Deloitte Resources Study: 10-years of key business trends in energy management
## Key themes 2011-2020*

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<tbody>
<tr>
<td>Energy management: effects at U.S. businesses intensifying</td>
<td>Energy management: becoming core business competency</td>
<td>Energy management: passes the point of no return</td>
<td>Energy management: Navigating the headwinds</td>
<td>Energy management: sustainability and progress</td>
<td>Energy management: Business are answering the call for environmental responsibility</td>
<td>Businesses move full speed ahead</td>
<td>Paused by pandemic, but poised to prevail</td>
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## Motivations for energy management

<table>
<thead>
<tr>
<th>Energy management: vision, mission, and goals</th>
<th>Energy self-sufficiency and resiliency</th>
<th>Renewable energy procurement</th>
<th>Challenges to implementing energy management programs</th>
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<tr>
<td>Desire to cut costs emerges as the top motivator</td>
<td>Getting attention and needing a portion of internal power needs</td>
<td>Participation in renewable energy programs offered by electric companies</td>
<td>Corporate progress on energy management in danger of stalling as financial hurdles loom</td>
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<td>Regulatory requirements are gaining momentum</td>
<td>More companies report setting resource reduction goals beyond electricity, such as for natural gas, but targeted reduction levels are generally less aggressive - averaging 19% across resources, compared to 24% in 2012</td>
<td>On-site renewable installations accounted for, on average, 10% of total electricity supply for respondents who have onsite generation</td>
<td>One-third (33%) of respondents reported their companies are currently generating at least some portion of their electricity through renewable programs expanded or cogeneration</td>
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<td>Energy management: support for onsite renewable installations have grown</td>
<td>Half of surveyed companies continue to report setting formal energy management goals - and resource reduction goals (electricity, natural gas, and all other forms of energy) trended back upward</td>
<td>Businesses give the green light to renewables, with 52% reporting they are working to obtain more electricity from renewable sources</td>
<td>One-third of companies surveyed said bureaucracy is the primary challenge to achieving goals</td>
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<td>More companies are targeted to procure more electricity from renewable sources</td>
<td>Major motivations for onsite generation include price certainty (57%), cost savings (37%) and diversity of energy supply (56%)</td>
<td>Combining battery storage with renewables can sweeten the deal: 58% of respondents who are not working to procure renewable energy, say combining with storage could motivate them</td>
<td>Capital funding emerged as the major challenge with the primary challenge and regulatory uncertainty dipping significantly</td>
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<td>Cost cutting remains important as key drivers</td>
<td>Alignment of energy management vision with corporate strategy weakened, with 47% of businesses surveyed reporting full alignment, down from 52% in 2015</td>
<td>Businesses give the green light to renewables, with 52% reporting they are working to obtain more electricity from renewable sources</td>
<td>Energy management: The Power Shift. Businesses take a new look at energy strategy</td>
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<tr>
<td>Cost cutting is no longer overwhelmingly dominant. Energy management is becoming a core corporate discipline, motivated by image in addition to financial advantages</td>
<td>Surveyed companies with formal goals surpasses 55%</td>
<td>Businesses report rising from 21% to 60% during the decade, with on-site generation gaining nearly 40 points, rising from 21% to 60%</td>
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<td>Competitiveness remained a top driver. 83% of business respondents say they view reducing consumption as essential to staying competitive from a financial perspective</td>
<td>Energy management alignment with corporate strategy, incorporation into employee all goals as</td>
<td>Businesses report rising from 21% to 60% during the decade, with on-site generation gaining nearly 40 points, rising from 21% to 60%</td>
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<td>Companies’ views of energy procurement are shifting from merely a cost to an opportunity for reducing risk, improving resilience, and creating new value</td>
<td>Desire for some type of certification and supplier/business partner requirements seem biggest jump</td>
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<td>Energy management: Business are answering the call for environmental responsibility</td>
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<td>Economics and sustainability together dominate top drivers</td>
<td>Employees, board members, and customers are key motivating stakeholders</td>
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*Based on responses to the annual Deloitte Resources Study survey

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**Note:** This table provides an overview of key themes in energy management and business sustainability from 2011 to 2020. It highlights changes in business attitudes and practices, with a focus on energy management, self-sufficiency, and renewable energy procurement. The table captures shifts in motivations, trends, and challenges faced by businesses over this period.
Motivations for energy management

Over the decade of our surveys, the primary drivers for businesses to implement their resource management programs have been desire to cut costs, right thing to do, employee motivations, and external incentives.

- “Desire to cut costs” was the top motivator of respondents throughout the 10 years. However, toward the end of the decade, the “right thing to do” began gaining ground against it, as ESG goals became core to corporate strategy.

- The “right thing to do” rose for respondents after 2018 as companies responded to changing expectations, such as supplier/business partner requirements to reduce carbon emissions in the supply chain and the desire to achieve certifications such as LEEDS for green buildings. Efforts to improve company image began permeating the broader business environment.

- External incentives, such as federal and state tax credits for renewables and energy efficiency investments, were also strong motivators. And concern about current and future regulatory requirements, if combined, would surpass all other drivers for respondents in some years.

- Internal stakeholder (employees, board members) and customer pressure to combat climate change had also become key motivators for respondents for managing energy use by 2020.

- In 2020, there was a noticeable jump in respondents (90% compared to 81% in 2017-18) who view energy procurement as “an opportunity to reduce risk, improve resilience, and create new value rather than as a cost.”

Source: Deloitte Resources Study Survey 2011-2020
Over the decade, surveyed businesses increasingly set formal energy and resource management goals, expanded them to more resource areas, and met them. In addition, respondents increasingly said their corporate energy vision/mission aligned with their company’s overall corporate vision.

- Since 2013, more companies started focusing on managing resources beyond electricity, expanding to natural gas consumption (69%), transport fuel consumption (62%), and water usage (73%). However, surveyed businesses’ targeted reduction levels became less aggressive than the previous year, and they gave themselves equivalent time horizons to accomplish their goals.

- In 2015, the percentage of respondents reporting formal energy management goals jumped significantly and remained above 50%. At the same time, more than half said energy management vision aligned with corporate vision, rising to more than 70% by 2020.

- 2017 saw stabilization in corporate priorities as well as greater familiarity with how specific resource management practices can support them, as most of the metrics around energy management vision, mission, and goals jumped back to 2015 levels after falling in 2016. Respondents also reported higher levels of integration in energy management goal setting across business functions.

- Corporate commitment to energy and resource management rose over the decade with an increasing percentage of respondents (nearly 51% in 2020) reporting that leadership and staff at all levels have energy objectives incorporated into goals.

Source: Deloitte Resources Study Survey, 2011-2020
Energy self-sufficiency and resiliency

Over the decade, the share of respondents with onsite generation rose sharply as businesses increasingly sought self-sufficiency. Conversely, the percentage of electricity supplied by their electricity providers fell as onsite generation increased. Amid rising concerns about outages, businesses took further action to boost resilience.

- Since 2014, respondents’ onsite generation rose while the share of electricity from providers fell. In 2020 respondents reported sourcing just 35% of their electricity supply from electricity providers during the prior year, down from 65% when the question was first asked in the 2015 survey.
- Respondents increasingly sourced renewables for onsite generation, reporting the electricity provided from renewable sources rising from 10% in 2014 to 25% in 2020.
- Among those respondents generating onsite, the top motivations over the ten years were price certainty, energy supply diversification, cost savings, resiliency, and sustainability.
- Resiliency concerns appear to be rising as well, with 36% reporting an increase in power outages during the previous 24 months in 2020, up from 27% reporting an increase in 2013. Longer outages may have contributed to businesses seeking alternative electricity sources.
- In line with their growing interest in resiliency and self-sufficiency, 44% of respondents considered implementing or participating in a microgrid in 2020, up from 35% in 2017.
- Respondents conveyed further apprehension about continuity of power supply in a new question on the 2019 and 2020 surveys. Half expressed concern about an interruption to their electricity supply due to a cybersecurity event involving their electricity supplier or the electric grid.

Source: Deloitte Resources Study Survey, 2011-2020

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Renewable energy procurement

Over the decade of our surveys, an increasing share of businesses reported their customers demanding they procure more renewable sourced electricity. This was likely behind the consistent 50-60% of businesses that reported they were “working to procure more electricity from renewable sources.” And that work must have paid off because total renewable procurement through corporate power purchase agreements (PPAs) rose sharply in the decade, from a cumulative 0.1GW in 2010 to 57.3 GW by the end of 2020.1

- In 2020, nearly three-quarters of business respondents said their customers want them to procure a certain percentage of their electricity demand from renewable sources, up from 61% in 2017; and nearly 48% of respondents were working to procure more electricity from renewable sources.

- Throughout the decade, respondents increasingly publicized their renewable purchases, reaching 77% in 2020, up 12 points from 2017.

- Renewable energy procurement methods have been expanding, with the most common methods being power purchase agreements and green power programs.

- In 2017, of the 39% who were not working to procure more renewable electricity from renewables, 58% said combining renewable energy sources with battery storage could motivate them to do more.

Source: 1. “Corporate Clean Energy Buying Grew 18% in 2020, Despite Mountain of Adversity,” Jan 26, 2021, BNEF
Challenges to implementing energy management programs

Top 3 challenges to achieve companies’ energy management goals

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<th>Challenge 1</th>
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Source: Deloitte Resources Study Survey, 2011-2020

10-year trends

Over the decade, lack of time and money appeared to be the dominant theme in the challenges respondents selected to achieving their resource management goals. Another key set of challenges involved staff issues, from lack of dedicated staff, to lack of commitment or skills. And finally, uncertainty, difficulty, and complexity.

- Capital funding was the main challenge to future progress for respondents’ energy management programs, followed by the length of payback period in 2012.
- In 2013, once low-hanging fruit had already been picked and the next tranche of solutions were more capital intensive, the primary challenges to continued success for respondents started shifting to bureaucracy.
- For the next 3-4 years, surveyed businesses cited length of payback time, difficulty in measuring impact on the bottom line and staffing challenges as the key challenges.
- 2018 saw fewer respondents citing strategic challenges and internal bureaucracy compared to the previous year. They reported more support from the C-suite, with leaders promoting a cohesive energy management vision from the top down.
- In 2019, the regulatory uncertainty challenge dropped significantly for respondents, reflecting a general perception of regulatory easing during that period.
- Lack of time, commitment, and capital for investment emerged as the major challenges for respondents by 2020.