# ecoENERGY for Renewable Power Program

**Terms and Conditions** 

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Aussi disponible en français sous le titre : Modalités et conditions du programme écoÉNERGIE pour l'électricité renouvelable modifié en aoû 2008

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#### 1 BACKGROUND

An important component of the Government of Canada's ecoENERGY initiatives is the ecoENERGY for Renewable Power program (hereto referred as ecoENERGY RP), which represents an investment of about \$1.5 billion over 14 years. The program will encourage the production of 14.3 terawatt hours of electricity from low-impact renewable energy sources, such as wind, hydro, biomass, solar photovoltaics and marine energy (which includes tidal and wave energy technologies installed in oceans or rivers).

Natural Resources Canada is updating the terms and conditions of the ecoENERGY RP based on its first year of program operation to clarify issues raised by clients and to adjust some parameters that will improve the delivery of the program. Natural Resources Canada may amend these terms and conditions from time to time to provide additional information on eligibility criteria and other program requirements.

Since its introduction, interest in the ecoENERGY RP program has grown significantly, as can be attested by the number of projects registered to date. The tremendous interest in the program has necessitated changes to the program's approval process (Section 3).

It is estimated that the program will support about 4 000 MW of renewable power capacity. As Natural Resources Canada gets closer to achieving this capacity target in commissioned projects, the program may stop registering new project applications.

#### 2 TERMS AND CONDITIONS OF THE ecoENERGY RP

### 2.1 Basic Eligibility Criteria

Payment of an incentive will be made only to eligible recipients who have signed a contribution agreement with Natural Resources Canada.

Natural Resources Canada will consider signing contribution agreements with prospective recipients for projects that meet the terms and conditions contained in this document.

### 2.2 Eligible Recipients

An Eligible Recipient is a business, institution or organization (e.g. an independent power producer, a provincial Crown corporation, an electrical utility or energy co-operative) that owns a qualifying project to produce electricity for sale in Canada, for use by its co-op members or for its own consumption, as defined below.

### 2.3 Qualifying Projects

A Qualifying Project is defined as a new or refurbished low-impact renewable-generating facility, or the clearly delineated expansion of an existing low-impact renewable-generating facility that is located in Canada and meets the terms and conditions of the ecoENERGY RP in this document.

New

The full capacity of a project may qualify under the program if it is a refurbishment of an existing facility that had been decommissioned before April 1, 2007 or if the existing facility has passed its normal operating service life. For the purpose of the program, the normal operating service will be deemed to be the following:

- For wind projects 20 years.
- For hydro project 50 years.
- For biomass projects 30 years.
- All other technologies will be evaluated on a case-by-case basis.

The incremental capacity of a facility may qualify as a project if its capacity expansion can be clearly delineated and if the production from the incremental portion of the facility can be clearly identified (i.e. an increase in production not associated with an increase in rated capacity will not be eligible).

All components of a new facility or all components added to an existing facility, whether they are refurbished or incremental, must be new generating equipment.



For the purpose of this program, the replacement of a thermal boiler with a new biomass boiler will be considered as 'new generating equipment' provided the electricity produced comes from a "low-impact renewable-generating facility" as defined below.

"Low-impact renewable-generating facility" means a generating facility that uses low-impact renewable sources, such as wind energy, hydro-electricity, biomass energy or solar photovoltaics that produce electricity generated in a manner that is described under Environment Canada's Environmental Choice Program Criteria Document CCD-003 (available at: <a href="http://www.environmentalchoice.com">http://www.environmentalchoice.com</a>) or as described in future revisions of the Criteria Document relating to low-impact renewable electricity. Low-impact renewable technologies, such as geothermal, tidal and wave energy that are not yet described under the Environmental Choice Program will be added when the Criteria Document is reviewed and will be assessed on a case-by-case basis.

# 2.4 Environmental Choice<sup>M</sup> Program Certification

All biomass and hydro projects must be certified as EcoLogo<sup>M</sup> projects under Environmental Choice<sup>M</sup> Program's Criteria Document CCD-003 and must maintain certification throughout the period in which they receive the incentive.

Proponents will bear the costs involved in obtaining and maintaining certification under the Environmental Choice<sup>M</sup> Program.

Other low-impact renewable energy projects are exempt from this requirement, but may be required to be certified as EcoLogo<sup>M</sup> projects in the future. Any changes to this requirement will be based on program experience and done in consultations with industry. Natural Resources Canada encourages all prospective proponents to obtain certification for their project under Environmental Choice<sup>M</sup> Program.

# 2.5 Qualifying Period

Qualifying Projects that apply to the program must be commissioned as follows:

- Wind farms must be commissioned between April 1, 2006, and March 31, 2011. Projects that were commissioned after March 31, 2006, and before April 1, 2007, will begin to receive payment of the incentive on electricity produced from April 1, 2007, for 10 years, provided a contribution agreement has been signed by March 31, 2007. Otherwise, payment of the incentive for these projects will begin on the first day of the fiscal year in which the contribution agreement is signed.
- Other low-impact renewable power-generating technologies must be commissioned between April 1, 2007, and March 31, 2011 inclusive.

Commissioning of a Qualifying Project is set as the day when the full capacity of the Qualifying Project is on-line and has been approved to operate by a professional engineer who is registered in Canada.

Natural Resources Canada reserves the right to modify the commissioning date of the project for the purpose of the program when a contribution agreement is signed during a fiscal year which is different from the one when the project is commissioned.

# 2.6 Minimum Qualifying Capacity

The Qualifying Project must be of a <u>total rated capacity of 1 megawatt (MW) or greater</u>, with the exception of wind energy projects that were commissioned after March 31, 2006, and before April 1, 2007, which must have a total capacity of at least 500 kilowatts (kW), consistent with the final year of the Wind Power Production Incentive program. Rated capacity is defined as the sum of the nameplate capacity of all the electrical generators that are a part of the Qualifying Project. Clusters of individual generators that are connected at the same point of interconnection and are metered at that point are considered as one project.

# 2.7 Eligible Production

Eligible production of a Qualifying Project is defined as the gross electricity produced from a low-impact renewable energy resource, less electricity consumed by the operation of the Qualifying Project and less electric losses to the point of interconnection, up to the maximum annual eligible production, as defined in the Terms of the Incentive section below.

The Point of Interconnection is defined as the point where the transfer of ownership of electricity is made, or if not sold, where the Qualifying Project is connected to the electrical load. This Point of Interconnection must be in Canada. The eligible production must be sold in Canada, or if not sold, used in Canada.

Qualifying Projects that are powered by dual or multiple sources of energy must record the energy content (in petajoules) of each energy resource and calculate the corresponding net eligible production for the Qualifying Project produced from the low-impact renewable energy resource only.

Measurements of energy content of the resource must be approved by Natural Resources Canada. Records of energy resources measurements and calculations of energy content used for each energy resource must be kept for the duration of the contribution agreement for audit purposes.

# 2.8 Sale of Electricity

For projects in which electricity is sold, the eligible production is the net eligible electricity production of the Qualifying Project measured at the Point of Interconnection, as defined above.

There must be a meter that will measure the production of the Qualifying Project at the Point of Interconnection of the electricity. This meter must measure electricity production from the Qualifying Project, as well as electricity consumed by the Qualifying Project. The meter must either be controlled by the buyer of the electricity (e.g. an electrical utility, a transmission company, an electricity exchange pool or an energy service provider) that operates at arm's length from the project proponent, or it must use the services of an auditable metering service provider. Records of energy production and consumption from the Qualifying Project must be kept for the duration of the contract for audit purposes.

# 2.9 Own Consumption

Facilities that use, in whole or in part, the eligible electricity production from a Qualifying Project must have an electricity meter that can measure the electricity produced and consumed by the facility. The meter must be installed at the Point of Interconnection of the Qualifying Project and must be accessible to auditors at all time.

For these projects, metering information and net eligible production of the Qualifying Project must be reported by a professional engineer or a person of vested liability or by an auditable metering service provider. Records of energy production and consumption from the Qualifying Project must be kept for the duration of the contribution agreement for audit purposes.

#### 2.10 Test Wind Turbines

The electricity generated from a test wind turbine installed under the Canadian Renewable and Conservation Expense (CRCE) provision of the federal *Income Tax Act* will not be eligible for the incentive. Under the CRCE provision, the cost of acquisition and installation of a test wind turbine is 100 percent deductible and can be financed through flow-through shares.

If a wind project has capacity that is over and above that which is eligible under the CRCE, the additional capacity may be eligible under the ecoENERGY RP, provided that the eligible production can be metered independently or derived from quality-revenue meters. The proponent must provide the metering methodology to Natural Resources Canada for review and approval.

# 2.11 Class 43.1/Class 43.2 of the federal Income Tax Act Regulations

Renewable power generating projects may be eligible for capital cost allowance deductions under Class 43.1/Class 43.2 of the federal Income Tax Regulations. For information on the applicability of these classes of deductions to your project, please contact the Class 43.1/43.2 Secretariat at (613) 996-0890.

### 2.12 Reductions in Emissions of Greenhouse Gases (GHGs) and Air Pollutants

Non-combustion renewable energy projects emit neither GHGs nor other air pollutants. These projects will likely displace incremental fossil fuel-based power production that would emit a number of air pollutants, including GHG emissions. By displacing emitting sources of power, these renewable technologies will contribute to avoiding future increases in emissions.

Biomass-based energy systems are generally characterized as being carbon-neutral, because all of the CO<sub>2</sub> emitted in the air during electricity production is removed from the air over time as the replacement crop (plants/trees) grows back. Biomass-based energy is considered carbon-neutral if the feedstock is harvested in a sustainable manner, i.e. the feedstock regenerates and grows back to its initial state.

However, during combustion, other air pollutants, such as NO<sub>x</sub>, SO<sub>x</sub>, particulate matters and volatile organic compounds may be produced and released. To be eligible under the program, biomass combustion systems must be certified under Environment Canada's Environmental Choice<sup>M</sup> Program and must validate that certification throughout the period in which they receive the incentive. Natural Resources Canada does not guarantee that all certified projects will be eligible for an incentive.

Complete definition of the certification criteria can be found in the Environmental Choice<sup>M</sup> Program *Criteria Document* CCD-003 at: <a href="http://www.environmentalchoice.ca">http://www.environmentalchoice.ca</a>

All projects must report on GHG and air emission reductions after one year of operation (see Project Reporting section below).

#### 2.13 Maximum Contributions

The maximum contribution payable per Qualifying Project will be \$80 million over 10 years.

The <u>maximum contribution to an Eligible Recipient over the life of the ecoENERGY RP will be</u> \$256 million.

#### 2.14 Production Estimates

#### **Expected production levels**

To reduce the possibility of lapsing funds and to maximize the number of projects that is supported under the ecoENERGY RP, Natural Resources Canada:

- 1. has set a capacity factor limit for eligible production per technology; and
- 2. will adjust the estimated production level to the actual performance after a given period of time

**Capacity factor:** The capacity factor is the ratio of energy produced in a certain period of time over the theoretical nominal full production during that time and is expressed as a percentage. The higher the capacity factor, the higher is the production of electricity per megawatt of capacity.

### Maximum capacity factor levels

The maximum capacity factors per technology will be as follows:

biomass energy: 80 percenthydro energy: 60 percent

wind energy (offshore): 42 percent
wind energy (onshore): 35 percent
photovoltaic energy: 20 percent

For all other low-impact renewable energy technologies, such as ocean energy and geothermal, Natural Resources Canada will set the capacity factor on a case-by-case basis.

### **Expected annual production**

Proponents must provide a report describing the steps followed in determining the resource assessment and show how the expected net annual production was calculated. This report must show assumptions and calculations used, and how electrical losses (such as line and transformer losses) and operational losses (due to down time from maintenance or weather constraints) are accounted for.

#### Adjusting expected annual production level

To reduce overestimation of expected production under the program, Natural Resources Canada will automatically adjust the expected annual production level in contribution agreements with Eligible Recipients after eight complete quarter-years of production.

The adjusted expected annual production will be calculated by measuring the production from the best four continuous quarter-periods of the Qualifying Project during the first eight quarter-years of operation and calculating the annual (365 days) production for that period. If this production is equal or greater than 90 percent of the expected annual production provided in the contribution agreement, the expected annual production level will be confirmed for the remaining years of the contribution agreement. If it is less than 90 percent of the expected annual production, the expected annual production level in the contribution agreement will be automatically revised to 95 percent of the annual production calculated from the best four continuous quarters.



### 2.15 Stacking Limits

The Treasury Board Policy on Transfer Payments requires potential recipients to provide a statement about other sources of funding for a project prior to approving a contribution in excess of \$100 000. Programs are expected to take into account other sources of funds, which includes private sector contributions, including the expectation that the recipient must contribute its own funds towards eligible cost of the project. The Policy on Transfer Payments also requires that specific limits be set when considering total government assistance. Thus, if a proponent has secured significant support for the Qualifying Project from other government sources, including federal, provincial and/or

municipal, the proposed Qualifying Project may be disqualified from receiving the ecoENERGY RP incentive, or its maximum eligible contribution over ten years may be reduced.

Under Step 2, *Technical Project Information*, Section A8, proponents are required to declare other sources of government funding for their projects, whether it is a capital grant or a production subsidy that is over and above the purchase of electricity by a utility or a power pool.

To ensure compliance with the Policy on Transfer Payments, the total assistance from all government sources will not exceed 75 percent of the total capital costs of the project.

If a project receives or will receive a capital grant or contribution from other levels of government, including where another federal agency provides a capital grant or contribution, the net present value of the ecoENERGY RP contribution will be calculated so that the total government contribution does not exceed 75 percent of capital costs. Likewise, if a project is receiving a production incentive from another level of government, the net present value of this incentive will be calculated and the maximum ecoENERGY RP contribution will be calculated so that the total contributions do not exceed 75 percent of capital costs.

The following formulas are used to determine the Maximum Eligible Contribution (MEC) under the program:

**ExpERP** is the program's expected eligible payment for the project and is equal to one cent/kWh times the Expected Annual Production (EAP) times ten years, or :

ExpERP = 
$$1 \text{ cent/kWh x EAP x } 10 \text{ years.}$$

It is calculated in net present value to compare it against capital grant and annual subsidies:

$$NPV(ExpERP) = \sum MAEP/(1+r) \land (nb)$$

- MAEP: Maximum Annual Eligible Payment as provided by the program
- **r**: Discount rate. The net present value of recurring payments is calculated using a 10 percent discount rate.
- **nb**: Year of payment

And

**AllowERP** is the allowable maximum contribution from other governmental sources and is equal to 75 percent of the total project cost (TPC) minus any other source of governmental contribution (OGC) apart from the purchase of electricity. TPC is already a net present value, thus:

AllowERP = 
$$(75\% \times TPC) - OGC$$

OGC must be calculated in net present value when yearly contributions are provided to the project. It is equal to the subsidy if a capital subsidy is provided.

The lesser amount between NPV(ExpERP) and AllowERP is then determined.

- **If NPV(ExpERP) is the lesser amount**, then MEC equals ExpERP.

#### MEC = ExpERP

- **If AllowERP is the lesser amount**, then MEC equals the sum of constant annual payments over ten years to arrive at this value and is calculated using the formula:

$$MEC = \sum AllowERP \times r / (1-(1/(1+r) \land 10 \text{ years}))$$

And where  $\mathbf{r}$  is the discount rate used for annual payments. For the purpose of the ecoERP program, 10 percent discount rate is used.

For the purpose of determining eligible capital costs, Class 43.1/Class 43.2 definitions of Canada's *Income Tax Regulations* for renewable energy generating equipment will be used. Other benefits received by a proponent under a government's taxation system, whether federal, provincial or municipal, would not be considered as a government contribution.

#### 3 THE APPROVAL PROCESS: FIRST IN CONSTRUCTION, FIRST SERVED

The approval process is based on the principle of "first in construction, first served," and is designed so that a prospective proponent must progressively demonstrate that their project is advancing towards construction and commissioning within a prescribed time period.



After one year of experience, Natural Resources Canada is making some adjustments to the program's approval process, which will improve program delivery. **Under the new approval process, the submission of an Environmental Assessment, which was Step 2 under the previous approval process, will now become Step 3 and the** *Technical Project Information* **application, which was previously Step 3 previously, will now become Step 2. Details on these changes are described below.** 

**Definitions**: The terminology "in construction", "under construction" and/or "start of construction" refers to requirements under Step 4 of the approval process. Similarly, the terms "commissioned", "commissioning" etc. refer to the requirements of the approval process under Step 5.

To date, the program has been very successful in generating interest in renewable power. A list of project applications registered under the program can be found at <a href="http://www.ecoaction.gc.ca/ecorp">http://www.ecoaction.gc.ca/ecorp</a>.

To promote openness and ensure fairness to renewable power producers who are interested in obtaining an incentive under the program, all contribution agreements with potential Eligible Recipients, including the proponent's name, project, type and size of project, and aggregated amount of the signed contribution agreements, will be posted regularly on the program's Web site.

In the event that demand exceeds the annual budget reference level for contribution funding, the program may designate the commissioning date of qualifying projects to align with the program's fiscal framework.

Expenses incurred during project development will be undertaken solely at the proponent's risk and expense and will not constitute any form of entitlement for funding under the program.

# Step 1: Notice of Project Application

The development of large-scale renewable power projects is expensive. The cost per installed megawatt of capacity can vary substantially from technology to technology and from site to site. To help proponents assess renewable or energy efficiency projects, Natural Resources Canada has developed a pre-feasibility assessment software tool called RETScreen® International. The software, available free of charge, evaluates the energy production, life-cycle costs, emission reductions, financial viability and risk for various types of renewable energy technologies and energy efficiency projects. This tool can be very useful in evaluating the basic financial requirements of a project. More information about RETScreen® and a copy of the software can be obtained at www.retscreen.net.

To formally apply to the ecoENERGY RP, a proponent must complete a *Notice of Project Application* and provide a project description that meets the requirements of the *Canadian Environmental Assessment Act* (CEAA) (available at

http://www.ceaa-acee.gc.ca/013/0002/ops ppd e.htm). A guidance document for preparing project descriptions for ecoENERGY projects is also available upon request. The *Notice of Project Application* form can be found in Annex A or can be downloaded from the program's Web site at <a href="http://ecoaction.gc.ca/ecoRP">http://ecoaction.gc.ca/ecoRP</a>.



# **Aboriginal Consultations**

Recent court decisions have clearly established that there is a proactive requirement on the Crown to consult Aboriginal groups and, if required, accommodate their interests, when the Crown has knowledge of an existing or potentially existing Aboriginal or treaty rights and contemplates an action that may infringe upon these rights.

Proponents are thus requested to identify, at the time of the NPA, all Aboriginal groups that may be impacted by the project or that may have an established or asserted Aboriginal treaty right claim on the area occupied by the project, and demonstrate that these groups have been contacted and made aware of the project. Natural Resources Canada strongly encourages all proponents to engage interested Aboriginal groups early in the pre-planning stage of their project and during the environmental assessment process.

Natural Resources Canada may also contact any Aboriginal groups that may have an interest in the project and invite them to identify any issues or concerns regarding the proposed project, particularly any effect the project may have on the environment, traditional use, or any Aboriginal or treaty rights.

On receipt of the *Notice of Project Application*, Natural Resources Canada will verify that all the required information has been submitted. Natural Resources Canada will have <u>30 business days</u> to review the documentation and assess whether the project fulfils the first basic eligibility criteria of the program. Failure to provide all the required information will result in the rejection of the application. A prospective proponent can reapply when all information becomes available.

Once Natural Resources Canada has approved the *Notice of Project Application*, it will notify the proponent and issue a project registration number. Natural Resources Canada will then publish information a, b, c1, e2, i and k of the *Notice of Project Application* form on its Web site.

The proponent may then proceed to Step 2, the *Technical Project Information* application, as soon as all the required information to review the project can be provided.



# Step 2: Technical Project Information

To demonstrate that their project is at a sufficiently advanced stage of planning and development, and to provide information required for the Contribution Agreement, proponents must meet the requirements outlined in the *Technical Project Information* application form.

Proposed hydro-electric and biomass energy installations will also need to be certified under Environment Canada's Environmental Choice<sup>M</sup> Program for low-impact renewable electricity (see <a href="http://www.environmentalchoice.com">http://www.environmentalchoice.com</a>). These projects will need to provide Natural Resources Canada with a Letter of Opinion from the Environmental Choice<sup>M</sup> Program administrator, as stipulated in the Environmental Choice<sup>M</sup> Program literature, with their *Technical Project Information* application.

The *Technical Project Information* application form can be found in Annex B or downloaded from the program's Web site at <a href="http://ecoaction.gc.ca/ecoRP">http://ecoaction.gc.ca/ecoRP</a>. The *Technical Project Information* application and related documents must be provided in binders. Please provide <a href="https://ecoaction.gc.ca/ecoRP">one hard copy</a> of the *Technical Project Information* and related document and <a href="https://ecoaction.gc.ca/ecoRP">one hard copy</a> of the documents in PDF format are acceptable.

On receipt of the *Technical Project Information* application, Natural Resources Canada will verify that all required information has been submitted. The Department will then issue **a letter acknowledging receipt** of the document. If the *Technical Project Information* application is incomplete or information is missing, **the** *Technical Project Information* **application** will **be rejected** and the <u>proponent will have to resubmit</u> the *Technical Project Information* with the required information.

Natural Resources Canada will undertake a technical review of the *Technical Project Information* applications as they are received, <u>provided that:</u>

- the applications are complete;
- funds are available and the project may be eligible for a Contribution Agreement;
- the expected construction start date of the project is less than 8 months from the date of receipt of the *Technical Project Information*; and
- the expected date of commissioning of the project <u>is less than 20 months from the date of receipt of the *Technical Project Information*.</u>

Natural Resources Canada will have 30 days to review the information provided under the *Technical Project Information* application and determine the eligibility of the project for a contribution agreement.

If information needed to complete Natural Resources Canada's technical review of the *Technical Project Information* application is missing, the department will request the additional information and will consider the date of reception of the additional information as the new date of reception of the *Technical Project Information* application and will continue its technical review accordingly. Proponents will have 30 days to provide the additional information requested. Failure to meet this timeline may result in the *Technical Project Information* application for the project being rejected from further technical review and being placed on the waiting list (see below).

Upon a positive review of the *Technical Project Information*, and subject to all other conditions of the program, including availability of funds, Natural Resources Canada will proceed to negotiate and sign a contribution agreement with the proponent.

When all program contribution funding has been committed, Natural Resources Canada will establish a <u>waiting list</u> of prospective projects based on the date and time of receipt of *Technical Project Information* applications. The department will verify and begin the technical review of

projects on the waiting list only when contribution funding becomes available.

A proponent will officially become an Eligible Recipient once it has signed a contribution agreement with Natural Resources Canada. The signing of a contribution agreement signifies that the Eligible Recipient qualifies for an incentive payment under the ecoENERGY RP, subject to meeting all of the requirements and terms and conditions set out in the contribution agreement for the project.

Proponents that start construction of their projects before signing a contribution agreement do so at their own risk.

Natural Resources Canada will list projects with signed contribution agreements on its Web site. Information will include the proponent's name, the type, size and location of the project, as well as its anticipated commissioning date. The aggregated amount of funding provided for all projects with signed contribution agreements will also be shown.



### Step 3: Environmental Assessment Process

In most cases, a proponent will need to conduct an environmental assessment pursuant to the *Canadian Environmental Assessment Act*, which, depending on the nature of the project, may be a screening, comprehensive study or review panel type assessment. Certain projects may be captured under the Exclusion List Regulations of the *Canadian Environmental Assessment Act* and will not require an environmental assessment. In all cases, proponents must comply with all applicable federal legislation, such as the *Species at Risk Act*, the *Migratory Birds Convention Act* and the *Fisheries Act*.

Natural Resources Canada will become a Responsible Authority under the *Canadian Environmental Assessment Act* for a project once a contribution agreement is signed.

#### **IMPORTANT NOTICE**

NRCan will continue to participate as a Responsible Authority for three months in the environmental assessment of projects for which the federal environmental assessment process was started under the program's approval process established in the April 2007 terms and conditions. If a proponent is not able to submit a *Technical Project Information* application and sign a contribution agreement for a project within this timeframe, NRCan will no longer be a Responsible Authority for that project.

The Department will resume the review of the project's environmental assessment once the *Technical Project Information* requirements are met and a contribution agreement is signed.

For a screening-level assessment, Natural Resources Canada will aim to decide on the project within eight months of receiving the Environmental Impact Statement (EIS). The proposed timing is a program objective and will depend on several factors, including: co-ordination with other responsible and/or federal authorities; consultations with the public and Aboriginal and First Nations people; harmonization with the province or territory; the quality of the initial EIS; and the quality of

additional information received following the federal review. Projects that require a comprehensive study or a review panel assessment may require a longer period of time to assess.

Although a contribution agreement may be signed prior to completion of an environmental assessment, a positive decision must be rendered prior to Natural Resources Canada making any payment of the incentive on the production from the project under the contribution agreement.

Any information related to the environmental assessment of proposed projects is public information and, as such, will be made available to the public in accordance with the *Access to Information Act*, through the *Canadian Environmental Assessment Registry* at: http://www.ceaa.gc.ca/050/index\_e.cfm.

The cost to undertake an environmental assessment of a proposed project varies from project to project. Proponents will assume the financial cost related to the development of an environmental assessment.

# Step 4: Notification of the Start of Construction

After signing a contribution agreement for a Qualifying Project, the Eligible Recipient will have six months to demonstrate that construction of the project is ready to start as described under a) through d) below.

This step verifies that the Eligible Recipient is actually proceeding with construction and is not hampered by technical or financial difficulties, such as late delivery of equipment, investor or financial delays or other unforeseen problems with the project at the time of signing the contribution agreement. The Eligible Recipient must provide the following:

- a. a letter of approval from a financing authority to finance the project;
- b. a letter from the equipment manufacturer or supplier for the Qualifying Project, confirming the purchase order of the equipment, total nameplate capacity ordered and expected date of delivery;
- c. where applicable, a letter from an electrical utility or other purchaser, confirming that the power purchase agreement has been signed and confirming the expected annual production to be sold;
- d. a report that shows that the site construction has started (e.g. start of site and project engineering) and providing an update on the milestones of the project and on its final commissioning date.

On receiving the above information, Natural Resources Canada will verify it and issue a *Notice of Start of Construction* confirming that it has been made aware that construction has started.

Failure to provide the above information during the allotted six-month period after signature of the Contribution Agreement by both parties will result in the termination of the Contribution Agreement and the removal of the project from the program's approval process. The proponent can reapply, but must re-submit a new *Technical Project Information* application (Step 3).

The Eligible Recipient may start construction of the project at any time before the six-month period.

### Step 5: Commissioning of a Project

Because all projects must be commissioned before March 31, 2011, Natural Resources Canada requires that Qualifying Projects be commissioned within one year after the *Notice of the Start of Construction* (Step 4) has been issued. Natural Resources Canada may grant an extension beyond the 12-month construction period in the event that the project experiences delays beyond the proponent's control. In such case, the proponent will need to set construction milestones that are acceptable to Natural Resources Canada showing that construction is advancing as planned and that it will be able to commission the project as per these established milestones. Quarterly reports on construction will be requested by Natural Resources Canada. No extension will be granted beyond March 31, 2011.

Unless the Eligible Recipient can provide satisfactory assurances of its ability to complete the project within a period that is acceptable to Natural Resources Canada, the Department will issue a *Notice of Termination of the Agreement*.

Once a project has been built and commissioned, the Eligible Recipient must send to Natural Resources Canada a commissioning report that is signed by a professional engineer registered in Canada. The report must state the date of the project's commissioning and its rated capacity, and reconfirm the Qualifying Project's expected annual production based on long-term assessment of the resource.

For those projects that require EcoLogo<sup>M</sup> certification, the results of the Terra-Choice certification process must be provided as well as a copy of the EcoLogo<sup>M</sup> Certification with the commissioning report or as soon as it is available after commissioning.

Once Natural Resources Canada has received and approved the commissioning report, it will issue a letter of acknowledgment and acceptance of the report.

Once accepted and when the environmental assessment for the project has been approved, the Eligible Recipient will then be able to claim the incentive on the terms set out in the Contribution Agreement for the project.

Natural Resources Canada will update its Web site to indicate the date of the Qualifying Project's commissioning and environmental assessment status.

#### 4 TERMS OF THE INCENTIVE

### 4.1 Level of the Incentive

The ecoENERGY RP will provide an incentive of 1 cent per kilowatt hour (kWh) of production over 10 years for eligible projects within the following limits:

- 1. The budget for the ecoENERGY RP is fixed over the 14 years and for each year it will be in operation.
- 2. Contribution Agreements are based on expected power production levels established prior to the commissioning of the project. Contribution Agreements will outline the maximum amount of

incentive payable over the 10 years of the agreement, as well as the estimated annual production. Once a Contribution Agreement is entered into, funding for the following 10 years will be committed and set aside for that particular project. It must be recognized, therefore, that:

- the initial estimate of expected production contained in the project's resource assessment must be as accurate as possible; and
- the program cannot accommodate significant variability on a year-to-year basis.
- 3. Payment is <u>subject to there being an appropriation by Parliament</u> for the year in which the payment of monies is to be made.

# 4.2 Payment of Eligible Production

The Eligible Recipient must maintain separate records for the net production from the Qualifying Project, including bills of sale to the first purchaser(s) of the electricity. Subsequent sales of the energy production do not qualify for the incentive.

### 4.3 Period of Payment

The incentive can be claimed for the total eligible production of a Qualifying Project starting on the day after the day of the Qualifying Project's commissioning and up to, and including, the day of the 10th anniversary of the commissioning.

### 4.4 Maximum Eligible Production and Annual Eligible Production

The Contribution Agreement will specify the maximum production eligible for the incentive over the 10-year period, which will be the basis for determining the payment of the incentive annually and over 10 years.

The Maximum Eligible Production for the 10-year period is calculated as the expected annual production of the Qualifying Project, as provided in the *Technical Project Information* application for project, and as limited by the maximum capacity factor level for the technology, divided by 365 days and multiplied by the total number of days in the 10-year period of the program.

The Maximum Annual Eligible Production is calculated as the expected annual production of the Qualifying Project, as provided in the *Technical Project Information* application for project, and as limited by the maximum capacity factor level for the technology, divided by 365 days and multiplied by the total number of days in the particular year being considered.

#### 4.5 Maximum Contribution

Total funding for a project will be based on the maximum eligible production, as agreed in the Contribution Agreement between the proponent and Natural Resources Canada, times the program's incentive per kWh.

In any given year, payment of the incentive will be made for the full net production of the Qualifying Project up to the Maximum Annual Eligible Production. If a project is over-producing in a given year, unclaimed amounts from previous years of under-production may be paid up to the actual production, pending availability of funds. If a project constantly over-produces, the difference between the over-production amount and the Maximum Annual Eligible Production will be paid on the first quarter of the next fiscal year, and this amount will be counted on the new year's

Maximum Annual Eligible Production. The Contribution Agreement will be deemed terminated when the total maximum eligible production has been reached or when the 10-year period has been completed.

The amount of funding allocated to an Eligible Recipient for a Qualifying Project under a contribution agreement is not confidential information. In October 2005, the Government announced that it will proactively disclose the awarding of grants and contributions over \$25,000 as part of its Management Improvement Agenda. Grants and contributions are reported in the *Public Accounts of Canada* at: <a href="http://www.tpsgc-pwgsc.gc.ca/recgen/txt/index-eng.html">http://www.tpsgc-pwgsc.gc.ca/recgen/txt/index-eng.html</a>

#### 5 PROJECT REPORTING

# 5.1 Invoicing of Payment Due

The Government of Canada's fiscal year is the period beginning on April 1 of any year and ending on March 31 in the next year.

Claims for payment of the incentive on eligible production will be submitted within 30 days following the quarterly periods ending June 30, September 30, December 31 and March 31 of each year.

Payments will be made against measured eligible production for the 10-year period.

Claims for payment of the eligible production from a Qualifying Project must include the following:

- an invoice from the Eligible Recipient to Natural Resources Canada indicating the net energy production from the Qualifying Project and the total incentive amount claimed for the period;
- a table showing the monthly gross production, the energy used and the net production for the Qualifying Project for that period; and
- bills of sale to a utility or a power purchaser indicating the monthly net production sold and
  the price of electricity for the Qualifying Project for that period when electricity was sold or
  proof of the net monthly production from a vested authority when electricity was used for its
  own consumption.

# 5.2 Annual Reporting on the Project's Performance

In addition to the quarterly energy production provided by the Eligible Recipient for payment of the incentive, Natural Resources Canada will request that the Eligible Recipient provides a report annually at the end of each operational year showing the actual performance of the Qualifying Project including, where required, annual air emission levels.

The performance information will consist of the monthly aggregated energy production of the Qualifying Project, as well as an assessment of the resource level for that month. An analysis of the quarterly performance of the Qualifying Project will indicate reasons for poor or high performance.

When EcoLogo<sup>M</sup> Program certification is required, the report must include the air contaminants emissions report, as provided to the Environmental Choice<sup>M</sup> Program, to validate the certification.

Annual reports are to be provided within 3 months of the anniversary of the commissioning date.

Failure to provide these annual reports will constitute a breach of agreement and the ecoENERGY RP incentive payments will stop.

# 5.3 First-Year Reporting on the Project's Costs and Air Emissions Reductions

After the first year of operation, the Eligible Recipient must provide a report containing the following:

- 1. **Information on costs of the project**: The Eligible Recipient must provide a costing report providing a summary of factual development and installation costs for the Qualifying Project as well as expected operation and maintenance (O&M) costs over 20 years using the costing spreadsheet under Annex C or completing the costing form on the program's website <a href="http://ecoaction.gc.ca/ecoRP">http://ecoaction.gc.ca/ecoRP</a>.
- 2. **Information on air emissions reductions**: The Eligible Recipient must show the expected Greenhouse Gases and air contaminant emission reductions per year, given in units of energy produced (megawatt hours per year [MWh/yr]) for the ecoENERGY RP portion of the power plant only. Calculations must show the assumptions and methodology of calculations, including energy sources displaced.

For biomass projects, the Eligible Recipient must report previous air emissions for the feedstock that is used in the new facility and show reductions of the new air emissions levels, as reported by the Environmental Choice<sup>M</sup> Program certification process. If this feedstock was not previously used, or if it was used off-site, the Eligible Recipient must provide estimates and show the methodology and calculations that were used to derive previous air emissions and justifications for them.

First-Year Reports are to be provided within three months of the first anniversary of the commissioning date of the project.

Proprietary, business-sensitive information on projects will be kept strictly confidential within the limits set out in the *Access to Information Act*. Only aggregated information will be used by Natural Resources Canada to show the progress of the industry.

# 5.4 Repayable Contribution Clause

The ecoENERGY RP aims to make low-impact renewable electricity-generation technologies competitive with conventional generating technologies by covering part of the premium cost for clean electricity. The program is not intended to subsidize projects that will generate undue profits or that may already be economical. For this reason, every CA will include a repayable contribution clause that will apply if the project receives, at some point within the 10-year payment period, substantially higher energy revenues for its production in excess of a standardized price.

The program will use the cumulative revenue of a project as a proxy for a profit benchmark. From the cumulative revenue, a Current Unit Value Received (CUVR) will be calculated and compared against a standard threshold price over which projects will not require the incentive under the ecoENERGY RP. If the excess of CUVR over standard threshold price exceeds the incentive, there

will be an obligation to repay the incentive.

The calculation for the repayment clause must include all market revenues of the eligible project cumulated from the time of its commissioning, including the sale of all electricity produced by the project, and any sale of its environmental attributes, but excluding the ecoENERGY RP contribution itself.

The standard threshold price is set so that a project that reaches it will receive more than adequate revenues to achieve a reasonable rate of return. Experiences of recent requests for proposals in Canada, as well as trends in Canadian electricity prices in both regulated and deregulated provinces, show that an acceptable average price of generating electricity from low-impact biomass, hydro and wind renewable energy sources is estimated to be in the range of 8 cents to 12 cents per kilowatt hour (kWh), depending on the size of the project, its proximity to the distribution or transmission line, the technology used and the availability of resources.

Thus Natural Resources Canada has set two standard threshold prices for low-impact biomass, hydro and wind technologies, based on the size of projects, to take into account the higher costs per megawatt (MW) associated with smaller projects:

- 1. a Qualifying Project smaller than or equal to 10 MW of capacity: 13 cents/kWh or \$130/MWh
- 2. a Qualifying Project larger than 10 MW of capacity: 12 cents/kWh or \$120/MWh

Recognizing that marine energy and photovoltaic projects may be implemented during the allocation of the program and that proponents of these technologies will want to benefit from the incentive of the ecoENERGY RP, and recognizing that these projects are currently not cost-competitive with conventional energy sources and will require higher subsidies to be implemented, Natural Resources Canada has set a specific standard threshold price level for all photovoltaic and marine energy projects at 43 cents/kWh or \$430/MWh.

For all other low-impact renewable technologies, Natural Resources Canada may consider specific levels of standard threshold price according to the cost-competitiveness of the technology. These will be discussed and set on a case-by-case basis.

Natural Resources Canada also recognizes that a project's annual costs may increase over time and that this increase will have an influence on the project's profitability. Hence, it recognizes that its proxy methodology may need to be revised periodically to assess whether projects are receiving a reasonable rate of return. Thus, Natural Resources Canada will review all standard threshold prices biennially.

#### How is the Current Unit Value Received (CUVR) calculated?

Example of a CUVR calculation:

Provided by Proponent		Notes
Cumulative Revenue (CR)	\$47,500,000	
Net Cumulative Incentive Received (NCIR)	\$3,000,000	Deduct any repayment made
		previously
Total Cumulative Production (CP) in MWh	395,000	
Size of qualified project in MW	50	
If PV or Marine Energy Project, check box with an "X."		
in 1 V of Marine Energy 1 Toject, check box with an 7.		
Automatically Calculated		
Standard Threshold Price (STP) in \$/MWh	\$120.00	Different STP for different sizes
Current Unit Value Received (CUVR) where CUVR = CR ÷ CP in \$/MWh	\$120.25	
Excess Value Received (EVR) where EVR = CUVR - STF	\$0.25	Payment of incentive suspended
in \$/MWh (If positive, incentive payment is suspended for one year)		
· · · J · · · /		
Program Incentive (PI) in \$/MWh	\$10.00	Fixed
Demonstriit Determination (DD F)/D DI)	<b>* 0.7</b> 5	
Repayability Determination (RD = EVR – PI)	\$-9.75	
If the RD is less than or equal to zero, no repayment.		No repayment
If RD is positive: the Repayable Amount (RA) = RD x CP, up to NCIR.		

Table 1: Calculating the CUVR under the ecoENERGY RP

The Cumulative Revenue is defined as revenue from the sales of Eligible Production generated by the Project, and the environmental attributes of that Eligible Production, to the extent received by the Proponent for its own account, on a cumulative basis from the day after the Commissioned Date up to the end of the period of calculation, but does not include the incentive paid under the contribution agreement.

The CUVR is defined as the value obtained from all cumulative revenue of the project, exclusive of program funding, divided by the cumulative production at a given time.

– In our example, the CUVR equals the cumulative revenues, \$47,500,000 divided by its cumulative production 395,000 MWh, or \$120.25/MWh.

Payment of the ecoENERGY RP incentive on a project is suspended for the next year if the EVR, calculated as being the value of the CUVR minus the STP, is positive.

- In our example, the STP is set at \$120/MWh because the project is not PV, and it is more than 10 MW. The EVR is equal to \$0.25/MWh and is positive, thus the payment of the incentive is suspended for one year.

If this EVR is greater than the ecoENERGY RP incentive, the Eligible Recipient will repay the difference (RD) multiplied by the CP, up to the total amount of the Net Cumulative Incentive Received.

– In our example, because the EVR is less than the program's incentive level, the proponent does not need to repay any amount already paid by the program.

Natural Resources Canada has developed a calculator (CUVR Calculator) to report the EVR from Qualifying Projects which is available on the program's Web site at <a href="http://www.ecoaction.gc.ca/ecorp">http://www.ecoaction.gc.ca/ecorp</a>.

#### **6 OTHER ADMINISTRATIVE REQUIREMENTS**

### 6.1 Audit Rights

The recipient must:

- keep proper accounts and records of the net production by the Qualifying Project, including bills of sale to the first purchaser(s) of the electricity produced, for three years from the date of termination of the incentive payments
- keep proper accounts and records of the net production by the Qualifying Project, where the
  recipient's eligible generation is for its own consumption or where the recipient is an
  integrated electrical utility, including certified net production audit reports for a period of
  three years from the date of termination of the incentive payments
- permit Government of Canada representatives to audit, inspect and make copies of those
  accounts and records at all reasonable times, up to three years from the date of termination of
  the incentive payments
- grant Natural Resources Canada's authorized representatives access to audit and inspect the Oualifying Project and related facilities
- furnish Natural Resources Canada's authorized representatives with such information as they may from time to time reasonably require with reference to the documents referred to herein
- promptly refund to Natural Resources Canada any overpayments of the contribution disclosed by an audit.

# 6.2 Partnerships and Joint Ventures

The general partner or operator of a joint venture, or other such partnership, should apply for the ecoENERGY RP on behalf of all the owners, with appropriate disclosure of the owners and proportionate ownership of the qualifying project. The partner or operator will be responsible for all

of the record keeping and audit requirements on behalf of the joint venture and will be considered to be the Eligible Recipient on behalf of the joint venture.

Natural Resources Canada will ensure that the maximum amount payable to the Eligible Recipient for the program's duration does not exceed the set maximum amount payable to any recipient. In addition, Natural Resources Canada will ensure that the maximum amount payable to each individual owner, as determined by the owner's proportionate share of this Qualifying Project and any other amount payable through other Qualifying Projects, does not exceed the set maximum amount payable to any Eligible Recipient for the program's duration.

## 6.3 Transferability

In advance of a proposed transfer of ownership of all or part of a Qualifying Project, the Eligible Recipient may seek a determination from Natural Resources Canada on whether the proposed purchaser is eligible to receive the incentive from the program. The Eligible Recipient must provide to Natural Resources Canada written notice of any transfer of ownership of all or part of a Qualifying Project and the name and address of the transferee within 30 days of the transfer. Natural Resources Canada will then determine if the new owner is eligible to receive the incentive. The eligibility will be based on the set maximum amount payable to any recipient and on other terms and conditions of the ecoENERGY RP. Where the new owner is ineligible, Natural Resources Canada will not consent to the assignment of the Contribution Agreement to the new owner. Where the new owner is eligible, Natural Resources Canada will consent to the assignment of the Contribution Agreement to the new owner.

# 6.4 For Further Information

For further information on the ecoENERGY RP, contact:

ecoENERGY for Renewable Power program Natural Resources Canada 615 Booth Street, room 160 Ottawa (Ontario) K1A 0E9 Telephone: 613-996-4779

Fax: 613-995-8343

E-mail: ecoenergyrp@nrcan.gc.ca http://www.ecoaction.gc.ca/ecorp

# Annex A Notice of Project Application form

Notice	e of Project Application (NPA	A)			To be completed by Natural Resources Canada	
Part I				Registration Number:		
Date	of Application (yyyy/mm/dd	):				
a.	Name of proposed project:					
b.	Proposed technology (wind/h	ydro/PV/biomass/other (specify):				
C.	1) Name of organisation, bus	iness or institution:				
	2) Business registration num	ber, if applicable:			Attach proof	
	3) Jurisdiction of business (p	rovince or territory):				
d.						
e.					Attach map	
	2) Province or territory of pro	posed project:				
f.	Proof of access to the land a	nd energy resource:			Attach preliminary agreement with owner	
3) Jurisdiction of business (province or territory):  d. Name and title of project manager (contact person): (Please complete Part II below.)  e. 1) Location of proposed project (nearest landmark):  2) Province or territory of proposed project:  f. Proof of access to the land and energy resource:  g. Proof that municipal/regional authorities are aware of the project  h. 1) Expected purchaser of output (e.g. name of utility, power pool):  2) Proof of interconnection request:  i. Estimated capacity of proposed project (MW):					Attach letter from authorities	
h.	1) Expected purchaser of out	put (e.g. name of utility, power pool):				
	2) Proof of interconnection re	equest:			Attach response from regulatory body	
i.	Estimated capacity of propos	ed project (MW):		MW		
j.	Expected average annual pro	oduction (GWh):		GWh		
k.	Expected date of commission	ning (year/month):				
I. Provide a project description  Environmental Assessment acee.gc.ca/013/0002/ops_pp		Act (available at: http://www.ceaa-			Attach document	
m.					Attach document	
	, ,				_	
Note:	rent from d, please print name Failure to provide all of th	: e above information will result in non-accepta	nce o	f the NPA. Appl	ications for projects	
Note:		March 31, 2011 will be rejected.  e2, i and k above will be posted on the program's	Weh	site:		
	http://www.ecoaction.gc.ca/		VVCD			
Part II	: How can we reach you?			Part III: Mail NF attached docu		
Proje	ct Manager (as in d):			ecoENERGY for Renewable Powe		
Comp	any/Organization			Natural Resources Canada		
Position:				615 Booth Street, Room 160		
Addre	ess:			Ottawa ON K1	A 0E9	
				Tel.: 1-613-996-	-4779	
Telep	hone:			E-Mail: ecoener	gyrp@nrcan.gc.ca	
E-Mai	l:			Fax: 613-995-8	343	
Fax:						

To formally apply to the ecoENERGY RP program, a proponent must complete and send the *Notice* of *Project Application* form (Part I and II) and attach all required supporting documents. The following points provide further explanation of requested information:

- a. **Name of the proposed project**: Provide the name of the proposed project in the space provided in the form. Please consider choosing a name if it has not yet been done so that we can better identify the project.
- b. **Proposed technology (wind, low-impact hydro, PV, biomass, other [specify])**: Provide the name of the technology.
- c. **Name of proponent**: Provide the organization's name, business registration number and jurisdiction of business, if applicable.
- d. **Contact name of the project manager**: Provide the name and position of the project manager. Provide co-ordinates in Part II.
- e. **Location of the proposed project within a province or territory**: Provide the name of the nearest landmark that is used to identify the project and the name of the province or territory in the space provided. Attach an area map showing the designated site of the project and coordinates of the four corners of the project site.
- f. **Proof of access to land and energy resource**: The proponent must show that preliminary agreements are in place to secure rights to the energy resource through access to land area sufficient to build the project (provide a list of and type of land agreements and show the area covered by preliminary agreements on a map) and/or rights to the resource itself, where applicable (e.g. water rights for hydro projects or feedstock for biomass projects).
- g. **Proof that municipal/regional authorities are aware of the project**: Attach a letter from appropriate authorities showing that they have been made aware of the project.
- h. Expected purchaser of the output (e.g. electric utility, power pool) and proof that the project has received pre-approval to connect to the grid: Attach a letter from a regulatory body or utility showing that expected rated capacity can be connected to the grid or if the project is part of a bidding process, such as a provincial Requests for Proposals, provide proof of application into the process along with proof of pre-approval of interconnection. If the project is not successful in the bidding process, the proponent will need to show proof that the project can still be interconnected and will need to re-confirm their expected date of commissioning when the bidding selection is made public. Failure to do so could result in a rejection of the project.
- i. **Expected rated capacity of proposed project in MW**: Provide the total rated capacity of the project (only the capacity that is qualifying to receive the incentive).
- j. **Expected average annual production, in GWh, of the proposed project**: Provide the expected annual production (only the part qualifying to receive the incentive).

- k. **Expected date of commissioning (month and year) of the proposed project**: To the best of the proponent's knowledge, provide the date, inclusive of environmental assessment requirements.
- 1. **Description of the project**: The project description must follow the *Canadian Environmental Assessment Act* (CEAA) guideline: "OPS EPO/5 2000 Preparing Project Descriptions under the *Canadian Environmental Assessment Act*". It will be used to make a determination as to whether or not the project requires an environmental assessment under the Act; and if it does, it will be used to start co-ordination of the environmental assessment process (see link at: <a href="http://www.ceaa-acee.gc.ca/013/0002/ops\_ppd\_e.htm">http://www.ceaa-acee.gc.ca/013/0002/ops\_ppd\_e.htm</a>).
- m. **First Nation/Aboriginal Contacts**: Provide contact names and coordinates of all First Nation/Aboriginal groups that may be impacted by the project and provide status of consultation with each of them by proponent.

Once the *Notice of Project Application* has been completed, a person of responsible authority in the organization must sign and date it. Please provide **one hard copy and one electronic/digital copy of the** *Notice of Project Application* and related attachments to the address shown in Part III. Scanned documents in PDF format are acceptable.

### **Annex B Technical Project Information**

To demonstrate that the project is at a significantly advanced stage of planning and development and to provide information required for the contribution agreement, the project proponent will be required to provide technical information on the project as requested in the following *Technical Project Information* (TPI) document (see explanations on information requested after each section).

#### Section 1: Information on Proponent

#### ecoENERGY for Renewable Power

Technical Project Information (TPI) form

1. The information requested in this application form corresponds to the requirements of the terms and conditions for ecoENERGY for Renewable Power. The TPI form can be submitted at any time after the NPA has been accepted and the expected commissioning date of the project is less than 20 months from receipt of TPI. Ensure that all requested information is enclosed with your application. Please provide one hard copy and one electronic/digital copy of the application and attachments. Scanned documents in PDF format are acceptable.

(The letters in left column correspond to those letters in Step 2 of the program's Terms and Conditions document.)

Address of the legal entity:    Date of NPA registration:   Technology type:   Wind   Biomass   Hydro   Solar   Other:	
Date of NPA registration:   Syry	
b1 Legal name of the proponent:    D2   Address of the legal entity:   Street   City	y/mm/dd
b2 Address of the legal entity:    City   Province   Postal code	
City Province Province  Legal status (e.g. limited partnership, corporation, Crown corporation) of the proponent:  Jurisdiction of the business (province or territory):  Type of activity:     Downership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):    Downership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):    Downership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):    Downership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):    Downership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):    Downership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):    Downership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):    Downership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):    Downership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):    Downership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):    Downership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):    Downership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):    Downership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):    Downership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):    Downership of the project (list all ownership ownership ownership ownership	
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corporation) of the proponent:  Jurisdiction of the business (province or territory):  Type of activity:   b3 Ownership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):  1	
Jurisdiction of the business (province or territory):  Type of activity:  b3 Ownership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):  b4 List of related companies participating in other ecoENERGY for Renewable Power projects, if any (show on a separate page if more than four):  c Contact person for the project:  Contact address (if different from b2):  Street  Business registration number:  1  9/6  2  9/6  1  2  1  2  3  4  Total  0,00  %	
b3 Ownership of the project (list all owners and their proportion in percentages, show on a separate page if more than four):  1	
percentages, show on a separate page if more than four):  2	
b4 List of related companies participating in other ecoENERGY for Renewable Power projects, if any (show on a separate page if more than four):  c Contact person for the project:  Contact address (if different from b2):  Street  2  96  96  1  2  2  3  4  Title	
b4   Total   0,00 %    Total   0,00 %    List of related companies participating in other ecoENERGY for Renewable Power projects, if any (show on a separate page if more than four):    Contact person for the project:   Title   Contact address (if different from b2):   Street	
Total  List of related companies participating in other ecoENERGY for Renewable Power projects, if any (show on a separate page if more than four):  Contact person for the project:  Contact address (if different from b2):  Total  1  2  3  4  Title	
b4 List of related companies participating in other ecoENERGY for Renewable Power projects, if any (show on a separate page if more than four):  c Contact person for the project:  Contact address (if different from b2):  Street	
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more than four):  2 3 4  Contact person for the project: Contact address (if different from b2):  Street  Title	
c Contact person for the project: Contact address (if different from b2): Street	
c Contact person for the project:  Contact address (if different from b2):  Street	
Contact address (if different from b2): Street	
City	
[ City ]	
Province Postal code	
Other contact information: Telephone	
Facsimile	
E-mail	

a) Name of the proposed project, technology type and ecoENERGY for Renewable Power registration information: Proponents are requested to use the same name of the project as previously given in the *Notice of Project Application*. Technology type must be ticked off. Other technology types must be specified in space provided. The registration number and date of approval of the registration must be provided as shown in the *Notice of Project Application* approval letter from Natural Resources Canada following registration of the project. This information will be posted on the program's Web site;

- b) Legal information on the proponent:
  - i) Legal name of proponent: Show business, corporation or organization's legal name in space provided. This information will be posted on the Web site;
  - ii) Legal information on the proponent: Show legal status, address of business, business registration number, jurisdiction of registration and type of activity as indicated in legal documents;
  - iii) Ownership of project: Show list of partners in project and percentage of shares. If a limited partnership was created for the purpose of the project, indicate partners and percentage of shares;
  - iv) List of related companies participating in other ecoENERGY Renewable Power projects. Proponents need to identify any related companies that have shares in other ecoENERGY Renewable Power projects. A listing of related companies is sufficient for the purpose of the *Technical Project Information* application but Natural Resources Canada may require additional information to assess eligibility of shareholders to the program.
- c) Contact person for the project: Indicate name of the person responsible for project development in the space provided and include address and coordinates of this person if different from point b above.

Section 2: Information on Proposed Qualifying Project (QP)

	n 2: Information on Proposed Quai	<u>ujying Pro</u>	ojeci (QP	)			
d	Location in the province or territory - nearest landmark: (provide maps in A2)						
e	Capacity of the proposed project in MW:  If this is incremental capacity, check box:	Total		ecoENERGY		Non- ecoENERGY	
f	Expected average annual production in GWh: (provide calculations in A5)	Total		ecoENERGY		Non- ecoENERGY	
g	Expected date of commissioning of the project: (show timeline of construction phases in A7)			yyyy/mm/dd			
h	Information about the power plant:	Manufacturer:		Model:		Size:	
i (wind)	Expected average annual wind speed at the site: (show how this is estimated in A4)		m/s @		m (hub height)		
i (hydro)	Expected average annual water flow at the site: (show how this is estimated in A4)		m <sup>3</sup> /s @		m (waterfall)		
i (PV)	Expected average annual solar insolation at the site: (show how this is estimated in A4)		kWh/m <sup>2</sup> @		angle		
i (biomass)	Expected average annual feedstock consumption: (show how this is estimated in A4)		m <sup>3</sup>	Specify type			
i (other)	Expected average annual resource at the site: (show how this is estimated in A4)		(quantity)	Specify type			
j	Date of the Letter of Opinion from the Environmental Choice Program, if applicable (provide a copy in A12)				yyyy/mm/dd		
k	Expected purchaser of the output (e.g. electric utility or power pool) and annual production level as per Power Purchase	* *				G	Wh
l	Expected price of electricity sold to power purchaser (provide an estimate for the power pool)			¢/kWh			

d) Location of the proposed project (nearest landmark). Provide area maps in colour and coordinates of project in Annex A2. Note that this may already have been provided in the NPA but it is required to show the latest information update;

- e) Capacity of the proposed project in megawatts (MW), indicating ecoENERGY and non-ecoENERGY capacities separately. The CRCE portion of the project must be shown as non-ecoENERGY capacity. For projects that are incremental developments of existing facilities, please check box and show incremental portion as ecoENERGY capacity and existing capacity as non-ecoENERGY capacity. This information will be posted on the Web site;
- f) Expected net average annual production of the Qualifying Project indicating program and non-program productions separately: As with point e above, please provide separate production levels for ecoENERGY and non-ecoENERGY portions of the project separately. Show calculations on how the expected net annual production was derived in a separate document (Section 3: Supporting Documents A5);
- g) Expected date of commissioning of Qualifying Project: This will be posted on the Web site. Show proposed timeline of construction phases (Section 3: Supporting Documents A7);
- h) Information on power plant: Show manufacturer, model and size of power plant. Provide technical specifications (Section 3: Supporting Documents A6);
- i) (Wind): Show expected average annual wind speed at the site at hub height: Specify speed, height and show how this was estimated (Section 3: Supporting Documents A4);
  - (Hydro): Show expected average annual flow at the site and height of fall: Specify flow, height and show how this was estimated (Section 3: Supporting Documents A4);
  - (Biomass): Show expected average annual feedstock used for expected production: Specify quantity and type of feedstock and show how this was estimated (Section 3: Supporting Documents A4);
  - (PV): Show expected average annual solar insulation at the site: Specify amount, angle and show how this was estimated (Section 3: Supporting Documents A4);
  - (Other): Show expected average annual resource at the site: Specify amount and show how this was estimated (Section 3: Supporting Documents A4);
- j) Ecologo Letter of Opinion: For hydro and biomass project, provide date of issuance of Letter of Opinion from Environmental Choice<sup>M</sup> Program and copy of letter
- k) Expected purchaser of the output (e.g., electric utility, power pool) including expected annual production level as shown in Power Purchase Agreement (PPA) or in proposal of PPA when applicable;
- l) Expected price of electricity sold to power purchaser. Provide estimate of annual average price if electricity is to be sold to power pool.

### Section 3: Supporting Documents

The following information must be attached to your TPI. Check the box when it is attached and label each piece with the letter assigned for the information as indicated in the left column below. For more information, refer to the ecoENERGY for Renewable Power Terms and Conditions document.

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Annex		Check	Remarks by Proponent
A1	Short description of the project, including size, site location, ownership of project and rationale		
A2	Area map of the project location, including coordinates and a detailed map showing the location of main elements of the project		
A3	Evidence that the proponent has access rights to the required land (e.g. license agreement, lease, easement agreement)		
A4	Description of the steps followed to evaluate the resource for the project and show calculations on how it was estimated.		
A5	Description of assumptions and calculations of expected net average electricity production on a yearly basis		
A6	Technical characteristics of the power plant (specification sheets and power curves)		
A7	Description of proposed construction stages and the expected starting date for the main stages. Provide timelines.		
A8	Other sources of government funding, if any		
A9	Permits or proof of approvals for construction and operation of the power plant and connecting station by responsible authorities		
A10	Approval of the inter-connection and transmission design by responsible authorities		
A11	Description of the metering plan (metering authority's name, meter's location and methodology for net energy measurements)		
A12	Environmental Choice Program's Letter of Opinion, if applicable		
A13	Proof that the project has received all other relevant federal permits that are not related to the environment		
	Proof that the project has received the required provincial/territorial permits that are not related to a federal environmental assessment		
A15	Letter of intent from financial partners or an indication of financial capacity to carry on the project		
A16	Update information on concerned First Nation/Aboriginal positions on project		

To demonstrate its commitment to the project and show that the project is in a substantially advanced stage, the proponent must also provide the following information in attached annexes:

- A1) Provide a short description of the project including size, site, location, ownership and rationale for the project (1-2 pages). This is for communication purpose and the information provided is not to be confidential;
- A2) Provide an **area map in colour** showing the location of the project and its coordinates and a detailed map showing location of the main elements of the project such as location of wind turbines for a wind farm, penstock and power plant for an hydro project and point of interconnection for all;

- A3) Provide evidence that the proponent has access rights to the required land for the project (e.g. legal document showing that lease or easement agreement as been made with all owners of land and resource);
- A4) Provide description of the steps followed to evaluate the energy resource for the project and show calculations on how it was estimated. A summary of the resource assessment report would be sufficient;
- A5) Show how the expected net annual average production was calculated from the resource assessment. Include assumptions and calculations used and show how line and transformer losses, as well as downtime due to environmental conditions or operational constraints, are accounted for. Biomass projects using dual energy sources must provide evidence that expected annual production will be met by eligible feedstock;
- A6) Provide technical characteristics of generators (manufacturer's specification sheets including power curve);
- A7) Provide timeline of proposed construction stages. Significant stages should be highlighted;
- A8) Show other sources of government funding if any. See section 2.15;
- A9) Provide permits or proof of approvals for construction and operation of power plant, transformer station (if separate) and connecting or switching station (if separate) by a responsible entity such as a utility or energy board;
- A10) Show approval of interconnection and transmission design by the transmission company or electrical utility;
- A11) Provide a description of metering plan including; 1) the name of the metering authority (Metering Service Provider or auditable responsible authority); 2) the meter's location (Point of Interconnection as defined by the program's terms and conditions); and 3) the methodology used to measure net energy, exclusive of losses and energy consumed by the project itself;
- A12) Letter of Opinion as provided by the Environmental Choice<sup>M</sup> Program stating eligibility of project to EcoLogo<sup>M</sup> certification. This will be required for all biomass and hydro projects. It may be required for other low-impact renewable energy technologies.
- A13) Provide proof that project has received all non-environmentally-related relevant federal permits such as NAV Canada and Transport Canada permits for wind farms or navigation permits for marine energy projects;
- A14) Provide proof that the project has received the required provincial/territorial environmental authorizations when these are not covered by or coordinated with the federal environmental assessment process and all other non-environmentally-related relevant permits;
- A15) Provide a letter of intent from financial partners or an indication of financial capacity to carry on the project;

A16) Provide status of consultation/contacts made with First Nation/Aboriginal groups that may be impacted by the project. This status should include a summary describing: possible project impacts on these First Nations/Aboriginal groups; positions of each of the First Nations/Aboriginal groups vis-à-vis the project; efforts undertaken by the proponent of the project to address First Nations/Aboriginal groups' concerns etc.

# **Annex C Costing Report for Qualifying Projects**

The ER must provide a costing report providing information on installation costs for the Qualifying Project (capital costs and average operation and maintenance (O&M) costs over 10 years) as shown below. A copy of the spreadsheet is available

from the program office or the program's website http://ecoaction.gc.ca/ecoRP.

Technology	Wind		Exp. Annual Prod. (GWh)	Exp. Cap. Factor
Size of Project		50	150	34,2%



Capital Costs		Costs CAD	% of Capital Cost	% of Total 20 Yr Cost	Cost per MW
Initial Development Costs	These costs include all pre-construction costs, including surveys, ressource assessments, environmental assessments*, project design and business plan costs.	\$2 800 000	3,4%	2,3%	\$56 000
	* When possible, please provide environmental assessment costs separately.	\$500 000	0,6%	0,4%	\$10 000
Component Costs	These costs include all manufactured component costs including their transportation to construction site to build project.	\$65 000 000	78,0%	52,7%	\$1 300 000
Construction and Labor Costs	These costs include all costs borne during construction of the project at the construction site and include all labor and machinery costs to build structures and housing, roads, interconnection, substation and SCADA system. It also includes legal, insurance and permitting costs for construction.	\$15 000 000	18,0%	12,2%	\$300 000
Total Capital Costs		\$83 300 000	100,0%	67,6%	\$1 666 000

Operation and Maintenance Costs/year		Yearly Cost	20 year cost (no adj.)	% of Capital Cost	% of Total 20 Yr Cost	Cost per MW	Cost per kWh (cent)
All Annual O&M Costs**	These costs are reported as average annual costs over the first 20 years of operation of the plant and include all labor and material costs as well as annual costs such as lease and insurance and allowances for periodic repair and replacements of components.	\$2 000 000	\$40 000 000	48,0%	32,4%	\$800 000	1,33
Total 20 year Costs			\$123 300 000		100,0%	\$2 466 000	

<sup>\*</sup> All numbers in the costing report are figurative and do not represent costs of a real project

<sup>\*\*</sup>Annual costs are reported over a 20-year period and should not be discounted in order to compare costs for different technologies