



Chevron

Chevron Shows Strong Leadership in Greenhouse Gas Management and Reporting for Operational Excellence

Chevron is one of the world's top energy companies and is committed to its vision of being *the global energy company most admired for its people, partnership and performance*. Its leadership team has spent more than two decades establishing systems that support a culture of safety and environmental stewardship, known as *Operational Excellence (OE)*. One of Chevron's OE priorities is a commitment to addressing the management of greenhouse gases (GHGs). According to the company's 2013 Corporate Responsibility Report¹: "We share the public and government concern about climate change... we continue to address GHGs in our operations and explore innovative, low-carbon energy technologies that will help us manage our carbon emissions."

For a global company like Chevron, timely and accurate emissions reporting is essential to ensure compliance with the GHG regulations proliferating around the world. Many new GHG protocols include cap-and-trade or carbon pricing requirements, so GHG emissions data now has financial implications and faces more stringent standards associated with accounting and third-party auditing. With 55 business units and 10,000 sites worldwide, Chevron required a standardized system for tracking and reporting GHG emissions data.

Building an Information Foundation

In 2008, the launch of the Chevron Greenhouse Gas Emission Reporting System (CGERS) – built on best-in-class Sphera Environmental Performance software – established Chevron as an industry leader in GHG information management.

"Our focus is on putting into place systems that help us improve operational excellence while driving efficiencies and mitigating risk. Sphera has been a long-term partner in this effort," said David Shen, Carbon Management Advisor at Chevron. "Sphera solutions gave us the ability to set up consistent GHG calculation methods that are fully transparent to a third-party verifier." Verifiable data from CGERS played an essential part in helping Chevron earn a position on the respected Carbon Disclosure Project's S&P 500 Climate Disclosure Leadership Index for five years². In 2013, Chevron set a new benchmark by achieving a score of 97 points – near the top of the Index and nine points above the prior year³.

Chevron also received third-party acknowledgment of its GHG information processes, including CGERS, from an independent auditor. In 2013, Chevron engaged Ernst & Young to review its GHG emissions records for the prior three years. Ernst & Young used the rigorous standards of the American Institute of Certified Public Accountants and confirmed that Chevron's GHG calculations were consistent with its stated protocols⁴.

Challenge

- Support operational excellence goals through improved tracking/reporting of greenhouse gas and other emissions data
- Provide transparent and verifiable environmental performance metrics to regulators and shareholders

Solution

Environmental Performance Solution

- Air & GHG Emissions

Results

- Earned a spot on CDP's S&P 500 Climate Disclosure Leadership Index for 5 years – including score of 97 for 2013, near the top of the index and 9 points over prior year
- Received third-party acknowledgment of GHG information processes from Ernst & Young
- Reduced time for submitting GHG data to US EPA through automated reporting process
 - e.g. from 2 weeks to 1 day for one group
- Played a supporting role in effective company-wide efforts to manage global GHG emissions –
 - e.g. GHGs in Sumatra have reduced by 75%
- Participated in Customer Advisory Board that is enabling development of next-generation records management capabilities for all kinds of environmental performance metrics

Chevron Supports Improved Environmental Recordkeeping

Over the years, CGERS has played a supporting role in Chevron's effective company-wide efforts to manage GHG emissions. This ongoing global effort is achieving impressive results – e.g. in Sumatra, where Chevron has 94 oil fields, GHG emissions have been reduced by 75 percent⁵. Across all of Chevron, CO2 emissions for 2013 were below their targeted threshold and overall annual emission for 2012 and 2013 were lower than overall totals for 2010 and 2011⁶.

Making a Significant Impact on Business

"Today, greenhouse gas emissions have financial value in many parts of the world. If you're not reporting correctly, you'll be fined and your company's reputation will be damaged. That's why we need a robust enterprise system to manage our GHG emissions data," said Shen.

Chevron's ability to manage GHG data with CGERS has implications that go far beyond compliance. "In addition to taking inventory of our emissions, we include GHG emissions management in how we plan and execute our business," says the company's Corporate Responsibility Report. "We consider carbon costs when forecasting long-range supply, demand and energy prices, and we thoroughly assess a range of potential future policy and economic growth outcomes."

Continuously Improving to Save Time/Money

As part of its OE culture of continuous improvement, Chevron is now migrating to an expanded suite of integrated environmental performance tools leveraging Sphera solutions – to manage air emissions, water usage/discharge and hazardous waste data as well as GHG emissions information within a single platform. All of Chevron's business units are scheduled to complete their move to the new system by the end of 2015.

In the meantime, Chevron continues to manage emissions data more efficiently than it did prior to the 2008 CGERS implementation. The company has eliminated past reliance on spreadsheets, which had to be emailed to users and often created record management issues. Chevron has also streamlined the process of submitting GHG data to the U.S. Environmental Protection Agency by using a new XML generator tool from Sphera that works with CGERS to support automated reporting. One Chevron business unit reported that this new XML process took only a day for data entry, compared with the past manual data entry process which took up to two weeks.

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"We already recognize substantial savings by being able to use CGERS for reporting GHG to meet both regulatory and corporate requirements," said Shen. "Once we've moved to our consolidated system, we expect to save millions of dollars more each year on IT hardware and software, reducing configuration costs, streamlining business processes and lowering report generation costs."

Strengthening Environmental Records Management

Chevron is also playing a leadership role on the Sphera Customer Advisory Board (CAB) that is supporting Sphera development of ground-breaking system capabilities for records management. In 2012, Chevron as part of a broad Reporting and Records Management project, stakeholders from a variety of departments and disciplines across Chevron gathered at a workshop with Sphera experts and compiled a list of essential requirements for world-class records management capabilities.

These new capabilities are designed to create a robust and structured workflow – from data entry to management approval and quality assurance – for managing all kinds of environmental performance data that is comparable to the rigors afforded to financial accounting data. This will be especially useful for GHG emissions data that is highly visible and may be subject to audit for carbon pricing or cap-and-trade.

"We're glad to partner with Sphera in the development of enhanced records management. Success will allow us to manage GHG emissions records more efficiently and reinforce confidence in the integrity of our reporting," said Shen. "That fits in nicely with Chevron's long-term strategic goals for promoting stronger environmental performance and operational excellence."

¹ Chevron 2013 Corporate Responsibility Report, page 12

² "Additional Information on Chevron's Greenhouse Gas Management Activities," page 1

³ Chevron 2013 Corporate Responsibility Report, page 13

⁴ "Independent Review of Chevron's Greenhouse Gas Emissions Inventory," page 1

⁵ Chevron 2013 Corporate Responsibility Report, page 13

⁶ "Additional Information on Chevron's Greenhouse Gas Management Activities," pages 1-2