

Greenhouse Gas Protocol Scope 2 Guidance

A supplement to the GHG Protocol Corporate Standard

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Based on draft texts of the Scope 2 Guidance

<http://www.ghgprotocol.org/feature/ghg-protocol-power-accounting-guidelines>

Summarized by the EKOenergy Secretariat, November 2014

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Introduction

For most companies, emissions associated with electricity consumption (scope 2) represent a significant portion of the total carbon footprint. But how to account for such emissions? Can companies have any impact on the emissions of the grid? And what if these companies have a green electricity contract?

In November 2014, the Greenhouse Gas Protocol (GHG Protocol) published a text about the topic. The GHG Protocol is the most widely used international accounting tool for government and business leaders to understand, quantify, and manage greenhouse gas emissions. It is the result of a partnership between the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) and is working with businesses, governments, and environmental groups around the world.

Principles and concepts

The first four chapters explain the main principles of the GHG Protocol, as well as the main concepts used in the Guidance. Important concepts are the 'location-based method' and the 'market-based method'. The location-based method is based on information about emissions related to the electricity production within a defined geographic boundary. The most commonly used location-based numbers are the emissions related to the the national grid mix. The market-based method reflects the greenhouse gas emissions associated with the choices a consumer makes regarding its electricity supplier or electricity product.

The Scope 2 Guidance also applies to purchases of externally produced heat and cooling.

General requirement: dual reporting

The Guidance requires that companies operating in liberalised electricity markets report two scope 2 totals: one based on the grid mix, and one based on their own electricity contract.

In Europe, the market based number has to be backed by Guarantees of Origin. If no Guarantees of Origin have been used, the use of the residual mix figures is obligatory. These are published once a year and freely available (in 2014 via www.re-diss.eu; see also www.ekoenergy.org > About us, > Frequently asked questions).

Additional recommendation

At the same time, the GHG Protocol recommends companies to set one step further.

"While not strictly required for market-based scope 2 accounting, there are energy procurement choices that suppliers and companies can make that spur an increase in new, low-carbon energy generation facilities in a shorter period of time, consistent with the ambition needed to avoid dangerous climate change".

The guidance lists some examples of how this can happen. These include for instance:

- Long-term power purchase agreements or other contracts with renewable energy providers
- Eligibility criteria for corporate energy procurement relating to specific energy generation

features;

- *Voluntary certificate programs or supplier labels or tariffs may structure their product so that a dedicated portion of the revenue from the program is applied as "incremental funding" for new projects.* When referring to such voluntary certificate programs, the Guidance explicitly refers to EKOenergy.

Setting the scope 2 boundary

Chapter 7 of the Guidance explains which consumption (of electricity and externally produced heat and cooling) has to be included in the accounting. Three approaches are allowed: equity share, financial control and operational control. The guidance refers to the definition of these concepts in the *Corporate Standard* (www.ghgprotocol.org > Corporate Standard).

Companies should use the chosen approach consistently over time for their entire inventory.

Calculating emissions

Chapter 8 outlines key requirements, steps and procedures involved in calculating scope 2 emissions according to each method.

Under scope 2, we talk about emissions caused at the point of energy generation. The emission factors do not include grid losses or upstream life-cycle emissions. Instead, these other categories of upstream emissions should be quantified and reported in scope 3.

For the location-based number, companies have to refer to the greenhouse gas emissions associated with the quantity of electricity generation produced from facilities located within a specified geographic boundary. Most easily available are country specific data. But the Greenhouse Gas Protocol allows (and to some extent even encourages) companies to use data of other areas, either smaller or bigger than a country.

For the market-based number, the Guarantee of Origin is the carrier of greenhouse gas emissions. The purchase of renewable energy can be accounted for as 0 emissions. The emissions based on Life Cycle Assessment can be added, but as a part of the scope 3 calculation, not under scope 2.

Exception: production based on biomass: *While biofuels can produce fewer greenhouse gas emissions than fossil fuels and may be grown and used on a shorter time horizon, they still produce greenhouse gas emissions and should not be treated with a "zero" emission factor. Based on the Corporate Standard, any CH₄ or N₂O emissions from biogenic energy use shall still be reported in scope 2 while the CO₂ portion of the biofuel combustion shall be reported outside the scopes. In practice, this means that any market-based method data that includes biofuels should report the CO₂ portion of the biofuel combustion separately from the scopes.*

For consumption not tracked by Guarantees of Origin, the emission factors related to the residual mix have to be used. These are published once a year and freely available (in 2014 via www.re-diss.eu).

Accounting and reporting requirements

Companies based in liberalised electricity markets shall account and report scope 2 emissions in two ways and label each result according to the method: one total based on the location-based method, and one total based on the market-based method, where Quality Criteria are met.

Other recommended reporting includes: Annual electricity consumption; related CH₄ and N₂O emissions; "instrument features" (key features of their Guarantees of Origin, such as the type of green energy or an ecolabel); role of corporate procurement in driving new projects. With regard to the last item, the Guidance explains: *Where relevant, companies should elaborate in narrative disclosure how any of the contractual instruments claimed in the market-based method reflect a substantive contribution by the company in helping new low-carbon projects become implemented.*

EKOenergy can be mentioned under the "Instrument features". The contributions to EKOenergy's Climate Fund (at least 10 eurocent per MWh) fit under the narrative disclosure on new low-carbon projects. Contact the EKOenergy Secretariat for more information.