



# Managing Carbon within the Supply Chain with e3ECM

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Already one of the principal operational risks facing today's organizations, enterprise carbon management is a moving target thanks to growing supply chain pressure, changing market perception, competitive product claims, and an ever-evolving regulatory framework of reporting requirements and emission limits.

Research with the Carbon Disclosure Project (CDP) Supply Chain member companies and their suppliers found that one of the key elements to effectively managing carbon and climate change in the supply chain includes improving suppliers' emissions management, reporting and accuracy of data.

Linking carbon disclosure to the boardroom, e3's Enterprise Carbon Management (ECM) software delivers the comprehensive greenhouse gas monitoring, management and reporting capabilities today's organizations need. ECM simplifies the process of maintaining an accurate, defensible and verifiable GHG inventory, enabling successful implementation of carbon reduction strategies, support marketing claims, meet investment or shareholder requirements, fulfill regulatory obligations, and assume a leadership role on climate change.

## **e3ECM Features**

- State-of-the-art, web-based software platform that can be deployed as a dedicated application behind a corporate firewall or hosted externally allowing easy access for suppliers
- Secure data model based on standards used in leading financial applications ensuring the confidentiality of supplier information
- Flexible data-import and enterprise connectivity interfaces to support automated data collection and roll-up allowing for the simplification of data collection within the supply chain
- Full task and document management features to support :
  - Data collection timelines and milestones that can be easily communicated throughout the supply chain
  - Follow up with suppliers use Email Notifications and Alerts to tell suppliers when a task has been assigned to them, or when an incomplete task is past its due date
  - Implementation of GHG reduction strategies
- Ability to manage both real and what-if operating scenarios (e.g., test the impact of proposed reduction strategies before investing capital in implementation)
- An emission inventory in near-real time and integration into a single corporate dashboard
- Project data management module to provide tracking of ongoing reduction projects and programs
- Client configurable data validation, workflow and rules engines



### **e3ECM Benefits**

- Complete support for all major international GHG reporting protocols (e.g, WRI, ISO 14064/14065)
- Automated tracking of client-defined KPIs, such as carbon emissions per day, per employee, per unit of space, per facility, per unit of EBITD
- Real-time monitoring of all GHG generating activities, allowing for high-resolution tracking and reporting across the enterprise and down to the supplier and individual equipment/employee level
- Management of detailed GHG emission reduction targets that span the supply chain
- Support ongoing comparison of actual performance to plan
- Automated generation of highly detailed GHG emission calculation documentation in support of third-party accounting, accreditation and/or audit services
- Financial tracking of carbon offset costs and revenue streams associated with GHG reduction projects

### **PDF Form Submission**

Does your organization have standard forms that suppliers can submit for record keeping? With PDF Form Submission, suppliers can complete this process easily through your e3 application. First create an electronic version of the form from a scanned paper copy, from a Microsoft Word document, or from any other digital source that can be saved as an Adobe PDF file. Once the PDF file has been created, it can be sent through the e3 application via email to individuals, suppliers or groups. Suppliers can open and complete the form on their desktop using Adobe Reader, and email it back to the application. Form submission can be done securely (i.e., user name and password required) or anonymously. Suppliers don't need knowledge of the e3 application to access this feature, making it ideal for form distribution across the enterprise.

### **Automated Data Interfaces**

Eliminate the need to manually enter data into the application, saving precious time and resources. Records in your e3 application can originate from your organization or your suppliers existing applications or systems, such as pollution monitoring devices, financial systems and energy management technologies. All data, wherever it originates, is accessible within the application for viewing, reporting and other tasks.

### **Data Import Wizard**

Your organization or supplier might have historical data, or receive data from another organization, that are stored in Excel spreadsheets. The Data Import Wizard eliminates the need to manually enter this information into your e3 application. Various file formats are supported, including Microsoft Excel, Microsoft Access, and Comma Separated Values, and no code modification is required.

### **User Defined Reports**

Create reports based on data available within your e3 application without the need to modify the system. Guided through the process by the Report Wizard, any user can easily specify record filtering

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Date: August 2009



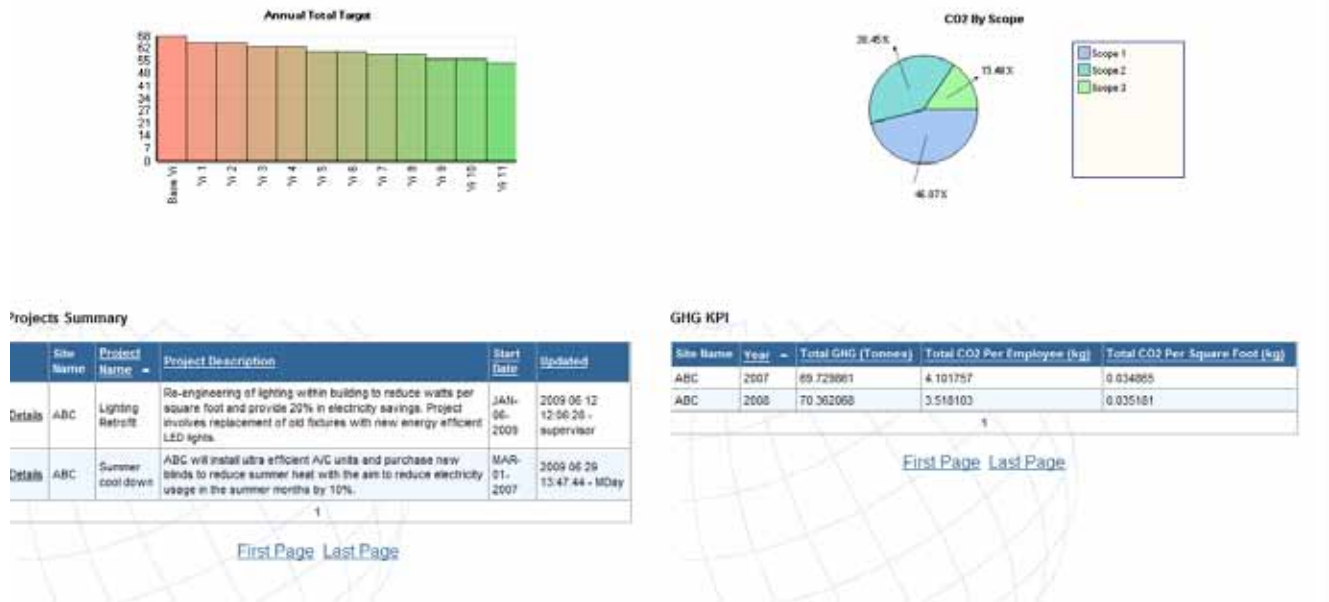
criteria, sort and group records as needed, and instigate calculations based on selected numerical values.

**User-Defined Forms**

An easy step-by-step wizard guides the user/supplier through the creation of customized forms. These forms can store text, numerical and date values. Textboxes, checkboxes, and drop-down list boxes can be used to enter and present data on the form. The time usually required to create a form is significantly reduced, and the costs of customization eliminated.

**Sample Screen Shot**

*Sample of a Client Specific Dashboard*





Site Information Details

Logged in as Julie Matthews

Site Summary | Standard Details | Query Records | Reset Form

### Site Information Details

**Site Name:** ABC **Updated:** 2009-05-19 10:26:41 - supervisor  
**Site Status:** Active **Lease Expiry Date:** Jan 01 2010  
**Ownership Status:** **Total Area (sq. ft.):** 2000  
**Total Number of Employees:** 20 **Percent Equity Owned:** 100.00 %  
**Comments:**

**Site Address:** 123 Sustainable Way  
**City:** Waterloo **Country:** Canada  
**Mailing Address (Leave blank if same as Site Address):**  
**Address:** **City:** **Prov. / State:** **Postal Code:**

**Annual GHG Summary** | Quarterly GHG Summary | Monthly GHG Summary

Operating Scenario ID	Year	CO2 Equivalent	Units
OS-ABC	2009	1,231,094,602	tonne
OS-ABC	2008	70,302,675,567	tonne
OS-ABC	2007	89,729,006,285	tonne

Emission Results for Scope 1,2 and 3 Activities

Logged in as Julie Matthews

Site Summary | Standard Details | Query Records | Reset Form

### Electricity Consumption Details

**Site Name:** ABC **Updated:** 2009-05-19 10:26:41 - supervisor  
**Electric Meter ID:** ELE-ABC **In-Service Date:**  
**Equipment Type:** Electric Meter **Out-Service Date:**  
**Meter Name:** **Description:**  
**Location:** **Scope:** Scope 2

**GHG Summary** | Electricity Consumption | Emission Factors | Emission Results

Operating Scenario ID	Start Date	End Date	Emission Material	Quantity	Units	Calculation Statement	Updated
OS-ABC	Dec 01 2008	Dec 31 2008	Carbon Dioxide	2,345	tonne	Electricity consumption (10000 kWh) * Emission Factor (234.5 g/kWh) * Unit Conversion (3 tonne/g) = 2,345 tonne Carbon Dioxide	2009-05-19 17:07:47 - Import supervisor
OS-ABC	Nov 01 2008	Nov 30 2008	Carbon Dioxide	1,878	tonne	Electricity consumption (8000 kWh) * Emission Factor (234.5 g/kWh) * Unit Conversion (3 tonne/g) = 1,878 tonne Carbon Dioxide	2009-05-19 17:07:47 - Import supervisor
OS-ABC	Oct 01 2008	Oct 31 2008	Carbon Dioxide	1,173	tonne	Electricity consumption (5000 kWh) * Emission Factor (234.5 g/kWh) * Unit Conversion (3 tonne/g) = 1,173 tonne Carbon Dioxide	2009-05-19 17:07:47 - Import supervisor
OS-ABC	Sep 01 2008	Sep 30 2008	Carbon Dioxide	4,690	tonne	Electricity consumption (20000 kWh) * Emission Factor (234.5 g/kWh) * Unit Conversion (3 tonne/g) = 4,690 tonne Carbon Dioxide	2009-05-19 17:07:47 - Import supervisor
OS-ABC	Aug 01 2008	Aug 31 2008	Carbon Dioxide	4,690	tonne	Electricity consumption (20000 kWh) * Emission Factor (234.5 g/kWh) * Unit Conversion (3 tonne/g) = 4,690 tonne Carbon Dioxide	2009-05-19 17:07:46 - Import supervisor
OS-ABC	Jul 01 2008	Jul 31 2008	Carbon Dioxide	2,345	tonne	Electricity consumption (10000 kWh) * Emission Factor (234.5 g/kWh) * Unit Conversion (3 tonne/g) = 2,345 tonne Carbon Dioxide	2009-05-20 13:42:52 - MKey
OS-ABC	Jun 01 2008	Jun 30 2008	Carbon Dioxide	1,878	tonne	Electricity consumption (8000 kWh) * Emission Factor (234.5 g/kWh) * Unit Conversion (3 tonne/g) = 1,878 tonne Carbon Dioxide	2009-05-19 17:07:46 - Import supervisor

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## About e3 Solutions Inc.

There's no question about it—thriving in the 21st century will depend on the ability to track, manage and report on climate, environmental, carbon and GHG-related risks with speed and precision. Designed to support the demanding Corporate Social Responsibility (CSR) programs of Fortune 1000 companies, e3's industry-leading software and services helps top organizations across North America measure, monitor and verify their environmental and carbon footprints.

Through an integrated suite of applications and supportive tools, e3 Solutions offers the most effective enterprise carbon management software system available anywhere in the world. Sophisticated environmental information management and incident management solutions round out our offerings.

Linking the utility room to the boardroom, e3's Enterprise Carbon Management software delivers the comprehensive greenhouse gas monitoring, management and reporting capabilities today's organizations need.

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Author: Julie Matthews, Director, Carbon Advisory Services Group, e3 Solutions Inc..

Additional information about Direct Energy Consulting is available at [www.e3solutionsinc.com](http://www.e3solutionsinc.com)