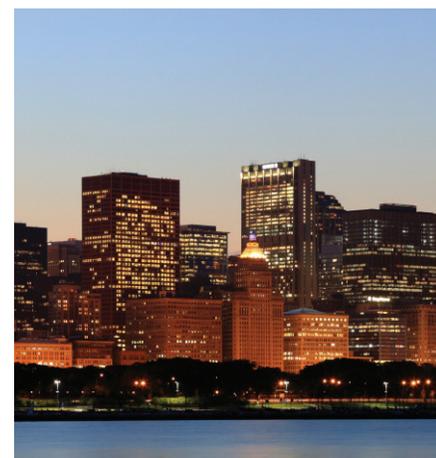


2012 ENERGY EFFICIENCY INDICATOR SURVEY: BRAZIL RESULTS

The Johnson Controls Institute for Building Efficiency conducts an annual Energy Efficiency Indicator survey tracking the energy priorities, practices and investments being made by executive decision-makers for buildings in markets around the world. In 2012, nearly 3,500 executives from the commercial, industrial and institutional sectors provided insights into their energy management practices, the barriers to energy efficiency they face, and what motivates them to act. This is the third year the survey has extended to Brazil, where there were 230 respondents this year. The complete EEI survey results can be found at www.InstituteBE.com.

FINDINGS FROM THE 2012 BRAZIL EEI SURVEY RESPONDENTS:

- There was strong interest in energy efficiency among building executives in Brazil: 89% said energy management was very or extremely important to their organizations (compared to 73% in 2011), and 79% said they were paying more attention to energy in 2012 than in 2011.
- 47% of Brazilian respondents have invested in energy efficiency in the past year with an almost equal percentage investing in renewable energy (40%). 57% of business executives plan to increase spending in the next twelve months while 23% expect investment to stay the same.
- Which factors contribute most to Brazilian respondent's energy efficiency decisions? Energy cost savings, government or utility incentives or rebates, and increasing energy security led as drivers for energy efficiency action.
- 49% of respondents plan to pursue green certification in new buildings, and 43% percent in existing buildings; 45% have at least one certified green building.
- The top three energy efficiency measures adopted in the past 12 months included: lighting improvements (73%), water efficiency improvements (54%), and energy focused behavioral or educational programs (48%) (Figure 1).
- Brazilian executives believe solar thermal (33%), new lighting technologies (29%) and advanced building materials (27%) are the top three on-site energy technologies to be adopted by the market in the next 10 years. The average allowable payback on efficiency projects averaged 2.2 years, comparable to 2.7 years in 2011. This is below the 2012 global average of 3.4 years and the shortest allowable payback globally.
- The top barrier to pursuing energy efficiency in Brazil was "no organizational ownership/dedicated attention to managing energy efficiency" (17%, up from 7% in 2011), followed closely by "lack of funding to pay for improvements" (16.5%) and "insufficient payback/ROI" (16.5%) (Figure 2).



OVERVIEW

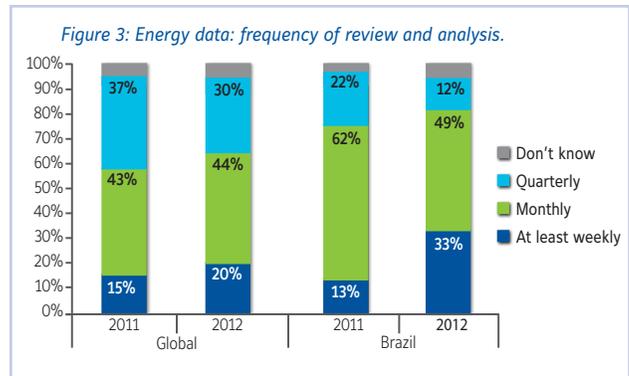
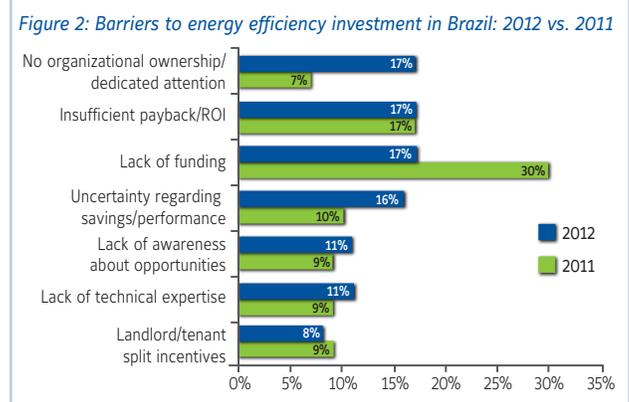
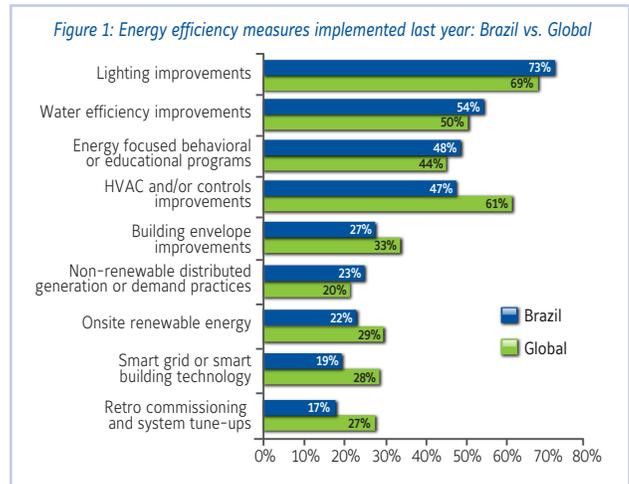
The 2012 Global Energy Efficiency Indicator (EEI) survey reveals the energy priorities, practices, investment plans and barriers facing building decision-makers responsible for energy investments and activities in their companies. The global survey included nearly 3,500 facility managers and building executives and owners. The 2012 survey is the sixth global EEI survey conducted by Johnson Controls through its Institute for Building Efficiency.

- Brazil sees project execution risk – including staying within budget, ensuring implementation quality and meeting project schedule as the greatest risk when considering energy efficiency or renewable energy projects. Respondents in the US/Canada, in contrast, were most concerned with performance risk and the level of savings achieved.
- When asked which energy policy would have the greatest impact on improving energy efficiency in buildings in Brazil, 26% of executives said tax credits/incentives or rebates, 23% selected low-interest financing for energy upgrades, and 15% chose adoption of green appraisal standards that include the value of energy efficiency in property valuation.
- How frequently do Brazilian respondents manage energy usage data? 64% measure and record data at least weekly and 36% review and analyze data at least weekly, both higher than the respective global averages (56%, 20%) (Figure 3).
- The top three energy management practices already adopted in Brazilian respondents' facilities are: measuring and verifying energy project savings (50%), tracking and analyzing energy data (43%), and creating an action plan to implement energy improvement projects (37%).

SURVEY RESPONDENT DEMOGRAPHICS

To qualify, respondents must have budget responsibility for at least one nonresidential building, and their responsibilities must include energy use, either through monitoring of usage or proposing or approving energy-related projects. The EEL survey is conducted anonymously.

Among Brazilian respondents, 69% classified their facilities as commercial, 19% as institutional (government buildings, hospitals and schools), and 12% as industrial. Twenty-seven percent of respondents managed more than 500,000 square feet.



The Institute for Building Efficiency is an initiative of Johnson Controls providing information and analysis of technologies, policies, and practices for efficient, high performance buildings and smart energy systems around the world. The Institute leverages the company's 125 years of global experience providing energy efficient solutions for buildings to support and complement the efforts of nonprofit organizations and industry associations. The Institute focuses on practical solutions that are innovative, cost-effective and scalable.

If you are interested in contacting the authors, or engaging with the Institute for Building Efficiency, please email us at: InstituteforBE@jci.com.

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