



Fort Frances Power Corporation
High Level Conservation and
Demand Management Strategy
2011 - 2014

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Introduction

Fort Frances Power Corporation (FFPC) is committed to achieving its prescribed Conservation and Demand Management (CDM) targets of 4,000 megawatt hours of reduced electricity consumption accumulated over 2011 to 2014 and 1,000 kilowatts of peak reduction by the end of 2014. It is understood that these targets may be subject to change once the Board has addressed several outstanding target setting issues including rounding to one decimal point of precision. The impact of one decimal point of precision to FFPC's CDM Targets could be significant. FFPC anticipates delivering a combination of OPA-Contracted Province wide CDM Programs (Tier 1) as well as Board Approved (Tier 2) programs to meet its CDM targets.

FFPC has Residential, General User Under 50 kW, General User Over 50 kW as well as Street Light consumer classifications. It should be noted that FFPC does not have any Industrial consumers within its licensed service territory and therefore is not able to deliver associated CDM initiatives.

It should also be noted that as at the time of submission program funding levels have not been made available. Due to the lack of this information all information contained herein is considered preliminary and may be subject to change.

Executive Summary

Fort Frances Power Corporation anticipates delivering a suite of OPA-Contracted Province-Wide CDM Programs as well as several Board Approved Programs to meet its prescribed Conservation and Demand Management (CDM) targets of 4,000 megawatt hours of reduced electricity consumption accumulated over 2011 to 2014 and 1,000 kilowatts of peak reduction by the end of 2014. Preliminary estimates indicate that FFPC can achieve approximately 60% of its prescribed volumetric electricity reduction target and 50% of its peak reduction target using OPA-Contracted Province-Wide CDM Programs. FFPC has assumed program participation levels to be representative of the Provincial program performance levels. FFPC intends to achieve the remainder of its targeted reduction via Board approved Tier II programs. As a small northern distribution company FFPC faces several unique challenges. The projected 2010 year-end kWh consumption is 4% below a six year average and indicates a downturn of the local economy as well as impacts of prior CDM initiatives. FFPC is a winter peaking utility as consumers require more energy during the winter months as opposed to summer months. This presents CDM opportunity associated with winter heating. FFPC is a member of the Northwest Group of Utilities consisting of Fort Frances Power Corporation, Thunder Bay Hydro Electricity Distribution Inc., Atikokan Hydro, Kenora Hydro and Sioux Lookout Hydro. The Northwest Group of Utilities will be seeking Board Approval for several Tier 2 CDM Initiatives including Residential Electric Thermal Storage, Winter Block Heater Control and LED Street Lighting.

FFPC CDM Targets and Annual Milestones:

FFPC has established the following incremental annual CDM performance targets:

Year	Total MWh Reduction	Total kW Reduction
2011	400	100
2012	800	200
2013	1,200	300
2014	1,600	400
Total	4,000	1,000

FFPC's annual CDM performance targets represented on a cumulative basis:

Year	Total MWh Reduction	Total kW Reduction
2011	400	100
2012	1,200	300
2013	2,400	600
2014	4,000	1,000

FFPC CDM Portfolio

FFPC will deliver a combination Tier I and Tier II programs for Residential, General Service Under 50 kW, General Service Over 50 kW, Streetlight as well as Low Income consumer groups. It should be noted that FFPC does not have any Industrial consumers within its licensed service territory and as a result will not be delivering Industrial CDM initiatives.

Anticipated Tier 1 Consumer Program Offerings:

1. Appliance Retirement/Exchange Events
2. Instant Rebates
3. HVAC Rebates
4. Demand Response
5. Midstream Incentive
6. New Construction
7. Low Income

Anticipated Tier 1 Commercial & Institutional Program Offerings:

1. Direct Install Lighting
2. Direct Service Space Cooling
3. Demand Response
4. Pre-Project Assessments
5. Equipment Replacement
6. Existing Building Commissioning
7. Demand Response 1 (DR 1)
8. Low Income

FFPC is a member of the Northwest Group of Utilities consisting of Fort Frances Power Corporation, Thunder Bay Hydro Electricity Distribution Inc., Atikokan Hydro, Kenora Hydro and Sioux Lookout Hydro. The Northwest Group of Utilities will be seeking Board Approval for three Tier II programs:

1. Northwest Residential Electric Thermal Storage
2. Northwest Winter Block Heater Control
3. Northwest Street Light Retrofit

Anticipated CDM Portfolio Performance

FFPC has calculated its portfolio performance using OPA's resource planning tool kit. FFPC has based its calculations on its proportionate share of the Provincial anticipated participation levels. Using this methodology FFPC anticipates the following CDM performance:

FFPC Anticipated CDM Portfolio Performance		
	2014 MWh Reduction	2014 kW Reduction
Tier 1 Consumer Initiative		
Appliance Retirement/Exchange Events	237	16.0
Instant Rebates	389	5.9
HVAC Rebates	239	62.5
Demand Response	410	127.7
Midstream Incentive	60	2.8
New Construction	45	7.9
Low Income	TBD	TBD
Tier 1 Commercial & Institutional Initiative		
Direct Install Lighting	259	7.9
Direct Service Space Cooling	11	3.1
Demand Response	5	3.5
Pre-Project Assessments	TBD	TBD
Equipment Replacement	345	94.1
Existing Building Commissioning	TBD	TBD
Demand Response 1 (DR 1)	1	47.3
Low Income	TBD	TBD
Tier II Board Approved Initiative		
Northwest Residential Electric Thermal Storage	TBD	TBD
Northwest Winter Block Heater Control	TBD	TBD
Northwest Street Light Retrofit	TBD	TBD
FFPC 2014 Target	4000	1000.0

OPA Contracted Province Wide CDM Programs

Consumer

1) Appliance Retirement/Exchange Events

a) **Years of Operation:** 2011-2014

b) **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:

- 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.

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

d) **Total projected reduction in peak provincial electricity demand (kW):** 16 kW

e) **Total projected reduction in electricity consumption (MWh):** 237 MWh

2) Instant Rebates

a) **Years of Operation:** 2011-2014

b) **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 their 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

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

d) **Total projected reduction in peak provincial electricity demand (kW):** 5.9 kW

e) **Total projected reduction in electricity consumption (MWh):** 389 MWh

3) HVAC Rebates

- a) **Years of Operation:** 2011-2014

- b) **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.

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

- d) **Total projected reduction in peak provincial electricity demand (kW):** 62.5 kW

- e) **Total projected reduction in electricity consumption (MWh):** 239 MWh

4) Demand Response

- a) **Years of Operation:** 2012-2014
- b) **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.

- c) **Project Budget:** A requisite level of funding is expected to be received from the OPA
- d) **Total projected reduction in peak provincial electricity demand (kW):** 127.7 kW
- e) **Total projected reduction in electricity consumption (MWh):** 410 MWh

5) Midstream Incentives

- a) **Years of Operation:** 2011-2014
- b) **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.
- c) **Project Budget:** A requisite level of funding is expected to be received from the OPA
- d) **Total projected reduction in peak provincial electricity demand (kW):** 2.8 kW
- e) **Total projected reduction in electricity consumption (MWh):** 60 MW

6) New Construction

- a) **Years of Operation:** 2011-2014
- b) **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 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. The OPA will be responsible for payments to builders.

- c) **Project Budget:** A requisite level of funding is expected to be received from the OPA
- d) **Total projected reduction in peak provincial electricity demand (kW):** 7.9 kW
- e) **Total projected reduction in electricity consumption (MWh):** 45 MWh

7) Low Income

- a) **Years of Operation:** 2012-2014
- b) **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.
- c) **Project Budget:** A requisite level of funding is expected to be received from the OPA
- d) **Total projected reduction in peak provincial electricity demand (kW):** No information available at this time
- e) **Total projected reduction in electricity consumption (MWh):** No information available at this time

Disclaimer

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

OPA Contracted Province Wide CDM Programs

Commercial & Institutional

1) Direct Install Lighting

- a) **Years of Operation:** 2011-2014
- b) **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.

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

d) **Total projected reduction in peak provincial electricity demand (kW): 7.9 kW**

e) **Total projected reduction in electricity consumption (MWh): 259 MWh**

2) Direct Service Space Cooling

a) **Years of Operation:** 2011-2014

b) **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

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

d) **Total projected reduction in peak provincial electricity demand (kW):** 3.1 kW

e) **Total projected reduction in electricity consumption (MWh):** 11 MWh

3) Demand Response

- a) **Years of Operation:** 2012-2014
- b) **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.

- c) **Project Budget:** A requisite level of funding is expected to be received from the OPA
- d) **Total projected reduction in peak provincial electricity demand (kW):** 3.5 kW
- e) **Total projected reduction in electricity consumption (MWh):** 5 MWh

4) Pre-Project Assessments

- a) **Years of Operation:** 2011-2014
- b) **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).

- c) **Project Budget:** A requisite level of funding is expected to be received from the OPA
- d) **Total projected reduction in peak provincial electricity demand (kW):** No information available at this time
- e) **Total projected reduction in electricity consumption (MWh):** No information available at this time

Disclaimer

Although FFPC 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

a) **Years of Operation:** 2011-2014

b) **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.

- c) **Project Budget:** A requisite level of funding is expected to be received from the OPA
- d) **Total projected reduction in peak provincial electricity demand (kW):** 94.1 kW
- e) **Total projected reduction in electricity consumption (MWh):** 345 MWh

6) Existing Building Commissioning

- a) **Years of Operation:** 2011-2014
- b) **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.

- c) **Project Budget:** A requisite level of funding is expected to be received from the OPA
- d) **Total projected reduction in peak provincial electricity demand (kW):** No information available at this time

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

Disclaimer

- f) *FFPC plans on participating in the Existing Building Commissioning initiative pending MPAC data to be provided by the OPA. Furthermore, FFPC cannot 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 for LDC's.*

7) Demand Response 1 (DR 1)

a) **Years of Operation:** 2011-2014

b) **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) 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.

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

d) **Total projected reduction in peak provincial electricity demand (kW):** 47.3 kW

e) **Total projected reduction in electricity consumption (MWh):** 1 MWh

8) Low Income

- a) **Years of Operation:** 2011-2014
- b) **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.
- c) **Project Budget:** A requisite level of funding is expected to be received from the OPA
- d) **Total projected reduction in peak provincial electricity demand (kW):** No information available at this time
- e) **Total projected reduction in electricity consumption (MWh):** No information available at this time
- f) **Disclaimer:** *FFPC plans on implementing Low Income initiatives pending OPA Program Description and Provincial forecasts for kW & MWh.*

Potential Board-Approved CDM Programs

1) Northwest Residential Electric Thermal Storage – Tier II

- a) **Years of Operation:** 2012-2014
- b) **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.
- c) **Project Budget:** A requisite level of funding is expected to be received from the OEB.
- d) **Total projected reduction in peak provincial electricity demand (kW):** To Be Determined
- e) **Total projected reduction in electricity consumption (MWh):** To Be Determined

NOTES:

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

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

2) Northwest Winter Block Heater Control – Tier II

- a) **Years of Operation:** 2012-2014
- b) **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 FFPC's Custom OPA 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.
- c) **Project Budget:** A requisite level of funding is expected to be received from the OEB.
- d) **Total projected reduction in peak provincial electricity demand (kW):** To Be Determined
- e) **Total projected reduction in electricity consumption (MWh):** To Be Determined

NOTES:

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

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

3) Northwest Street Light Retrofit – Tier II

- a) **Years of Operation:** 2012-2014
- b) **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. FFPC 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.
- c) **Project Budget:** A requisite level of funding is expected to be received from the OEB
- d) **Total projected reduction in peak provincial electricity demand (kW):** currently working on partnership potential with Northwest Group municipalities
- e) **Total projected reduction in electricity consumption (MWh):** currently working on partnership potential with Northwest Group municipalities

NOTES:

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

Program Delivery

Description of Offering to All Customer Type(s): All residential customers will be eligible to participate in five initiatives within the FFPC 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 FFPC Consumer & Intuitional portfolio in 2011 and Demand Response to be offered in 2012.

FFPC has put a place holder in the Consumer and Commercial & Intuitional 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 FFPC will investigate an OEB Board Approved Program to include that segment of our customer base.

Northwest Group (FFPC, Atikokan Hydro, Kenora Hydro, Sioux Lookout Hydro and Thunder Bay Hydro Electricity Distribution Inc.) 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. A Street Light Replacement Program for general service (municipalities).

Marketing Strategy

FFPC will be advertizing its CDM Program offerings in the local newspaper, on its webpage, through attendance of tradeshow, radio advertisements and well through personal phone calls or customer visits.