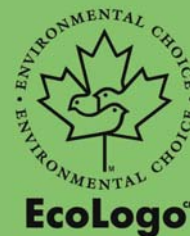


# EcoLogo<sup>CM</sup> Program Criteria Review Certification Discussion Document

CCD-003: Electricity-Renewable Low-Impact  
(G) TRADEABLE RENEWABLE ENERGY CERTIFICATES



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# 1 Instructions

EcoLogo<sup>CM</sup> is inviting stakeholders to participate in the review of CCD-003: Electricity-Renewable Low-Impact. This standard is being revised to assure that the current requirements continue to define environmental leadership for renewable low-impact electricity.

Currently, both the scope and the criteria statements found in CCD-003 determine what the EcoLogo<sup>CM</sup> Program considers to be environmental leadership amongst all types of electricity production in North America. During this review, the EcoLogo<sup>CM</sup> Program will re-examine both the scope and the criteria statements. As such, leadership will continue to be defined by first determining what types of electricity can be considered as “renewable low-impact” (i.e. scope), and second what requirements should be established to assure that facilities which produce these types of electricity are following best environmental practices according to the market (i.e. criteria statements).

Stakeholder contributions play a pivotal role in the EcoLogo<sup>CM</sup> standards development process.

To begin your participation and register for the review process:

- Send a request to [forums@ecologo.org](mailto:forums@ecologo.org) and specify your name (first and last name), indicating your affiliation, and your wish to participate in the CCD-003: Electricity-Renewable Low-Impact.

While the EcoLogo<sup>CM</sup> Standard Development Forum is the main tool for compiling comments, the EcoLogo<sup>CM</sup> program will also accept comments by e-mail and fax. These comments may also be posted to the online forum and will be viewable by all registered forum participants involved in the discussion.

This stakeholder consultation period will be open for 52 days beginning Nov 18, 2008. Comments must be received by January 9, 2009.

Your time and input in helping us to establish the most stringent environmental standards are very much appreciated. We will send you a reminder as our closing date for comments approaches.

Sincerely,

EcoLogo<sup>CM</sup> Program Management  
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## 2 Introduction

Tradeable Renewable Energy Certificates (TRCs) are not currently addressed in the EcoLogo<sup>CM</sup> certification criteria document for Renewable Low-Impact Electricity. However, TerraChoice Environmental Marketing Inc., the company which manages the EcoLogo<sup>CM</sup> Program, currently certifies TRCs as part of the separate *Green Leaf<sup>TM</sup> Tradeable Renewable Electricity Certificates Program (GL TRCs Program)*.

Because the marketing of TRCs is growing and to provide clarity about all of its available criteria for renewable low-impact electricity products, TerraChoice has decided that it would like to incorporate the GL TRCs Program within CCD-003. This later standard currently addresses bundled renewable low-impact electricity products but not unbundled renewable electricity products like TRCs.

Certain problems have been raised in the literature in relation to the marketing of TRCs and these have prompted the need to review the *GL TRCs Program* prior to its integration within CCD-003. This Certification Discussion Document (CDD) will attempt to resolve some of these concerns. This CDD will also initially present broad information regarding the market for TRCs in Canada and the U.S. The goal of the EcoLogo<sup>CM</sup> Program is to establish certification criteria, with the help of stakeholders that will assure that TRCs are leading environmentally.

EcoLogo<sup>CM</sup> CCDs are regularly updated and products are re-audited regularly to ensure certified products continue to offer significant environmental benefits.

## 3 Description

A TRC is an authorized electronic or paper representation of the qualitative environmental attributes associated with the generation of defined amounts of renewable low-impact electricity from a renewable low-impact electricity generating facility. TRCs allow the environmental, social and economic attributes of the electricity to be separated from the electricity itself, and passed on or sold as a separate unbundled product.

Currently, on the market, TRCs are often synonymous to Renewable Energy Certificates (RECs), Green Tags, and Renewable Energy Credits. Commonly, a TRC represents the qualitative attributes that were once associated to the production of 1MWh of renewable electricity. In the current *GL TRCs Program*, a TRC represents the environmental, social and economic attributes of 100 KWh from EcoLogo<sup>CM</sup> certified electricity generating facilities. For the purpose of this CDP however, any TRC referred in this document, unless otherwise clarified, will be assumed to be associated to 1 MWh.

## 4 Canadian and American Market Overview

According to the Worldwatch Institute (2007), TRCs' sales more than doubled between 2004 and 2005, from 1.6 million MWh to 3.8 million MWh and the National Renewable Energy Lab expects yearly TRC sales to hit 20 million MWh in 2010. Some of the major buyers from 2004 and 2005 that made sales nearly double include: Wells Fargo, Whole Foods, Vail Resorts and Starbucks (WorldWatch Institute, 2007). The value of TRCs, according to WorldWatch (2007), ranges between 1,50\$-20\$ per MWh on the retail market.

Tracking systems for the trade of TRCs will be available everywhere in North America in the fall of 2008 when the North American Renewables Registry will open. According to APX (2008a), currently available tracking systems across North America include:

**1) M-RETS in the Midwest**

*M-RETS tracks renewable generation located within the state and provincial boundaries of Illinois, Iowa, Manitoba, Minnesota, Montana, North Dakota, South Dakota, and Wisconsin. It also tracks Renewable Resource Credits (RRCs) for the State of Wisconsin.*

**2) NEPOOL GIS in New England**

*The NEPOOL GIS issues and tracks certificates for each MWh of generation produced in the ISO New England control area, including imports from neighboring control areas, and all load served. Each NEPOOL GIS certificate, in addition to renewable attributes, tracks eight types of emissions (including CO<sub>2</sub>).*

**3) PJM GATS in the Mid-Atlantic Region**

*In 2005 PJM, which spans all or parts of 13 states implemented a centralized registry and accounting system or Generation Attribute Tracking System (GATS) that enables renewable electricity markets and information disclosure of generation attributes including environmental, emissions, and fuel attributes. It services Delaware, Indiana, Illinois, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.*

**4) WREGIS in the Western States**

*WREGIS, established in June 2007, is an accounting system designed to issue, register and track RECs to verify compliance with regulatory requirements and participation in voluntary market programs throughout the western United States. The registry covers 14 western states, two Canadian provinces, and the Northern portion of Baja, Mexico. APX's market platform serves as the foundation for renewable energy certificate trading across this region.*

**5) Texas in Texas**

**6) North American Renewables Registry for all of the Rest of North America**

For states and provinces not covered by the markets described above, North American Renewables provides REC origination for clean generation facilities and full registry services. The Registry enables corporations to demonstrate climate change leadership through the use of renewable energy while fully substantiating these environmental claims. Companies benefit from the ability to easily track and manage their portfolio of RECs including the calculation and tracking of carbon avoidance attributes in the new Registry. Similarly, renewable energy retailers and brokers can use the Registry's services to conduct REC transactions, enhance the level of visibility, integrity, trust, and quality perception for their clients, and reduce the cost of manual and paper processes to track RECs and documents.

Because TRCs represent the environmental attributes of renewable energy production, TRCs markets interact with certain regulatory regimes pertaining to renewable energy and other emissions markets. These include *inter alia*:

- Cap-and-trade programs (e.g. the Northeast Regional Greenhouse Gas Initiative, the Midwest Greenhouse Gas Reduction Accord (MGGRA) and the Western Climate Initiative (WCI) (World Resources Institute, 2008b).
- Emissions control programs
- Renewable portfolio standards which mandate certain power companies to include a certain percentage of renewable power into their total energy portfolio (U.S. Department of Energy Energy Efficiency and Renewable Energy, 2008; Climate Change Solutions, 2005)
- Air emission regulatory limits for generating facilities

## 5 Other Eco-Label Standards

Currently some other RECs standards include:

- The Green-E standard in the U.S (Green-E, 2007)
- The RECs International standard in Europe (RECs International, n.d.)

## 6 Discussion Points of Unresolved Issues

This section contains several discussion points for which we seek stakeholder input to help us clarify unresolved issues. For each topic presented in this section we ask specific questions for which stakeholders may provide their answers via the EcoLogo<sup>CM</sup> Standard Discussion Forum. Please note that the document under review in this section is the *GL TRCs Program* since this is the TRCs program that will be integrated into CCD-003.

### 6.1 Specific Considerations

According to Gillenwater (2007a; 2007b), some of problems regarding the trade of TRCs include:

- a difficulty in precisely quantifying additionality of environmental benefits (like CO<sub>2</sub> reductions)
- difficulties arising from the trade of TRCs across different regulatory regimes brought on by grid-connected electricity bought offsite
- potential problems of double counting of attributes especially in areas with no certificate registries
- difficulties in legally assigning ownership

All of these concerns and more are addressed in some of the points following below.

#### 6.1.1 Differentiating between Bundled and Unbundled Electricity Products

As mentioned previously, the current CCD-003 only addresses bundled electricity products.

- 1.Q) Do you agree that the next version of CCD-003 should include the option for the certification of both bundled and unbundled (TRC) electricity products separately? If so, why? If not, why not?
- 2.Q) Do you think that market tracking systems will continue to allow for the sale of bundled electricity?

### 6.1.2 RECs instead of TRCs?

As mentioned previously, TRCs on the market are often synonymous to RECs which are commonly associated to 1 MWh of electricity. However, in the *GL TRCs Program*, one TRC unit must have the associated environmental attributes of 100 kilowatt-hours of electricity.

- 3.Q) Do you think that the EcoLogo<sup>CM</sup> Program should adopt a more standard definition of TRCs by associating each unit to 1 MWh of electricity instead of 100 KWh?
- 4.Q) The term "REC" is more commonly used in the literature and in the market. Should the EcoLogo<sup>CM</sup> Program replace "TRC" with "REC" in CCD-003?

### 6.1.3 TRCs as Potential Subsidies for Projects in Development

According to Mark Trexler, 90 % of renewable energy projects occurred without taking into consideration the potential revenues from TRCs (Worldwatch, 2007).

Currently, the *GL TRCs Program* does not certify TRCs that come from facilities that are not generating electricity. However, WorldWatch (2007) has shown that TRCs could play a greater subsidy role that may influence certain electricity generators from pursuing new renewable low-impact electricity generating projects based on predictable future investment capital.

- 5.Q) Do you think that the EcoLogo<sup>CM</sup> Program should certify TRCs that come from facilities that are not yet producing electricity based on the knowledge of significant amounts of information about their future projects (e.g. contracts)? If so, why and how? If not, why not?

### 6.1.4 TRCs as Additional Emissions Offsets Beyond Business As Usual

Gillenwater (2007 a; 2007b) shows that not all types of TRC purchases lead to additional emissions reductions brought on by renewable electricity projects. For instance, if the market for TRCs is long (more supply than demand) or if a cap-and-trade system is in place, there may not be an additional decrease in actual emissions offset by the purchase of TRCs unless the potential income from TRCs was essential to the initial investment decision into renewable energy projects. Therefore, he claims that it may be problematic to consider all TRCs as offset instruments or credits.

He analyzed various situations in which TRCs might be traded to show what may happen to emissions reductions. These findings are summarized in the table below.

**I) Emissions Reduction Outcomes from Various Actions Related to Buying and then Retiring a TRC**

Action	Pollutant in Uncapped Market	Pollutant in Capped Market
Buy from RPS compliance market (REC market scarcity)	Emissions reduced, although quantity and ownership of reductions is ambiguous	None
Buy from RPS compliance market (Long REC market)	None	None
Buy from voluntary REC market (REC market scarcity)	Emissions reduced, although quantity and ownership of reductions is ambiguous	None
Buy from voluntary REC market (Long REC market)	None	None

(Gillenwater, 2007b)

However, it could be argued against Gillenwater’s claims that since TRCs were once truly attached to the MWhs from renewable electricity projects, that by purchasing TRCs one can assume that certain grid connected electricity needs have been met by replacing conventional uses of energy with renewable energy ones. In this sense, some air emissions that may have occurred due to conventional sources of power have been “offset” even though no additional emissions have been offset.

**6.Q)** Do you think that only additional emissions reductions should be considered as offsets? If so, why and how? If not, why not?

**6.1.5 Quantifying Additionality of Environmental Benefits**

Gillenwater (2007b) has proposed that certain TRC products could be considered as greenhouse gas offset credits as long as they pass the additionality tests of the United Nations Framework Convention on Climate Change.

**7.Q)** Do you think that the EcoLogo<sup>CM</sup> Program should adopt Gillenwater’s recommendation in this regard? If so, how and why? If not, why not?

**8.Q)** Which additionality tests of the UNFCCC should the EcoLogo<sup>CM</sup> Program consider? Would the *Tool for the demonstration and assessment of additionality (Version 05)* test be appropriate for this purpose?

There are also other tools being used to quantify additionality in the U.S. These include:

- The Green-e Method – based on NERC region and fuel type (solar, wind, hydro) used by the North American Renewables Registry (APX, 2008b).
- The U.S. EPA Climate Leaders Method which follows the GHG Protocol (EPA, 2008)- based on e-grid subregions and fuel type also used by the North American Renewables Registry (APX, 2008b).

Also, there exists the Green Power Analysis Tool version 2.0 from the Green Power Market Development Group which can be used to measure the environmental attributes of TRCs. According to the WRI (2002-2007), this tool:

*permits corporate managers to analyze the economic and environmental attributes of one or more green power projects. Through an easy-to-use interface, users can research green power projects of interest and create tables and graphs that analyze green power projects either singly or in combination.*

9.Q) Do you think that the EcoLogo<sup>CM</sup> Program should also accept these methods to potentially certify TRCs as offset credit tools? If so, which ones, how and why? If not, why not?

10.Q) Do you know if these methods quantify additionality adequately?

### 6.1.6 Addressing the Interaction of TRCs (including TRCs as Additional Emissions Offsets) with Different Regulatory Regimes

To rectify the problems posed by the potential lack of additional environmental benefits that TRCs may represent and to facilitate the interaction of TRCs within different regulatory regimes, Gillenwater (2007b) has proposed that TRCs be redefined temporarily to more clearly represent the types of instruments that they are and the types of regulatory regimes in which they are traded. Here is his proposed new classification:

#### II) Redefined certificate types, their application, and characteristics

Market Application	Type of Certificate	Type of Instrument	Additionality Tests	Ownership	Quantification
Voluntary green power markets	Voluntary Renewable Energy Certificate (V-REC) <sup>1</sup>	Production subsidy	Unnecessary	Generator or contractual designee	Metered MWh
RPS compliance market	RPS Compliance Renewable Energy Certificate (C-REC) <sup>1</sup>	Quota	Unnecessary	Generator or contractual designee	Metered MWh
Voluntary or RPS compliance markets	Renewable Energy Offset Credit (REOC)	Offset credit	Similar to CDM projects <sup>2</sup>	Generator or contractual designee	Metered MWh
Load-based cap & trade market	Generation Emission Attribute Certificate (GEAC) <sup>1</sup>	Quota	Unnecessary	Generator or contractual designee	Metered MWh and on-site emissions per MWh

<sup>1</sup> In cases where the jurisdictions of these markets overlap, each of these certificate types are equivalent. Voluntary market customers can also treat C-RECs as being equivalent to REOCs if an RPS creates a market scarcity for RECs.

<sup>2</sup>Clean Development Mechanism (CDM) under the United Nation's Framework Convention on Climate Change (UNFCCC). (Gillenwater, 2007b)

He also mentions that:

*This redefinition would be advisable until the 4 certificate types could converge into a single commodity in a scenario with a national stringent RPS (i.e., one that creates a scarcity for RECs) and a load-based emission cap-and-trade scheme. Furthermore, a national certificate registry for the on-site attributes, similar to that being developed in Europe, of all electricity generation would facilitate the integration of markets (Gillenwater, 2007b).*

11.Q) The Product Information Disclosure Requirements for the current GL TRCs Program could potentially include a precision of the type of certificate and market application (as in table II above) of a TRC. Do you think that the EcoLogo<sup>CM</sup> Program should classify TRCs using this nomenclature found in Table II? If so, why and how? If you do not think that the Program should follow any of the nomenclature recommendations of Gillenwater, can you please explain why?

12.Q) Gillenwater seems to focus his analysis mostly on greenhouse gas emissions markets. What about the market for other emissions, should other types of offset credits not addressed by Gillenwater also be created for those? For instance, for NO<sub>x</sub> and SO<sub>x</sub> emissions where possible?

13.Q) Although the U.S. Acid Rain Program does not accept TRCs in its program (Gillenwater, 2007b, p. 3), do you know of Canadian or American regulatory NO<sub>x</sub> and SO<sub>x</sub> exchange programs that do accept TRCs as offset instruments? If so, how and why? If not, why not?

### 6.1.7 Avoiding the Double Counting of TRCs (including Potential Emissions Offsets)

The GL TRCs Program already prevents these three instances of double counting raised by Green-E (2008):

- *When the same RECs are sold to more than one party*
- *When the same RECs are claimed by more than one party, including any expressed or implied environmental claims made pursuant to electricity coming from a renewable energy resource, environmental labeling or disclosure requirements,*
- *When the same REC is used by an electricity provider or utility to meet an environmental mandate, such as an RPS, and is also used to satisfy customer sales.*

However, according to National Wind Coordinating Committee Green Markets and Credit Trading Working Group (2004), generating facilities should be allowed to be registered with only one tracking system. According to them, this would ensure that various certificates are not issued for the same MWhs. A national registry of generating facilities could keep track of which accounting system a specific generating facility is registered with and thus prevent it from signing up with more than one accounting system.

14.Q) Do you think that EcoLogo<sup>CM</sup> TRCs certified under CCD-003 should require that generating facilities be registered with only one tracking system to further ensure that no double counting occurs?

Besides the 3 instances of double counting iterated in section above, Green-E (2008) also suggests that double counting may occur:

*When a REC [or TRC] is simultaneously sold to represent 'renewable electricity' to one party, and one or more attributes are also sold, (such as CO<sub>2</sub>) associated with the same MWh of generation, to another party.*

Currently, section 6 of the GL TRCs Program addresses this problem by mentioning that TRCs can only be used once to meet the requirements of *inter alia*:

- cap-and-trade programs
- emissions control programs
- renewable portfolio standards
- air emission regulatory limits for the generating facility

On the other hand, to avoid this type of problem, Gillenwater has proposed that TRCs be redefined temporarily to more clearly represent the types of instruments that they are. To interact with emissions markets, he has proposed that the TRCs used as emissions offsets be named differently as Renewable Energy Offset Credit (REOCs) in a scarce (more demand than supply) voluntary or RPS compliance

market to be fairly claimed as emissions offsets. In such a case, they would have to pass additionality tests.

**15.Q)** Do you think that using this new nomenclature proposed by Gillenwater would better ensure that the double counting of attributes would not occur? If so, why? If not, why not?

**16.Q)** Do you have a better idea besides the two presented above that would ensure that TRCs' customers can use TRCs as either emissions credits or for other purposes that are associated to the purchase of renewable energy without risking double counting? If so, what is it and why do you think that it would be better? If not, why not?

### **6.1.8 Assigning Ownership of TRCs**

According to the National Renewable Energy Laboratory (NREL, 2007), "TRC tracking systems provide a mechanism for regulators to easily verify and trace TRC ownership."

Again, this raises a similar question as the one in 6.1.5 as to whether or not the EcoLogo<sup>CM</sup> Program should mandate that all TRC products, including potential offset instruments (like the REOCs proposed by Gillenwater), be registered to be sold in only one tracking system at the time to avoid double counting.

**17.Q)** Do you think that this is a good idea? If so, why? If not, do you think that other ways of proving that no double counting is occurring is possible? If so, what are these?

### **6.1.9 Duration of TRCs**

Currently, the *GL TRCs Program* certifies only the environmental attributes that are generated in the same calendar year in which the TRCs are sold, the first six months of the following calendar year and/or the last six months of the previous calendar year.

**18.Q)** Do you agree with this timeline? If so, why? If not, why not?

### **6.1.10 Type of Electricity Age**

Currently the *GL TRCs Program* allows for two types of electricity products to be certified: type B and Type A which range between January 1991-March 31, 2001, to after April 1, 2001 respectively.

**19.Q)** Should the EcoLogo<sup>CM</sup> Program modify these types or add new ones? If so, which ones and why? If not, why not?

## **6.2 General Considerations**

**20.Q)** Do you think that all of the potential significant impacts related to TRCs are currently being addressed in this CDD? If not, which impact do you think is missing and why?

## 7 Performance Testing

21.Q) Should the EcoLogo<sup>CM</sup> Program be aware of TRC performance tests? If so, which ones and why? If not, why not?

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