The State of Decarbonization
2023

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Executive Summary

The path to decarbonization is a critical focus across industries today. To overcome obstacles hindering our progress, we must identify common challenges organizations face in their decarbonization journey and share successful tactics.

To gain a deeper understanding, we engaged with the **Eco Champions community**—a convergence of energy, sustainability, and leadership teams working together for the common goal of decarbonization. Our primary objective was to capture and assess the decarbonization landscape, which involved evaluating various strategies, diving into the most effective tactics, and examining the challenges and motivating factors behind them.

By better understanding how organizations tackle these efforts, we can provide valuable best practices, insights and focus on strategies that have proven successful by peers. Together, we can make significant strides toward a more sustainable future.

Key findings:

- Over half of respondents have set decarbonization goals
- Viability and compliance are primary drivers for decarbonization
- Data access is the #1 challenge in the journey to decarbonization
- Energy data (Scopes 1 and 2) is a high priority for reporting
- Energy efficiency is the top priority

Methodology

The State of Decarbonization survey was conducted to better understand and assess the maturity scale of decarbonization efforts. Written responses from the survey were transcribed as-is into this eBook to maintain authenticity.

75% of our survey responses came from energy and sustainability professionals.

Participant occupations

Occupation	Percentage
Sustainability	44.83%
Energy	31.03%
Accounting	10.34%
Other	7.76%
CXO	4.31%
Legal	1.72%

Percentage of responses
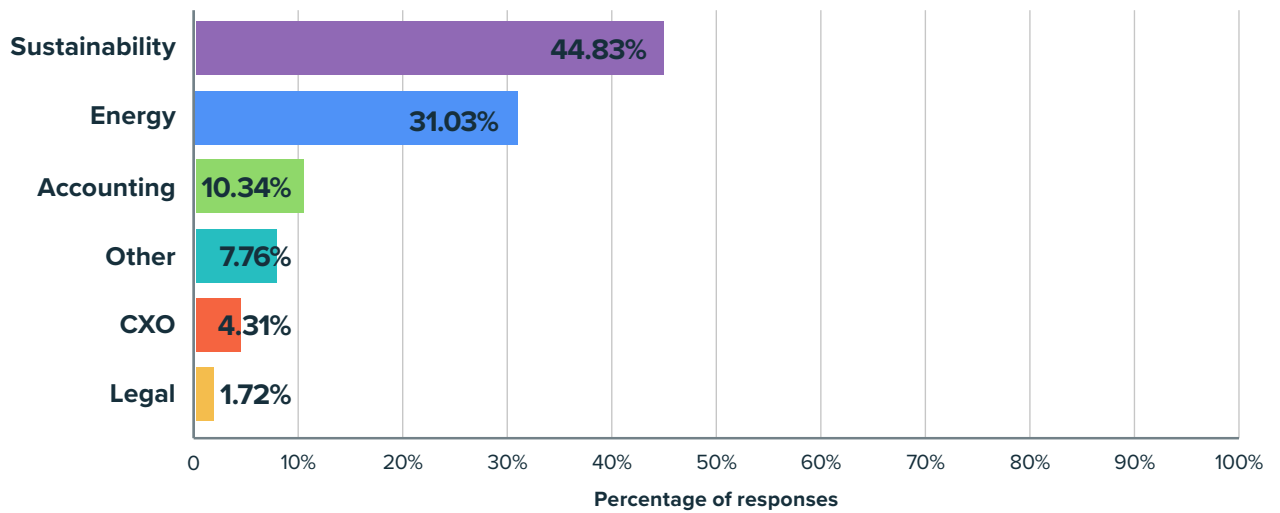
Participant industries

Industry	Percentage
Other	24.14%
Consultant	21.55%
Higher Ed	10.34%
Manufacturing	10.34%
Retail	9.48%
Gov	7.76%
Commercial	6.90%
K–12	6.03%
Healthcare	3.45%

Percentage of responses
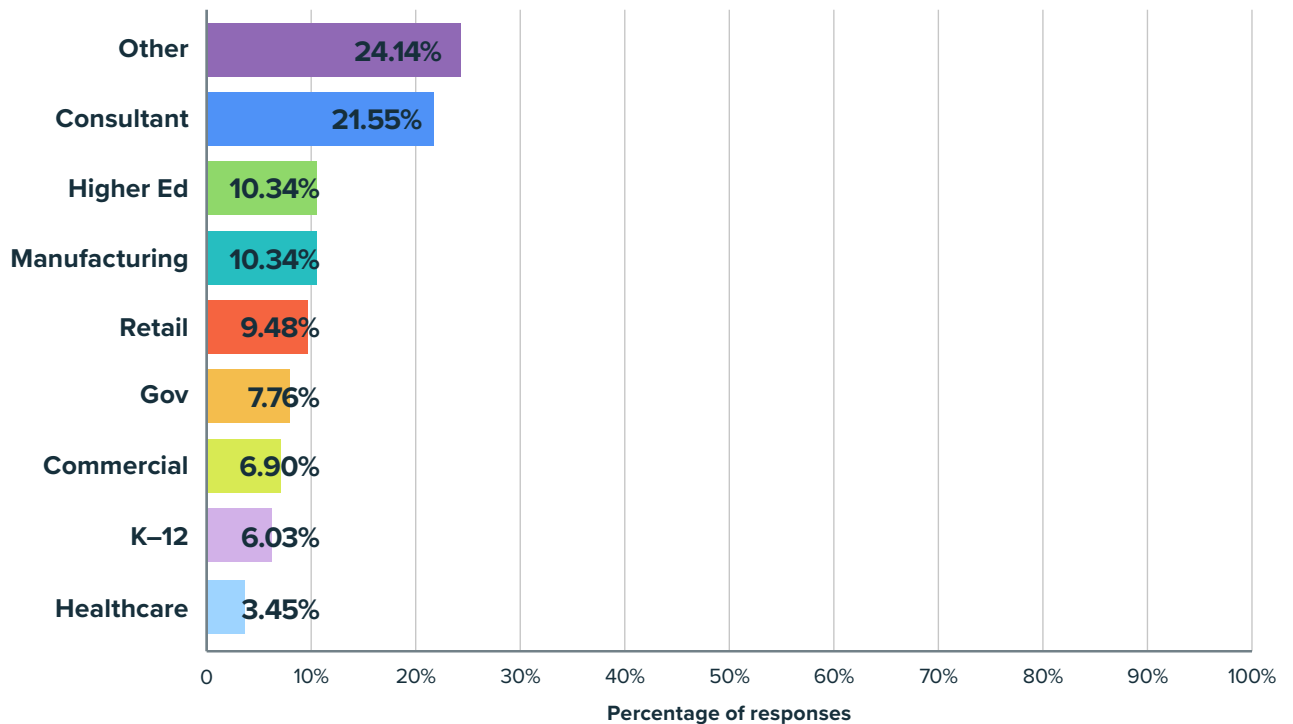
Over half of the respondents have said their organization has defined decarbonization goals.

44.83% of individuals responded that their organization has not yet defined decarbonization goals, while **55.17%** said they have.

Has your organization defined decarbonization goals? If yes, explain.

Yes — 55.17%
No — 44.83%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Number of responses

❝ We are looking to help our members reduce their carbon emissions by 50% from 2009 to 2030, and to meet the longer term internationally agreed goals thereafter.”

❝ Reduce absolute scope 1 & 2 GHG emissions by 80% and scope 3 GHG emissions by 50%, by 2030 from a 2019 baseline year. Net zero on or before 2040.”
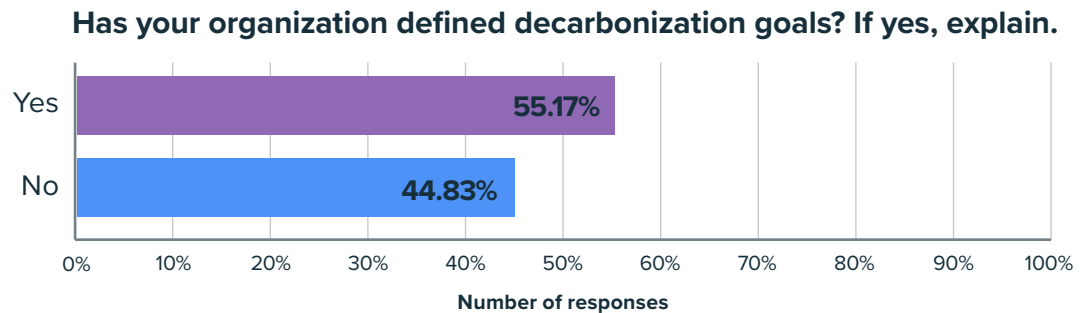
❝ In the process of setting targets and strategy after releasing our first proper responsibility report this year for 2022.”

❝ We have a bold strategy to reduce our emissions by 50% in our own operations and make a substantial reduction in scope 3 as well by 2030.”

❝ 40% reduction of Scopes 1 and 2 emissions by 2030 with 2019 emission baseline.”

❝ Loosely only. We struggle with the overwhelming amount of information and how to make the appropriate conversions in order to set goals.”

❝ To reach net-zero by 2050. To have operational emissions by 2030.”

❝ We have energy and recycling goals that support decarbonization, but are drafting specific decarbonization goals that will accelerate both bottom up and top down decarbonization activities.”

❝ Clear targets to assess and measure Scope 1, Scope 2, Scope 3 and then Action Plan to be able to monitor on an annual basis.”

❝ Carbon neutral electricity by 2030. This also includes electrification of our district heating system on our main campus. We recently had multiple on-site solar arrays installed, but through a purchase power agreement. A mix of the two separate items.”

❝ Use of green energy, reduction of energy usage by automatic sensors, reduction of plastic, awareness about reduction of plastic, plantation, digitisation of processes to eliminate paper.”

What we think

While it's great to learn that 55% of the respondents have decarbonization goals, there is still a significant group of organizations that do not have concrete plans or targets for reducing their carbon footprint. This highlights the need for greater emphasis and action in addressing decarbonization efforts across the industry.

Viability and compliance are top drivers for decarbonization efforts.

What are the primary drivers behind your decarbonization efforts?

Driver	Percentage
Long-term viability of the organization	55.17%
Regulatory/compliance requirements	50.86%
Altruistic organization initiative	37.93%
Reputational risk	36.21%
Executive initiative/pressure	36.21%

Percentage of responses
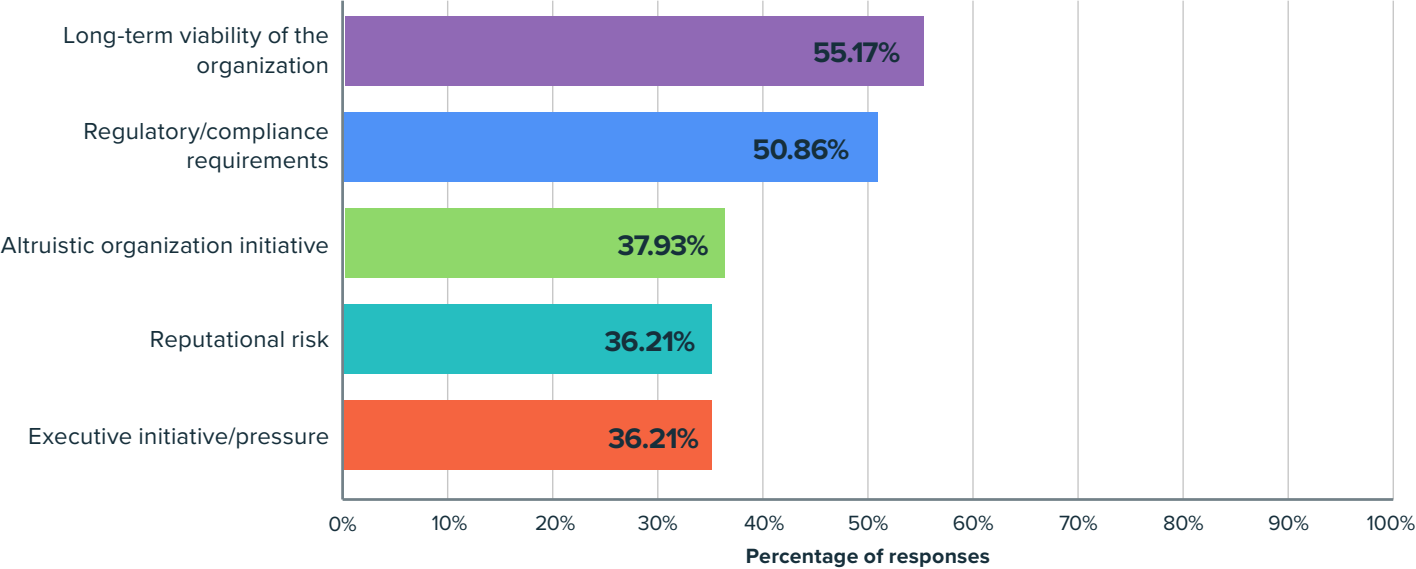
Decarbonization is more than compliance—it is also about creating lasting competitive advantage.

Long-term viability of the organization tops the list for the most important driver behind decarbonization efforts, followed by a close second of regulatory and compliance requirements.

What we think
Based on the survey results, the main reason organizations are prioritizing decarbonization is because they believe it's not just the right thing to do but something they must do to thrive in the long run.

Energy data (Scope 1 and 2) is a high priority for reporting

What types of carbon (GHG) data does your organization track and report on? (Participants were asked to check all that apply.)

Category	Percentage
Calculates and reports Scope 1 and 2 emissions	55.17%
Tracks and reports **on major** energy usage	49.14%
Tracks and reports **on all** energy usage	44.83%
Engages with major upstream and downstream supply-chain partners to assess and mitigate potential impacts of climate change	33.62%
Calculates and reports **on select** Scope 3 emission categories	23.28%
Calculates and reports **all applicable** Scope 3 emission categories	16.38%

Percentage of responses

Scope 3 emissions often include a wide range of activities and can be more complex.

16.38% said their organization calculates and reports on all applicable Scope 3 emission categories. **More than half** said they calculate and report Scope 1 and 2 emissions.
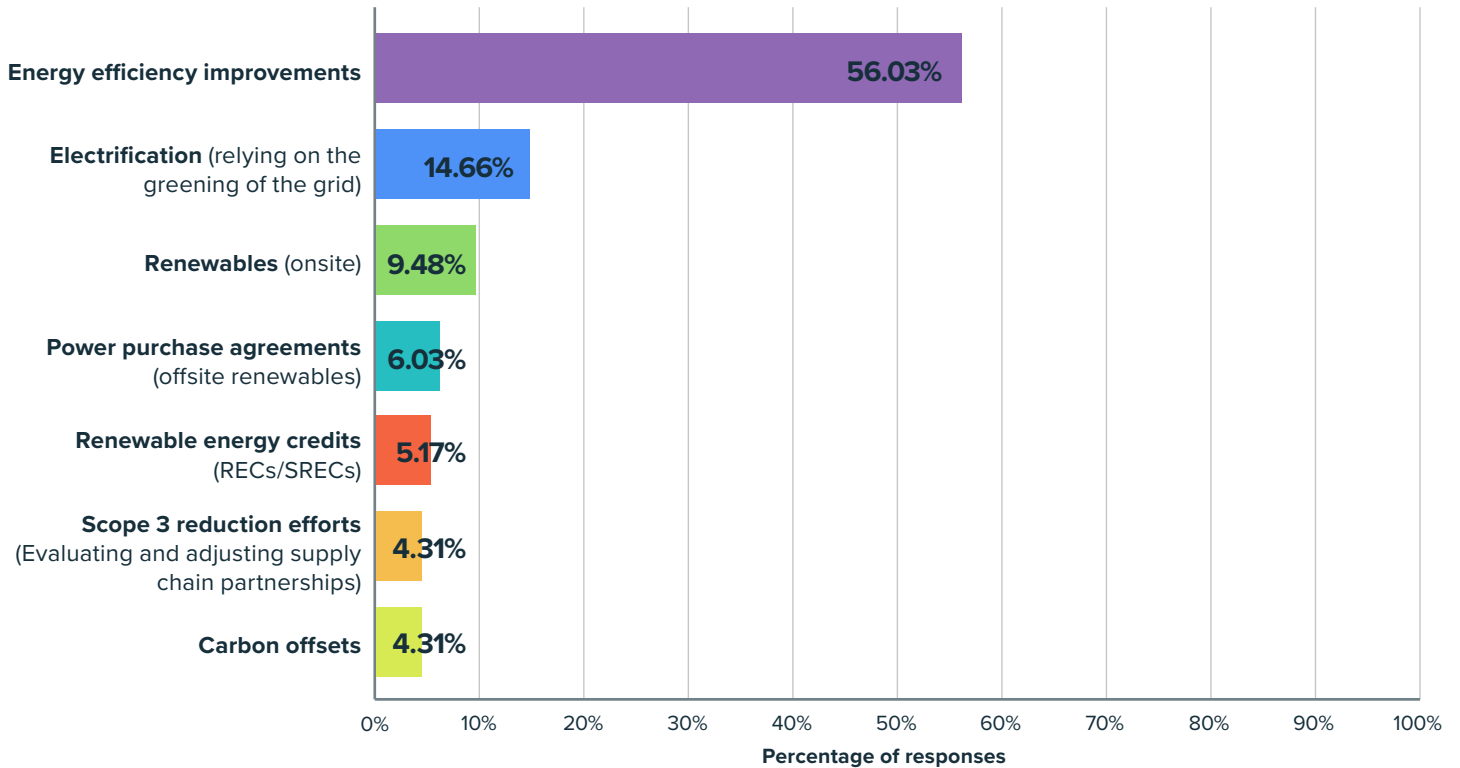

What we think

These results show that many organizations are really paying attention to tracking and sharing emissions they can directly control (Scope 1) and those related to their energy use (Scope 2). It highlights how important these types of emissions are when it comes to sustainability and environmental reporting.

Energy efficiency is the top priority.

What decarbonization tactic is your organization's top priority?
(Ranked in order of priority)

Tactic	Percentage
Energy efficiency improvements	56.03%
Electrification (relying on the greening of the grid)	14.66%
Renewables (onsite)	9.48%
Power purchase agreements (offsite renewables)	6.03%
Renewable energy credits (RECs/SRECs)	5.17%
Scope 3 reduction efforts (Evaluating and adjusting supply chain partnerships)	4.31%
Carbon offsets	4.31%

Percentage of responses

More than half ranked energy efficiency improvements as their top priority to meet decarbonization goals.

Less than 5% ranked Scope 3 reduction efforts and carbon offsets as a top priority.
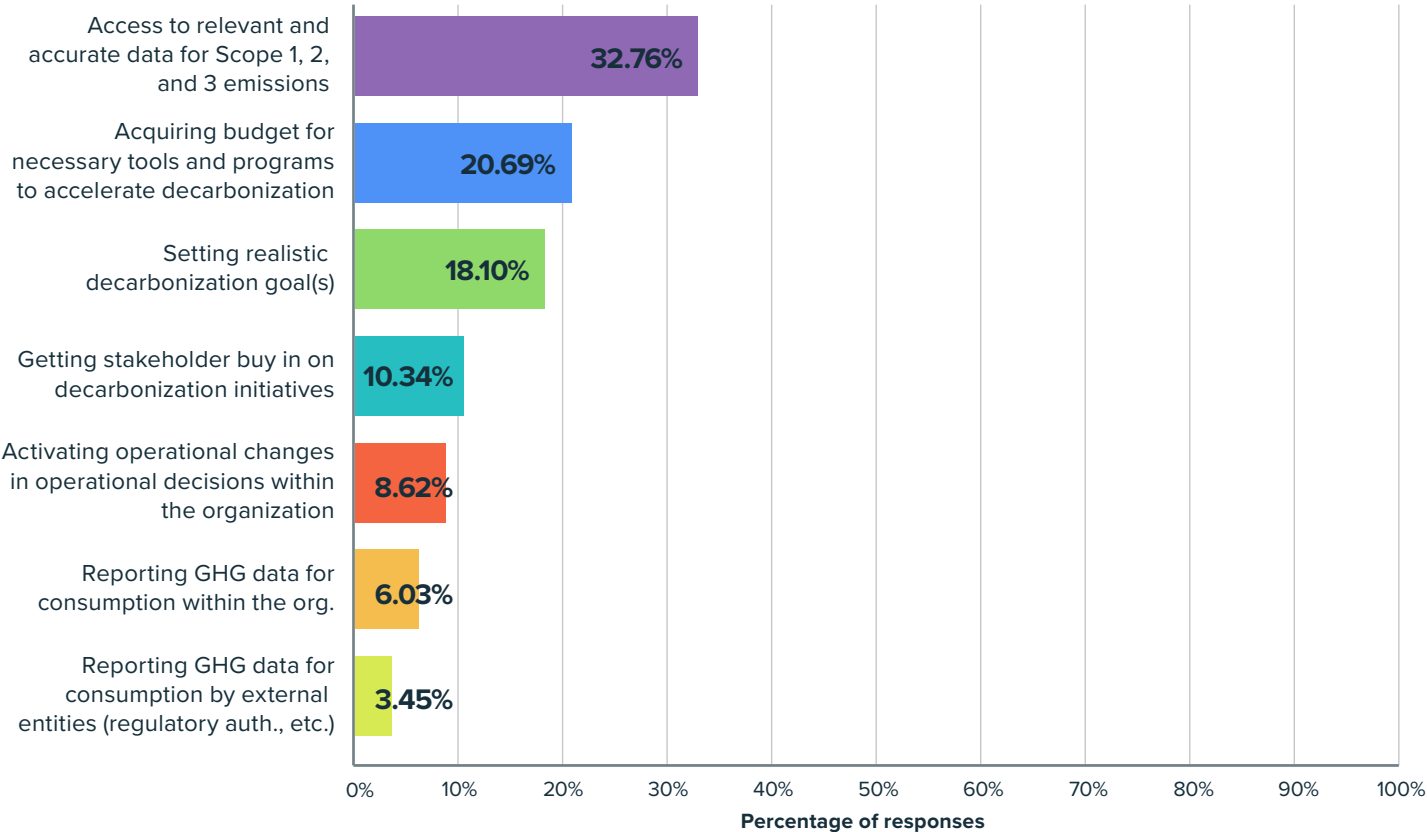
What we think
The survey indicates that energy-related initiatives take precedence among respondents, with a focus on efficiency, electrification, and renewables. Notably, over half of the participants consider improving energy efficiency as their top priority for achieving their decarbonization objectives. This emphasis on efficiency aligns with the earlier finding that Scope 1 and Scope 2 emissions are the top priorities for this group. While Scope 3 remains important for energy and sustainability leaders, the survey underscores the immediate urgency of optimizing operations for greater energy efficiency.

Data access is the #1 challenge in the journey to decarbonization

What are your biggest challenges in meeting your decarbonization goals?
(Participants were asked to check all that apply)

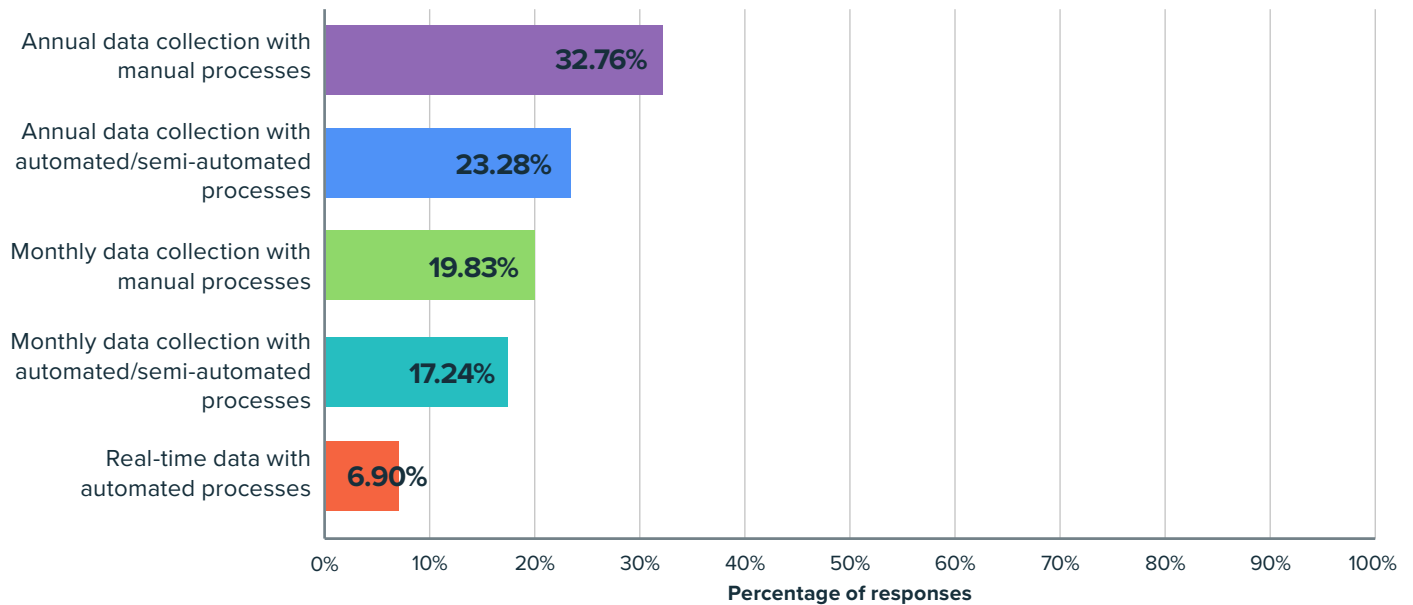| Challenge	Percentage
Access to relevant and accurate data for Scope 1, 2, and 3 emissions	32.76%
Acquiring budget for necessary tools and programs to accelerate decarbonization	20.69%
Setting realistic decarbonization goal(s)	18.10%
Getting stakeholder buy in on decarbonization initiatives	10.34%
Activating operational changes in operational decisions within the organization	8.62%
Reporting GHG data for consumption within the org.	6.03%
Reporting GHG data for consumption by external entities (regulatory auth., etc.)	3.45%

Percentage of responses

The biggest challenge in meeting decarbonization goals for organizations across industries is access to relevant and accurate data for Scope 1, 2, and 3 emissions.

What we think
The significant challenge with availability of data underscores the growing importance for leaders to adopt software solutions for efficient data management to address this issue. We've always believed that utility bills are foundational in carbon accounting and a great place to start. At EnergyCAP, we offer solutions to assist in managing and leveraging this data for more effective emissions reporting and decarbonization strategies.

Annual data collection is where most organizations fall on the decarbonization data journey.

Where do you fall on the data collection and carbon/ESG reporting continuum? (Participants were asked to check all that apply)

Category	Percentage
Annual data collection with manual processes	32.76%
Annual data collection with automated/semi-automated processes	23.28%
Monthly data collection with manual processes	19.83%
Monthly data collection with automated/semi-automated processes	17.24%
Real-time data with automated processes	6.90%

Percentage of responses

Most organizations do some form of data collection, but **only 6.90%** said they have real-time data with automated processes.

Most organizations fall under annual data collection with manual processes.

What we think
The majority still rely on annual data collection through manual methods. While this is a good place to start, meaningful decarbonization demands a shift towards automated and real-time energy analytics. Access to such data is crucial for organizations to actively reduce emissions in their day-to-day operations.

Survey Questions

For this section, we left the questions open ended and optional to capture best practices, tips, and ideas from respondents. While we couldn't include all responses, we listed the most helpful responses to each question.

"What actions or changes do you think are necessary to accelerate the pace of decarbonization in the industry/economy?"

66 Electrification of the economy removing dependence on specific fuel types. Accurately quantifying the financial impact on asset values of not decarbonising."

66 For large corporations, they need forced regulation. They will move faster if non-compliance is a business risk."

66 Clear technology options; better government delivery on net zero electricity; effective legislation and calculation and payment methodology."

66 Mindset change is the biggest change. Things are being done focusing on regulatory and reporting compliance, by most of the organisations. It is necessary that compliance should be byproduct of such initiatives."

66 Need for low/zero emission vehicle substitutes for transport vehicles that are currently diesel powered."

66 One framework and better guidance provided to folks to move forward."

66 Streamlining of both data systems for sharing Scope 3 data. Streamline and simplification of meeting a myriad of global requirements."

66 Regulation to level the playing field. Otherwise it is never going to happen."

66 Discourage consumption by heavily taxing (a) carbon & (b) advertising that encourages consumption; Decision support systems for use in all executive decisions that provide guidance on carbon v/s profit impacts; Mandatory annual GHG reduction norms for all manufacturing and services; Linking executive compensation to GHG performance; Mandatory budgeting for and reporting of sustainability performance."

66 Financial Sector: Greater understanding and awareness by Board on the importance of decarbonization for the organization and setting aside necessary budgets for this."

66 We need to measure and act at the same time. Barriers to large improvements need to be made (i.e., govt/utility support for electrification) and the focus of mandates and incentives to encourage the transition to occur as quickly as possible is needed. There still exists many common sense decarbonization activities that do not require extensive measurement or testing to make immediate and meaningful improvements."

66 A focus on thermal decarbonization that is not just "electrify." The focus on existing buildings since this will be the most difficult area to decarbonize. Large organizations need to collectively work with utilities to push for accelerated changes on the grid for both decarbonization and resilience."

66 Education and workforce! Business owners, homeowners, building operators need to be educated about the benefits of decarbonization, which extend beyond the bottom line of profit. It is not always profitable to pursue electrification but in the long run we need to educate people about the importance of it. We also need more people in the local workforce - HVAC trades, electricians, weatherization specialists, and sustainability professionals to move the needle on getting decarbonization projects done."

"What advice do you have for others on the journey to decarbonization?"

66 Focus on the easy wins that have immediate impact and leave the difficult/expensive ones until later. This will achieve quicker buy-in from management and customers."

66 Assess goals annually to see if they are still feasible. Work on improving data quality of your GHG inventory. Get external stakeholders involved in your decarbonization journey. Be open to researching scientific processes that aid decarbonization."

66 Just get started! It's a journey and not perfect is ok and expected We are all in this together."

66 Involve everyone, train them constantly, and create on them the passion for change and continuous improvement. It will simplify any endeavor you will be willing to achieve."

66 Hire someone with experience. Simply moving folks from EHS or Quality or Marketing to sustainability with no prior sustainability background has typically been shown not to work well."

66 Seek help where required - internally and externally. This is a super niche field and there are so many ways in which things can go tangentially despite best intentions."

66 Assess goals annually to see if they are still feasible. Work on improving data quality of your GHG inventory. Get external stakeholders involved in your decarbonization journey. Be open to researching scientific processes that aid decarbonization."

66 Get started, work with what you have, don't wait for all of the information to be available."

66 Go after the low hanging fruit first and utilize the rebates to pursue other decarbonization efforts."

66 Focus on energy efficiency because not only does it help in decarbonization, but it also saves your company real dollars."

66 1) Equip yourself with good carbon-accounting solution. 2) Start measuring and identity reduction opportunities. 3) Collaborate with suppliers as the category Purchased goods and services is the highest contributor to emissions."

66 Set Clear Goals: Define your decarbonization goals, both short-term and long-term. Having specific targets will help you measure progress and stay focused on your objectives. Start Small, Act Now: Begin with manageable steps that you can implement immediately. Small changes can have a significant impact when multiplied across a larger scale. Embrace Innovation: Be open to adopting new technologies and approaches. Innovation plays a vital role in driving decarbonization efforts and can lead to more efficient and sustainable solutions. Lead by Example: Whether you're an individual or a business leader, your actions can inspire others. Showcase your commitment to decarbonization through your choices and practices. Plan for Transitions: If you're a business or community, plan for the transition to cleaner technologies and practices. Develop a roadmap that outlines how you'll phase out carbon-intensive activities and adopt sustainable alternatives. Stay Positive and Resilient: The journey to decarbonization can be challenging, but remember that every step you take contributes to a more sustainable future. Celebrate your successes and stay resilient in the face of obstacles."

66 No one is perfect, and no system is going to be bulletproof - but you have to start somewhere. Jumping in and learning as you go is better than waiting until you have 100% of the information and planning in place."

"What sources of information do you rely on to stay informed about decarbonization?"

❝ We do our own research and use member data, convenings and research from like minded institutes."

❝ ESG today - Tracking new start-up technologies (globally) - published reports (European and North America)."

❝ LinkedIn, working groups at global space, subscriptions, governmental actions."

❝ ESG updates IFRS and ISSB newsletters, IEA periodical reports, IPCC AS reports."

❝ UK government websites; awareness meetings and conferences."

❝ Regulation is constantly in flux with standards/rules coming out so keep monitoring that. In addition, I stay in touch with the frameworks and guidance."

❝ Federal government, national private efforts in education, and free private webinars."

❝ ESG Today / Business Green / Climate Home News / edie / UNGC / WEF."

❝ CPD, SBTI, GRI, UN Global Compact, The Drawdown Project"

❝ Subscribe to various publications, become members of organizations advancing decarbonization, advocate and fund studies, provide grants, etc."

❝ Global commercial partners and institutions that have a 360° business vision who understands better the full supply chain of their processes and final products."

❝ Newsletters from various organizations like ACEEE, BPA, BPI, RMI, Better Buildings Network, EPA, DOE, and building performance-specific organizations."

❝ Government Agencies: Websites of government agencies responsible for environmental and energy policy. Environmental NGOs: Non-governmental organizations (NGOs) focused on environmental issues, like the World Wildlife Fund (WWF) or Greenpeace, often provide valuable information International Organizations: Websites of international organizations like the United Nations, World Bank and IPCC."

❝ Topic specific collaboration forums, sustainability networks, media aggregators like ESGtoday, industry leaders, energy providers."

❝ Reporting data about decarbonization in various companies with best practices."

❝ Federal and local government working groups, webinars, and communications. Industry professionals and news articles."

❝ Research in the national labs on new technology and modeling resources. Organizations like RAP (Regulatory Assistance Project) looking athe policy side. State and Federal laws and policy regulations. Working directly with other building and campus operators."

❝ Subscribe to various publications, become members of organizations advancing decarbonization, advocate and fund studies, provide grants, etc."

❝ Lots and Lots of webinars, newsletters, etc. EnergyCAP, Assent, Recycle newsletter, Udemy, ESG Reporting for Business, Sustainability Magazine, Carbon Accounting 101."

About EnergyCAP

EnergyCAP is the leading Energy and Sustainability ERP, empowering customers with full control and understanding of their energy and sustainability data to reduce their carbon footprint and drive savings. For over forty years, thousands of public and private institutions have been using EnergyCAP to streamline accounting processes, reduce resource consumption, and identify opportunities for sustainable operations. EnergyCAP helps customers who are drowning in paper bills, manual processes, and cumbersome spreadsheets and enables them to execute, analyze, and report on the energy and decarbonization projects needed to create a more sustainable world.

Solutions to empower your energy and sustainability data journey

Seamlessly bundle or choose à la carte from EnergyCAP's array of energy and sustainability solutions. Whether you're starting small or expanding big, we've got you covered. Empower your data-driven transformation, anywhere you are.

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Financial-grade greenhouse gas accounting	**Portfolio-level energy and sustainability reporting**	**Real-time energy and sustainability analytics**
Target and track emissions.	Manage and see it all	Dive deep. Respond quickly.
An advanced, holistic view of financial-grade emissions data across your business with automatically applied factors to meet your ESG reporting needs.	Get accurate and reliable energy and utility data across your entire portfolio and streamline energy and accounting workflows.	Dive deep into the real-time performanceof assets, devices, and sensors. Make quick, data-driven decisions for high-performance, net-zero buildings.
Customer Data Type	**Customer Data Type**	**Customer Data Type**
GHG activities	Utilities/bill/resources	Time-series/Interval energy
Persona	**Persona**	**Persona**
Sustainability	Finance/energy	Energy facilites

CAPture Services: CAPture Services: Bill CAPture, Bill Processing/Managed Services

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