



**2006 ANNUAL REPORT OF
CDM THIRD TRANCHE FUNDING FOR
FESTIVAL HYDRO INC.
(EB-2002-0513)**

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1. Introduction

In 2006, Festival Hydro continued with the delivery of a number of CDM programs to its customers, focused on reducing system demand and conservation of electricity. These initiatives run from 2005 through to September 2007, targeting all customer classes. The total budget for the three years is based on the third installment of Festival Hydro's Market Adjustment Revenue Requirement (MARR) of \$661,623.

Our original CDM plan submitted to the OEB on November 18, 2004 reported a total CDM budget amount of \$811,000. That budget has been revised proportionately, by category, to equal the third installment of the MARR at \$661,623.

The table below summarizes the various planned initiatives and the budgeted expenditures by year:

| | 2005 | 2006 | 2007 | Total |
|--------------------------------------|-----------|-----------|-----------|-----------|
| 1. Load Control System | \$141,544 | \$109,317 | \$119,109 | \$369,970 |
| | \$ 44,870 | \$ 44,870 | \$ 44,870 | \$134,610 |
| 2. Voltage Conversions | | | | |
| 3. Compact Fluorescent Light Bulbs | \$ 17,947 | \$ 17,947 | \$ 17,946 | \$ 53,840 |
| 4. LED Seasonal Lighting | \$ 13,462 | \$ 13,462 | \$ - | \$ 26,924 |
| 5. Energy Awareness (Residential) | \$ 15,090 | \$ 6,120 | \$ 6,120 | \$ 27,330 |
| 6. Energy Seminars (General Service) | \$ 16,315 | \$ 20,395 | \$ 12,238 | \$ 48,948 |
| Total | \$249,228 | \$212,111 | \$200,283 | \$661,623 |

The first four (4) programs promote demand reduction and energy conservation, with results that can be calculated and monitored. The Energy Awareness Program for Residential Customers and the Energy Seminars for General Service Customers provide educational opportunities for all customers, but the results are difficult to predict and monitor.

For the residential focused initiatives, such as the C.F. light bulbs, LED seasonal lighting and the residential awareness, Festival Hydro has worked in conjunction with a number of local environmental committees such as the City of Stratford Energy & Environmental Committee, the St. Marys Green Committee, the local high school environmental group (CARE) to assist in delivering these programs. We find it is very effective to work with these "grass roots" agencies because of their passion for the environment and conservation and their commitment to seeing conservation become a reality. We also partnered with the OPA in their spring and fall "Every Kilowatt Counts Campaigns". Energy specialists were utilized to deliver effective conservation seminars to our general service customers.

Festival Hydro's initiatives have also received plenty of free publicity thanks to the local newspapers. Throughout the year there have been articles along with pictures in the local newspapers relating to

- Load control program, in particular, the new PeakSaver program,
- "Back in Black" community event and
- General Service customer seminars.

2. EVALUATION OF THE CDM PLAN

Overall, as indicated on the attached Appendix A, Festival Hydro implemented a number of effective programs in 2005 and 2006. All the initiatives undertaken had good participation rates and generated a positive return in terms of energy saved or load shifted (with the exception of LED lights, as discussed later). We would recommend all of these programs to fellow LDCs.

3. DISCUSSION OF THE PROGRAMS

The attached Appendix B provides for each program details on the intent of the program, the design, delivery, partners we worked with and the evaluation of its success. It also includes the resource costing which proves the effectiveness of the plans.

4. LESSONS LEARNED

The most important lesson we learned was the importance of personal interaction with customers to get the conservation message across and to get people thinking about and acting on conservation. Our programs have been successful as a result of the interaction of Festival Hydro employees with our customers. We took part in events like the City of Stratford's Energy & Environment Committee "Back in Black", an annual event held August 14th with emphasis on reduction of electricity for a 5 hour period, manning of conservation booths at home shows and other conservation events, and sponsoring of conservation related seminars. These types of events allow Festival Hydro staff to talk to customers about conservation and to get the message out. Our recommendation to all LDCs is that the more involvement in the community to personally pass along the conservation message, the better the results will be for the whole province.

The following are other general observations made by Festival Hydro when evaluating the overall success of our plans:

- There appears to be a higher degree of energy awareness and environmental awareness amongst residential and commercial customers at the end of December 2006 compared to the awareness levels at December 2005. All levels of government have placed higher priorities on the environment which has greatly enhanced public awareness over the past year. Recent polls rank the environment as the number one issue in Canada, ahead of other key issues like health care.
- Many customers look for conservation programs that have minimal impact on their life style. Programs like the water heater load control program are very successful for this reason.
- Programs like the voltage conversions are very successful because not only does it reduce the losses of electricity but the consumer also benefits due to lower line losses on their bills.
- The seminars for general service customers are quite popular, with the lighting seminar generating the greatest results. There were a number of companies (approx 12) signed up for follow up consultations with the vendor. One major lighting retrofit is currently underway.
- Taking part in public events, like the Home Shows and the Back in Black event provide tremendous exposure to the public.
- Partnering with “grass roots” environmental groups and committees is extremely valuable as these committees are committed to conservation and are eager to assist in delivery of our programs.
- Having a good working relationship with the local media is very important in terms of obtaining coverage of local conservation events.
- As part of the 2006 Cost of Service appliance survey, Festival Hydro added specific questions related to conservation activities. Based on the responses from customers used for the appliance survey (772 responses), many people are in the process of switching to CFL bulbs, switching to LED lights and are actively purchasing Energy Star appliances. There is evidence of active conservation steps being taken by customers.

In terms of the specific successes of Festival Hydro's programs, the following is a brief summary:

Load Control Program

In 2006, the load control program was expanded to offer an air conditioner Peak Saver program, modeled after the program similar to Toronto Hydro's Peak Saver program. Besides placing 181 load controllers on water heaters in 2006, Festival also installed 191 load controllers on residential air conditioning units. In order to entice residents to participate in the Peak Saver program, a \$25 payment was given in the form of a credit to their electrical bill. The response to this program was very good, with 12 on a waiting list to be completed in 2007.

As noted above, this program is very successful with the residential customers because it's a form of conservation that occurs without generally impacting anyone's lifestyle. The water heater control customers are receiving a \$3.50 per month credit (until September 30, 2007) which is an enticement to participate. As noted in Appendix B, the program has delivered positive TRC results in 2005 and 2006.

Festival Hydro's plans to spend the remainder of its approved load control budget in 2007 on a combination of controlling water heaters, air conditioners or both. In addition, Festival Hydro also plans in 2007 to start to take part in the in three-year program load management program being offered through the OPA.

Voltage Conversions

This initiative has been a positive undertaking for Festival Hydro because it targets all customer classes, and is complimentary from an LDC perspective as it is accomplished in conjunction with the replacement of "end-of-life" infrastructure. We are accomplishing a reduction in system losses by converting 4kV distribution to higher voltages (in effect decreasing the amount of current needed to deliver the same amount of energy).

Perhaps our greatest success with this initiative is that we exceeded our estimated kW savings in 2005 and 2006, with our actual kW savings through voltage conversion for both years being much greater than budgeted to date. The reduced losses will, through subsequent rate applications, reduce the amount charged on each customer's bill for system losses.

While this initiative does not have a high profile media/consumer profile, it does produce positive TRC results. Festival Hydro plans to spend the remainder of its approved CDM budget for voltage conversions by September 30, 2007. We would highly recommend this to any LDC who still has a large amount of 4kV infrastructure.

Compact Fluorescent (C. F.) Light Bulbs

During 2006, there were 716 C.F. light bulbs distributed. Being the OPA offered lucrative coupons on CFLs in their campaigns, we deferred most of our light bulb distribution until 2007. In the spring of 2006, there was a distribution of approximately 400 CFL bulbs from our service centre in Seaforth for customers in the Brussels, Hensall, Zurich, Dashwood and Seaforth area. In addition, approx. 300 bulbs were provided to the Kiwanis Club of Stratford for distribution through the local Christmas basket fund. In 2007, we plan to spend the remaining approved CDM budget. The major part of our distribution activity will take place from our main office in Stratford. Distributions will also occur in St. Marys and Seaforth to accommodate all customers in our territory.

LED Seasonal Lighting

This program was highly successful with all available lights being distributed in a couple of hours in November of 2005. Distribution took place at our main office, from Town Hall in St. Marys and from our service centre in Seaforth, so that we can cover off our entire service territory. One strength to this program was that Festival Hydro required an exchange of an old incandescent set for a set of LED seasonal lights. We knew through this exchange process that the old inefficient lights would never be reused. It was also very popular because the lights were free. In 2006, we gave away 8 additional sets of lights, which were part of draw baskets (containing a number of conservation items) given away at the manned booths at the Stratford Home Show, Back in Black and other events.

According to Appendix B, a positive TRC is not projected. However, the model uses five years as the measurement years, when in fact many of our customers will probably be using these lights for the next 8 to 10 years.

All funding available for LED seasonal lights was spent in 2005 so there will be no exchanges in 2007. We would highly recommend other LDCs to take part in a similar exchange.

One of the extra benefits with organizing a light exchange was the opportunity to network with environmental groups and other committees in our community who are pro-active in helping to create a culture of conservation in Ontario.

Residential Energy Awareness

Even though we cannot quantify the success of these programs, this is the starting point in terms of customer awareness and the beginning on the road to a conservation culture. As noted above, based on the interaction with customers while manning booths at Home shows and other conservation events, and based on the responses to the conservation questions included on the Cost of service study, customers are keen on finding ways to conserve energy and to take care of the environment.

Some of the local events where Festival Hydro took part and manned conservation booths in during 2006 include:

- Stratford Home Show (3 day event)
- Community in Blooms Event
- Back in Black (August 14th) Event
- Earth Day Symposium
- Global Warming: Meeting the Challenge
- Festival Market Place mall (unmanned – 3 week display)

In addition, festival Hydro made available other tools such as the Kill a Watt usage meter. In 2006, a rental program of the Kill-an A- Watt meter was set up through the local libraries in Stratford and St. Marys. During the year, 51 customers borrowed the Kill a Watt meter from Festival Hydro. We do not have numbers for the libraries, but we understand the meters have been actively being borrowed.

Festival Hydro also participated in the Every Kilowatt Counts campaign and actively promoted it through local newspapers and at the local events as part of our manned booths. Retailer audits were also conducted by Festival Hydro Inc as part of this program.

Festival Hydro also promoted the EnergyStar program in the local newspaper and promoted EnergyStar literature at the local events in which Festival Hydro participated.

Overall we feel our residential awareness activities were very successful in delivering the conservation message to our customers in 2005 and 2006 and we will continue with similar efforts throughout 2007.

General Service Energy Awareness

Five general service breakfast conservation seminars (two hours in length each) were held in 2006 on the following topics:

- Variable Speed Motors - 15 attendees
- Adjustable Frequency Drives – 6 attendees
- Power Factor Seminar – 21 attendees
- Compressed Air Seminar – 20 attendees
- Phillips Lighting Seminar – 60 attendees

In addition, a full day NR Canada “Bottom Line on Energy Management” Workshop was held in September 2006, with 21 participants attending.

Most seminars were well attended with plenty of interaction between the speakers and customers. For these seminars, Festival Hydro partnered with industry energy specialist to provide expert information that general service customers require to make proper energy decisions.

The most successful seminar in terms of translating into immediate action was the lighting seminar. Approximately twelve companies at the seminar signed up to have the specialist contact their Company at a later date. Currently, a larger lighting retrofit is underway at a local nursing home as a result of these seminars. Note that Festival Hydro also underwent a lighting retrofit in its service centre in 2005 (note: none of Festival Hydro’s retrofit costs were charged to the CDM budget).

In addition to the expert speakers, visits were made by Festival Hydro personnel to the Interval metered customers to encourage them to take part in a free service offered by Festival Hydro Inc. which provides web-based access to their metering data. This allows these 82 larger customers to monitor their usage, costs consumptions, times of usage, peaks and much more information, at no charge to the customer.

As part of our CDM plan, Festival Hydro identified \$12,500 to be provided to the City of Stratford towards their Partners in Climate Protection program. These funds were provided to the City in 2006, as their participation in the program has commenced.

In 2007, we plan to continue with our seminar series. There are also plans underway to work with the City of Stratford on basic energy conservation activities for their public housing units. In addition, Festival Hydro is working with the Avon Maitland school Board on their approved conservation efforts.

Overall, our general service seminars in 2006 were successful in terms of enhancing energy awareness. We would highly recommend this process as a means to communicate the conservation message to general service customers.

5. CONCLUSION

Section 3 (Discussion of the Programs) provides a fairly detailed summary of each of the CDM programs for 2006. Section 4 provides a detailed description of what we have learned, our plans to continue on with these successes in 2007, and recommendations of programs for others to adopt. In conclusion, it is the opinion of Management at Festival Hydro that we have delivered a successful CDM program to date and will continue ahead with our plans for 2007.

In closing, it is our belief that LDCs can effectively deliver conservation and demand side management programs. We have on-going contact with our customers and customers recognize us as being knowledgeable in electrical conservation.

With greater involvement by the OPA and the EDA in 2006 and forward, coordination of programs amongst the LDCs has led to greater consistency of programs with hopefully the added benefit of lower cost to each LDC. We actively plan to finish off our existing approved 2007 CDM funding, and to take part in the four new initiatives being offered through the OPA for the summer of 2007.

6. 2006 RATE APPLICATION APPROVED CDM FUNDING

In the 2006 rate application, Festival Hydro received approval to recover \$9,000 through the residential distribution rates for the purpose of CFL bulb distribution. Since the OPA Every Kilowatt Counts campaign offered lucrative coupons on the purchase of CFL bulbs in 2006, Festival Hydro decided to defer both the remaining CDM plan CFL funds and the additional 2006 rate application CFL funds to be spent and distributed in 2007.

An RFP has been issued and the supplier has been selected to provide the CFL bulbs. Receipt of the bulbs and payment for the bulbs will still take place in the 2006 rate year (in April 2007). The actual distribution is scheduled for May/June 2007. We will be distributing the lights bulbs from our main office in Stratford, our service centre in Seaforth and the town hall in St. Marys so that all customers in our territory have an opportunity to participate.

Appendix A - Evaluation of the CDM Plan

Highlighted boxes are to be completed manually, white boxes are linked to Appendix C and will be brought forward automatically.

| | ⁵ Cumulative Totals Life-to-date | Total for 2006 | Residential | Commercial | Institutional | Industrial | Agricultural | LDC System | ⁴ Smart Meters | Other #1 | Other #2 |
|---|---|----------------|-------------|------------|---------------|------------|--------------|--------------|---------------------------|----------|----------|
| Net TRC value (\$): | \$ 4,577,663 | \$ 1,245,593 | \$ 14,665 | \$ - | \$ - | \$ - | \$ - | \$ 1,230,928 | | \$ - | \$ - |
| Benefit to cost ratio: | | 8.04 | 5.92 | 0.00 | 0.00 | 0.00 | 0.00 | 8.07 | | 0.00 | 0.00 |
| Number of participants or units delivered: | 4044 | 1239 | 724 | 143 | | | | 372 | | | |
| Lifecycle (kWh) Savings: | 36,037,776 | 19,370,296 | 299,776 | 0 | 0 | 0 | 0 | 19,070,520 | | 0 | 0 |
| Report Year Total kWh saved (kWh): | 2,180,609 | 1,028,432 | 74,906 | 0 | 0 | 0 | 0 | 953,526 | | 0 | 0 |
| Total peak demand saved (kW): | 194 | 109 | 0 | 0 | 0 | 0 | 0 | 109 | | 0 | 0 |
| Total kWh saved as a percentage of total kWh delivered (%): | 0.1695% | 0.1618% | 0.0510% | | | | | 0.1501% | | | |
| Peak kW saved as a percentage of LDC peak kW load (%): | | 0.0976% | | | | | | 0.0976% | | | |
| ¹ Report Year Gross C&DM expenditures (\$): | \$ 491,474 | \$ 262,198 | \$ 9,533 | \$ 18,478 | \$ - | \$ - | \$ - | \$ 234,187 | \$ - | \$ - | \$ - |
| ² Expenditures per kWh saved (\$/kWh): | 0.225383948 | \$ 0.01 | \$ 0.03 | \$ - | \$ - | \$ - | \$ - | \$ 0.01 | | \$ - | \$ - |
| ³ Expenditures per kW saved (\$/kW): | 2,535.33 | \$ 2,408.80 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 2,151.46 | | \$ - | \$ - |
| Utility discount rate (%): | 7.25 | | | | | | | | | | |

¹ Expenditures are reported on accrual basis.

² Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate energy savings.

³ Expenditures include all utility program costs (direct and indirect) for all programs which primarily generate capacity savings.

⁴ Please report spending related to 3rd tranche of MARR funding only. TRC calculations are not required for Smart Meters. Only actual expenditures for the year need to be reported.

⁵ Includes total for the reporting year, plus prior year, if any (for example, 2006 CDM Annual report for third tranche will include 2005 and 2004 numbers, if any).

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** General Service Energy Awareness

Description of the program (including intent, design, delivery, partnerships and evaluation):

Intent - To offer programs to educate our general service customers on energy efficiency opportunities so they can make better decisions on their energy use and take steps to conserve electricity. Design - In 2006, Festival Hydro held five seminars breakfast seminars. The breakfast seminar allows an opportunity for customers to get a high level understanding of the conservation ideas being promoted. It gives customers a chance to network with the third party presenters, and to take advantage of professional services available. The seminars are kept short (approx. 2 hours), so that we can attract local business representatives. The five seminars held in 2006 included: Variable Speed Motors, Compressed Air, Adjustable Frequency Drives, Lighting Seminar, Power Factor Correction. In addition, a full day NR Canada Energy Management workshop was held to allow those interested to take part in a more in-depth course on Energy Management. Delivery - In advance of the seminars, Festival Hydro would mail/fax invitations to general service customers. Phone calls would also be placed to the larger industrial customers to encourage their participation. The

presenters used power point presentations, product displays and handouts as part of their presentations. At the end of each session, there was time for questions and to meet with the presenters to arrange future follow up. In addition at these seminars, Festival Hydro took an opportunity to promote its web-based product available to interval metered customers which allows them to monitor their usage, costs, time of usage, peaks, and more, all provided free of charge by Festival Hydro. Partnerships - All five breakfast seminars were conducted by energy efficiency specialist who could provide the expert information required by our customers. The full day NR Canada Energy Management program was conducted by NR Canada's professional staff. In addition, \$12,500 was provided to the City of Stratford for the Partners in Climate Protection Program. Evaluation: The lighting seminar resulted in the greatest number attending, as it was offered to and of interest to all general service customers. The other seminars held were primarily focused on industrial and commercial customers. We were quite pleased with the turn out at each seminar.

Measure(s):

| | Measure 1 | Measure 2 (if applicable) | Measure 3 (if applicable) |
|--|-------------------------|---------------------------|---------------------------|
| <i>Base case technology:</i> | | | |
| <i>Efficient technology:</i> | 5 seminars held in 2006 | | |
| <i>Number of participants or units delivered for reporting year:</i> | 143 participants | | |
| <i>Measure life (years):</i> | | | |
| <i>Number of Participants or units delivered life to date</i> | 258 participants | | |

| B. TRC Results: | Reporting Year | Life-to-date TRC Results: |
|--|----------------|---------------------------|
| ¹ TRC Benefits (\$): | | |
| ² TRC Costs (\$): | | |
| <i>Utility program cost (excluding incentives):</i> | | |
| <i>Incremental Measure Costs (Equipment Costs)</i> | | |
| <i>Total TRC costs:</i> | | |
| <hr/> <i>Net TRC (in year CDN \$):</i> <hr/> | | |
| <i>Benefit to Cost Ratio (TRC Benefits/TRC Costs):</i> | | |

| C. Results: (one or more category may apply) | Cumulative Results: | |
|---|----------------------------|----------------------------------|
| Conservation Programs: | | |
| <i>Demand savings (kW):</i> | Summer | |
| | Winter | |
| <i>lifecyle</i> | <i>in year</i> | <i>Cumulative Lifecyle</i> |
| | | <i>Cumulative Annual Savings</i> |

Energy saved (kWh):

Other resources saved :

Natural Gas (m3):

Other (specify):

Demand Management Programs:

Controlled load (kW)

Energy shifted On-peak to Mid-peak (kWh):

Energy shifted On-peak to Off-peak (kWh):

Energy shifted Mid-peak to Off-peak (kWh):

Demand Response Programs:

Dispatchable load (kW):

Peak hours dispatched in year (hours):

Power Factor Correction Programs:

Amount of KVar installed (KVar):

Distribution system power factor at beginning of year (%):

Distribution system power factor at end of year (%):

Line Loss Reduction Programs:

Peak load savings (kW):

lifecycle in year

Energy savings (kWh):

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):

Energy generated (kWh):

Peak energy generated (kWh):

Fuel type:

Other Programs (specify):

Metric (specify):

D. Actual Program Costs:

| | | <u>Reporting Year</u> | <u>Cumulative Life to Date</u> |
|------------------------------|----------------------|-----------------------|--------------------------------|
| Utility direct costs (\$): | Incremental capital: | <input type="text"/> | <input type="text"/> |
| | Incremental O&M: | \$ 5,978.37 | \$ 9,143.06 |
| | Incentive: | \$ 12,500.00 | \$ 12,500.00 |
| | Total: | \$ 18,478.37 | \$ 21,643.06 |
| Utility indirect costs (\$): | Incremental capital: | <input type="text"/> | <input type="text"/> |
| | Incremental O&M: | <input type="text"/> | <input type="text"/> |
| | Total: | <input type="text"/> | <input type="text"/> |

E. Assumptions & Comments:

- ¹ Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.
- ² For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Residential Energy Awareness

Description of the program (including intent, design, delivery, partnerships and evaluation):

Intent - To make residential customers aware of the need to conserve energy, to encourage customers to change their lifestyle to use less electricity and to promote replacement of existing products with more energy efficient, preferably EnergyStar products. Design: Most programs have been designed to promote awareness primarily through interaction with our customers and through the distribution of free information and literature at local events. Delivery: The following are the various initiatives undertaken during 2006. (For 2005 events please refer to 2005's Appendix B.) 2006 Events: 1. Stratford Home Show - This is a three day event. A booth included a constructed window and door in frame with proper insulation, caulking and weather stripping; a water heater with load controller and various conservation literature was also available. 2. Earth Day Symposium - Manned a booth with conservation material at the earth day symposium. Back in Black - Manned a booth at the 3rd annual Back In Black (Aug 14th) event. During the 7 hours of the Back in Black event, Festival Hydro recorded savings of 11,706 kWh (3% decrease), enough to power approx. 12 houses for one month.

Manned booths on Saturdays at the local Community in Blooms Event and at Global Warming: Meeting the Challenge to promote energy awareness. Mall Booth - At the Stratford Festival Mall, Festival Hydro set up an unmanned booth for approx three weeks in Nov 2005, with various material available and a sign up sheet to join our Load control program. Over twenty customers signed up for the load control program. Kill -A Watt Meters: In addition to having the meters available at Festival Hydro for customer use, the libraries in the City of Stratford and Town of St. Marys entered into a program with Festival Hydro whereby they would loan out Kill-a-Watt meters to customers on our behalf. During the year, 51 customers borrowed the Kill-A-Watt meters from Festival Hydro. We don't have numbers borrowed at the libraries, but both said the response was great. Bill Inserts: Each month a different conservation tip is printed on the Festival Hydro bills. Every Kilowatt Counts Program - Festival Hydro participated in both the spring and fall campaigns. Ads were placed in local newspapers to heighten awareness of the program. Participation: Festival Hydro partnered with a number

of grass roots organizations such as CARE Stratford, City of Stratford Energy & Environment committee, Kiwanis Club, and the Communities in Blooms organization. Evaluation: It is difficult to measure energy savings, however, education and awareness is the first step. Overall, there appears to be a heightened awareness of the need to conserve energy from a year earlier.

Measure(s):

| | Measure 1 | Measure 2 (if applicable) | Measure 3 (if applicable) |
|---|-----------|---------------------------|---------------------------|
| Base case technology: | | | |
| Efficient technology: | | | |
| Number of participants or units delivered for reporting year: | | | |
| Measure life (years): | | | |
| Number of Participants or units delivered life to date | | | |

| B. TRC Results: | Reporting Year | Life-to-date TRC Results: |
|--|----------------|---------------------------|
| ¹ TRC Benefits (\$): | | |
| ² TRC Costs (\$): | | |
| Utility program cost (excluding incentives): | | |
| Incremental Measure Costs (Equipment Costs) | | |
| Total TRC costs: | | |
| Net TRC (in year CDN \$): | | |
| Benefit to Cost Ratio (TRC Benefits/TRC Costs): | | |

| C. Results: (one or more category may apply) | Cumulative Results: | |
|---|----------------------------|--|
| Conservation Programs: | | |
| Demand savings (kW): | Summer | |
| | Winter | |

| | <i>lifecycle</i> | <i>in year</i> | <i>Cumulative Lifecycle</i> | <i>Cumulative Annual Savings</i> |
|-------------------------|------------------|----------------|-----------------------------|----------------------------------|
| Energy saved (kWh): | | | | |
| Other resources saved : | | | | |
| Natural Gas (m3): | | | | |
| Other (specify): | | | | |

Demand Management Programs:

| | | | | |
|--|--|--|--|--|
| Controlled load (kW) | | | | |
| Energy shifted On-peak to Mid-peak (kWh): | | | | |
| Energy shifted On-peak to Off-peak (kWh): | | | | |
| Energy shifted Mid-peak to Off-peak (kWh): | | | | |

Demand Response Programs:

| | | | | |
|--|--|--|--|--|
| Dispatchable load (kW): | | | | |
| Peak hours dispatched in year (hours): | | | | |

Power Factor Correction Programs:

| | | | | |
|--|--|--|--|--|
| Amount of KVar installed (KVar): | | | | |
| Distribution system power factor at beginning of year (%): | | | | |
| Distribution system power factor at end of year (%): | | | | |

Line Loss Reduction Programs:

| | | | | |
|-------------------------|------------------|----------------|--|--|
| Peak load savings (kW): | | | | |
| Energy savings (kWh): | <i>lifecycle</i> | <i>in year</i> | | |

Distributed Generation and Load Displacement Programs:

| | | | | |
|------------------------------|--|--|--|--|
| Amount of DG installed (kW): | | | | |
| Energy generated (kWh): | | | | |
| Peak energy generated (kWh): | | | | |
| Fuel type: | | | | |

Other Programs (specify):

| | | | | |
|-------------------|--|--|--|--|
| Metric (specify): | | | | |
|-------------------|--|--|--|--|

| D. <u>Actual Program Costs:</u> | | <u>Reporting Year</u> | <u>Cumulative Life to Date</u> |
|--|-----------------------------|------------------------------|---------------------------------------|
| Utility direct costs (\$): | <i>Incremental capital:</i> | | |
| | <i>Incremental O&M:</i> | \$ 7,648.40 | \$ 17,268.56 |
| | <i>Incentive:</i> | \$ 1,145.60 | \$ 5,395.60 |
| | <i>Total:</i> | \$ 8,794.00 | \$ 22,664.16 |
| Utility indirect costs (\$): | <i>Incremental capital:</i> | | |
| | <i>Incremental O&M:</i> | | |
| | <i>Total:</i> | | |

E. Assumptions & Comments:

Awareness and education are the essential first steps in conservation. We feel we have been successful in getting the message out. Interaction with customers is key.

- ¹ Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.
- ² For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** LED Seasonal Light Exchange

Description of the program (including intent, design, delivery, partnerships and evaluation):

Intent - To encourage customer to replace conventional seasonal lights with LED seasonal lights to conserve energy. **Design** - In the original CDM plan, Festival Hydro planned to give a \$5 coupon for customers to present to a local participating retailer in exchange for a conventional set of lights. Due to the administrative work with coupons, Festival decided to purchase the LEDs and distribute them from three distribution centres in our territory. In addition, rather than spending one-half the budget in 2005 and the other half in 2006, we decided to spend it all in 2005 so we could have 2,200 sets to distribute rather than 1,100 each year. **Delivery** - One set of LEDs were given in exchange for one set of conventional lighting, with a maximum of 2 per household. A computer program kept track of the names, so that customers could not go to multiple centers to get more than two. At all three locations the demand was overwhelming and the lights were gone in 2 hours. In 2006, only 8 additional light sets were distributed as door prizes at the Stratford Home Show and at other conservation events.

Partnerships - On the day of the distribution in Stratford, Festival Hydro had assistance from the local high school environmental group (CARE) and from the City of Stratford Energy & Environment Committee. In St. Mary, the St. Marys Evaluation - The LED exchange program was very popular with all lights distributed in less than 2 hours. The TRC indicates a negative return however the model uses a 5 year measurement fact when in fact many customers will probably use them for 8 to 10 years.

Measure(s):

| | Measure 1 | Measure 2 (if applicable) | Measure 3 (if applicable) |
|---|----------------------------|---------------------------|---------------------------|
| Base case technology: | set of conventional lights | | |
| Efficient technology: | set of LED lights | | |
| Number of participants or units delivered for reporting year: | 8 | | |
| Measure life (years): | 5 | | |
| Number of Participants or units delivered life to date | 2228 | | |

| B. TRC Results: | Reporting Year | Life-to-date TRC Results: |
|---|----------------|---------------------------|
| ¹ TRC Benefits (\$): | \$ 47.31 | 11,090.18 |
| ² TRC Costs (\$): | | |
| Utility program cost (excluding incentives): | \$ 89.62 | 24,959.62 |
| Incremental Measure Costs (Equipment Costs) | | |
| Total TRC costs: | \$ 89.62 | 24,959.62 |
| Net TRC (in year CDN \$): | | |
| Benefit to Cost Ratio (TRC Benefits/TRC Costs): | \$ 0.53 | 0.44 |

| C. Results: (one or more category may apply) | Cumulative Results: | | | |
|---|----------------------------|---------|----------------------|---------------------------|
| Conservation Programs: | | | | |
| Demand savings (kW): | Summer | | | |
| | Winter | | | |
| | lifecycle | in year | Cumulative Lifecycle | Cumulative Annual Savings |
| Energy saved (kWh): | 760 | 152 | 211660 | 11,090.18 |
| Other resources saved : | | | | |
| Natural Gas (m3): | | | | |
| Other (specify): | | | | |

Demand Management Programs:

| | | |
|--|--|--|
| Controlled load (kW) | | |
| Energy shifted On-peak to Mid-peak (kWh): | | |
| Energy shifted On-peak to Off-peak (kWh): | | |
| Energy shifted Mid-peak to Off-peak (kWh): | | |

Demand Response Programs:

| | | |
|--|--|--|
| Dispatchable load (kW): | | |
| Peak hours dispatched in year (hours): | | |

Power Factor Correction Programs:

| | | |
|--|--|--|
| Amount of KVar installed (KVar): | | |
| Distribution system power factor at beginning of year (%): | | |
| Distribution system power factor at end of year (%): | | |

Line Loss Reduction Programs:

| | | |
|-------------------------|------------------|----------------|
| Peak load savings (kW): | | |
| Energy savings (kWh): | | |
| | <i>lifecycle</i> | <i>in year</i> |

Distributed Generation and Load Displacement Programs:

| | | |
|------------------------------|--|--|
| Amount of DG installed (kW): | | |
| Energy generated (kWh): | | |
| Peak energy generated (kWh): | | |
| Fuel type: | | |

Other Programs (specify):

| | | |
|-------------------|--|--|
| Metric (specify): | | |
|-------------------|--|--|

D. Actual Program Costs:

| | | <u>Reporting Year</u> | <u>Cumulative Life to Date</u> |
|------------------------------|----------------------|-----------------------|--------------------------------|
| Utility direct costs (\$): | Incremental capital: | \$ - | \$ - |
| | Incremental O&M: | \$ 216.18 | \$ 264.57 |
| | Incentive: | \$ - | \$ 26,624.57 |
| | Total: | \$ 216.18 | \$ 26,889.14 |
| Utility indirect costs (\$): | Incremental capital: | | |
| | Incremental O&M: | | |
| | Total: | | |

E. Assumptions & Comments:

The eight sets of LED lights distributed in 2006 were actually purchased in 2005, so there were no incentives for 2006 recorded.

¹ Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.
² For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Compact Fluorescent Light Bulbs (CFL Bulbs)

Description of the program (including intent, design, delivery, partnerships and evaluation):

Intent - Encourage customers to replace incandescent light bulbs with CFL bulbs in order to reduce electrical consumption. Design - Festival purchased 4,000 light bulbs in 2005 to distribute within its territory. A summer student was hired in 2005 to hand deliver CFLs to all customers in the towns of Brussels (579), Hensall (539), Zurich (445) and Dashwood (235). At the Stratford Home show in April 2005, 798 light bulbs were handed out to participating residents of the City of Stratford. In early 2006, light bulbs were distributed from our service centre in Seaforth to 400 customers (approx. 25% of Seaforth covered). Approx 300 light bulbs were given for the Stratford and area Christmas Basket Fund. CFL bulbs also given as part of two baskets of home conservation items given as prizes at the home show. In 2007, a major distribution is planned for all of Festival Hydro's territory. Delivery - A summer student hand delivered the majority of the CFL bulbs in 2005. Regular staff were involved in the distribution in Seaforth.

Partnerships - The Kiwanis Club in Stratford took care of the CFL distribution through the Christmas Basket Fund. The remaining distribution was done by our staff. Evaluation - A telephone survey was conducted in the later part of the summer of 2005. The survey results indicated that for the most part, customers had put the free light bulbs to use. Conservation questions completed as part of the 2006 Cost of service appliance study also indicated customers were actively converting to CFL lighting.

Measure(s):

| | Measure 1 | Measure 2 (if applicable) | Measure 3 (if applicable) |
|---|--------------------------|---------------------------|---------------------------|
| Base case technology: | incandescent light bulbs | | |
| Efficient technology: | CFL bulbs | | |
| Number of participants or units delivered for reporting year: | 716 | | |
| Measure life (years): | 5 | | |
| Number of Participants or units delivered life to date | 4220 | | |

| B. TRC Results: | Reporting Year | Life-to-date TRC Results: |
|---|----------------|---------------------------|
| ¹ TRC Benefits (\$): | \$ 17,600.00 | 103,946.63 |
| ² TRC Costs (\$): | | |
| Utility program cost (excluding incentives): | \$ 2,893.57 | 17,054.30 |
| Incremental Measure Costs (Equipment Costs) | | |
| Total TRC costs: | \$ 2,893.57 | 17,054.30 |
| Net TRC (in year CDN \$): | | |
| Benefit to Cost Ratio (TRC Benefits/TRC Costs): | \$ 6.08 | 6.10 |

| C. Results: (one or more category may apply) | Cumulative Results: | | | |
|---|----------------------------|----------|----------------------|---------------------------|
| Conservation Programs: | | | | |
| Demand savings (kW): | Summer | | | |
| | Winter | | | |
| | lifecycle | in year | Cumulative Lifecycle | Cumulative Annual Savings |
| Energy saved (kWh): | 299015.92 | 74753.98 | 1762356.4 | 103,946.63 |
| Other resources saved : | | | | |
| Natural Gas (m3): | | | | |
| Other (specify): | | | | |

Demand Management Programs:

| | | |
|--|--|--|
| Controlled load (kW) | | |
| Energy shifted On-peak to Mid-peak (kWh): | | |
| Energy shifted On-peak to Off-peak (kWh): | | |
| Energy shifted Mid-peak to Off-peak (kWh): | | |

Demand Response Programs:

| | | |
|--|--|--|
| Dispatchable load (kW): | | |
| Peak hours dispatched in year (hours): | | |

Power Factor Correction Programs:

| | | |
|--|--|--|
| Amount of KVar installed (KVar): | | |
| Distribution system power factor at beginning of year (%): | | |
| Distribution system power factor at end of year (%): | | |

Line Loss Reduction Programs:

| | | |
|-------------------------|------------------|----------------|
| Peak load savings (kW): | | |
| Energy savings (kWh): | | |
| | <i>lifecycle</i> | <i>in year</i> |

Distributed Generation and Load Displacement Programs:

| | | |
|------------------------------|--|--|
| Amount of DG installed (kW): | | |
| Energy generated (kWh): | | |
| Peak energy generated (kWh): | | |
| Fuel type: | | |

Other Programs (specify):

| | | |
|-------------------|--|--|
| Metric (specify): | | |
|-------------------|--|--|

D. Actual Program Costs:

| | | <u>Reporting Year</u> | <u>Cumulative Life to Date</u> |
|------------------------------|----------------------|-----------------------|--------------------------------|
| Utility direct costs (\$): | Incremental capital: | \$ - | \$ - |
| | Incremental O&M: | \$ 523.17 | \$ 2,322.17 |
| | Incentive: | \$ - | \$ 13,389.00 |
| | Total: | \$ 523.17 | \$ 15,711.17 |
| Utility indirect costs (\$): | Incremental capital: | | |
| | Incremental O&M: | | |
| | Total: | | |

E. Assumptions & Comments:

Light bulbs distributed in 2006 were actually purchased in 2005, so there were no incentives for 2006 recorded.

¹ Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.

² For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. Name of the Program: Voltage Conversions

Description of the program (including intent, design, delivery, partnerships and evaluation):

Intent - To reduce line losses in order to minimize the loss of electricity and conserve energy. Also, to reduce electrical costs for customers due to lower line losses. **Design** - Festival Hydro has been working aggressively over the past decade to reduce system losses by converting existing 4kV distribution to higher voltages. These conversion are taking place as the infrastructure reaches "end of life status". A number of conversion projects have been planned for 2005 to 2007. **Delivery** - Festival Hydro completes its own capital work, with an emphasis on converting 4 kV to higher voltages as infrastructure is replaced. **Partnerships** - All capital work completed solely by Festival Hydro. - **Evaluation** - Festival Hydro successfully completed all the 4 kV conversion work planned for 2005 and 2006. The savings in system losses are calculated based on the amount of load converted to the higher voltage. Line losses are reduced by approx. 70% due to the conversions. The incremental costs (based on previous projects, estimated at 5% of the total project costs) are considered to be conservation assets. The remaining 95% is treated as normal infrastructure capital.

Measure(s):

| | Measure 1 | Measure 2 (if applicable) | Measure 3 (if applicable) |
|---|--------------------------|---------------------------|---------------------------|
| Base case technology: | distribution using 4 kV | | |
| Efficient technology: | distribution using 27 kV | | |
| Number of participants or units delivered for reporting year: | 5200 kW converted | | |
| Measure life (years): | 20 | | |
| Number of Participants or units delivered life to date | | | |

B. TRC Results:

| | Reporting Year | Life-to-date TRC Results: |
|---|----------------|---------------------------|
| ¹ TRC Benefits (\$): | \$ 838,454.00 | 1,492,811.00 |
| ² TRC Costs (\$): | | |
| Utility program cost (excluding incentives): | \$ 58,561.61 | 108,307.61 |
| Incremental Measure Costs (Equipment Costs) | | |
| Total TRC costs: | \$ 58,561.61 | 108,307.61 |
| Net TRC (in year CDN \$): | | |
| Benefit to Cost Ratio (TRC Benefits/TRC Costs): | \$ 14.32 | 13.78 |

C. Results: (one or more category may apply)

Cumulative Results:

Conservation Programs:

| | Summer | | Cumulative Lifecycle | Cumulative Annual Savings |
|-------------------------|-----------|---------|----------------------|---------------------------|
| | lifecycle | in year | | |
| Demand savings (kW): | | | | |
| Energy saved (kWh): | | | | |
| Other resources saved : | | | | |
| Natural Gas (m3): | | | | |
| Other (specify): | | | | |

Demand Management Programs:

| | | |
|---|--|--|
| Controlled load (kW) | | |
| Energy shifted On-peak to Mid-peak (kWh): | | |
| Energy shifted On-peak to Off-peak (kWh): | | |

Energy shifted Mid-peak to Off-peak (kWh):

| | |
|--|--|
| | |
|--|--|

Demand Response Programs:

Dispatchable load (kW):

| | |
|--|--|
| | |
|--|--|

Peak hours dispatched in year (hours):

| | |
|--|--|
| | |
|--|--|

Power Factor Correction Programs:

Amount of KVar installed (KVar):

| | |
|--|--|
| | |
|--|--|

Distribution system power factor at beginning of year (%):

| | |
|--|--|
| | |
|--|--|

Distribution system power factor at end of year (%):

| | |
|--|--|
| | |
|--|--|

Line Loss Reduction Programs:

Peak load savings (kW):

| | | |
|--|--------|-------|
| | 108.85 | 193.8 |
|--|--------|-------|

lifecycle

in year

Energy savings (kWh):

| | | |
|----------|--------|---------|
| 19070520 | 953526 | 1697688 |
|----------|--------|---------|

Distributed Generation and Load Displacement Programs:

Amount of DG installed (kW):

| | |
|--|--|
| | |
|--|--|

Energy generated (kWh):

| | |
|--|--|
| | |
|--|--|

Peak energy generated (kWh):

| | |
|--|--|
| | |
|--|--|

Fuel type:

| | |
|--|--|
| | |
|--|--|

Other Programs (specify):

Metric (specify):

| | |
|--|--|
| | |
|--|--|

D. Actual Program Costs:

Utility direct costs (\$):

Incremental capital:

| | <u>Reporting Year</u> | <u>Cumulative Life to Date</u> |
|--|-----------------------|--------------------------------|
| | \$ 58,561.61 | \$ 111,914.92 |

Incremental O&M:

| | | |
|--|------|------|
| | \$ - | \$ - |
|--|------|------|

Incentive:

| | | |
|--|------|------|
| | \$ - | \$ - |
|--|------|------|

Total:

| | | |
|--|--------------|---------------|
| | \$ 58,561.61 | \$ 111,914.92 |
|--|--------------|---------------|

Utility indirect costs (\$):

Incremental capital:

| | | |
|--|--|--|
| | | |
|--|--|--|

Incremental O&M:

| | | |
|--|--|--|
| | | |
|--|--|--|

Total:

| | | |
|--|--|--|
| | | |
|--|--|--|

E. Assumptions & Comments:

Continues to be a very successful program.

| |
|---|
| <p>Continues to be a very successful program.</p> |
|---|

¹ Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.

² For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix B - Discussion of the Program

(complete this Appendix for each program)

A. **Name of the Program:** Load Control Program

Description of the program (including intent, design, delivery, partnerships and evaluation):

Intent - Through the use of the water heater load control system, Festival Hydro assists the province in the reduction of peak demand by shifting the use of electricity from on-peak to off-peak periods. Design - Festival Hydro, previous to market opening, operated a load control system which controlled approx. 1,200 water heaters. This system was reimplemented in mid-2005 along with hardware and software upgrades to meet future control capabilities. Approx. 181 new water heater devices were installed in 2006. In addition, Festival Hydro in the summer of 2006 introduced the Peak Saver Program fashioned after Toronto Hydro's program with 191 air conditioner controllers installed in 2006. Delivery - Festival Hydro contacted the original 1,200 customers in 2005 with only 18 customers requested they be removed. Load controllers were promoted at the local Home Show in April 2006 and at a mall display in November 2006. In the summer of 2006, a message was put on the monthly bills to encourage customers to participate in the Peak Saver Program, with a one-time \$25 credit being the incentive. Perhaps the most successful drawing card for the Peak Saver Program

was an article in the local newspaper which resulted in a number of sign ups. Partnerships - Festival Hydro worked with a group of other LDCs on LCR implementation issues in 2005, but have managed the remainder of the program by ourselves. Our Peak Saver program was developed based on Toronto Hydro's Peak Saver program. Evaluation - This has been a very successful project to date. Customers can take part in conservation with minimal impact on their lifestyle. It has successfully assisted in reducing the provincial peak particularly on day's of high usage.

Measure(s):

| | Measure 1 | Measure 2 (if applicable) | Measure 3 (if applicable) |
|---|------------------------------|---------------------------|---------------------------|
| Base case technology: | No control devices | | |
| Efficient technology: | Water heater control devices | | |
| Number of participants or units delivered for reporting year: | 372 | | |
| Measure life (years): | 12 | | |
| Number of Participants or units delivered life to date | 1588 | | |

| | Reporting Year | Life-to-date TRC Results: |
|---|----------------|---------------------------|
| B. TRC Results: | | |
| ¹ TRC Benefits (\$): | \$ 566,537.00 | 3,353,543.00 |
| ² TRC Costs (\$): | | |
| Utility program cost (excluding incentives): | \$ 115,501.48 | 216,045.26 |
| Incremental Measure Costs (Equipment Costs) | | |
| Total TRC costs: | \$ 115,501.48 | 216,045.26 |
| Net TRC (in year CDN \$): | | |
| Benefit to Cost Ratio (TRC Benefits/TRC Costs): | \$ 4.91 | 15.52 |

C. **Results:** (one or more category may apply)

Cumulative Results:

Conservation Programs:

| | | Summer | Winter | Cumulative Lifecycle | Cumulative Annual Savings |
|-------------------------|--|--------|--------|----------------------|---------------------------|
| | | | | | |
| Demand savings (kW): | | | | | |
| Energy saved (kWh): | | | | | |
| Other resources saved : | | | | | |
| Natural Gas (m3): | | | | | |
| Other (specify): | | | | | |

Demand Management Programs:

| | | |
|--|--------|---------|
| Controlled load (kW) | 760 | 5222 |
| Energy shifted On-peak to Mid-peak (kWh): | 364098 | 2262274 |
| Energy shifted On-peak to Off-peak (kWh): | 31620 | 299140 |
| Energy shifted Mid-peak to Off-peak (kWh): | 0 | 0 |

Demand Response Programs:

Dispatchable load (kW):

Peak hours dispatched in year (hours):

| | |
|--|--|
| | |
| | |

Power Factor Correction Programs:

Amount of KVar installed (KVar):

Distribution system power factor at beginning of year (%):

Distribution system power factor at end of year (%):

| | |
|--|--|
| | |
| | |
| | |

Line Loss Reduction Programs:

| | | | |
|-------------------------|-----------|---------|--|
| Peak load savings (kW): | | | |
| | lifecycle | in year | |
| Energy savings (kWh): | | | |

Distributed Generation and Load Displacement Programs:

| | | |
|------------------------------|--|--|
| Amount of DG installed (kW): | | |
| Energy generated (kWh): | | |
| Peak energy generated (kWh): | | |
| Fuel type: | | |

Other Programs (specify):

| | | |
|-------------------|--|--|
| Metric (specify): | | |
|-------------------|--|--|

| D. Actual Program Costs: | | Reporting Year | Cumulative Life to Date |
|---------------------------------|----------------------|-----------------------|--------------------------------|
| Utility direct costs (\$): | Incremental capital: | \$ 105,646.12 | \$ 204,543.15 |
| | Incremental O&M: | \$ 9,855.36 | \$ 11,502.11 |
| | Incentive: | \$ 60,123.45 | \$ 76,606.83 |
| | Total: | \$ 175,624.93 | \$ 292,652.09 |
| Utility indirect costs (\$): | Incremental capital: | | |
| | Incremental O&M: | | |
| | Total: | | |

E. Assumptions & Comments:

In 2005, we reported there were 1,472 load controllers in service. This number was too high. There were actually 1,216 LCRs in operation. The cumulative life to date has been modified to reflect this.

¹ Benefits should be estimated if costs have been incurred and the technology has been deployed. Benefits reflect the present value of the measure for the number of units deployed in the year, i.e. the number of units times the net present value per unit benefit specified in the TRC Guide.
² For technologies which have not been deployed but for which the LDC has incurred costs, report only the TRC costs on a present value basis. Incentives (e.g. rebates) from the LDC to a customer are not a component of the TRC costs. However, payments made to a third party service provider to run an incentives program are program costs, and are to be included as TRC costs under the "Utility Program Costs" line.

Appendix C - Program and Portfolio Totals

Report Year: 2006

1. Residential Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

| | TRC Benefits (PV) | TRC Costs (PV) | \$ Net TRC Benefits | Benefit/Cost Ratio | Report Year Total kWh Saved | Lifecycle (kWh) Savings | Total Peak Demand (kW) Saved | Report Year Gross C&DM Expenditures (\$) |
|---|-------------------|-----------------|---------------------|--------------------|-----------------------------|-------------------------|------------------------------|--|
| Residential Awareness | | | \$ - | 0.00 | | | | \$ 8,794 |
| LED Lights | \$ 47 | \$ 89 | \$ -42 | 0.53 | 152 | 760 | | \$ 216 |
| Compact CFLs | \$ 17,600 | \$ 2,894 | \$ 14,706 | 6.08 | 74,754 | 299,016 | | \$ 523 |
| Name of Program D | | | \$ - | 0.00 | | | | |
| Name of Program E | | | \$ - | 0.00 | | | | |
| Name of Program F | | | \$ - | 0.00 | | | | |
| Name of Program G | | | \$ - | 0.00 | | | | |
| Name of Program H | | | \$ - | 0.00 | | | | |
| Name of Program I | | | \$ - | 0.00 | | | | |
| Name of Program J | | | \$ - | 0.00 | | | | |
| *Totals App. B - Residential | \$ 17,647 | \$ 2,983 | \$ 14,665 | 5.92 | 74,906 | 299,776 | 0 | \$ 9,533 |
| Residential Indirect Costs not attributable to any specific program | → | | | | | | | |
| Total Residential TRC Costs | | \$ 2,983 | | | | | | |
| **Totals TRC - Residential | \$ 17,647 | \$ 2,983 | \$ 14,665 | 5.92 | | | | |

2. Commercial Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

| | TRC Benefits (PV) | TRC Costs (PV) | \$ Net TRC Benefits | Benefit/Cost Ratio | Report Year Total kWh Saved | Lifecycle (kWh) Savings | Total Peak Demand (kW) Saved | Report Year Gross C&DM Expenditures (\$) |
|------------------------------------|-------------------|----------------|---------------------|--------------------|-----------------------------|-------------------------|------------------------------|--|
| General Service Awareness | | | \$ - | 0.00 | | | | \$ 18,478 |
| Name of Program B | | | \$ - | 0.00 | | | | |
| Name of Program C | | | \$ - | 0.00 | | | | |
| Name of Program D | | | \$ - | 0.00 | | | | |
| Name of Program E | | | \$ - | 0.00 | | | | |
| Name of Program F | | | \$ - | 0.00 | | | | |
| Name of Program G | | | \$ - | 0.00 | | | | |
| Name of Program H | | | \$ - | 0.00 | | | | |
| Name of Program I | | | \$ - | 0.00 | | | | |
| Name of Program J | | | \$ - | 0.00 | | | | |
| *Totals App. B - Commercial | \$ - | \$ - | \$ - | 0.00 | 0 | 0 | 0 | \$ 18,478 |

Commercial Indirect Costs not attributable to any specific program



| | | | | |
|----------------------------------|----|----|----|------|
| Total TRC Costs | | \$ | - | |
| **Totals TRC - Commercial | \$ | - | \$ | - |
| | | | \$ | 0.00 |

3. Institutional Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

| | TRC Benefits (PV) | TRC Costs (PV) | \$ Net TRC Benefits | Benefit/Cost Ratio | Report Year Total kWh Saved | Lifecycle (kWh) Savings | Total Peak Demand (kW) Saved | Report Year Gross C&DM Expenditures (\$) |
|---------------------------------------|-------------------|----------------|---------------------|--------------------|-----------------------------|-------------------------|------------------------------|--|
| Name of Program A | | | \$ - | 0.00 | | | | |
| Name of Program B | | | \$ - | 0.00 | | | | |
| Name of Program C | | | \$ - | 0.00 | | | | |
| Name of Program D | | | \$ - | 0.00 | | | | |
| Name of Program E | | | \$ - | 0.00 | | | | |
| Name of Program C | | | \$ - | 0.00 | | | | |
| Name of Program G | | | \$ - | 0.00 | | | | |
| Name of Program H | | | \$ - | 0.00 | | | | |
| Name of Program I | | | \$ - | 0.00 | | | | |
| Name of Program J | | | \$ - | 0.00 | | | | |
| *Totals App. B - Institutional | \$ - | \$ - | \$ - | 0.00 | 0 | 0 | 0 | \$ - |

Institutional Indirect Costs not attributable to any specific program



| | | | | |
|-------------------------------------|----|----|----|------|
| Total TRC Costs | | \$ | - | |
| **Totals TRC - Institutional | \$ | - | \$ | - |
| | | | \$ | 0.00 |

4. Industrial Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

| | TRC Benefits (PV) | TRC Costs (PV) | \$ Net TRC Benefits | Benefit/Cost Ratio | Report Year Total kWh Saved | Lifecycle (kWh) Savings | Total Peak Demand (kW) Saved | Report Year Gross C&DM Expenditures (\$) |
|-------------------|-------------------|----------------|---------------------|--------------------|-----------------------------|-------------------------|------------------------------|--|
| Name of Program A | | | \$ - | 0.00 | | | | |
| Name of Program C | | | \$ - | 0.00 | | | | |
| Name of Program C | | | \$ - | 0.00 | | | | |
| Name of Program D | | | \$ - | 0.00 | | | | |
| Name of Program E | | | \$ - | 0.00 | | | | |
| Name of Program F | | | \$ - | 0.00 | | | | |
| Name of Program G | | | \$ - | 0.00 | | | | |
| Name of Program H | | | \$ - | 0.00 | | | | |
| Name of Program I | | | \$ - | 0.00 | | | | |

| | | | | | | | | | |
|--|----|----|----|---|------|---|---|---|------|
| Name of Program J | | | \$ | - | 0.00 | | | | |
| *Totals App. B - Industrial | \$ | - | \$ | - | 0.00 | 0 | 0 | 0 | \$ - |
| Industrial Indirect Costs not attributable to any specific program | → | | | | | | | | |
| Total TRC Costs | | \$ | | - | | | | | |
| **Totals TRC - Industrial | \$ | - | \$ | - | 0.00 | | | | |

5. Agricultural Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

| | TRC Benefits (PV) | TRC Costs (PV) | \$ Net TRC Benefits | Benefit/Cost Ratio | Report Year Total kWh Saved | Lifecycle (kWh) Savings | Total Peak Demand (kW) Saved | Report Year Gross C&DM Expenditures (\$) |
|--|-------------------|----------------|---------------------|--------------------|-----------------------------|-------------------------|------------------------------|--|
| Name of Program A | | | \$ - | 0.00 | | | | |
| Name of Program C | | | \$ - | 0.00 | | | | |
| Name of Program C | | | \$ - | 0.00 | | | | |
| Name of Program D | | | \$ - | 0.00 | | | | |
| Name of Program E | | | \$ - | 0.00 | | | | |
| Name of Program F | | | \$ - | 0.00 | | | | |
| Name of Program G | | | \$ - | 0.00 | | | | |
| Name of Program H | | | \$ - | 0.00 | | | | |
| Name of Program I | | | \$ - | 0.00 | | | | |
| Name of Program J | | | \$ - | 0.00 | | | | |
| *Totals App. B - Agricultural | \$ - | \$ - | \$ - | 0.00 | 0 | 0 | 0 | \$ - |
| Agricultural Indirect Costs not attributable to any specific program | → | | | | | | | |
| Total TRC Costs | | \$ - | | | | | | |
| **Totals TRC - Agricultural | \$ - | \$ - | \$ - | 0.00 | | | | |

6. LDC System Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

| | TRC Benefits (PV) | TRC Costs (PV) | \$ Net TRC Benefits | Benefit/Cost Ratio | Report Year Total kWh Saved | Lifecycle (kWh) Savings | Total Peak Demand (kW) Saved | Report Year Gross C&DM Expenditures (\$) |
|---------------------|-------------------|----------------|---------------------|--------------------|-----------------------------|-------------------------|------------------------------|--|
| Load control system | \$ 566,537 | \$ 115,501 | \$ 451,036 | 4.91 | | | | \$ 175,625 |
| Voltage conversions | \$ 838,454 | \$ 58,562 | \$ 779,892 | 14.32 | 953,526 | 19,070,520 | 109 | \$ 58,562 |

| | | | | | | | | | |
|--|---------------------|-------------------|---------------------|-------------|------|----------------|-------------------|------------|-------------------|
| Name of Program C | | | \$ | - | 0.00 | | | | |
| Name of Program D | | | \$ | - | 0.00 | | | | |
| Name of Program E | | | \$ | - | 0.00 | | | | |
| Name of Program F | | | \$ | - | 0.00 | | | | |
| Name of Program G | | | \$ | - | 0.00 | | | | |
| Name of Program H | | | \$ | - | 0.00 | | | | |
| Name of Program I | | | \$ | - | 0.00 | | | | |
| Name of Program C | | | \$ | - | 0.00 | | | | |
| *Totals App. B - LDC System | \$ 1,404,991 | \$ 174,063 | \$ 1,230,928 | 8.07 | | 953,526 | 19,070,520 | 109 | \$ 234,187 |
| LDC System Indirect Costs not attributable to any specific program | → | | | | | | | | |
| Total TRC Costs | | \$ 174,063 | | | | | | | |
| **Totals TRC - LDC System | \$ 1,404,991 | \$ 174,063 | \$ 1,230,928 | 8.07 | | | | | |

7. Smart Meters Program

Only spending information that was authorized under the 3rd tranche of MARR is required to be reported for Smart Meters.

Report Year Gross C&DM Expenditures (\$) →

8. Other #1 Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

| | TRC Benefits (PV) | TRC Costs (PV) | \$ Net TRC Benefits | Benefit/Cost Ratio | Report Year Total kWh Saved | Lifecycle (kWh) Savings | Total Peak Demand (kW) Saved | Report Year Gross C&DM Expenditures (\$) |
|--|-------------------|----------------|---------------------|--------------------|-----------------------------|-------------------------|------------------------------|--|
| Name of Program A | | | \$ - | 0.00 | | | | |
| Name of Program B | | | \$ - | 0.00 | | | | |
| Name of Program C | | | \$ - | 0.00 | | | | |
| Name of Program D | | | \$ - | 0.00 | | | | |
| Name of Program E | | | \$ - | 0.00 | | | | |
| Name of Program F | | | \$ - | 0.00 | | | | |
| Name of Program G | | | \$ - | 0.00 | | | | |
| Name of Program H | | | \$ - | 0.00 | | | | |
| Name of Program I | | | \$ - | 0.00 | | | | |
| Name of Program J | | | \$ - | 0.00 | | | | |
| *Totals App. B - Other #1 | \$ - | \$ - | \$ - | 0.00 | 0 | 0 | 0 | \$ - |
| Other #1 Indirect Costs not attributable to any specific program | → | | | | | | | |
| Total TRC Costs | | \$ - | | | | | | |
| **Totals TRC - Other #1 | \$ - | \$ - | \$ - | 0.00 | | | | |

9. Other #2 Programs

List each Appendix B in the cells below; Insert additional rows as required.

Note: To ensure the integrity of the formulas, please insert the additional rows in the middle of the list below.

| | TRC Benefits (PV) | TRC Costs (PV) | \$ Net TRC Benefits | Benefit/Cost Ratio | Report Year Total kWh Saved | Lifecycle (kWh) Savings | Total Peak Demand (kW) Saved | Report Year Gross C&DM Expenditures (\$) |
|--|-------------------|----------------|---------------------|--------------------|-----------------------------|-------------------------|------------------------------|--|
| Name of Program A | | | \$ - | 0.00 | | | | |
| Name of Program B | | | \$ - | 0.00 | | | | |
| Name of Program C | | | \$ - | 0.00 | | | | |
| Name of Program D | | | \$ - | 0.00 | | | | |
| Name of Program E | | | \$ - | 0.00 | | | | |
| Name of Program C | | | \$ - | 0.00 | | | | |
| Name of Program G | | | \$ - | 0.00 | | | | |
| Name of Program H | | | \$ - | 0.00 | | | | |
| Name of Program I | | | \$ - | 0.00 | | | | |
| Name of Program J | | | \$ - | 0.00 | | | | |
| *Totals App. B - Other #2 | \$ - | \$ - | \$ - | 0.00 | 0 | 0 | 0 | \$ - |
| Other #2 Indirect Costs not attributable to any specific program | → | | | | | | | |
| Total TRC Costs | | \$ - | | | | | | |
| **Totals TRC - Other #2 | \$ - | \$ - | \$ - | 0.00 | | | | |

LDC's CDM PORTFOLIO TOTALS

| | TRC Benefits (PV) | TRC Costs (PV) | \$ Net TRC Benefits | Benefit/Cost Ratio | Report Year Total kWh Saved | Lifecycle (kWh) Savings | Total Peak Demand (kW) Saved | Report Year Gross C&DM Expenditures (\$) |
|---|-------------------|----------------|---------------------|--------------------|-----------------------------|-------------------------|------------------------------|--|
| *TOTALS FOR ALL APPENDIX B | \$ 1,422,638 | \$ 177,046 | \$ 1,245,593 | 8.04 | \$ 1,028,432 | \$ 19,370,296 | \$ 109 | \$ 262,198 |
| Any other Indirect Costs not attributable to any specific program | → | | | | | | | |
| TOTAL ALL LDC COSTS | | \$ 177,046 | | | | | | |
| **LDC' PORTFOLIO TRC | \$ 1,422,638 | \$ 177,046 | \$ 1,245,593 | 8.04 | | | | |

* The savings and spending information from this row is to be carried forward to Appendix A.

** The TRC information from this row is to be carried forward to Appendix A.