

# GHG inventories – content depends on the goal

Many major emitters of greenhouse gases are now building inventories of their emissions. But, as **Lisa Nelowet** explains, these can vary significantly depending on the company's aims

In response to a variety of drivers, greenhouse gas (GHG) emitters around the world are developing different strategies for tracking their emissions. Some companies are proactively positioning themselves for anticipated regulations, another group is focusing on banked emissions reductions as elements of their financial portfolio, while others are responding to calls from their customers for demonstrations of sustainability. Three common inventory goals include:

- responding to government requirements;
- participating in voluntary reporting programmes; and
- engaging in emissions markets.

Companies, municipalities and other entities are creating portfolios of emissions reductions in response to some combination of these goals. Forward-thinking entities are searching for cost-effective ways of creating portfolios that respond to all three.

Why do emissions inventories differ? The answer is that what may seem a straightforward material tracking exercise is complicated by a lack of rules defining a GHG emission reduction. Quality factors such as vintage, surplus, ownership, boundaries, measurement accuracy, leakage and permanence will be reflected differently in an inventory depending on the goals of that inventory. Below we examine these three different inventory goals and how portfolios may differ in response.

## Government requirements

There are both present and future components to be considered when creating an inventory in response to government requirements. While there is currently no federal US regulatory requirement to control GHGs, individual states are moving forward with such measures. States such as Massachusetts, Oregon and

Washington are making GHG offsets part of their requirements when issuing permits for new power plants.

A future consequence of potential federal regulation (creating either mandates or incentives) is the need for baseline protection to enable companies potentially to get credit for early action. Progressive companies that take action now to reduce emissions want to document those actions so they are in a position to claim credit against future government obligations.

The GHG reductions portfolio should evolve along with government regulations. For example, power companies looking to site new facilities in Oregon will focus on carbon dioxide reductions, rather than other GHGs, as called for by the state's Energy Facility Site Evaluation Council. Furthermore, it is likely that, as only a subset of all emitters will be subject to government regulations, there may be less controversy over ownership than might arise under emissions trading. So, an organisation's indirect emissions reductions may qualify under government obligations and should therefore be carefully documented.

## Voluntary reporting programmes

Various entities are undertaking voluntary reporting programmes for any of several reasons. These include:

- to establish a public knowledge base;
- to inform government programmes;
- to establish a baseline for potential early action credit; and
- to respond to public demand for sustainable practices and products.

Voluntary reporting may take the form of structured, government-sponsored programmes such as the Canadian Voluntary Challenge and Registry or the US Department of Energy's 1605 (b) report *Voluntary Reporting of Greenhouse Gas Emissions*. But non-governmental organisations are also hosting reporting programmes. An example is the Greenhouse Gas Registry set up by Environmental Resources Trust. Some entities may be interested in green labelling, pursuing, for example, the certification scheme for climate-neutral products set up by the Climate Neutral Network, a US NGO. Others may choose their own public communications process that doesn't engage any particular reporting programme.

The portfolio of an organisation pursuing these inventory goals may include a wide variety of reduction types to demonstrate to regulators and the public the feasibility of achieving reductions through a range of mechanisms.



Similarly, a company may focus on rigorously documenting a specific type of reduction, again to inform decision-makers and qualify that type of reduction in the future. Others may report all actions resulting in GHG reductions, regardless of ownership, simply to demonstrate the company's overall GHG efficiency.

## Emissions markets

Gradually, a market in GHG emission reductions is growing, both in the US and internationally. For example, BC Hydro, Transalta, Seattle City Light, The Climate Trust and others have issued requests for proposals this year to procure GHG offsets. Maximising revenues from near-term or long-term contracts or option sales is a burgeoning opportunity. In addition, organisations can engage in the market only if they understand their own cost of generating in-house GHG reductions. Given these opportunities, it behoves entities with the potential to generate emissions reductions to consider how to build an inventory of their offsets in a fashion that optimises their opportunity to go to market.

Meeting this inventory goal will mean anticipating and responding to buyer demand. Buyers in a global market may be more interested in rights to emissions reductions achieved in the future, since those are more likely to qualify under future obligations, imposed either by international treaty or by domestic programmes throughout the world. Such buyers may show a preference for low project performance risk and emissions reductions that are clearly surplus, directly owned, easily measured and robustly verified. Buyers in specific geographic regions may require offsets in their region.

Regardless of the purpose of an emissions portfolio, the fundamental process of documenting emissions reductions remains the same. The level of detail and the focus of the inventory, however, may change. Ultimately, as rules develop and emissions reductions are properly defined, inventories will converge and a standard practice will emerge. Until that time, however, leading edge companies may continue to respond to different strategic drivers, and implement different practices in emissions tracking.

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