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## One Page Summary: Problems Created by Market-based Method for GHG Accounting

The 'market-based method' for greenhouse gas (GHG) accounting allows reporting entities (e.g. companies and public sector organisations) to purchase certificates, or enter into other contractual arrangements, for renewable attributes and then claim that their energy consumption is from a renewable source and the associated GHG emissions are zero. The actual physical energy consumed by the reporting entity is not necessarily from a renewable source, but there is a contractual right to claim the attributes associated with renewable energy.

There are at least **two major problems** with this practice:

1. **The market for contractual emission factors/renewable attributes does not increase the amount of renewable generation**, and therefore does not reduce GHG emissions. This is because large amounts of renewable capacity already exist due to other drivers, e.g. subsidies, and the market for certificates only reallocates who can claim to have used renewable energy without increasing the amount generated. There is a large amount of evidence showing that the market for renewable attributes is highly unlikely to cause an increase in renewable generation (for an overview see Brander et al. 2018: <https://doi.org/10.1016/j.enpol.2017.09.051>).
2. **The market-based method results in GHG accounts that do not accurately reflect the emissions caused by organisations' activities**. For example, if Organisation A purchases renewable energy certificates and claims to have reduced its emissions by 30%, and Organisation B implements an energy efficiency programme and reduces its emissions by 10%, then a climate-friendly investor or consumer may opt for Organisation A as it appears to have achieved a larger reduction in emissions. However, Organisation B has done more to achieve actual reductions in emissions, and therefore the GHG accounts are not accurate or relevant for informed decision-making.

This is a highly important issue for a number of reasons: the market-based method is becoming widespread practice (approximately 300 TWh's of contractual emission factors were purchased in 2016); electricity consumption represents a large proportion of many companies/organisations' emissions and therefore needs to be accurately accounted for; governments are mandating GHG reporting with the objective of promoting emission reductions, but the market-based method impedes this objective; money spent on renewable certificates is money that cannot be spent on actions that do actually reduce emissions.

The market-based method is actively promoted by retailers of renewable certificates and reporting companies who favour low-cost ways of appearing to reduce emissions, and also by some international NGOs (e.g. the World Resources Institute and CDP), who work closely with reporting companies. As a result, the current GHG accounting guidance provided by these NGOs does not represent good practice, and there is an important need for more robust accounting guidance from governments.

**Solution:** The market-based method should not be used, and only the 'locational grid average' method should be used for reporting emissions from grid-connected energy consumption. (If there are contractual arrangements that do genuinely cause additional renewable generation then the emission reductions should be quantified using a project-level method, and reported separately.)

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