

Working together

Linking sustainability and tax to reduce the cost of implementing sustainability initiatives



“Experience has shown that companies that integrate their sustainability strategy at all levels across the organization place themselves at a competitive advantage. These companies are better able to identify relevant incentives, grants and subsidies, develop an environmental sustainability platform that reflects broader business goals, and increase profits by improving the return on investment and reducing the investment payback period.”

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Executive summary

Environmental sustainability is of growing importance to companies. Identifying relevant tax opportunities and issues, including incentives, credits, grants and subsidies, can help an organization fund its environmental sustainability initiatives and enhance its bottom line. Tax directors must work hand in hand with chief sustainability officers (CSOs) and others responsible for sustainability initiatives to understand the potential impacts at all levels of the organization.

This paper summarizes the results of a recent Ernst & Young LLP *Environmental Sustainability Tax Survey*, which gauged the level of involvement of business tax departments with their companies' broader corporate environmental and sustainability initiatives. The survey included responses from 223 senior executives at companies of various sizes and industries, including communication, construction, finance, manufacturing, retail, services and transportation. Of the respondents, 19% were CSOs while 81% were tax directors or their equivalent. Responses from each group were sometimes vastly different. For example, only 28% of tax directors believe their company has a sustainability strategy or is developing one, compared to 90% of CSOs.

The survey results show there is a great deal of room for improvement in the integration of sustainability efforts. Only 16% of companies that either have or are developing an environmental sustainability strategy said their tax or finance departments are actively involved. Furthermore, 30% of respondents did not know whether their companies had a sustainability leader. In our experience, organizations that take a holistic approach to sustainability, with management buy-in and communication among all relevant departments, are best able to identify tax incentives and opportunities that can reduce the costs and improve the return on investment (ROI) of their sustainability programs. To enhance the effectiveness of their sustainability programs, companies should consider adopting best practices, including the following:

- ▶ Integrating and communicating the sustainability strategy and goals across all departments and levels within the company
- ▶ Ensuring the tax department communicates with the sustainability, facilities and operations departments
- ▶ Aggregating sustainability expenditures with general capital expenditures

The results also reflect many missed opportunities to reduce the cost of environmental sustainability initiatives through the use of incentives. While 17% of respondents said their companies were aware of and use available incentives related to environmental sustainability initiatives, 37% were unaware of any such incentives. Ernst & Young LLP has found that a company can effectively communicate sustainability initiatives and identify incentive opportunities throughout the organization by framing the discussion in broad categories:

- ▶ **Reduce** consumption of natural resources and carbon emissions
- ▶ **Switch** to alternative energy and fuel sources
- ▶ **Innovate** and develop new clean technology and less carbon-intensive or low-emission products and services to meet the demands of the transforming economy
- ▶ **Offset** carbon emissions

By implementing these communication best practices and using the "Reduce, Switch, Innovate, Offset" (RSIO) framework, companies will be able to identify more incentives and tax credit opportunities related to their sustainability initiatives, thereby improving their ROI and allowing for additional green investments.



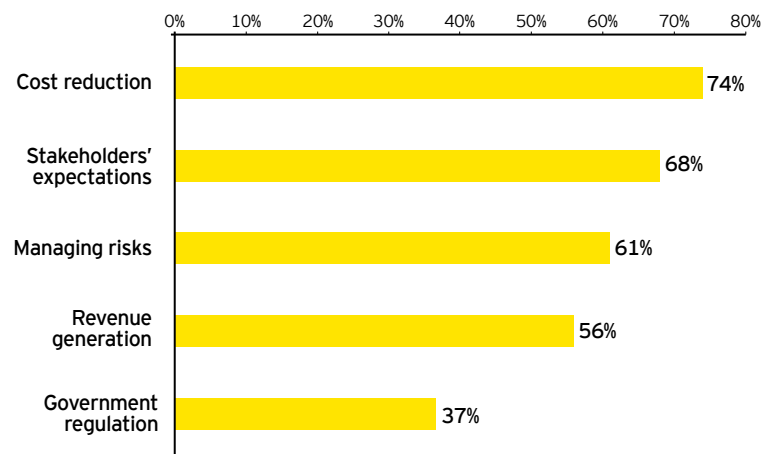
Importance of environmental sustainability initiatives

Sustainability is becoming more pervasive in our society, with companies large and small implementing a wide variety of environmental sustainability initiatives. These include a range of activities from energy-efficient lighting retrofits to generating electricity from captured waste heat in manufacturing processes, developing less carbon-intensive products and trading carbon credits. Linking sustainability and tax is essential to ensure that these strategies are implemented in the most cost-effective manner. However, tax directors often do not understand the motivations behind sustainability initiatives or how these initiatives work. This paper provides a high-level overview of the motivations behind the initiatives. Ernst & Young LLP's experience indicates that regardless of the initiative, there are four key factors that drive sustainability strategies: revenue generation, cost reduction, government regulation and stakeholder expectations.

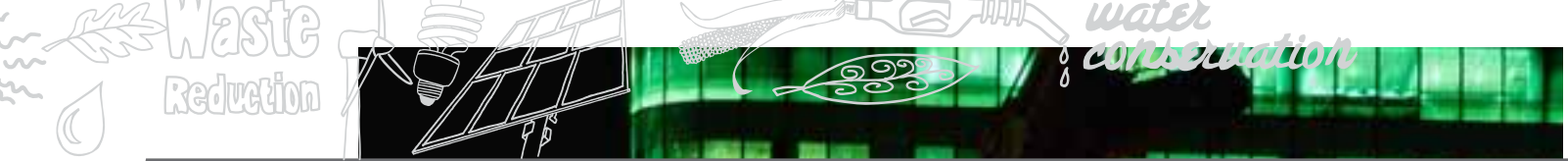
1. Revenue generation can encompass the offering of new products and services, creation of new business models and investment in innovation.
2. Cost reduction goals are often related to the high and/or rising costs of energy, a desire to create operational efficiencies and finding ways to reduce waste.
3. Government regulations include new and changing environmental laws, federal and state climate change programs, regional initiatives, financial reporting requirements and business incentives and tax credits for environmental sustainability initiatives.
4. As awareness about the effects of our activities on the environment increases, customers, consumers and investors are increasingly expecting businesses to be environmentally conscientious.

A recent survey conducted by Greenbiz Group and Ernst & Young LLP identified cost reduction as the principal driver of a company's sustainability strategy. Stakeholder expectations, managing risk and generating revenue were also fairly important. Government regulation ranked last, indicating that sustainability initiatives have now moved beyond compliance to play a strategic role within a company.

In the next two years, which of the following drivers will be the most important in driving your sustainability agenda? Check all that apply.



Given the need to meet stakeholder expectations and the opportunity for cost reduction, companies should be striving to position themselves to increase their ROI in environmental sustainability strategies both by integrating the tax and sustainability departments and identifying all available incentives.



“Regardless of the initiative, four key factors drive sustainability strategies: revenue generation, cost reduction, government regulation and stakeholder expectations.”





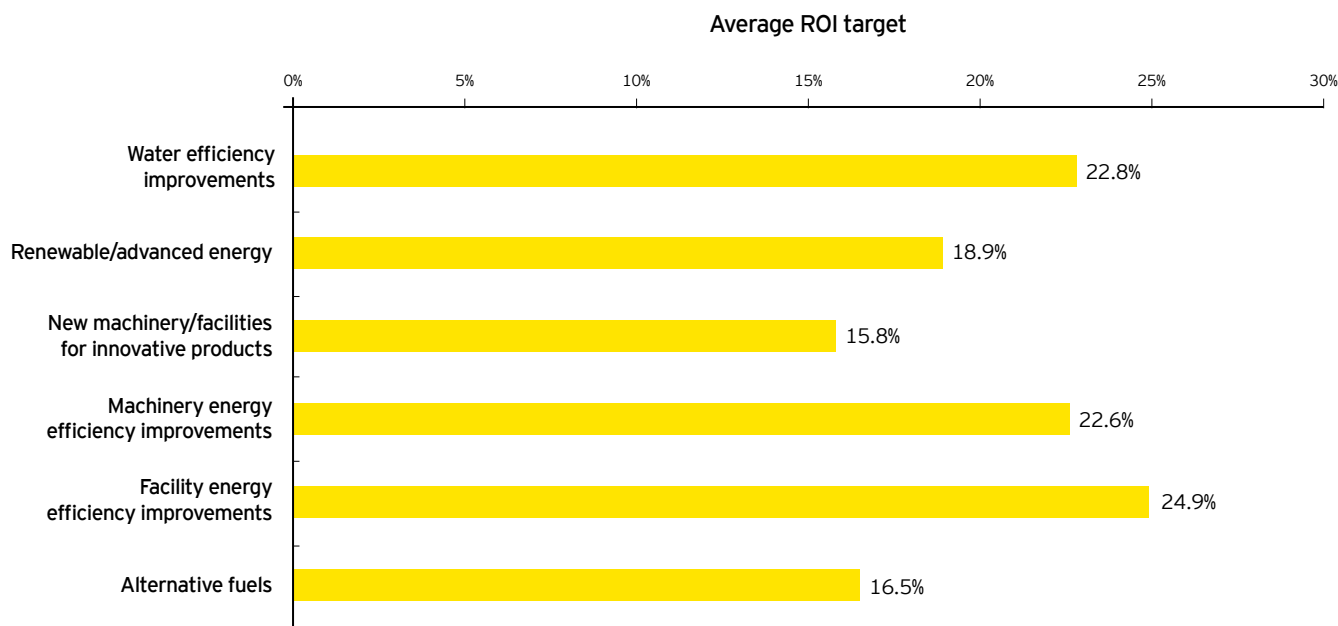
Making sustainability work: awareness of incentives

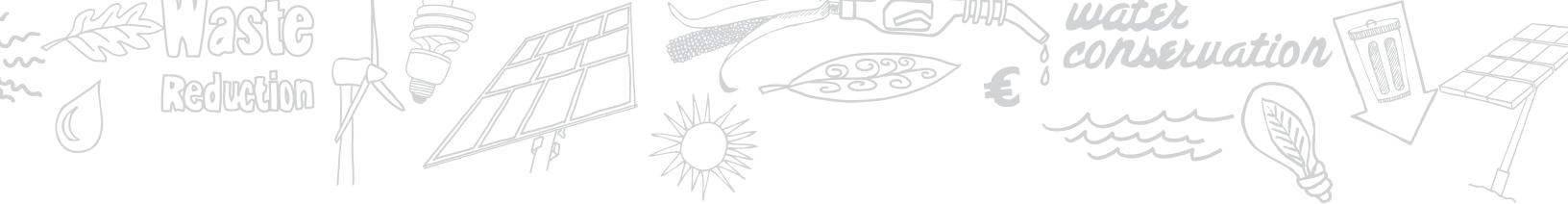
While environmental sustainability initiatives are often driven by stakeholder expectations and potential cost reductions, investments are usually subject to ROI or payback-period thresholds. The tax function can be an integral part of helping to meet these ROI thresholds by lowering the cost of environmental sustainability initiatives through the use of incentives and tax credits.

Of the respondents whose companies have or are developing environmental sustainability strategies, 19% said their companies use different payback periods or ROI targets to evaluate capital expenditures related to environmental sustainability projects

from those used to evaluate non-environmental sustainability projects. Of those respondents whose companies use ROI targets to evaluate environmental sustainability projects, nearly half said ROI is evaluated differently for each individual project, while only 35% said this approach was used for general capital expenditure investments. Respondents that had specific average annual ROI targets generally set them in the 10% to 29% range for sustainability projects, with the highest average annual ROI for energy efficiency projects and the lowest for new machinery. The graphic below illustrates the average ROI targets for different types of sustainability projects:

What are your company's average annual ROI targets related to the following environmental sustainability projects?



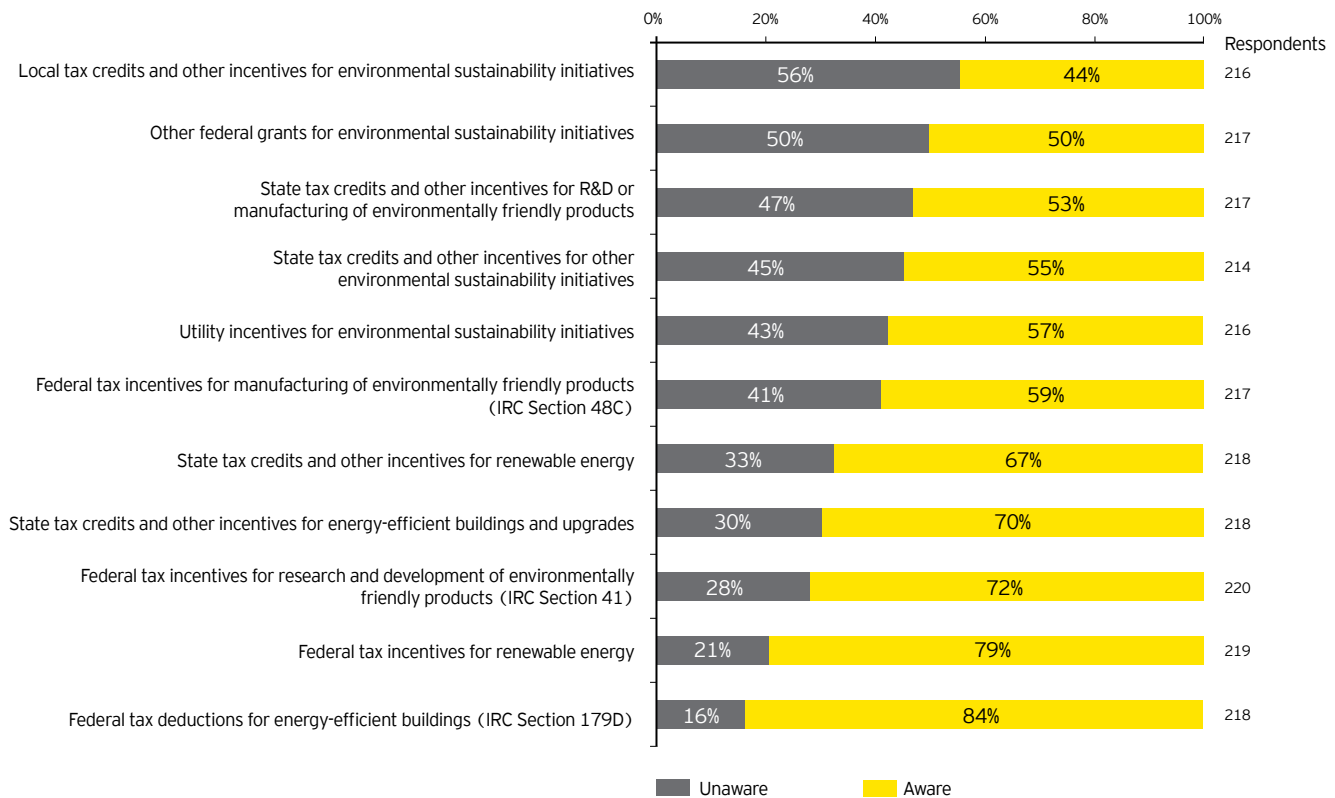


By identifying relevant incentive opportunities, the tax department can be an effective partner in helping environmental sustainability projects meet ROI targets. As demonstrated by the survey results, when the tax department is not involved in the sustainability strategy, companies are often unaware of or underutilize relevant incentives. In fact, only 17% of respondents said their companies use sustainability incentives. Notably, a higher percentage of CSOs's (25%) than tax directors (16%) believe that their companies use sustainability incentives, while a higher percentage of tax directors (48%) than CSOs (33%) were aware of, but chose not to use sustainability incentives. Thirty-seven percent of survey respondents were unaware of such incentives, and nearly half said they were

aware of these incentives but did not use them. The number one reason among CSOs for not doing so was a perception that ROI would be unsatisfactory, while the number one reason among tax directors was a belief that the company was not in a tax position to take advantage of the incentives.

As reflected in the chart below, some 41% of respondents were unaware of federal incentives for environmental sustainability initiatives, such as the incentives under Internal Revenue Code (IRC) Section 48C for investments in advanced energy manufacturing facilities. In addition, more than half were unaware of local incentives for environmental sustainability initiatives.

Is your company aware of the following incentives for "green" investment?





With careful planning and communication across departments, these incentives can be identified for ongoing and future sustainability initiatives and, when properly applied, can often cover a significant portion of the cost of the sustainability investment by “stacking” multiple incentives for one project. This can help counter one of the primary reasons respondents cited for not taking advantage of incentives related to environmental sustainability – a perception that the incentive was of too little value and could disrupt processes currently in place.

Linking tax to sustainability using the RSIO paradigm

With the broad range of environmental sustainability initiatives companies are implementing, it can be difficult for those outside of sustainability, including tax managers, to understand initiatives. Ernst & Young LLP has found that by using the RSIO framework, organizations can conceptualize the interplay

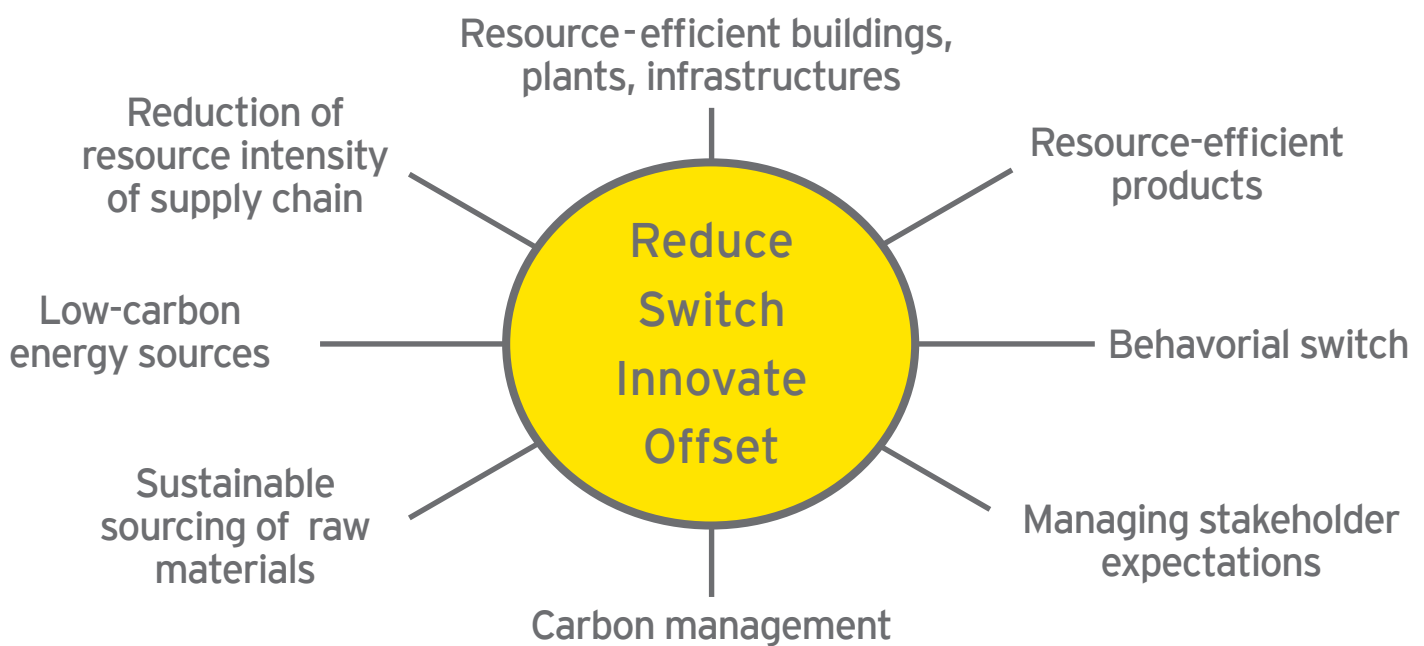
between tax issues and sustainability goals and identify incentive opportunities more effectively. Under the RSIO paradigm, sustainability initiatives fall into one of four categories: reduce, switch, innovate or offset:

Reduce. Reducing the carbon intensity of the supply chain; increasing the efficiency of buildings, vehicles, machinery and other infrastructure

Switch. Switching to low-carbon, low-emission energy sources and fuels or encouraging or requiring more environmentally friendly behaviors, such as recycling or teleconferencing

Innovate. Innovating solutions to implement internal sustainability initiatives, as well as design and manufacture of advanced energy and reduced-emissions products and services

Offset. Offsetting net global emissions through emission-reduction projects





Among survey respondents whose organizations had implemented sustainability strategies, 98% indicated they were implementing strategies in the reduce category; 70% were implementing strategies in the switch category; 71% in the innovate category; and 60% in the offset category. Overall, both CSOs and tax directors agree that reducing energy consumption and carbon emissions was the most important goal, followed by innovating and developing new environmentally friendly products and services.

The RSIO paradigm can be useful in connecting broad sustainability goals with concrete tax opportunities, whether tax deductions or credits, direct grants, favorable financing, development of new intangibles or use of other incentive programs. An overview of some of the key incentive programs that fall within each of the RSIO categories is included as an appendix.

With all of the tax and other incentives available for environmental sustainability programs, it is important for businesses to analyze the opportunities within the context of their sustainability and revenue goals, as well as factors that may be unique to their region. When developing a sustainability platform, businesses need to start planning early, as many incentive programs require pre-approval and have finite time frames.

Some incentives can actually exceed the cost of the sustainability investment, and often, federal, state and utility incentives can be “stacked” to shorten the payback period and increase the ROI.

Through careful planning and regular collaboration among tax directors, CFOs and sustainability executives, companies will receive the full benefit of “stacking” opportunities and, in turn, increase their ROI.

Stacking sustainability incentives: how one company benefitted

NT Prizes owns a building in Albuquerque, New Mexico. Its electricity provider is PNM. In 2010, as a part of its LEED-EB certification process, the company installed energy-efficient lighting and a mounted 200 kW solar photovoltaic (PV) system. In the same tax year, the company achieved LEED-EB Silver certification. As a result, the company qualified for the following incentives:

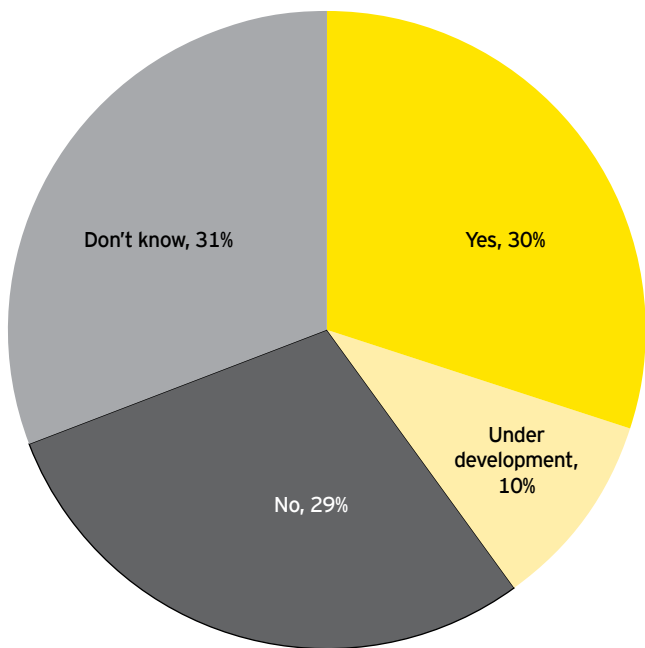
- ▶ Federal IRC Section 179D deduction—a tax deduction worth up to US\$0.60 per square foot for lighting retrofit
- ▶ Federal IRC Section 48 investment credit—a tax credit equal to 30% of the cost of the solar PV system, its installation and testing fees
- ▶ New Mexico Sustainable Building Tax Credit—an income tax credit worth up to US\$2.50 per square foot
- ▶ PNM Commercial Energy Efficiency Rebate—a cash rebate of up to US\$45 per fixture
- ▶ PNM Performance-based Solar PV Program—a credit against the company's utility bill. PNM will purchase Renewable Energy Credits (RECs) produced by the PV system at a rate of US\$0.06/kW. The REC payment is credited against the company's utility bill



Integrating tax and sustainability: room for improvement

The results of the Ernst & Young LLP's *Environmental Sustainability Tax Survey* suggest many companies have not yet fully integrated environmental sustainability into their tax function, organization or culture. As a result, tax directors often miss out on numerous incentives and tax credits that could have reduced the cost of implementation.

Does your company have an environmental sustainability strategy?



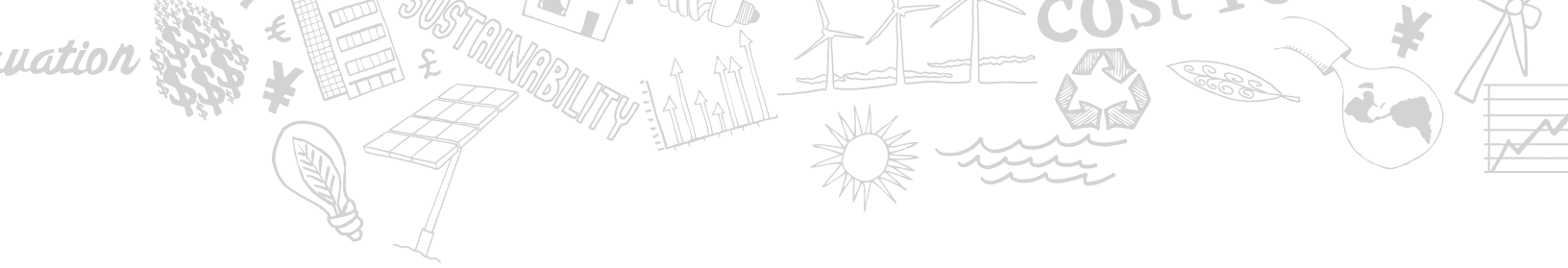
220 total respondents

For example, only 40% of respondents said their companies either had in place or were developing a sustainability strategy, while 31% said they did not know whether their companies had an environmental strategy. The remaining 29% said their companies had no sustainability strategy. However, the responses vary greatly between CSOs and tax directors, with only 28% of tax directors responding that their companies had a sustainability strategy or were developing one, compared to 90% of CSOs. This disparity clearly shows the disconnect between tax directors and sustainability initiatives.

The survey findings also show that not all companies have someone dedicated to sustainability within their organizations. In fact, 27% of respondents do not have someone dedicated to environmental sustainability, while 30% do not know whether their companies had a sustainability leader or not. This is a sign that sustainability strategies are not being communicated effectively.

For many companies, responsibility for environmental sustainability resides within the real estate or operations functions. Some 44% of respondents said the person responsible for environmental sustainability was in this area, while 35% said the sustainability position was within administration, governance, human resources or the legal department. Of the respondents whose companies do not have designated chief sustainability officers, only 3% said someone in their tax department was responsible for sustainability.

What's more, only 16% of companies that either have or are developing an environmental sustainability strategy said their tax department is actively involved in it. These findings suggest that many companies could be more proactive in linking their tax function to their environmental sustainability efforts. When tax directors are not involved in or made aware of sustainability initiatives underway at their company, the company often misses out on numerous incentives and tax credits that could have reduced implementation costs.



What can be done to improve integration?

Sustainability discussions need to bring together members of the tax department, operations, facilities management, individuals in charge of compliance and those responsible for greenhouse gas accounting and reporting. Sharing knowledge will allow the tax director, chief financial officer and chief sustainability officer to actively engage in:

- ▶ Weighing risks against benefits of sustainability initiatives
- ▶ Evaluating costs against expected returns
- ▶ Increasing communication, thus allowing the tax department to evaluate whether the organization qualifies for incentives and tax credits related to environmental sustainability initiatives

There are several best practices for sustainability initiatives that can help tax directors and sustainability officers successfully navigate the many factors that need to be considered and also identify the best tax-effective strategies to adopt:

- ▶ Focus on developing strong communication within the company on the tax implications of sustainability initiatives. These communications should ensure all departments understand the company's sustainability goals and who is accountable for accomplishing them.

- ▶ Integrate the sustainability strategy across all levels of the company, and develop an environmental sustainability platform that reflects broader business goals. This places the company at a competitive advantage and strengthens the bottom line by improving the ROI and reducing the payback period of sustainability investments.
- ▶ Include the tax department and other relevant functional leaders in the planning stages of sustainability initiatives or "green" manufacturing projects. Members of the tax team should be in regular communication with operations, facilities and sustainability managers to ensure that all incentive opportunities are identified.
- ▶ Make certain the company is aware of and claims all state, utility and federal credits and incentives available in connection with sustainability initiatives. Sustainability expenditures should be aggregated with general operational and capital expenditures when identifying incentives.

Implementing these practices in a planned and integrated way will allow the tax and sustainability teams to move forward with confidence as new opportunities, regulations and changes arise and make the most of the many available incentives.

"The study findings suggest that many companies could be more proactive in linking their tax function to their environmental sustainability efforts."



Conclusion

The results of Ernst & Young LLP's *Environmental Sustainability Tax Survey* demonstrate that tax departments often are unaware of incentives and tax credits for sustainability initiatives or do not think the incentives they do know about would have a satisfactory ROI.

This is likely a symptom of the lack of coordination between the sustainability and tax functions. Not only does the survey highlight the low number of companies in which tax is actually integrated with sustainability, but it also suggests almost one-third of tax departments do not know whether their company has a sustainability leader.

With sustainability such an important issue for company stakeholders, as well as a useful cost-reduction strategy, it is imperative that the tax function be well integrated in any company's sustainability strategy. In working with clients, Ernst & Young LLP has found two strategies particularly effective. First, the RSIO framework allows the tax function to better understand the company's overall sustainability strategy. Second, implementing best practices that include communication, integration, planning and action can help engrain sustainability throughout an organization. For tax, this can lead to identification of more incentive opportunities, and for sustainability, it can improve the ROI of its initiatives.



Appendix

This appendix provides an overview of several of the key incentive and tax credit opportunities currently available in each of the RSIO categories.



Reduce

Many tax opportunities are available to businesses that increase the efficiency of buildings, vehicles, machinery and other infrastructure, or reduce energy consumption or the carbon intensity of their supply chain.

Federal IRC 179D tax deduction

The Section 179D energy efficiency tax deduction for commercial buildings can help reduce the cost of green building strategies and help building owners minimize energy consumption and improve energy efficiency. Under Section 179D, commercial building owners can take a deduction for the cost of installing certain energy-efficient property that relates to a building's interior lighting system; heating, cooling, ventilation or hot water systems; or building envelope. The deduction, which varies from US\$0.30 to US\$1.80 per square foot of the building up to the total cost of the property placed in service, applies to projects completed between 2006 and the end of 2013.

Often, the documentation for many Section 179D deductions is completed by a professional engineer or licensed builder. Without a tax professional's involvement, this can lead to incorrect calculations or a lack of adequate audit support. Companies that involve their tax function in determining eligibility for the deduction – calculating its amount and compiling the required documentation – will be more likely to make the most of the tax opportunity.

State and utility “reduce” incentives

Many states, counties and cities also offer incentives for energy efficiency and water conservation.

Examples of state “reduce” incentive programs include:

- ▶ **Pennsylvania.** The state's Department of Community and Economic Development offers grants of up to US\$2 million for high-performance building projects (as well as alternative energy projects and clean energy projects), paying up to 10% of the project cost for high-performance buildings.
- ▶ **Georgia.** The Georgia Environmental Finance Authority offers a Georgia Clean Energy Property Tax Credit that provides an income tax credit for lighting retrofit and other energy efficiency projects, paying between US\$0.60 and US\$1.80 per square foot up to US\$100,000 per project.
- ▶ Many utility companies are also offering incentives in the form of rate reductions and grants for customers who invest in energy-efficient equipment. Examples of utility “reduce” incentive programs include:
 - ▶ **Ohio.** First Energy offers a rebate for its Ohio customers for energy-efficient projects completed after 2008.

Customers can earn US\$0.06 per kilowatt-hour of annual savings up to US\$500,000 per year, per utility. First Energy also offers a rebate for its Pennsylvania customers for the installation of high-efficiency lighting equipment purchased after October 2009. Customers can earn US\$0.05 per kilowatt-hour of annual savings.

- ▶ **Tennessee.** The state's Tennessee Valley Authority Efficiency Advice and Incentives program helps commercial facilities save energy during peak demand times and offers financial assistance for businesses that invest in energy-saving projects and are able to reduce power use during peak summer hours.
- ▶ **California.** Several utility companies offer a statewide program encouraging high-performance non-residential building design and construction, with owner incentives of up to US\$500,000 when building efficiency exceeds a certain threshold. Additional incentives for enhanced commissioning, certification and end-use monitoring can total up to US\$50,000, while other design team incentives can total US\$50,000.

LEED incentives

In addition to federal, state, local and utility incentives, businesses can make use of the framework provided by Leadership in Energy and Environmental Design (LEED) to achieve specific environmental sustainability metrics in their building construction. The LEED rating system is a voluntary, consensus-based national standard for high-performance, sustainable buildings.

LEED-related sustainability efforts help reduce energy consumption with new construction and retrofits of existing buildings to meet certification standards. Businesses can use various incentives at the state, local and federal levels to help offset the costs of obtaining LEED certification. In fact, LEED incentives are currently offered by five states, 18 counties and more than 69 cities and towns. These incentives include:

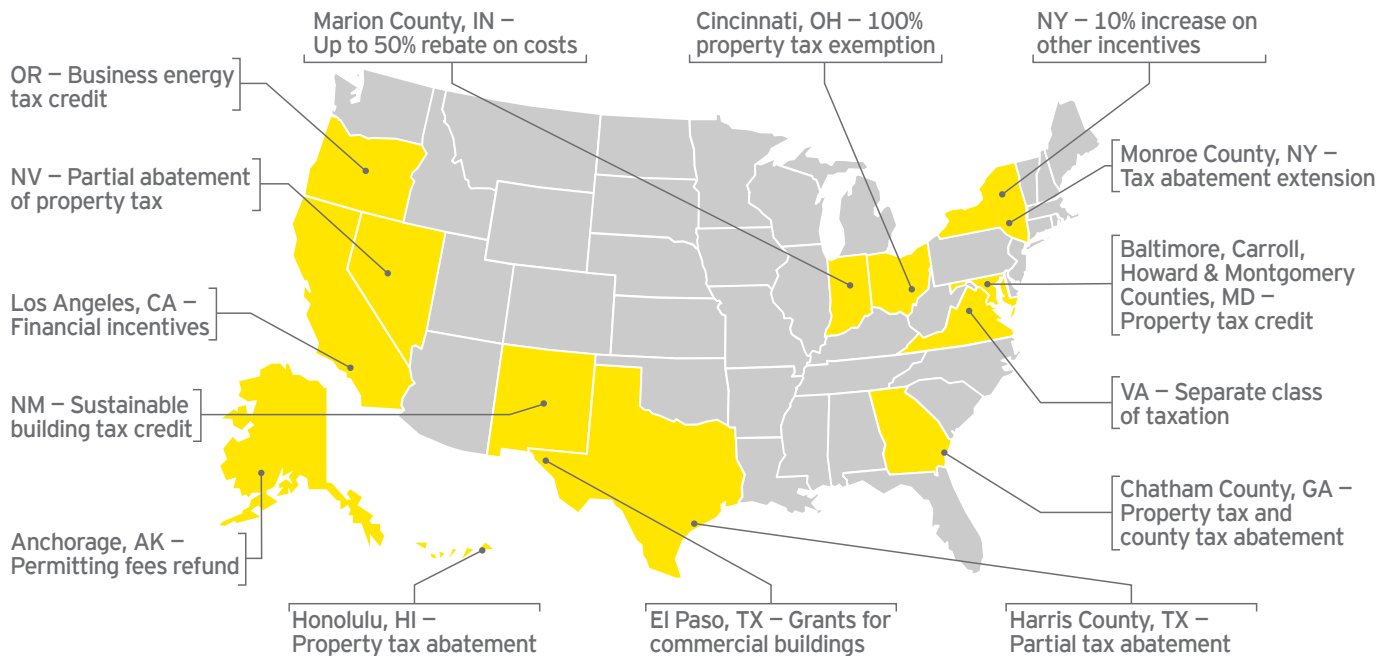
- ▶ 16 tax credits, both property and income
- ▶ 37 grants/financial incentives, including permit rebates and waivers
- ▶ 54 non-monetary incentives, such as expedited permitting review and increased floor area ratio



As one example, Cincinnati offers a 12-year, 100% property tax abatement for newly constructed LEED-certified buildings (a 10-year abatement for renovations to existing buildings). While companies are required to pay a percentage of the abated property taxes to the local school district, this program still offers significant savings to companies operating in the region.

For companies that have already made efforts to increase the energy efficiency of their existing properties or for those planning to do so, several jurisdictions offer significant incentives for taking existing buildings through the LEED certification program (LEED for Existing Buildings). These benefits include property abatements, special assessments and income tax credits and are likely to produce solid ROIs. The following illustration shows a sample of LEED incentives in the US:

Direct incentives for LEED around the US



Indirect incentives also exist for LEED certification. Buildings that are LEED-certified have lower operational costs and are generally valued more highly than non-LEED structures. Various federal and state incentives for renewable energy, energy efficiency (including incentives from utilities) and water conservation are available to companies with LEED-certified buildings, which helps offset the cost of LEED certification.

In addition to LEED certification, several states and localities offer incentives for high-performance buildings that achieve Energy Star certification or a similar designation.



Switch

Tax incentives are also available for companies producing renewable energy or moving to low-carbon, low-emission energy sources, fuels and recycled material.

IRC Sections 45 and 48 tax credits

For facilities that produce and sell electricity generated from certain renewable resources, Section 45 provides an annual credit per kilowatt-hour of energy sold to an unrelated person or company for each of the first 10 years of operation of a renewable energy facility. Qualifying facilities placed in service through December 2013 include closed-loop biomass, open-loop biomass, geothermal, small irrigation, hydropower, landfill gas, waste-to-energy and marine renewable energy. Wind facilities must be placed in service by the end of 2012 to qualify. Facilities using the credit are exempt from the alternative minimum tax for the first 4 years of the 10-year period.

Changes made by the American Recovery and Reinvestment Act of 2009 (ARRA) have expanded this credit, and eligible facilities are able to receive a 30% investment tax credit (explained in more detail below) for a limited time.

Section 48 provides a tax credit of either 30% or 10% of the eligible basis in a project's first year for investment in qualifying renewable energy projects. Qualifying facilities include solar, geothermal, fuel cells, biomass, hydroelectric, microturbines, combined heat and power systems, small wind, large wind and geothermal heat pumps.

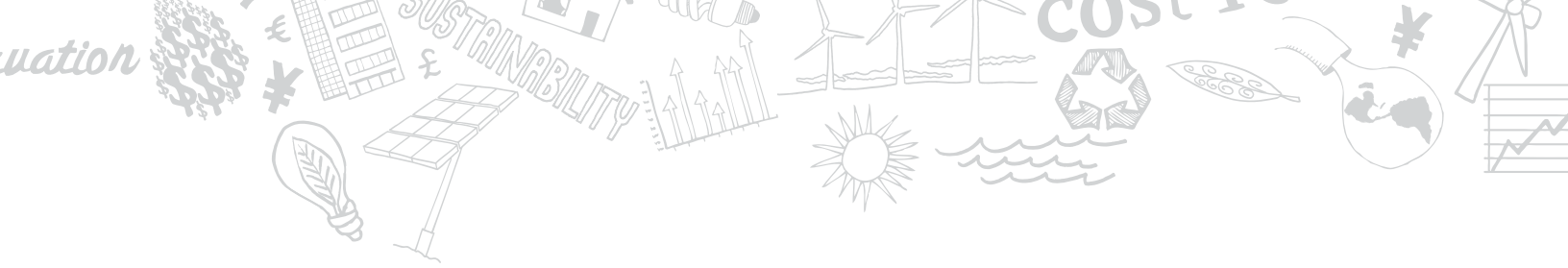
1603 grant in lieu of tax credit

As part of the ARRA legislation, Congress created the Section 1603 grant program, which provides grants for qualified renewable energy projects in lieu of the Section 48 investment tax credit. Under the program, a taxpayer can receive 30% of the cost of the basis of the qualified energy project as a cash grant for certain renewable energy property. The program was extended through 2011 with a grant application deadline of 1 October 2012. To meet the time requirements of the grant, a taxpayer must have begun construction and paid or incurred more than 5% of the total project costs by 31 December 2011 and then subsequently place the property in service by the requisite deadline. Deadlines range from 31 December 2012 to 31 December 2017, depending on the type of energy property. Payment is then made to the taxpayer within 60 days of the property being placed in service or the grant application date, whichever is later.

Projects eligible for ARRA grants can include qualified renewable energy technologies for the production of electricity, such as wind, biomass, geothermal, solar, landfill gas, trash combustion, hydropower, marine hydrokinetic, fuel cells, micro-turbines and combined heat and power.

The difference between a cash grant and a tax credit can have a significant impact on a project's ROI. It can affect the capital budget approval and can reduce the project's cost. Generally, a cash grant provides more certainty than a tax credit benefit.

These programs can be used most effectively when a business has a breadth and depth of technical knowledge that effectively integrates tax, sustainability and operational teams. As deadlines approach and the tax landscape changes, companies need to revisit sustainability projects regularly to monitor developments and identify new opportunities as they emerge.



State and utility “switch” incentives

Many states, counties and cities offer incentives for investment in renewable energy property or renewable energy production.

Examples of state “switch” incentive programs include:

- ▶ **North Carolina** offers a tax credit equal to 35% of the cost of eligible renewable energy property constructed, purchased or leased by a taxpayer and placed in service in the state during the tax year. The credit is limited to US\$2.5 million per installation for all solar, wind, hydro, geothermal, combined heat and power and biomass applications used for a business purpose.
- ▶ **Oregon** offers a business energy tax credit for investments in sustainable buildings, renewable energy resources, recycling, energy conservation and alternative fuels. The credit is distributed over five years and amounts to 50% of certified costs. For renewable energy and combined heat and power projects, the credit amount is 50% of certified costs over five years, with a maximum credit of US\$10 million. For all other projects, the credit amount is 35% of certified costs over five years, with a maximum credit of US\$3.5 million.
- ▶ **Virginia** offers a 10% tax credit for the purchase of machinery and equipment used to manufacture, process, compound or produce items from recyclable materials.

Many utility companies are also offering incentives for customers who produce their own renewable energy. Utility incentives include both production-related incentives, in the form of renewable energy credits and rate reductions, and investment-related incentives, in the form of grants. Examples of utility “switch” incentive programs include:

- ▶ **Minnesota Power (Minnesota)** offers grants of up to US\$50,000 to its commercial, industrial and agricultural customers who use renewable energy products, new electro-technologies that lower energy costs per unit of production in a manufacturing process or innovative technologies that are new and underutilized in the regional marketplace.
- ▶ **Pacific Power (California)** offers a US\$2.00 per watt rebate (up to US\$500,000) to customers who install PV systems on their facilities.

Tax and sustainability departments should evaluate the relative expenses and benefits of potential projects by weighing local electrical prices against the higher costs of alternative energy technologies and identifying federal and state tax benefits, cash grants and property tax benefits. This type of analysis can help a business determine how a project may fit into its overall sustainability strategy. ROI can depend on regional factors such as electricity pricing, which can vary greatly from region to region. For companies that have multiple locations, it makes sense to look first at possible incentives in regions where electric prices are the highest.



Innovate

Companies that design and manufacture advanced energy and reduced emission products and services may also qualify for tax incentives.

Federal IRC 48C

Under ARRA, Congress established a new investment tax credit for qualified investments in renewable and advanced energy projects to support new, expanded or re-equipped domestic manufacturing facilities. The Section 48C tax credit is equal to 30% of the basis of qualified investments used to manufacture property that will reduce greenhouse gas emissions or air pollutants. The initial funding for the credit was oversubscribed, but some allocations may become available if unused by the original awardee. The Obama Administration has proposed renewing this program and expanding it to US\$5 billion. Congress is considering several bills that would allow for this renewal and expansion.

For the previous application, the Treasury Department awarded US\$2.3 billion in tax credits. The application process was competitive, and awards were evaluated based on domestic job creation, net impact of reducing greenhouse gas emissions or pollutants, potential for technological innovation and project time. Some successful applicants include a wind turbine manufacturer, a solar panel manufacturer and a manufacturer of fuel-efficient tires. If the 48C program is renewed, there is a limited window of opportunity. A preliminary application is expected to be due within 30 days of the announcement of the renewal, with a final comprehensive application due 30 days later.

Department of Energy grant funding

The Department of Energy (DOE) also provides grants for energy efficiency and renewable energy projects. In fiscal 2009, the DOE awarded more than US\$2.2 billion in funding to businesses, industries, universities and others. The DOE makes Funding Opportunity Announcements (FOAs) throughout the year to solicit grant applications for certain projects or technologies. Application periods are typically 60 days or less, so companies should regularly check for opportunities.

State “innovate” incentive programs

Many states are placing a higher priority on green industries and beginning to offer tax incentives for advanced energy manufacturers. Some incentives are competitive and require the manufacturer to provide new jobs, higher wages and a minimum capital investment in the state.

Examples of state “innovate” incentive programs include:

- ▶ **Indiana** offers alternative fuel vehicle (AFV) manufacturers a tax credit of up to 15% of qualified investments, which include expenditures in the state that are reasonable and necessary for the manufacture or assembly of AFVs. The credit is offered for taxable years beginning after 31 December 2006 and before 31 December 2012.
- ▶ **New Jersey** offers a 100% tax credit for businesses engaged in manufacturing wind energy equipment, up to US\$100 million. In order to qualify for the tax credit, a business must make a minimum capital investment of US\$50 million in a qualifying wind energy facility that employs at least 300 new full-time employees.
- ▶ **Washington** offers a 43% lower manufacturing business and occupation (B&O) tax rate. This reduced tax rate applies to manufacturers of photovoltaic modules, stirling converters, solar-grade silicon, silicon solar wafers, silicon solar cells, thin-film solar devices or compound semiconductor solar wafers to be used exclusively in solar energy systems. The program expires on 30 June 2014.

It is important for tax directors to meet with operations and product development teams from time to time to ensure advanced energy manufacturing tax opportunities are not missed.



Offset

Companies looking to invest in developing countries can leverage Clean Development Mechanisms (CDMs).

CDMs, as defined in the Kyoto Protocol, allow companies to invest in projects in developing countries that can be shown to measurably reduce greenhouse gas emissions. After a CDM project has been implemented, project participants receive Carbon Emission Reduction (CER) credits.

Companies in industrialized countries can credit the CERs earned through their investments in CDM projects toward their emission targets, sell their CERs to buyers in other industrialized countries or trade them on global carbon markets. As of December 2011, there have been more than 808 million CERs issued.¹

¹ *United Nations Framework Convention on Climate Change*,
cdm.unfccc.int/Issuance/CERs_iss.html
Data current as of 27 December 2011.

Our point of view

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The role of tax as catalyst for change



Using tax credits as an effective tax rate management tool



Energy efficiency tax incentives



Business incentives and tax credits: capital investment analysis



IRC Section 179D: energy efficiency tax deduction for commercial buildings/government assignment of tax deduction



IRC Section 48C: advanced energy manufacturing tax credit

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