



Kenora Hydro Electric Corporation Ltd.

High Level CDM Strategy 2011-2014

Total Reduction in Peak Provincial Electricity Demand Target

1.0 MW

Reduction in Electricity Consumption Target

5,000,000 kWh

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Executive Summary

How the target will be attained

Although Kenora Hydro's preliminary MW target is 1 MW and 5 MWh as set by the Ontario Energy Board, Kenora Hydro is opting to pursue 1.07 MW and 5,016,000 kWh without prejudice. All residential customers will be eligible to participate in five programs within the Kenora Hydro Consumer Portfolio in 2011. Demand Response is to be offered in 2012. General Service customers will be eligible to participate in six programs within the Commercial & Institutional portfolio in 2011 and Demand Response to be offered in 2012. Industrial Customers will be eligible for two programs to participate within the Kenora Hydro Industrial Portfolio in 2011. DR3 and the Industrial Accelerator and Enabling Initiatives Programs will not be offered until 2012. The OPA Contracted Province Wide CDM Program descriptions are as provided by the OPA's Summary Guides. The OPA Resource Planning Tool was used for all OPA MW and MWh calculations.

Kenora Hydro will use a mix of the following to meet the target:

- OPA Programs – Tier 1
- Board Approved – Tier II **Northwest Group*
- Board Approved – Tier III

** Northwest Group (Thunder Bay Hydro, Atikokan Hydro, Fort Frances Power Corp., Kenora Hydro and Sioux Lookout Hydro) will be seeking OEB approval for three Tier II programs, A Winter Block Heater Control Program eligible for all rate classes an Electric Thermal Storage Program for the residential class rate and a Street Light Replacement Program for it's General Service rate class (municipalities).*

Segments that will be covered:

- Residential Service account category:
- General Service <50kW account category
- General Service >50kW account category
- Industrial account category
- ≠Low Income account category

≠Kenora Hydro has put a place holder in the Consumer and Commercial & Institutional Portfolios for a Low Income Program. The OPA is planning to develop a program in late 2010 or 2011. If there is not a program developed at that time Kenora Hydro will investigate an OEB Board Approved Program to include that segment of our customer base.

Note: See Appendix A for Acronym list

(A) CDM Strategy Year-by-Year Plan:

Kenora Hydro - CDM Strategy 2011

Program	Industrial				Consumer								Commercial & Institutional										Board Approved			
	DR 1	DR 3	Acc e	ERI P	APPEX C	Inst. Rebt	HV AC	Mi d	New Const.	L /I	D R	DirtL HT	Direct S/P	DR R	Pre PA	ER	Ex t	D R	DR 3	Ne w	L /	ETS	SLR	WBH	GC	
Initiatives																										
Mass Media																										
Local Media	X			X	X	X	X	X	X			X	X		X	X	X	X		X					TBD	
Direct to Consumer	X			X	X	X	X	X	X			X	X		X	X	X	X		X					TBD	
Channels				X	X	X	X		X			X	X		X	X	X	X		X				TBD	TBD	
Events(Farmers Market/Home show)	X			X	X	X	X	X	X			X	X		X	X	X	X		X				TBD	TBD	
Workplace					X	X	X	X	X															TBD	TBD	
Training							X																			
Partnerships					X										X									TBD	TBD	
Public Relations												X				X								TBD	TBD	

Kenora Hydro - CDM Strategy 2012

Program	Industrial				Consumer								Commercial & Institutional										Board Approved			
	DR 1	DR 3	Acc e	ERI P	APPEX C	Inst. Rebt	HV AC	Mi d	New Const.	L /I	D R	DirtL HT	Direct S/P	DR R	Pre PA	ER	Ex t	D R	DR 3	Ne w	L /	ETS	SLR	WBH	GC	
Initiatives																										
Mass Media																										
Local Media	X			X	X	X	X	X	X			X	X		X	X	X	X		X		TBD		TBD		
Direct to Consumer	X			X	X	X	X	X	X			X	X		X	X	X	X		X		TBD		TBD		
Channels				X	X	X		X				X	X		X	X	X	X		X		TBD	TBD	TBD		
Events(Home Show/ Farmers Market)	X			X	X	X	X	X	X			X	X		X	X	X	X		X		TBD	TBD	TBD		
Workplace					X	X	X	X	X													TBD	TBD	TBD	TBD	
Training																									TBD	
Partnerships					X										X							TBD	TBD	TBD	TBD	
Public Relations												X				X						TBD	TBD	TBD	TBD	

Kenora Hydro - CDM Strategy 2013

Program	Industrial				Consumer								Commercial & Institutional										Board Approved			
	DR 1	DR 3	Acc e	ERI P	APPEX C	Inst. Rebt	HV AC	Mi d	New Const.	L /I	D R	DirtL HT	Direct S/P	DR R	Pre PA	ER	Ex t	D R	DR 3	Ne w	L /	ETS	SLR	WBH	GC	
Initiatives																										
Mass Media																										
Local Media	X			X	X	X	X	X	X			X	X		X	X	X	X		X		TBD		TBD		
Direct to Consumer	X			X	X	X	X	X	X			X	X		X	X	X	X		X		TBD		TBD		
Channels				X	X	X		X				X	X		X	X	X	X		X		TBD	TBD	TBD		
Events (Home Show/ Farmers Market)	X			X	X	X	X	X	X			X	X		X	X	X	X		X		TBD	TBD	TBD		
Workplace					X	X	X	X	X													TBD	TBD	TBD	TBD	
Training																									TBD	
Partnerships					X										X							TBD	TBD	TBD	TBD	
Public Relations												X				X						TBD	TBD	TBD	TBD	

Kenora Hydro - CDM Strategy 2014

Program	Industrial				Consumer								Commercial & Institutional										Board Approved			
	DR 1	DR 3	Acc e	ERI P	APPEX C	Inst. Rebt	HV AC	Mi d	New Const.	L /I	D R	DirtL HT	Direct S/P	DR R	Pre PA	ER	Ex t	D R	DR 3	Ne w	L /	ETS	SLR	WBH	GC	
Initiatives																										
Mass Media																										
Local Media	X			X	X	X	X	X			X	X		X	X	X	X		X			TBD		TBD		
Direct to Consumer	X			X	X	X	X	X			X	X		X	X	X	X		X			TBD		TBD		
Channels				X	X	X	X	X			X	X		X	X	X	X		X			TBD	TBD	TBD		
Events(Home Show/ Farmers Market)	X			X	X	X	X	X			X	X		X	X	X	X		X			TBD	TBD	TBD		
Workplace					X	X	X	X														TBD	TBD	TBD	TBD	
Training							X																		TBD	
Partnerships					X									X								TBD	TBD	TBD	TBD	
Public Relations											X				X							TBD	TBD	TBD	TBD	

(B) Annual Milestones Distributor Plans to Achieve:

Year	Total kW Reduction	Total MWh Reduction
2011	250	365
2012	290	1120
2013	300	1649
2014	230	1882
Total	1,070 KW	5,016 MWh

OPA Contracted Province-Wide CDM Programs

CDM Programs and Distributor plans to undertake for 2011 – 2014

CONSUMER

1. Appliance Retirement/Exchange

Years of Operation: 2011-2014

Program Description: The Appliance Retirement/Exchange Events initiative targets customers in the Residential Service account category. It also is a carry forward and enhancement of the Great Refrigerator Roundup. It includes free pick-up and environmentally responsible recycling of old, inefficient, working appliances which include:

- Refrigerators that are at least 15 years old
- Freezers that are at least 15 years old
- Room air conditioners (secondary)
- Dehumidifiers (secondary)

There is also opportunity to integrate municipal and retailer appliance pick-up services (where available). LDCs will engage municipalities to see if local appliance collection programs can be arranged and the OPA will work to formalize agreements with municipalities for pick-up as well as with retailers.

The Exchange Events portion of the Program is a carry forward and enhancement of exchange events previously hosted by retailers. It includes exchange events held bi-annually at participating retailers for room air conditioners and dehumidifiers. The Spring exchange event will feature a \$50 coupon toward the purchase of a high efficiency replacement unit; the Fall event will feature a \$25 gift card.

The initiative will also include local marketing and engagement opportunities for LDCs.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 230 kW

Total projected reduction in electricity consumption (MWh): 4,157 MWh

2. Instant Discount (Rebates)

Years of Operation: 2011-2014

Program Description: The Instant Rebates initiative targets customers in the Residential Service account category. This is also a carry forward and enhancement of the Power Savings Event. It includes year round coupons and bi-annual in-store instant rebates. There will be opportunities for local marketing, as well as LDC in-store presence in retailers throughout the community.

For year round coupons, measures will be traceable to the LDC service territory where the measures are installed via a coding mechanism. For the bi-annual events, savings will be proportionally allocated to LDCs based on the size of their residential customer base.

A Conservation Discount Card is being developed in collaboration with the Consumer Working Group. Further information on the Conservation Discount Card will be provided when available

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 160 kW

Total projected reduction in electricity consumption (MWh): 6,950 MWh

3. HVAC Discounts (Rebates)

Years of Operation: 2011-2014

Program Description: The HVAC targets customers in the Residential Service account category. This is also a carry forward and enhancement of the Cool Savings Rebate. LDCs will be included in recruitment of contractors, supported by OPA recruitment efforts. The HVAC rebates will be delivered to consumers through participating contractors and will be centrally fulfilled by the OPA. It will also feature local marketing and engagement opportunities for LDCs.

Capability building is also part of this initiative, as training will be available for contractors to educate them on quality installation principles.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 560 kW

Total projected reduction in electricity consumption (MWh): 1,991 MWh

4. Demand Response

Year(s) of Operation for Program: 2012-2014

Program Description: The Demand Response targets customers in the Residential Service account category. This is also a re-design of Peaksaver, the residential demand response initiative. Existing program features will continue to be offered through June 30, 2011. Starting July 1, 2011 the new initiative will launch province-wide. It will include two options available to consumers:

> **Option A: Participation with Demand Response** – under this option, four end-uses will be eligible for load control participation:

- central air conditioners
- electric water heaters
- room air conditioners
- pool pumps

Participants will get load control devices (Home Energy Interface (HEI)) installed free and they will have access to real time consumption and price information. This information can be accessed on an in-home device (IHD) or on-line, depending on the customer's choice. When developed, a Dashboard will also be available under Option A. A Dashboard is a single device that includes load control capabilities and IHD. Consumers will receive subsidized Dashboards.

> **Option B: Participation without Demand Response** – Under this option, customers have the opportunity to access price and real-time consumption information. Participants get a subsidized amount toward a HEI and can opt for an IHD or on-line display.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 1,640 kW

Total projected reduction in electricity consumption (MWh): 5,314 MWh

5. Mid-stream Incentives

Years of Operation: 2011-2014

Program Description: The Midstream Incentive initiative targets customers in the Residential Service account category. This is also a carry over and enhancement of the midstream television incentive from the Power Savings Event. In addition to providing incentives for retailers to promote energy efficient televisions, it will include incentives for satellite and cable providers to use high-efficiency set-top boxes and network configurations. It will also include pool pumps, providing contractors with incentives to install “right sized” pool equipment.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 40 kW

Total projected reduction in electricity consumption (MWh): 751 MW

6. New Construction

Years of Operation: 2011-2014

Program Description: This is a new initiative that targets customers in Residential Service account category. It includes incentives for builders to construct new, single family homes that include energy efficiency standards that are above current building codes. It includes incentives for:

- Prescriptive measures:
 - “All-off” Switches
 - ECM Motors
 - SEER 15 Central Air Conditioners
 - Light Control Products
 - Energy Efficient Lighting Fixtures
- Custom Projects
- Whole Home
 - EnerGuide 83
 - EnerGuide 85
- Training on Energy Efficiency Building Techniques and Practices
- Consumer Education

The initiative will be delivered by LDCs, including local marketing, approvals, data collection, and reporting. LDCs will also be responsible for local engagement of builders; with support from OPA air cover driving builders to their LDCs for additional information. (possible air cover options include trade publications, Home Builders Associations etc.) The OPA will be responsible for payments, as well as enabling initiatives including builder training and consumer education.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 40 kW

Total projected reduction in electricity consumption (MWh): 219 MWh

7. Low Income

Years of Operation: 2012-2014

Program Description: The Ontario Power Authority (OPA) is currently in the process of developing new province-wide conservation offerings for low income residential consumers and building owners and operators that serve this market. These offerings are being developed in conjunction with Ontario's Local Distribution Companies (LDCs) and in coordination with Enbridge Gas Distribution Inc. and Union Gas Limited. These offerings will be part of a new suite of province-wide conservation and demand management programs contracted by the OPA and delivered by LDCs throughout the province.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): No information available at this time

Total projected reduction in electricity consumption (MWh): No information available at this time

Disclaimer

Kenora Hydro plans on implementing Low Income initiatives pending OPA Program Description and Provincial forecast for kW & MWh.

COMMERCIAL& INSTITUTIONAL

1. Direct Install Lighting

Years of Operation: 2011-2014

Program Description: The Direct Installed Lighting initiative targets customers in the General Service <50kW account category. Participation for the existing version of this initiative, the Power Savings Blitz, has been very high. In addition to offering eligible customers up to \$1,000 in equipment upgrades at no charge, standard prescriptive incentives will now be available for eligible equipment beyond the initial \$1,000 limit. There will also be a similar initiative for servicing of space cooling equipment, as described below.

Customers can participate in this initiative one of three ways:

- i. Door-to-door approach: An LDC representative, Assessor or Lighting Contractor would visit potential participants and, where the customer is determined to be eligible for the component, the assessment would proceed directly or be scheduled. This is the approach commonly used for the Power Savings Blitz.
- ii. Self-selection approach: Through the new on-line registration system (iCon), by creating a user profile for this Program and choosing to apply for this initiative. Upon submission the application would be forwarded to the LDC that services the customer's business location as determined by postal code. The LDC would instruct a service provider (i.e., an Assessor or Lighting Contractor) to contact the customer to schedule an on-site assessment.
- iii. Referral approach: In connection with the Direct Serviced Space Cooling initiative, an LDC representative, Assessor, or HVAC Contractor may identify an opportunity for a customer to participate in the Direct Installed Lighting initiative. Should the customer desire to participate, the customer would proceed as per either the self-selection approach or the door-to-door approach.

New mandatory QA/QC procedures and protocols will be provided to validate the work being performed against the eligibility requirements of the initiative and the participant incentives being paid; and as well to ensure that corrective actions are being taken where potential issues are identified.

A customer can qualify for Direct Installed Lighting incentives for a given building or premises only once during the Program period (through December 31, 2014). The customer can, however, take advantage of other Program initiatives including Equipment Replacement incentives (assuming they satisfy the criteria for the other initiative(s)) with regard to the particular building or premises.

(d) Project Budget: A requisite level of funding is expected to be received from the OPA

(e) Total projected reduction in peak provincial electricity demand (kW): 151 kW

(f) Total projected reduction in electricity consumption (MWh): 4,007 MWh

2. Direct Service Space Cooling

Years of Operation: 2011-2014

Program Description: The Direct Service Space Cooling initiative targets customers in the General Service <50kW account category. The Direct Serviced Space Cooling initiative is available to customers with roof-top or ground-mounted air conditioning systems with a capacity of 25 tons or less. The initiative is intended to target the same customer base as the Direct Install Lighting initiative, although in some cases customers in the General Service >50 kW account category will also be eligible. Basing the eligibility criteria on air conditioner size is intended to simplify the determination of possible participants by HVAC Contractors. This initiative provides for up to \$750 of services and labour to service the customer's air-conditioning unit(s).

Customers participate in this initiative as per the Direct Installed Lighting initiative.

To be eligible, customers must confirm that they do not have an existing service agreement for the air-conditioning unit and that the unit was not serviced during the previous calendar year.

A customer can qualify for Direct Serviced Space Cooling incentives for a given building or premises only once during the Program period (through December 31, 2014). Even if a customer participated in Direct Installed Lighting prior to or throughout 2011 to 2014, they are able to participate in Direct Serviced Space Cooling. The customer may also be eligible for other Program initiatives such as Equipment Replacement and Demand Response (assuming they satisfy the criteria for the other initiative(s)) with regard to the particular building.)

The new mandatory QA/QC procedures and protocols will also apply to this initiative

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 80 kW

Total projected reduction in electricity consumption (MWh): 162 MWh

3. Demand Response

Years of Operation: 2012-2014

Program Description: The Demand Response initiative targets customers in the General Service account category. This is also a re-design of *Peaksaver*[®], the residential demand response initiative. Existing program features will continue to be offered through June 30, 2011 pursuant to existing agreements between the OPA and participating LDCs. The OPA and the Residential Demand Response Working Group are currently conducting pilot projects to test new technologies for use in the C&I Program with an anticipated start date of July 1, 2011. Further details will be provided at the conclusion of the pilot in December 2010.

The new Residential and Small Commercial Demand Response initiative has been designed to include two options available for small business customers:

- **Option A: Participation with Demand Response** – under this option, only central air conditioning systems will be eligible for load control participation. Participants will get load control devices installed at no charge and they will have access to real time consumption and price information. This information can be accessed on an in-home/on-premises device (IHD) or on-line, depending on the customer's choice. When developed, a Dashboard will also be available under Option A. A Dashboard is a single device that includes load control capabilities and IHD. Customers choosing this option will receive subsidized Dashboards.
- **Option B: Participation without Demand Response** – under this offer, customers have the opportunity to access price and real-time consumption information. Participants get a subsidized amount toward an HEI and can opt for an IHD or on-line display.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 40 kW

Total projected reduction in electricity consumption (MWh): 66 MWh

4. Pre-Project Assessments

Years of Operation: 2011-2014

Program Description: The Pre-Project Assessments initiative targets customers the General Service >50kW account category. For this initiative, eligible participants will receive incentives to complete energy audits or studies of potential energy and demand savings from equipment replacement projects, operational practices and procedures, and participation in demand response initiatives. The incentives are intended to cover up to 50% of the cost of the energy audit, based on requirements commensurate with the size and complexity of the buildings. The energy audits must be completed by a professional engineer, a certified engineering technologist, an architect, or a Certified Energy Manager; customers can select their own Energy Auditor meeting these criteria. Irrespective of the type of energy audit conducted, it is intended that the energy audit address all electricity efficiency opportunities for the building, so the customer can consider all possible options.

Participant incentives for this initiative are as follows:

Eligibility (Building Size)	Type of Energy Audit	Incentive
Medium and large buildings (all sizes)	ASHRAE Level II Energy Audit	\$0.05/ft ² , to a maximum of 50% of the energy audit cost or \$25,000
Large Buildings – >50,000 ft ²	ASHRAE Level III Energy Audit (incorporates all requirements of a Level II Audit)	\$0.10/ft ² to a maximum of 50% of the energy audit cost or \$35,000 (including the cost of a Level II Energy Audit)

Note that for smaller customers and buildings, pre-project assessments are inherently provided through the Direct Installed Lighting and Direct Serviced Space Cooling initiatives; smaller buildings will only be eligible for funding for energy audits where the customer is not a participant in either of these two initiatives.

Customers can participate in the Pre-Project Assessment initiative by creating a user profile for the C&I Program through iCon and applying for this initiative. The customer has the option of assigning a representative such as the Energy Auditor to complete the application process on their behalf. Where the customer does not have access to iCon, there is a process by which applications can be submitted in paper form. Upon submission, the application is forwarded to the LDC that services the customer's business location as determined by the postal code.

A customer can qualify for Pre-Project Assessment incentives for a given building or premises only once during the Program period (through December 31, 2014).

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): No information available at this time

Total projected reduction in electricity consumption (MWh): No information available at this time

Disclaimer

Although Kenora Hydro Electric Corporation Ltd. knows how many >50kW customers it has, it can not move forward in developing kW & MWhs totals until the OPA provides a Provincial forecast and or revises the Resource Tool V3.3 to calculate totals.

5. Equipment Replacement

Years of Operation: 2011-2014

Program Description: The Equipment Replacement initiative targets customers in the General Service >50kW account category. Equipment replacement projects have traditionally been categorized in ERIP and other similar programs as either Prescriptive or Custom. The Prescriptive approach utilizes a list of specific measures for which the incentive is prescribed. The Custom approach requires a more sophisticated, and in some cases complex, process to determine the potential for demand reductions or energy savings. The Program will continue these two approaches, but will also include an engineered approach.

The Engineered approach will provide the customer with potential for additional incentives for the equipment to be installed and will provide a more straight-forward process than the Custom approach, with simplified calculations of energy and demand savings. The incentives available under the Engineered approach are the same as for the Custom approach, but the actual amount would be based on data provided by the customer, including:

- a description of the equipment being replaced,
- a description of the new equipment,
- disposal costs of old equipment
- the operating schedule (days per week, hours per day, time of day), and
- the cost of the new equipment.

Participant incentives for Prescriptive projects are as per the Prescriptive forms/worksheets which specify the dollar amount per unit installed, with no maximum amount payable for the project. Incentives for Engineered and Custom projects are:

- \$400/kW or \$0.05/kWh for lighting measures (whichever is higher) to a maximum of 50% of the project costs.
- \$800/kW or \$0.10/kWh for non-lighting measures (whichever is higher) including lighting controls to a maximum of 50% of the project costs.

Customers can participate in this initiative by creating a user profile for the C&I Program through iCon and applying for the Equipment Replacement Incentive initiative. In connection with the application the customer must complete the appropriate Prescriptive, Engineered and/or Custom forms/worksheets. The customer has the option of assigning a representative such as an electrical contractor to complete the application process on their behalf. Where the customer does not have access to iCon, there is a process by which applications can be submitted in paper form. Upon submission, the application is forwarded to the LDC that services the customer's business location as determined by the postal code.

QA/QC procedures and protocols will be provided to validate the compliance of the project with the eligibility requirements for the initiative. In addition, M&V guidelines for Custom projects will be included to assist and standardize the assessment of savings from these projects. The rigour required for M&V studies of Custom projects will be in proportion to the size and complexity of the project.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 2,150 kW

Total projected reduction in electricity consumption (MWh): 11,160 MWh

6. Existing Building Commissioning

Years of Operation: 2011-2014

Program Description: Any customer in the General Service >50 kW or Large User account categories with single buildings/premises greater than 50,000 square feet in size and with chilled water plants will be eligible to participate in the Existing Building Commissioning initiative of the Program. The services that would qualify include (i) the development of a plan for commissioning activities, (ii) the procurement of devices and/or software associated with commissioning activities and (iii) third party services for building commissioning.

A building owner participates in this initiative by hiring a Commissioning Agent, who must provide two references from past projects OR be certified (by the AEE, ASHRAE or BCA). The Commissioning Agent would undertake a commissioning project by performing the following stages:

1. Scoping Study: A comprehensive plan for the commissioning project is developed.
2. Investigation Phase: A report summarizing commissioning activities associated with both low cost/no cost opportunities and major retrofit activities is prepared. As a condition of participation in this phase, the customer must agree to undertake all recommendations made with payback periods of two years or less.
3. Implementation Phase: Where an implementation plan involves multiple discrete stages, a summary report detailing the results achieved during that stage is prepared.
4. Hand-off/Completion Phase: A final report detailing the final results achieved including confirmation and description of the training and documentation that was provided to building operators and contractors is prepared.

Customers can participate in this initiative by creating a user profile for the C&I Program through iCon and applying for the Existing Building Commissioning initiative. The customer has the option of assigning a representative such as the Commissioning Agent to complete the application process on their behalf. Where the customer does not have access to iCon, there is a process by which applications can be submitted in paper form. Upon submission, the application is forwarded to the LDC that services the customer's business location as determined by the postal code.

Customers can qualify for Existing Building Commissioning incentives only once for the same building or premises during the Program period (through December 31, 2014). M&V guidelines for this initiative are as per the requirements of Custom projects under the Equipment Replacement initiative.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): No information available at this time

Total projected reduction in electricity consumption (MWh): No information available at this time

Disclaimer

Kenora Hydro plans on participating in the Existing Building Commissioning initiative pending MPAC data to be provided by the OPA. Furthermore, Kenora Hydro cannot move forward in developing kW & MWh totals until the OPA provides a Provincial forecast and /or revises the Resource Tool V3.3 to calculate totals for LDC's.

7. Demand Response 1 (DR 1)

Years of Operation: 2011-2014

Program Description: Demand Response 1 (DR 1) is an initiative where distribution-connected electricity customers voluntarily provide DR capability to reduce system peak demand and increase system reliability. Both LDC's and Aggregators will be eligible to register Participants for this initiative. Key initiative elements include:

- Participants contract through their LDC or Aggregator for a specific amount of demand response capacity.
- Participants must be on stand-by 1600 hours/year, generally between 12 noon and 6 pm on business days.
- Participants are activated up to 100 hours/year by the IESO when there is a system need.
- There is no obligation for a Participant to participate when called upon by the IESO. If the Participant wishes to participate in the activation they submit a Confirmation to the IESO.
- During any activation, Participants can offer up to 100% of their registered DR capacity.
- Two payments are made to Participants:
 1. Availability Payment – capacity and Availability Rates: \$4,000 per MW of weighted average DR provided over all activation periods in summer months (i.e., June through September) where at least one Activation occurs, and \$2,000 per MW of weighted average DR provided over all activation periods in non-summer months where at least one Activation occurs, plus;
 2. Utilization Payment – energy. Utilization rates: of HOEP up to \$170 per MWh for all load reduction delivered as part of the DR actually provided.
- Local discounts will apply to rates for some areas of Ontario
- Payments are made monthly based upon performance relative to a baseline calculation.

DR 1 will be available to customers with peak demand of 50kW or more that have a minimum hourly interval meter. Typical DR customers include office buildings and universities and have:

- self-generation or stand-by generation capability with appropriate certificate of approval from the Ministry of Environment that allows for participation in DR. This typically, but not always, excludes diesel;
- load that can be turned off for four hours at a time; or
- production load that can be shifted away from curtailment hours.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 630 kW

Total projected reduction in electricity consumption (MWh): 6 MWh

8. Demand Response 3 (DR 3)

Years of Operation: 2012-2014

Program Description: Demand Response 3 (DR 3) is an initiative for distribution-connected electricity customers to provide DR capability to mandatorily reduce system peak demand and increase system reliability. The OPA will enter into contracts with the Aggregators or directly with Participants providing DR capacity of greater than 5MW.

Key initiative elements include:

- The Aggregators will contract directly with Participants with load less than or equal to 5MW to provide DR.
- The Aggregators will contract with the Participants with whom they will register with the OPA.
- Participants must be on stand-by approximately 1600 hours/year. The standby period can be either 12 noon to 6 pm business days during summer months (i.e., June through September), and 4 pm to 9 pm business days for all non-summer months; or 12 noon to 9 pm on business days for all months during the year.
- Participants will be activated either up to 100 hours/year or 200 hours/year by the Aggregator, in response to a notice from the IESO to the Aggregator when there is a system need.
- There is an obligation for a Participant to participate when called upon by the Aggregator. Failure to participate when called may result in a financial penalty being issued against the Aggregator or Participant.
- Two payments are made to Participants:
 1. Availability Payment – capacity and availability rates are applied to the Demand Response capability registered and payments are made each month of the year, regardless of activation
 2. Utilization Payment – energy. Utilization Rates are made for all load reduction delivered during activation.
- Local discounts of 50% will apply to rates for some areas of Ontario.
- All payments will be based upon performance relative to a baseline calculation.

DR 3 will be available to customers with peak demand of 50kW or more that have interval meters supported by recorders with 5 minute interval capability. Typical DR 3 customers will have:

- self-generation or stand-by generation with appropriate certificate of approval from the Ministry of Environment that allow for participation in DR. This typically, but not always, excludes diesel;
- load that can be turned off for four hours at a time; or
- production load that can be shifted away from curtailment hours.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 850 kW

Total projected reduction in electricity consumption (MWh): 23 MWh

9. New Construction

Years of Operation: 2011-2014

Program Description: The New Construction initiative targets customers in both the General Service <50kW and >50kW account category. The New Construction initiative of the C&I Program will provide incentives for new buildings to exceed existing codes and standards for energy efficiency. Similar to the Equipment Replacement initiative, the New Construction initiative utilizes both Prescriptive and Custom approaches. Participant incentives for Prescriptive projects are as per the Prescriptive forms/worksheets, which specify the kW and KWh assumption per unit installed, and determine the resulting incentive at a rate of \$250/ kW. For new multi-family buildings, incentives for appliances are determined on a dollar amount per unit installed. Incentives for Custom will depend on the level of savings achieved, to a maximum of 50% of the project cost. In addition, there are incentives for building modeling to maximum of \$10,000, as well as incentives for Design Decision-Makers (e.g. designers, architects and engineers) that were involved in the building design.

Customers can participate in this initiative by creating a user profile for the C&I Program through iCon and applying for the New Construction initiative. The customer has the option of assigning a representative such as the Design Decision-Maker to complete the application process on their behalf. Where the customer does not have access to iCon, there is a process by which applications can be submitted in paper form. Upon submission, the application is forwarded to the LDC that services the customer's business location as determined by the postal code.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): No information available at this time

Total projected reduction in electricity consumption (MWh): No information available at this time

Disclaimer

Kenora Hydro plans on participating in the New Construction initiative pending the OPA's provision of Provincial forecasts and/or revises the Resource Tool V3.3 to calculate totals for LDC's.

10. Low Income

Years of Operation: 2011-2014

Program Description: The Ontario Power Authority (OPA) is currently in the process of developing new province-wide conservation offerings for low income multi-residential building owners and operators that serve this market. These offerings are being developed in conjunction with Ontario's Local Distribution Companies (LDCs) and in coordination with Enbridge Gas Distribution Inc. and Union Gas Limited. These offerings will be part of a new suite of province-wide conservation and demand management programs contracted by the OPA and delivered by LDCs throughout the province.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): No information available at this time

Total projected reduction in electricity consumption (MWh): No information available at this time

Disclaimer

Kenora Hydro plans on implementing Low Income initiatives pending OPA Program Description and Provincial forecasts for kW & MWh.

INDUSTRIAL

1. Demand Response 1 (Dr 1)

Year(s) of Operation for Program: 2011-2014

Program Description: DR 1 is available to the LDC's customers in the LDC's service area with peak demand of 50kW or more that have a minimum hourly Interval Meter. Demand Response 1 (DR 1) is an initiative where distribution-connected electricity customers voluntarily provide DR capability to reduce system peak demand and increase system reliability. Both LDC's and Aggregators will be eligible to register Participants for this initiative. Key initiative elements include:

- Participants must contract directly with their LDC or an Aggregator for a specific amount of DR capacity.
- Participants must be on stand-by 1600 hours/year, generally between 12 noon and 6 pm on business days.
- Participants will be activated up to 100 hours/year by the IESO when there is a system need.
- There is no obligation for a Participant to participate when called upon by the IESO. If the Participant wishes to participate in the activation they submit a confirmation to the IESO.
- During any activation, Participants can offer up to 100% of their registered DR capacity.
- Two payments will be made to Participants:
 1. Availability Payment – capacity and Availability Rates: \$4,000 per MW of weighted average DR provided over all activation periods in a summer month (June, July, Aug., Sept.) where at least one activation occurs, and \$2,000 per MW of weighted average DR provided over all activation periods in a non-summer month where at least one activation occurs, plus;
 2. Utilization Payment – energy. Utilization Rates: of HOEP up to \$170 per MWh for all energy delivered as part of the DR actually provided.
- Local discounts will apply to rates for some areas of Ontario.
- Payments are made monthly based upon performance relative to a baseline calculation.

Customers that have participated in DR 1 to date include universities, automotive manufacturers, office buildings and retail outlets.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 670kW

Total projected reduction in electricity consumption (MWh): 2MWh

2. Demand Response 3 (DR 3)

Year(s) of Operation for Program: 2012-2014

Program Description: DR 3 will be available to the LDC's customers in its service area with peak demand of 50kW or more that have Interval Meters supported by recorders with 5 minute interval capability. Demand Response 3 (DR 3) is an initiative for distribution-connected electricity customers to provide DR capability to mandatorily reduce system peak demand and increase system reliability. The OPA will enter into contracts with the Aggregators or directly with Participants providing DR capacity of greater than 5MW.

Key initiative elements include:

- The Aggregators will contract directly with Participants with load less than or equal to 5MW to provide DR.
- The Aggregators will contract with the Participants with whom they will register with the OPA.
- Participants must be on stand-by approximately 1600 hours/year. The stand-by period can be either (i) 12 noon to 6pm on business days during summer months (June, July, Aug., Sept.), and 4pm to 9pm on business days for all non-summer months; or (ii) 12 noon to 9pm on business days for all months during the year.
- Participants will be activated either up to 100 or 200 hours/year by the Aggregator in response to a notice from the IESO to the Aggregator when there is a system need.
- There will be an obligation for a Participant to participate when called upon by the Aggregator. Failure to participate when called may result in a financial penalty issued against the Aggregator or Direct Participant.
- Two payments will be made to Participants:
 1. Availability Payment – capacity and Availability Rates: will be applied to the DR capability registered and payments are made each month of the year, regardless of activation.
 2. Utilization Payment – energy. Utilization Rates: will be made for all load reduction delivered during activation.
- Local discounts of 50% will apply to rates for some areas of Ontario.
- All payments will be made based upon performance relative to a baseline calculation.

Customers that have participated in DR 3 to date have included universities, automotive manufacturing, office buildings and retail outlets.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 930kW

Total projected reduction in electricity consumption (MWh): 8MWh

3. Industrial Accelerator (IA)

Year(s) of Operation for Program: 2012-2014

Program Description: The Accelerator Initiative will serve larger industrial, commercial and institutional customers in the LDC's service area with a level of potential savings consistent with the component offerings under the Accelerator Initiative in the LDC's service area. Industrial Accelerator (also referred to simply as "Accelerator") is an initiative aimed at improving the energy efficiency of equipment and production processes. Accelerator offers capital incentive and enabling initiatives.

Capital Incentive

A capital incentive up to the lowest of (i) the production of \$200/MWh multiplied by the annualized electricity savings, (ii) 70% of estimated project costs, and (iii) a one-year pay back. A Technical Reviewer will be required to review and approve applications, project invoices, development of measurement and verification plans, and review of project performance. LDCs will be required to contract directly with customers using a form of contract made available to the LDC by the OPA.

Enabling Initiatives

1. Preliminary Engineering Study and Detailed Engineering Study

Incentives are available to customers in the LDC's service area for up to \$10,000 for a preliminary engineering study and \$50,000 for a detailed engineering study.

2. Energy Manager and Roving Energy Manager

Funding is made available for Customer-employed EM and LDC-employed REM. EM and REM incentives are for one year, renewable for up to four years.

3. Monitoring & Targeting Systems

Funding of up to \$75,000 per site is available for implementation and support of M&T initiatives. M&T equipment is intended to primarily measure energy consumption for a process, benchmark that consumption, and monitor reductions to consumption based on process changes through such things as productivity improvements, improved scheduling and operation, etc. Participants are required to contribute a minimum of 20% of the total project costs.

4. Metering and Instrumentation Library

Through creation of a MIL by the OPA, customers will have access, through their LDC to metering equipment to more accurately characterize the energy use of fans, pumps, compressors, processes, etc.

5. Training

The Accelerator Initiative offers training targeted to KAMs, EMs and REMs to improve the effectiveness of delivery of the Accelerator Initiative, as well as training for students and junior staff to develop the next generation of EMs and REMs.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 90 kW

Total projected reduction in electricity consumption (MWh): 570 MWh

4. Industrial Equipment Replacement

Year(s) of Operation for Program: 2011-2014

Program Description: The Direct Installed Lighting initiative targets customers in the General Service >50kW account category. Equipment replacement projects have traditionally been categorized in ERIP and other similar programs as either Prescriptive or Custom. The Prescriptive approach utilizes a list of specific measures for which the incentive is prescribed. The Custom approach requires a more sophisticated, and in some cases complex, process to determine the potential for demand reductions or energy savings. The Program will continue these two approaches, but will also include an engineered approach.

The Engineered approach will provide the customer with potential for additional incentives for the equipment to be installed and will provide a more straight-forward process than the Custom approach, with simplified calculations of energy and demand savings. The incentives available under the engineered approach are the same as for the Custom approach, but the actual amount would be based on data provided by the customer, including:

- a description of the equipment being replaced,
- a description of the new equipment,
- disposal costs of old equipment
- the operating schedule (days per week, hours per day, time of day), and
- the cost of the new equipment.

Participant incentives for Prescriptive projects are as per the Prescriptive forms/worksheets which specify the dollar amount per unit installed, with no maximum amount payable for the project. Incentives for Engineered and Custom projects are:

- \$400/kW or \$0.05/kWh for lighting measures (whichever is higher) to a maximum of 50% of the project costs.
- \$800/kW or \$0.10/kWh for non-lighting measures (whichever is higher) including lighting controls to a maximum of 50% of the project costs.

Project Budget: A requisite level of funding is expected to be received from the OPA

Total projected reduction in peak provincial electricity demand (kW): 920 kW

Total projected reduction in electricity consumption (MWh): 10,084 MWh

Potential Board-Approved CDM Programs

Program Names

1. Northwest Residential Electric Thermal Storage - Tier II

Years of Operation: 2012-2014

Program Description: The Northwest Residential Electric Thermal Storage initiative targets customers in the Residential Service account category and will allow to them to take advantage of Smart Metering and Time-Of-Use Rates. The *Northwest Group will aim to utilize off peak electricity to heat homes over 24-hour period and help reduce the Northwest's peak demand. Customers will receive an incentive equal to 75% of the purchase price up to a maximum of \$2500.00 to retrofit existing electrically baseboard heaters with an ETS heating system. A combined Northwest Group purchase could potentially lower unit and administration costs of the program.

Project Budget: A requisite level of funding is expected to be received from the OEB.

Total projected [£]reduction in peak electricity demand (kW): [±] 72 kW

Total projected reduction in electricity consumption (KWh): 8316 KWh

[£] Reduction will occur from shifting on-peak to off-peak. However, the overall total electricity demand will still have the same value

[±] It should be noted that the reduction will come in the winter months

2. Northwest Winter Block Heater Control – Tier II

Years of Operation: 2011-2014

Program Description: The Northwest Winter Block Heater Control Program initiative targets customers in the Residential & General Service account category. The Northwest Group will provide a rebate of \$50 off the customer's electricity bill for replacing parking lot receptacles with Intelligent Parking Lot Controls. This initiative is a carry forward and enhancement of the Kenora Hydro Third Tranche CDM Program. The objective is to reduce winter peak load in the Program Manager's service territory. A group purchase of the new IPLC's required for the Northwest Group will be a cost saving measure along with shared administration costs.

Project Budget: A requisite level of funding is expected to be received from the OEB.

Total projected reduction in peak electricity demand (kW): 45 kW (KHEC)/ **kW (Districts)

Total projected reduction in electricity consumption (KWh): 32,750 KWh (KHEC)/
**kW (Districts)

** Northwest Group: Thunder Bay Hydro, Atikokan Hydro, Fort Frances Power Corporation, Kenora Hydro and Sioux Lookout Hydro*

***Districts: Atikokan Hydro, Fort Frances Power Corporation, Kenora Hydro and Sioux Lookout Hydro numbers to be determined*

3. Northwest Street Light Retrofit – Tier II

Years of Operation: 2011-2014

Program Description: The Northwest Street Light Retrofit initiative targets customers in the Street lighting account category. The *Northwest Group will replace High Pressure Sodium (HPS) street light lamps with LED lamps. Current HPS street light lamps draw 1.3 A, proposed new LED lamps will reduce consumption to 0.62A for a savings of 0.68A per lamp. Kenora Hydro is anticipating forming a partnership with the Northwest Group municipalities to replace ¼ of the qualifying fixtures per year as determined by the municipalities. A group purchase of the new LED lamps required for the Northwest Group will be a cost saving measure along with shared administration costs.

Project Budget: A requisite level of funding is expected to be received from the OEB

Total projected reduction in peak provincial electricity demand (kW): currently working on partnership potential with Northwest Group municipalities

Total projected reduction in electricity consumption (MWh): currently working on partnership potential with Northwest Group municipalities

** Northwest Group: Thunder Bay Hydro, Atikokan Hydro, Fort Frances Power Corporation, Kenora Hydro and Sioux Lookout Hydro*

4. Generation Conservation - Tier III

Years of Operation: 2012-2014

Program Description: The Generation initiative firstly targets grade 5 teachers who target 2800 households through student involvement each year. The program is a CDM Education program that aims to build a culture of conservation through the school/home connection, as stated by the OPA for a Key Enabling Initiative of Marketing its 2011 - 2014 Consumer Program (April 21, 2010). This initiative has the possibility of becoming a Tier II program pending district and/or provincial partnership which will be determined at later date.

“Building a Culture of Conservation will require the creation and maintenance of a thread that connects with the consumer in their home at work and in the community including through their children’s education.”

However, as Ipsos Reed reported in its 2009 study for OPA on Electricity Conservation Attitude Behaviour Report:

- Evidence suggests that the majority of Ontarians have somewhat limited knowledge of electricity conservation.
- Six-in-ten Ontarians indicate they need to learn more to use electricity wisely in their home.
- Education continues to be a barrier to electricity conservation.
- Only one in five Ontarians could mention more than three specific steps that they could take in their own home to use less electricity.
- The sense of urgency that was associated with electricity conservation in the past is slightly diminishing as fewer Ontarians have heard about it or talked about it since last year 2008.

Generation Conservation closes the gap in CDM Education – educating the teachers and providing the resources they need to teach their students who in turn educate their parents about the priority of electricity conservation.

Project Budget: Pending further discussion with the Generation Conservation Working Group.

Total projected reduction in peak provincial electricity demand (kW): *KW

Total projected reduction in electricity consumption (MWh): *MW

**Kenora Hydro plans on implementing Generation Conservation initiatives pending further research*

PROGRAM MIX

How the Programs will be Offered to the Customer

1. Kenora Hydro's CDM Strategy will not exclude any rate classes. All residential customers will be eligible to participate in five initiatives within the Kenora Hydro Consumer Portfolio in 2011. Demand Response will not be offered in 2011. General Service customers will be eligible to participate in six initiatives within the Kenora Hydro Consumer & Intuition portfolio in 2011 and Demand Response to be offered in 2012. Industrial Customers will be eligible for two programs to participate within the Kenora Hydro Industrial Portfolio in 2011. DR3 and the Industrial Accelerator and Enabling Initiatives Programs will be offered in 2012.

Kenora Hydro has put a place holder in the Consumer and Commercial & Intuition Portfolios for a Low Income Program. The OPA is planning to develop a program in late 2010 or 2011. If there is not a program developed at that time Kenora Hydro will investigate an OEB Board Approved Program to include that segment of our customer base.

The Northwest Group (Thunder Bay Hydro, Atikokan Hydro, Fort Frances Power Corp., Kenora Hydro and Sioux Lookout Hydro) will be seeking OEB approval for three Tier II programs; a Winter Block Heater Control Program eligible for all rate classes; an Electric Thermal Storage Program for residential class in 2012; and a Street Light Replacement Program for general service (municipalities). Kenora Hydro will be seeking OEB approval for a Tier III program for residential, for Conservation Education Program with the possibility of becoming a Tier II program pending district partnerships which will be determined at later date.

CDM Programs Co-ordination

Description of Efficiencies & Partnerships with Other Distributors

Kenora Hydro plans to continue our current partnerships with the Other Power Authority, Atikokan Hydro, Fort Frances Power Corp., Thunder Bay Hydro and Sioux Lookout Hydro. This partnership enables us to co-ordinate administration and marketing activities. As Low Income programs are developed Kenora Hydro plans to work with our District Housing agency. There will be a continuation of our partnership with the City of Kenora to assist in their Conservation Strategy.

APPENDIX A

Acronym Key

Acce – Industrial Accelerator

APP EXC - Appliance Retirement/Exchange Events

Direct S/P- Direct Service Space Cooling

Dirt LHT- Direct Install Lighting

DR – Demand Response

DR- Demand Response

DR1 - Demand Response 1

DR1 – Demand Response 1

DR3 - Demand Response 3

DR3 – Demand Response 3

ER - Equipment Replacement

ERIP- Industrial Equipment Replacement

ETS - Northwest Group Residential Electric Thermal Storage - Tier II

Ext Bld - Existing Building Commissioning

GC- Generation Conservation - Tier III

HVAC- HVAC Rebates

Inst. Rebt- Instant Rebates

L./I – Low Income

L/I - Low Income

Mid Strm- Midstream Incentives

New Con - New Construction

New Const.- New Construction

Pre PA- Pre-Project Assessments

SLR - Northwest Group Street Light Retrofit – Tier II

WBH- Northwest Group Winter Block Heater Control – Tier II