

PROCESS AND SYSTEM UPGRADES INITIATIVES 2011-2014
EMBEDDED ENERGY MANAGER AGREEMENT

THIS AGREEMENT made as of the [DAY] day of [MONTH], [YEAR],

BETWEEN:

[LEGAL NAME OF THE LDC], a corporation governed by the laws of the Province of Ontario,

(the "LDC")

- and -

[LEGAL NAME OF THE PARTICIPANT], a [LEGAL FORM OF THE PARTICIPANT] governed by the laws of [JURISDICTION OF THE PARTICIPANT].

(the "Participant")

(each of the LDC and the Participant may be referred to as a "Party" and, collectively, the "Parties").

WHEREAS the Participant has submitted an Embedded Energy Manager (EEM) Application to the LDC to access funding for the employment of an EEM;

AND WHEREAS the Participant reasonably expects that it can deliver at a minimum the Annual Savings Target;

AND WHEREAS the LDC has approved the EEM Application;

NOW THEREFORE in consideration of the mutual covenants and agreements herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. Defined Terms.

All capitalized terms not herein defined will have the meanings given in Schedule "A".

2. Payment.

(a) The approved Capability Building Funding Amount is \$_____ (the "Approved Amount") for a 12 month period.

(b) Subject to Section 5(iv) and to the Participant satisfying all of its obligations herein contained, the LDC agrees to pay the Capability Building Funding Amount to the Participant as follows:

- (i) 25% of the Approved Amount will be paid within 60 days of the LDC's acceptance of the first Quarterly Report,
- (ii) 50% of the Approved Amount will be paid within 60 days of the LDC's acceptance of the second Quarterly Report and the Energy Management Plan, and
- (iii) the difference between:

(A) the lesser of (i) the Approved Amount and (ii) the sum of:

- a) 80% of the total payroll costs of the EEM per 12 month period including salary, wages and benefits, and contributions, assessments and taxes (for greater certainty, the term "taxes" does not include Applicable Taxes, if any) incurred in respect of such amounts to a maximum of \$100,000 per 12 month period, which amount shall, for greater certainty, be prorated for any funding period that is less than 12 months, and

- b) 80% of the annual travel and appropriate related expenses incurred by the EEM per 12 month period (excluding, for greater certainty, the tuition cost of the EEM training required pursuant to section 4) to a maximum of \$8,000 per 12 month period, which amount shall, for greater certainty, be prorated for any funding period that is less than 12 months; and

(B) the total of the amounts paid pursuant to Sections 2(b)(i) and (ii),

will be paid within 60 days of the LDC's acceptance of the fourth Quarterly Report (provided that the third Quarterly Report for the initial term or the additional term, as the case may be, was previously accepted by the LDC). For greater certainty, each amount referred to in this Section 2(b)(iii) is exclusive of Applicable Taxes.

- (c) All payments hereunder will be made in Canadian dollars by cheque or by electronic funds transfer to the Participant's account or such other mode of payment at the sole discretion of the LDC.
- (d) All payments hereunder are conditional on the Participant providing an invoice to the LDC together with sufficient documentation to support and substantiate the Capability Building Funding Amounts payments.
- (e) In addition to the Capability Building Funding Amount, the LDC will pay any Applicable Taxes on the Capability Building Funding Amount. The Participant will provide to the LDC sufficient supporting documentation, as requested by the LDC, to facilitate and support the LDC in claiming input tax credits in respect of the Capability Building Funding Amount. In addition, if the LDC has reasonable grounds to commence a discussion, negotiation or challenge, in any manner whatsoever, with a tax authority regarding the validity of any Applicable Taxes imposed on the Capability Building Funding Amount, the Participant will provide such reasonable assistance as may be required by the LDC with such discussion, negotiation or challenge. For greater certainty, in no event shall the LDC be relieved of its obligations under this Agreement, including the LDC's obligation to pay Applicable Taxes as provided hereunder, pending the outcome of any discussion, negotiation or challenge with a tax authority.

3. **Participant's Obligations.**

In addition to the other obligations contained in this Agreement, the Participant will fulfill the following obligations:

- (a) enter into an employment agreement with the EEM, which will contain, at a minimum, the EEM duties attached hereto in Schedule "B" and respect the terms and conditions of such employment agreement;
- (b) the Participant will employ the EEM on a full time basis and will ensure that the EEM is professionally designated as a certified engineering technician or technologist, certified energy manager, or a licensed professional engineer in the province of Ontario, with a strong background in industrial energy use and energy management;
- (c) if the EEM is a current employee of the Participant, the Participant will provide to the LDC a written commitment from a senior officer that such employee's previous job will be filled by another employee;
- (d) no later than the tenth (10) Business Day prior to the 90th day of the commencement of the EEM's employment, the Participant will deliver a written notice to the LDC confirming that the Participant will continue to employ the EEM for the balance of the term of the EEM's employment agreement;
- (e) provide suitable operational support and work supplies to the EEM to allow the EEM to perform their duties under the employment agreement;
- (f) achieve the Annual Savings Target within 12 months after the EEM's employment start date as evidenced by implemented Projects or issuance of purchase orders for Projects to be implemented and as verified using the International Performance Measurement and Verification Protocol (IPMVP) as a guideline. For each additional 12 month term of this Agreement, if extended pursuant to Section 7, the Participant must maintain the Annual Savings Target and achieve an additional Annual Savings Target as further illustrated in the attached "Schedule "G"; and
- (g) ensure that at least 30% of the Annual Savings Target is attributed to Projects not financed by any incentives received from the OPA or an LDC.

4. **EEM Training.**

The EEM will be required to participate in training programs, which may change from time to time, and the Participant will ensure that the EEM attends such programs. Mandatory training programs will include the following:

- (a) End-use program providing detailed information on electricity use by mechanical and electrical equipment and developed for the OPA;
- (b) Basic Energy Manager program (unless the EEM can provide satisfactory evidence that the EEM has already completed a similar program or has a similar experience);
- (c) Certified Energy Manager program (unless the EEM is already designated as a Certified Energy Manager by the Association of Energy Engineers).

5. **Reporting Obligations.**

The Participant will ensure that the EEM prepares and delivers to the LDC, for its approval, the following documents:

- (i) Energy Management Plan for each Facility occupied by the Participant, no later than 6 months after the EEM is hired, in order to achieve the Annual Savings Target, unless an Energy Management Plan already exists.
- (ii) Quarterly Reports will be delivered within 30 days of the end of each quarter of the term. The last Quarterly Report must indicate whether or not the required minimum Annual Savings Target has been achieved.
- (iii) The LDC will review the Reports to ensure timely filing, completeness and progress from the previous Reports. If the LDC does not approve the Reports, such documents will need to be revised by the Participant in order to address the noted deficiencies and obtain the LDC's approval of such revised reports.
- (iv) The LDC will not make any Capability Building Funding Amount payment until it approves each Report required to be submitted by the Participant.

6. **Communication with Technical Reviewer.**

The Participant will cooperate and provide on a timely basis the requested information to the LDC or the Technical Reviewer should the LDC or the Technical Reviewer require clarification from the Participant when reviewing the Reports. The Participant shall, at the same time as it provides information to the Technical Reviewer, provide a copy of such information to the LDC.

7. **Term.**

- (a) This Agreement is for a term not greater than 12 months, but may be extended for incremental equivalent terms of up to 12 months at the discretion of the LDC subject to the Participant being in compliance with its obligations herein including in Section 3 and provided the EEM Initiative remains available. No more than three extensions will be granted. The Participant acknowledges that no term may extend past December 31, 2015.
- (b) This Agreement will terminate on the expiry of the term as provided in Section 7(a) or earlier as a result of:
 - (i) the Participant's failure to observe or perform any obligation required to be observed or performed under this Agreement and such failure continues for a period of thirty (30) calendar days after delivery of written notice by the LDC to cure such failure; or
 - (ii) the Participant becomes or is declared Insolvent, becomes the subject of any proceeding related to its liquidation or insolvency which is not dismissed within ninety (90) calendar days, or makes an assignment for the benefit of creditors.

Sections 2(e), 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 21 and 25, and such other provisions as are necessary for the interpretation thereof and any other provisions hereof, the nature and intent of which is to survive termination or expiration of this Agreement, will survive the expiration or termination of this Agreement.

8. **Environmental Attributes.**

All right, title and interest in and to all benefits or entitlements associated with Environmental Attributes are hereby unconditionally and absolutely transferred and assigned, or to the extent transfer or assignment is not permitted, held in trust for, by the Participant to, or in favour of, the LDC in its capacity as agent for and on behalf of the OPA, and not for the LDC's own benefit. Until the OPA notifies the Participant otherwise, the LDC, in its capacity as agent, shall be entitled, unilaterally and without the consent of the Participant, to deal with such Environmental Attributes on behalf of the OPA in any manner the LDC determines. The Participant acknowledges that the OPA may direct the Participant in the same manner as the LDC and that until the OPA notifies the Participant otherwise the LDC may direct the Participant to take such actions and do all such things necessary to certify, obtain, qualify and register with the relevant authorities or agencies such Environmental Attributes for the purpose of transferring, assigning, or holding in trust, such Environmental Attributes to and for the OPA and the Participant shall comply with such directions, *V.4.0 Process And System Upgrades Initiatives 2011-2014: Energy Manager Initiative – Embedded Energy Manager Agreement, August 21, 2013*

and the Participant will be entitled to reimbursement of the cost of complying with such direction, provided that the LDC, acting reasonably, has approved such cost in writing prior to the cost being incurred by the Participant.

9. Representations and Warranties.

The Participant represents and warrants to the LDC as follows, and acknowledges that the LDC is relying on such representations and warranties in entering into this Agreement:

- (a) the Participant would not have undertaken the employment of an EEM without the Capability Building Funding Amount;
- (b) the Participant satisfies the eligibility criteria set out in Schedule "C" as of the date hereof, and
- (c) the Participant has executed and delivered the Release and Waiver, and has not taken any actions to amend or suspend it or to terminate its existence and it continues in full force and effect as of the date hereof.

10. Evaluation, Monitoring and Verification; Audit.

- (a) The performance and administration of this Agreement will be subject to the OPA EM&V Protocols, which will include evaluation of the effectiveness of this Agreement in meeting the objectives of the EEM Initiative. In furtherance of the OPA EM&V Protocols, the Participant will cooperate with the LDC, the OPA and their respective designates and will make available such information in the form and with the frequency as may be reasonably prescribed, including with respect to historical electricity consumption.
- (b) The Participant and the LDC will both keep complete and accurate books, accounts and records and all other data required by each of them respectively for the purpose of proper administration, monitoring and verification of this Agreement and all such records and data will be maintained during the term of this Agreement and for the period of time thereafter which is the greater of seven years and the period of time specified under Applicable Law. On reasonable notice, at any time during normal business hours, the Participant will provide reasonable access to the LDC, the OPA, and/or their respective designates to such books, accounts, records and data and: (A) at the reasonable request of the LDC and/or the OPA, make available to the LDC, the OPA and/or their respective designates, the personnel of the Participant and its subcontractors involved in the operation of the Participant's business and the maintenance of such books, accounts, records and data referred to above for the purposes of this Section 10; and (B) permit the LDC, the OPA and/or their respective designates to examine and audit and take copies and extracts from such documents.

11. No Warranty.

Except as specifically set forth or referenced in this Agreement, there are no representations, warranties, or conditions of either Party, express, implied, statutory or otherwise, regarding any matter, including any implied warranties or conditions of quality or fitness for a particular purpose. Without limiting the generality of the foregoing, the Participant acknowledges that its participation in the EEM Initiative hereunder is based on its own assessment of the EEM Initiative and not on any reliance on anticipated or projected results, and that such participation may not result in the achievement of any electricity savings or demand savings, which is expressly disclaimed by the Participant.

12. Limitation of Liability and Indemnity.

(a) NOTWITHSTANDING ANYTHING CONTAINED HEREIN TO THE CONTRARY: (A) IN NO EVENT WILL THE PARTICIPANT BE ENTITLED TO RECOVER FROM THE LDC OR ANY OTHER INDEMNIFIED PARTY (AS DEFINED IN SECTION 12(b) BELOW) FOR ANY LIABILITIES, DAMAGES, OBLIGATIONS, PAYMENTS, LOSSES, COSTS OR EXPENSES UNDER OR IN RELATION TO THIS AGREEMENT: (I) ANY AMOUNT IN EXCESS OF THE ACTUAL COMPENSATORY DIRECT DAMAGES, COURT COSTS AND REASONABLE LAWYERS' AND OTHER ADVISORS' FEES SUFFERED OR INCURRED BY THE PARTICIPANT AND IN ANY EVENT LIMITED TO THE CAPABILITY BUILDING FUNDING AMOUNT PAID BY THE LDC HEREUNDER; OR (II) DAMAGES (WHETHER DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE) FOR (X) LOSS OF PROFIT, OR (Y) DIMINUTION OF VALUE OR LOSS OF USE OF ANY PROPERTY; AND (B) THE LDC AND THE INDEMNIFIED PARTIES (AS DEFINED IN SECTION 12(b) BELOW) WILL NOT BE LIABLE TO THE PARTICIPANT, ITS SUCCESSORS OR ASSIGNS OR ITS DIRECTORS, OFFICERS, EMPLOYEES, CONTRACTORS, AGENTS OR REPRESENTATIVES, FOR ANY SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, EXEMPLARY OR CONSEQUENTIAL DAMAGES WHICH MAY ARISE UNDER OR IN RELATION TO THIS AGREEMENT, REGARDLESS OF WHETHER SUCH LIABILITY ARISES UNDER CONTRACT, TORT OR ANY OTHER LEGAL THEORY.

(b) The Participant (the “**Indemnifying Party**”) will indemnify, defend and hold the LDC, the OPA, the Government of Ontario, the members of the Government of Ontario’s Executive Council and their respective affiliates, and each of the foregoing Person’s respective directors, officers, employees, shareholders, advisors, third party service providers and agents (including contractors and their employees) (collectively, the “**Indemnified Party**”) harmless from and against any and all Claims, losses, damages, liabilities, penalties, obligations, payments, costs and expenses and accrued interest thereon (including the costs and expenses of, and accrued interest on, any and all actions, suits, proceedings for personal injury (including death) or property damage, assessments, judgments, settlements and compromises relating thereto and reasonable lawyers’ fees and reasonable disbursements in connection therewith) (each, an “**Indemnifiable Loss**”), asserted against or suffered by the Indemnified Party relating to, in connection with, resulting from, or arising out of (i) any Claim by, or occurrence or event related to, any third party relating to this Agreement; and/or (ii) the negligence or wilful misconduct of the Participant, except in either case to the extent that any injury or damage related to such Claim, occurrence or event is attributable to the negligence or wilful misconduct of the Indemnified Party. For greater certainty, in the event of contributory negligence or wilful misconduct of the Indemnified Party, then such Indemnified Party will not be indemnified hereunder in the proportion that the Indemnified Party’s negligence or wilful misconduct contributed to any Indemnifiable Loss. The LDC will hold the benefit the Participant’s obligations under this Section 12 in the LDC’s own right and, in trust, for the benefit of any other Indemnified Party.

13. **Confidentiality.**

(a) Each Party will, in its capacity as a Receiving Party:

- (i) not use or reproduce Confidential Information of the Disclosing Party for any purpose, other than as and to the extent expressly permitted under this Agreement or as may be reasonably necessary for the exercise of its rights or the performance of its obligations set out in this Agreement;
- (ii) not disclose, provide access to, transfer or otherwise make available any Confidential Information of the Disclosing Party except as expressly permitted in this Agreement; and
- (iii) take all measures reasonably required to maintain the confidentiality and security of all Confidential Information of the Disclosing Party that it Handles.

(b) The Receiving Party may disclose Confidential Information of the Disclosing Party:

- (i) to a third party that is not a Representative of the Receiving Party if and to the extent required by a Governmental Authority or otherwise as required by Applicable Laws, provided that the Receiving Party must first give the Disclosing Party notice of such compelled disclosure (except where prohibited by Applicable Laws from doing so) and must use Commercially Reasonable Efforts to provide the Disclosing Party with an opportunity to take such steps as it desires to challenge or contest such disclosure or seek a protective order. Thereafter, the Receiving Party may disclose the Confidential Information of the Disclosing Party, but only to the extent required by Applicable Laws and subject to any protective order that applies to such disclosure; and
- (ii) to:
 - A. its accountants, internal and external auditors and other professional advisors if and to the extent that such Persons need to know such Confidential Information in order to provide the applicable professional advisory services relating to the Receiving Party’s business;
 - B. potential permitted assignees or successors of the Receiving Party if and to the extent that such Persons need to know such Confidential Information in connection with a potential sale, merger, amalgamation or other transaction or transfer involving the business, assets or services provided by the Receiving Party; and
 - C. employees of each Party and its other Representatives if and to the extent that such Persons need to know such Confidential Information to perform their respective obligations under this Agreement;

provided that any such Person is aware of the provisions of this Section 13 and has entered into a written agreement with the Receiving Party that includes confidentiality obligations in respect of such Confidential Information that are no less stringent than those contained in this Section 13.

(c) Without limiting the foregoing, each Party acknowledges and agrees that:

- (i) the LDC will Handle reports, data and other information, including Confidential Information of the Participant or its subcontractors or Representatives, to the OPA on an ongoing basis as part of its participation in the EEM Initiative or other CDM initiatives offered by the OPA and may do so without further notice to or further consent of the Participant; and the LDC and OPA may disclose and provide reports, data and other information, including Confidential Information of the Participant or its subcontractors or Representatives, to the OEB, the Ontario Ministry of Energy and

the Ontario Environmental Commissioner for Handling by such entities provided that the LDC or the OPA, as the case may be, has in place with any such Person a written agreement that includes confidentiality obligations in respect of such Confidential Information that are comparable to those contained in this Section 13;

- (ii) this Agreement and all Confidential Information in the possession or control of the LDC, the OPA or the Participant are subject to Applicable Laws that include the access provisions of MFIPPA or FIPPA, as the case may be, and that as a result, third parties may obtain access to each Party's Confidential Information. Moreover, the LDC and its Representatives are subject to MFIPPA or FIPPA and the OPA and its Representatives are subject to FIPPA, and that MFIPPA or FIPPA, as the case may be, applies to and governs all recorded information in any form or medium that is provided by the LDC or the OPA, respectively, or its Representatives to the Participant or provided by the Participant to the LDC or the OPA, respectively, or its Representatives for the purposes of this Agreement, or created by the Participant in the performance of this Agreement, and that is in the custody or control of the LDC or the OPA, as the case may be (collectively, the "**Records**"), and may require the disclosure of such Records to third parties;
- (iii) each Party is responsible for ensuring that its agreements with Representatives contemplate and permit such potential access or disclosure, and will be fully liable to any such Representatives for any Claim arising out of or relating to such access;
- (iv) the LDC and the OPA may at any time make public the Participant's participation in the EEM Initiative and data relating to the EEM, including the achievement of electricity savings and demand savings including the Annual Savings Target, a description of the Projects identified by the EEM and the implementation of such Projects by the Participant, aggregated with other studies in a manner intended to report on the EEM Initiative; and
- (v) the Participant may acknowledge the assistance provided by the LDC and the OPA in all public communications, provided that the LDC and the OPA will have the right to approve in writing all such public communications in advance.

14. **Injunctive Relief.**

Each Party acknowledges that any violation of the provisions of Section 13 may cause irreparable damage or injury to the other Party (including, in the case of the LDC, any of the other Indemnified Parties), the exact amount of which may be impossible to ascertain, and that, for such reason, in addition to any other remedies available to such Party (including, in the case of the LDC, any of the other Indemnified Parties), such Party (including, in the case of the LDC, any of the other Indemnified Parties) is entitled to proceed immediately to court in order to obtain, and the other Party will consent to, interim, interlocutory, and final injunctive relief restraining the other Party from breaching, and requiring the other Party to comply with, its obligations under Section 13, without a requirement that a finding of irreparable harm or other criteria for the awarding of injunctive relief be made. Nothing in this Section 14 will be construed to limit the right of a Party (including, in the case of the LDC, any of the other Indemnified Parties) to obtain injunctive relief in any other circumstance in which it may be otherwise entitled to such relief.

15. **MFIPPA and FIPPA Compliance.**

To the extent that the LDC or the OPA, as the case may be, must comply with disclosure obligations under MFIPPA or FIPPA, the Participant agrees (without limiting its obligation set out in Section 13):

- (a) to keep the Records in its possession secure;
- (b) to provide the Records to the LDC or the OPA, as the case may be, within seven calendar days of being directed to do so by the LDC or the OPA, as the case may be, for any reason under MFIPPA or FIPPA, as applicable, including an access request or privacy issue; and
- (c) to implement other specific security measures that in the reasonable opinion of the LDC or the OPA, as the case may be, would improve the adequacy and effectiveness of the Participant's measures to ensure, for the purposes of MFIPPA or FIPPA, as applicable, the security and integrity of the Records held in the Participant's possession.

16. **Dispute Resolution.**

If any dispute arises under or in connection with this Agreement that the Parties cannot resolve, each of the Parties will promptly advise its senior management, in writing, of such dispute. Within ten (10) Business Days following delivery of such notice, a senior representative from each Party will meet, either in person or by telephone, to attempt to resolve the dispute. Each senior Representative will be prepared to propose a solution to the dispute. If, following such efforts, the dispute is not resolved, the dispute will be settled by arbitration pursuant to Schedule "D" of this Agreement.

17. **Schedules.**

The following schedules are hereby incorporated in and form part of this Agreement:

Schedule "A" - Definitions

Schedule "B" – EEM Duties

Schedule "C" - Eligibility Criteria

Schedule "D" - Arbitration Provisions

Schedule "E" – Quarterly Report Template

Schedule "F" – Energy Management Plan Template

Schedule "G" – Incremental Annual Savings Target for Additional Term

Schedule "H" – Form of Release and Waiver

18. **Headings.**

The insertion of headings is for convenience of reference only and will not affect the interpretation of this Agreement. The terms “hereof”, “hereunder”, and similar expressions refer to this Agreement and not to any particular Article, Section, Schedule or other part hereof. Unless otherwise indicated, any reference in this Agreement to an Article, Section or Schedule refers to the specified article or section of, or schedule to, this Agreement.

19. **Entire Agreement.**

Except as otherwise provided, this Agreement, together with the Release and Waiver, constitutes the entire agreement between the Parties in connection with its subject matter and supersedes all prior representations, communications, negotiations and understandings, whether oral, written, express or implied, concerning the subject matter of this Agreement.

20. **Amendments.**

This Agreement may not be varied, amended or supplemented except by an agreement in writing signed by both of the Parties.

21. **Governing Law and Attornment.**

This Agreement will be governed by and construed in accordance with the laws of the Province of Ontario and the federal laws of Canada applicable therein. For the purpose of all legal proceedings, this Agreement will be deemed to have been made and performed in the Province of Ontario and the courts of the Province of Ontario will have exclusive jurisdiction to entertain any action arising under this Agreement. The LDC and the Participant each hereby attorns to the exclusive jurisdiction of the courts of the Province of Ontario.

22. **Successors and Assigns.**

This Agreement will enure to the benefit of and be binding upon the Parties and their respective successors and assigns. This Agreement may not be assigned by the Participant except with the prior written consent of the LDC, which consent may be unreasonably withheld or delayed.

23. **Further Assurances.**

Each of the Parties will, from time to time, on written request of the other Party, do all such further acts and execute and deliver or cause to be done, executed and delivered all such further things as may be reasonably required in order to fully perform and to more effectively implement the terms of this Agreement.

24. **Severability.**

The invalidity, unenforceability or illegality of any provision in this Agreement will not, to the extent permitted by Applicable Law, affect the validity, enforceability or legality of any other provision of this Agreement, which will remain in full force and effect.

25. **Third Party Beneficiaries.**

Except as provided in Sections 8, 10, 12, 13, 14, 15 and this Section 25, this Agreement is solely for the benefit of:

- (a) the LDC and its successors and assigns, with respect to the obligations of the Participant under this Agreement, and
- (b) the Participant and its successors and permitted assigns, with respect to the obligations of the LDC under this Agreement;

and this Agreement will not be deemed to confer upon or give to any other Person any Claim or other right or remedy. The Participant appoints the LDC as the trustee for the OPA of the applicable provisions set out in this Agreement, including Sections 10, 12, 13, 14, 15 and this Section 25, and the LDC accepts such appointment. The LDC is the agent of the OPA for the purpose of Section 8.

26. **No Partnership, etc.**

Nothing in this Agreement will be deemed to constitute a partnership or joint venture or create any fiduciary relationship between the LDC and the Participant.

27. **Force Majeure**

The LDC shall not be in default and shall not be deemed to be in default, of its obligations in this Agreement by reason of delay or of failure or inability to perform its obligations hereunder where the said delay, failure or inability is due solely to any cause which is unavoidable or beyond the reasonable control of the LDC, including without limitation any act of God or other cause which frustrates the performance of the LDC's obligations in this Agreement.

28. **Notices**

Any notice to be given under this Agreement unless expressly provided otherwise herein must be in writing and will be given by facsimile or e-mail or other means of electronic communication or by hand-delivery as provided. Any notice, if sent by facsimile or e-mail or other means of electronic communication, will be deemed to have been received on the Business Day following the sending, or if delivered by hand will be deemed to have been received on the Business Day is delivered to the applicable address noted below. Either Party may, by notice of change of address to the other Party, change its address to which notices are to be sent. Notices and other communications must be addressed as follows:

If to the LDC:

-
- Attention: ●
- Fax: ●
- E-mail: ●

With a copy to:

-
- Attention: ●
- Fax: ●
- E-mail: ●

If to the Participant:

-
- Attention: ●
- Fax: ●
- E-mail: ●

With a copy to:

-
- Attention: ●
- Fax: ●
- E-mail: ●

29. **Counterparts.**

This Agreement may be executed in any number of counterparts and all such counterparts will, for all purposes, constitute one agreement binding on both Parties provided that each Party has signed at least one counterpart.

30. **Facsimile/Electronic Signatures.**

This Agreement may be executed and delivered by facsimile transmission or by any other method of electronic transmission and the Parties may rely upon all such signatures as though such signatures were original signatures.

IN WITNESS WHEREOF the Parties have executed this Agreement by their duly authorized respective representative(s) as of the date first above written.

[LEGAL NAME OF LDC]

[LEGAL NAME OF PARTICIPANT]

Per: _____
Name:
Title:

Per: _____
Name:
Title:

Per: _____
Name:
Title:

Per: _____
Name:
Title:

[I/We] have authority to bind the LDC

[I/We] have authority to bind the Participant

SCHEDULE "A" DEFINITIONS

In this Agreement, the following terms will have the following meanings:

"Agreement" means this Embedded Energy Manager Agreement, including all recitals and Schedules, as it or they may be amended, restated or supplemented from time to time.

"Annual Savings Target" means savings arising in a 12 month period commencing on the EEM's employment start date or anniversary thereof, as the case may be, from the activities of an EEM which are a minimum of 0.3 MW of Peak Demand Savings and MWh savings equal to the product of 0.3 MW, the Facility Load Factor and 8760 hours ($MWh = 0.3 \text{ MW} \times \text{FLF} \times 8760 \text{ hours}$) and which are sustained over the term of the employment of the EEM.

"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.

"Applicable Taxes" means any applicable HST and any other applicable sales or use taxes.

"Approved Amount" has the meaning given to it in Section 2(a).

"Arbitrator" has the meaning given to it in Section (a) of Schedule "D".

"Business Day" means a day, other than a Saturday or a Sunday or statutory holiday in the Province of Ontario or any other day on which banking institutions in Toronto, Ontario are not open for the transaction of business.

"Capability Building Funding Amount" means funding paid by the LDC to the Participant pursuant to this Agreement.

"CDM" means electricity conservation and demand management.

"Claim" means any actual, threatened or potential civil, criminal, administrative, regulatory, arbitral or investigative demand, allegation, action, suit, investigation or proceeding or any other claim or demand, whether in contract, tort or otherwise.

"Commercially Reasonable Efforts" means all efforts which may be required to enable a Person, directly or indirectly, to satisfy, consummate, complete or achieve a condition, transaction, activity, obligation or undertaking contemplated by this Agreement and which do not require such Person to expend any funds or assume liabilities other than expenditures and liabilities which are reasonable in nature and amount in the context of the purpose of, and the condition, transaction, activity, obligation or undertaking contemplated by, this Agreement.

"Confidential Information" of a Party means any and all information of such Party or any of its affiliates, licensors, customers and employees or other service providers, and information on the EEM Application, and, in the case of the LDC, includes the OPA and Governmental Authorities (the **"Disclosing Party"**) that has or will

come into the possession or knowledge of the other Party, or any of their respective affiliates, licensors, customers and employees or other service providers and, in the case of the LDC, includes the OPA, (the **"Receiving Party"**) in connection with or as a result of entering into this Agreement, including information concerning the Disclosing Party's past, present or future customers, suppliers, technology, or business. Notwithstanding the foregoing, **"Confidential Information"** does not include information that is:

- (a) publicly available when it is received by or becomes known to the Receiving Party or that subsequently becomes publicly available other than through a direct or indirect act or omission of the Receiving Party (but only after it becomes publicly available);
- (b) established by evidence to have been already known to the Receiving Party at the time of its disclosure to the Receiving Party and is not known by the Receiving Party to be the subject of an obligation of confidence of any kind;
- (c) independently developed by the Receiving Party without any use of or reference to the Confidential Information of the Disclosing Party as established by evidence that would be acceptable to a court of competent jurisdiction; or
- (d) received by the Receiving Party in good faith without an obligation of confidence of any kind from a third party who the Receiving Party had no reason to believe was not lawfully in possession of such information free of any obligation of confidence of any kind, but only until the Receiving Party subsequently comes to have reason to believe that such information was subject to an obligation of confidence of any kind when originally received;

provided, however, that, for the purposes of this Agreement, all Personal Information concerning any Participant will constitute Confidential Information, whether or not it falls into one of the exceptions set out in clause (a) through (d) of this definition.

"Disclosing Party" has the meaning given to it in the definition of **"Confidential Information"**.

"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.

"EEM" means an embedded energy manager engaged by a Participant whose primary responsibility is to propose and lead methodologies and processes to reduce energy consumption in a Facility or a System.

"EEM Application" means an application submitted by the Participant to access funding for the employment of an EEM and prepared in accordance with instructions posted on the Website from time to time.

"EEM Initiative" means the OPA-designed initiative under the OPA's Process and System Upgrades Initiatives designed to provide

a Capability Building Funding Amount to a Participant for the purpose of engaging an EEM.

“**Energy Management Plan**” means a document, substantially in the form of Schedule “F”, completed by the EEM describing the activities and plans required to reduce energy consumption, including electricity consumption, in such Participant’s Facilities and detailing how the Participant is demonstrating leadership in the area of energy conservation by, among other things, developing conservation policies and establishing employee, community and peer-to-peer awareness programs.

“**Environmental Attributes**” means all benefits and entitlements associated with a Measure or a Facility having decreased environmental impacts resulting from the employment of an EEM, including:

- (a) all rights to any fungible or non-fungible attributes, whether arising from a Facility itself, from the interaction of a Facility with a Distribution System or the IESO-Controlled Grid or because of applicable Laws and Regulations or voluntary programs established by any Governmental Authority;
- (b) all rights relating to the nature of the energy source as may be defined and awarded through applicable Laws and Regulations or voluntary programs; and specific Environmental Attributes include ownership rights to any applicable credits, entitlements or other instruments resulting from the interaction of a Facility or a Measure with a Distribution System or the IESO-Controlled Grid or as specified by applicable Laws and Regulations or voluntary programs;
- (c) all rights to quantify and register the foregoing with competent authorities; and
- (d) all revenues, entitlements, benefits, and other proceeds arising from or related to the foregoing.

“**Facility**” means the building(s), premises or lands, or part thereof, owned or occupied by the Participant.

“**Facility Load Factor**” (“**FLF**”) means the actual annual MWh (“**AA**”) divided by the product of the facility annual peak MW (“**FAP**”) multiplied by 8760 hours ($FLF = AA / (FAP \times 8760 \text{ hours})$).

“**FIPPA**” means the *Freedom of Information and Protection of Privacy Act* (Ontario).

“**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 the IESO, the OEB, the Electrical Safety Authority, the Ontario Environmental Commissioner, and any Person acting under the authority of any of the foregoing, but excluding the OPA.

“**Handle**” or “**Handling**” means to access, receive, collect, use, store, process, record, disclose, transfer, retain, dispose of, destroy, manage or otherwise handle.

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

“**IESO**” means the Independent Electricity System Operator of Ontario established under Part II of the *Electricity Act, 1998* (Ontario), or its successor.

“**IESO-Controlled Grid**” has the meaning ascribed to it by the IESO Market Rules.

“**IESO Market Rules**” means the rules made under section 32 of the *Electricity Act, 1998* (Ontario), together with all market manuals, policies and guidelines issued by the IESO.

“**Indemnifiable Loss**” has the meaning given to it in Section 12.

“**Indemnified Party**” has the meaning given to it in Section 12.

“**Indemnifying Party**” has the meaning given to it in Section 12.

“**Insolvent**”, in respect of a Person, means a Person:

- (a) who is for any reason unable to meet its obligations as they generally become due or otherwise acknowledges its insolvency,
- (b) who has ceased paying its current obligations in the ordinary course of business as they generally become due,
- (c) who has ceased to carry on business in the ordinary course,
- (d) who institutes any proceeding, takes any corporate action, or executes any agreement to authorize its participation in or the commencement of any proceeding seeking: (a) to adjudicate it a bankrupt or insolvent; (b) liquidation, dissolution, winding-up, reorganization, arrangement, protection, relief or composition of it or any of its property or debts or making a proposal with respect to it under any law relating to bankruptcy, insolvency, reorganization or compromise of debts or other similar laws; or (c) appointment of a receiver, trustee, agent, custodian or other similar official for it or for any substantial part of its properties and assets, or
- (e) the aggregate of whose property is not, at a fair valuation, sufficient, or, if disposed of at a fairly conducted sale under legal process, would not be sufficient to enable payment of all its obligations, due and accruing due.

“**Laws and Regulations**” means:

- (a) applicable multi-national, international, federal, provincial or municipal laws, orders-in-council, by-laws, codes, rules, policies, regulations and statutes;
- (b) applicable orders, decisions, codes, manuals, interpretation bulletins, judgments, injunctions,

decrees, awards, directives and writs of any court, tribunal, arbitrator, Governmental Authority or other Person having jurisdiction;

- (c) applicable rulings and conditions of any licence, permit, certificate, registration, authorization, consent and approval issued by a Governmental Authority; and
- (d) any requirements under or prescribed by applicable common law.

“**LDC**” has the meaning given to it in the preamble of this Agreement.

“**Local Distribution Company**” means the owner or operator of a Distribution System that is licensed by the OEB as an electricity distributor.

“**Measures**” means: (i) any activity undertaken for the primary purpose of obtaining or effecting, directly or indirectly, CDM, including the installation, retrofit, replacement, modification or commissioning of equipment, systems, processes or behaviours that consume or result in the consumption of electricity; or (ii) any equipment, system or product related to the foregoing.

“**MFIPPA**” means the *Municipal Freedom of Information and Protection of Privacy Act* (Ontario).

“**MW**” means a megawatt.

“**MWh**” means a megawatt hour.

“**OEB**” means the Ontario Energy Board or its successor.

“**OPA**” means the Ontario Power Authority or its successor.

“**OPA EM&V Protocols**” means the methods and processes that the OPA develops for the evaluation, measurement and verification of CDM programs and initiatives, as such methods and processes may be amended from time to time.

“**Participant**” has the meaning given to it in the preamble of this Agreement.

“**Party**” and “**Parties**” have the meanings given to them in the preamble of this Agreement.

“**Peak Demand Savings**” means [●] [Note to finalization: definition to be included in this form of agreement upon notice issued by the OPA pursuant to the Process and System Upgrades Initiatives 2011-2014: Energy Manager Initiative Schedule “D-3”].

“**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.

“**Personal Information**” means information about identifiable individual or other information that is subject to any Privacy Laws.

“**Privacy Laws**” means all federal, provincial, state, municipal or other applicable statutes, laws or regulations of any Governmental Authority in any jurisdiction governing the Handling of information about an identifiable individual, including the *Personal Information and Protection of Electronic Documents Act (Canada)*, FIPPA, MFIPPA and equivalent provincial legislation.

“**Project**” means one or more Measures, which, when implemented in respect of a single System or Facility, are expected to deliver the Annual Savings Target.

“**Project Benefits**” means the annual electricity savings and benefits not related 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.

“**Quarterly Report**” means the report of energy management activities of a Participant completed by an EEM on a quarterly basis in the form set out in Schedule “E”, the form and substance of which may be modified, supplemented or replaced by the OPA from time to time acting reasonably.

“**Receiving Party**” has the meaning given to it in the definition of “Confidential Information”.

“**Records**” has the meaning given to it in Section 13(c)(ii).

“**Release and Waiver**” means the release and waiver and consent executed by the Participant in favour of the LDC, among others, and submitted by the Participant with its EEM Application.

“**Reports**” means, collectively, an Energy Management Plan and Quarterly Reports.

“**Representative**” means, in respect of one of the Parties, any one of that Party’s employees, officers, directors, shareholders, contractors, agents, representatives and advisors.

“**Simple Payback Period**” means the calculation of the expected number of years it will take to recover the installation costs, and as calculated by dividing the Project cost by the Project Benefits.

“**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 Facilities 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 OPA or LDC.

“**Website**” means the website located at the address: <https://saveonenergy.ca/>.

SCHEDULE "B"
EEM DUTIES

In connection with the identification, reporting, and implementation of energy saving opportunities, the minimum duties of the Energy Manager (EM) are expressed below. These duties, along with any other obligation set out in the Embedded Energy Manager or other initiative contracts, should be used to develop the Embedded Energy Manager's job description. Embedded Energy Managers may work with larger commercial and institutional and industrial electricity distribution consumers for the Initiatives offered under the Industrial Program and the C&I Program offered by the LDC.

EM Duties

- A. Energy Tracking & Monitoring - Provide a database and an energy tracking and monitoring system for each Facility / process that captures current monthly energy consumption and an electrical load inventory of major equipment. The EM will develop and deliver training to the Participant's staff on the energy tracking and monitoring system.
- B. Primary Assessment – Review existing energy study reports and perform a high-level assessment, including a walk through audit of each major process area of each site, to identify energy saving opportunities and to identify which systems will require more detailed evaluations.
- C. Maintenance and Operating Schedules - Review and provide a description of the control systems, operating schedules, and maintenance practices at each Facility / process to identify operational savings. Develop maintenance practices and programs to enhance energy efficiency. Examples would include: reprogramming controls to shutdown equipment and lighting when not required, developing a checklist to ensure that all shutdown procedures are properly implemented and followed.
- D. Energy Saving Opportunities & Action Plan - Identify, assess, prioritize and recommend to senior management energy-saving opportunity projects including both capital improvement projects and operational and maintenance changes. This will include the preparation of business cases to justify capital expenditures and the completion of applications to LDC CDM initiatives and to other agencies to maximize funding available for energy-saving projects.
- E. Project Implementation & Electrical Energy Savings – Coordinate the implementation of energy-saving projects, including the planning, budgeting, and scheduling for the design, installation, commissioning, and verification of energy efficiency projects. It is expected that a project manager (not the EM) would be assigned for large capital projects.
- F. Measurement & Verification Strategy – Work with the Participant to develop a strategy for the Measurement & Verification of energy-saving projects at a corporate level (i.e. not involved at project level).
- G. Energy Management Behaviour and Business Process Improvements – Work to create and foster a sustainable energy management culture at the Participant's facilities and provide an avenue for employees to recognize and report issues and ideas regarding energy conservation and efficiency.
- H. Employee Awareness Program - Implement an employee training and awareness program to promote energy conservation and communicate the energy efficiency initiatives undertaken.
- I. Assistance to LDC Projects – Coordinate and assist with site inspections by the LDC/ OPA from time to time of the various measures implemented at the sole discretion of the OPA or LDC, as the case may be. Collect relevant information regarding additional electrical energy use (equipment purchases, schedule changes, occupancy changes or construction).
- J. Reporting: Complete Quarterly Reports.

SCHEDULE "C"
ELIGIBILITY CRITERIA

Participant Eligibility Criteria

To be eligible to participate in this EEM Initiative the Participant must:

- (a) be an electricity consumer, whether or not a customer of the LDC, that is directly connected to, or behind the meter of another electricity consumer connected to, a Local Distribution Company's Distribution System and is in the LDC's service area;
- (b) not be Insolvent; and
- (c) have the potential to deliver at a minimum the Annual Savings Target.

SCHEDULE "D"
ARBITRATION PROVISIONS

- (a) Subject to and in accordance with the provisions of this Schedule "D", any and all differences, disputes, Claims or controversies arising out of or in any way connected with this Agreement, whether arising before or after the expiration or termination of this Agreement, (including any dispute as to whether an issue is arbitrable) will be resolved by arbitration before a single arbitrator (the "**Arbitrator**") pursuant to the *Arbitration Act, 1991* (Ontario) and otherwise in accordance with the laws of the Province of Ontario.
- (b) A Party desiring arbitration hereunder will give written notice of arbitration to the other Party containing a concise description of the matter submitted for arbitration ("**Notice of Arbitration**"). If the Parties fail to jointly appoint an Arbitrator within 20 days thereafter, an Arbitrator will be designated by a judge of the Ontario Superior Court of Justice upon application by either Party. The Arbitrator may determine all questions of law, fact and jurisdiction with respect to the dispute or the arbitration (including questions as to whether a dispute is arbitrable) and all matters of procedure relating to the arbitration. The Arbitrator may grant legal and equitable relief (including injunctive relief), award costs (including legal fees and the costs of the arbitration), and award interest.
- (c) The arbitration will be conducted in English in the City of Toronto (unless otherwise agreed to by the Parties) at such place therein and time as the Arbitrator may fix and, failing agreement thereto by the Parties, in accordance with such procedures as the Arbitrator will determine, in accordance with the principles of natural justice. The arbitration and all matters arising directly or indirectly therefrom will be kept strictly confidential by the Parties and will not be disclosed to any third party except as may be compelled by law.
- (d) The Arbitrator's written decision will be delivered to each of the Parties within 60 days following the conclusion of the arbitration hearing. The costs of any arbitration hereunder will be borne by the Parties in the manner specified by the Arbitrator in his or her decision. The decision of the Arbitrator will be final and binding upon the Parties in respect of all matters relating to the arbitration, the conduct of the Parties during the proceedings and the final determination of the issues in the arbitration. There will be no appeal from the decision of the Arbitrator to any court, except on the grounds that the conduct of the Arbitrator, or the decision itself, violated the provisions of the *Arbitration Act, 1991* (Ontario), or solely on a question of law as provided for in such act. Judgment upon any award rendered by the Arbitrator may be entered in any court having jurisdiction thereof.
- (e) Submission to arbitration under this Schedule "D" is intended by the Parties to preclude any action in matters which may be arbitrated hereunder, save and except for enforcement of any arbitral award hereunder.

SCHEDULE "E"
QUARTERLY REPORT TEMPLATE

Name of Embedded Energy Manager:

Name of Employer:

Date of Report:

Facilities covered in this report:

Facility Served:

Energy Management Plan status update:

<State any developments on the company's energy management Plan, including initial completion and updates to the Plan>

PROJECT UPDATE:

<i>Project</i>	<i>Estimated Energy Savings (MWh)</i>	<i>Estimated Demand Savings (MW)</i>	<i>Estimated Cost (\$)</i>	<i>Project Payback (years)</i>	<i>Productivity, quality, or yield savings (\$)</i>	<i>Feasibility Study Complete?</i>	<i>(1) Project incentive (\$)</i>	<i>Project applied for:</i>	<i>Project Forecasted completion date</i>	<i>Status & Commentary, including status of any incentive application and, project implementation</i>

NOTES:

- (1) **Non incentive based projects, and including those with a payback period of less than one year should be recorded, with comment from the Embedded Energy Manager indicating their involvement in the Project.**
- (2) **Other Activities**

SCHEDULE "F"
ENERGY MANAGEMENT PLAN TEMPLATE

Energy Management Plan
<Template>

Prepared by: Name of Employee
 Department
 Company Name

TABLE OF CONTENTS

PREFACE TO THE ENERGY MANAGEMENT PLAN TEMPLATE: 2

EXECUTIVE SUMMARY: 2

ENERGY PLAN INFORMATION: 3

BACKGROUND: 3

ENERGY MANAGEMENT POLICY & BEST PRACTICES: 3

ENERGY TEAM: 4

ENERGY BASELINE: 4

IDENTIFIED CONSERVATION CAPITAL PROJECTS: 5

OPERATIONAL SAVINGS AND EMPLOYEE AWARENESS PLAN: 6

ENERGY CONSERVATION TARGETS: 6

ACTION PLAN: 6

OPPORTUNITY IDENTIFICATION & ANALYSIS: 7

IMPLEMENTATION BUDGET 9

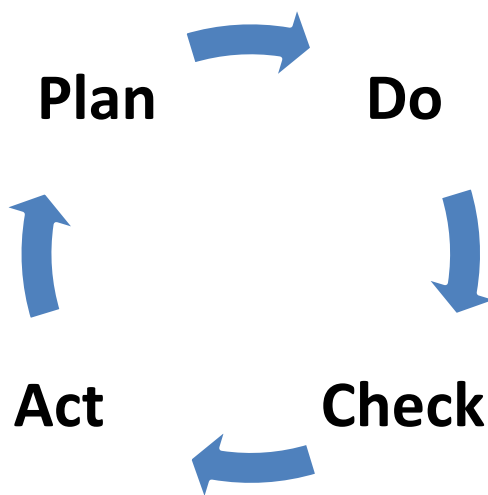
FOR FURTHER READING: 9

PREFACE TO THE ENERGY MANAGEMENT PLAN TEMPLATE:

Environmental concerns and the need to be globally competitive are providing a driving force for local industry to change the way energy use and energy costs are viewed. Rather than being an inevitable cost of doing business, energy is now considered to be a manageable input to the process, much like any raw material or other resource cost.

The first step in managing energy costs is creating an energy management plan. This document contains a template that lays out a logical format for capturing information critical to energy management planning. It formalizes the thought process involved in understanding the relative magnitude of energy costs, the possible ways to reduce energy use, energy targets that are likely to be achievable, and other associated activities that need to occur. While stand-alone energy management projects are satisfying to complete, the energy management plan provides the “big picture” view as an ongoing framework for optimizing overall energy use and achieving success.

Energy management planning is intended to be a process of “continuous improvement”. A closed-loop feedback approach is most effective in demonstrating results that will justify further investment in efficiency. The following diagram shows the circular steps that are recommended for adoption into the planning process:



Plan: Create the energy management plan ensuring budgets, resources, and timelines are established to meet the targets and objectives of the plan. Include tracking and monitoring processes within the plan to ensure effective reporting to management.

Do: Execute the plan by deploying the resources and budgets, prepare status reports, and implement the communication strategy.

Check: Measure and monitor performance of projects and programs against the desired outcomes as planned and report to management with recommendations for improvements and course corrections.

Act: Analyse the variances to the plan and their causes. Recommend improvements, course corrections, and modifications to the plan.

While OPA focuses on electrical energy efficiency, it is important that the scope of the plan includes all energy sources such as natural gas, coal, diesel, and biomass or other renewable fuels in order to have a complete understanding of opportunities for energy cost reduction and self-generation optimization.

EXECUTIVE SUMMARY:

<Provide an overview of the plan in a few paragraphs.>

<Ideas to include:

1. Specification of the energy plan targets and objectives over an appropriate planning time horizon.
2. The baseline energy usage and energy intensity of the plant compared to industry norms, energy flows of the facility energy use identifying major energy using equipment.
3. Top 3 to 5 high-potential energy conservation capital projects with estimated savings, incentives, capital costs and timelines.
4. A brief outline of medium term strategic energy management activities planned.
5. Communication strategy and employee awareness programs.

Include summary table(s) of relevant numbers for current energy performance, targets, projects etc.>

ENERGY PLAN INFORMATION:

1. date of report
2. author
3. acknowledgement of key staff involved
4. facility name and location

BACKGROUND:

<Describe the plant operations and factors that affect energy use. Some ideas for inclusion here are:

1. *Business overview:*
 - a. *description of business history and current structure (at parent and local level, ownership, etc.); and*
 - b. *review of the industrial sector the business operates in with reference to the NAICS coding system and a summary of key business concerns facing the business and sector.*
2. *Process descriptions.*
3. *Physical location and access to resources.*
4. *List specifics of past conservation projects and successes.*
5. *Describe any existing metering/monitoring systems.*
6. *List past energy and feasibility studies.*
7. *Key challenges and constraints to achieving energy reduction goals (resources, capital, expertise, corporate commitment, data, etc.).>*

ENERGY MANAGEMENT POLICY & BEST PRACTICES:

<State your company's energy policy here, if one currently exists. An example energy management policy would be:

"The XYZ Co. will endeavour to reduce energy consumption through all available means so that by 2015 our total energy usage will be 15% less (or, for each unit of material produced) than 2010".

Otherwise, strive to use this plan to generate management acceptance of the importance of energy planning and create a formal energy policy. State a target timeline here for energy policy creation.>

Does the company:

- have broad awareness of the benefits of energy efficiency
- collect and utilise information to manage energy use
- integrate energy management into their overall management structure
- provide leadership on energy management through dedicated staff and a committed energy efficiency policy

- have an energy management plan for the short and long terms
- have a procurement policy that favours energy efficient equipment and materials

ENERGY TEAM:

<State here if there is an existing energy manager for the company and/or plant. If not, name an overall plant energy champion or one for each major section of the plant. Tabulate all individuals that have an impact on energy use and potential energy projects, identifying whether it is their basic job function or if they are co-champions for this effort (i.e. Dan in purchasing will need to be included in planning conservation projects, Rick in engineering is very interested in contributing to energy conservation projects and is a future energy champion).>

<List all personnel with Knowledge and experience in energy management from operations, maintenance, engineering, etc.>

<The importance of having a senior executive as a regular participant and sponsor of the energy team is highly recommended. This ensures that the executive management team is well informed of ongoing projects and progress toward energy management goals. If this person is or becomes an energy champion, the energy team is well on its way to achieving great success.>

The Energy Team at XYZ Co.

<i>Name</i>	<i>Position</i>	<i>Energy Champion?</i>	<i>Percent of Time on Energy Team</i>
Jane Doe	Energy Manager	Yes	80%
Name 2	VP – Production	Yes	5%
Name 3	Buyer	No	5%
Name 4	Foreman – Production	No	5%
Name 5	Engineering Team Leader	No	10%
Name 6	Engineer	No	20%

ENERGY BASELINE:

<This section requires some basic data gathering and thought about the best way to show how and where energy is used in the plant. The more detail that is presented in this section, the easier it will be to demonstrate success of the plan.>

Fuel source usage breakdown can be shown in a table such as this:

<i>Fuel, Resource, Productivity</i>	<i>Total Annual Consumption/Production</i>	<i>Total Annual Cost/value</i>	<i>Percentage of Total Plant Energy Cost/production units</i>
<i>Electricity</i>			
<i>Natural Gas</i>			
<i>Fuel Oil</i>			
<i>Other fuel</i>			
<i>Water</i>			
<i>Units of Production #1</i>			
<i>Units of Production #2</i>			

<It is best to slice the energy pie for each fuel source in as many ways as possible that are meaningful to you in order to identify the best approach to improving energy intensity. Two example tables are shown below to illustrate different ways to show the breakdown of electrical energy consumption. Other energy disaggregation methods may be more applicable to your specific situation.>

<It is important to identify the uncertainty associated with this activity and link back to energy information references listed in the Background section above.>

<It may be necessary to construct a table that shows the annual energy use profile by month if the plant operations vary greatly over the course of a year.>

One way of showing electrical energy use breakdown by system type:

Types of End-Uses	Number of Machines	MWh/yr	Operating Peak MW	% of Total	Uncertainty +/- %	Source of Energy Information
Fans						
Pumps						
Compressed Air						
Material Handling						
Heating						
Lighting						
Process Equipment						
Other						
Total:						

Another way of showing electrical energy use breakdown by process:

Unit Process	MWh/yr	Operating Peak MW	% of Total	Uncertainty +/- %	Source of Energy Information
Saw Mill					
Planer Mill					
Lumber Drying					
Plywood Mill					
Chipper Mill					
Offices					
Total:					

<Now pick a meaningful measure of plant throughput, or process throughput, and calculate energy intensity per unit of throughput by dividing total annual energy use of each fuel source by throughput. This will be the most important number for tracking and reporting energy management success to your executives. If possible, calculate energy intensity for 5 or more past years and show the trend.>

<Research typical energy intensity for your industry and compare to your findings.>

IDENTIFIED CONSERVATION CAPITAL PROJECTS:

<Create a table of known opportunities for energy savings projects involving capital investment. List the systems with identified savings along with their energy consumption, potential for savings, and next steps to achieving the savings. State the source of information for the energy savings potential. Use a separate table for each energy source.>

Electricity Savings Capital Projects:

System Name	Annual Energy	Operating Peak MW	Conservation	Estimated Savings	Estimated Operating	Source of	Date of Information
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	Consumption		Measure		Peak MW Reduction	Information	
<i>Big Fan #1</i>	<i>40,000 MWh</i>		<i>VFD</i>	<i>5,000 MWh</i>		<i>Consultant Study</i>	<i>Oct. 2009</i>
<i>Air Compressor</i>	<i>20,000 MWh</i>		<i>Replace comp.</i>	<i>2,000 MWh</i>		<i>Internal Study</i>	<i>Jan. 2010</i>
<i>Melter #1</i>	<i>90,000 MWh</i>		<i>Heat recovery</i>	<i>10,000 MWh</i>		<i>Rough Estimate</i>	<i>Mar. 2010</i>

<List all known opportunities in the table above even if they are presently considered to be uneconomical or otherwise not currently feasible.>

OPERATIONAL SAVINGS AND EMPLOYEE AWARENESS PLAN:

<Opportunities to improve energy intensity and competitiveness through operational and employee awareness programs should not be overlooked. The OPA does not provide incentives for these conservation activities, but an energy management plan would not be complete without addressing these opportunities.>

<Operational savings are typically achieved through non-capital improvements to control systems. Optimizing the operation of a system from an energy perspective can often produce significant and measurable savings while maintaining or improving the system reliability and throughput.>

<Employee awareness programs identify and target everyday actions that employees can be encouraged to do, with the intent that the actions become second nature in order for the savings to persist well past the initial push for awareness. This type of activity dovetails well with operational savings. System operators will often have ideas for optimizing their system and eliminating wasteful idling or other unnecessary run time, but need the environment to encourage the development of these opportunities.>

<Investigate and document opportunities here for operational and employee awareness savings.>

ENERGY CONSERVATION TARGETS:

<Using the potential energy savings identified for each fuel source in the previous sections, set annual conservation targets for five years. Include stretch targets in high/medium/low scenarios for estimated savings.>

ELECTRICITY SAVINGS TARGETS:

Year	Savings High (MWh)	Savings Medium (MWh)	Savings Low (MWh)
<i>1</i>			
<i>2</i>			
<i>3</i>			
<i>4</i>			
<i>5</i>			

<Schedule time annually to update this plan and extend the conservation target for another year. This will produce a rolling 5 year target that when compared to results achieved, should continue to justify investment in conservation for years to come.>

ACTION PLAN:

<Turn the targets in the previous section into actionable tasks by tabulating projects, timelines, and accountabilities. The attached spreadsheet can be used as an action plan template for prioritization, tracking, and reporting.>

<Identify any barriers to the implementation of each capital project and think about what strategies could eliminate the barriers. Provide an assessment of the ease of implementing each identified project.>

<In addition to identified capital projects, list the approach and strategies to identify further conservation opportunities that may exist including those relating to:

- *behavioural;*
- *organisational;*
- *maintenance; and*
- *other.>*

<Resolve to bring the energy project team together on a regular basis to systematically work through approval and implementation of the action plan.>

OPPORTUNITY IDENTIFICATION & ANALYSIS:

<Potential projects identified by the Energy Manager/Key Account Manager in conducting a general energy assessment of a facility. >

Project Economics, Benefits & Risks for Identified Projects:

<i>Conservation Measure</i>	<i>Feasibility Study Complete?</i>	<i>Estimated Energy Savings (MWh)</i>	<i>Estimated Operating Peak MW reduction</i>	<i>Estimated Cost (\$)</i>	<i>Available Incentives (\$)</i>	<i>Project Payback (years)</i>	<i>Productivity, quality, or yield savings</i>	<i>Ease of implementation (easy, medium, hard)</i>	<i>Risk</i>
VFD on BF#1	Yes	5,000 MWh		1,000,000	625,000	1			
Replace Air Compressor	Yes	2,000 MWh		800,000	460,000	2.3			
Heat Recovery on Melter #1	No	10,000 MWh		5,000,000	2,300,000	3.6			
Total:	N/A	17.00 GWh		6.80 M	3.385 M	2.0			

IMPLEMENTATION BUDGET

<This budget should include the cost of the Energy Manager, running the Energy Management team, projects, employee awareness and outreach activities, etc.>

FOR FURTHER READING:

There has been substantial work on the subject of energy management planning. For further more detailed reference, the ANSI MSE (management system for energy) is an excellent resource that can be found at <http://www.mse2000.net/>.

NRCan offers the comprehensive “Energy Efficiency Planning and Management Guide” available at <http://oee.nrcan.gc.ca/publications/infosource/pub/cipec/efficiency/index.cfm?attr=24>.

The International Standards Organization (ISO) is working on a draft energy management standard (ISO 50001) that will address energy management planning and should be available around the end of 2010 <http://www.iso.org>.

Energy Conservation Projects Tracking

Project Description	Fuel Type	Project Stage	Energy Savings	Dollar Savings	Responsible Person	Percent Complete	Completion Date	Comments

SCHEDULE "G"
INCREMENTAL ANNUAL SAVINGS TARGET FOR ADDITIONAL TERM

<u>MW portion of Annual Savings Target</u>	<u>Year 1 of Agreement</u>	<u>Year 2 of Agreement</u>	<u>Year 3 of Agreement</u>	<u>Year 4 of Agreement</u>
First Annual Savings Target	0.3 MW	0.3 MW	0.3 MW	0.3 MW
Second Annual Savings Target		0.3 MW	0.3 MW	0.3 MW
Third Annual Savings Target			0.3 MW	0.3 MW
Fourth Annual Savings Target				0.3 MW
Total in each year	0.3 MW	0.6 MW	0.9MW	1.2 MW

In the event the Participant achieves greater than 0.3 MW in any given year, each additional 12 month term of the Agreement will require an incremental 0.3 MW over and above the total savings achieved in prior years.

**SCHEDULE "H"
FORM OF RELEASE AND WAIVER**

RELEASE AND WAIVER AND CONSENT

FOR VALUABLE CONSIDERATION, the receipt and sufficiency of which are hereby acknowledged, the undersigned hereby, for itself and its successors and assigns:

- A. releases and forever discharges each of [NAME OF LDC] ("LDC"), the Ontario Power Authority ("OPA") and their respective representatives, affiliates, third party service providers and agents (collectively, the "Program Operators") and all of the respective past, present and future officers, directors, employees, owners, shareholders, agents, successors and assigns of the Program Operators (collectively, the "Representatives") (the Program Operators and the Representatives hereinafter collectively referred to as "Releasees") from any and all actions, causes of action, suits, complaints, disputes, debts, liabilities, obligations, damages, legal fees, costs, disbursements, expenses, claims and demands of every nature or kind whatsoever and howsoever arising, at law or in equity, or under any statute, including without limitation, claims for property damage, business interruption and personal injury of the undersigned's employees, officers, directors or licencees, which it can, will or may have by reason of any matter, cause or thing arising as a result of, in relation to or in connection with the attendance on one or more occasions by one or more of the employees, officers, directors, representatives, third party service providers or agents of any or all of the Program Operators (collectively, "Persons") at any and all facilities owned or occupied by the undersigned in connection with, arising out of or relating to the initiatives designed by the OPA for electricity conservation and demand management and directed at one of the commercial and institutional, industrial, low-income or residential electricity consumer groups (collectively referred to as the "CDM Program"), other than in the case of the gross negligence or willful misconduct of such Persons during such attendances;
- B. agrees that the undersigned will not make any claim or take any proceedings against any other person or entity with respect to any matter released and discharged in Section 1 above which may result in any claim arising against any of the Releasees for contribution or indemnity or other relief;
- C. without limiting the foregoing, the undersigned acknowledges, agrees and consents that by submitting an application ("Application") to participate in a CDM Program or any initiative thereof, whether or not its Application is ultimately accepted:
- (a) it hereby consents to the collection, use, disclosure and other handling of any information it provides to the Program Operators, including all reports, data, personal information, records showing historical energy use and consumption, and other information of the undersigned or its subcontractors or representatives (collectively, the "Applicant Information") by the Program Operators for purposes relating to the operation, administration or assessment of the CDM Program, any initiative thereof or the Application, and in connection with any reporting activities relating to the CDM Program, which shall include, without limitation: (i) sharing of Applicant Information among the Program Operators; (ii) use by the Program Operators of the Applicant Information provided by the Participant to process any of the undersigned's Applications and to conduct, analyze and report on the results of surveys and modify the CDM Program based on such surveys; and (iii) disclosure to the Ontario Energy Board, the Independent Electricity System Operator, the Ontario Ministry of Energy or the Ontario Environmental Commissioner or their respective successors;
 - (b) it hereby consents to the disclosure by the OPA to the LDC of information regarding the Participant's past participation in other OPA funded conservation and demand management programs for the purpose of processing the Participant's Application; and
 - (c) this Release and Waiver and Consent and all Applicant Information, in the possession or control of the LDC and/or the OPA are subject to applicable laws that include the access provisions of the Municipal Freedom of Information and Protection of Privacy Act (Ontario) ("MFIPPA") or the Freedom of Information and Protection of Privacy Act (Ontario) ("FIPPA"), as the case may be, and that as a result, third parties may obtain access to the Applicant Information;
- D. the foregoing Release and Waiver and Consent will continue in full force and effect for the benefit of the Releasees and will apply to each Application submitted by the undersigned to the LDC and to the extent of any conflict between this Release and Waiver and Consent and the terms of any agreement or other document entered into by the undersigned and one or more of the Program Operators pursuant to or in connection with the CDM Program or any part thereof, or any initiative under any CDM Program, the terms of this Release and Waiver and Consent will prevail; and
- E. this Release and Waiver and Consent will be governed by and construed in accordance with the laws of the Province of Ontario and the federal laws of Canada applicable therein.

IN WITNESS WHEREOF the undersigned has executed this Release and Waiver and Consent by its duly authorized representative(s) as of the date below written.

Dated: [DATE]

[LEGAL NAME OF PERSON MAKING APPLICATION]

Name:
Title:

Name:
Title:

[I/We] have the authority to bind the corporation.