

From Data to Action

Bridging the Gap on Three Best Practices for
Sustainable Resource Management

250

C&I businesses across
North America

25%

believe their past
energy & sustainability
efforts have been
unsuccessful

64%

cite financial constraints
as a barrier to pursuing
new opportunities

30%

say their biggest challenge is
finding actionable insights in
large volumes of data



Part 1

Global Disrupters and their Effect on Businesses

Over the past 20+ years of working with multi-site clients, we at ENGIE Impact have seen businesses of every size and across every industry face greater pressure from customers, employees, shareholders, and governmental entities to develop sustainable business practices. In response, businesses have evolved from paying 'lip service' to these demands to developing plans to incorporate sustainability and resource management into their operations. New technologies and financial models are creating an environment where energy and sustainability management makes greater economic, as well as environmental, sense. Organizations are also being pressured by external market forces to show real progress on sustainable resource management, making it a business imperative.

As sustainable resource management programs become more commonplace, they are also growing in complexity. This complexity is driven by three disruptive forces that are affecting companies around the globe:



Digitization: Data is all around us, in our businesses, our homes, and even in the small activity trackers we wear on our wrist. Companies' access to data is growing, from interconnected devices, equipment sensors, utility meters, and utility bills. The volume and velocity of data is increasing, and as companies increase the number of data points they process, they increase the complexity of their programs. Making sense of this data requires the right technology and the right expertise, as well as business leaders who are nimble and open to innovation.



Decarbonization: As societal and regulatory pressure to negate the effects of climate change grows, a higher value is placed on companies that proactively work to reduce their carbon footprint. Reducing the use of carbon-emitting fossil fuels and implementing clean, efficient alternatives is a true value-driver for businesses. RE100, part of the We Mean Business Coalition, is a global, collaborative initiative of influential businesses committed to using 100 percent renewable electricity. More than 136 U.S. companies so far have made aggressive, public commitments to adopting renewables, including Iron Mountain, which in June 2018 announced its commitment to 100 percent renewable power by 2050. The data giant went from being 1 percent renewable electricity in 2015 to 30 percent in 2017 and has already seen savings of more than \$2 million a year on its energy bills. Companies are also extending their sustainability programs beyond their own corporate walls. For example, Conagra Brands implemented a supplier excellence program in which they requested that 100 suppliers, which make up 80 percent of their procurement spend, share their carbon emissions and water use via the Carbon Disclosure Project (CDP). Suppliers are scored by a cross-functional team on a quarterly basis and receive regular feedback.



Decentralization: Organizations at the forefront of sustainability are looking to extend their programs beyond what currently exists. For example, the decreasing cost of renewables and energy storage give organizations the opportunity to cost-effectively implement clean power generation (e.g., solar and wind) at its point of use. Energy decentralization helps increase resiliency, offset peak loads, and reduce emissions—serving as a long-term solution to achieve sustainability goals and reduce costs.

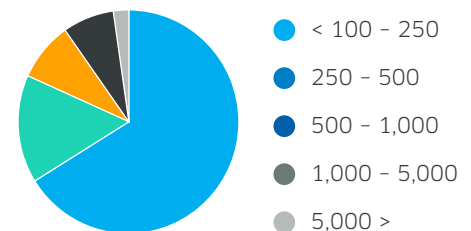
Who We Talked To

90% of respondents were a **manager, director or executive level**

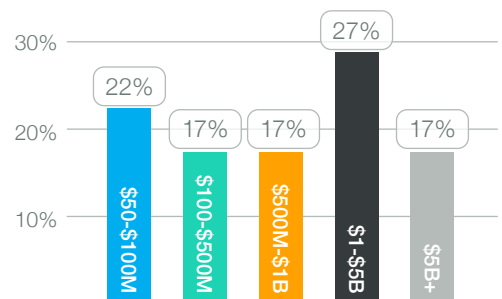
Top Industries Represented

Construction	Manufacturing
Finance and Insurance	Military
Healthcare	Retail
Hospitality	Wholesale

Number of Locations



Annual Revenue



As we consider these global disruptors, we wanted to hear directly from businesses to understand how these forces are influencing the creation, expansion, and complexity of their sustainable resource management plans. We also wanted to understand where they saw the greatest opportunity for growth and what their biggest challenges include. So, we partnered with Zpryme, a market-research firm, to survey 250 representatives from commercial and industrial businesses to get their perspective.

Time after time, as we mined the data from our research, we noticed differences between C&I business “leaders” and “laggards,” many of which are highlighted in part 2 of this report. We defined leaders as those organizations who consider their energy and sustainability efforts as successful and laggards are those who consider their efforts as unsuccessful.

Across all respondents, we learned that these disruptive forces are creating new opportunities for companies. For example, digitization gives companies greater access to real-time data, while decarbonization has companies considering the integration of distributed energy resources (DERs) like solar and energy storage into their procurement strategies.

But of course, opportunity doesn’t come without challenge. As companies look to capitalize on the opportunities in front of them and grow their sustainable resource programs, they’re experiencing technology and capital constraints, and limited internal expertise in collecting and analyzing large volumes of data to draw out actionable insight.

Part 2

Identifying and Bridging the Gap Between Current State and Best Practices

It’s now a business imperative to create and implement diverse, holistic and sustainable resource management plans as a key operational strategy. This work will most certainly reap rewards for profits, brand reputation, and the planet, but there remains a disconnect between the data and information companies have now and what they could be doing with it to advance more successful resource management programs.

To highlight this, we used this survey data to see how businesses were performing against three best practices that are needed for success now and in the future.

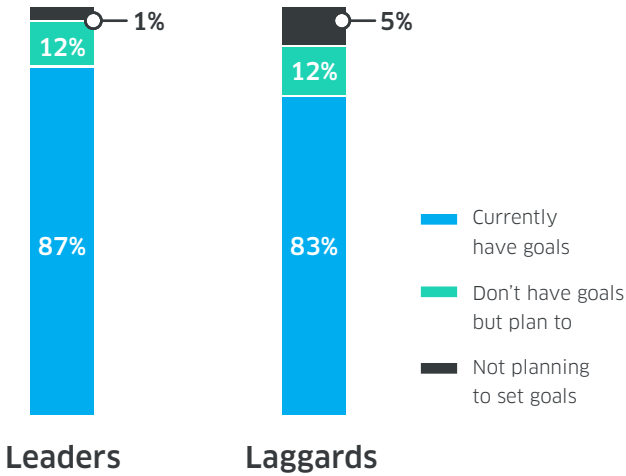


BEST PRACTICE 1: Set a goal that's impactful, yet achievable.

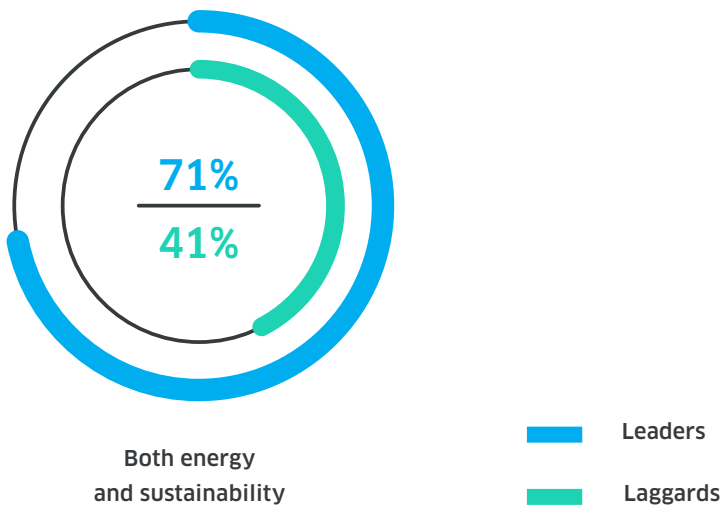
Businesses know that without a starting point, it's hard to know how far away your destination is, so they are setting program goals and putting someone in charge of driving toward those objectives. Today, 87 percent of business leaders say they have energy and sustainability goals, 12 percent do not have goals but are planning to set them, and only 1 percent are not planning to set goals. Laggards are not far behind in setting goals, but the difference becomes more pronounced between leaders and laggards when it comes to having someone in charge of driving those goals to success. 71% of leaders have someone in charge of both energy and sustainability programs versus just 41% of laggards.

The first step of goal-setting is ensuring that the right stakeholders are involved in the planning process. Make sure your goals are impactful, realistic, and aligned with your organization's resource spend, such as energy, water and waste.

Does your company have energy & sustainability goals?

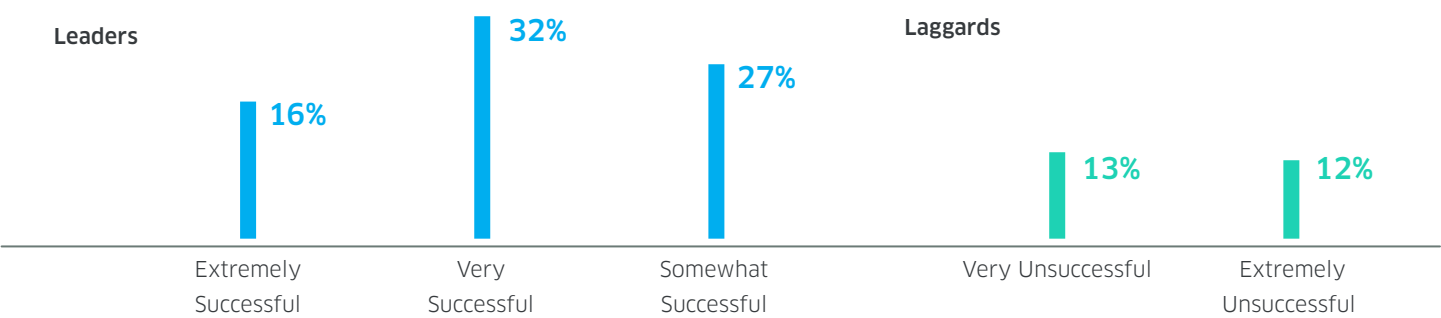


Does your company have someone with energy or sustainability as their primary responsibility?



Where we often see businesses falling short is in the execution of plans to meet these goals. 75% of respondents believe their initiatives have been successful, ranging from somewhat to extremely, but 25% believe their efforts have been very to extremely unsuccessful. We believe these unsuccessful outcomes are in part due to the lack of ownership over energy and sustainability programs. Lack of goals or unrealistic goals, and lack of internal expertise or ownership of energy and sustainability programs can lead to poor results. Don't expect your organization to meet a goal that isn't within reach, especially if you are lacking internal expertise. Use data to determine where your company is now and understand which opportunities are in reach, and use those as a guide for setting goals.

How successful would you rate your energy & sustainability efforts?



Finally, consider third-party expertise to fill in the gaps. When we compared sustainability leaders and laggards, 46% of leaders said they would work with an outside expert to develop initial strategy versus just 34% of laggards.

Case Study: Caesars Entertainment

With 47 casinos in 13 U.S. states and five countries, three million square feet of gaming space and 115 million guest visits per year, Caesars Entertainment is the world’s most diversified casino-entertainment provider. Even with its expansive footprint, it is one of the most environmentally progressive gaming companies on the Las Vegas strip and in the world. That’s because Caesars takes environmental stewardship very seriously. CodeGreen, Caesars’ environmental strategy first launched in 2007, is core to the company’s Code of Commitment, which governs its business conduct.

While Caesars exceeded its aggressive CodeGreen targets between 2007 and 2014, collecting and managing the performance data was no easy task. In 2015, with new sustainability goals in place and an ongoing commitment to CDP reporting, the company recognized it needed a better data management system and turned to ENGIE Impact.

Caesars leveraged its energy data to address three pressing goals:

- Improve energy data collection, tracking and monitoring process
- Inventory GHG emissions for verification, and internal and external reporting
- Respond to the 2015 CDP Climate Change Program and maintain high disclosure and performance scores

US-based non-S&P 500 companies on CDLI

Company	Score
Caesars Entertainment	100
Owens Corning	100
Dell Inc	99
Las Vegas Sands Corp	99
WhiteWave Food	99

ENGIE Impact gave Caesars the tools and confidence to more accurately track, measure and manage its GHG emissions using a consistent, proven methodology backed by verifiable data. The casino-entertainment leader was also able to provide more compelling, qualitative responses to the revised CDP questionnaire. The result: a perfect disclosure of 100 in 2016 and 2017, and an A- performance score, including an A for Carbon, Water, and Supply Chain reports in 2017. Caesars’ progress also earned it a spot on the highly respected Climate Disclosure Leadership Index (CDLI), an honor only given to the top ten percent of U.S. companies participating in the CDP process.

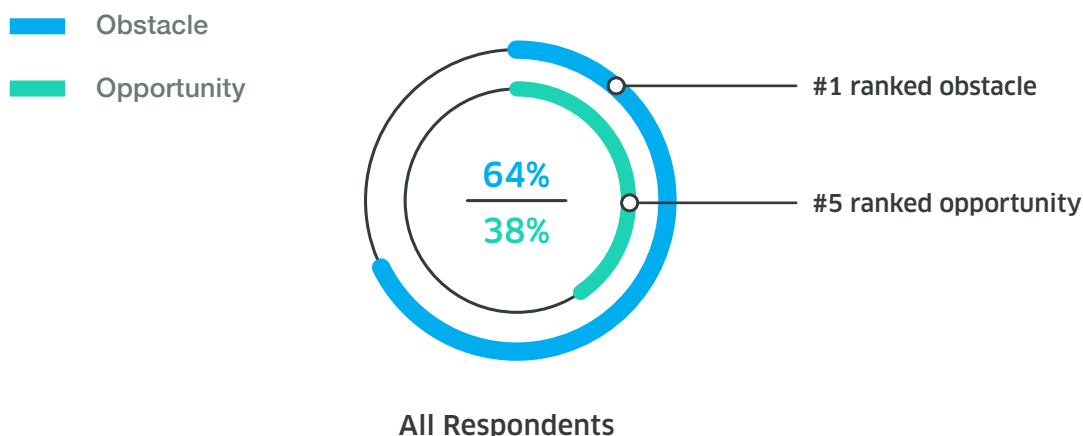
BEST PRACTICE 2:

Capitalize on new financial models to drive investment and implementation of new technologies.

Across all of our respondents, 43% see the adoption and deployment of distributed energy resources as one of their top three opportunities in the next three to five years. But in order to capitalize on these opportunities, businesses will need to overcome their top barrier to energy and sustainability: access to funding. In fact, 64% of respondents cite capital/financial constraints as their top barrier, and it's felt almost equally across both leaders and laggards. 63% of leaders identify it as a barrier, and 66% of laggards identify it as a barrier.

Despite this being cited as the top barrier, businesses are not consistently thinking about the proliferation of new financing and business models. In fact, new business models ranked fifth as the biggest opportunity over the next 3-5 years in our survey. That's a disconnect because alternative financing can help ease adoption of energy and sustainability solutions.

Capital represents an obstacle and an opportunity



In an ideal setting, businesses identify an opportunity, how much it costs, get approvals, and move forward. But today, 'green' projects are competing with more traditional expenses for capital, so new technologies, like DERs, remain out of reach. Fortunately, there are several alternative financing options that help offset a large capital expense, like performance-based contracts or financing solutions designed for green projects. For example, companies like Redaptive, Carbon Lighthouse and ENGIE leverage a combination of energy savings, utility incentives, tax benefits, and grants to create innovative financing options that advance a project's ROI.

Tapping into this third-party expertise is something that both leaders and laggards can agree on. Just 4% of leaders and 5% of laggards said they wouldn't work with a partner across strategy, implementation or ongoing management. Outside experts can be an asset to organizations struggling to identify a financing option that will work best, gain executive buy-in, deploy solutions and report on ROI - all of which are critical in moving forward with a program or project.

BEST PRACTICE 3

Leverage insights from data to set direction, continuously monitor, and proactively pivot.

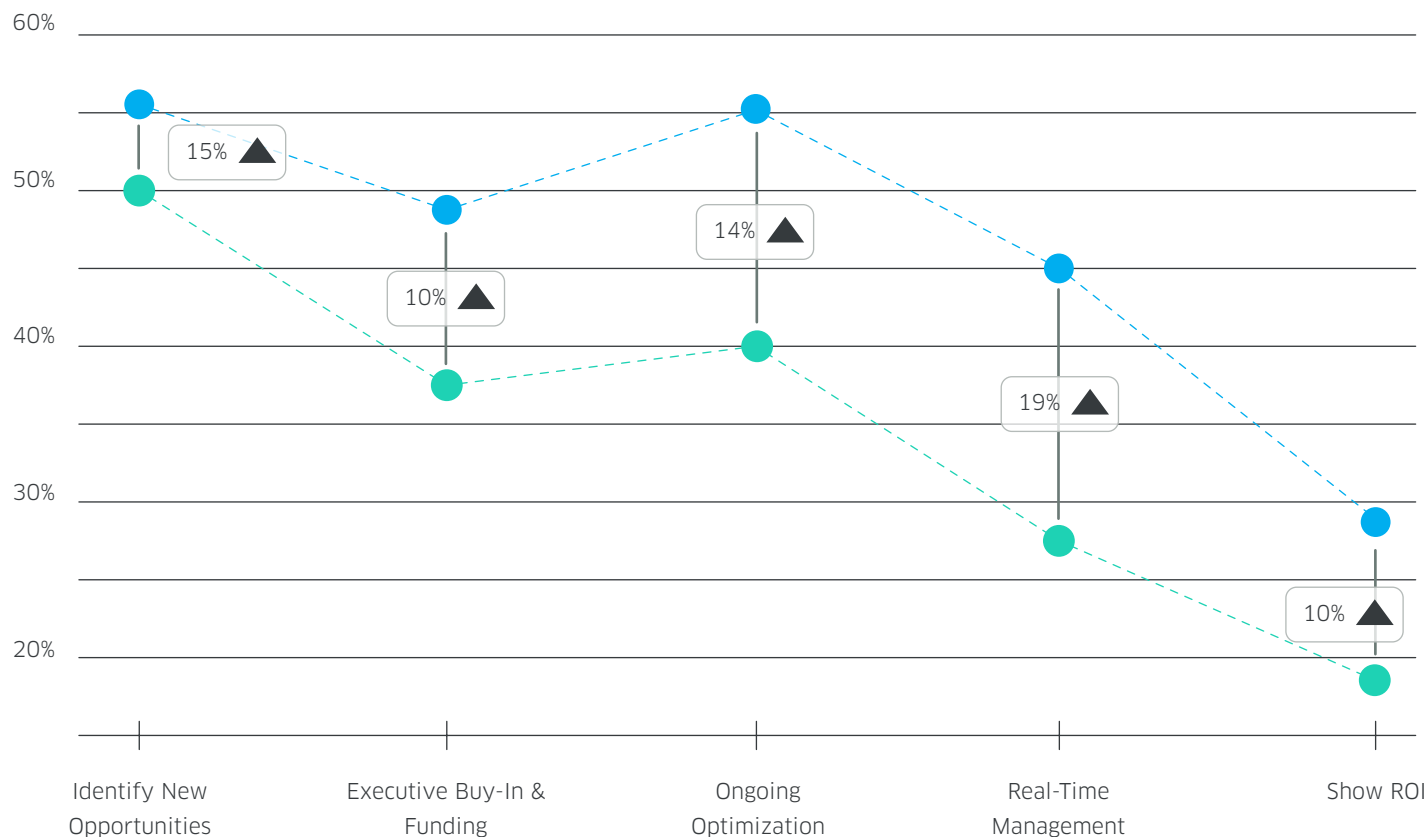
Data is critical to the success of sustainable resource programs, yet the influx of large amounts of data in disparate formats and sources, as well as an increase in real-time data, is making it difficult for companies to identify actionable insights.

Sustainability leaders are finding creative ways to source data (beyond sensors and devices) and using the data in more ways. Leaders are beating laggards by, in some cases, nearly 20 percent in terms of using their data to identify opportunities for new projects, gain executive buy-in, secure funding, optimize ongoing initiatives, and manage their facility in real-time. But there's still room for improvement.

Leveraging data at the onset to identify and champion new opportunities will validate business decisions. Then, ongoing analysis and reporting will identify any anomalies that would otherwise go unnoticed and drive greater cost savings. As your volume and velocity of data increases, having an approach to capturing, monitoring, understanding and acting on that data will become even more important.

How organizations are using their data

● Leaders ● Laggards



Not all your company's data is delivered through a utility bill or a sensor on your equipment. Be creative and look for data in unexpected places. For example, Panda Express conducted a waste analysis study at several of their locations to collect both qualitative and quantitative data about what they were throwing away and how they could divert more materials from landfills and reduce their hauling fees. Through the process they discovered that hundreds of unopened packets of soy sauce were being thrown away daily, leading the company to change their serving policies: rather than automatically giving out packets with every meal, they give them out only upon customer request when they are more likely to be used.

Case Study: Shari's Café & Pies

In 2008, Shari's internal team was challenged to evaluate any operational costs that didn't directly enhance their guest's restaurant dining experience. A financial evaluation identified utility charges as the third largest controllable expense, making them one of the primary targets for this efficiency initiative.

To achieve savings goals, Shari's first needed to know where to focus their efforts. A combination of data management, audits, and energy performance initiatives allowed the company to gain visibility across their chain, identify outliers and implement a corporate energy management program to improve efficiencies and cut costs.

Shari's had the data they need to reduce and control consumption, so they evaluated each of their 100+ Northwest locations to draw a comparative analysis. They found that even though all their restaurants were similar in size, they had vast discrepancies in energy and water use. So, it was time to dig deeper. Shari's conducted store and equipment audits at the highest consumption sites and evaluated for improvements, while those that were performing well were used to model behavior after. Audits helped Shari's make more educated decisions about equipment upgrades, which in turn improved corporate citizenship.

Savings included:

- Nearly \$1 million through temporary broiler shutdowns and upgrades
- Nearly \$600,000 through dipper well redesign, which is also saving 8 million gallons of water per year.
- \$300,000 by installing faucet aerators, which has cut water consumption by 5 million gallons per year
- Over \$57,000 from internal motion sensors to shut off unused lighting
- \$31,000 through digital thermostats, which also ease the stress on HVAC systems and reduce annual energy consumption by 5 percent.

Shari's comprehensive planning has gone beyond the financial savings and given the company a deeper understanding of how every-day decisions can conserve resources and improve operating efficiencies.

PART 3

Putting Ideas into Action

Sustainable resource management is a business imperative. Without buy-in from company leaders and a plan, your business will fall further behind those that are leaders in sustainability. As you start or enhance your planning efforts, remember these key takeaways:

- **Set impactful and realistic goals**, based on concrete quantitative data, not just derived from conversations. Involve the right stakeholders in the conversation for a more holistic view, and identify an owner or champion to monitor progress and report out on successes or opportunities for improvement.
- **When capital is limited for new technologies like solar or storage**, consider new financing models that meet your desired ROI and may require little to no upfront capital investment.
- **Be creative in how you obtain your data**, whether it's from utility bills, energy sensors, water audits, or dumpster diving. Use what you compile not only to set initial direction, but to monitor progress and make changes as needed.
- **Consider turning to third-party expertise** to help reduce your workload and fill in any resource gaps. The insight you gain in order to set realistic goals will drive your programs—and company—to greater success.

Contact Us

If you would like to discuss any of the findings or best practices presented in this report, please reach out to your ENGIE Impact representative or contact us at:

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