

SCS Certification Standard for Product Carbon Intensity and Reduction for Chemicals and Co-products

SCS-115

Module A: Renewable Electricity

A.1 Introduction

Renewable electricity is generated from wind, solar, geothermal and hydropower in many locations worldwide. Conventional power stations have also been converted to use biomass from forests and agriculture to generate renewable electricity. Renewable electricity is also a product from a range of industrial activities such as waste management, biogas generation, and combined heat and power using renewable inputs. Recognized procurement types for renewable electricity generated off-site include Renewable Energy Certificates, or RECs, Guarantees of Origin (GO) or Energy Attribute Certificates (EAC), and Power Purchase Agreements (PPAs). A REC is produced when a renewable energy source generates one megawatt-hour (MWh) of electricity and delivers it to the grid. RECs are sold on the open market and can be bought by operators who wish to compensate for the emissions from their use of fossil generated electricity.

Operators certified to this Standard can compensate for the emissions caused by their own use of grid electricity within the system boundary, as described in Section 8, by the purchase and surrender/retirement of recognized procurement types for renewable electricity.¹

A.2 Conditions for Use of Renewable Electricity generated off site

- A.2.1 Renewable electricity shall have been generated by facilities that feed electricity into a grid via a direct connection, which is interconnected with- or in the same country as that from which the site withdraws its electricity. The markets for renewable electricity recognized by RE100 are also recognized by this Standard.
- A.2.2 The baseline calculation shall not include renewable electricity generated off site.
- A.2.3 Recognized procurement types for renewable electricity shall have been surrendered/retired, via a tracking system or registry recognized by the local or national government for carbon reporting

¹ Recognized procurement types are listed in the RE100 Technical Criteria.

purposes, in the same calendar year as they are counted in claims about reducing a dated baseline product carbon intensity.

- A.2.4 Recognized procurement types for renewable electricity shall be valid at the date of surrender/retirement according to national or local government regulations.
- A.2.5 RECs or other recognized procurement types for renewable electricity are deemed to be no longer valid five years after their issue date, or time specified by national or local government regulations, whichever is shorter.
- A.2.6 The number of RECs or recognized procurement types for renewable electricity surrendered/retired shall be equivalent to the number of MWhs of conventional electricity that is being compensated for, independent of the emissions factor for generation of the REC or, in the most part, the grid intensity. To avoid double counting, RE100 Technical Guidance shall be followed.²
- A.2.7 Claims about reducing the product carbon intensity via RECs or other recognized procurement types for renewable electricity shall indicate that a credit has been used, as described in Section 10.2.
- A.2.8 Only usage of imported electricity can be compensated for by RECs or other recognized procurement types for renewable electricity.
- A.2.9 RECs or other recognized procurement types for renewable electricity can be preferentially allocated to certain products within the system boundary to reduce their product carbon intensity, up to a maximum of the GHG emissions from the electricity used in their production. For example, if a reactor producing several products is electrified, then RECs can be allocated to just one of the products, subject to limits in A.2.10.
- A.2.10 RECs or recognized procurement types for renewable electricity can be allocated to a fixed proportion of a product produced in one calendar year. This proportion shall exceed 5% (i.e., a material change) of the system boundary production by mass. In the example provided in A.2.9, RECs can be allocated to a percentage of the production of a particular product, and that percentage shall exceed 5% of the production of this product from the system boundary in a calendar year.
 - a) In this case, a mass balance system shall be maintained to reconcile quantities of the same product with different carbon intensities. The mass balancing period shall be three months. A positive balance can be carried forward into the next mass balance period, up to a maximum of four times, after which the surplus will be lost.

²See, for example, FAQ 26 of the Climate Group RE100 Frequently Asked Questions (March 2025): <https://www.there100.org/sites/re100/files/2025-04/RE100%20FAQs%20-%20Mar%202025.pdf>

A.3 Renewable Electricity Generated on Site

- A.3.1 Electricity generated on site by, for example, solar panels or a biomass power station directly reduces the baseline product carbon intensity.
- A.3.2 Reductions may be preferentially allocated to units or specific products for a period of five years, see 8.1.2.