0.18
3 E+ Commercial Lighting Rebate Program	466	1,948,926	-	\$ 246,230	\$ 274,568	\$ 520,798	20	\$ 591,264	2.40	1.14	0.31
4 E+ Residential Lighting Program	27	20,241	-	\$ 9,253	\$ 1,912	\$ 11,165	6	\$ 2,494	0.27	0.22	0.14
5 E+ Commercial EX Electric Rebate Program	-	1,349,758	-	\$ 146,910	\$ 116,017	\$ 262,927	22	\$ 420,640	2.86	1.60	0.31
6 E+ Commercial NC Electric Rebate Program	-	138,665	-	\$ 49,990	\$ 12,768	\$ 62,758	20	\$ 42,068	0.84	0.67	0.25
7 E+ Residential EX Electric Rebate Program	-	7,593	-	\$ 11,832	\$ 409	\$ 12,242	22	\$ 2,425	0.20	0.20	0.13
8 E+ Residential NC Electric Rebate Program	-	2,795	-	\$ 8,526	\$ 599	\$ 9,126	30	\$ 1,014	0.12	0.11	0.09
9 E+ Commercial EX Gas Rebate Program	-	-	177	\$ 16,595	\$ 1,893	\$ 18,488	17	\$ 6,464	0.39	0.35	0.22
10 E+ Residential EX Gas Rebate Program	-	-	3,396	\$ 61,148	\$ 74,666	\$ 135,814	17	\$ 124,064	2.03	0.91	0.38
11 E+ Business Partners Program - electric	-	-	-	\$ 7,291	\$ -	\$ 7,291	-	\$ -	NA	NA	
12 E+ Business Partners Program - gas	-	-	-	\$ 7,291	\$ -	\$ 7,291	-	\$ -	NA	NA	
13 General Electric	-	-	-	\$ 24	\$ -	\$ 24	-	\$ -	NA	NA	
14 General Gas	-	-	-	\$ 24	\$ -	\$ 24	-	\$ -	NA	NA	
Totals	533	3,648,070	5,986	\$ 972,059	\$ 482,832	\$ 1,454,891		\$ 1,285,786	1.32	0.88	0.29

Notes:

- Analysis to determine program cost-effectiveness **trends**. This analysis is not considered an in-depth third party program evaluation for free-riders, spillover, or realization rates.
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Sum of (project measure life * project measure savings) / program savings (kWh or dKt)
- Total Program Cost based on invoices/data from customer/contractor, minus NWE rebate/incentive, plus NWE program cost for Commercial Lighting. Customer cost is not considered incremental.
- Total Program Cost based on weighted average measure cost from resource potential assessments, minus rebate/incentive, plus NWE program cost.
- Total Program Cost based on SBW average project/measure cost, minus rebate/incentive, plus NWE program cost for Residential Lighting.
- PAC and TRC tests are based on NWE Program Resource Savings Life.
- PAC and TRC based on NWE Reported savings which incorporate SBW savings adjustments, updated potential assessment study data, ENERGY STAR calculator adjustments, and building code changes.
- For programs #11 - #14 there are no savings to report for the time frame of 07/01/2015 - 06/30/2016.

Program Administrator Cost (PAC) test = Resource value of savings based on program savings life, divided by total utility program cost.

Program Total Resource Cost (TRC) test = Resource value of savings based on program savings life, divided by societal program cost.

Alternate method when incremental customer costs are unknown: SBW Evaluation Report Program 4.5 year TRC / PAC = X. Program 2015 PAC * X = current 2015 TRC.

South Dakota 4/24/2017

Program savings for 07/01/2015 - 12/31/2016

	kW	kWh	dKt	NWE Program	Incremental Customer	Total Program	Program Savings	Program Resource	NWE PAC	NWE TRC	RIM
	<u>Savings</u>	<u>Savings</u>	<u>Savings</u>	<u>Cost</u>	<u>Cost</u>	<u>Cost</u>	<u>Life</u>	<u>Value</u>	<u>Test</u>	<u>Test</u>	<u>Test</u>
1 E+ Residential Home Energy Audits - Electric	63	287,184	-	\$ 334,856	\$ -	\$ 334,856	10	\$ 54,275	0.16	0.16	0.11
2 E+ Residential Home Energy Audits - Gas	-	-	3,872	\$ 334,800	\$ -	\$ 334,800	10	\$ 98,388	0.29	0.29	0.18
3 Commercial Electric Programs	1,174	11,399,251	-	\$ 1,218,087	\$ 1,111,521	\$ 2,329,607	20	\$ 3,450,959	2.83	1.48	0.32
4 Residential Electric Programs	28	40,087	-	\$ 46,233	\$ 3,598	\$ 49,831	20	\$ 8,996	0.19	0.18	0.12
5 Commercial Natural Gas Programs	-	-	12,372	\$ 125,492	\$ 382,217	\$ 507,709	19	\$ 492,781	3.93	0.97	0.47
6 Residential Natural Gas Programs	-	-	5,070	\$ 102,903	\$ 110,422	\$ 213,325	17	\$ 185,215	1.80	0.87	0.37
Totals	1,265	11,726,522	21,314	\$ 2,162,371	\$ 1,607,759	\$ 3,770,130		\$ 4,290,615	1.98	1.14	0.31

Program savings for 07/01/2015 - 09/30/2016

	kW	kWh	dKt	NWE Program	Incremental Customer	Total Program	Program Savings	Program Resource	NWE PAC	NWE TRC	RIM
	<u>Savings</u>	<u>Savings</u>	<u>Savings</u>	<u>Cost</u>	<u>Cost</u>	<u>Cost</u>	<u>Life</u>	<u>Value</u>	<u>Test</u>	<u>Test</u>	<u>Test</u>
1 E+ Residential Home Energy Audits - Electric	63	287,184	-	\$ 334,856	\$ -	\$ 334,856	10	\$ 54,275	0.16	0.16	0.11
2 E+ Residential Home Energy Audits - Gas	-	-	3,872	\$ 334,800	\$ -	\$ 334,800	10	\$ 98,388	0.29	0.29	0.18
3 E+ Commercial Lighting Rebate Program	1,174	6,291,140	-	\$ 619,221	\$ 605,045	\$ 1,224,266	20	\$ 1,908,601	3.08	1.56	0.32
4 E+ Residential Lighting Program	28	20,956	-	\$ 14,189	\$ 1,964	\$ 16,152	6	\$ 2,582	0.18	0.16	0.11
5 E+ Commercial EX Electric Rebate Program	-	3,459,568	-	\$ 350,825	\$ 302,645	\$ 653,469	20	\$ 1,042,225	2.97	1.59	0.32
6 E+ Commercial NC Electric Rebate Program	-	175,179	-	\$ 67,834	\$ 16,081	\$ 83,915	20	\$ 53,146	0.78	0.63	0.24
7 E+ Residential EX Electric Rebate Program	-	16,336	-	\$ 18,729	\$ 1,035	\$ 19,764	24	\$ 5,400	0.29	0.27	0.15
8 E+ Residential NC Electric Rebate Program	-	2,795	-	\$ 12,975	\$ 599	\$ 13,575	30	\$ 1,014	0.08	0.07	0.06
9 E+ Commercial EX Gas Rebate Program	-	-	12,372	\$ 113,284	\$ 382,217	\$ 495,501	19	\$ 492,781	4.35	0.99	0.47
10 E+ Residential EX Gas Rebate Program	-	-	5,070	\$ 102,563	\$ 110,422	\$ 212,985	17	\$ 185,215	1.81	0.87	0.37
11 E+ Business Partners Program - electric	-	1,473,364	-	\$ 179,868	\$ 187,750	\$ 367,618	10	\$ 446,988	2.49	1.22	0.31
12 E+ Business Partners Program - gas	-	-	-	\$ 11,868	\$ -	\$ 11,868	-	\$ -	NA	NA	NA
13 General Electric	-	-	-	\$ 680	\$ -	\$ 680	-	\$ -	NA	NA	NA
14 General Gas	-	-	-	\$ 680	\$ -	\$ 680	-	\$ -	NA	NA	NA
Totals	1,265	11,726,522	21,314	\$ 2,162,371	\$ 1,607,759	\$ 3,770,130		\$ 4,290,615	1.98	1.14	0.31

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Sum of (project measure life * project measure savings) / program savings (kWh or dKt)
- Total Program Cost based on invoices/data from customer/contractor, minus NWE rebate/incentive, plus NWE program cost for Commercial Lighting. Customer cost is not considered incremental.
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- PAC and TRC tests are based on NWE Program Resource Savings Life.
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Program savings for 07/01/2016 - 12/31/2016

	kW	kWh	dKt	NWE Program	Incremental Customer	Total Program	Program Savings	Program Resource	NWE PAC	NWE TRC	RIM
	<u>Savings</u>	<u>Savings</u>	<u>Savings</u>	<u>Cost</u>	<u>Cost</u>	<u>Cost</u>	<u>Life</u>	<u>Value</u>	<u>Test</u>	<u>Test</u>	<u>Test</u>
1 E+ Residential Home Energy Audits - Electric	23	107,092	-	\$ 131,384	\$ -	\$ 131,384	10	\$ 20,239	0.15	0.15	0.10
2 E+ Residential Home Energy Audits - Gas	-	-	1,459	\$ 131,328	\$ -	\$ 131,328	10	\$ 37,071	0.28	0.28	0.17
3 Commercial Electric Programs	708	7,961,902	-	\$ 767,653	\$ 708,168	\$ 1,475,822	20	\$ 2,396,988	3.12	1.62	0.32
4 Residential Electric Programs	1	9,458	-	\$ 16,609	\$ 678	\$ 17,287	16	\$ 3,063	0.18	0.18	0.12
5 Commercial Natural Gas Programs	-	-	12,195	\$ 101,594	\$ 380,325	\$ 481,919	20	\$ 486,316	4.79	1.01	0.48
6 Residential Natural Gas Programs	-	-	1,674	\$ 41,743	\$ 35,756	\$ 77,499	17	\$ 61,151	1.46	0.79	0.35
Totals	732	8,078,452	15,328	\$ 1,190,311	\$ 1,124,927	\$ 2,315,239		\$ 3,004,829	2.52	1.30	0.33

Program savings for 07/01/2016 - 09/30/2016

	kW	kWh	dKt	NWE Program	Incremental Customer	Total Program	Program Savings	Program Resource	NWE PAC	NWE TRC	RIM
	<u>Savings</u>	<u>Savings</u>	<u>Savings</u>	<u>Cost</u>	<u>Cost</u>	<u>Cost</u>	<u>Life</u>	<u>Value</u>	<u>Test</u>	<u>Test</u>	<u>Test</u>
1 E+ Residential Home Energy Audits - Electric	23	107,092	-	\$ 131,384	\$ -	\$ 131,384	10	\$ 20,239	0.15	0.15	0.10
2 E+ Residential Home Energy Audits - Gas	-	-	1,459	\$ 131,328	\$ -	\$ 131,328	10	\$ 37,071	0.28	0.28	0.17
3 E+ Commercial Lighting Rebate Program	708	4,342,214	-	\$ 372,990	\$ 330,477	\$ 703,467	20	\$ 1,317,337	3.53	1.87	0.32
4 E+ Residential Lighting Program	1	715	-	\$ 4,936	\$ 52	\$ 4,988	6	\$ 88	0.02	0.02	0.02
5 E+ Commercial EX Electric Rebate Program	-	2,109,810	-	\$ 203,914	\$ 186,628	\$ 390,542	19	\$ 621,585	3.05	1.59	0.32
6 E+ Commercial NC Electric Rebate Program	-	36,514	-	\$ 17,844	\$ 3,313	\$ 21,157	20	\$ 11,078	0.62	0.52	0.23
7 E+ Residential EX Electric Rebate Program	-	8,743	-	\$ 6,896	\$ 626	\$ 7,522	25	\$ 2,974	0.43	0.40	0.19
8 E+ Residential NC Electric Rebate Program	-	-	-	\$ 4,449	\$ -	\$ 4,449	-	\$ -	NA	NA	NA
9 E+ Commercial EX Gas Rebate Program	-	-	12,195	\$ 96,689	\$ 380,325	\$ 477,014	20	\$ 486,316	5.03	1.02	0.48
10 E+ Residential EX Gas Rebate Program	-	-	1,674	\$ 41,415	\$ 35,756	\$ 77,172	17	\$ 61,151	1.48	0.79	0.35
11 E+ Business Partners Program - electric	-	1,473,364	-	\$ 172,577	\$ 187,750	\$ 360,327	20	\$ 446,988	2.59	1.24	0.31
12 E+ Business Partners Program - gas	-	-	-	\$ 4,577	\$ -	\$ 4,577	-	\$ -	NA	NA	NA
13 General Electric	-	-	-	\$ 656	\$ -	\$ 656	-	\$ -	NA	NA	NA
14 General Gas	-	-	-	\$ 656	\$ -	\$ 656	-	\$ -	NA	NA	NA
Totals	732	8,078,452	15,328	\$ 1,190,311	\$ 1,124,927	\$ 2,315,239		\$ 3,004,829	2.52	1.30	0.33

Notes:

- Analysis to determine program cost-effectiveness **trends**. This analysis is not considered an in-depth third party program evaluation for free-riders, spillover, or realization rates.
- All NWE reported savings are post SBW program evaluation savings and based on the rebate program savings for 07/01/2016 - 12/31/2016.
- Resource Value is determined using the 2015-16 RVSS, and coming on-line in 2016, and using weighted average program lives.
- Program Savings Life based on weighted average project/measure life, rounded to the nearest whole number.
Sum of (project measure life * project measure savings) / program savings (kWh or dKt)
- Total Program Cost based on invoices/data from customer/contractor, minus NWE rebate/incentive, plus NWE program cost for Commercial Lighting. Customer cost is not considered incremental.
- Total Program Cost based on weighted average measure cost from resource potential assessments, minus rebate/incentive, plus NWE program cost.
- Total Program Cost based on SBW average project/measure cost, minus rebate/incentive, plus NWE program cost for Residential Lighting.
- PAC and TRC tests are based on NWE Program Resource Savings Life.
- PAC and TRC based on NWE Reported savings which incorporate SBW savings adjustments, updated potential assessment study data, ENERGY STAR calculator adjustments, and building code changes.
- For programs #12 - #14 there are no savings to report for the time frame of 07/01/2016 - 12/31/2016.

Program Administrator Cost (PAC) test = Resource value of savings based on program savings life, divided by total utility program cost.

Program Total Resource Cost (TRC) test = Resource value of savings based on program savings life, divided by societal program cost.

Alternate method when incremental customer costs are unknown: SBW Evaluation Report Program 4.5 year TRC / PAC = X. Program 2015 PAC * X = current 2015 TRC.