Highlights from the 2017 China Survey:

- Energy efficiency is increasing in importance and investment remains high. 79% of organizations are paying more attention to energy efficiency than they were one year ago, which is translating into investment. 71% of organizations plan to increase energy efficiency and renewable energy investments in the next year, with an additional 27% planning to keep their investment level the same.

- Energy cost savings was by far the most important driver in energy investment decisions in China. 94% of organizations rated energy cost savings as very or extremely important in driving investment decisions. Other important drivers included greenhouse gas footprint reduction (72% of respondents rating it as very or extremely important), increasing energy security (63% of respondents rating it as very or extremely important), and customer attraction and retention (63% of respondents rating it as very or extremely important).

Drivers of energy efficiency investments:
Organizations rating as very or extremely significant

- Energy cost savings: 94%
- Greenhouse gas footprint reduction: 72%
- Increasing energy security: 67%
- Customer attraction/retention: 65%
- Attracting, retaining employees: 63%
- Existing government policy: 59%
- Investor reporting demands: 57%
- Increase building resilience to weather and energy system disruptions: 51%
- China: 50%
- Global: 52%

- The top energy efficiency measures adopted over the past twelve months include heating, ventilation, and air conditioning improvements (73%), energy focused behavioral or educational programs (66%), building controls improvements (63%), onsite renewable energy (60%), and thermal energy storage (59%).

- When asked about planned investment over the next twelve months, heating, ventilation, and air conditioning and building controls improvements led the way with 56% of respondents indicating they would invest. They were followed by onsite renewable energy (54%), thermal energy storage (49%), and energy focused behavioral or educational programs (47%).

This year marks the 11th year of the survey with over 1,500 respondents represented from twelve countries, including almost 130 leaders from China.
For 29% of respondents, the top barrier to pursuing energy efficiency is lack of technical expertise to evaluate or execute projects. Other common barriers include lack of funding to pay for improvements (28%) and lack of organizational ownership/dedicated attention to managing energy efficiency (13%).

As the demand for green buildings increases, the demand for net zero energy buildings is also on the rise. 67% of organizations already have or plan to have at least one certified green building in the future and 35% of organizations are willing to pay a premium for space in a certified green building. Many organizations plan to achieve near zero, net zero or energy positive status for at least one building in the next 10 years, with 66% indicating it is very or extremely likely.

Resiliency is an increasingly important consideration for building infrastructure investments. 73% of organizations stated that maintaining critical operations during severe weather events or extended power outages is very or extremely important when considering future infrastructure investments. In addition, 63% of organizations are very or extremely likely to have one or more facilities able to operate off the grid in the next 10 years.

Building systems integration continues to build momentum as the focus on smart buildings increases. 41% of organizations invested in systems integration in the past 12 months and 40% plan to invest in the next 12 months. Integration with external data sources, such as weather and utility information, is leading the way with 54% of respondents indicating it has already been integrated with other building technology systems. This is followed by energy management (integrated with other building technology systems for 44% of respondents) and security systems (integrated with other building technology systems for 37% of respondents).

In China, public and private sector building efficiency targets are seen as the most effective policy driving energy efficiency improvements with 81% of respondents ranking them as very or extremely important. Other policies that are effective in driving energy efficiency improvement include performance benchmarking and certifications (79% of organizations rated as very or extremely important), government leadership in leasing, building design, and retrofits (78% of organizations rated as very or extremely important), and financial incentives and programs (78% of organizations rated as very or extremely important).

### Policies driving energy efficiency improvements:
Organizations rating as very or extremely important

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<thead>
<tr>
<th>Policy</th>
<th>China</th>
<th>Global</th>
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</thead>
<tbody>
<tr>
<td>Public and private sector building efficiency targets</td>
<td>81%</td>
<td>79%</td>
</tr>
<tr>
<td>Performance benchmarking and certifications</td>
<td>79%</td>
<td>83%</td>
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<tr>
<td>Financial incentives and programs</td>
<td>75%</td>
<td>78%</td>
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<tr>
<td>Government leadership in leasing, building design, and retrofits</td>
<td>78%</td>
<td>81%</td>
</tr>
<tr>
<td>Utility data access, tariffs, incentives, and programs</td>
<td>53%</td>
<td>63%</td>
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<tr>
<td>Building energy codes and product standards</td>
<td>59%</td>
<td>64%</td>
</tr>
<tr>
<td>Private sector engagement in workforce development, performance contracting, and financing</td>
<td>54%</td>
<td>49%</td>
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<tr>
<td>Building owner and occupant engagement and partnerships</td>
<td>49%</td>
<td>52%</td>
</tr>
</tbody>
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| To qualify, respondents must have facility budget responsibility and propose or approve energy efficiency initiatives for their organization. The survey was administered anonymously by a third party partner. For the 2017 China survey, there was a good mix of respondents from institutional, commercial, and industrial organizations, as well as a mix of organizational titles, including c-level executives, vice presidents, directors and managers. 63% of respondents have responsibility for facilities that cover more than 500,000 square feet, 25% cover 50,000 to 500,000 square feet, and 12% cover less than 50,000 square feet. |

For more information go to www.johnsoncontrols.com/insights/2018/buildings/features/energy-efficiency-indicator-survey