



by Schneider Electric

Hidden Heroes of Climate Action:

How Small and Medium-sized Enterprises (SMEs)
Can Lead Global Decarbonization

Contents

| | | |
|-------------|-----------|---|
| PAGE | 3 | Introduction: Climate Action and the Role of SMEs |
| | 4 | Five Reasons SMEs Are Taking Climate Action |
| | 7 | All About Emissions "Scopes" Why SMEs Should Care About Scope 3 Emissions SMEs Are Central to Global Decarbonization |
| | 9 | Smoothing Out Climate Action Speed Bumps |
| | 10 | The Four-Stage Decarbonization Journey Zeigo Activate: Empowering SMEs to Reduce Their Climate Impact |
| | 12 | STAGE 1: Establish a Baseline |
| | 13 | STAGE 2: Set Targets |
| | 16 | STAGE 3: Deploy Programs Energy Efficiency + Energy Management Upgrades: Making Energy Use "Lean and Mean" Fleet Electrification: Pressing the Accelerator on Zero-Emissions Vehicles Renewable Energy Procurement: Going Green with Electricity Carbon Offset Options: Conquer Hard-to-Reduce Emissions |
| | 20 | STAGE 4: Report, Sustain, Optimize SMEs and Climate Change: The Path Forward |

Introduction: Climate Action and the Role of SMEs

In March 2023, the United Nations' Intergovernmental Panel on Climate Change (IPCC) released its AR6 Synthesis Report: Climate Change 2023. The report underscored the need for rapid, deep decarbonization across the global economy in order to mitigate the urgent climate crisis. It also highlighted that many business-friendly, high-impact strategies, tactics, and solutions are ready for immediate adoption — ranging from energy efficiency to renewable energy to electric vehicles to much more.

KEY TERM

DECARBONIZATION

The act of *eliminating and/or reducing* the emissions associated with a company's climate footprint. Broader definitions also include offsetting emissions, usually for hard-to-reduce, unavoidable emissions.

Over the past few years, the World Economic Forum and a long list of other organizations and agencies globally have emphasized that the private sector can play a leadership role in the global energy transition. This opportunity to lead spans multinational, publicly traded corporations as well as privately held companies, including small and medium-sized enterprises (SMEs).

In fact, although corporate climate action attention has historically focused on large multinationals, efforts such as the Science Based Targets initiative (SBTi) recognize that SMEs have a huge and influential opportunity to act, also.

According to the International Labour Organization, SMEs represent nearly 90% of firms globally, contribute to roughly 70% of jobs, and drive up to 70% of global gross domestic product (GDP). By extension, they are also therefore well-positioned to help lead in decarbonizing the global economy. In fact, at the We Mean Business Coalition — a global nonprofit coalition working “to catalyze business and policy action to halve global emissions by 2030 in line with a 1.5°C pathway” — of the 10,000+

companies that have committed to take decisive action through the coalition's initiatives, more than half are SMEs.

At the same time, a 2022 business survey found that two-thirds of surveyed SMEs were concerned over navigating climate action, citing challenges such as a lack of skills, funding, staffing, and time to undertake efforts. That's why we built Zeigo Activate — to make it simpler and easier than ever for SMEs to estimate, track, and reduce their carbon emissions. Whether they are just starting out or already somewhere along the decarbonization journey, Zeigo by Schneider Electric is here to help them accelerate their efforts.

Five Reasons SMEs Are Taking Climate Action

Being part of the climate action solution can be a motivation in its own right. But several other factors are also driving SMEs to take climate action *now*. They include:

01. IT MAKES STRONG BUSINESS SENSE

Often, what's good for the climate (and for reducing a company's emissions footprint) is also good for the business bottom line. Nowadays 'green' interventions like energy efficiency upgrades, renewable energy procurement, and fleet electrification have speedy ROIs, translate into substantial cost savings, and are cheaper than business as usual. They also insulate SMEs from the costs of climate inaction, which we'll address in other parts of this section of the paper, such as transition risk and physical risk.

02. BUSINESS-TO-BUSINESS (B2B) CUSTOMERS ARE ASKING FOR IT

For SMEs whose customers include large corporations, there's a very good chance those bigger companies have sustainability and climate-related goals, including emissions-reduction targets and possibly net-zero targets. For example, according to the most recent Net Zero Stocktake

2022, as of June 2022 more than one-third of the world's 2,000 largest publicly traded companies had net-zero targets, a more than 50% increase since December 2020. Such companies are increasingly looking down into their supply chains — to SMEs — to make their decarbonization efforts comprehensive. This is also known as Scope 3 decarbonization, which we'll take a closer look at in the next section. Regardless of what it's called, SMEs need to respond with decarbonization efforts of their own.

03. IT REDUCES PHYSICAL RISK

Physical risk refers to climate change's direct impact on business facilities and operations. Think coastal and inland flooding, wildfires, increased frequency and severity of severe storms such as hurricanes, drought, and other changes to the climate that could negatively influence a company's factories, offices, staff, services, products, upstream suppliers, and/or downstream customers.

For example, if climate change impacts risk making power grid blackouts more common, that could be highly disruptive for an SME business. This makes a strategy

such as installing on-site solar paired with battery energy storage much more than a sustainability initiative that reduces a company's emissions footprint. It also becomes a strategic business initiative that bolsters resilience and supports business continuity, even in the face of challenging climate-induced events like severe storms and wildfires.

To this end, the London School of Economics and Political Science cautions that SMEs are "locking in" future physical climate risks by *not* taking climate action today. Further, aside from the obvious direct impacts of adverse events, failing to take climate action leaves SMEs exposed to heightened liability and higher insurance costs. As the *Harvard Business Review* noted in August 2022, "as climate risk grows, so will costs for small businesses."



Five Reasons
SMEs Are
Taking Climate
Action

KEY TERM

NET-ZERO EMISSIONS

Refers to achieving a mathematical total of zero emissions for an organization's climate footprint, usually achieved through a combination of both a) actions that eliminate and/or reduce emissions, thus *lowering* a company's climate footprint, as well as b) the use of purchased carbon offsets to *negate* any remaining emissions balance, resulting in net-zero. Recent trends have emphasized lowering upfront emissions *first*, and using carbon offsets last for hard-to-reduce emissions. Terms such as "carbon neutral" and "climate neutral" are generally synonymous with "net-zero."

04. IT REDUCES TRANSITION RISK

Transition risk refers to the way *non-physical* climate-related changes can impact businesses, such as new or updated national, regional, or local policies; issues related to regulatory and code compliance; market reforms; and/or accounting and reporting requirements.

For example, in January 2023 the EU's Corporate Sustainability Reporting Directive went into effect. It updates rules about the sustainability information that companies have to report, and applies to large companies *as well as listed SMEs*. And because the directive also addresses value chain due diligence, other SMEs should also be prepared to provide emissions accounting documentation for their larger customers that are required to report under the directive.

Meanwhile, in March 2023 the EU released its proposed Green Claims Directive on making and justifying environmental claims — governing both companies' claims about their own sustainability efforts as well as those associated with their products or services.

Across the pond in the United States, the U.S. Securities and Exchange Commission (U.S. SEC) is en route to issuing climate-related financial disclosure requirements for companies. The exact timing and final nature of the requirements remain a question, but in a recent survey of 300 corporate executives at U.S. public companies with revenues in excess of \$500 million, 98% of respondents said that they may not wait until the SEC regulations come into effect to initiate climate disclosures. Although the U.S. SEC requirements may not directly target SMEs, similar to the EU directives, there will likely be a 'trickle down' effect from SMEs' large corporate customers.



05. IT BOLSTERS BRAND REPUTATION AND MAKES SMES MORE COMPETITIVE

Finally, climate action supports less-tangible but still material aspects of a business. For starters, study after study confirms that sustainable businesses do a far superior job attracting and retaining top talent as employees. Part of that attractiveness comes down to elevating a company's brand reputation for being "green," *paired with actions that authentically live up to the promise.*

This same brand reputation issue likewise translates into two forms of competitive advantage:

1. For business-to-consumer (B2C) SMEs, sustainability and climate efforts translate to heightened consumer demand and stronger business growth. For example, joint market research by McKinsey & Co. and NielsenIQ published in February 2023 found that products making ESG-related claims averaged 40% higher cumulative growth over the

past five-year period versus products that made no such claims.

2. For B2B SMEs, sustainability and climate efforts translate to competitive advantage compared to other companies in their market that find themselves on the wrong side of a "brown discount." As more and more large corporations place sustainability requirements onto their suppliers, not taking climate action puts SMEs at a business disadvantage.

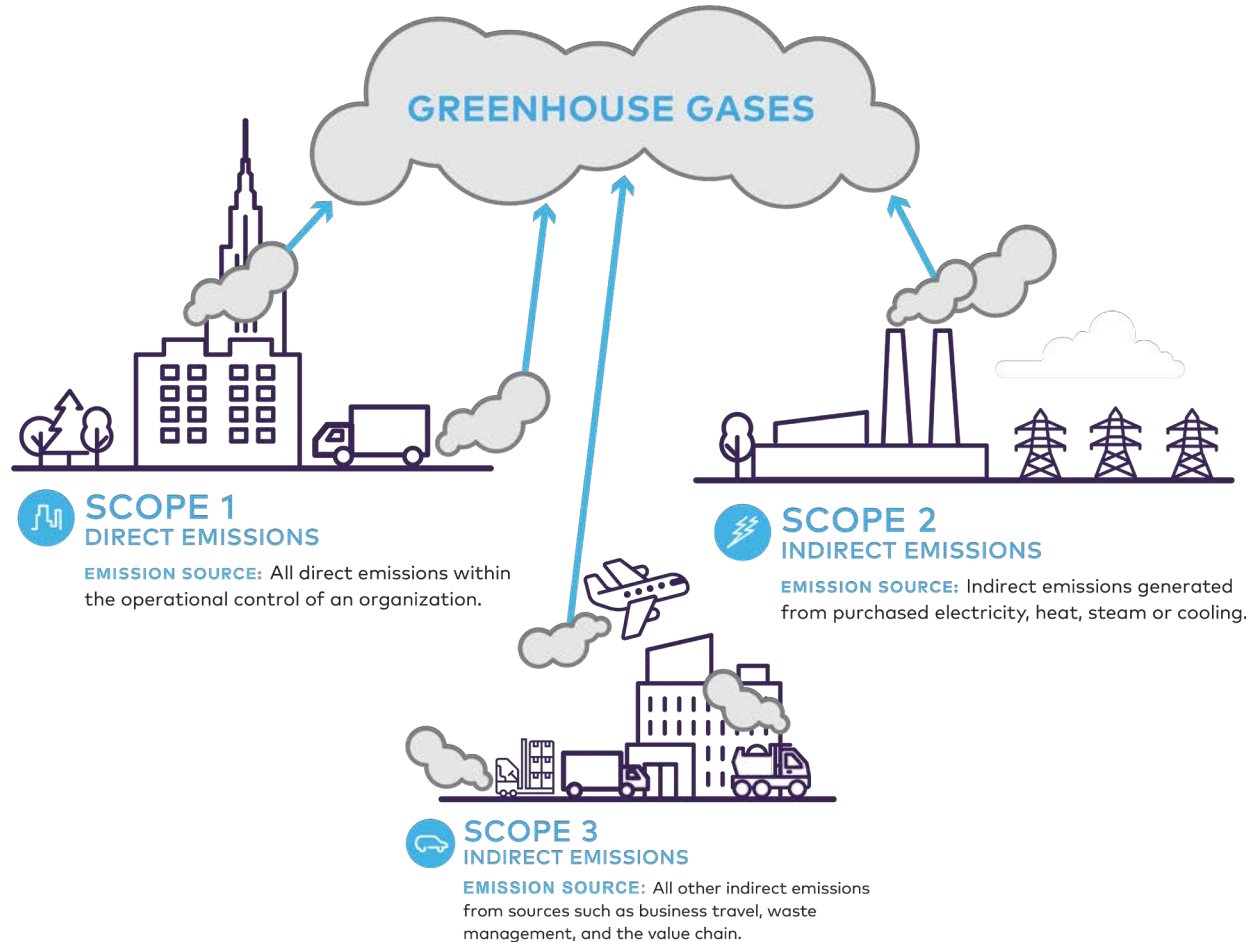


All About Emissions "Scopes"

GHG Protocol and CDP are two of the world's most-popular frameworks for the accounting and voluntary reporting of a company's greenhouse gas (GHG) footprint. These and other frameworks divide an organization's emissions footprint into three "scopes."

Scopes 1 + 2 together are sometimes called a company's operational emissions.

The relative size of Scope 1 vs. Scope 2 vs. Scope 3 emissions can vary widely from company to company and from sector to sector. But on average, Scope 3 emissions make up the largest chunk (about 75%) of large companies' GHG footprint.



SCOPE 1 emissions include a company's *direct* emissions from owned or controlled sources. For SMEs, this often includes on-site natural gas combustion for building heating and hot water. It would also include emissions from gasoline and/or diesel emissions associated with a company-owned fleet of cars or trucks. For select SMEs, it could also include combustion emissions from things like industrial process heat (e.g., furnaces, kilns, boilers).

SCOPE 2 emissions include a company's *indirect* emissions associated with purchased energy, especially electricity from grid-supplied power. The popularity of corporate renewable energy procurement directly aims at reducing these Scope 2 emissions by displacing fossil-fueled electricity from the power grid generation mix with zero-emissions wind and/or solar power.

SCOPE 3 emissions include *all other emissions* from both upstream and downstream in a company's value chain. Scope 3 emissions have risen to prominence thanks to a stronger focus on supply chain decarbonization in recent years. They also matter for green claims associated with things like factory-to-shelf embodied emissions and product end-of-life considerations.

WHY SMEs SHOULD CARE ABOUT SCOPE 3 EMISSIONS

Unlike large companies, for many SMEs, Scope 3 emissions are probably not going to be a big piece of the overall pie. That’s one reason why SBTi’s SME initiative focuses only on Scopes 1 and 2 for SMEs and does not require they set Scope 3 targets, as with larger corporations.

Even so, SMEs still need to care about Scope 3 emissions. Why? Because one company’s Scopes 1 + 2 emissions are another company’s Scope 3 emissions. And with the world’s big companies laser-focused on decarbonizing their supply chain Scope 3 emissions, they’re going to be looking to their SME vendors to get it done. An SME’s Scopes 1 + 2 emissions matter for their customers’ Scope 3 bottom line.

In this way, SMEs are semi-hidden but central “heroes” in global decarbonization efforts en route to a net-zero economy.

SMEs ARE CENTRAL TO GLOBAL DECARBONIZATION

SMEs are also much more than “just” a key part of large corporations’ Scope 3 supply chain emissions footprints. SMEs likewise find themselves at the center of global climate action more broadly.

On one hand, SMEs collectively can have a sizable climate and environmental footprint in their own right. An OECD issue paper noted that SMEs in aggregate contribute 60–70% of industrial pollution in Europe. “In particular, SMEs in the manufacturing sector — which accounts for a large share of global resource consumption, pollution, and waste generation — are critical for the green transformation,” noted the OECD authors.

On the other hand, SMEs are also leading the way with cleantech and climate tech innovation that’s needed to tackle the climate crisis and decarbonize the global economy. That same OECD issue paper noted that SMEs comprise 70–90% of cleantech enterprises in certain countries. The New York-headquartered International Federation of Accountants went so far as to say there’s “no net-zero without SMEs.”

Similarly, the UN’s Global Innovation Cleantech Programme sings the praises of SMEs and their role in climate action: “Innovative cleantech entrepreneurship plays a key role in climate action by supporting the transition towards sustainable economies while also creating green jobs. Being the engines for growth and innovation, SMEs can lead this transition by developing cutting-edge technologies, products, and services.”

KEY TERM

GREENHOUSE GASSES (GHGS)

GHGs are those emissions from human activity (e.g., fossil-fueled electricity generation in the power sector; emissions from burning gasoline, diesel, and other fuels for cars, trucks, ships, and airplanes in the transportation sector) that contribute to global warming and the climate crisis. They include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gasses. Sometimes, all GHGs are reported through a single, unified metric called carbon dioxide equivalent (CO₂e). It is common practice to refer to a company’s “carbon emissions” and/or to its “carbon footprint.” This is widely accepted to be inclusive of all GHGs, and not just CO₂ in particular.

Smoothing Out Climate Action Speed Bumps

The reality of corporate climate action in 2023 is this: upfront costs for implementing solutions have never been lower, the financial return on investment (ROI) of those solutions has never been higher, and taking meaningful action has never been easier. Plus, legislation such as the *Inflation Reduction Act (IRA)* in the United States is providing tailwinds for SMEs to get started and continue on their decarbonization journey. That's all great news.

Of course, that doesn't mean companies can just blink their eyes and it magically happens. Climate action takes effort, and there are sometimes potential bumps in the road, notes Germany's Frankfurt School of Finance & Management — both real and perceived. They include:

01. COMPETING PRIORITIES WITHIN THE ORGANIZATION

Executives must manage across multiple organizational fronts. As important as it is, decarbonization is just one facet of any business. Any initiative — decarbonization or otherwise — competes for company resources such as time, dedicated budget, and team bandwidth. Moreover, under the broad umbrella of corporate sustainability, decarbonization is also jockeying for

position alongside other green initiatives related to issues such as water conservation and waste management.

This makes it important to secure both top-down executive endorsement of a company's decarbonization journey and bottom-up grassroots support across the organization (not just within the sustainability function).

02. LACK OF INTERNAL EXPERTISE

Although many companies are investing in staff in energy and sustainability today, there may remain a lack of expertise in these complicated areas of management. Or, while the energy and sustainability leaders in the company may understand the urgency and the complexity, other stakeholders within the business may not.

That's where Zeigo Activate comes in, by helping teams with education and the knowledge they need to start their decarbonization journey. Even if SME teams only have domain expertise in their field or industry, Zeigo Activate gives them the tools and information they need to get started and reduce their company's emissions.

03. DOING THE BARE MINIMUM FOR COMPLIANCE

Some organizations focus on doing only the bare minimum to comply with climate-related and green regulations. These same organizations therefore also often see sustainability purely as a cost center, rather than as the strategic business opportunity that it actually is. Consequently, they often lag the market (and their competitors) and operate in a reactive mode to "fix" things and catch up.

SMEs that make climate action a cross-cutting foundation of business operations and who invest in strategic decarbonization initiatives reap the rewards.

04. RESISTANCE TO CHANGE

All companies — and all initiatives within companies, including but not limited to decarbonization — suffer from inertia. Often, it can seem and feel easiest to keep doing things the way they've always done them. Change is met with initial resistance. It can create friction within teams and across departments.

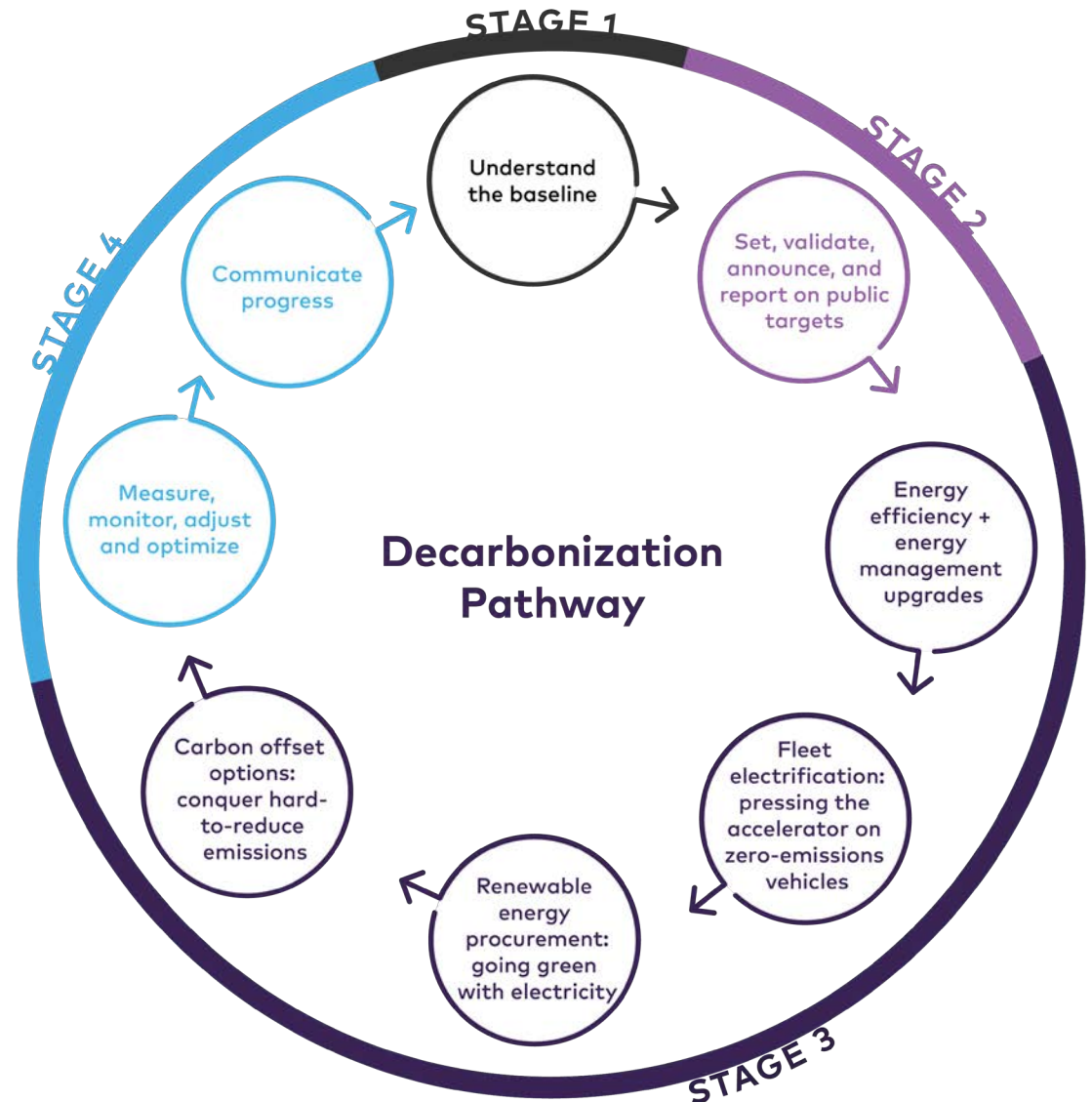
Having a good change management strategy, such as John Kotter's 8-step process, can help set SMEs up for success.

The Four-Stage Decarbonization Journey

Decarbonization takes a relatively straightforward four-stage path:

- 01 Establish an emissions baseline:** understand your company's GHG footprint.
- 02 Set targets:** define your success metrics, such as achieving 100% renewable energy, a 50% emissions reduction by a target date, or net-zero emissions (i.e., carbon neutral).
- 03 Deploy programs:** implement various strategies and solutions matched to your decarbonization targets, which will help you make progress along that journey.
- 04 Report, sustain, optimize:** report your results, sustain progress, and further optimize your decarbonization solution "portfolio."

Although these stages can appear to be sequential and linear, in practice, pieces of the puzzle can happen in parallel and the process should evolve over time based on continuous feedback. The availability of organizational resources can fluctuate over time. Updates to regulations and market changes can shift priorities and timelines. The key is to keep your company's decarbonization journey flexible and evolve / adapt as you go!

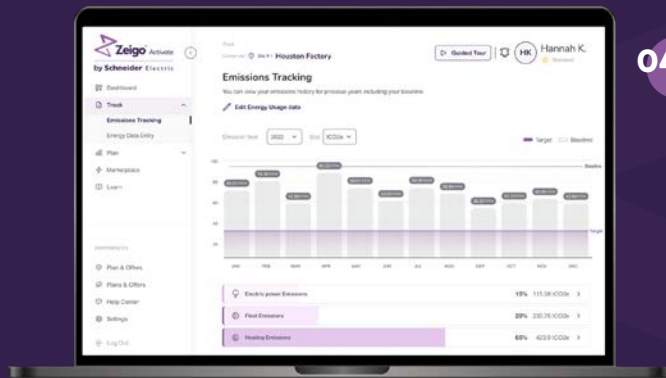


Zeigo Activate: Empowering SMEs to Reduce Their Climate Impact

Zeigo Activate is a software-as-a-service (SaaS) application designed specifically to help SMEs decarbonize. Developed by sustainability experts, it goes beyond existing solutions already in the market by delivering easy emissions calculations paired with a customized decarbonization roadmap and a regionally-tailored solutions provider marketplace.

Whether you're just getting started or already along your decarbonization journey, Zeigo Activate helps you:

- Calculate and track energy-related emissions
- Build a customized implementation roadmap to reduce carbon emissions
- Connect to regional solutions providers in energy efficiency, renewable energy, and carbon offsets



FOUR WAYS ZEIGO ACTIVATE SUPPORTS SMEs

- 01. Understand where you are today:** Simplified data collection walks you through the steps to build your energy consumption profile. Zeigo Activate will then calculate what that means in terms of emissions to help you define your carbon emissions baseline.
- 02. Recommend popular decarbonization targets:** The Zeigo Activate software will suggest popular carbon reduction goals that make sense for your business. It gives you the flexibility to choose from a predefined list or create your own goals based on your specific company's objectives.
- 03. Build a personalized implementation roadmap:** Our software is backed by decades of sustainability and decarbonization expertise. Our team knows what it takes to actually make progress reducing carbon emissions and has advised some of the world's largest companies in doing just that. Zeigo Activate uses our proprietary project list to develop a customized decarbonization roadmap based on your specific baseline and target. You will get actions that you can execute in your facilities to start making progress right away.
- 04. Connect directly with solution providers in your region:** Zeigo Activate features an open marketplace with reputable vendors that can help you start tackling your project roadmap. Find the best fit for your project and see estimated costs, savings, and return on investment so you can decide what to do first.

01

STAGE 1: Establish a Baseline

STAGE 1: Establish a Baseline

The expression “what gets measured gets managed” is as true for decarbonization as any other organizational metric. Organizations must understand, from the beginning, where they are today on the decarbonization pathway. That starts with developing an up-to-date, accurate understanding of a company’s emissions footprint. That becomes the baseline for measuring and reporting progress.

Consistent with CDP’s Climate Disclosure Framework for Small- and Medium-Sized Enterprises (SMEs), this focuses on operational emissions (Scopes 1 + 2). Zeigo Activate facilitates this step by making data collection fast and easy across your facilities, utility billing, and other sources of information.



02

STAGE 2: Set Targets

STAGE 2: Set Targets

Some heroes earn that reputation accidentally. In the world of corporate climate leadership, becoming a climate action hero is a purposeful decision. Such companies know where they want to go, keep their sights set on those targets, and take decisive action to make progress toward those ambitions becoming reality.

That's why climate goal-setting is here in stage 2. Businesses should make commitments that are ambitious enough to satisfy stakeholders but which are also achievable.

When setting targets, it's essential that a company first understand how it will define success. Not all climate action paths are right for all companies and defining success can help an organization "right-size" its ambitions for what it seeks to accomplish. This is particularly important in the context of SMEs and their unique constraints and assets. This is also an opportunity to align internally and externally to ensure that stakeholders agree on the organization's definition of success — and that that definition is both ambitious and achievable.



02

STAGE 2: Set Targets

SETTING CLIMATE GOALS THAT ARE RIGHT FOR YOUR COMPANY

No two companies are alike. That's why each company needs to set climate goals that are right for them.

In the midst of the pressure to act, it can be challenging to arrive at the ideal goal quickly. Ambitious goals can set your company apart as a leader, inspire your employees, and motivate you to take bold climate action that achieves large, swift emissions reductions. But goals that are too ambitious risk you falling short, leaving a gap between your ambition and your achievements.

With this balance in mind, an adequate goal-setting program should include an understanding of where a company is today and whether it can realistically get where it wants to go. Some of this analysis is to identify funding opportunities, which can be a potential barrier to getting decarbonization projects approved.

No matter what type of targets you set, share them publicly — on your website, in sustainability communications, with your employees. Research over the past several years has shown that the public sharing of goals results in companies moving faster and more purposefully toward achieving those goals, ultimately making them more successful.



DECARBONIZATION



ENERGY EFFICIENCY



RENEWABLE ENERGY PROCUREMENT

ACHIEVE EARLY WINS

- Annual tracking and disclosure and total greenhouse gas (GHG) footprint in alignment with GHG Protocol
- Emissions reduction aspiration based on absolute (total) or intensity (by product) basis
- Alignment with existing efficiency regulations across all facilities
- Regular energy audit(s) and compliance
- Track energy consumption on site level on at least monthly basis
- Procurement of verified, high-quality green electricity and/or Energy Attribute Certificates (EACs) via bundled, unbundled, or green tariff purchase for 100% of Scope 2 emissions

SUPERCARGE YOUR EFFORTS

- Publicly announced, short-term carbon neutrality aspiration (may include use of carbon offsets)
- Annual reporting on both location- and market-based emissions
- Long-term, science-aligned reduction target for Scope 1 and Scope 2 emissions
- Scope 3 emissions assessment with identified material categories
- Advanced energy monitoring tracking consumption with submetering
- Development of centralized efficiency program and budget
- Specific, targeted reductions in energy consumption by facility or process
- Replacement of energy-intensive equipment with efficient technology
- Disclosure of efforts and results via reporting mechanism, like CDP
- Public commitment to 100% renewable energy
- Procurement of renewable power from onsite and/or offsite solutions (such as power purchase agreements) with direct retirement of associated EACs for 100% of Scope 2 emissions
- Procurement of verified carbon offsets for 100% of Scope 1 emissions

02

STAGE 2: Set Targets

SUCCESS STARTS WITH THE RIGHT TEAM AND CLIMATE PLAN OF ATTACK

Once you've established (or updated) your emissions reduction targets, two follow-on considerations are how you'll reach those targets and who will be part of doing so.

Often — but not always — the executive leadership team sets the overall corporate direction on climate. Yet it remains the responsibility of operational teams (e.g., sustainability, environmental, facilities, energy, procurement) to deliver on top-level company commitments. That's why a climate action implementation plan is crucial for any company navigating its decarbonization journey.

Supporting any plan are three important elements for its success:

- **Accurate, detailed data:** Easily managed company data on resource consumption and waste (including emissions) is the cornerstone of any climate action program. The plan starts with baseline data, its success is measured with data, and, ultimately, the sharing of data is what gives the program validity. Getting comprehensive data management

in place is the very first step. This is where Zeigo Activate can give you an edge. Zeigo Activate helps SMEs define their emissions baseline, set reduction goals, and accelerate efforts by providing the tools and knowledge needed to move swiftly from ambition to action.

- **An integrated team:** Climate action doesn't happen in a vacuum; it can't be managed by one department or level of the organization alone. Instead, the best programs work as a team across company departments and areas of expertise.
- **Change management incentives:** At its core, climate action is change management. And change management can be hard. One strategy that helps many companies make meaningful progress is financial incentives that are linked to sustainability targets for everyone in the company. Tying compensation to climate action motivates employees to feel a sense of ownership over the program, which drives success.

ALIGNED WITH CDP

Founded in 2000, the nonprofit CDP has become one of the world's leading frameworks for how companies can measure their emissions footprint and report decarbonization progress. In 2021, CDP released a climate disclosure framework specific to SMEs. Zeigo Activate is fully aligned with CDP's suggested approach. Its core modules include:

- **Measure:** establish an emissions baseline
- **Commit:** set emissions reduction targets for your decarbonization
- **Action & Impact:** take steps to reduce emissions and report your progress

03

STAGE 3: Deploy Programs

STAGE 3: Deploy Programs

Once an organization understands where it is (stage 1: establish a baseline) and where it's going (stage 2: set targets), the essential next stage is to deploy a program of climate actions designed to reduce emissions.

This is the stage when organizations take the bulk of the decarbonization pathway steps forward. These steps not only reduce emissions, but they also drive resource efficiency, resilience, and innovation, thereby boosting positive bottom-line impact.

For most SMEs, this stage will involve a heavy emphasis on operational emissions (i.e., Scopes 1 + 2). On the following pages, we'll discuss actions across four of the most-common tactics for SMEs to reduce their operational emissions.



03

STAGE 3: Deploy Programs

ENERGY EFFICIENCY + ENERGY MANAGEMENT UPGRADES: MAKING ENERGY USE “LEAN AND MEAN”

According to the U.S. government’s ENERGY STAR program, SMEs in the *United States alone* spend \$60 billion per year on energy. Businesses that invest strategically in energy efficiency could slash their utility bills — and their emissions — by up to 30% annually. Because energy efficiency projects are often tied to improving building and facility performance, they can help lower both Scope 1 emissions (e.g., less natural gas combustion for building heating) and Scope 2 emissions (e.g., less electricity consumption for lighting and air conditioning).

Popular energy efficiency and energy management upgrades include:

- **LED lighting retrofits** that are easy to implement for reducing energy consumption
- **High-efficiency window upgrades** that tackle buildings’ main source of energy waste
- **High-performance heating, ventilation, and air conditioning (HVAC) upgrades** that improve the “heart and soul” of buildings
- **Intelligent building energy management systems (BEMS)**, such as systems that reduce building energy

KEY TERM

UTILITY RATE STRUCTURES

Commercial and industrial utility customers, including SMEs, are typically on a two-part rate structure that includes both energy charges and demand charges (i.e., capacity charges).

- Energy charges cover how much *total* electricity a company uses within the billing period, measuring in either kilowatt-hours (kWh) for smaller businesses or megawatt-hours (MWh) for larger businesses.
- Demand charges are tied to the maximum *instantaneous* power a customer uses during the billing period, measuring in either kilowatts (kW) for smaller companies or megawatts (MW) for larger companies.

Solutions such as LED lighting retrofits, high-efficiency window upgrades, and high-performance HVAC upgrades primarily reduce energy charges and emissions, since they reduce a company’s total electricity consumption. By contrast, shifting flexible demand to another time of day via a BEMS, reducing load during peak times of day, and offsetting demand with a battery system can help to reduce time-of-use and demand charges.

use during “off” hours when facilities are unoccupied

- **Enrollment in utility demand response (DR) programs**, where electricity grid operators pay commercial customers to reduce their load during select peak demand periods throughout the year
- **Smart load control and/or battery energy storage systems** to avoid utility demand charges and/or time-of-use

- **LEED certification** and/or other third-party green building programs that confirm superior facility performance

03

STAGE 3: Deploy Programs

FLEET ELECTRIFICATION: PRESSING THE ACCELERATOR ON ZERO-EMISSIONS VEHICLES

For SMEs that own and operate fleets of cars and/or trucks, fleet electrification can represent a major opportunity to reduce operational emissions. Fleets using EVs can cut carbon emissions by more than 15 tons of carbon per vehicle, per year. Across all electric vehicles (EVs) globally, that could add up to nearly 121 million tons of net carbon emissions reductions annually by 2030, roughly equivalent to all GHG emissions each year from Belgium.

Fleet electrification involves the transition from vehicles that burn gasoline / petrol or diesel in internal combustion engines (ICEs) to vehicles that run on electricity. EVs come in several form factors, including battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs). For some SMEs, leasing has proven an attractive option to overcome upfront cost and other potential barriers to EV adoption.

Making the transition from ICE fleets to EVs usually also involves investing in EV charging stations at company offices and facilities. As an added bonus, for companies that can make EV charging stations available to their employees, it further reduces that company's Scope 3 emissions from employee commuting.

BEYOND VEHICLE FLEETS: OTHER WAYS SMEs CAN ELECTRIFY

To date, 127 companies worldwide (and counting) have signed on to Climate Group's EV100 initiative. But making the transition from ICE cars and trucks to EVs isn't the only way companies can electrify and reduce their emissions. Building electrification is another ripe opportunity. For example, replacing gas-burning heating systems in commercial buildings with efficient electrified heat pumps could reduce these buildings' total GHG emissions by 44%, according to an analysis from the American Council for an Energy-Efficient Economy (ACEEE). For commercial and industrial process heat, technologies such as electric arc furnaces and electric boilers are also gaining momentum to decarbonize operations.



03

STAGE 3:

Deploy Programs

RENEWABLE ENERGY PROCUREMENT: GOING GREEN WITH ELECTRICITY

Procuring clean energy such as wind and solar is a wildly popular — and easy — option for companies of all shapes and sizes. It immediately reduces an SME's operational emissions by replacing all or a portion of a company's grid-supplied electricity, which often has emissions associated with fossil-fueled power plants in the generation mix, with emissions-free renewable energy.

In 2023, companies have a wide variety of options for how to buy renewable energy. However, all options must include energy attribute certificates (EACs), which serve as a company's "proof of purchase" receipt for green energy. Some of the most widely available renewable energy procurement options include:

- **Unbundled EACs:** often sourced through an EAC trader or broker
- **Green tariffs:** typically sourced through a utility, retail electricity provider, or other local grid operators
- **Power purchase agreements (PPAs):** usually secured through a contractual arrangement with a renewable energy developer

KEY TERM

ENERGY ATTRIBUTE CERTIFICATES (EACs)

Whenever wind, solar, and other forms of renewable energy generate clean electricity, they also create corresponding energy attribute certificates (EACs). Those EACs can be sold, bought, or held and retired. Importantly, the owner that holds and retires the EACs is the entity that's legally allowed to make a green energy claim. Any company targeting 100% renewable energy should be sure to have the EAC "receipts." Also remember: EAC terminology varies by region around the world. In North America, they're commonly known as renewable energy certificates (RECs). In Europe, they're called guarantees of origin (GOs). Elsewhere globally, they're often called international renewable energy certificates (I-RECs).



03

STAGE 3:

Deploy Programs

CARBON OFFSET OPTIONS: CONQUER HARD-TO-REDUCE EMISSIONS

The reality of decarbonization is that all companies will encounter unavoidable emissions that cannot (yet) be eliminated or reduced. These are known as hard-to-reduce emissions (also called hard-to-abate emissions). And they are totally normal. For companies that are targeting net-zero emissions on their decarbonization journey, this is where carbon offsets come into play.

KEY TERM

CARBON OFFSET

Similar to how an EAC represents a specific quantity of renewably generated electricity, a carbon offset (also known as a carbon credit) represents a particular amount of reduced, avoided, or captured carbon emissions.

When companies buy carbon offsets to help reach emissions reduction or net-zero targets, they do so through the voluntary carbon market (VCM). Those carbon offsets can be based on a variety of projects, ranging from initiatives to prevent deforestation of at-risk ecosystems, to cleaner cookstoves in Sub-Saharan Africa, to modern technology-based carbon dioxide removal solutions. This gives SMEs the ability to source carbon offsets that align to other company sustainability and social priorities.



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STAGE 4:
Report,
Sustain,
Optimize

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Emission-reduction programs, once set into motion, require consistent attention to ensure they are performing as expected. Market forces, legislation, regulation, technological advancements, organizational growth or contraction, and financial changes can impact these programs.

Organizations must consistently monitor, measure, adjust, and optimize to sustain their decarbonization efforts. Doing so allows a company to communicate progress confidently to internal and external stakeholders, advancing its reputation and influencing others in its ecosystem.

SMEs AND CLIMATE CHANGE: THE PATH FORWARD

The time for SMEs to plan and take climate action to reduce their emissions is now. The business opportunities are too great — as are the business risks of climate inaction — to ignore. Plus, the world needs the leadership and action of SMEs to be successful at reaching a net-zero future that's sustainable for all.

Solutions are at the ready. So is the team at Zeigo. Let's work together to decarbonize the global economy, one SME at a time.

Get started today
by visiting activate.zeigo.com