WHITE PAPER

Making Net Zero Real

Overcoming inertia in implementing your decarbonization glidepath

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Abstract

Many organizations have published their science-based decarbonization targets but may need clarification about how best and most effectively to begin their journey toward Net Zero. This type of uncertainty can create a sense of inertia when it comes to making progress toward published goals. That is, organizations know what they need to achieve but are unclear about exactly *how* to achieve it.

This white paper explores a range of explanations for this organizational inertia and what can be done to overcome it – ultimately making Net Zero a reality and delivering on decarbonization commitments.

A sobering look at the urgent need for Net Zero initiatives

The concept of "Net Zero" has emerged as a critical focal point in pursuing a more sustainable and responsible future. Net Zero signifies a state where an organization's greenhouse gas (GHG) emissions are meticulously minimized, with any remaining emissions offset by various means, such as carbon removal or renewable energy credits (RECs).

Achieving Net Zero requires a strategic, carefully considered approach to decarbonization. The urgency of this endeavor cannot be overstated; according to Project Drawdown, the world has begun to fall behind on the Paris Accords commitment – so much so that "more than half the work to stop climate change must be done in roughly 10 years[i]."

While about a third of the world's largest companies have committed to achieving Net Zero, a stark reality looms: 93% of them will fail to meet this commitment unless they can at least double the pace of their emissions reductions by 2030[ii]. It's a clarion call for unprecedented, rapid action.

Further compounding the complexity of this mission, only 17% of companies currently have the necessary policies and strategies in place to meet their emissions targets[iii]. This glaring gap points to the crucial need for practical guidance and implementation-ready strategies to avert the dire consequences of failing to meet these critical milestones.

Opportunities for innovation and transformation – yet we face tremendous challenges

The journey to Net Zero is strewn with a wide array of challenges but is also replete with opportunities for innovation and transformation.

1 Balancing business needs with the need for decarbonization

The delicate balance between prioritizing investments in decarbonization measures and the need to continue serving the core business while achieving financial targets remains one of organizations' most pressing challenges on their path to Net Zero. This difficulty is particularly acute in segments that are critical in enabling decarbonization. Consider the case of a copper wire manufacturer, an essential component for electrification and, therefore, a cornerstone of decarbonization efforts. These suppliers find themselves at the intersection of burgeoning demand for their products and the need to advance their own decarbonization journey. It compels a pivotal question: How can these enablers of the green transition reconcile the urgency of their carbon reduction efforts with the equally vital need to meet escalating demand? It's a formidable challenge that warrants innovative solutions.

At the same time, organizations can capitalize on an unprecedented opportunity for innovation and transformation. Engaging in strategic decarbonization can contribute to environmental sustainability and serve as a catalyst for organizational resilience. That is, decarbonization efforts may mitigate forward market risk, putting businesses in a better position to adapt and respond to regulatory requirements, consumer preferences, industry headwinds, and more.

By addressing the need for decarbonization through proactive measures, businesses can safeguard their operations against potential future disruption while also fortifying their position in an evolving market.

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For example, we should consider the fact that the rest of **life is *powered by renewable energy***. No other forms of life burn oil, coal, or natural gas. Instead, they use Earth's already abundant renewable energy sources, especially the sun. Earth is "energetically open" to the sun, and receives 1,370 Watts of heat and light per square meter of sunlit space — something we call the "solar constant" — and that's been enough energy for the planet to do *everything* for billions of years. [. . .] **Sunlight — and associated energy from wind, waves, and biomass — can provide all the energy we need. Ultimately, it has to."**

Jonathan Foley
Founder, Project Drawdown

2 Overcoming "analysis paralysis"

A second, equally perplexing challenge that organizations grapple with is a phenomenon known as "analysis paralysis." Organizations often find themselves mired in a maelstrom of questions in a landscape teeming with technologies and strategies. They wonder whether the right technologies exist today, and if so, are they available at a cost that won't outpace budgets and funding mechanisms? Or should they defer implementation in the hopes that future developments can make their strategies more efficient and cost-effective? The fear of making the wrong choice often paralyzes decision-makers, hindering progress. The very abundance of options, while promising, can become a trap, leading to indecision.

The so-called "time value of carbon" also plays a role here. The concept, which was developed for the Carbon Leadership Forum[iv], considers the timing of carbon emissions. This theory recognizes that carbon dioxide (CO2) emissions contribute to climate change, but their effects don't happen instantly; they accumulate over time. Moreover, emitting carbon today might have different consequences than emitting the same amount of carbon in the future because humans have time to develop mitigation technologies, the Earth may have adapted, and so on.

From a practical standpoint, this concept encourages decision-makers to think about the quantity of emissions and when those emissions occur. It highlights the importance of acting sooner rather than later to mitigate the long-term impacts on the climate.

3 Reaching beyond the low-hanging fruits

Organizations that have taken the initial, low-hanging fruit approach to decarbonization have adopted strategies that yield quick and visible results. However, as they advance on their decarbonization journey, they inevitably encounter the third significant challenge: the need to dig deeper. At this point, organizations may find that they must commit more fully to optimizing facility operations, enhancing building infrastructure, and reimagining energy consumption patterns.

This stage demands a longer-term view of investments and payback periods, sometimes stretching a decade or more, compared to the more conventional 18-month cycles of ROI. It requires innovative financing arrangements and substantial commitments to projects that may not yield immediate or easily measurable returns. Lengthier payback periods enable the implementation of more transformative, impactful initiatives that, although they don't always yield short-term returns, are indispensive for achieving substantial carbon reductions.

Organizations must embrace the notion that genuine decarbonization requires an enduring commitment to root out carbon emissions from every nook and cranny of their operations for lasting environmental, financial, and societal benefit.

Emerging legislation and municipal mandates

Governments, regulatory bodies, and stakeholders increasingly recognize the critical need for transparency and accountability in this space. New legislation and emerging mandates will soon require organizations to report their Environmental, Social, and Governance (ESG) metrics and disclose their climate risks, opportunities, and management practices.

Included below is a snapshot of current policies. Looking ahead, it is anticipated that the U.S. Securities and Exchange Commission (SEC) will release new climate change disclosure rules for public companies; they are considering rules that would cover Scopes 1, 2, and 3 as part of their rule making process.

California SB 253 + 261: Climate Corporate Leadership and Accountability Act	**EU Corporate Sustainability Reporting Directive**
SB 253 covers California companies with >$1B annual revenue: • Scope 1 and 2 disclosures begin 2026 at a limited assurance level with a ramp to a reasonable assurance level in 2030. • Scope 3 required disclosures begin 2027 • Requires third-party audit of Scope 1 and 2 emissions in 2026 and Scope 3 emissions in 2030 SB261 covers California companies with >$500M annual revenue: • Climate-related financial risk reports begin 2026	Companies in scope: • Companies already covered by the Non-Financial Reporting Directive (NFRD) companies (reporting in 2025 on FY2024) • Large companies (>250 employees) must report (reporting in 2026 on FY2025) • Most listed EU companies (reporting in 2027 on FY2026) • Non-EU companies with EU operations >€150M total net turnover or branch >€40M (reporting in 2029 on FY2028) Standardized reporting: Companies must follow European Sustainability Reporting Standards (ESRS)
Signed into law October 7, 2023	CSRD live, 13 cross-cutting ESRS finalized Sectoral standards expected

Additionally, regulations may require organizations to look beyond their own operations, and explore impacts both up and down the value chain.

Defining the decarbonization glidepath

In general, glidepaths are strategic visualization and decision-analysis tools that summarize an organization's starting point, or baseline, planned organizational change (including growth, desired goals, and interim targets) and decarbonization options and available levers that will empower them to achieve the stated objectives.

Glidepaths allow stakeholders to put their goals in the context of implementation opportunities and challenges while highlighting the gaps and challenges to achieving the targets.

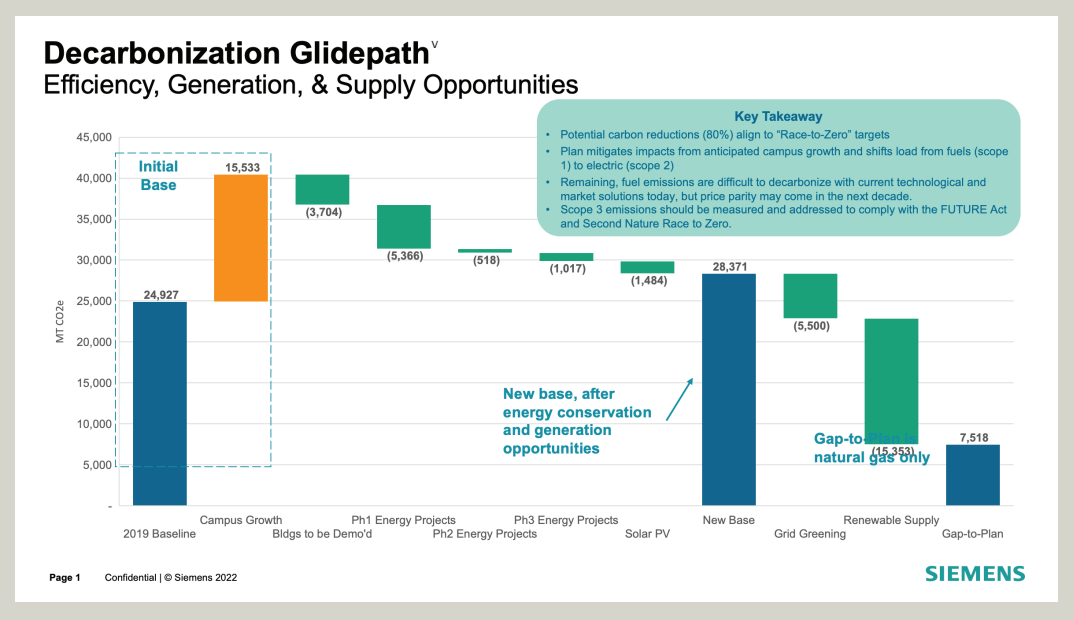
Each organization's glidepath is unique and grounded in the physical reality of its operations. For example, if an organization is considering an onsite solar array, the glidepath would need to consider where it makes sense – where market rates are attractive, where incentives are available, where space constraints exist, and more.

Empowering change and the need for strategic partnership on the path to Net Zero

Overcoming inertia requires a theoretical understanding of today's challenges and a strategic partnership capable of translating intent into action. While the challenges are substantial, the need for both a decarbonization glidepath and a trusted ally becomes apparent.

It's impossible to fully know all of the relevant details

When it comes to sustainability and decarbonization, it's impossible to fully know all the many relevant details. This is primarily due to a lack of in-house expertise and resources to understand, evaluate, and implement available options. Compounding the issue is the scarcity of reliable ESG data, which makes it even more difficult to establish a solid baseline, prioritize impactful actions, justify investments, and track progress. Moreover, different sites within an organization may demand specific measures in response to customer or supplier pressures, resulting in a fragmented environment where reactions take precedence over strategic planning.



A Decarbonization Glidepath provides a meaningful and actionable carbon reduction plan in a visual format easily understood by all stakeholders.

Given these complexities, it's understandable that inertia may hold back even the most capable organizations. Yet the road to decarbonization cannot wait for absolute certainty. Developing implementation-ready strategies via a decarbonization glidepath inherently acknowledges that we don't always have all the answers, and implementation-ready strategies can lead to environmental, financial, and reputational benefits. Moving forward begins with:

- A comprehensive inventory of current carbon emissions and upcoming investment decisions
- Experienced experts who can help develop a customized decarbonization glidepath and action plan aligned with organizational goals
- Capital planning that factors lifecycle net differences in carbon emissions from alternative approaches, as well as Federal funding sources that can improve the ROI of carbon-reducing investments

You need to do this right, the first time, from the ground up

In the pursuit of sustainable decarbonization, the mandate is clear: you need to do this right, the first time, from the ground up. But limited budgets for sustainability investments mean that every investment decision is significant, no matter how small. The need to allocate resources effectively becomes paramount, underscoring the importance of a strategic partner who can balance financial constraints with the need for lasting change and improvements.

For example, organizations look to buy Renewable Energy Certificates (RECs) to take advantage of renewable electricity. Indeed, it can be an attractive, short-term solution to procuring renewables, but this approach can also be expensive and won't meet long-term expectations.

Glidepath planning efforts must instead extend beyond the short-term solutions, encompassing:

- A fact-based approach to investment decisions, one that combines demand, onsite, and renewable purchasing while aligning all teams toward the same end goal
- Data-driven decision-making and planning that allow organizations to maximize budget allocations by confidently setting a direction and accounting for the opportunity costs of one action over another

It's easy to set targets. It’s much harder to achieve them.

As organizations set their sights on ambitious decarbonization goals, they often realize that setting the targets is easy; the real work lies in achieving them and demonstrating tangible progress.

Developing the decarbonization glidepath and establishing a tactical implementation plan will help organizations move seamlessly toward steady progress, saving valuable time and resources. Working with a partner in this way empowers more than just a roadmap to decarbonization, but a strategic framework that translates targets into measurable, achievable milestones.

One good indicator that an organization is prepared to embark on its decarbonization journey is whether they have good support and connectivity from leadership to the site level. If sites and operations are not beholden to their decarbonization targets, they will focus on managing their P&L statements instead of prioritizing these projects. But when leadership has a stake in achieving decarbonization goals, when teams are measured by their performance at every functional level, there’s more readiness within the business. Conversely, as sites begin to explore decarbonization initiatives, leadership is challenged to support and prioritize these efforts without a clear, organization-wide plan.

Gaining organizational buy-in for decarbonization initiatives

Translating top-level goals into actionable operations requires a nuanced approach that aligns local business priorities with overarching organizational objectives. Executive leadership buy-in is not just about endorsing high-level visions; it is about connecting strategic priorities to on-the-ground operations, reconciling local profit and loss (P&L) requirements with goals that, while supported, may not always be fully funded.

Organizations need more than mere guidance; they need an actionable, implementable roadmap that navigates the journey from baseline to target. All of this begins with a comprehensive understanding of baseline energy performance and carbon impact. Organizations often have compelling insights into which sites or markets to focus on. Still, they may need outside expertise to identify hotspots and liabilities across their entire portfolio.

Setting a high-level vision involves prioritizing asset allocation based on factors such as the cost of energy, carbon impact, and local market policies as both constraints and enablers. This strategic alignment is necessary for garnering executive leadership support while translating aspirations into tangible, impactful decarbonization initiatives.

Beyond gaining organizational buy-in, it's also essential for these teams to collaborate seamlessly, integrating perspectives from across the enterprise in ways that foster open lines of communication.

Setting an internal price on carbon

Setting an internal price on carbon can provide a framework for decision-makers to evaluate the financial implications of decarbonization in the context of business as usual, potential market scenarios, and so on. This process acknowledges that achieving carbon reduction targets inherently comes with a price tag, whether that's from purchasing renewable energy, addressing market risks, or implementing technology upgrades.

Integrating this internal price on carbon into payback calculations allows organizations to prioritize their glidepath initiatives based not only on their environmental impact, but also on their economic feasibility. Moreover, this process also helps evaluate the trade-offs and benefits associated with various initiatives, helping ensure that decarbonization goals are not pursued at the expense of economic viability and financial resilience.

Supporting successful implementation for your decarbonization glidepath

Decarbonization and broader ESG initiatives demand a collaborative, coordinated effort among decision-makers, stakeholders, and organizational leadership. It's a multifaceted engagement that's critical to crafting and executing an actionable glidepath that can translate high-level aspirations into impactful decarbonization programs.

Working with a partner for the entire planning, glidepath development, and implementation process can help further minimize execution risk and the time required to work through the whole process, ultimately helping organizatons take advantage of the "time value of carbon." Consider working with a partner who can comprehensively support your decarbonization effort with a full scope of services, including:

- Decarbonization glidepath planning and advisory
- Carbon tracking software
- Green energy sourcing
- Distributed energy
- Financing mechanisms and performance contracting
- Energy services
- Data and analytics

As with any strategic process, continuous assessments of status and comparison to baseline are essential; it's about more than reviewing performance, but also empowering teams to assess new implementation challenges, changing stakeholder requirements, updated legislation, and so on.

Conclusion

Looking at the future, state policies, potential regulations, and municipal standards are emerging, often leading to a fragmented approach to energy and decarbonization plans for multiregional portfolio companies. That's why it's so important to get ahead of goals quickly. Supply chain constraints and interconnections can enormously affect these projects; an interruption in solar project equipment, for example, can delay equipment availability by months or even years. Those lost months become even more acute for organizations that have set a 50% reduction target by 2030 and Net Zero by 2050.

We are at a pivotal moment in history; the U.S. Federal government has announced broad-sweeping new actions and funding sources designed to reduce industrial emissions and create healthier communities.With this influx of dollars available to modernize infrastructure and fight the climate crisis, organizations may be able to leverage Federal resources to cost-share their decarbonization activities.

Overcoming inertia in implementing your decarbonization glidepath requires more than understanding the factors that led to stagnation. It also encompasses the development of actionable, implementation-ready strategies – supported by available funding mechanisms – as well as the involvement of a partner who can support decarbonization from ideation to implementation.

[i] Project Drawdown | link
[ii] Accenture.com | link
[iii] Forbes.com | link
[iv] Carbon Leadership Forum | link
[v] Siemens Proprietary Work Project

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