

GHG Project Case Study

Reaping the Benefits of a GHG Inventory: Pfizer's Experience with Global Data Collection

Since 1993, Pfizer's Energy Conservation Guidelines have required the company to reduce its environmental footprint by lowering energy consumption. To do this, Pfizer began laying the groundwork for a corporate GHG inventory. Armed with this information, Pfizer then decided on an emissions reduction target using the intensity approach, specifically a 35 percent reduction in GHG emissions per dollar of revenue, starting with 2000 as its base year and aiming to achieve the target by 2007. The company also set a goal of obtaining 35 percent of its electricity from "clean technology," including combined heat and power, by 2010.

Environmental Health and Safety (EH&S) personnel serve as the core of the GHG inventory team. With operations in many countries and facilities of differing size and purpose, it was important for Pfizer to design an efficient, flexible, and user-friendly tracking and reporting system for its emissions. Given its complex structure, Pfizer used Web technology to capture worldwide emissions data. It also tried to keep the data collection process simple in order to minimize errors and obtain high-quality information.

The company built a computer application with a custom-designed database and a user-friendly Web interface. Pfizer designed the Web site so employees do not have to convert data. Each year EH&S employees at designated facilities use the standard Web page to report raw activity data, such as fuel oil and electricity consumption. Once this information has been collected, the GHG computer application converts it into emissions and

compares it with the company's targets. The application also uses a built-in algorithm to automatically compare the new data with historical data and to flag potential errors for further investigation. For the personnel at the company headquarters, the system provides valuable information on Pfizer's overall emissions performance.

The facilities use the GHG inventory to find possible emissions reduction projects. Once a year, large facilities are required to report their conservation and efficiency projects through an energy database. Small facilities are required to do so every other year. The project reports are rolled up at the corporate level for analysis and possible replication. Participation is encouraged by evaluating projects using a generous five-year payback. As a result of these efforts, Pfizer has invested more than \$100 million in roughly 600 energy-saving projects at all levels of the company.

For the smaller facilities, Pfizer discovered a number of benefits from requiring participation in its GHG emissions program. The inclusion of the smaller, less visible facilities has helped foster a more positive corporate culture throughout the company. Employees get excited about the conservation and efficiency efforts and the company's green power purchases. Another benefit is that the employees of smaller facilities have offered useful ideas. A small plant in Arnprior, Canada, for example, installed an innovative solar heating wall and is studying the feasibility of having an on-site wind turbine, both of which have never been done at Pfizer. Even though the small facilities account

for only a fraction of GHG emissions, they act like laboratories, acquiring valuable experience with new technologies and GHG reduction activities, which Pfizer can later implement at its larger plants.

With the GHG data collection system up and running, Pfizer began working on the accuracy and quality of its data. This can be improved by using a third party to provide independent verification that

emissions data has been properly collected, converted, and reported. Four Pfizer facilities in Ireland and the United Kingdom are required to have third party verification under the European Union Emissions Trading System for GHG emissions. Pfizer is considering extending third party verification to a global scale in order to keep up with demands for GHG information.