



FEBRUARY 2016

ACCOUNTABILITY FOR CLIMATE ACTION





ACCOUNTABILITY FOR CLIMATE ACTION: HOW CORPORATIONS ARE TACKLING CLIMATE CHANGE

Businesses of all sizes and types play a vital role in addressing climate change. There is urgency for business to accept responsibility for improving their operations, their products, and their supply chains. Whether these changes take the form of a commitment to increase efficiency, reduce greenhouse gas emissions, embrace renewables, or a self-imposed carbon fee, corporations need to look across the board to analyze and enhance best practices.

To gain greater insight into how corporations are tackling climate change, Ingersoll Rand partnered with GreenBiz Group to find out what companies are doing in this arena. This research reveals how a broad range of companies view climate change and analyzes what companies have done and are doing, how addressing climate change fits into their business strategies and what can be expected in the future.

It is in this context that Ingersoll Rand and GreenBiz Group conducted a comprehensive research study to determine:

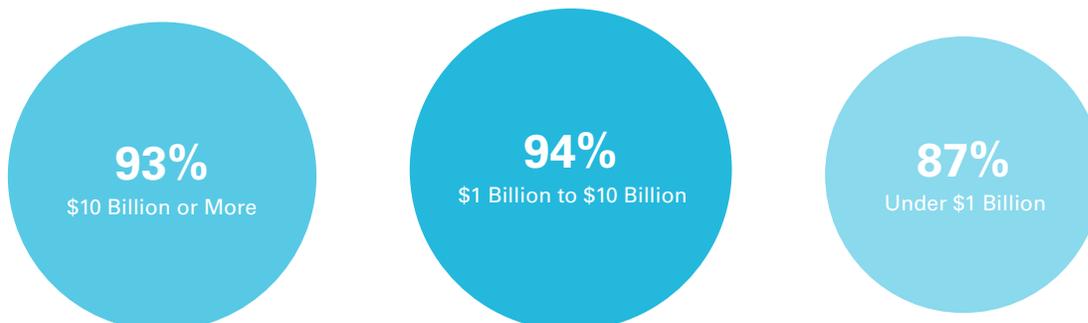
- The role businesses play in addressing climate change and the actions they are taking to reduce their impacts
- How companies are building strategies to map and measure the success of their climate strategies
- How business is reacting to the changing landscape of proposed regulation — self regulation and government regulation — and how this impacts the future of innovation and management



BUSINESSES COMMIT TO REDUCING IMPACTS

Businesses are a powerful force for addressing climate change. It is encouraging to find that a large percentage of organizations report at least one commitment to either reduce carbon dioxide (CO₂) and greenhouse gas (GHG) emissions, install or purchase renewable energy, or increase energy efficiency.

Percent of companies that have established public or private commitments (e.g., specific measurable targets) for emissions reductions, renewable energy purchases, or energy efficiency initiatives.



A Large Percentage Of Organizations Have At Least One Commitment To Reduce CO₂/GHG Emissions, Install Or Purchase Renewable Energy, Or Increase Energy Efficiency

Our research shows that, not surprisingly, the biggest businesses have made the biggest commitments. For many of the findings in this report, we identified significant differences between the targets, strategies, and investments being made by the largest companies (annual revenues greater than \$10 billion), large

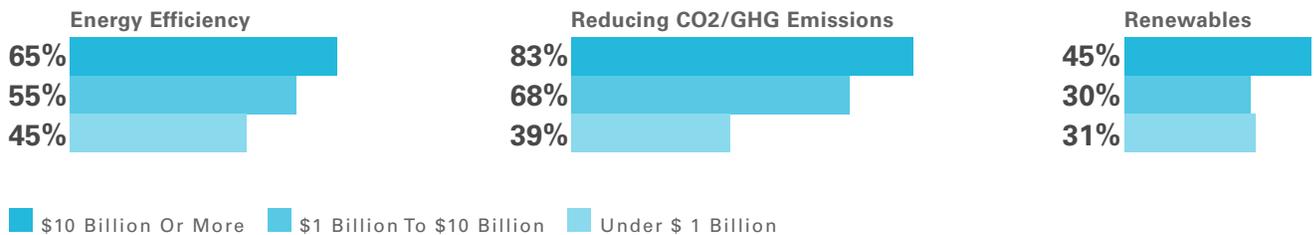
companies (revenues between \$1 billion and \$10 billion) and small organizations (revenues less than \$1 billion). When we drill into the details behind corporate public commitments, there is a greater emphasis on commitments to reduce CO₂ and GHG emissions than for energy efficiency or renewables.

Throughout this report, we identified significant differences between the targets, strategies, and investments being made by the largest companies (annual revenues greater than \$10 billion), large companies (revenues between \$1 billion and \$10 billion) and small organizations (revenues less than \$1 billion).

The commitments to reduce CO2 and GHG emissions have been publicly demonstrated by actions such as support for the White House American Business Act on Climate Pledge. In the run-up to the December 2015 climate talks in Paris, a total of 154 companies, including Ingersoll Rand, signed the pledge to demonstrate their support for action on climate change. These 154 companies have operations in all 50 states, employ nearly 11 million people, represent more than \$4.2 trillion in annual revenue, and have a combined market capitalization of more than \$7 trillion.

There are a number of likely reasons for the largest organizations to make significant commitments. First and foremost is regulation. Initiatives such as the European Union’s Emissions Trading System (ETS), the Regional Greenhouse Gas Initiative (RGGI) in the northeastern United States, and California’s cap-and-trade program are market-based regulatory programs established to reduce greenhouse gas emissions. These programs establish a price signal for GHG emissions in an effort to drive long-term investment in cleaner fuels and more efficient use of energy.

Percent of organizations that have established public or private commitments (e.g., specific measurable targets) for emissions reductions, renewable energy purchases, or energy efficiency initiatives.



Businesses Are Placing A Greater Emphasis On Emissions Reductions Than On Energy Efficiency Or Renewables

Ingersoll Rand’s commitment at the 2014 United Nations Climate Summit is a great example of how industrial goods manufacturers are betting on the market for sustainable products and services. In addition to a 35 percent reduction in the GHG footprint of its operations by 2020, the company made two major product-related commitments:

- a 50 percent reduction in the GHG refrigerant footprint of its products by 2020, and lower-global-warming-potential alternatives across the company’s portfolio by 2030
- a \$500 million investment in product-related research and development over five years to fund the long-term reduction of GHG emissions

75 percent of the largest organizations and 82 percent of all others feel they would be better off or unaffected if a mandatory price on carbon were instituted.

BUSINESSES SUPPORT A PRICE ON CARBON

One of the more interesting findings in our research is the perceived positive impact that a mandatory price on carbon would have on business. Seventy-five percent of respondents from the largest companies say they will either be better off with a mandatory price on carbon or that it would not have much of an effect on their business. Support is even greater (82 percent) for companies with revenues less than \$10 billion.

Most of the largest organizations say they would be better off or unaffected (39 percent and 36 percent respectively) by a mandatory price on carbon. Among large organizations, 39 percent say they would be better off and 43 percent unaffected.

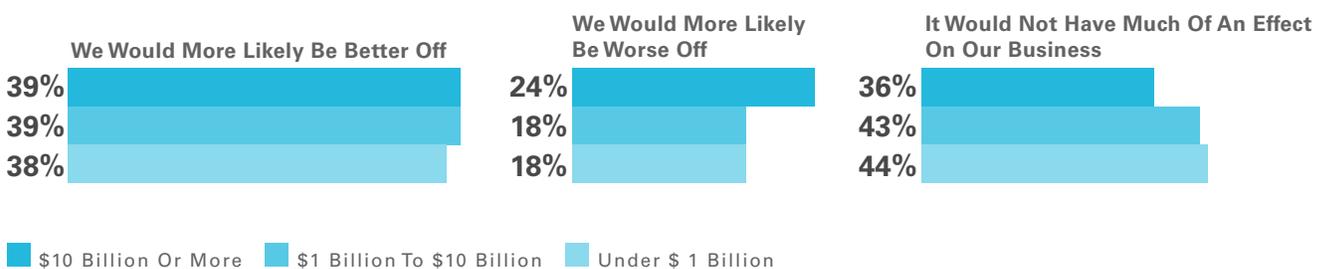
In our analysis, the findings were generally consistent across industries with no clear industry segments that would win or lose based upon the implementation

of a price on carbon. This most likely reflects a desire by business for certainty in planning and a level field of competition.

The lack of a negative impact of a carbon tax or fee is also reflected in the dearth of organizations making contingent business plans based on such a fee. Only 26 percent of the largest and 31 percent of large organizations are making such plans.

Beyond regulation and the implementation of a mandatory price on carbon, another powerful driver is the economic benefit delivered by energy-efficiency programs along with the rapidly declining cost of renewables. Together, implementing energy-efficiency programs and purchasing renewable energy are delivering bottom-line impact for large and small organizations.

What would the impact on your organization be if there was a mandatory price on carbon?



Most Organizations Feel They Would Be Better Off Or Unaffected If A Mandatory Price On Carbon Were Instituted

ENERGY EFFICIENCY LEADS THE WAY

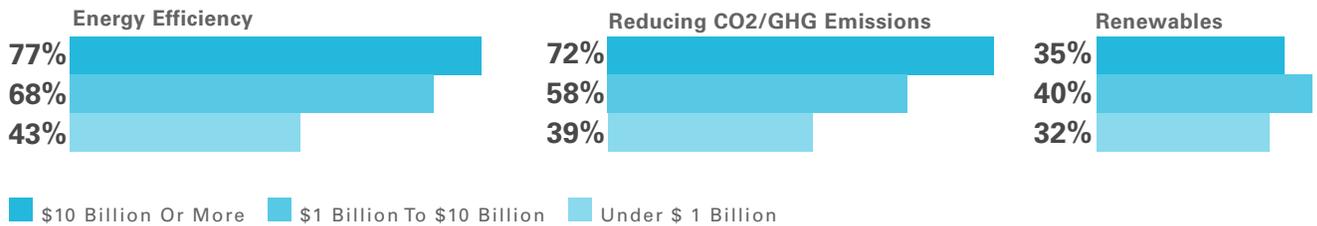
Making a commitment is one thing but having a strategy to meet that commitment is critical. Our research shows that more organizations have a strategy for meeting energy efficiency commitments than CO2 and GHG commitments.

According to the U.S. Environmental Protection Agency (EPA) Energy Star program, most organizations can achieve annual energy savings of 2 to 10 percent through better energy management. Even amidst volatile and uncertain energy costs, energy efficiency remains the

easiest — and single most cost-effective — way to cut energy use.

Our research shows that energy efficiency is leading the way toward helping business meet emissions and energy goals. For example, 95 percent of all organizations that have set goals for CO2 and GHG reductions have established a commitment to energy-efficiency initiatives. Similarly, energy efficiency currently has more programmatic support than investments in renewable energy across companies of all sizes.

Percent of organizations that have developed a specific strategy to achieve public or private commitments.

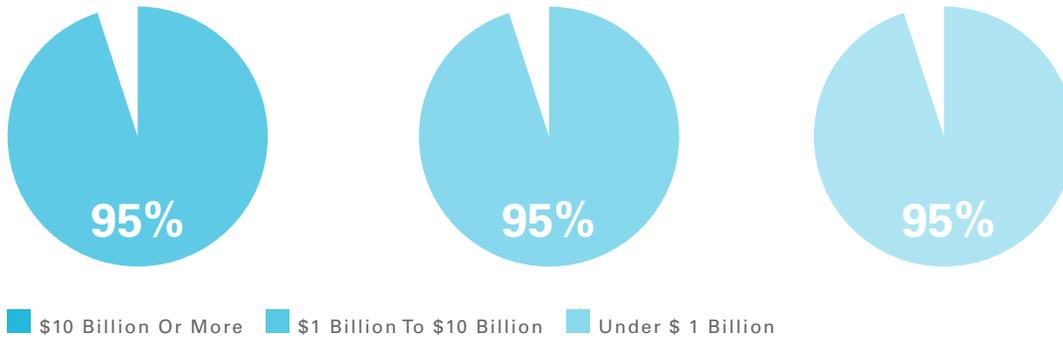


More Organizations Have Developed A Specific Strategy For Meeting Energy Efficiency Commitments Than Commitments Related To CO2/GHG Or Renewables

Energy efficiency is leading the way toward helping business meet emissions and energy goals.



Percent of organizations with CO2/GHG commitments that have commitment to energy efficiency initiatives



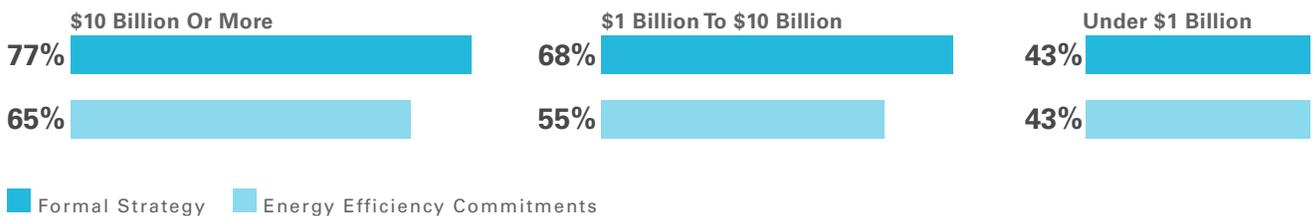
Ninety-Five Percent Of All Organizations That Have Set Goals For CO2 And GHG Reductions Have Established A Commitment To Energy-Efficiency

Energy efficiency efforts are unique in the mix of how organizations are seeking to meet their CO2 and GHG emissions-reduction targets. Indicative of this is that more companies of all sizes have developed a formal strategy for their energy-efficiency efforts than have made public energy-efficiency commitments.

be as simple as regularly assessing energy use to detect underperforming equipment. According to a recent EPA study, commercial building managers who regularly benchmarked their building’s energy performance cut their energy bills by 7 percent over 3 years (2.4 percent per year on average).

Even though energy efficiency is leading the way, there are still opportunities to do more. In some cases, this may

Does your company have a formal energy efficiency strategy?
 Has your company made public energy efficiency commitments?



More Companies Of All Sizes Have Developed A Formal Strategy For Their Energy-Efficiency Efforts Than Have Made Public Energy-Efficiency Commitments

BUSINESSES ARE COMMITTING TO RENEWABLE ENERGY

Over the past year, there have been major commitments by businesses to power their operations through the use of renewable energy. Voluntary programs such as the EPA's Green Power Partnership list a diverse collection of companies — from retailers to municipal governments to technology leaders — all being powered largely or entirely by renewables.

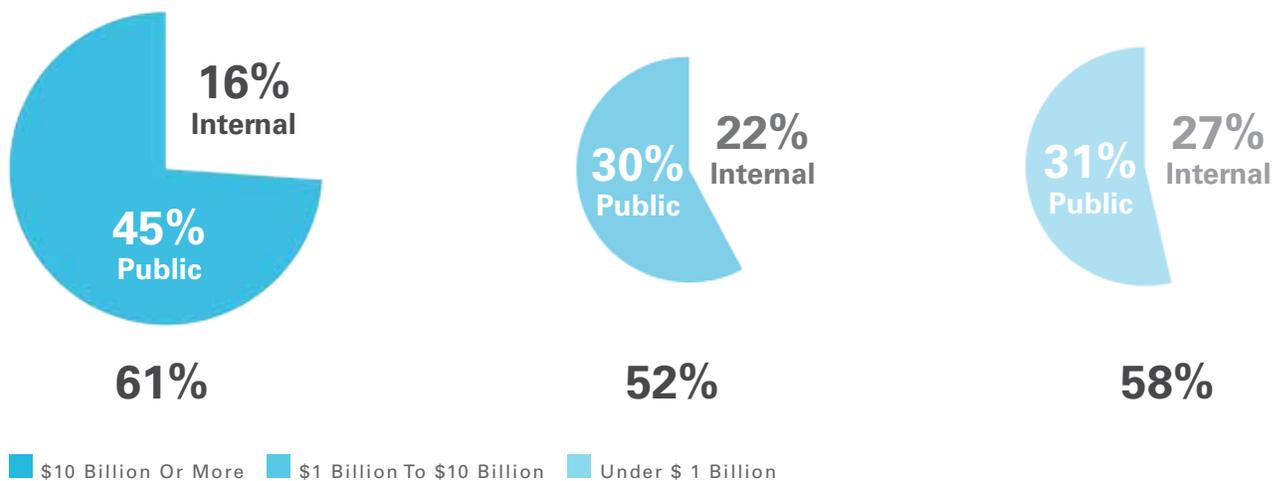
We found that 45 percent of the largest companies have established a public commitment for the use of renewable energy. The sectors leading the way are government (100 percent of those surveyed), utilities (75 percent), consumer goods (71 percent), technology (53 percent), and industrial goods (50 percent).

In most sectors, there are fewer commitments by large companies (those with revenues between \$1 billion and \$10 billion) and overall only 30 percent of those large companies and 31 percent of small companies have made a public commitment to be powered by renewables.

In a rapidly emerging trend, 8 percent of all companies with revenues greater than \$1 billion have set a date by which their operations will be 100 percent powered or offset by renewable energy. Further amplifying this trend, 18 percent of the largest companies and 17 percent of large companies have goals for more than half of their operations to be powered or offset by renewable energy.

Energy efficiency has played a key role at companies that have made a renewable energy commitment. Perhaps not surprising, 98 percent of the largest companies that have committed to being powered by renewables have also committed to energy-efficiency initiatives. The same holds true for large companies (100 percent committed to energy efficiency) and smaller firms (95 percent) that have also committed to be powered by renewable energy.

Has your company made a public or internal commitment to invest in renewable energy?



Over Half Of All Companies Have Made A Commitment To Invest In Renewable Energy

Energy efficiency has played a key role at companies that have made a renewable energy commitment.

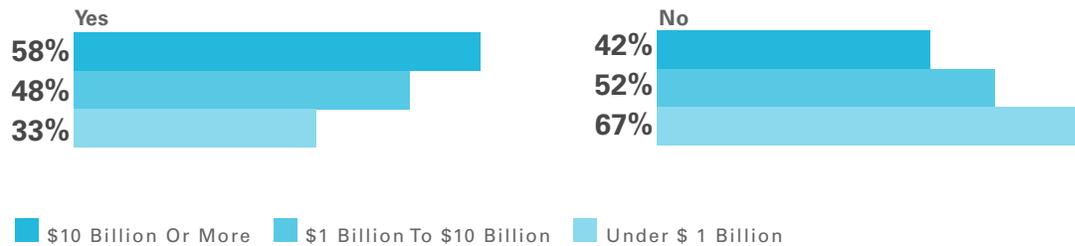
VALUE CHAIN IMPACTS

Solving climate change won't come about with businesses focusing strictly on internal operations. Increasingly, corporations are asking suppliers to disclose information on approaches to climate and water risks and opportunities. One example of this type of effort is CDP's supply-chain program, which in 2015 was implemented by 66 corporations with \$1.3 trillion in procurement spend. The resulting data was used to report on supply-chain risks relative to climate change and inform a broader audience about supply-chain risks and opportunities.

Our research found that 58 percent of the largest companies and 48 percent of large companies have conducted a carbon footprint analysis across their extended value chain while 67 percent of small organizations have not.

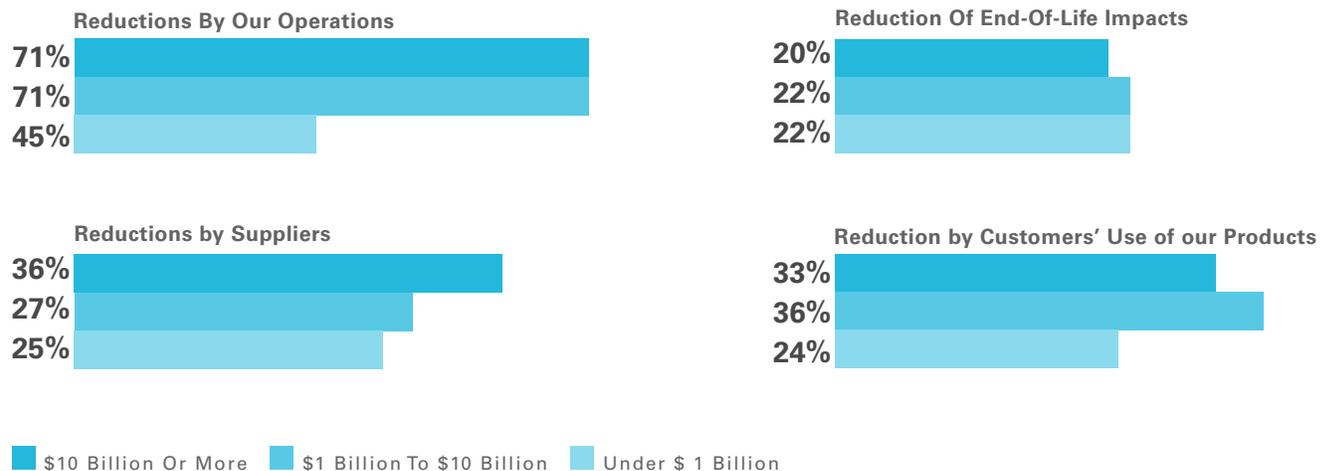
We also found that a similar number of the largest and large organizations have made energy or emissions commitments that extend across at least some part of the value chain. For most sectors, an organization's operations represent the biggest impact.

Has your organization conducted a carbon footprint analysis that extends across your value chain?



The Number Of Companies Conducting A Carbon Footprint Analysis That Extends Across The Value Chain Continues To Increase

Percentage of companies that are focused on reducing impacts in the following areas of their value chain.



The Most Common Place That Companies Focus On For Achieving Energy Or Emissions Reductions Is By Reducing The Impact Of The Organization's Operations



Of companies with revenue greater than \$1 billion, 71 percent report that the most common place that companies focus on for achieving energy or emissions reductions is by reducing the impact of the organization's operations.

Twenty-seven percent of large and 36 percent of the largest organizations have made commitments to reduce the impact of suppliers. Interestingly, retailers noted that suppliers and raw materials each had more

than a 40 percent impact on the carbon footprint of their value chain.

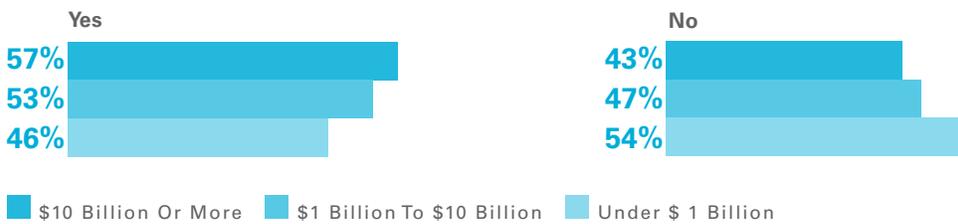
The other area of focus in the value chain is customer product use. Thirty-six percent of large and 33 percent of the largest organizations have made commitments to target reductions by improving the performance and lessening the impact of the products they design and manufacture.

SUSTAINABLE PRODUCT AND SERVICE OFFERINGS GROWING FAST

There are two sectors where the commitment to decrease energy or emissions through a product's use represents a significant impact in terms of footprint analysis for companies with revenues greater than \$1 billion: industrial goods (50 percent) and technology (46 percent).

To further understand how companies are approaching new product designs – and redesigning old products – we asked if companies offered products or services that could be differentiated by carbon footprint or impact on emissions reduction.

Does your organization offer products that can be differentiated by their carbon footprint or impact on emissions reduction?



More Than Half Of The Largest And Large Organizations Offer Products That Can Be Differentiated By Carbon Footprint Or Impact On Emissions Reduction

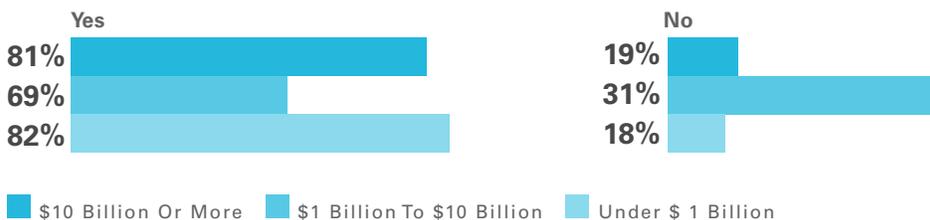
More than half of the largest and large organizations (57 percent and 53 percent respectively) offer products that can be differentiated by carbon footprint or impact on emissions reduction. Industries leading the way in these offerings are utilities, industrial goods manufacturers, and those supplying basic materials (such as chemicals and metals).

There can be a large difference between business sectors. Industrial goods companies are twice as likely to offer such products as consumer goods companies (85 percent and 40 percent respectively).

Companies are using product portfolio revenue targets to drive topline growth. Of the largest and large firms, 43 percent and 39 percent respectively, have revenue targets for a portfolio of sustainable products and services.

Eighty-one percent of the largest and 69 percent of large organizations expect the revenue from a portfolio of sustainable products and services to grow at a faster rate than other products offered by the organization.

Do you expect the revenue for your portfolio of sustainable products and services to grow at a greater rate than your other products?



A Large Percentage Of Companies Expect Revenue From Sustainable Products Will Grow Faster Than Other Products They Offer



THE PATH FORWARD

In order to combat the greatest threats from climate change, there must be a strong commitment and bold action from business. Reducing corporate CO2 and GHG emissions, along with the development of new technologies and solutions, will be seen as the primary marks of leadership.

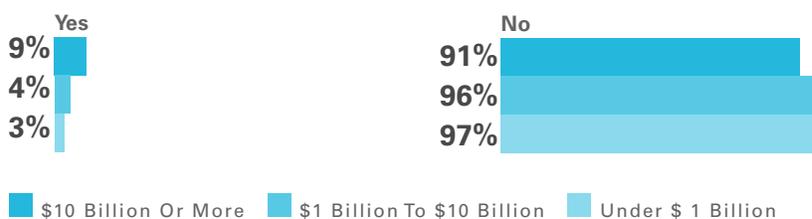
Some company initiatives will likely grow in significance in the near future. For example, 8 percent of companies with revenues greater than \$1 billion have set a specific deadline to be 100 percent powered or offset by renewable energy. Commitments to renewables continue to grow as companies see them as a reliable hedge against volatile traditional energy prices.

One area that has recently started gaining traction in business is the establishment of an internal corporate carbon tax or fee. Organizations establishing an internal carbon fee are still rare, with only 9 percent of the largest organizations, 4 percent of large, and 3 percent of small organizations having established a carbon-based fee or tax.

There are a number of likely reasons for this. First, it's simply a relatively new idea. As carbon-related mandates become more likely, companies are looking at steps to be positioned for a carbon-constrained future. Another reason for this low adoption may be that there is still low-hanging fruit to be harvested in the realm of efficiency where the cost savings alone justify upgrades or new equipment without the subsidy of a carbon tax or fee.

Fifty-nine percent of the largest organizations and 61 percent of large organizations finance their reduction efforts through energy savings from upgrades. Approximately a quarter of the largest and large organizations (25 percent and 27 percent respectively) apply government incentives. On the other hand, only 36 percent of small organizations finance efforts through energy savings from upgrades.

Has your organization established an internal carbon tax or fee?



Very Few Companies Have Established An Internal Carbon Tax Or Fee But This Is Expected To Grow



SUMMARY

As we have seen, businesses of all sizes and types play a vital role in addressing climate change. There is urgency for business to accept responsibility for improving their operations, products, and supply chains. Fortunately, the economics of doing so are becoming increasingly favorable, creating vast new opportunities for companies of all sizes to increase their commitments and activities. We are at a unique point in history for business to take a leadership role and demonstrate that success can be shared by employees, shareholders, customers — and the climate.

ABOUT THIS RESEARCH

This report summarizes results based primarily on a survey of the GreenBiz Intelligence Panel, consisting of executives and thought leaders in the area of corporate environmental strategy and performance. Panel members participate in brief monthly surveys to provide their expertise and perspective on corporate initiatives, laws and regulations, and scientific advances that are shaping the corporate sustainability agenda.

Data were collected during the first three weeks of September 2015. The survey was conducted online, and an email link was sent to the panel's 5,370 members inviting them to participate anonymously in the survey. For the purposes of this report, we analyzed the results from 377 respondents who represented 14 sectors. Approximately 85 percent of these respondents are based in the United States.

In presenting our research findings, we use the phrase “largest organizations” to represent those with revenues greater than \$10 billion and “large organizations” as those with annual revenues between \$1 billion and \$10 billion. Forty-eight percent of survey respondents are from organizations with revenue greater than \$1 billion.

It is important to note that the quantitative data in the report may skew higher than if the panel was representative of a broader demographic — that is, executives and managers not necessarily focused on their company's environmental corporate sustainability efforts. However, the responding companies represent a broad diversity of corporate sustainability experience: those just beginning to engage in corporate sustainability as well as those that have been engaged for years.

ABOUT INGERSOLL RAND

Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands — including Club Car®, Ingersoll Rand®, Thermo King® and Trane® — work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a \$13 billion global business committed to a world of sustainable progress and enduring results. For more information, visit www.ingersollrand.com.

As a global business committed to addressing the world's most pressing challenges, Ingersoll Rand partnered with GreenBiz in sponsoring and promoting this research.