IBM **Environmental Intelligence Suite**

IBM Carbon Performance Engine

The challenge

According the World Economic Forum, among the top three risks for businesses over the next ten years are extreme weather, climate action failure and human-led environmental damage.[1] That has spurred governments, investors and consumers to demand action to address climate change by reducing carbon in the atmosphere which is key to limiting global warming. This is also driving numerous organizations to reduce greenhouse gas (GHG) emissions with many industry leaders setting net-zero or even carbon positive targets.

Suddenly, corporate carbon accounting and reporting, which was once a nice-to-have, is fast becoming a necessity. Several companies are taking initiative to account for and report not only their primary GHG emissions, but those due to their value-chain as well. According to CDP (formerly the Carbon Disclosure Project), USD 4 trillion in assets will be at risk from climate change by 2030. And with estimates of 6% of annual earnings affected by extreme weather and climate events,[2] businesses must factor climate change into their decision-making.

However, carbon reporting is complex and cumbersome with:

- Evolving guidance and standards
- Requirements for consistent operational data
- Needs for digitization rather than manual data collection
- Challenges handling data and governance to meet compliance regulations

Still, the benefits outweigh the difficulties. Some estimates claim that bold climate action could produce more than USD 26 trillion in economic benefits through 2030[3] as companies decarbonize their business processes, increase resource and energy efficiency, develop energy independence, and innovate new products and services.

Streamline, automate, and operationalize carbon accounting to meet sustainability goals

The Carbon Performance Engine, part of the IBM Environmental Intelligence Suite, is helping organizations to identify and monitor carbon emission hotspots throughout their supply chain, using AI and geospatial analytic models. The Carbon Accounting APIs within the Carbon Performance Engine automate the calculations by using AI-driven augmentation and natural language processing to reliably and efficiently accelerate the transformation of your data.

The Carbon Performance Engine carbon accounting APIs are a collection of six data endpoints:

- **Stationary Emissions:** such as those used for comfort heating or other industrial applications
- **Fugitive Emissions:** such as leaks of GHG from refrigeration or air conditioning units
- **Mobile Emissions:** from fleet fuel consumption

- **Location-based Emissions:** the average emissions intensity of grids where energy consumption occurs
- **Market-based Emissions:** such as electricity that companies have chosen and can also be used to factor in renewable credits
- **Transport and Distribution Emissions:** including for products purchased by the reporting company, business-related employee travel, and employee commuting

Of course, guidance and standards evolve and operational data needs to be consistent. That's why the Carbon Performance Engine also has a hassle-free process for updating the reference data, no matter how the guidance and standards evolve. The data used within the APIs is updated regularly for you.

Good business is sustainable business. By taking corrective action, organizations can reduce environmental impact—on air, water, and soil quality—while ensuring business continuity and resiliency. The IBM Environmental Intelligence Suite provides you with a flexible and powerful solution to monitor, manage, and control both the climate's impact on your business, and your business' impact on the environment—and ultimately create a more resilient and sustainable business.

Explore the entire IBM Environmental Intelligence Suite →

Sources

1. The Global Risk Report 2021, World Economic Forum
2. S&P Global Ratings Study
3. United Nations Climate Change

Turn environmental insights into actionable business decisions

The IBM Environmental Intelligence Suite of solutions are empowering companies with the information they need to make smarter decisions. The IBM Carbon Performance Engine helps to simplify the challenge of reporting GHG emissions. With advanced AI and the ability to accelerate the transformation of emission data to carbon equivalents, IBM is helping industries around the world to embrace sustainability and drive new value for their businesses.

IBM Corporation
Route 100
Somers, NY 10589

Produced in the United States of America
October 2021