



Terms of Reference

Green-e™ Renewable Energy Standard for Taiwan ROC

Public Consultation Draft 1.0.B
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Feedback on this document will be accepted until 11:59pm Taiwan Time on Tuesday, January 21, 2020 (7:59am Pacific Time). You may submit feedback either:

- Through an online survey:
 - In English - <https://www.surveymonkey.com/r/FCKSCJG>
 - 中文版 - <https://zh.surveymonkey.com/r/FY5QCHY>
- By emailing written comments to comments@green-e.org using the subject "Taiwan Standard Comments".

You can review the survey PDF for the specific questions on which we are seeking feedback at www.green-e.org/taiwan

Comments are welcome on any part of the TOR.

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Contents

Introduction	3
Scope of Work.....	3
Objective	3
End Use	3
Market and Geographic Scope.....	3
Summary of Criteria and Indicators	4
Implementation Risk Assessment.....	4
Desired Outcomes.....	5
Social	5
Environmental.....	5
Economic.....	5
Standard-Setting Process	5
Timeline and Opportunities to Comment.....	5
Needs Justification Study	6
Assessment of Sustainability Issues.....	6
Determination of the Need for a Green-e™ Taiwan Standard	6
Other Relevant Standards and Programs in Taiwan	7
EPA Green Mark.....	7
Green Building Standards	7
Voluntary Renewable Energy Standards.....	8
Renewable Energy Tracking Systems.....	8

Introduction

As part of the Green-e™ standard setting process, Center for Resource Solutions (“CRS”), which administers the Green-e™ Energy certification program, is developing a Terms of Reference (“TOR”) document for the Green-e™ Renewable Energy Standard for Taiwan ROC (“Taiwan Standard”). This TOR lays out the key issues that the Taiwan Standard would address, including market need, sustainability, comparison to and compatibility with other existing relevant standards, implementation risk and how to address such risk.

Scope of Work

The Scope of Work section provides an overview of how the Green-e™ Taiwan Standard is meant to operate.

Objective

Help develop the market and standardize the process for the purchase of renewable electricity. Accelerate market demand for environmentally preferable generators. Provide third-party credibility for users of the developing voluntary market options for renewable electricity purchasing, in support of future investment in renewable electricity in Taiwan.

End Use

Users of the Green-e™ Taiwan Standard will be sellers of renewable electricity or Energy Attribute Certificates (EACs),¹ and electricity consumers that choose to obtain renewables directly from a generator. Sellers will use the Taiwan Standard to guide the creation of Green-e™ certified renewable energy product offerings for retail electricity users and to support best practices in making credible marketing claims related to renewable electricity use.

The Green-e™ Taiwan Standard tracks the chain of custody of renewable electricity and EACs used in Green-e™ certified renewable energy product transactions to ensure ownership, use, eligibility under the Standard, and claims, guaranteeing that what was promised to the customer is what was delivered. It also requires that marketing materials created to support certified energy products meet transparency and accuracy guidelines.

Market and Geographic Scope

The Green-e™ Taiwan Standard will apply to the retail electricity market in Taiwan, specifically to renewable electricity sellers and to electricity users in Taiwan that have electric load in Taiwan. All electricity generators must be located in Taiwan Proper, Kinmen, Matzu or Penghu (collectively “Taiwan” throughout this document).

¹ Also sometimes called Renewable Energy Certificates or RECs. For more information see: www.resource-solutions.org/learn/

Summary of Criteria and Indicators

Criteria that apply to electricity generators include requirements that generators:

- A. May only use certain resource types, and certain of those types require extra sustainability screening (e.g. biomass if it is included in a future version of the Taiwan Standard),
- B. Must have been built relatively recently, to incentivize new renewables,
- C. Cannot have been built in order to meet a binding requirement / law, nor can their generation be used toward such a requirement,
- D. Must be located within Taiwan and connected to the Taiwan electricity grid, and
- E. Must provide electricity / EACs generated within a certain time period related to when the renewable energy was sold / used.

Certified renewable electricity programs / renewable energy products use the output of eligible generators (see above), and also must meet separate criteria, which include stipulations that:

- F. Programs must be marketed and disclosed accurately and clearly,
- G. Sales must be audited annually by an auditor approved by CRS, and
- H. Marketing materials must be reviewed and approved at least once per year by CRS.

Implementation Risk Assessment

The following factors could have a negative impact on the ability of the Green-e™ Taiwan Standard to achieve one or more of its outcomes:

- A. Lack of interest / willingness among consumers beyond the first group of interested multi-nationals that use Green-e™ certified renewables in other places already,
- B. Development of a similar retail renewable electricity certification program by the Taiwan government or another body already in Taiwan,
- C. Consumers not valuing the role that Green-e™ would uniquely play (on top of existing renewable energy tracking systems), such as providing extra market support, preservation of purchase impact through scrutiny of Taiwan policy, disclosure and consumer protection benefits, and claims review and consumer education,
- D. Development of specific policies or laws by the government that would conflict with an electricity user's ability to purchase or claim the use of renewable electricity, or
- E. Difficulty in enforcing the ownership of environmental attributes if the legal and regulatory system does not recognize EACs (RECs) as the legal right to those attributes.

The following unintended consequences could arise from implementation of the Taiwan Standard and Green-e™ Energy certification in Taiwan:

- F. If the concept of environmental attributes is not well understood, sale of EACs from on-site capacity in particular could lead to double claims and risk to the market, and/or
- G. Demand for renewable electricity could outstrip supply, and supply may not be developed quickly enough to satisfy rising demand.

The following possible corrective actions could be taken to address these potential risks:

- H. Extra requirements around disclosure, verification and/or rules for generators located on buildings,
- I. Education around environmental attributes and renewable energy claims, as well as education on the preferred roles of different market players,
- J. Discussion with government and other stakeholders, regarding EACs and ownership, encouraging new build-out of capacity and the potential for imports from other countries in the region. (Including the potential for future regional certification criteria and regional market for Energy Attribute Certificates)

Desired Outcomes

Social

Consumers have the option to choose to use renewable electricity in place of their standard electricity service and can make an informed choice. Consumers feel empowered, gain trust in green purchasing and ecolabels, and seek green products in other aspects of their lives as well.

Environmental

Renewable electricity capacity is added in Taiwan more quickly than it would have been without voluntary purchase of renewable electricity, leading to fewer overall power plant emissions from the electricity sector.

Economic

Demand for renewable generators increases more than it would without voluntary purchasing, leading to faster development and better economic outcomes. The sector is seen as more stable and attracts more investment. Renewable electricity procurement in Taiwan is even more attractive to both local and international businesses.

Standard-Setting Process

Green-e™ Energy's general standard-setting process is available online at www.green-e.org/about_standards.shtml. Development of the Green-e™ Taiwan Standard will follow this process. During stakeholder comment periods, details on how to comment will be posted on this page also.

Timeline and Opportunities to Comment

- First 60-Day Open Stakeholder Comment Period: July 10, 2019 – September 10, 2019
- Internal review of comments and follow-up with stakeholders as needed: September and October 2019
- Discussion with advisors and Green-e™ Governance Board; revised draft: October and November 2019
- Second 60-Day Open Stakeholder Comment Period: November 22, 2019 – January 21, 2020

- Review of comments and follow-up with stakeholders as needed: January – February 2020
- Discussion with advisors and vote by Green-e™ Governance Board: February and March 2020
- Final Taiwan Standard created and published: April 2020

Needs Justification Study

Assessment of Sustainability Issues

The most important sustainability issues falling within the scope of the Taiwan Standard are:

- A. Avoiding power plant emissions.
 - a. Avoiding carbon emissions in particular, where legally possible.
- B. Using renewable resources that have no / lower impact.
- C. Meeting new electricity capacity growth needs with renewables.
- D. Consumer protection and education for informed choice-making, to encourage use of renewables and achieve the above sustainability impacts.
- E. Continual assessment of relevant policy issues in Taiwan, to maintain the above sustainability impacts as part of the Green-e™ program in Taiwan.

Determination of the Need for a Green-e™ Taiwan Standard

The Electricity Act of Taiwan was amended in January 2017, enabling a number of changes to the Taiwan electricity market that will result in electricity users having more options to purchase renewable electricity. Green-e™ Energy's consumer protection and product disclosure rules, in addition to its environmental criteria, will help consumers understand their options and make informed choices. This will increase trust and stability in the market, leading to more ongoing market demand assurances for generators and more investor confidence.

An active and dependable voluntary market will direct more voluntary investments toward renewables to make them more competitive with traditional resources. This also helps drive more renewable capacity to be built sooner, and helps start avoiding long-lived greenhouse gas emissions sooner.

Companies that have made commitments to using renewables will be able to meaningfully meet those goals sooner, allowing them to serve as role models and move forward with addressing other sustainability issues sooner. Many large companies, both local and international, have server farms, manufacturing facilities, offices and supply chain partners in Taiwan. Certain large electricity consumers in Taiwan may be subject to a capacity-based Renewable Portfolio Standard ("RPS") in the near future, and Green-e™ could be useful to ensure that renewable energy counted toward the RPS interacts appropriately with Green-e™ certified purchases to avoid double counting.

There are currently no programs that address all of these needs in Taiwan. Those that address some of them can be used to make Green-e™ Energy Taiwan Standard function more efficiently and without duplication (tracking systems in particular). Other programs (e.g. LEED, Cradle to Cradle) will be able to use the voluntary renewable electricity market to further incentivize green power purchasing and the sustainability of the products that they certify.

Other Relevant Standards and Programs in Taiwan

This section evaluates current relevant standards in existence in a similar market or space in Taiwan and compares them to the Green-e™ Energy Taiwan Standard under development.

There are no standards or programs that exist or are known to be in development in Taiwan that already offer the same collected benefits as Green-e™. However, there are existing standards and programs that could be impacted by the presence of Green-e™ in Taiwan, either positively or negatively.

EPA Green Mark

Green Mark encourages green consumption in general, and specifically manufacturing that reduces waste, recycles and is low impact. At least some products are evaluated based on renewable energy use. While it is likely that Green Mark would continue to use existing infrastructure and definitions to show that products use renewable electricity, there are no apparent conflicts with Green-e™. It is possible that the presence of Green-e™ and the increased voluntary market activity could make it easier for more Green Mark products to use renewable electricity, even if is that renewable electricity is not Green-e™ certified.

Green Building Standards

There are two main green building standards in Taiwan: the Ministry of Interior's "Ecology, Energy, Waste Reduction and Health" (EEWH) standard and the US Green Building Council's "Leadership in Energy and Environmental Design" (LEED) standard. EEWH does not have criteria for renewable electricity generation or use, though it does for energy reductions, and so Green-e™ will not impact with EEWH's certification. There is no Taiwan-specific LEED standard, although Taiwan is one of the leaders in LEED certified buildings. Green-e™ is cited in the LEED's various renewable electricity points, meaning that Green-e™ certification will be complimentary, allowing many buildings in Taiwan to obtain points toward LEED certification and consume green electricity.

Voluntary Renewable Energy Standards

Currently, there is one voluntary renewable electricity certification program available in Taiwan, called EkoEnergy. While EkoEnergy's standard contains some rules that are similar to those in Green-e's™ draft Taiwan Standard, the EkoEnergy standard is not specific to Taiwan, it has not gone through stakeholder consultation specific to Taiwan and it is not officially recognized by any government agencies in Taiwan. Based on demand from potential consumers and interactions with the government of Taiwan, CRS believes that Green-e's™ stricter standard would benefit consumers and the market in Taiwan.

Renewable Energy Tracking Systems

Tracking systems use electricity generation meter data to issue a tradable Energy Attribute Certificate as proof of generation of 1 MWh of electricity from a variety of renewable resources at generation facilities located in Taiwan. The certificates can be traded to an end-user of electricity as proof that the end-user is consuming the renewable electricity that was put onto the grid, and that no other user on the system is consuming that same renewable electricity. Currently, Taiwan's National Renewable Energy Certification Center administers the T-REC tracking system, which CRS anticipates using to track certified renewable electricity and EAC purchases, pending Taiwan Standard development. There is also a separate voluntary tracking system operating in Taiwan that follows the IREC standard for tracking systems, which can also be reviewed once the Taiwan Standard is complete.

Green-e™ Energy certification includes a verification component that can make use of certain tracking systems for a part of the verification process. Only a subset of certificates tracked by a tracking system would meet the Green-e™ Taiwan Standard rules, as it contains rules on environmental quality, consumer disclosure / protection and market development impact that are not included in tracking systems. By tracking only certificates, tracking systems do not validate transactions of electricity and certificates from the same generator, when either bought from the generators directly or from a third party, while Green-e™ does have this ability. Therefore, tracking systems assist Green-e™ with its mission and function, but do not serve as a substitute for independent certification of renewable electricity programs and certificates.