

# Sustainability Data Management



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# Introduction

Sustainability data management is no longer about regulatory reporting. It's now an integral part of the data fabric that drives corporate decisions and actions, changing the entire landscape of how business is executed. Companies are now navigating the next frontier in the global economy in a world that has sustainability emphasized on almost every product or service delivered. Regulatory reporting has traditionally been viewed as a cost of doing business, introducing constraints that companies must obey if they want to operate in the energy industry. However, carbon emissions have elevated as a corporate characteristic that can impact shareholder value, operations efficiencies, risk management, and capital investment. Companies that are embracing this new frontier are becoming the pioneers of energy industry transformation.

The EPA introduced Green House Gas (GHG) reporting requirements for the energy industry just over 10 years ago. While various EPA regulations were not uncommon to the industry, GHG introduced a unique set of complexities. The industry quickly realized that the type of information the EPA was requesting was not readily available, the science was complex in deriving calculations, and the results had an order of magnitude inconsistency. This was not due to operation issues, engineering problems, or needed corporate policy adjustments, this was almost entirely a data challenge.

Sustainability data management is a relatively new discipline that requires a unique set of tools, processes, and procedures to meet corporate demands. It must have the primary objectives of accurately measuring, tracking, calculating, and reporting GHG information. Taking a narrow view of the problem and focusing just on the regulatory reporting requirements, a company stands at risk of losing market share, competitive advantage, and lowering consumer confidence. What is needed is a comprehensive approach to gain value, as you enhance sustainability capabilities that navigates the pace of a changing business landscape.

# Defining the problem

Much of the emissions data doesn't exist in easily accessible sources. Consequently, much of the information must be derived or estimated. This requires emission events to be calculated using available machine level data, published emission factors, equipment manufacture emission factors, simulation models, and other techniques. The API Compendium of Greenhouse Gas Emissions Methodologies is an excellent source of information on the various calculation approaches and estimation factors.

The concept of primary data is the use of data that provides direct correlation to the emission activity. An example might be calculating the emissions from a diesel engine by measuring the amount of fuel consumed. Secondary data is more general information and relies on estimation factors. An example might be using an industry estimation factor on a pneumatic device for a specific installation to generate an estimated emission value. While there isn't a hard rule as to how much primary data must be used to be considered accurate, some regulations are starting to require that companies expose the percentage of primary vs secondary data that was used in the overall publish emission values. A lower primary data percentage will most likely drive a lower trust in the overall reported emissions values.

The complexity can become even more challenging as the business landscape is constantly changing. There are always ongoing operation changes caused by new assets, modified or adjusted equipment, and divested assets that must be accounted for across the reporting cycle. Without the use of good data management practices, accurate results will be challenging to achieve.

# Data Management Principles

Much of the complexity and challenges can be circumvented by applying good data management principles. Leverage a good data governance organization to ensure there is someone accountable for the quality and reliability of the data. Establish the framework for data quality to measure and monitor the health of the data prior to initiating reporting activities. Ensure that good metadata management practices are used to provide traceability back to the emission sources for verification and trust purposes. Last, follow good accounting principles to ensure the reported information represents a faithful, true, and fair account of corporate emissions.

Many of the data management principles can be underpinned by the right tools and data architecture. Digital emissions data management solutions can go a long way in improving the data management services. In addition, applying sound data management processes and procedures can elevate the effectiveness of data management solutions. Remember it's a people, process, technology approach to solving the problem.

## Balancing the demands to achieve success!

In order to establish the dexterity and agility to manage sustainability data and meet the basic demands of regulatory reporting, transformational data management solutions are needed. The next generation of sustainability data management will need to deliver compliance reporting, operations insights, transparency to shareholders, and lead the organization at the pace of change needed in this climate focused economy. Limiting a solution to just reporting devalues the entire process. Capabilities today need to go beyond reporting to enable analytical models, AI services, and data science to provide continued improvement in reducing environmental impact. The goal will be to support data-driven decisions to achieve corporate objectives and emission reduction targets.

# Conclusion

Sustainability data management is no longer just about regulatory reporting but providing the new set of decision quality information needed by companies to transform in today's carbon reduction environment. It's a journey in developing the capabilities, processes, and procedures at a pace that can bring value today and continue support the industry's sustainability transition goals.

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