

Program Name: Save On Energy Process & Systems Upgrades Program

## **1. Program Description**

The Process & Systems Upgrades Program (the “**PSU Program**”) provides financial incentives for the implementation of Energy Efficiency and Generation Projects (collectively, the “**Projects**”) that are capital intensive.

The PSU Program also provides funding for an Engineering Feasibility Study which supports the PSU Program, by identifying and developing PSU Program potential Project opportunities (for more information please see Appendix 2).

These PSU Program Requirements will take effect on May 1, 2019.

## **2. Program Requirements**

Recommended reference material relating to the PSU Program is for information purposes only and may be found at [saveonenergy.ca/Business/Program-Overviews/Process-and-System-Upgrades.aspx](http://saveonenergy.ca/Business/Program-Overviews/Process-and-System-Upgrades.aspx) and <http://www.ieso.ca/en/Sector-Participants/Conservation-Delivery-and-Tools/Interim-Framework>.

### **2.1 Participant Incentive for Projects**

The Participant Incentive for Projects will be the lower of:

- (a) 70% of the Eligible Costs of the Project;
- (b) the product of the Electricity Savings multiplied by \$200/MWh, capped at 120% of the Approved Amount;
- (c) the amount that would provide a Project Payback for one year for a Project; and
- (d) \$10,000,000 per Project.

Notwithstanding the foregoing, the Participant Incentive for the Project will be reduced by any incentives paid or to be paid toward an Engineering Feasibility Study funded by the IESO pursuant to Appendix 2.

**2.2** The Participant Incentive is payable in accordance with the terms of Appendix 1.

## **3. Program Eligibility Criteria**

### **3.1 Participant Eligibility**

To be eligible for a Participant Incentive, the Participant must:

- (a) be either:
  - (i) an electricity customer who owns and/or occupies the Facility that is connected, either directly or indirectly, to the IESO-Controlled Grid or a Distribution System; or
  - (ii) a person who will install and operate a Project at the Facility on behalf of the owner/operator of the Facility who is connected, either directly or indirectly, to the IESO-Controlled Grid or a Distribution System (a **“Third Party Participant”**); and
- (b) not be insolvent.

### **3.2 Facility Eligibility**

To be eligible for a Participant Incentive, the Facility must:

- (a) Be connected to, or behind the meter of another electricity consumer connected, either directly or indirectly, to the IESO Controlled-Grid or a Distribution System; or
- (b) For Third Party Participants, the Participant’s proposed Project must be connected, either directly or indirectly, to the IESO-Controlled Grid or a Distribution System, unless otherwise approved by the IESO.

### **3.3 Project and Measures Eligibility**

To be eligible for a Participant Incentive, Projects must:

- (a) Be the subject of an Engineering Feasibility Study or provide supporting documentation that substantially addresses the Engineering Feasibility Study Minimum Requirements (Appendix 2, Exhibit 1), as approved by the IESO.
- (b) Be expected to deliver a minimum 300 MWh of Electricity Savings per year.
- (c) Involve the installation or implementation of a Measure or Measures.
- (d) Receive a Project Letter of Approval on or before December 31, 2020.
- (e) Achieve an In-Service Date on or before December 31, 2022.
- (f) Only include a Measure or Measures that delivers Electricity Savings for a minimum of:
  - (i) five years for Small Incentive Projects; or

- (ii) ten years for Large Incentive Projects.
- (g) Conform to the requirements of the M&V Plan.
- (h) Not fall under one of the following types of excluded projects:
  - (i) a project that the IESO determines is more appropriately funded by another Save on Energy program, or other IESO-funded program;
  - (ii) Lighting;
  - (iii) Demand Response;
  - (iv) a project with a Project Payback of less than one year;
  - (v) a project designed to reduce voltage or improve power factor or power quality other than as an ancillary benefit to obtaining Electricity Savings;
  - (vi) a project that involves installation of any equipment or system if such equipment or system, or the operation of either, would not comply with all Applicable Law;
  - (vii) prior to submitting an Application to participate in the PSU Program, the Participant has approved the undertaking of a Project in respect of an Application for the Project, entered into an agreement with a contractor or consultant (except to prepare an Engineering Feasibility Study in respect of a Project), or ordered or purchased any equipment for use in relation to the Project;
  - (viii) a fuel-switching project, unless such project is approved by the IESO;
  - (ix) a Project using technologies that are not generally commercially available, are pilot or demonstration projects, or are otherwise unproven;
  - (x) a Project undertaken at a Generation Facility; or
  - (xi) Be an Excluded Generation Project, where “**Excluded Generation Project**” means a Generation project that:
    - A. is a CCHP project using purchased fossil fuel;
    - B. in the case of a Waste Energy Recovery Project:
      - (1) has a Gross Nameplate Capacity of greater than 10MW;

- (2) is split across multiple Applications for the purpose of circumventing the 10MW limit on Gross Nameplate Capacity.
  - (3) is used for the sole purpose of reducing electricity demand during the five critical system-peak hours;
  - (4) is used directly or indirectly to assign, transfer, sell or supply the electricity it generates into a Distribution System or the IESO-Controlled Grid; or use purchased fuel, natural gas or propane, for more than 10% of the annual fuel energy input; or
- C. is a project relating to a LDC's investment in new infrastructure or replacement of existing infrastructure, or any measures an LDC uses to maximize the efficiency of its new or existing infrastructure.

### 3.4 Eligible Costs

The Participant Incentive for a Project is calculated from those costs that are approved by the IESO and directly related to design, selection, purchase and installation of the Measure(s) included in a Project(s) ("**Eligible Costs**"). Eligible Costs may include:

- (a) capital expenses;
- (b) for Generation Projects, connection costs to connect the Project to a Distribution System or the IESO-Controlled Grid;
- (c) equipment and products including diagnostic and testing tools and associated software;
- (d) data collection services, including processing, analysis and data management;
- (e) meter purchase, design, installation and configuration costs associated with implementing the M&V Plan;
- (f) professional, engineering, scientific, technical, management and contracting services;
- (g) travel, including accommodation but excluding meals;
- (h) printing services;

- (i) permit and licence fees;
- (j) costs associated with environmental assessments;
- (k) an Engineering Feasibility Study expense, including any additional technical or engineering preparation, analysis or studies associated with the Project completed after the Engineering Feasibility Study, which may be incurred before or after the submission of the Application for a Project, as approved by the IESO; and
- (l) other reasonable costs agreed to by the IESO in advance of such expense being incurred.

Generally, the Participant Incentive will be based on the lower of the estimated Eligible Costs and the actual Eligible Costs incurred, except where the IESO determines in its reasonable discretion that the Participant has incurred costs outside of its control. Such increases in cost may be applied to the estimated Eligible Costs and the actual Eligible Costs, when calculating the Participant Incentive.

Where the Third Party Participant is an affiliate of a LDC, Eligible Costs may consist only of costs on a fully-allocated costs basis in accordance with the Ontario Energy Board's Affiliate Relationship Code.

### **3.5 Ineligible Costs**

Any costs that are not directly related to design, selection, purchase and installation of the Measure(s) included in a Project(s) are not eligible. Without limitation, the following costs are not considered Eligible Costs:

- (a) the cost of preparing or amending the Application for the Project, reviewing or responding to the IESO's or the Technical Reviewer's questions regarding that Application or reviewing the provisions of the Project Terms and Conditions;
- (b) the cost of collecting and submitting any information required by an M&V Plan;
- (c) HST;
- (d) any portion of the costs that have been or will be received from, or reimbursed by, Third Party Contributions;
- (e) any costs related to financing, including costs associated with leasing and lease-to-own procurement arrangements and such other financing costs associated with leasing or borrowing capital as demonstrated by delivery of the lease agreement to the IESO. For certainty the term of the lease should be equal to or longer than the Electricity Savings Period;

- (f) any unreasonable costs of the Third-Party Participant as determined by the IESO; and
- (g) costs arising from or relating to an electricity distributor's investment in new infrastructure or replacement of existing infrastructure in an electricity distributor's service territory, or any measures that an electricity distributor uses to maximize the efficiency of its new or existing infrastructure, including without limitation, capacitor banks or reactive power compensation.

#### **4. Project M&V – Minimum Requirements**

The M&V Plan for each Project will be developed by the Technical Reviewer.

The M&V reporting period for any Project shall be for a period of at least one year following the In-Service Date provided that the Participant has fulfilled all of its obligations pursuant to the M&V Plan, unless extended by the IESO in order to appropriately verify the Electricity Savings for reporting and Participant Incentive payment purposes. The Participant is required to collect relevant data for the Electricity Savings Period and maintain such data for seven years following the Electricity Savings Period, to fulfill the IESO's right to audit. The M&V Plan shall include the data requirements for the IESO's right to audit.

The Participant will fulfil all of its obligations as required pursuant to the M&V Plan and provide the IESO and the Technical Reviewer with all reasonable access to the Facilities and other related buildings as the case maybe, in order for the Technical Reviewer to prepare the M&V Reports and/or to substantiate the installation of the equipment.

The "**M&V Reporting Period**" specified in the M&V Plan shall be:

- (i) For Small Incentive Projects, one year following the In-Service Date provided that the Participant has fulfilled all of its obligations pursuant to the M&V Plan. Once the applicable Electricity Savings have been verified, the Technical Reviewer will deliver an M&V Report. The first quarterly M&V Report will be delivered for the first quarter following the In-Service Date and the first annual M&V Report will be delivered following the first anniversary of the In-Service Date.
- (ii) For Large Incentive Projects, four years following the In-Service Date provided that the Participant has fulfilled all of its obligations pursuant to the M&V Plan. Once the applicable Electricity Savings have been verified, the Technical Reviewer will deliver an M&V Report. The first quarterly M&V Report will be delivered for the first quarter following the In-Service Date and will deliver an annual M&V Report after each anniversary of the In-Service Date.

Notwithstanding the foregoing, the IESO may require further M&V Reports for the Project and the applicable M&V Reporting Period may be extended at the IESO's discretion.

**5. Other**

**6. Program Specific Definitions**

The following terms have the meaning stated below when used in these PSU Program Requirements:

“**Advanced Payment Option**” means the Net Participant Incentive payment (if any) to be received by the Participant from the IESO in advance of the In-Service Date and secured by the Performance Security, as further described in Appendix 1

“**Anticipated Electricity Savings**” means, in each M&V Reporting Period specified in the M&V Plan, the estimated annualized Electricity Savings anticipated by the Technical Reviewer to be achieved during such period, as set out in the M&V Plan.

“**Applicable Law**” means any applicable law, including any statute, legislation, treaty, regulation and any applicable guideline, directive, rule, standard, requirement, policy, order, judgment, injunction, award or decree of a Governmental Authority and any applicable Governmental Approvals.

“**Application**” means, in respect of the PSU Program, any form of request that must be completed by a Person (in order to participate in the PSU Program and receive a Participant Incentive.

“**Approved Amount**” is the estimated Participant Incentive approved by the IESO and communicated to the Participant upon approval of an Application

“**Conservation Combined Heat and Power**” or “**CCHP**” means a Generation Project causing the simultaneous production of electrical and thermal energy, where both forms of energy are productively and effectively used with the Facility and/or its processes.

“**Deferred Payment Option**” means the Net Participant Incentive payments (if any) to be received by the Participant from the IESO after the In-Service Date, as further described in Appendix 1.

“**Demand Response**” means a reduction in consumption of electricity as a result of the activation of Measures or protocols that are or were implemented in order to load shift or load shed in order to reduce the electricity demand.

“**Distribution System**” means a system connected to the IESO-Controlled Grid for distributing electricity at voltages of 50 kV or less and includes any structures, equipment or other thing used for that purpose.

“**Electricity Savings**” means the annualized electricity consumption reduction, based on the anticipated normal operating conditions in relation to a Project.

**“Electricity Savings Period”** means the period commencing on the In-Service Date and ending on:

- i. for Small Incentive Projects, the fifth anniversary thereof; or
- ii. for Large Incentive Projects, the tenth anniversary thereof.

**“Eligible Costs”** means those costs that satisfy the requirements of Section 3.4 and 3.5.

**“Engineering Feasibility Study”** means a detailed study of the consumption of electricity of a System, which is expected to meet the requirements of the Engineering Feasibility Study Minimum Requirements (set out in Appendix 2, Exhibit 1) and is intended to assess and evaluate: (i) Measures, or their implementation, that could give rise to Electricity Savings; or (ii) electricity generation that could reduce the electricity consumption of a Facility.

**“Facility”** or **“Facilities”** means the building, premises or lands, or part thereof, in which the System is located, and which is identified in the Project Application as where the Project is located.

**“Generation”** means a process used to produce energy in the form of electricity, that is for the Participant’s own use and the impact of which is measured in accordance with the M&V Plan.

**“Good Engineering Practices”** means any of the practices, methods and activities adopted by a significant portion of North American industries as good practices applicable to the design, building, and operation of projects of similar type, size and capacity or any of the practices, methods or activities which, in the exercise of skill, diligence, prudence, foresight and reasonable judgment by a prudent engineer in light of all the facts known at the time the decision was made, could reasonably have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety, expedition and Applicable Law; Good Engineering Practices are not intended to be the optimum practices, methods or acts to the exclusion of all others, but rather are intended to delineate acceptable practices, methods or acts generally accepted in North American industries.

**“Governmental Approvals”** means any declaration, filing or registration with, notice to or license, permit, certificate, registration, authorization, consent or approval of, any Governmental Authority pertaining to a Project.

**“Governmental Authority”** means any federal, provincial, or municipal government, parliament or legislature, or any regulatory authority, agency, tribunal, commission, board or department of any such government, parliament or legislature, or any court or other law, regulation or rule-making entity, having jurisdiction in the relevant circumstances, including Ontario Energy Board, the Electrical Safety Authority, the Environmental Commissioner’s Office, and any Person acting under the authority of any of the foregoing.

“**Gross Nameplate Capacity**” means the manufacturer’s total installed rated capacity of the generating equipment to generate electricity.

“**HST**” means any tax payable under Part IX of the *Excise Tax Act* (Canada).

“**IESO-Controlled Grid**” means the transmission systems with respect to which, pursuant to operating agreements, the IESO has authority to direct operations.

“**In-Service Date**” means the first day that a Project is fully installed in accordance with the M&V Plan and delivers Electricity Savings.

“**Invoice Reconciliation Form**” means the invoice reconciliation form in the form made available by the IESO specifically itemizing Eligible Costs and describing all (a) eligible equipment, systems, parts and other products, and the related prices paid for same (b) services in respect thereof, the level of detail and sufficiency of the services shall be at the sole discretion of the IESO and (c) the anticipated In-Service Date.

“**Large Incentive Project**” means a Project with an estimated Participant Incentive greater than or equal to \$1,000,000.

“**Letter of Approval**” means a letter issued by the IESO approving an Engineering Feasibility Study Application or a Project Application, as applicable.

“**Lighting**” means equipment and controls used to provide illumination through the use of electricity resulting in a load.

“**Master Payment Requisition**” means an invoice to be completed by the Technical Reviewer or IESO in respect of a Participant and a particular Project, in the form made available by the IESO, as updated from time to time.

“**Measure**” means any activity undertaken for the primary purpose of obtaining or effecting, directly or indirectly, conservation demand management, including the installation, retrofit, replacement, modification or commissioning of equipment, systems, processes or behaviours that consume or result in the consumption of electricity, as more specifically described in an M&V Plan.

“**MWh**” means megawatt hour.

“**M&V**” means measurement and verification.

“**M&V Plan**” means the measurement and verification plan prepared by the Technical Reviewer, and agreed to by the IESO and the Participant, outlining the methodology and activities to be undertaken to quantify and verify Electricity Savings from a Project.

“**M&V Report**” means a measurement and verification document containing the analysis by the Technical Reviewer of the quantified Electricity Savings delivered by the Measure or Measures included in a Project, as the case may be, during the M&V Reporting Period specified by the M&V Plan.

“**Net Participant Incentive**” means the Participant Incentive for a Project less any Participant Incentive for an Engineering Feasibility Study paid or to be paid to the Participant in respect of such Project.

“**Participant Incentive**” means the financial incentive paid to a Participant for a Project or an Engineering Feasibility Study in respect of a Project.

“**Performance Security**” means the security provided by the Participant, as accepted by the Technical Reviewer, or the guarantee provided by the Participant’s affiliate (if applicable), to the IESO as further described in Appendix 1.

“**Person**” means a natural person, firm, trust, partnership, association, unincorporated organization, limited partnership, company or corporation (with or without share capital), joint venture, sole proprietorship, Governmental Authority or other entity of any kind.

“**Project**” means one or more Measures, which, when implemented in respect of a System or Systems, is expected to deliver Electricity Savings. “Project”, where appropriate in accordance with the terms hereof, includes a Third Party Project.

“**Project Benefits**” means the dollar amount which is the sum of all benefits to be generated from the implementation of the Project during the Electricity Savings Period, including Electricity Savings and benefits not related directly to Electricity Savings, including from reducing other energy consumption, use of alternative fuels, positive and negative differences in operating and maintenance costs and other avoided costs.

“**Project Payback**” means the number of years it will take a Project to recover the Eligible Costs of such Project through the receipt of Project Benefits, calculated by: (a) subtracting from the lower of the estimated Eligible Costs and the actual Eligible Costs the Participant Incentive and (b) dividing the difference thereof by the annualized Project Benefits, such amounts to be actual or estimated, as the case may be, at such time of determination.

“**Small Incentive Project**” means a Project with an estimated Participant Incentive of less than \$1,000,000.

“**System**” will be defined broadly and means an integrated or interdependent combination of installed equipment and processes that: (a) may be used for (i) manufacturing or other industrial or commercial processes, or (ii) circulating or distributing inside, outside or between Facility commodities, goods or utilities (including heating, cooling, air or other gases, water or other liquids); and (b) consumes electricity.

“**Technical Reviewer**” means a Person retained by the IESO, having on its staff individuals who have professional experience and qualifications as approved by the IESO.

“**Terms and Conditions**” means the terms and conditions entered that a Person eligible to receive a Participant Incentive must enter into with the IESO or agree to be bound by, in order to participate in the PSU Program and receive a Participant Incentive.

“**Third Party Participant**” has the meaning given to it in Section 3.1 of these PSU Program Requirements.

“**Third Party Project**” means a Project that is installed and operated by a Third Party Participant.

“**Third Party Contributions**” means any financial or other contribution (including the value of contributions in kind) towards the Eligible Costs of a Project from or by any Person or than the Participant or the IESO, such as federal initiatives or gas incentives.

“**Waste Energy Recovery**” or “**WER**” means the generation of electricity primarily from heat or fuel that is waste by-product of the Facility and/or fuel from another source in the Facility that is otherwise a form of waste energy.

## APPENDIX 1

### Advanced and Deferred Payment Options

Participants may receive payment of their Participant Incentive for a Project by way of either the Deferred Participant Incentive Payment Option or the Advanced Participant Incentive Payment Option, subject to the discretion and prior approval of the IESO.

#### 1. Advanced Payment Option

Subject to Appendix 2, if the Advance Payment Option is elected, the following payment schedule is as follows:

Incentive Payment Amount	Condition to be Satisfied
First Payment: 50% of the Approved Amount	<ul style="list-style-type: none"> <li>• The Participant and the IESO have agreed to the M&amp;V Plan as provided by the Technical Reviewer; and</li> <li>• IESO is in receipt of the Participant’s Performance Security</li> </ul>
Second Payment: The amount that is 90% of the Net Participant Incentive less the First Payment noted above.	<ul style="list-style-type: none"> <li>• The Technical Reviewer has confirmed the In-Service Date &amp; the Eligible Costs;</li> <li>• The Technical Reviewer has issued the first quarterly M&amp;V Report</li> <li>• The second payment towards the Net Participant Incentive is calculated based on the first quarterly M&amp;V Report</li> </ul>
Third/Final Payment: Balance	<ul style="list-style-type: none"> <li>• The Technical Reviewer has issued the first annual M&amp;V Report</li> <li>• The balance of the Participant Incentive due and payable to the Participant, if any.</li> <li>• The balance payment is the difference between the actual Net Participant Incentive, calculated on the basis of the first annual M&amp;V Report, and the total payments made to date.</li> </ul>

#### 1.1 Performance Security

If the Participant has elected to proceed by way of the Advanced Payment Option, it will deliver to the IESO as soon as practicable following the issuance of the Letter of Approval and prior to any payment milestone from the IESO, a letter of credit substantially in the form required by the IESO, as may be updated from time to time (the “**Performance Security**”). The Performance Security will be provided in the amount of 50% of the Approved Amount upon approval by the IESO of the M&V Plan.

The Performance Security shall be drawn on for the circumstances and in the amounts as follows:

- In the event of a failure to complete the Project per the terms of the Project Terms and Conditions, the full amount of the Performance Security (provided the First Payment amount has not already been returned by the Participant);
- In the event that the actual Electricity Savings calculated in the first annual M&V Report are less than the Anticipated Electricity Savings, the difference between the total Net Participant Incentive amount paid and the adjusted Net Participant Incentive recalculated in accordance with Section 2.1 of the PSU Program Requirements.

Without limiting the foregoing, and provided that the Participant has met its obligations, the Performance Security shall be returned to the Participant at the time of the final incentive payment, in the full or remaining amount.

## **1.2 Replacement Performance Security**

The Participant shall ensure that the Performance Security is at all times current, valid and enforceable and will provide replacement security for any Performance Security that:

- (a) expires, terminates or fails, or ceases to be in full force and effect for the purposes hereof;
- (b) is realized by the IESO—replacement made by increasing the remaining amount of posted Performance Security by an amount equal to that realized by the IESO.

All costs associated with the posting or replacement of Performance Security shall be borne by the Participant.

If the existing Performance Security is replaced with new Performance Security and provided the new Performance Security meets the requirements herein, the IESO shall return the existing Performance Security to the Participant, within 5 Business Days of the IESO's receipt of such new Performance Security.

## **2. Deferred Payment Option**

If the Deferred Payment Option is elected, the payment schedule is as follows:

<b>Incentive Payment Amount</b>	<b>Condition to be Satisfied</b>
First Payment: 50% of the Net Participant Incentive	<ul style="list-style-type: none"><li>• IESO is in receipt of Participant's the first quarterly M&amp;V Report</li><li>• The first payment towards the Participant Incentive is calculated based on Electricity Savings in the first quarterly M&amp;V Report.</li></ul>
Second / Final Payment: Balance	The balance payment is the difference between the actual Net Participant Incentive, calculated on the basis of the first annual M&V Report, and the total payments made to date.

## APPENDIX 2

### Engineering Feasibility Study

#### 1. Description –Engineering Feasibility Study

Under the PSU Program, Participants, other than Third Party Participants, may be eligible to obtain incentives to conduct an Engineering Feasibility Study of potential energy savings which may identify opportunities that could be implemented under the PSU Program. For clarity, a Third-Party Participant is not eligible to receive funding for an Engineering Feasibility Study for a Project.

An Engineering Feasibility Study for a Project is required at the discretion of the IESO, and if the Engineering Feasibility Study is required, it must be approved by the IESO and Technical Reviewer.

#### 2. Participant Incentive

##### 2.1 Standard Incentives

The Participant Incentive for Engineering Feasibility Studies is:

- (i) 50% of the cost of the Engineering Feasibility Study actually incurred by the Participant to complete the Engineering Feasibility Study (as evidenced by appropriate invoices) and approved by the IESO based on its review of the Engineering Feasibility Study Application (the “**EFS Initial Funding Amount**”), payable by the IESO upon Engineering Feasibility Study completion; and
- (ii) the balance of the cost of the Engineering Feasibility Study, payable upon confirmation of the Project In-Service Date (the “**EFS Balance Funding Amount**”).

For certainty, the Participant is not eligible for the EFS Initial Funding Amount unless the EFS report (in this Appendix 2, the “**Report**”) is approved by the IESO on or before the earlier of (A) eight months of the date of EFS Letter of Approval; and (B) April 30, 2020. The Participant is not entitled to the EFS Balance Funding Amount unless the Project proceeds to be implemented and the Participant also receives a Participant Incentive for the Project.

Upon approval of an Engineering Feasibility Study Application, the IESO shall provide a letter to the Participant indicating:

- The EFS Initial Funding Amount, including the applicable milestone for payment of the EFS Balance Funding Amount, which milestone payment shall be at the IESO's discretion;
- the approved Engineering Feasibility Study scope of work from the Technical Reviewer's Engineering Feasibility Study Application review report; and
- the applicable EFS Balance Funding Amount.

### **3. Eligibility Criteria**

#### **3.1 Participant Eligibility**

The Participant must meet the criteria under Section 3.1 of the PSU Program Requirements for the PSU Program. Notwithstanding the foregoing, a Third Party Participant is not eligible to receive funding for an Engineering Feasibility Study for a Project under this Appendix 2.

#### **3.2 Facility Eligibility**

The Facility must meet the criteria under Section 3.2 of the PSU Program Requirements.

#### **3.3 Project and Measures Eligibility**

The proposed study must relate to a Project that meets the Project and Measures Eligibility requirements referred to in Section 3.3 of the PSU Program Requirements, with the exception that a study may also investigate an opportunity with the potential for a Project Payback of less than one-year.

The Engineering Feasibility Study must be signed by a professional engineer licensed to practice in the province of Ontario, who is not an employee of the Participant.

#### **3.4 Engineering Feasibility Study Eligible Costs**

The eligible costs for the Participant Incentive are the actual costs incurred by the Participant to complete the Engineering Feasibility Study, as approved by the IESO. To be eligible, costs must be directly related to the investigation, assessment, analysis, conceptualization, design, specification, estimation and reporting required for the development of a Project and the completion of an Engineering Feasibility Study. For clarity, any costs incurred before the approval of the Engineering Feasibility Study are not eligible, unless otherwise approved by the IESO in writing. The following costs may be eligible:

- Applicable labour costs billed at reasonable hourly rates by the approved engineering consultant(s) and their subcontractors, as identified in the Technical Reviewer's Engineering Feasibility Study Application review report, including time for:

- Communications with the Participant, facility personnel, the IESO and the Technical Reviewer following the approval of the Engineering Feasibility Study Application;
- Site visits to obtain information, conduct meetings and interviews, and present results; and
- Investigation, assessment, analysis, conceptualization, design, specification, estimation and reporting.
- The costs of performing a Connection Impact Assessment, if applicable, to develop the cost estimate of a Generation project to sufficient accuracy.
- Non-labour costs incurred by the approved independent engineering consultant(s) and their subcontractors, including:
  - Administrative costs for printing, presenting, etc.
  - Reasonable travel expenses, including accommodation and excluding meals.
- Expenses for measurement and data collection, including contractors, temporary meter rentals, or other purchases approved by the IESO.

#### 4. Specific Definitions

In addition to terms that are defined in the PSU Program Requirements, the following terms are used in this Appendix 2:

“**Engineering Feasibility Study Application**” means an application by the Participant for a Participant Incentive from the IESO for an Engineering Feasibility Study.

“**Engineering Feasibility Study Minimum Requirements**” means the minimum requirements to be met with respect to the preparation and content of Engineering Feasibility Study Reports, as set out in Exhibit 1 to this Appendix 2.

## **Exhibit 1 - Engineering Feasibility Study Minimum Requirements**

### **Purpose:**

This Exhibit contains the Engineering Feasibility Study Minimum Requirements for an Engineering Feasibility Study Application and Engineering Feasibility Study Report. Such Reports must meet the technical, financial and economic analysis, and overall quality and completeness requirements as outlined below.

It is expected that the Engineering Feasibility Study includes realistic assumptions based on accurate data with a clear and concise guide to Project implementation in a timely manner.

The Application proposal and Report must be prepared or reviewed by, and signed by a Professional Engineer, licensed to practice in the province of Ontario.

### **Application Inclusions:**

Depending on the scope of the Engineering Feasibility Study, the applicant's internal processes and investment criteria, there may be a need for additional work and deliverables, before an Application for a Project can be submitted. The following declarations are intended to provide transparency to all parties on the expected outcomes at the completion of the Engineering Feasibility Study and must be addressed in the Application:

- (i) A statement indicating the expected level of project definition from the final deliverables (e.g. feasibility, budget authorization, or bid/tender-ready):
  - a. An according estimate accuracy range for the level of project definition
  - b. An indication of the additional work required for budget authorization and/or PSU Project Application, following completion of the Engineering Feasibility Study
- (ii) Confirmation of agreement with the Technical Reviewer on the proposed baseline data collection plan, or acknowledgement that additional data collection may be required
- (iii) In the case of a Generation Project, an indication that the Engineering Feasibility Study will include a completed Connection Impact Assessment report, or acknowledgement of the risk of not being able to connect the Project to the Distribution System as well as connection cost uncertainty, or explain that a Connection Impact Assessment is not required.

The Application proposal must also include the following information:

- (i) Provide a brief description of the System to be studied, why this System was chosen and how it will reduce electricity use.  
[This could include approximate motor HP, hours of operation, control method (if any), annual electricity consumption of the System, and any preliminary estimates of

Electricity Savings and Project costs. Where applicable this section of the proposal could simply reference a previous study.]

- (ii) Clearly define the study scope and deliverables, including a description of the methodology/approach that will be used to determine the Electricity Savings and capital costs for the Electricity Savings Measure(s).  
[This could include the Final Report, energy models (such as spreadsheets), design drawings, data logs, etc. As well as the proposed approach for data collection and analysis.]
- (iii) Provide a baseline data collection plan and methodology for calculating the annual electricity consumption baseline.
- (iv) Ensure that the EFS Minimum Requirement “Application Inclusions” are addressed in the proposal, or elsewhere.

The Application proposal should also include the following supporting information:

- (i) A breakdown of travel costs and other expenses. Please adhere to the current Ontario Management Board of Cabinet Travel, Meal and Hospitality Expenses Directive (for more information, please visit [www.doingbusiness.mgs.gov.on.ca](http://www.doingbusiness.mgs.gov.on.ca)).
- (ii) The independent engineering firm/consultant's information. [This could include legal business name, alternate names, contact information and primary contact person, as well as resumes of key technical staff that will contribute to the study, client references and/or examples of similar Projects. Note that a Certificate of Authorization from Professional Engineers Ontario (PEO) is required to offer consulting services in Ontario.]
- (iii) A proposed timeline of major tasks, including a schedule of effort and resource allocations for each task aligned to the major tasks as proposed in the study timeline.  
[This could include the following key milestones: study kick-off date, base case baseline methodology submission, baseline metering equipment installation date, draft and final report submission.]
- (iv) A description of the approach to be used to quantify the benefits associated with any non-energy benefits. [This could include lower operating and maintenance costs.]
- (v) Disclosure of any real or perceived conflict of interest for the potential Project.

### **Report Form and Content:**

The following information must be included in a Report:

(i) Base Case and System Studied

Provide a detailed description of the existing System studied, including:

- Existing equipment details (e.g. make, model, # of units, rated power, rated capacity, year installed, run hours).
- An assessment of the condition of the existing equipment and the expected remaining life.
- An overview of existing equipment operating modes or cycles (e.g. production vs. non-production), identification of high-use periods and seasonal variances (if applicable), an estimate of the true operating demands (often different than what is currently supplied by the system) based on available operating parameters (e.g. flow, pressure, temperature, production).
- Identifying of how the System is currently operating/controlled (e.g. automated vs. manual).
- A description of any planned changes to the System or Facility (e.g. expansions) that would occur in the absence of the Project that would impact the 'base case'.

(ii) Provide an estimation of the baseline electricity consumption of the System, based on power/load measurements for an appropriate period (e.g. two weeks minimum with no correlating data, or one week with longer duration operating data, for relatively constant operation systems).

- Collaborate with the Technical Reviewer to develop or confirm agreement on the baseline data collection plan and share baseline data once available to confirm adherence to plan.
- Calculate the annual consumption according to (or cross-referenced with) operating data, such as equipment operating logs (run-times, on/off), or other operating data (e.g. flow), if available for a longer duration than power/load measurements.

(iii) Measure Analysis

- Provide a Project description, including, the scope of modifications and future operating logic (e.g. modulating speed to match flow demand, based on feedback signal).
- Calculation of the Annual Electricity Savings (i.e. provide a sample of the calculation with an explanation of the methodology, and justification for any assumptions).
- Estimate of Other Benefits or Costs associated with implementing the project. This can include operations and maintenance savings or costs. If there are no additional benefits (or costs), this should be stated along with a brief justification.

(iv) Provide a detailed description of Project cost and installation, including:

- A breakdown of costs by equipment, installation and other capital costs (design and engineering, project management, commissioning). Where applicable, provide budgetary quotes for equipment, installation and other related costs.  
A high-level installation schedule and propose a realistic In-Service Date.