

# Guideline for Claims of “Made with Renewable Energy” or “Reduced Carbon Footprint” Based on Power Purchase Agreement

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## Overview

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This document provides guidance to manufacturers seeking to substantiate claims of “Made with Renewable Energy” and/or “Reduced Carbon Footprint” based on a qualifying Power Purchase Agreement. These claims are independent from one another, and can be treated as such. These claims may be made for various scopes, including: product-based claims, facility-level claims, and entity/organizational claims.

This document is not a certification standard or a certification document on its own.

## A. Background

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### A.1. Power Purchase Agreements

A power purchase agreement (PPA) secures the payment stream for a Build-Operate-Transfer (BOT) or concession agreement for an independent power producer (IPP). (In this document, the IPP refers to a provider of renewable energy, e.g., wind-generated electricity.) The PPA is an agreement between the purchaser, also known as the “offtaker”, and the IPP, also known as the “seller”. PPAs allow purchasers to enter into delivery contracts directly with renewable project developers, securing a long-term and predictable source of renewable energy over the life of the PPA, usually 10 to 20 years. PPAs may be used when:

- The projected revenues of the renewable project would otherwise be uncertain, and therefore the PPA guarantees that the quantities to be purchased and price to be paid will be sufficient to make the project viable;
- There is a possibility of competition from cheaper or subsidized competition, and as a result, the PPA provides some certainty of being protected from such competition;
- The purchaser wishes to obtain security of a renewable energy supply;
- The purchaser wants to make claims that their renewable power purchase was “additive” – i.e., if the PPA is with a new project, the purchaser can credibly claim “additionality”, which means that the PPA directly caused a new renewable project to be built; or
- The purchaser seeks to acquire renewable energy credits (RECs) in order to make marketing claims and report on greenhouse gas mitigations or reductions.

## A.2. Renewable Energy Credits

Renewable energy credits (RECs) are tradable commodities issued to represent the electricity generated fed into a power grid from an eligible renewable energy source. RECs provide a market-based means of keeping track of who produces and who uses the electricity. One REC represents one MWh of renewable electricity was generated by a renewable energy source. When a renewable electricity facility, such as a wind farm, produces one MWh of electricity and adds it to the power grid, it also generates a corresponding REC. RECs can therefore represent the environmental benefit of producing electricity from a renewable energy source. A REC is consumed when the purchaser “uses” or “retires” the REC.

Since RECs are separate from the wholesale electricity from which they are generated, they are not tied to a specific grid region, giving RECs flexibility in their purchase and application.

In accordance with Green-e, the best REC practices meet the following criteria:

1. The owner of RECs shall be specific and accurate. The contracts/PPAs need to be clear.
2. RECs shall be retired when making a claim about using renewable energy.
3. Electronic REC tracking systems should be used.
4. Eligible RECs shall be sourced from eligible renewable energy meeting the criteria described in Section B.

## B. Acceptable Forms of Renewable Energy

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The renewable electricity sources that are eligible to be used in the selection of RECs are based on the *Green-e Framework for Renewable Energy Certification, Section III. Eligible Sources of Supply*. It is important to note that energy sources other than electricity are not eligible. The Green-e Framework includes criteria for the following renewable resource types:

- Solar, including photovoltaic and solar thermal electric
- Wind
- Geothermal
- Tidal, wave, or ocean thermal energy conversion technologies
- Hydropower
- Solid, liquid, and gaseous forms of biomass
- Biodiesel (B100), biomethane, biogas, bioethanol, renewable diesel, or syngas
- Fuel cells (only if powered by one or more fuels from eligible sources, listed above)

## C. Verification

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### C.1. Guidelines for Verification

SCS Global Services uses the following criteria as a guideline for verification of a “Made with Renewable Energy” or a “Reduced Carbon Footprint” claim:

- Ensure that the PPA contractually conveys the full rights to the environmental benefits of the generation source via the PPA and RECs.
- Ensure that the supplier is not also applying the underlying attributes and environmental benefits to a mandate.
- Communicate the scope of the project when making a claim (e.g., facility level).
- Ensure that the renewable electricity originates from the same market in which operational use of the electricity occurs (i.e., U.S. operations should be sourced from U.S. interconnected projects).
- Ensure that the associated RECs of the onsite source are not being sold if an environmental claim is being made.
- Ensure retirement of the RECs in connection with the PPA.
- Ensure no other party is making a claim on the same environmental benefits.
- Ensure no claims are made for emission reductions not included in the project.
- Ensure that “offset” claims are not made for the use of RECs. Offsets are emissions reductions that are achieved through projects that cause verifiable emissions reductions outside the scope of an organization’s direct or indirect emissions.
- Ensure that claims related to avoided or direct emissions reductions are conveyed through PPA-based REC-based purchases. The RECs substantiate the number of megawatt-hours of renewable electricity is being used from a zero-emissions renewable source.
- Claims are made following the FTC Green Guide.

## C.2. LCA Report and Prerequisite Information

A critically-reviewed LCA report developed for the selected product scope is obtained and examined by SCS Global Services in order to determine the goal and scope, calculation methods, assumptions and limitations, data sources and quality, and LCA results (If no prior LCA has been conducted, SCS’s LCA team can conduct the LCA in accordance with the international ISO-14044 standard). By reviewing the LCA report, the carbon footprint (e.g., cradle-to-gate, or cradle-to-grave) of the selected product scope is confirmed. Furthermore, the boundaries are validated to ensure that no processes or life cycle stages outside the scope of the environmental claim are included. The LCA report must be based on primary data for at least the gate-to-gate production stage of the product scope; industry average data cannot be used as the sole basis of the LCA.

Prior to verifying the allocation and retirement of RECs, the following information from the PPA contract is verified by SCS Global Services:

- The full rights to the environmental attributes of the generation source;
- Generation facility description and location;
- The settlement term;
- The ownership term; and
- The ownership of the RECs received.

This information is obtained by SCS Global Services in confidentiality from the manufacturer (“the offtaker”) and is directly sourced from the PPA contract. Through validation of the LCA report (as described above) and verification of the eligibility of the renewable electricity source, SCS Global Services can apply to World Resources Institute’s (WRI) GHG Protocol Scope 2 market-based reporting methodology.

## C.3. Made with Renewable Energy Claim

To validate the number of RECs required for the selected product scope, and ultimately to support the “Made with Renewable Energy” claim, the following data are required to verify the calculations performed:

- The selected product scope and associated facilities;
- Manufacturing amount for the selected product scope at the respective facilities; and,
- The electricity intensity of the selected product scope.

With these data points, the total number of RECs required for the selected product scope is confirmed by multiplying the activity level by its respective electricity intensity factor. The electricity intensity factor is determined from the underlying LCA study.<sup>1</sup> It is important to note that line losses from transmission and distribution using the appropriate regional (e.g., location of manufacturing facility) grid gross loss factor is required. These calculations ultimately confirm total electricity use for production of the selected product scope and, in turn, the equivalent total number of RECs required to be retired and verified by SCS Global Services.

It is important to note that not all manufacturers may intend to retire the number of RECs to match 100% of electricity use for the production of selected product scope; as such, the actual number of RECs allocated and retired will subsequently be verified to support the “Made with Renewable Energy” claim as a percentage (e.g., “Made with 60% Wind Power”).

Ultimately, once these underlying calculations are verified by SCS Global Services, the number of RECs required to support the “Made with Renewable Energy” claim is communicated to the manufacturer for retirement. The number of RECs retired shall be substantiated with proof of retirement, account balance, and the number of retired RECs associated with the PPA. These documents are reviewed by SCS Global Services for confirmation.

#### **C.4. Reduced Carbon Footprint Claim**

To validate the number of RECs required for the selected product scope, and ultimately to support the “Reduced Carbon Footprint” claim, the following steps are required:

- (1) Confirm the tons CO<sub>2</sub>e, based on a defined global warming potential (e.g., GWP-100) for the defined product scope with respect to the boundaries of the environmental claim (e.g., cradle-to-gate or cradle-to-grave)
- (2) Confirm the reduced emissions for selected product scope as a result of the retirement of RECs

For (1), the carbon footprint of the selected product scope is validated using the critically reviewed LCA report provided by the manufacturer. The following data are required to verify the calculations performed:

- The tons CO<sub>2</sub>e for the selected product scope with respect to the boundaries of the environmental claim (e.g., cradle-to-gate or cradle-to-grave); and
- Activity-level or production volume of the selected product scope at the respective locations.

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<sup>1</sup> If the electricity intensity factor for the selected product is unable to be determined from the LCA Report, SCS Global Services shall determine this factor by requesting the necessary raw data parameters utilized by the LCA practitioner.

The total tons CO<sub>2</sub>e for the selected product scope is confirmed by multiplying the activity level. The total tons CO<sub>2</sub>e is confirmed to determine the baseline from which the reduced emissions from the retirement of RECs could be applied in order to support a claim of reduced carbon footprint.

For (2), the following data are required to verify the calculations performed:

- The electricity intensity of the selected product scope;
- Manufacturing amount of the selected product scope at the respective locations; and
- The “reduced emission factor” of electricity consumed at each location that is matched with the retired RECs.

The reduced emission factor is specific to a given manufacturing facility’s location and electricity grid. The reduced emission factor shall account for both upstream and downstream activities associated with electricity generation. Furthermore, emissions associated with transmission and distribution (T&D) losses shall be included from emissions reductions associated with RECs in order to accurately represent the emissions benefit from renewable energy generation. Some manufacturers may choose to initially allocate and retire RECs to support a “Made with Renewable Energy” claim (e.g., “Made with 100% Wind Power”), then calculate the reduced emission factor.

The reduced emissions<sup>2</sup> for the selected product scope is confirmed by multiplying the product scope’s manufacturing amount by its respective electricity intensity factor (MWh/scope) and by the reduced emission factor (kg CO<sub>2</sub>e/MWh). By dividing the reduced tons CO<sub>2</sub>e by the baseline tons CO<sub>2</sub>e and multiplying by 100%, the percent reduction in the selected product’s carbon footprint can be determined and ultimately verified by SCS Global Services.

It is important to note that not all manufacturers may intend on retiring the number of RECs to reduce 100% of the carbon footprint of the selected product scope; as such, the actual number of RECs allocated and retired will subsequently be verified to support the “Reduced Carbon Footprint” claim as a percentage (e.g., “This reduces the carbon footprint by 20%”).

Ultimately, once these underlying calculations described above are confirmed by SCS Global Services, the number of RECs required to support the “Reduced Carbon Footprint” claim is communicated to the manufacturer for retirement. The number of RECs retired shall be substantiated with proof of retirement, account balance, and the number of retired RECs associated with the PPA. These documents are reviewed by SCS Global Services for confirmation.

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<sup>2</sup> The effective tons CO<sub>2</sub> emissions reduced when retired RECs are matched to the electricity consumed at a manufacturing facility for the production of a given product.

## C.5. Assessment Report and Issuance of Logos

The appropriate steps taken to confirm and verify the information and underlying calculations described in Section C.1 through C.3 are documented in a verification assessment report prepared by SCS Global Services for the manufacturer seeking to make the environmental claims covered by this guideline. This verification assessment report also includes the identification of the scope of verification, the goals of the verification (e.g., the type of environmental claim(s) being made), the findings of the verification assessment, the issuance of logos to be used in the communication of the selected product’s environmental benefits (if warranted), and the environmental claim certificate(s) (if warranted), which are documented on SCS Global Services’ Green Products Guide listing (<https://www.scsglobalservices.com/certified-green-products-guide>). Depending on the scope of the verification, the assessment, and ultimately the verification process, will repeat at least annually, or at a greater frequency (e.g., quarterly), depending on the scope.

## References

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