

Ontario Energy Board

Commission de l'énergie de l'Ontario



**Conservation and Demand Management
Report – 2011 Results
EB-2010-0215**

Date: December 20, 2012

1. BACKGROUND

1.1 Green Energy and Green Economy Act, 2009

On September 9, 2009, certain sections of the *Green Energy and Green Economy Act, 2009* (the “Green Energy Act”) were proclaimed. The *Green Energy Act* amended section 27.2 of the *Ontario Energy Board Act, 1998* (the “Act”) and stated that a directive may require the Board to specify, as a condition of licence, conservation and demand management targets (“CDM Targets”) for electricity distributors.

1.2 CDM Directive

The Minister of Energy and Infrastructure issued a directive, dated March 31, 2010, to the Board under sections 27.1 and 27.2 of the Act (the “Directive”).

The Directive required the Board to take steps to establish electricity CDM Targets to be met by certain licensed electricity local distribution companies (“LDCs” or “distributors”).

The Directive also required the Board to add a condition to the licence of each distributor that distributors must achieve reductions in electricity consumption (6,000 GWh) and in peak provincial electricity demand (1,330 MW) by the amounts that the Board specified in each distributor’s licence. The reductions are to be achieved through the delivery of CDM Programs over a four year period beginning January 1, 2011 and ending December 31, 2014.

Further, the Directive required the Board to issue a code that set out the obligations and requirements with which licensed distributors must comply in relation to the CDM Targets.

Finally, the Directive requires the Board to publish annually verified results for each distributor and consolidated results for all distribution CDM programs.

1.3 CDM Code and Annual Reports

On September 30, 2010 the Board issued its CDM Code (EB-2010-0215). The CDM Code sets out the conditions and rules that licensed distributors are required to follow in achieving their CDM Targets.

Section 2.2 of the CDM Code sets out the requirements for annual CDM reporting which must be filed with the Board on September 30th of each year starting in 2012.

2. 2011 CDM ANNUAL REPORTS

As of October 1, 2012, the Board received CDM Annual Reports from all distributors except the three First Nation distributors for the 2011 reporting period. To ensure consistency, reports were filed on the basis of a template prepared by the distributors through a Reporting and Evaluation Working Group consisting of representatives from selected distributors and staff from the Ontario Power Authority (“OPA”). The Board appreciates the efforts of the Reporting Working Group.

Board staff conducted a review of all the 2011 CDM Annual Reports to ensure completeness and compliance with the CDM Code, as well as to consider the comments and results reported by distributors.

2.2 2011 CDM Results

The 2011 results from the distributors’ 2011 CDM Annual Reports are included as Appendix A of this report. The results were achieved through the use of the province-wide CDM programs made available by the OPA. While three Board-Approved CDM Program applications were received by the Board, no Board-Approved programs were in the market in 2011.

The tables that follow include the consolidated 2011 net energy (kWh) and peak demand (kW) savings results¹. The individual reports from distributors can be found at the following link [2011 CDM Reports](#).

2.2.1 OPA-Contracted Province-Wide CDM Programs

The distributors have relied on the OPA’s 2011 final evaluation results for all province-wide CDM programs as prepared by the OPA. The OPA’s evaluations have resulted in final net energy consumption (kWh) and peak demand savings (kW) which the distributors have included in the 2011 annual reports.

¹ *Net energy (kWh) and/or peak demand (kW) savings* – is the total change in energy consumption (kWh) and/or peak demand (kW) that is attributable to an energy efficiency program that does not include external factors such as free riders, spillover effect, free drivers, energy efficiency standards, etc.

The consolidated results for the 2011 OPA-Contracted Province-Wide CDM Programs are discussed below.²

Savings

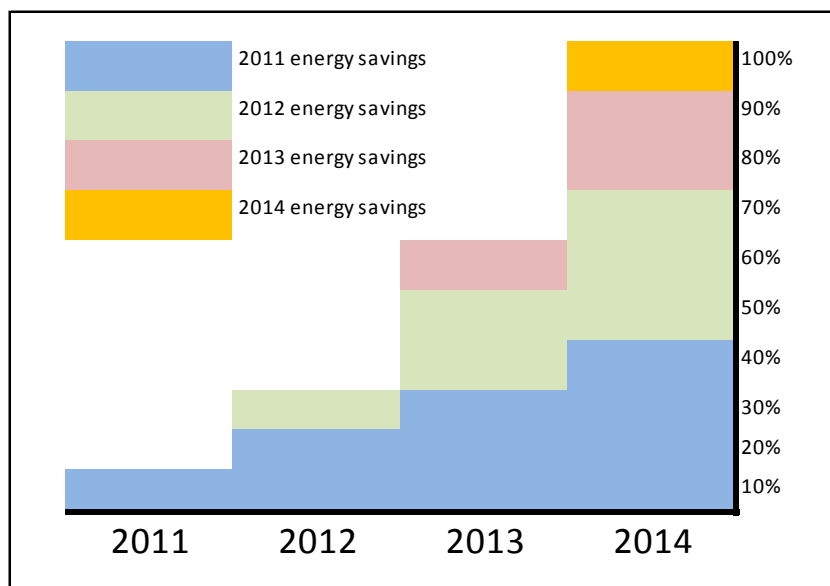
Savings totals for both energy (kWh) and peak demand (kW) have been reported for 2011-only and for the cumulative³ energy (kWh) for the 2011-2014 term.

To achieve the energy consumption CDM Target of 6,000 GWh, distributors will rely on the energy savings that are realized in 2011 to remain in place in 2012, 2013, and 2014. The total savings achieved each year cumulate over the 4-year period and contribute to achieving the overall target.

As an example, if a distributor achieved 10% of its energy consumption (kWh) target in 2011, that 10% becomes 20% in 2012, 30% in 2013 and 40% in 2014. The chart below shows how the impact of the savings realized in 2011 accumulate year over year. To achieve 100% of the energy target, a distributor would need to achieve an additional 10% of new savings each year in this example.

² The consolidated results discussed are based on the verified results reported by the OPA for 2011. The results reported to the Board by the distributors, as required by the CDM Code, are contained in Appendix A. The Board notes that there are minor differences between the aggregate of results reported by the distributors and the verified results of the Ontario Power Authority. In most cases this is due to the rounding of numbers. For a few distributors the differences are more material, and are expected to represent timing differences for when results were reported. Nevertheless, CDM targets can only be met through verified results, and for OPA-Contracted Province-Wide CDM Programs this is the results from the OPA's evaluations. Inclusion of a distributor's reported results in Appendix A that differ from the results of the OPA does not constitute the Board's acceptance that these results as final for 2011.

³ Cumulative energy net savings (kWh) are the sum of the savings in each year including the energy savings from one year that will continue to be in place over the course of the 2011-2014 CDM term.



The peak demand savings are not cumulative. To achieve the CDM Target of 1,330 MW the persisting peak demand (kW) savings must be in place at the end of 2014. Charts showing the cumulative progress of each distributor against their energy CDM Targets can be found in Appendix B.

Annual Savings - 2011

2011 Peak Demand Net Savings (kW)

Consumer Program	49,123
Business Program	64,594
Industrial Program	57,099
Home Assistance Program	2
Pre-2011 Program Completed in 2011	44,833
2011 Total Incremental Peak Demand Net Savings (kW)	215,651

The majority of distributors reported having achieved at least 10% of their net peak demand (kW) target from their 2011 results.

2011 Energy Net Savings (kWh)

Consumer Program	133,519,668
Business Program	198,124,227
Industrial Program	31,947,577
Home Assistance Program	39,283
Pre-2011 Program Completed in 2011	241,853,020
2011 Total Incremental Energy Net Savings (kWh)	605,483,775

When looking only at the one-year effects of 2011 energy savings (kWh) results, over one-third of distributors achieved 10% of their net energy (kWh) savings target. Given that the kWh targets are cumulative for savings that persist, 10% in 2011 becomes 40% towards the overall target.

2011-2014 - Cumulative Savings

2011-2014 Cumulative Energy Net Savings (kWh)

Consumer Program	534,017,835
Business Program	767,657,790
Industrial Program	118,543,019
Home Assistance Program	157,134
Pre-2011 Program Completed in 2011	967,412,079
2011-2014 Total Cumulative Energy Net Savings (kWh)	2,387,787,856

The cumulative 2011-2014 net energy (kWh) savings results are those energy savings that will continue to be in place and realize savings over the course of the 2011-2014 term. Overall, this cumulative result represents 40% of the overall energy target. Rideau St. Lawrence Distribution Inc. (78%), Guelph Hydro Electric Systems Inc. (72%) and Cambridge North Dumfries Hydro Inc. (70%) have achieved between 70%-80% of their net energy (kWh) savings target, while Woodstock Hydro Services Inc. (107%) has already achieved over 100% of its net energy (kWh) savings target.

A comparison of how the energy savings (kWh) results for 2011-only versus the cumulative results for 2011-2014 contribute towards the four-year overall targets for energy consumption (6,000 GWh) can be found in Appendix C.

2.2.2 Board-Approved CDM Programs

There were no Board-Approved CDM Programs in market in 2011. The Board received three Board-Approved CDM Program applications over the course of 2010 and 2011. Upon review of the first two applications, the Board determined that additional evidence was required relating to the evaluation plans. For the third application, the Board found duplication with certain OPA-Contracted Province-Wide CDM Programs, but approved some funding for two programs over a 15-month period. In all three applications, the applicants ultimately decided not to proceed.

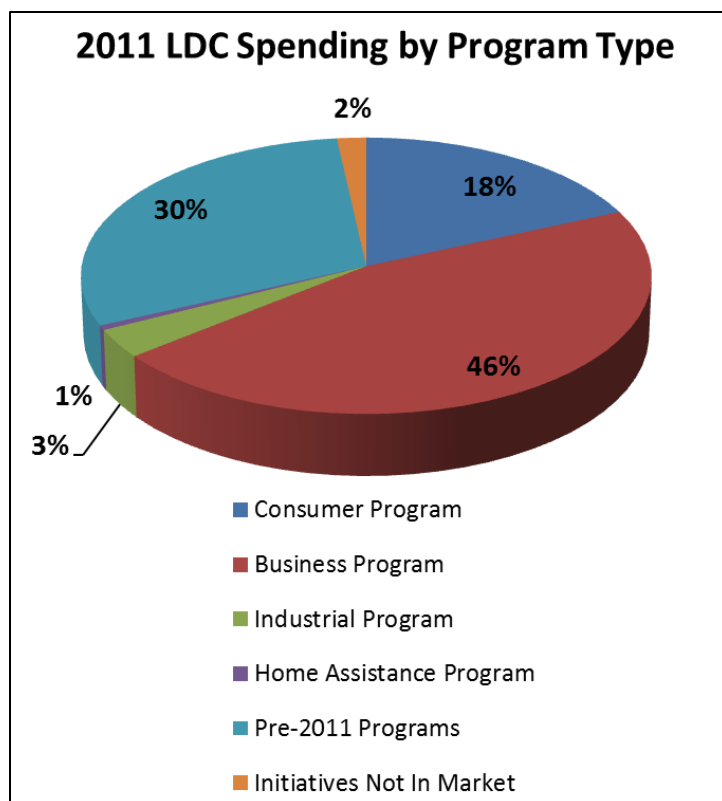
The Board's evaluation of proposed Board-Approved CDM Programs is guided by the specific requirements set out in Section 6 of the Minister's Directive, including the direction that Board-Approved CDM Programs shall not duplicate OPA-Contracted Province-Wide CDM Programs. To provide more specific guidance to distributors on what evidence should be filed by in support of an application for Board-Approved CDM Programs, the Board issued an updated version of its CDM Guidelines on April 26, 2012 (the "2012 CDM Guidelines"). The 2012 CDM Guidelines are intended to establish a baseline of the Board's expectations with respect to Board-Approved CDM Programs. No further Board-Approved CDM Program applications have been received.

2.3 2011 CDM Spending

Spending

Overall in 2011, distributors reported spending a total of \$94,129,770 on CDM programs across Ontario. The reported amounts in this report include only the spending incurred directly by distributors and do not include any spending amounts for programs centrally funded by the OPA⁴.

⁴ Centrally funded programs are those where the OPA works directly with either retailers such as appliance exchange or retirement, contractors such as HVAC incentives, and/or aggregators such as in the Demand Response 3 program.



Consumer Program ⁵	\$17,269,593
Business Program	\$43,180,582
Industrial Program	\$3,152,722
Home Assistance Program	\$500,987
Pre-2011 Programs	\$28,356,873
Initiatives Not In Market	\$1,669,013
2011 Total LDC Spending	\$94,129,770

3. GENERAL COMMENTS

Below are general comments distributors shared in the 2011 CDM Annual Reports. Distributors noted that the 2011 program year was a learning experience. Distributors noted that there was a delay in the full suite of programs being made available by the OPA and that there were some initiatives that were not available at all. Distributors indicated that this negatively impacted the final 2011 results.

Smaller distributors noted that there was a learning curve on how to best offer and educate its employees and customers on the wide suite of conservation offerings. Several distributors also commented that results were less than they had expected in their CDM Strategies because they had expected to make use of Board-Approved CDM Programs for the 2011 program year.

Overall however, distributors were mainly optimistic in their comments about the 2011 results and projections to meet the CDM Targets by the end of 2014. Distributors did

⁵ Full OPA-Contracted Province-Wide CDM Program descriptions can be found at www.saveonenergy.ca

caution that to meet the peak demand (kW) target, full availability of all OPA Province-Wide CDM programs and strong participation results will be necessary.

4. PROGRAM-SPECIFIC COMMENTS

This section summarizes the program-specific comments provided by individual distributors in their 2011 CDM Annual Reports. The Board recognizes that the OPA has established a change management process to allow for an ongoing refinement to the OPA's Province-Wide CDM Programs, and that working groups meet regularly to discuss and address issues. The Board encourages the OPA to review the comments from the distributors about specific programs to determine if there are any new matters to discuss with the industry as part of the OPA's ongoing process for continuous improvement.

Consumer Program: Residential Customers

Appliance Retirement Initiative

Distributors noted that the Appliance Retirement Initiative (previously The Great Refrigerator Round-Up) is approaching market saturation as it has been offered since 2007.

HVAC Incentives Initiative

Distributors had several issues with the HVAC Incentives initiative that mainly surrounded program design elements. Distributors noted that they have found there to be an inability to obtain some potential participants and subsequent savings as independent contractors are offering their own non-LDC sponsored incentives to match the value of the OPA installations. Distributors also mentioned that a delayed rebate process resulted in frustration from customers and contractors.

Conservation Instant Coupon Booklet Initiative

Distributors noted that the uptake for the Coupon Booklet initiative was significantly less than had been projected. One factor for this occurrence may have been, as noted by distributors, that the bar coding for the coupon booklets had been done incorrectly for a number of LDCs which resulted in lost distributor-specific results.

Residential New Construction Initiative

Distributors noted that there was little uptake for the Residential New Construction initiative. Distributors reported that administrative issues led to the poor 2011 performance. Specifically, it was noted that builders who build in large phases did not

participate; likely because each home built required a separate application as opposed to one application for a project of multiple planned home builds.

Business Program: Commercial and Institutional Customers

Equipment Replacement Incentive Initiative (ERII)

Distributors noted payment delays as a major challenge in this initiative and suggested that a proper central system to administer payments was not in place at the time the initiative launched. There were also comments that the participant agreement was too burdensome and a barrier to participation.

Direct Install Initiative

Distributors noted that as the direct install lighting initiative is a continuation of the successful Power Savings Blitz initiative offered by distributors from 2008 to 2010, diminished potential for the 2011 to 2014 initiative may be found in some territories. Distributors also commented on the delay in the centralized payment system and the need for the distributor to cash flow the initiative to avoid delays in payments to contractors to ensure they remained engaged in the initiative.

Existing Building Commissioning Incentive Initiative

Some distributors reported no participation in this initiative and commented that some main features of the initiative may be too narrow in scope. Some distributors suggested that by expanding the initiative to include broader building improvements to allow for a more holistic approach to building re-commissioning, that participation may be increased.

Energy Audit Initiative

Some distributors suggested that this initiative should be reviewed under the OPA's change management process in order to allow distributors or delivery agents to readily incent participants with audits in hand. Distributors noted that this could also allow for customers to implement other electricity saving initiatives in their homes.

Industrial Program: Large Use Customers

Program and System Upgrades Initiative

Distributors noted that the application process was burdensome and resulted in a significant barrier to participation. Distributors further noted that the application process required in-house legal review, something that not all small industrial, municipal or institutional customers employ. Distributors also mentioned that the program relies on a

Technical Reviewer which wasn't contracted by the OPA until November 2011, resulting in a lost year.

Energy Manager Initiative

Distributors noted that it took longer than expected to setup, engage and hire an energy manager. There were also concerns between the need to hire an individual versus a company to meet the Roving Energy Manager position.

Demand Response 3

Some distributors noted that the ability to effectively market this initiative to prospective participants is limited due to the fact that customer data is not provided to the distributor from the OPA on an individual customer basis. It was noted, however, that this is largely due to contractual requirements with the aggregators. Distributors further commented that the lack of information sharing makes it difficult for the distributor to make sure that the customer is satisfied with the services provided by the aggregator.

Low-Income

Home Assistance Initiative

Almost all distributors were not able to have this program in market for 2011. Distributors noted that there was a delay in obtaining a qualified delivery agent/contractor and difficulty identifying eligible customers.

Appendix A

**2011 CDM Summary Report
2011 Distributor Reported Results**

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LDC Name	GWh Target	2011 Specific		2011-2014 Cumulative		MW Target	2011 Specific	
		2011 GWh Savings	% of Target from 2011 GWh Savings	Cumulative GWh 2011-2014 Savings	% of Target from 2011-2014 GWh Savings		2011 MW Savings	% of Target from 2011 MW Savings
Algoma Power Inc.	7.37	0.17	2%	0.67	9%	1.28	0.02	2%
Atikokan Hydro Inc.	1.16	0.10	8%	0.38	33%	0.2	0.02	8%
Attawapiskat Power Corporation	0.29		0%		0%	0.07		0%
Bluewater Power Distribution Corporation	53.73	5.31	10%	20.87	39%	10.65	3.16	30%
Brant County Power Inc.	9.85	0.42	4%	1.62	16%	3.3	0.35	11%
Brantford Power Inc.	48.92	4.52	9%	17.91	37%	11.38	1.34	12%
Burlington Hydro Inc.	82.37	7.35	9%	29.19	35%	21.95	2.93	13%
COLLUS Power Corporation	14.97	0.82	5%	3.19	21%	3.14	0.23	7%
Cambridge and North Dumfries Hydro Inc.	73.66	12.88	17%	51.34	70%	17.68	3.21	18%
Canadian Niagara Power Inc.	25.08	1.92	8%	7.63	30%	6.4	0.52	8%
Centre Wellington Hydro Ltd.	7.81	0.97	12%	3.87	49%	1.64	0.23	14%
Chapleau Public Utilities Corporation	1.21	0.12	10%	0.43	36%	0.17	0.04	21%
Cooperative Hydro Embrun Inc.	1.12	0.07	6%	0.28	25%	0.34	0.05	15%
E.L.K. Energy Inc.	8.25	0.55	7%	2.10	25%	2.69	0.23	9%
Enersource Hydro Mississauga Inc.	417.22	42.35	10%	166.98	40%	92.98	15.88	17%
Entegrus	46.53	2.59	6%	10.20	22%	12.12	1.61	13%
ENWIN Utilities Ltd.	117.89	8.27	7%	32.19	27%	26.81	3.10	12%
Erie Thames Powerlines Corporation	22.97	1.10	5%	4.34	19%	5.22	0.30	6%
Espanola Regional Hydro Distribution Corporation	2.76	0.37	13%	1.47	53%	0.52	0.06	11%
Essex Powerlines Corporation	21.54	2.16	10%	8.27	38%	7.19	2.49	35%
Festival Hydro Inc.	29.25	2.25	8%	8.89	30%	6.23	0.71	11%
Fort Albany Power Corporation	0.24		0%		0%	0.05		0%
Fort Frances Power Corporation	3.64	0.11	3%	0.43	12%	0.61	0.02	2%
Greater Sudbury Hydro Inc.	43.71	3.05	7%	12.16	28%	8.22	0.87	11%
Grimsby Power Inc.	7.76	1.06	14%	4.16	54%	2.06	0.52	25%
Guelph Hydro Electric Systems Inc.	79.53	14.41	18%	57.41	72%	16.71	3.42	20%
Halimand County Hydro Inc.	13.3	1.57	12%	6.21	47%	2.85	0.39	14%
Halton Hills Hydro Inc.	22.48	1.89	8%	7.46	33%	6.15	1.02	17%
Hearst Power Distribution Company Limited	3.91	0.14	4%	0.55	14%	0.68	0.04	6%
Horizon Utilities Corporation	281.42	32.40	12%	128.51	46%	60.36	12.02	20%
Hydro 2000 Inc.	1.04	0.07	6%	0.27	26%	0.19	0.02	9%
Hydro Hawkesbury Inc.	9.28	0.72	8%	2.82	30%	1.82	0.15	8%
Hydro One Brampton Networks Inc.	189.54	13.09	7%	51.94	27%	45.61	5.27	12%
Hydro One Networks Inc.	1,130.21	85.96	8%	335.85	30%	213.66	35.05	16%
Hydro Ottawa Limited	374.73	35.85	10%	141.40	38%	85.26	12.69	15%
Innisfil Hydro Distribution Systems Limited	9.2	0.56	6%	0.13	24%	2.5	0.28	11%
Kashechewan Power Corporation	0.33		0%		0%	0.07		0%
Kenora Hydro Electric Corporation Ltd.	5.22	0.08	1%	0.31	6%	0.86	0.01	1%
Kingston Hydro Corporation	37.16	3.30	9%	12.68	34%	6.63	4.69	71%
Kitchener-Wilmot Hydro Inc.	90.29	12.88	14%	51.01	57%	21.56	4.63	21%
Lakefront Utilities Inc.	13.59	1.38	10%	5.41	40%	2.77	0.26	9%
Lakeland Power Distribution Ltd.	10.18	0.55	5%	2.18	21%	2.32	0.11	5%
London Hydro Inc.	156.64	21.13	13%	84.04	54%	41.44	6.68	16%
Midland Power Utility Corporation	10.82	0.98	9%	3.63	34%	2.39	1.59	66%
Milton Hydro Distribution Inc.	33.5	4.11	12%	16.41	49%	8.05	1.09	13%
Newmarket - Tay Power Distribution Ltd.	33.05	3.71	11%	14.69	44%	8.76	0.95	11%
Niagara Peninsula Energy Inc.	58.04	5.03	9%	19.44	34%	15.49	1.39	9%
Niagara-on-the-Lake Hydro Inc.	8.27	1.02	12%	3.87	47%	2.42	0.30	12%
Norfolk Power Distribution Inc.	15.68	1.07	7%	4.13	26%	4.25	0.63	15%
North Bay Hydro Distribution Limited	26.1	2.35	9%	9.24	35%	5.05	1.02	20%
Northern Ontario Wires Inc.	5.88	0.48	8%	1.88	32%	1.06	0.10	10%
Oakville Hydro Electricity Distribution Inc.	74.06	6.76	9%	26.94	36%	20.7	2.24	11%
Orangeville Hydro Limited	11.82	1.16	10%	4.53	38%	2.78	0.90	32%

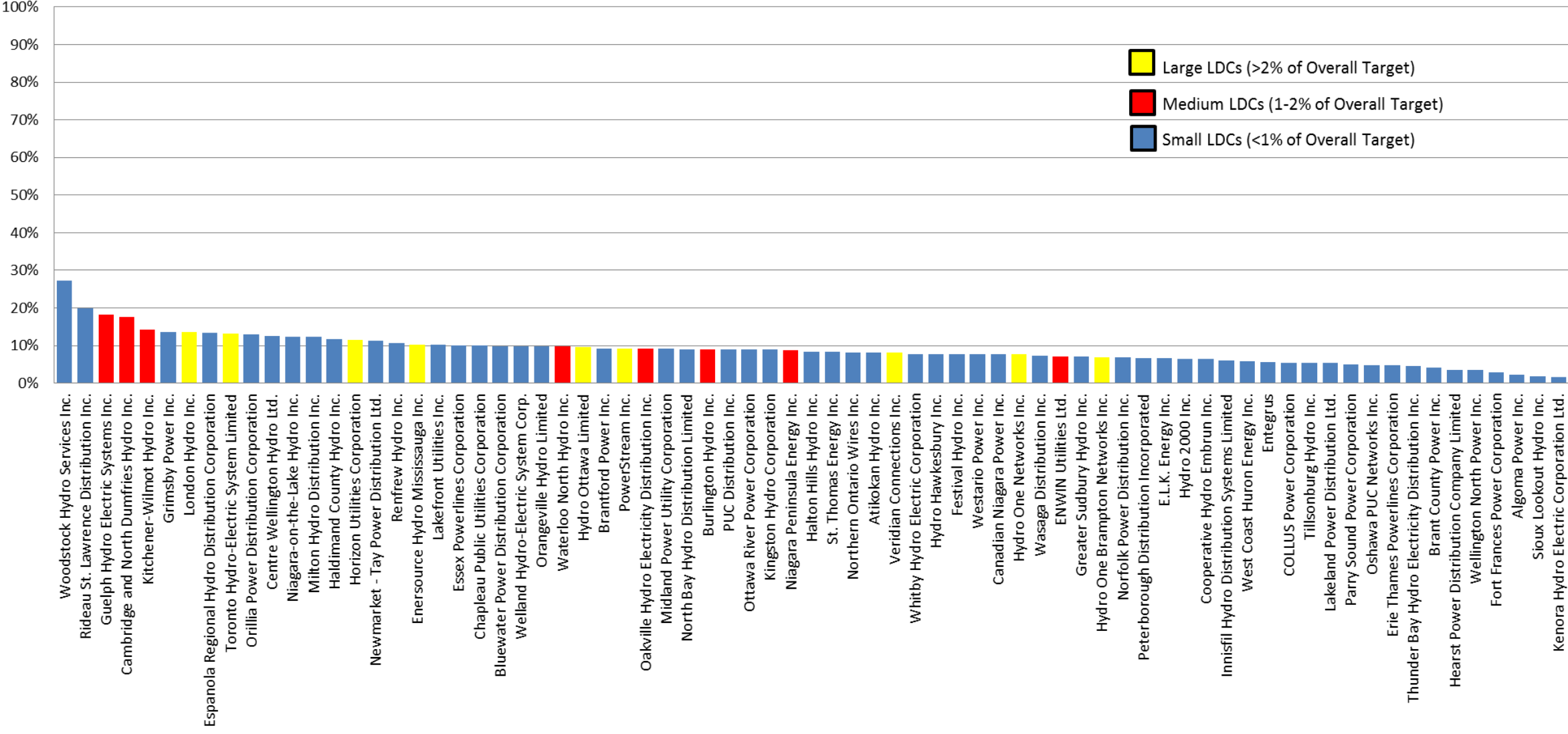
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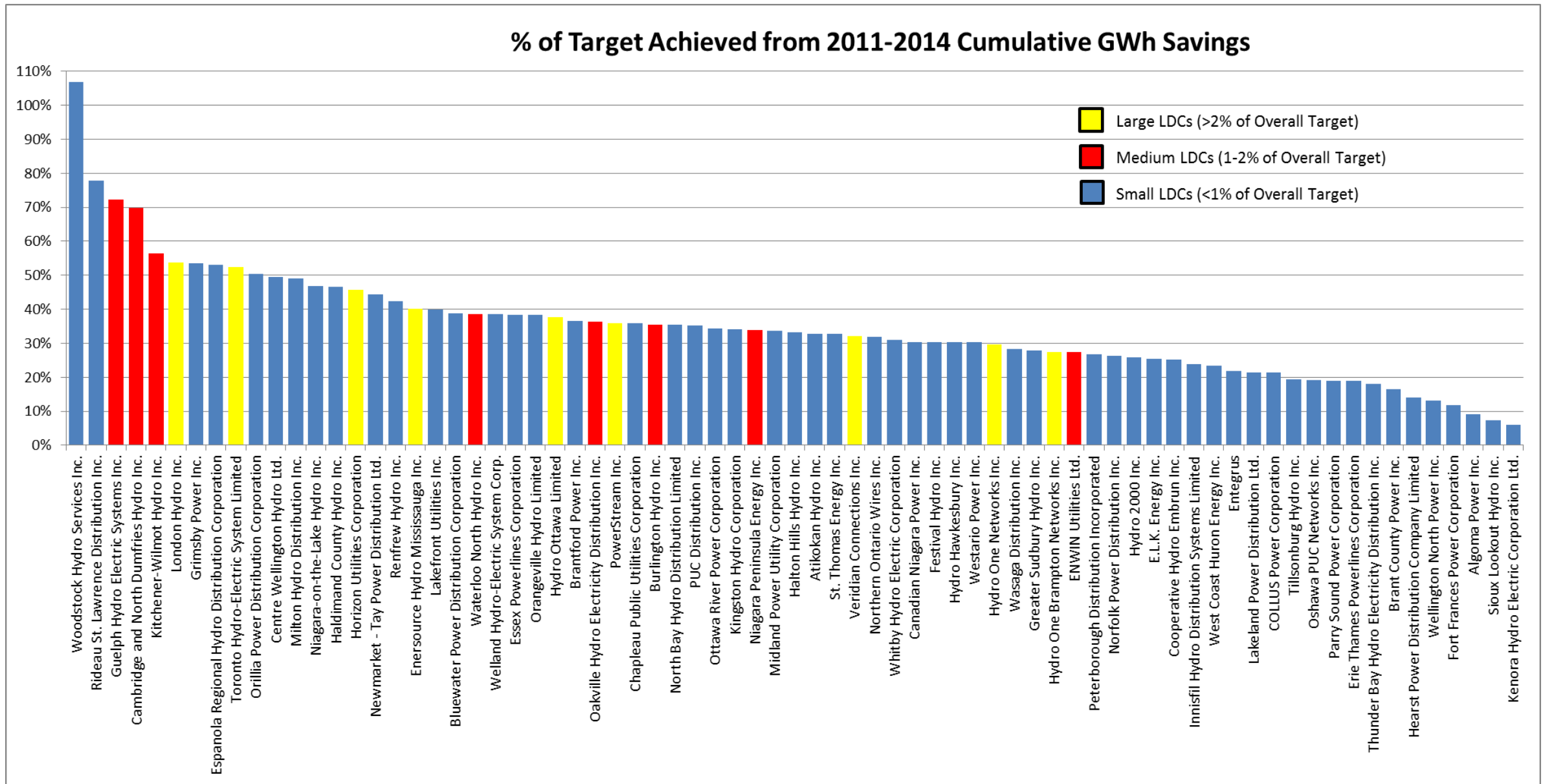
LDC Name	GWh Target	2011 Specific		2011-2014 Cumulative		MW Target	2011 Specific	
		2011 GWh Savings	% of Target from 2011 GWh Savings	Cumulative GWh 2011-2014 Savings	% of Target from 2011-2014 GWh Savings		2011 MW Savings	% of Target from 2011 MW Savings
Orillia Power Distribution Corporation	15.05	1.95	13%	7.57	50%	3.07	0.97	32%
Oshawa PUC Networks Inc.	52.24	2.52	5%	10.01	19%	12.52	1.37	11%
Ottawa River Power Corporation	8.97	0.80	9%	3.09	34%	1.61	0.22	13%
PUC Distribution Inc.	30.83	2.74	9%	10.86	35%	5.58	0.67	12%
Parry Sound Power Corporation	4.16	0.21	5%	0.79	19%	0.74	0.05	7%
Peterborough Distribution Incorporated	38.45	2.58	7%	10.28	27%	8.72	0.57	6%
PowerStream Inc.	407.34	37.27	9%	146.55	36%	95.57	14.49	15%
Renfrew Hydro Inc.	4.86	0.51	11%	2.06	42%	1.05	0.18	17%
Rideau St. Lawrence Distribution Inc.	5.1	1.01	20%	3.97	78%	1.22	0.26	21%
Sioux Lookout Hydro Inc.	3.32	0.06	2%	0.25	7%	0.51	0.01	2%
St. Thomas Energy Inc.	14.92	1.25	8%	4.90	33%	3.94	0.37	9%
Thunder Bay Hydro Electricity Distribution Inc.	47.38	2.16	5%	8.50	18%	8.48	0.53	6%
Tillsonburg Hydro Inc.	10.25	0.55	5%	1.98	19%	2.29	1.48	65%
Toronto Hydro-Electric System Limited	1,303.99	172.92	13%	682.97	52%	286.27	49.83	17%
Veridian Connections Inc.	115.74	9.34	8%	37.16	32%	29.05	3.14	11%
Wasaga Distribution Inc.	4.01	0.29	7%	1.14	28%	1.34	0.13	9%
Waterloo North Hydro Inc.	66.49	6.49	10%	25.67	39%	15.79	2.10	13%
Welland Hydro-Electric System Corp.	20.6	2.02	10%	7.94	39%	5.56	0.57	10%
Wellington North Power Inc.	4.52	0.15	3%	0.59	13%	0.93	0.05	5%
West Coast Huron Energy Inc.	8.28	0.49	6%	1.94	23%	0.88	0.09	11%
Westario Power Inc.	20.95	1.61	8%	6.33	30%	4.24	0.39	9%
Whitby Hydro Electric Corporation	39.07	3.05	8%	12.11	31%	10.9	1.04	10%
Woodstock Hydro Services Inc.	18.88	5.14	27%	20.17	107%	4.49	2.93	65%
TOTAL	6000	606.22	10%	2388.34	40%	1330	216.23	16%

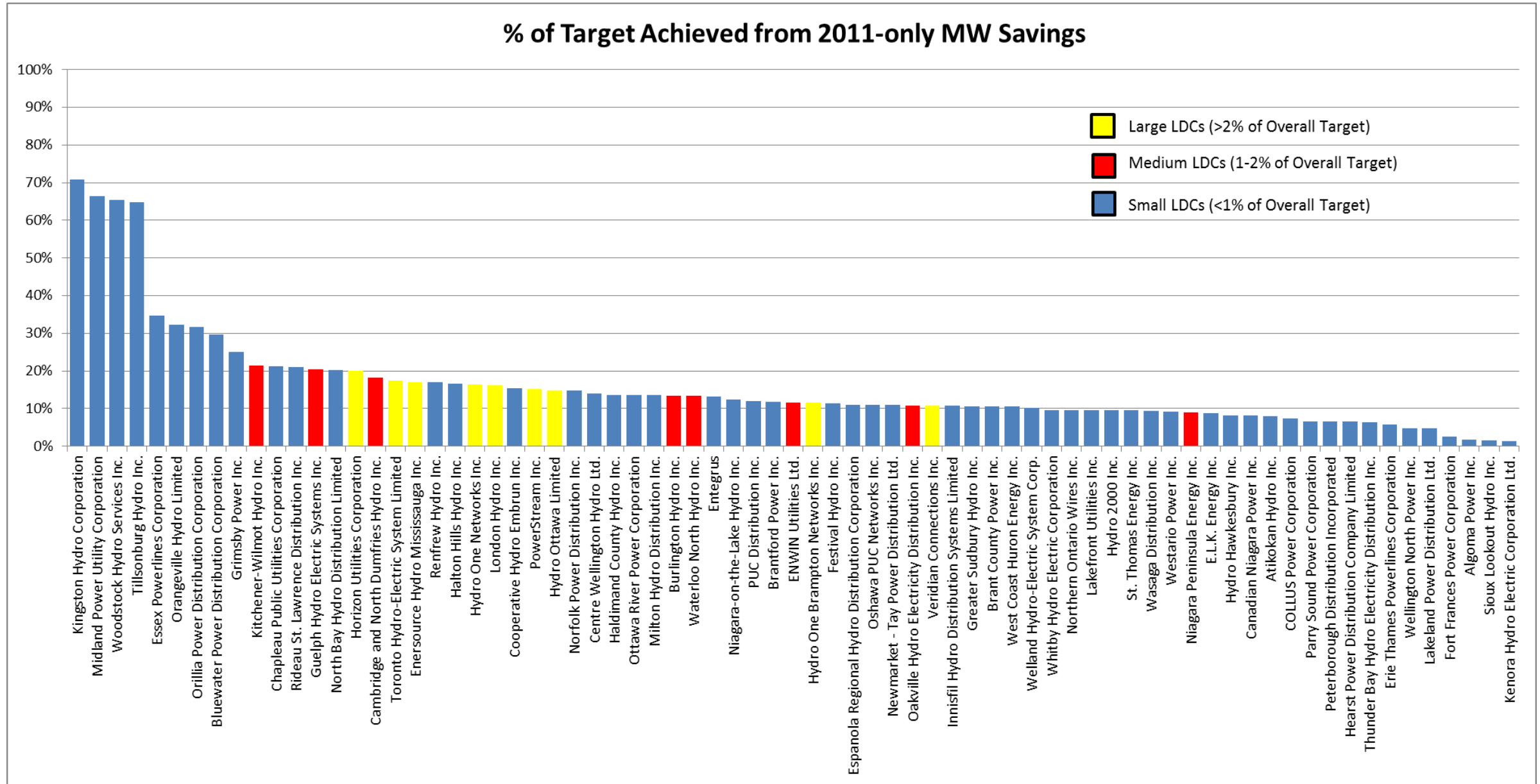
Appendix B

2011 CDM Summary Report Distributor Progress Charts

% of Target Achieved from 2011-only GWh Savings







Appendix C

**2011 CDM Summary Report
OPA CDM Program Comparison Chart –
2011 vs 2011-2014 Savings Results**

