



Energy

Terms of Reference

Green-e Renewable Energy Standard for Chile

Version 1.0

August 5, 2019

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Introduction

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

Comments on the TOR may be emailed to comments@resource-solutions.org, with the subject header “Chile TOR Comments.”

Scope of Work

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

Objective

Help develop and standardize the ability to purchase renewable electricity; provide market demand for environmentally preferable generators; make voluntary purchasing of renewable electricity more trustworthy and stable for future investment. All of these will help accelerate the development of renewable electricity in Chile.

End Use

Users of the Green-e Chile Standard will be sellers of renewable electricity or Environmental Attribute Certificates (EACs),¹ and electricity consumers that choose to obtain renewables directly from a generator. Sellers will use the Chile Standard to guide the creation of renewable energy product offerings and to support marketing claims related to their customers’ renewable electricity use. Electricity consumers may certify their renewable energy purchases themselves and will use the Chile Standard to guide their purchasing decisions.

The Green-e Chile Standard requires that the chain of custody of renewable electricity and EACs is tracked from generator to consumers, in order to ensure ownership, use, and eligibility under the Chile Standard, and to ensure that what was promised to the customer is what was delivered. It also requires that marketing materials meet clarity and quality rules.

Market and Geographic Scope

The Green-e Chile Standard will apply to the renewable electricity purchases made by retail electricity consumers for their electrical load in Chile. Renewable electricity sellers and buyers

¹ For further information on this and other terms, please see the Green-e Glossary at www.green-e.org/glossary
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may participate in Green-e Energy. All electricity generators must be located in Chile as well. There is the potential for a larger regional renewable electricity market and corresponding certification criteria, based on stakeholder feedback and further assessment.

Summary of Criteria and Indicators

Criteria that apply to electricity generators include that generators:

- A. May only use certain resource types, and certain types (e.g. hydropower) require extra sustainability screening.
- B. Must be built relatively recently, so as to incentivize new renewable generators.
- C. Cannot have been built in order to meet certain types of binding requirements / laws, nor can their generation be used toward such requirements.
- D. Must be located within Chile and connected to the Chilean electricity grid.
- E. Must provide electricity / EACs generated within a certain timeframe relative to when the renewable energy was sold / used.

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

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

Implementation Risk Assessment

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

- A. Lack of interest / willingness among consumers beyond the first group of early adopters.
- B. Development of a similar program by the Chilean government or another body already in Chile.
- C. Consumers not valuing the role that Green-e would uniquely play (additional to existing renewable energy sales infrastructure), such as: providing extra market support; preservation of purchase impact through scrutiny of Chilean policy; disclosure and consumer protection; claims review; and consumer education.
- D. Development of specific policies or laws by the Chilean government that would conflict with an electricity user's ability to purchase or claim the use of renewable electricity.
- E. Difficulty in enforcing the ownership of environmental attributes if the legal and regulatory system does not recognize renewable electricity contracts / EACs as the legal right to claim those attributes.

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

- F. The concept of environmental attributes could not be well understood, resulting in double claims and / or distrust of the market.

- G. Demand could outstrip supply in the near term, creating uncertainty before the market is able to meaningfully start and grow.

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

- H. Education around environmental attributes and renewable energy claims, as well as on the roles of different market participants.
- I. Discussion with the Chilean 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 a regional market for EACs in Latin America)

Desired Outcomes

Social

Eligible consumers have the option to choose to use renewable electricity in place of their default 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 Chile more quickly than without voluntary purchases of renewable electricity, leading to fewer overall power plant emissions from the electricity sector.

Economic

Demand for renewable generation increases more quickly 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.

Standard-Setting Process

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

Timeline and Opportunities to Comment

- First 60-Day Stakeholder Comment Period: October 26, 2018 – December 24, 2018.
 - All stakeholders are welcome to comment
- Internal review of comments, follow-up with stakeholders as needed: January 2019
- Discussion with local experts and Green-e Governance Board: January / February 2019
- Updated draft of Chile Standard created based on stakeholder and Board feedback: Early February 2019
- Second 60-Day Stakeholder Comment Period: Mid-February – Mid-April 2019

- All stakeholders are welcome to comment
- Review of comments and follow-up with stakeholders as needed: Late April 2019
- Discussion with experts and final vote by Green-e Governance Board: Early May 2019
- Final Chile Standard published: Mid-May 2019

Needs Justification Study

Assessment of Sustainability Issues

The most important sustainability issues falling within the scope of the Chile 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 (compared to fossil fuel-based generation) and giving consumers an immutable claim to this usage.
- C. Meeting new electricity capacity growth needs with renewables.
- D. Consumer protection and education for informed decision-making, to encourage use of renewables and achieve the above sustainability impacts.
- E. Allowing voluntary action to drive reductions in CO₂ emissions beyond what would occur due to government mandates.
- F. Preventing the double counting and double claiming of EACs so as to protect market integrity and build consumer confidence.
- G. Continual assessment of relevant policy issues in Chile, to maintain the above sustainability impacts as part of the program.

Determination of the Need for a Green-e Chile Standard

- Market participants have stated that ERNC certificates on their own are not suitable for retail renewable electricity use and claims
- Currently more than one way of tracking RE sales, which may not be compatible with each other / may result in double counting / are not standardized. These systems would be cross referenced during annual Green-e verification.
- Currently few purchasing options to buy RE, and only certain commercial customers are able to do so, and even fewer actually buy RE
- Large untapped resource capacity
- Citizen interest in RE that is not large hydro
- CRS policy experience in other markets
- Certification would allow recognition of purchases by RE100 and other international programs, allowing more recognition of Chile market activity.

Currently, only Unregulated Customers² are allowed to choose to use renewable electricity, through power purchase agreement contracts with electricity generation companies. Retail electricity distribution companies don't offer renewable electricity service to retail customers at the moment, though this and other purchasing options could be available in the future. Green-e Energy's consumer protection and product disclosure rules, in addition to its environmental criteria, will help consumers understand what they should look for in a renewable electricity purchase and will allow them to make informed choices. This will increase trust and stability in the market and lead to ongoing market demand assurances for generators and more investor confidence.

An active and dependable voluntary market for renewable electricity will direct more voluntary investments toward renewables to make them more competitive with traditional resources, which is especially important since Chile doesn't subsidize renewables. This also helps drive the near-term deployment of more renewable capacity, leading to a quicker start to avoiding long-lived greenhouse gas emissions.

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 operations and headquarters in Chile.

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

Other Relevant Standards and Programs in Chile

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

There are no standards or programs that exist or are known to be in development in Chile that already offer the same collected benefits as Green-e. However, there are existing standards and programs that could either be used to accelerate the implementation of Green-e or would benefit from the presence of Green-e in Chile.

² Unregulated Customers may choose to purchase electricity from a generation company or from a retail electricity distribution company. Retail electricity customers with an average load of over 2MW are Unregulated Customers by default, and customers with an average load that is between 500kW and 2MW may choose to be Unregulated Customers or Regulated Customers. Regulated Customers may only purchase electricity through a distribution company.

Renewable Energy Tracking Systems

Tracking systems use electricity generation meter data to issue a tradable certificate as proof of generation of 1 MWh of electricity from a variety of renewable resources. For example, the I-REC tracking system is available in Chile. The certificates can be traded to an end-user of electricity as proof that the end-user is consuming the renewable electricity put onto the grid, and that no other user on the system is consuming that same renewable electricity.

Green-e Energy certification includes a verification component that can make use of certain tracking systems for a part of this process. Only a subset of certificates tracked by a tracking system would meet the eligibility criteria delineated in the Green-e Chile Standard, which will contain rules on environmental quality, consumer disclosure / protection, and market development impact that tracking systems do not capture. By tracking only certificates, tracking systems do not validate transactions for electricity and certificates from the same generator, when either bought from the generators directly or from a third party; 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 certification of renewable electricity programs and certificates.

Carbon Offset Standards

Examples include the Verified Carbon Standard and the Gold Standard. Renewable electricity generators may register with a carbon offset standard in order to create and sell offsets from their generation rather than generating tradable EACs. It is generally accepted practice that a renewable electricity generator cannot create and sell both a carbon offset and an EAC from the same MWh of electricity generation.

Carbon offset standards and their associated registries denominate and track offsets from renewable electricity generation using only the carbon value of the generation and do not also track the other attributes of generation (such as the avoidance of other types of emissions). Because of this, purchasing an offset from a renewable electricity generator does not allow a customer to claim that they are consuming renewable electricity. Therefore, carbon offset standards do not serve the same function as renewable electricity certification and do not take the place of a renewable electricity tracking system.

Environmental Pledges, Such as Kyoto and Paris

Environmental pledges often seek to reduce total carbon emissions across all sectors of a country's economy. All carbon emissions are typically captured, and the effects of all programs and emissions reductions are counted toward the overall goal.

Counting emissions from generation of renewable electricity toward such a goal does not inherently result in any one electricity user being able to say that their electricity use is cleaner / less carbon intensive. Claims and emissions per MWh are still related to laws and rules specific to the Chilean electricity market, including disclosures by the Chilean Ministry of

Energy, which does not currently publish data that is meant to be used for making claims related to the resource mix of a Chile consumer's electricity use.

Green-e would be able to provide aggregated data on voluntary renewable energy usage to relevant Chile agencies, such as the Ministry of Energy, in order to support the calculation and publication of data that could and should be used by electricity users to understand and disclose the actual resources used to generate their electricity, and such data could help the government clearly communicate the difference between generation and consumption, helping avoid consumer confusion and double counting.

Green Building Standards, such as Leadership in Energy and Environmental Design (LEED)

LEED, and potentially other green building standards, offers points toward certification for buildings that purchase renewable electricity for a certain percentage of their grid electricity use. LEED in Chile currently requires that purchased electricity be Green-e certified or equivalent.

If other green building or green product standards arise in Chile, Green-e certification could be used to verify renewable electricity purchases made to comply with those standards.