Tools for sustainability

How and why to work with supply chains on energy efficiency

Four steps can help to create sustainability programs that work for both buyers and suppliers.

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Everyone loves energy efficiency. After all, companies can save money while improving their environmental footprint. What's not to like?

Many companies are already trying to improve how they obtain and use energy. Driven by the high costs for oil and power, heavy energy users in particular have made efficiency a priority. Many have developed useful on-site diagnostic systems.

Often, however, organizations are part of complex networks in which energy use at any single site is too low to merit much attention, or beyond their control. Among consumer-goods companies, for example, upstream supply chains can account for most of the energy used to create their products. Of course, these suppliers could invest in efficiency themselves, and many do. But in cases where they lack the will or expertise, it can make sense for buyers to get involved—for both business and environmental reasons.

Why bother?

Companies that collaborate with their suppliers can gain shrewd insight into supply-chain performance—for example, by getting a sense of how able and willing their suppliers are to adapt. In the longer term, as suppliers spend less on energy, the lower cost of production can translate into lower prices. To give a sense of the scale of the opportunity, consider that purchased goods can account for up to half of a company's cost structure, and energy costs for suppliers typically exceed 10 percent of that. A 10 percent energy-efficiency improvement in such a supply chain would improve net margins by up to 50 basis points.

There is the additional matter of demonstrating improved energy performance to meet ISO 5000[1] energy-management standards, which may soon become a prerequisite for certain customers—particularly governments and institutions. Few companies have the rigorous documentation, reviews, metrics, and processes in place to reach ISO 50001 compliance; this requires an organization to develop and implement an energy-management system that includes the planning and execution of improvements. Many also lack the skills required to capture energy-

savings opportunities, even though investment in these capabilities can pay back quickly. Buyers, by working with suppliers, can help move them a long way toward ISO certification.

Even given these advantages, such cooperation doesn't happen all that often. In a recent McKinsey survey of executives from 340 companies, half agreed they should work more with their supply-chain partners on sustainability, but only a third believe such efforts so far have been effective.

The most common approach to tackle sustainability in the supply chain has been the scorecard. Buyers or nongovernmental organizations (NGOs) ask suppliers to report on a range of qualitative and quantitative metrics and to undergo sustainability-related inspections and audits. Suppliers are then graded on their responses. For example, the supply-chain program of the CDP (previously known as the Carbon Disclosure Project) includes a comprehensive supplier questionnaire. More than 60 member companies and nearly 3,000 of their suppliers report emissions data and sustainability practices, including those that relate to energy management. The Sustainability Consortium (TSC), comprising more than 100 companies, universities, and NGOs, is developing a rigorous scorecard to measure and report sustainability-related metrics for specific consumer-product categories. Its working groups have already created sustainability-measurement and reporting systems for electronics, agriculture, packaging, and other sectors, and they've developed metrics and practices for their members to follow.

Scorecards, however, are inherently limited because the information tends to go only in one direction: the suppliers fill the scorecards out and send them to buyers but often do not receive much in return. For example, suppliers might learn how they compare with their peers in different categories but not how to improve their performance.

TSC is addressing this shortcoming with the use of "tool kits" associated with its category sustainability profiles, showing suppliers improvement opportunities associated with hot spots in a supplier's performance. Given the differences in production processes across even suppliers of the same products, however, standardized evaluation can be difficult, and suppliers may be reluctant to share performance or cost data. Finally, and perhaps most important, such assessments tend to fall short on providing suppliers with specific, actionable information on what improvements they can and should pursue.

Doing better

For these reasons, many companies have begun to think about how to develop an approach that offers benefits for both sides. One global retailer, for example, knows that its supply-chain footprint accounts for many times more greenhouse-gas emissions than actual company operations do. Since 2010, the retailer has worked with an environmental NGO to cut supply-chain emissions, in large part by capturing energy-efficiency opportunities. In addition to working

with the CDP and TSC and developing its own product-sustainability index, the company has rolled out an internal supplier-energy-efficiency program. In-house experts audit supplier sites and then suggest efficiency improvements, such as lighting retrofits and automated building-control systems—the same kinds of projects that have proved effective in the company's own facilities.

This effort and others like it have certainly helped some suppliers improve their operations, but it would be difficult to scale up to a supplier network that includes thousands of individual facilities. So innovative companies are combining the scalability and reach of scorecards with specific, factory-level guidance and support (see sidebar, "The RedE approach").

Once buyers decide to take the initiative and go this route, there are four important steps to create a sustainability program that works for both buyers and suppliers.

1. Identify promising elements of the supply chain. Determine which product categories are the most energy intensive, either by analyzing public data or by working with suppliers directly, and then estimate which suppliers have the lowest rates of active energy management. On the basis of this information, it is possible to make a good estimate of the opportunity for savings for each product category. Once high-potential categories—those that are high in energy intensity but low in active energy management—are identified, assess which category managers are interested in addressing energy efficiency and developing a collaborative supplier approach. Rank order the categories, based on cost-saving potential and internal support in the high-potential companies.

2. Develop a two-way engagement model. Once the buyer has determined which product categories are most promising, the next step is to identify high-potential activities that can help category managers improve their performance. In the scorecard approach, there's an unstated theme: "Do this, and do it this way, because it's important to us." The thinking behind a two-way model is to present a set of practices and ideas that can be both financially valuable and energy saving, such as installing energy-efficient lighting or improving compressor efficiency. The premise is to provide suppliers with the information and tools they need to make their own decisions (see sidebar). The model might also present advanced methodologies, such as emissions estimations, that can help both parties assess the financial and environmental benefits. The information goes both ways. It could take the form of something as simple as the buyer producing a spreadsheet with a list of projects and essential variables, and the supplier entering its own data in addition to projects that may not have been included on the original list.

Buyers also need some way to monitor their suppliers, for example, by requiring them to submit regular progress reports. A feedback mechanism illuminates what isn't working. As participants go through the process—completing one project after another—they track savings and expenditures. Over time, the result is a database, grounded in real-life experiences, that informs and refines the model.

The RedE approach

Building a two-way engagement model is no simple task. To do so, companies need to know two things: how to improve energy efficiency and how to build an interactive platform that works for both suppliers and buyers. Enter the Resource Efficiency Deployment Engine, or RedE.

RedE is a simple but comprehensive web-based platform that McKinsey developed to identify, rank, implement, and track energy-efficiency projects. Securely based in the cloud and easily scalable, RedE is an open ecosystem of buyers and suppliers, benefiting from the data and contributions of multiple supply chains. RedE suggests a targeted list of what can be done, provides an estimate of costs and savings, describes each improvement project, and offers a tracking platform.

RedE operates from a database of nearly 100 levers— approaches that have worked in practice to deliver cost and energy savings to business. There are three main types of levers: settings (for example, optimizing oven parameters), refurbishment (for instance, resurfacing the interior of a pump), and replacement or redesign (say, installing new energy-efficient equipment or reconfiguring a pumping network). Suppliers can plug in their equipment and process information and get a clear sense of which levers might be worth pulling to target costs and savings.

Suppliers can use RedE to build a detailed business case for each project, manage implementation, and track savings. Buyers, in turn, can use RedE to measure suppliers' efforts, both at the individual and aggregate level. They can see who is most active, nudging those who are not and learning from those who are. Sensitive and proprietary data from individual suppliers are not shared—a crucial element in building confidence. In short, buyers can develop insights about their suppliers on an individual basis while also getting a sense of benefits

in the aggregate. Both suppliers and buyers can see and measure relative performance. In effect, the two sides collaborate with each other to improve energy efficiency and compete with each other on results.

Following a commitment to reduce supplier emissions by 20 million metric tons by 2018, one global retailer is using RedE to accelerate improvements in its supply chain, starting with successful pilot projects in the plastic-toy and electronics categories. First, the retailer defined the most promising projects based on prior work with suppliers and ensured that these were included in the web-based tool. Then, it built support with merchants, communicating the idea that participation was one of the retailer's priorities.

About half the invited suppliers chose to use the voluntary platform. Specifically, they input information about their facilities, loaded and reviewed the relevant levers, and then selected a set of projects to pursue in their plants. Suppliers refined the savings estimates with their own data and ultimately implemented many of the chosen initiatives. The retailer assessed the feedback, improved the tool, recalibrated the cost and energy-savings estimates, and added new levers.

This improved RedE's functionality and supplier value proposition, which in turn improved adoption and savings rates. Based on these results, the retailer is rolling out RedE in more categories and aiming to have it play a significant role in meeting its target of reducing emissions in its supply chain by 20 million metric tons.

The evidence is strong that value is being lost due to wasted energy in product manufacturing. RedE provides suppliers with the knowledge and tools to lower their production costs and buyers with the insight to understand what is achievable.

3. Get started. Don't wait for everyone to get on board; pilot the approach with suppliers in each category that are willing to test the two-way model and experiment with the tools. Avoid the buckshot approach, particularly at first. It's better for buyers to focus on one category at a time, figure out what works, get and apply supplier feedback, and then move on to another category. This should be a deliberate, step-by-step, cumulative process. As the buyer refines the content, in the form of projects that have proved to work, more suppliers will see it is relevant and worthwhile. As more companies get involved, the quality of the data and projects improves. A virtuous circle forms: more iterations bring better information, which brings in more participants.

4. Involve other actors. Companies can use peer pressure to encourage other buyers to engage their supply chains, too, particularly when these overlap. The Carbon Disclosure Project has found that when a single buyer requests information, most suppliers don't bother to answer. When two or more companies ask, the response rate is more than 75 percent. In addition, building a coalition of peer companies can help to address concerns that scorecards and sustainability tools are just another way to squeeze suppliers on pricing.

Improving resource efficiency in the supply chain is not easy—but it is possible. What matters is being systematic, collaborative, and data driven. By developing such an approach, buyers and suppliers can build a lasting, trust-based model for improving resource efficiency, rather than treating it as a typical corporate initiative with clear start and end dates. The most important thing of all, however, is to begin. ■

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[1] International Organization for Standardization's requirements for establishing, implementing, maintaining, and improving energy-management systems.

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