CUSTOM PROJECT APPLICATION GUIDELINE

Program Objective and Scope

The objective of this program is to leverage energy conservation and load management opportunities within the commercial, industrial and institutional sectors.

The program targets industrial, commercial and institutional end-users with facility peak loads of greater than 50 kW (annual average monthly peak loads (7am – 11pm)).

Eligible Applicants

To be eligible to apply to this program, the following conditions must be met:

1. The Applicant must be a Veridian Connections customer
2. The facility(ies) where the energy conservation or demand response initiative(s) is/are proposed/installed must be within the Veridian Connections service territory and installed at a site serviced by Veridian Connections
3. Applications must include the Applicant's primary Veridian Connections account number and the account numbers of all facilities as appropriate

Process and Forms

The PowerWise Business Incentive Program is made up of two incentive options:

- Prescriptive Projects – where rebates are offered for predefined technologies on a per unit or performance basis.
- Custom Projects – where all technology, equipment and systems are evaluated on the basis of their energy performance improvement and an incentive offered based specifically on the level of improvement

This Guideline, addresses the Custom Projects option only.

In addition to this Guideline, there are two application documents. They are:

1. Project Application, and the
2. Custom Project Application Worksheet

The Project Application is the same for both Prescriptive Project and Custom Project applications, and in fact can be used for applying to both at the same time, if applicable to the Applicant. Please refer to the Prescriptive Project Application Guideline and the appropriate prescriptive project worksheets.

The Custom Project Application Worksheet is attached to the Project Application and completed as required to provide the technical and financial justification for application review and approval.

Both documents, with supporting documentation as required, comprise the final Incentive Agreement between Veridian Connections and the Applicant.

Incentives

Incentives from Veridian Connections will be determined based on the lesser of:

- $150 / kW saved (see calculation procedure later in this guideline)
- 50% of incremental project costs
- Amount required to top-up total government and utility incentives to 50% of total project costs.
- Amount required to buy down the simple payback of the project to 2.0 years
- Maximum Veridian Connections incentive of $25,000[1]

Note that Veridian Connections must approve Custom Project incentives prior to project commitment by the applicant. Project Commitment is defined as prior to a contract being signed for construction or a purchase order being issued for implementation of the project. Funds will not be approved for projects retroactively. The Customer may be asked to provide evidence of when project commitment was made prior to release of incentive funds. This can be done by providing a copy of the construction contract, copy of the purchase order, or other appropriate official documentation between the Customer and the contractor/installer.

Complementary Energy Conservation Programs

Use of complementary programs and incentives is strongly encouraged to further defer the costs of project implementation beyond what the applicant may be eligible for under this program. Demonstrated participation under other programs may increase the likelihood of approval under this program. Complementary programs that may be of benefit to the Applicant include:

- Canadian Industry Program for Energy Conservation (CIPEC)
- Commercial Building Incentive Program (CBIP)
- Energy Retrofit Assistance (ERA) for Commercial and Institutional Buildings
  - ERA (P) for Retrofit Planning
  - ERA (3) and ERA (4) for Retrofit Projects
- ENERGY STAR® Qualified Products
- Industrial Buildings Incentive Program (IBIP)
- Enbridge Gas Limited programs
- Union Gas Limited programs

Technical Eligibility

[1] This is the maximum incentive for any one project and the cumulative maximum of all incentives from Veridian Connections for any one customer. The Customer will be defined as the owner of the facility where the energy efficiency measures are being installed. Capping the amount for any one customer provides opportunities for more program participants.

All technologies and processes that result in a real kW savings are eligible for application under this program.

Kilowatt (kW) savings can be achieved by any of the following:

- Replacement of inefficient existing equipment with new high efficiency equipment
- Replacement of oversized existing equipment with new "right-sized" efficient equipment[2]
- Implementation of new and efficient operation procedures and controls that result in sustained savings
- Addition of technologies or products that improve the thermal performance of the building envelop such as increased insulation, high performance windows and frames, low emissive window glazing, low emissive barriers for roofs, etc.

Where new technologies or systems are used, they must be considered commercially proven with an expected operating life of 10 years, or greater. Pilot or demonstration projects of unproven technologies are not eligible under this program.

Prescriptive Rebates Available

The applicant should be aware that Veridian Connections also offers rebates for specific prescriptive technologies. The applicant has the option of applying for incentives using prescriptive rebates and/or using the custom application approach. If the project under this application is solely for a product or technology covered under a prescriptive rebate, then the Applicant is directed to submit their application using the appropriate Prescriptive Project Worksheet for financial support. In that case, an application under the Custom Project Worksheet will be rejected. The Applicant can combine both Prescriptive and Custom worksheets in their application as long as each worksheet details a specific and unique energy efficient option with no overlap to other worksheets. It is the Applicant's responsibility to determine which program option benefits them most. For further information regarding availability of prescriptive rebates, please contact Terry Britton (Veridian Connections) at 1-888-445-2281 Ext. 2207

Eligible Project Costs

Total project costs are required for the purposes of determining the maximum eligible financial incentive under the program.

Eligible costs include the following:
- Audit, pre-feasibility assessment costs
- Engineering and architectural design costs
- Project management
- Equipment
- Installation labour and services

[2] When replacing oversized equipment, the Applicant will need to certify that the equipment is either being destroyed or sold, or will only be used in a future application where its size and capacity meet the demands of the application.

- Shipping and delivery
- PST, import duties, levies, etc. if not tax exempt

Costs not eligible include:
- Financing
- Insurance
- Maintenance and service contracts
- Spare parts/equipment
- Purchase or lease of tools or installation equipment
- GST

Where the project is an upgrade over "standard" technology, eligible project costs are calculated as the incremental costs to install the high efficient options over the standard options. In this case, an estimate of the standard project costs must be provided and detailed as well as the costs for the Energy Efficient Project proposed.

The Incremental Project Cost is then calculated as follows:

Incremental Project Cost = Energy Efficient Project Cost – Base Case Cost

As identified above, the incentive cannot exceed 50% of the incremental Project Cost and incentives from all government and utility funding sources cannot exceed 50% of the total Energy Efficient Project Cost. In the case where government and utility incentives are greater than 50% of the total Energy Efficiency Project Cost, Veridian Connection's incentive will be reduced to an amount required to meet this requirement.

Disclosure of Incentives obtained from other parties

As a condition of participation, the applicant must disclose the full incentive amounts pledged by other parties.

Veridian Connections or its representative reserves the right to contact other government agencies and verify incentives released or pledged. Signing the application is the applicant's authority for Veridian Connections to make these requests.

If the applicant receives approval or additional support funds for its project after approval of the application from Veridian Connections, it must immediately notify Veridian Connections. This information will be used to recalculate the incentive amount and if required, the incentive will either be reduced or the applicant will be required to reimburse the difference between the original incentive and the new lower incentive due to the reduction caused by the subsequent support funding.

In-service date of project

For the project to be eligible for incentives under this program, the project must be completed (be in-service) and delivering kW savings prior to **September 30, 2006**. The estimated

construction period cannot exceed 12 months and construction must be completed within 12 months of the application approval date. For applications submitted after September 30, 2005, the maximum construction period must not exceed that which would result in a project being in service by September 30, 2006. Projects that are not completed and put into service prior to September 30, 2006 risk having their application rejected and the incentive offer withdrawn.

Projects with an earlier in-service date will be given priority for approval. Veridian Connection's incentive budget is limited and project applications will draw down this budget as projects are approved.

Savings

Projects must deliver kW savings as per the calculation method outlined later in this guideline.

Applications will not be considered for projects that save less than 10 kW average peak demand. For projects with savings of less than this amount, Veridian Connections strongly encourages the applicant to consider prescriptive options or to aggregate several smaller projects into one application. For more information, please contact Veridian Connections at 1-888-420-0070

Project Permanence

Projects must remain in service and delivering the projected savings for a period of at least 36 months. If the period of operation is less than 36 months, the Applicant shall be deemed to be in default and repayment of a portion of the incentive may be requested by Veridian Connections. If the Project or its operation requires removal, changes or modifications during the 36 months specified above, the Applicant shall notify Veridian Connections forthwith in writing. At that time an assessment of the change in savings will be determined and if required Veridian Connections may request a repayment of a portion of the incentive on a pro-rata basis. Failure to promptly inform Veridian Connections of any such changes shall constitute a default of the incentive agreement, and may result in Veridian Connections requesting repayment of all or a portion of the Incentive.

Application Evaluation & Priority

Applications must be submitted prior to July 1, 2006.

Applications will undergo a pre-screening process confirming that all the above conditions have been met. Any applications that fail to meet the above criteria will be returned to the applicant with an explanation of the deficiency.

Those applications that meet all the above criteria and pass the pre-screening process will undergo a detailed screen by Veridian Connections. Applications will be prioritized using the following criteria:

- Date of application – Projects submitted earlier will receive first consideration.

- In-service date – The sooner the project will be in-service the higher likelihood the project will receive approval. Also, projects must be completed and in-service within 12 months of application approval date and prior to September 30, 2006, whichever is earlier.
- Magnitude of kW savings projected – Projects with larger savings will be given higher priority.
- Permanency of savings – Projects whose savings will be sustainable for longer periods of time will receive higher priority.

Measurement and Verification

Within one year of issuing an incentive, Veridian Connections reserves the right to measure and verify the actual project savings and audit the actual project cost.

To verify energy and demand savings, Veridian Connections will apply the principles described in the *International Performance Measurement and Verification Protocol*. These measurements and verification will be performed at Veridian Connection's expense. If the results differ from the projected savings put forward by the Applicant, Veridian Connections reserves the right to request repayment of the difference between the original incentive and the incentive based on the actual savings determined from Veridian Connection's verification. There will be no increase in incentive if savings are verified to be higher than estimated in the original application.

Incentives are calculated based on the savings analysis and cost estimates performed prior to project installation and as described in the application. It is the applicant's responsibility to inform Veridian Connections of any material changes that may result in lower savings, cost estimates or any other change that may result in a change in the incentive indicated on the approved application agreement.

Base Case and Energy Efficient Project Definitions

Savings are calculated by subtracting the energy efficient peak demands from the Base Case peak demands. Both cases must be fully described and the Base Case justified.

The Base Case is defined as the loads that would occur under standard operating conditions and under standard practice for equipment specification and operation. If the energy efficient equipment is replacing existing good condition but low efficient in-service equipment, then the Base Case is what's currently in place. On the other hand, if the energy efficient equipment is replacing old equipment which requires upgrading or replacement, then the Base Case is defined as the equipment and operation that would have been specified if Veridian Connections had not provided a financial incentive to encourage the energy efficient option.

Consider the following examples.

Example 1: A building owner wants to reduce the heating and cooling costs of a building and improve overall occupant comfort by replacing the standard single glazed windows with high efficiency low-e glazing. The existing glazing is still in good condition and considered to be serviceable for several more years. In this case the Base Case is defined as the building's current

operation and performance. The savings would be compared between the existing building's performance and the performance of the building with the new low-e glazing. Incremental costs would be the total project cost of the low-e glazing installation with no Base Case costs.

Example 2: A building owner wants to upgrade his inefficient chiller to a more efficient system. The existing chiller is 30 years old, is well past its life expectancy and is costly to maintain and repair – the existing chiller is in need of replacement. In this case, the Base Case is defined as a standard replacement chiller (a chiller that would normally be specified under standard conditions) because the existing chiller is in need of replacement. Savings will be determined by estimating the performance of this standard chiller and comparing it to the performance of a high efficiency chiller under the same operating conditions. The incremental costs will be determined by subtracting the Base Case installation and equipment costs from the energy efficient installation and equipment costs.

kW Savings Calculation Procedure

In general, savings are determined by the average difference between the "Base Case" peak-demand loads and the energy efficient project peak-demand loads. Calculations should be determined as follows:

- Savings are calculated for three different periods of the year: Summer (June 1 to September 30), Winter (December 1 to March 31), and Spring/Fall (April 1 to May 31, and October 1 to November 30). Each period has a different weighting factor as follows:

Summer	100%
Winter	80%
Spring/Fall	50%

- For each of the seasonal periods, a typical (period average) peak day load profile must be prepared. This load profile is for a typical weekday and is broken into 24 equal hours, where hour 1 represents 0:00 to 0:59, hour 2 represents 1:00 to 1:59, etc. to hour 24 which represents 23:00 to 23:59. All hours are in standard daylight time (do not adjust for Daylight Savings Time for the months where this would normally apply).

- The typical weekday is an average of all days in the seasonal period (this accounts for weather and operational variances and dependences over the season).

Base Case (Pre-project installation)

Base Case Profile	Off-Peak							On-Peak																	On-peak
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	Average
Typical dailly load profile (Summer) - kW	20	30	30	30	40	40	40	100	150	200	200	180	220	220	230	250	240	230	220	150	100	50	50	20	174.4
Typical dailly load profile (Winter) - kW	10	10	10	10	10	20	20	50	100	100	100	90	110	110	110	120	120	110	110	70	50	20	20	10	86.9
Typical dailly load profile (Spring/Fall) - kW	20	20	20	20	30	30	30	60	120	120	120	110	120	120	120	140	140	130	120	80	60	30	30	20	101.3

Post Project Projection

EE Option Profile	Off-Peak							On-Peak																	On-peak
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	Average
Typical dailly load profile (Summer) - kW	10	10	10	20	20	20	20	50	80	120	120	110	120	130	130	130	130	130	110	80	50	20	20	10	95.6
Typical dailly load profile (Winter) - kW	0	10	0	10	10	10	10	20	50	50	50	40	50	50	50	60	60	50	50	30	20	10	10	0	40.6
Typical dailly load profile (Spring/Fall) - kW	10	10	10	10	10	10	10	30	60	60	60	50	60	60	60	70	70	60	60	40	30	20	20	10	50.6

Savings

Savings	Off-Peak							On-Peak																	On-peak
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	Average
Typical dailly load profile (Summer) - kW	10	20	20	10	20	20	20	50	70	80	80	70	100	90	100	120	110	100	110	70	50	30	30	10	78.8
Typical dailly load profile (Winter) - kW	0	0	10	0	0	10	10	30	50	50	50	50	60	60	60	60	60	60	60	40	30	10	10	10	46.3
Typical dailly load profile (Spring/Fall) - kW	0	10	10	10	20	20	20	30	60	60	60	60	60	60	60	70	70	70	60	40	30	10	10	10	50.6

Calculation of net seasonally adjusted on-peak demand savings

Once the seasonal on-peak average demand savings are calculated the eligible demand savings from the project are determined using the **largest value** after applying the seasonal weighting factors above. Using the example above, this would be done as follows:

Project Demand Savings = Maximum of either [(Summer savings * 100%) or (Winter savings * 80%) or (Spring/Fall savings * 50%)]

= Maximum of [(78.8 kW * 1.0) or (46.3 kW * 0.80) or (50.6 kW * 0.50)]

= Maximum of [78.8 kW or 37.04 kW or 25.30 kW]

= **78.8 kW**

Therefore, the project demand savings for the purposes of calculating an incentive are determined to be 78.8 kW.

This value is now used to determine the incentive.

Incentive Calculation:

Incentive = Project Demand Savings x Incentive Rate

In the example above, the incentive is:

Incentive = 78.8 kW * $150 / kW

= $11,820 (rounded to nearest dollar)

This value is then adjusted, if required, by the other conditions required for setting the maximum incentive payable by Veridian Connections.

Veridian Connections Support

For support regarding this program, obtaining application forms, submitting an application or obtaining information regarding any of Veridian Connection's conservation and demand management programs, please contact Terry Britton at 1-888-445-2281 Ext. 2207
Please monitor https://www.veridian.on.ca for more information and program updates.