Putting The Pieces Together: Building An Energy Management Program To Drive Value

Clean energy is a hot topic of conversation (at least in the geeky circles that I run in). The business association Advanced Energy Economy just released a study announcing that the advanced energy industry, including distributed generation, demand management services and technologies, biofuels, microgrids and more, has grown to $1.4 trillion in annual global revenue.

Undoubtedly, large corporate energy consumers are poised to capture significant value from the advances in energy technologies driving the growth of this industry. Smart companies are building programs and strategies to create value by managing the energy they consume more effectively.

So what actually makes for a strong, holistic energy management program? Through EDF's Climate Corps program, I have gotten a glimpse at how leading companies are approaching this. From the Climate Corps fellows we have sent to more than 350 organizations such as adidas, JLL and Volvo since 2008, I have learned the following about how companies are creating significant value through clean energy and energy management programs:

1) It starts with energy efficiency

For every company and organization, an energy management program really begins by tackling energy efficiency projects. This has been a focus of many companies for a decade or longer. In fact, according to a recent report from the American Council for an Energy-Efficient Economy, or ACEEE, energy intensity in the U.S. has decreased 50% since 1980; this represents $800 billion in annual savings. ACEEE also predicts that there are cost-effective opportunities to reduce energy use by an additional 40% to 60% by 2050. This represents a huge investment opportunity for American businesses. Top companies continue to focus on energy efficiency as new technologies come online and costs decrease through scale.

2) Renewables bring stability and savings

With a strong energy efficiency program in place, the next piece of the puzzle is exploring renewable energy procurement. Renewable energy sources have come down dramatically in costs in just the last few years, and we are seeing an increasing number of companies signing large deals that deliver cost savings and stability.

What’s driving this trend? Well, for one thing, solar panels are more than 100 times less expensive than in 1977 and 80% cheaper than they were in 2008, and costs continue to

decline, according to Bloomberg New Energy Finance. Over the past 15 years, solar and wind deployment have significantly outpaced just about every serious prediction, and the volume of investment is helping to further drive down costs. The recent extension of the federal investment tax Credit and production tax credit will undoubtedly unleash significant investments in both solar and wind generation through 2020. All of this investment is helping to create economies of scale, resulting in renewable power sources that can generate electricity at or even below the cost of traditional fossil fuels like coal.

This new regulatory certainty, along with the declining costs for renewable electricity and increasing volatility in traditional energy markets, there is agrowing list of companies making lucrative investments in clean, renewable energy.

3) Get smarter with data

In order to make smarter decisions around efficiency and procurement, companies need to harness energy information and data management systems. As companies have become leaner through energy efficiency and cleaner through renewable energy procurement, they have also become more sophisticated in how they approach energy management.

A trend we are seeing across industries is the use of complex data management systems to inform energy decision making, everything from leveraging data to target energy conservation measures, to automating building systems and participating in demand response, which is a voluntary, energy conservation program that pays people to curtail or shift their energy use when the grid is stressed.

4) Look outside the fence line

Leading organizations are already tackling these first three steps; for many, the next piece of the puzzle is to bring the same level of rigor to their supply chain impacts. Tackling supplier energy use and greenhouse gas emissions is an increasingly large part of many corporate sustainability goals. And this makes sense: By helping suppliers reduce their operational expenses, companies can drive down their supply chain costs and thus create value for the business.

Engaging with suppliers, and managing supply chain risk, is also a key concern for the investment community. To maintain a competitive advantage and to address the concerns of large investors, companies will need to continue to find innovative ways to engage with their suppliers. This includes bringing in partner organizations to help provide the know-how and resources to make the needed changes.

5) Transparency brings new insights

The final piece of the puzzle involves disclosure and goal setting. Now, disclosure is not a direct driver of cost savings in a traditional sense, but it is a major driver of risk

mitigation. By addressing risk, companies can seize additional efficiency opportunities, prioritize capital investments and avoid unforeseen costs or disruptions.

Companies have been disclosing their energy and climate impacts for some time now and this disclosure has precipitated a positive feedback loop on corporate climate change actions. Companies are increasingly reporting not only on their overall climate impact, but are setting public goals and then reporting on progress year-over-year. This trend will continue with a growing focus on supply-chain impacts and risks.

This system also serves to publicly highlight those companies that have not yet participated in disclosure or begun to set emission-reduction targets, information that is already driving investment decisions. Nearly two-thirds of institutional investors surveyed by Ernst and Young in 2015 indicated that companies are not adequately disclosing environmental, social and governance risks. They also found that more than one-third of these investors actually took steps to cut holdings due to stranded asset risk in the past year. It is important to note that this phenomenon is not limited to the fossil fuel sector as most assume. For instance, real estate represents a significant stranded asset risk due to rising sea levels, changing weather and occupational changes.

Companies that publicly disclose their energy and carbon impacts are more likely to set, and achieve, aggressive reduction targets. Disclosure also helps to paint a better picture of current practices across an entire industry, and better data leads to the faster adoption of best practices. In a sense, disclosure helps to create a race to the top, which is a trend that benefits everyone.

The clean energy industry is evolving quickly and there are significant business opportunities to be had. Leading companies are building robust teams and leveraging external partners to stay at the cutting edge and drive value for their businesses. Will your company be next?

As a project manager for EDF Climate Corps, Scott Wentzell works to develop relationships with leading organizations and help build momentum towards a low-carbon economy. EDF Climate Corps is a one-of-a-kind fellowship program that embeds specially trained graduate students inside organizations to help meet their energy and climate goals by accelerating the adoption of clean energy projects.