Scope 2 Emissions – is your reporting complete?

GHG Emissions Reporting Brief

July 2024

Reporting GHG emissions from consumption of purchased energy (Scope 2)

Whether you are reporting your emissions to comply with the mandatory framework or making voluntary disclosures, if you are an organisation operating in New Zealand and stating compliance with the GHG Protocol Standards, your Scope 2 emissions from purchased energy should be reported under both the location-based and market-based methods (i.e. dual reporting).

We have recently identified that only 1 out of 8 organisations that are stating compliance disclose both numbers. This GHG Emissions Reporting Brief summarises our views on how Scope 2 emissions should be reported under the GHG Protocol Standards (GHG Protocol) in New Zealand.

What are Greenhouse Gas Scope 2 emissions?

These are your emissions from the energy (e.g. electricity, heat, steam or cooling) that you purchase to use in buildings, cars or operating equipment that you own or control. This is typically a significant emissions source operationally and can be reduced from either being efficient in your energy consumption or by purchasing low-carbon electricity.

Q. What should you report if you want to say that you comply with the GHG Protocol?

In accordance with GHG Protocol Standard Scope 2 Guidance paragraph 7.1, for companies with any operations in markets providing product or supplier-specific data in the form of contractual instruments, companies shall account and report Scope 2 emissions in two ways: one based on the location-based method, and one based on the market-based method.

Q. This sounds straight-forward. So, what's the issue?

From a review of published FY Dec'23 climate reports, 8 reports stated GHG emissions were prepared in accordance with the GHG Protocol Corporate Standard, and only 1 out of the 8 reports disclosed Scope 2 emissions under the market-based method. This method reflects an entity's purchasing decisions and generally would have shown that the Scope 2 emissions could be higher.

Given the significance of emissions from purchased energy for some entities, reporting more detailed information on these emissions enables a reader to make meaningful comparisons across entities' purchasing choices and to have a view of how any purchasing choices align with an entity's business strategy.

Let's take a step back and understand how to measure Scope 2 emissions.

Q. How would you measure Scope 2 emissions?

If you are reporting under the GHG Protocol Standards, there are two methods:

I. **Location-based method** where emissions are aligned to electricity consumption and

II. **Market-based method** where emissions are aligned to electricity consumption, but takes into account purchasing decisions by the entity. (e.g. if it decides to purchase renewable energy certificates or some other mechanism).

Q. How are these calculated and presented?

Let's say a company consumes 80,000kWh of electricity. It purchases renewable energy certificates (RECs) to cover all of the 80,000kWh of electricity consumed.

	Location-based method	Market-based method
Electricity consumption	80,000 kWh	80,000 kWh
Emission factor	0.0742 (Grid-average)	0 (reflects RECs to cover all of the consumption)
Total Scope 2 emissions	5.9 tCO_2e	0 tCO_2e

Q. How then can you make an impact in your emissions reduction journey?

I. Under the **location-based method**, you would need to reduce consumption in order to reduce emissions.

II. Under the **market-based method**, you would need to reduce consumption and/or purchase RECs, or some other mechanism, or choose a renewable energy product to be able to utilise a lower emission factor.

Q. What else?

Recently, the GHG Protocol Standards issued 14 frequently asked questions (Scope 2 FAQs) which are a helpful guide in interpreting some of the guidance in measuring and presenting emissions from purchased energy.

Amongst these FAQs is confirmation that if you are operating in a region where product or supplier-specific data is accessible, then you must report both location-based and market-based Scope 2 emissions. This dual reporting is required even if you have not entered into any energy-related contractual instruments. This means that even if your entity has not purchased energy attribute certificates or specific renewable energy, you should still be reporting Scope 2 emissions under the market-based method. In our view, this also aligns with the objective of reporting the impact of an entity's purchasing decisions.

Q. But how would you measure Scope 2 emissions if you haven't purchased any energy-related contractual instruments?

The guidance requires you to use a residual mix factor in the first instance if there is one available. Only if a residual mix factor is not available would you use the location-based method emissions factor, which you can source from the Measuring Emissions Guide published by the Ministry of Environment. In New Zealand, there is a residual mix factor that is available for use.

The residual mix factor is typically higher than the location-based grid-average emission factor because it excludes renewably generated electricity sold under contractual instruments like RECs and represents the mix of electricity that remains. Hence, this leads to higher Scope 2 emissions reported under the market-based method. But this is expected as the market-based method reflects an entity's purchasing decisions.

Residual mix factors are available for use in New Zealand. Although improvements are being made to minimise variances and maximise accuracy, we believe that entities should be using these to report market-based Scope 2 emissions even if they have not purchased renewable energy certificates or similar.

Q. What would this look like?

Let's say a company consumes 80,000 kWh of electricity. It doesn't purchase any renewable energy certificates nor does it purchase electricity from a specific renewable energy supplier.

	Location-based method	Market-based method
Electricity consumption	80,000 kWh	80,000 kWh
Emission factor	0.0729 (2023 Grid-average, MfE 2024)	0.07795 (reflects a residual mix factor that is available in the market)*
Total Scope 2 emissions	**5.8 tCO_2e**	**6.2 tCO_2e**

*(*this residual mix factor is sourced from BraveTrace and reflects the production year from 1 April 2023 to 31 March 2024)*

What you should do:

- **Evaluate the impact:** Assess how this may affect your organisation. If this is your first year of reporting these emissions, determine if base year or prior year disclosures of Scope 2 emissions under the market-based method are necessary.

- **Transparent disclosure:** Consider if your disclosures are transparent and plan how you will transparently disclose the impact of changes in your climate disclosures.

Get in touch.

Learn more about how our team can help you with your reporting of GHG emissions.

Melinda Ponnampalam
GHG Emissions Accounting
Centre of Excellence Lead
E: ghgaccounting@kpmg.co.nz

kpmg.com/nz