CLIMATE LEADERS
U.S. Environmental Protection Agency

Setting a Greenhouse Gas Emissions Reduction Goal

Climate Leaders *is an EPA industry-government partnership that encourages companies to develop long-term comprehensive climate change strategies. Partners set an aggressive corporate-wide greenhouse gas (GHG) emissions reduction goal and inventory their emissions annually to measure progress towards their goal.*

EPA offers flexibility in goal setting because every company has a unique set of GHG emissions sources and reduction opportunities. Once Partners have completed their base year GHG inventory, EPA works closely with Partners to set an individualized GHG reduction goal. This goal must be:

- Corporate-wide (including at least all U.S. operations)
- Based on the most recent base year for which data are available
- Achieved over 5 to 10 years
- Expressed as an absolute GHG reduction or as a decrease in GHG intensity
- Aggressive compared to the projected GHG performance for the Partner's sector

Goal Evaluation Considerations
Partners represent a diverse group of companies, including energy producers, manufacturers, and service-oriented businesses. What EPA considers an aggressive goal may vary for different sectors and for different companies depending on a variety of factors:

- ***Sector Issues:*** Historically, GHG intensity tends to decrease over time in most sectors as equipment is replaced with newer, more efficient technology. This trend can be rapid in sectors where capital stock turns over quickly, and much slower in traditional manufacturing sectors. The rate of intensity improvement can also be affected by the growth rate of the sector.
- ***Company Issues:*** Partners within the same sector can have different GHG emissions sources and a wide range of reduction opportunities. In addition, some Partners have undertaken GHG reduction activities prior to joining Climate Leaders. These actions are taken into consideration when evaluating a Partner's proposed goal.

Goal Evaluation Methodology
EPA individually evaluates each proposed GHG reduction goal through the following process:

- The goal is evaluated against a projected benchmark GHG emissions improvement rate for each Partner's sector. In cases where a Partner operates in multiple sectors, a weighted average is used. The benchmark is a combination of projected average energy intensity improvement and any projected process-related emissions intensity changes. EPA expects every goal to be markedly better than the projected benchmark performance for the Partner's sector.

- EPA also considers a Partner's current emissions intensity when evaluating its GHG reduction goal. By comparing the Partner's current performance to its sector, EPA recognizes that many companies have already made significant reductions in their GHG emissions or GHG intensity. Companies that are currently very efficient for their sector will not be expected to commit to a reduction goal that is as aggressive as companies that are less efficient than their sector average.

Defining Projected Sector Benchmarks for GHG Emissions Performance
The first step in evaluating a Partner's goal is to create a benchmark for comparison. EPA currently uses the following models to help develop an appropriate benchmark:

- For commercial and industrial companies, EPA uses both the U.S. Department of Energy's National Energy Modeling System (NEMS) and the Bureau of Labor Statistics' (BLS) forecast input/output tables for the U.S. economy to project benchmark energy intensity improvement by sector.
- To project GHG emissions from electric generators, EPA uses the Integrated Planning Model (IPM) developed by ICF Resources Inc.

In cases where emissions from industrial processes are a significant source of a Partner's inventory (such as cement or semiconductor manufacturing), EPA performs additional analysis based on sector-specific sources of process-related emissions data and projections. These data are then combined with the projected energy intensity improvement to develop a benchmark GHG emissions improvement rate for the Partner's sector.

Choosing a Key Performance Indicator for Normalized Goals
EPA allows goals to be expressed as an absolute GHG emissions reduction or as a decrease in GHG intensity. Absolute GHG reduction goals compare total GHG emissions in the goal year to those in a base year. GHG intensity goals allow a company to account for increases or decreases in production over time. The ratio of GHG emissions over an appropriate normalizing factor becomes the Partner's key performance indicator to measure GHG intensity. Normalizing factors are typically measured in physical units (e.g,. tons of steel) or economic units (e.g., value of shipments). Due to the large variability in economic metrics, Climate Leaders generally prefers metrics based on physical values, which track year-to-year changes in emissions intensity more accurately. However, for companies that produce a wide diversity of products, using an economic metric might be more appropriate. EPA offers technical assistance to help Partners choose a suitable key performance indicator.

Reporting and Goal Tracking
Climate Leaders Partners report annual GHG inventory data to EPA to document progress towards their reduction goal. Partners with a worldwide goal report domestic and international emissions separately as well as reporting a worldwide total. This system allows EPA to ensure that Partners are demonstrating leadership through achieving a portion of their GHG reductions in the United States. Once Partners meet their initial Climate Leaders goal, EPA will work with them to set a new reduction goal.

To view current Climate Leaders Partners' goals, visit www.epa.gov/climateleaders