



Powering the wave to success



Energy Retrofit Incentive Program

About us



- Serves Local Distribution Companies
- Manages Power Savings Blitz for 18 LDCs
- Largest evaluator of ERIP programs > 20 LDCs
- TRC tool and support services for 25 LDCs
- LRAM and SSM evaluations for rate cases
- System optimization, arc flash analysis
- Asset management strategies
- Affiliated with SNC Lavalin
- Member EDA
- C of A from Professional Engineers of Ont

Background



- ERIP Establishes Financial Incentives for Participants to encourage the implementation of energy efficiency improvements projects for electricity use in all non-residential customers, including agriculture
- Objectives are to:
 - ✦ Aid in achieving province wide energy savings in Ontario of over 50 GWhs and demand savings of 100 MWs by the end of 2010
 - ✦ Increase awareness of energy efficiency to industry
 - ✦ Build capability in the supply chain in relation to the evaluation of energy efficiency projects

ERIP Process



One

- Application

Two

- Pre-Approval

Three

- Project Implementation

Four

- Project Assessment

Five

- Payment

ERIP Incentive Options



- The program provides financial incentives for:
 - Prescriptive conservation measures
 - ✦ Where rebates are offered for predefined technologies on a per unit or performance basis
 - ✦ Including energy efficient lighting, heating, ventilation, air conditioning, motors and agribusiness equipment
 - Custom conservation measures
 - ✦ Where all technology, equipment and systems are evaluated on the basis of their power and energy performance improvement and an incentive is offered based specifically on the level of improvement

Prescriptive Incentives



New for 2010

| | <u>2009</u> | <u>2010</u> |
|------------------------------|-------------|-------------|
| Exit Signs | \$5 | \$25 |
| T8 High Performance (4 lamp) | \$15 | \$21 |
| T5 Fixtures | \$25 | \$105 |
| Occupancy Sensors | \$10 | \$150 |
| | | |

Prescriptive Applications



- Up to a maximum of 40% of the energy efficient project costs
- Minimum incentive is \$250 (except for motors)
- Strongly recommend Pre-Approval of applications
- Payment documents must be submitted within 60 days of project completion

Custom Applications



- **Technical Eligibility**

- ✦ Replacement of inefficient existing equipment with new high efficiency equipment
- ✦ Replacement of oversized existing equipment with new 'right-sized' efficient equipment
- ✦ Implementation of new and efficient operation procedures and controls that result in sustained savings
- ✦ Additional technologies or products that improve the thermal performance of the building envelope

Custom Applications



New for 2010

| | <u>2009</u> | <u>2010</u> |
|-----------------------|-------------|---|
| Lighting Projects | \$250/kW | Higher of \$400/kW Or \$0.05/kWh |
| Non-lighting Projects | \$250/kW | Higher of \$800/kW Or \$0.10/kWh |

*to a maximum of 40% of custom energy efficient project costs

Custom Applications



- Based on on-peak one-hour demand savings
- Projects **must** be pre-approved (prior to project commitment)
- Minimum kW savings of 5kW average peak demand
- Maximum of 40% of Custom Project Costs
- Projects must remain in-service for at least 36 months
- On peak hours 7am – 7pm
- Savings are calculated for two periods of the year
 - ✦ Summer 100%
 - ✦ Winter 70%

Custom Project Costs



- Maximum of 40% of Custom Project Costs
 - Eligible Project costs include:
 - ✦ Audit, pre-feasibility assessment costs
 - ✦ Engineering and architectural design costs
 - ✦ Project Management costs
 - ✦ Equipment costs
 - ✦ Installation labour and service costs
 - ✦ Shipping and delivery costs
 - ✦ If not tax exempt PST, and
 - ✦ Import duties, levies

Custom Project Costs



- Maximum of 40% of Custom Project Costs
 - Costs not eligible include:
 - ✦ Financing costs
 - ✦ Related insurance
 - ✦ Maintenance and service contracts
 - ✦ Costs of spare parts and spare equipment
 - ✦ Purchase or lease of tools or installation equipment
 - ✦ GST

Custom Project Calculation Sheet



Base Case (Pre-Project installation)

| Base Case Profile | Off-Peak | | | | | | On-Peak | | | | | | | | | | | | | | Peak Hour | | | | |
|--|----------|---|---|---|---|---|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----------|----|----|----|-----------|
| Hour | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | Peak Hour |
| Typical daily load profile (Summer) kW | | | | | | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | | | | | | | 100.0 |
| Typical daily load profile (Winter) kW | | | | | | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | | | | | | | 100.0 |

Pre-Project Projection

| EE Option Profile | Off-Peak | | | | | | On-Peak | | | | | | | | | | | | | | Peak Hour | | | | |
|--|----------|---|---|---|---|---|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|----|----|----|-----------|
| Hour | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | Peak Hour |
| Typical daily load profile (Summer) kW | | | | | | | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | | | | | | | 80.0 |
| Typical daily load profile (Winter) kW | | | | | | | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | | | | | | | 80.0 |

Post Project Projection

| Savings | Off-Peak | | | | | | On-Peak | | | | | | | | | | | | | | Peak Hour | Final demand savings | | | | |
|--|----------|---|---|---|---|---|---------|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------|----------------------|----|----|-----------|----------------------|
| Hour | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | Peak Hour | Final demand savings |
| Typical daily load profile (Summer) kW | | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 0 | | | | | | 20.0 | 20.0 |
| Typical daily load profile (Winter) kW | | | | | | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 0 | | | | | | 20.0 | 14.0 |

Project Demand Savings = Maximum of either [(Summer savings * 100%) or (Winter savings * 70%)]

= Maximum of 20.0 *100% or 20.0 *70%

= 20.0 kW * 1 number of units = 20 kW

2. Energy Savings Calculations

Annual Operating Hours for measure: 5000 hrs

Total Energy Savings 100000 kWh

Custom Worksheet - Total Project Costs



Project Cost.

| | |
|---|-----------------|
| Total Custom Project cost of EE measure | <u>35000.00</u> |
|---|-----------------|

Project Cost breakdown

(please use the following list as a guideline to report total project cost in the above field, use the Guidelines document to consult of what NOT to include as part of Project Costs)

| | |
|---|-------------|
| 1. Audit, pre-feasibility assessment costs | |
| 2. Equipment cost | \$25,000.00 |
| 3. Installation and Labour costs | \$10,000.00 |
| 4. Engineering and architectural design costs | |
| 5. Project management costs | |
| 6. Shipping and delivery costs | |
| 7. Import duties and levies | |

Custom Worksheet – Calculation of Incentives



Incentive for Lighting @ \$400/kW or \$0.05/kWh

Incentive Calculator

The incentive is calculated on the lesser of;

| | |
|---|--------------|
| 1. Total Demand Savings * \$400 | \$ 8,000.00 |
| 2. \$0.05 per kWh of Project Energy Savings | \$ 5,000.00 |
| 3. 40% of Custom Project Cost | \$ 14,000.00 |
| Financial Incentive | \$ 8,000.00 |
| Adjusted Financial Incentive | \$ 8,000.00 |

Incentive for Non-Lighting @ \$800/kW or \$0.10/kWh

Incentive Calculator

The incentive is calculated on the lesser of;

| | |
|---|--------------|
| 1. Total Demand Savings * \$800 | \$ 16,000.00 |
| 2. \$0.10 per kWh of Project Energy Savings | \$ 10,000.00 |
| 3. 40% of Custom Project Cost | \$ 14,000.00 |
| Financial Incentive | \$ 16,000.00 |
| Adjusted Financial Incentive | \$ 14,000.00 |

Applying for ERIP



- **Visit** the utility website for info and ERIP forms
- **Determine** if your project is a Prescriptive or Custom project
- **Complete** the appropriate application form and incentive worksheets for your project and specific technologies
- **Submit** the forms and supporting documentation to the utility for evaluation. Provide all required information (including pre retrofit picture)
- **Install** upon approval.
- **Verify** by submitting proof of payment for approved work within 60 days of installation
- **Receive** incentive cheque

Deadlines



- Project must be submitted for approval prior to December 31, 2010
- Payment documents must be mailed within 60 days of installation
- Projects must be completed (in-service) and delivering kW savings on or before the earlier of
 - ✦ (a) The date falling 12 months after the date on which the application is approved by the utility
 - ✦ And (b) December 1, 2011
- Customers will receive payment for prescriptive projects within 30 days of payment approval

Things to remember



- Provide manufacturer specification sheets
- Applications submitted without a signature on pg 2 and 5.
- Please include **make** and **model** in Custom Project Detail Sheet.
- Providing a high level summary does not cut it. Applications must be complete and clear.
- Metering and validation on certain custom jobs will be required. i.e. compressed air and VFD. Indicate M&V process.

Things to remember



- Where M&V required, provide measured data before and after.
- Too much detail better than not enough.
- OPA very strict with our submissions for payment. Not getting easier.
- Incomplete forms will be only slow down process.



Powering the wave to success

Toll Free: 1-877-662-5489
Email: erip@burmanenergy.ca