



**The 2011 Enterprise Energy and
Carbon Accounting (EECA)
Software Market
A Buyers Guide**



A Report from Groom Energy Solutions and GreenBiz
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Enterprise Energy and Carbon Accounting (EECA) Report Excerpt

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Executive Summary

This report analyzes the market for carbon management software as a stand-alone product or as module of an EHS/ERP or energy management suite. The intended audience is CIOs, CFOs, Directors of EHS and Sustainability, Directors of Energy, Directors of Facilities, and sustainability and environmental consultants who will be assisting their clients in selecting vendors. Our goals are to save you research time and to help you make better decisions when selecting an EECA solution. We analyzed 75 vendors, had 32 vendor briefings and demos, and name 10 Leaders in the field.

This report is not targeted at companies seeking to purchase solely an EHS or energy management offering or that do not have needs for carbon management.

We modified our category name from previous versions of the paper from Enterprise Carbon Accounting (ECA) to Enterprise Energy and Carbon Accounting (EECA). The additional "E" reflects the growing customer need to manage carbon and energy together. Other category names in the industry also reflect this trend: Enterprise Carbon and Energy Management (ECEM), Sustainable Business Systems, Energy Resource Management, Energy and Emissions Management (EEM), and Energy and Carbon Intelligence System (ECIS).

This is the fourth version of this report since 2008 and marks a significant change from the three earlier reports with an added emphasis on and ranking weight for energy management.

This report covers carbon accounting for a company's operations (Scope 1, 2, and 3) and does not cover other carbon software needs such as carbon auctions, offset management, product life cycle analysis, or specialized areas (e.g., tools for land use, agriculture, and CO₂ soil sequestration). Neither does this report address issues in carbon accounting methodology, verification, or regulation.

Groom Energy Solutions and Greenbiz are independent of and do not have a financial arrangement or partnership with any vendor covered in this report.

Financial amounts in this report are in U.S. dollars.

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need to spend their time understanding the company's needs and implementing carbon and energy reduction projects, not manipulating spreadsheets. Leaders can save money and increase staff productivity by abandoning spreadsheets and investing in secure, database-driven, multiuser EECA software.

The problem with spreadsheets

For valid reasons, spreadsheets are often the default choice when modeling a new business process and are currently used by the vast majority of firms to aggregate, calculate, and report carbon emissions.

Spreadsheets allow a single user to enter, manipulate, analyze and visually represent numerical data with great flexibility and which can be easily distributed via email or a network-accessible location. However, without a content management system to coordinate and track changes from multiple sources, spreadsheets quickly become unwieldy and error-prone. Lack of proper documentation, validation, and testing of spreadsheet formulas and macros present significant exposure for data veracity. This problem is compounded when a spreadsheet becomes so complex that only the original author can make required fixes and improvements.

Spreadsheets Grow Large

"We manage our carbon data for the entire company in an excel file, which is now 25MB."

– Fortune 500 pharmaceutical firm, which publicly reports carbon emissions

As carbon data collection and reporting needs increase, spreadsheet disadvantages become more acute and lead to additional labor costs and frustration when coordinating changes and updates. Additional drawbacks and challenges of using spreadsheets for carbon accounting include the following:

- Obtaining ad hoc reports and analysis
- Reconciling year-to-year datasets
- Creating and enforcing data ownership, including global standards for asset types and energy usage
- Entering data error-free, especially without proper cell protection and validation formulas
- Generating real-time reports and viewing reports across the organization
- Managing and sharing large files

Spreadsheet frustration

"We had numerous problems with spreadsheets. We had 6 spreadsheets with one sheet that pulled it all together. We could not restrict some users to data entry only and the linked spreadsheets kept getting fouled up. This reduced our ability to have data entry at each site. Moreover, the spreadsheets created a "my data, my tool" problem, where a spreadsheet expert exerts control and access to create "award winning" graphs for management."

– From a frustrated sustainability consultant working on a GHG inventory project with a team at Fortune 500 consumer goods manufacturer

When do spreadsheets make sense?

EECA software recommendations vary by size of the firm and the sophistication of existing processes. For small- and medium-sized firms where the majority of emissions are Scope 2, spreadsheets or free

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Number of customers for each top vendor

Groom Energy estimates

	Vendor (Country of HQ)	Est. # of Carbon Customers	Large Carbon Customers
1	Advantage IQ	20 to 30	
2	CarbonSystems	20 to 30	Akzo Nobel, Balfour Beatty, Canon, Colliers International, CSIRO, Deloitte, Dominos, Elders, Fortescue Metals Group, Fuji Xerox, George Weston Foods (GPT), Metcash, Macquarie University, Novartis Pharmaceuticals, Ramsay Health Care, St. John of God, Investec, Spotless, Visy Industries
3	CA Technologies(US)	10 to 20	Cappellini, Datotel, Easynet, BMC, Fujitsu, Logicalis Tesco, Wyndham Worldwide
4	Credit 360 (UK)	10 to 20	Barclays, Danske Bank, McDonalds, ProLogis, RBS, Staples
5	Enablon (FR/US)	30 to 40	Accenture, Airbus, Anglo American, ANZ, Bombardier, Bosch, Canon, Carrefour, Centrica, EADS, Finmeccanica, Gildan, Heves, Hospira, Illinois Tool Works, Marks & Spencer, Sainsbury's, Suez, Timberland, Total, Tyco, UBS, UPS, Veolia, Volkswagen
6	EnerNOC (US)	10 to 20	BayState Milling, Cabot Creamery, Commonwealth of MA, High Liner Foods, Seaport Cos., SouthEastern Container, Tuman Group
7	Entech	10 to 20	Customers validated under NDA by Groom Energy
			AEP, Alliant Energy, Arch Coal, Dimension Data, Freescale, Los Angeles World Airports,

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Acquisitions of Software Vendors Also Slowed

Date	Acquirer	Target
2010	No acquisitions	
Nov 2009	First Carbon Solutions	Enverity
Oct 2009	SAI Global	CINTELLATE
Sep 2009	IHS	Environmental Support Solutions (ESS) for \$59m
June 2009	EnerNOC	eEquilibrium
May 2009	SAP	Clear Standards
June 2008	Johnson Controls	PWI Energy
Mar 2008	IHS	Environmental Software Providers (ESP)
Mar 2008	IHS	Dolphin Software

Traditional energy management vendors make strides and compete/partner

Reducing carbon and energy requires energy usage data, which most companies don't have. Accordingly, ties between energy and carbon processes and vendor solutions are natural. An important new trend in 2009 was the introduction of carbon modules by energy management vendors. A handful of companies told us they were only considering carbon solutions from their existing energy management vendor. This trend played out in 2010, as traditional energy management providers such as AdvantageIQ, EnerNOC, Johnson Controls, Pace Global, Summit Energy, and others met customer needs for carbon reporting. More companies are issuing RFPs with energy and carbon requirements and making purchase decisions based on the combined energy and carbon capabilities of vendors. We are aware of multiple of companies not selecting a Specialists vendor but choosing instead a traditional energy management vendor because of a strong need to manage carbon and energy with one software tool.

Some companies are using both Energy Management and Specialists vendors. One large retailer is using both Hara and Verisae, while another retailer uses CA Technologies and Verisae. A large financial services firm deployed AdvantageIQ, ENXSuite, and EnerNOC. Johnson Controls is working with EnergyCAP, while Enablon and Entech are partnering.

One large manufacturer told us they would be much more likely to purchase a product from a Specialist vendor if they could validate its pending partnership with utility bill payment vendor NISC.

If the growth of the carbon market in the U.S. slows in the future, this vendor category may shift even more toward energy reduction and EHS and Specialists vendors further augment their software offerings with energy management services such as site energy audits.

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EECA Implementation Lessons from 5 Global Firms

Five firms that implemented EECA solutions in 2010 shared their lessons with us.

Implementation lessons from a \$4B global provider of financial transaction technology

1. Establishing the discipline for monthly reporting of energy consumption at small facilities on the other side of the world is very difficult. Only the finance organization has that level of discipline to do this reliably.
2. Units of measurement (pounds, kilograms, therms, ccf, mcf, gallons [U.S. and imperial]) are all over the map, and an EECA system must have great flexibility in selecting and converting to the desired units for reporting.
3. EECA systems need to have updates running in the background that do not require conscious attention by administrators:
 - o Automatic updates to currency (fx) conversion tables that administrators define
 - o Automatic updates to global emission factors on a periodic basis
 - o Other attributes that need periodic revision should run in the background and not require manual intervention
4. Outside the U.S., data entry in the local language is very important to increase usage.
5. A strong need exists for automated bill aggregation and entry to the system to eliminate the manual processes. Focus should be on how to access usable data for decision making, not the effort to get data into the system in the first place.
6. Regardless of the passion of the person driving the EECA implementation, you need hard commitment on the part of all organizational leaders to make the system successful. It should not be an ancillary effort driven by the "environmental guy."

Lessons from a \$5B global, life sciences company

1. There will never be one system that will perfectly meet all your needs. We found that even though we viewed so many systems and we chose the one that best fits our needs, it is never going to do all

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2. CarbonSystems (AU)

Summary: With headquarters in Australia, (Global) Carbon Systems sells a carbon and energy SaaS offering and has recently expanded to the United States.

URL	www.globalcarbonsystems.com
HQ location	Sydney, AU
Year founded	2004
# of employees	35
Name of carbon product	Energy & Carbon Intelligence System (ECIS)
Large carbon customers	Akzo Nobel, Balfour Beatty, Canon, Colliers International, CSIRO, Deloitte, Dominos, Elders, Fortescue Metals Group, Fuji Xerox, George Western Foods GPT, Metcash, Macquarie University, Novartis Pharmaceuticals, Ramsay Health Care, St. John of God, Investec, Spotless, Visy Industries
Notable recent news	Nov '10: Closed financing round

