



# What's next for companies procuring renewable power?

Navigating the transition to a sustainable power system

BOSTON CONSULTING

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## Introduction



### Introduction

The International Energy Agency (IEA) calls for 2,400 GW of renewable capacity additions globally between 2022 and 2027 to keep global greenhouse gas (GHG) emissions in line with a maximum of 1.5°C warming.¹ This will require governments worldwide to significantly step up the mobilization of renewable energy project financing.

The private sector is already taking action to be part of the transition to a sustainable power system by shifting an ever-increasing proportion of the power procured to renewable sources. In the US, the Clean Energy Buyers Alliance reported that, since 2014, corporate renewable procurement alone has represented 37% of the carbon-free energy added to the grid.<sup>2</sup> Globally, BloombergNEF calculated that in 2022, businesses signed a record 36.7 GW of corporate renewable power purchase agreements (PPAs),<sup>3</sup> expected to be equivalent to approximately 10% of all the renewable power capacity added globally that year. 4 These actions taken by the private sector have helped governments advance their national decarbonization targets and have contributed to significant additional private investment to existing government financing and funding.

Renewable power sources will account for over 90% of global electricity capacity expansion over the next five years. During that time, the world is set to add as much renewable power as it did in the previous 20 years. As renewable power generation technologies are cost-competitive in most markets, the challenge today is shifting from deploying renewables to safely integrating them and securely operating a grid that runs primarily on variable power generation sources.

The way that electricity buyers interact with the power market is, therefore, already shifting and will change significantly during this decade. At the same time, as companies become more sustainable in their overall operations, the expectation is not only for them to procure power in a low-carbon manner, but also to do so while considering responsible resource use and the wider nature and social impacts of the low-carbon power sources they chose. The increasingly ambitious sustainability agenda and developments in power market operations necessitate a rethink of how companies procure, consume and invest in renewable power. As a result, the benchmark for what constitutes positive impact for corporate renewable power procurement this decade is diversifying into a new range of approaches rather than one single metric that is suitable for all businesses. We are witnessing an emerging range of approaches that corporate power consumers use – whether a new entrant or one with experience. large or small – to show that they are positively and materially impacting the transition to a lowcarbon and sustainable power system via their procurement decisions.

### WHAT WILL YOU FIND IN THIS REPORT?

This report aims to present the successes achieved in corporate renewable power procurement while examining what the transition to a sustainable power system means for ambitious leadership in corporate renewable power procurement in the future. Section 1 starts by recognizing the progress the private sector has made in driving the deployment of renewable power contracting

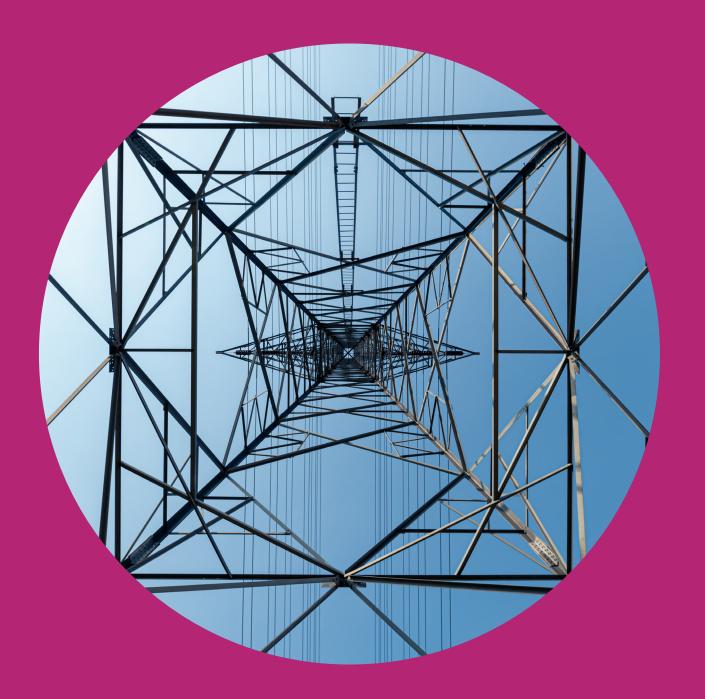
and the diverse procurement strategies that are emerging. Section 2 describes how corporate renewable power procurement drivers are evolving and what that means for decision-making. And section 3 summarizes the approaches that leading companies are adopting to raise the bar and how this is changing how all companies will show positive impact in power procurement this decade.

This publication provides a high-level summary, directing professionals working in power procurement to additional in-depth content to enable further investigation into and the implementation of these strategies.

This report builds on a library of how-to guides that the World Business Council for Sustainable Development (WBCSD) and our members have co-written and released over the past seven years to increase the understanding and use of corporate renewable power procurement options. To read more of our how-to guidance on corporate renewable power procurement options, please visit the PPA webpage.

A **sustainable power system** enables the generation, transmission, distribution and consumption of power that is equitable, nature-positive and in line with a 1.5°C GHG emissions pathway. It does not only cover the power grid, but includes all actors and activities related to generating, transmitting and consuming power.

Section 1: Corporate renewable power procurement is growing exponentially



## Section 1: Corporate renewable power procurement is growing exponentially

Since the adoption of the Paris Agreement in 2015, there has been a proliferation of companies committing to procure renewable power for their business operations. They have translated these commitments into material action worldwide in recent years.

## COMMITMENTS TO PROCURE RENEWABLE POWER

The emergence of the 100% renewable power target first began to take prominence in 2015, as companies looked to reduce carbon emissions while managing energy costs. Since then, more and more companies have committed to procuring 100% of their power from renewable sources, many through the RE100 campaign. Most companies with such public commitments aim to achieve their

target by 2031 on average. The inclusion of interim target dates within business planning horizons (2020 and 2025) has ensured that corporate buyers have taken tangible steps on those commitments: 76 companies (23% of those that reported through RE100 in 2022)<sup>8</sup> declared that they had achieved 100% renewable power targets<sup>9</sup> and many are now setting new commitments that go a step further to tackle historical power emissions or supply chain power emissions or have a positive impact on people and nature.

## IMPLEMENTATION OF RENEWABLE POWER PROJECTS

Several organizations have tracked progress on implementing corporate renewable power procurement commitments and contributions to the

global deployment of renewable power installations. By 2021 (the latest year data was collected as of the time of publication), companies committing to procure 100% renewable power through RE100 were procuring 49% from renewable sources. equating to 184 TWh of renewable electricity (roughly equivalent to the total annual power consumption of Thailand). For corporate renewable PPAs in particular, companies have contracted over 148 GW of renewable power globally, with annual capacity records broken every year. 10 BloombergNEF calculated that in 2021, businesses signed corporate renewable PPAs equivalent to more than 10% of all the renewable electricity capacity added globally that year. In the US,11 the Clean Energy Buyers Alliance noted that, since 2014, corporate procurement has represented 37% of the carbon-free energy added to the grid.12

Figure 1: Companies committing to procure 100% of power from renewable sources through RE100

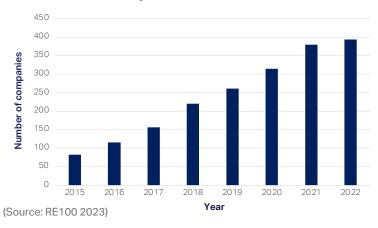


Figure 2: Contracted capacity of corporate renewable PPAs globally



There has also been a huge diversification in corporate buyers and their chosen routes to market in recent years, showing that the movement has progressed far beyond the first movers and is approaching a business norm.

Focusing on corporate renewable PPAs in particular, as this procurement method has the greatest data availability and transparency, there is significant diversification in terms of the geographical spread of signed agreements and the variety of sectors companies belong to. The following data from BloombergNEF shows this diversification.<sup>13</sup>

Figure 3: The geographical and sectoral diversification of PPAs

2015

2022

### **Geographic diversification**

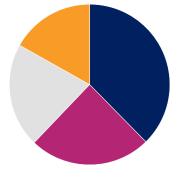
Companies in 52 countries had signed corporate renewable PPAs globally by the end of 2022, compared to 15 countries in 2015

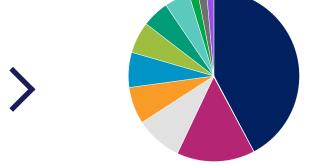




### **Sector diversification**

Companies from 11 industry sectors had signed over 1 GW of PPA capacity by the end of 2022, compared to 4 sectors in 2015





- Technology
- Government and university
- Materials
- Consumer staples

- Technology
- Materials
- Manufacturing
   Food and Boyerage
- Food and Beverage
- Consumer staples
- Communications
- Government and university
- Oil and gas
- Industry
- Finance and insurance
- Healthcare

Data source: BloombergNEF (January 2023)

Looking beyond PPAs, procurement methods have seen significant diversification over the past years. Companies can procure renewable power through four main methods, with variations within these methods increasing all the time. Figure 4 shows the four main corporate renewable procurement methods and the variations within each method as it stands today.

Figure 4: The four main corporate renewable procurement methods and the variations within each method

### **Direct investment**

Where a company invests directly in an off-site, near-site or on-site renewable power asset. Variations:

- Self-owned on-site renewable energy installation
- Self-owned off-site or near-site renewable energy installation

### Current methods for corporate renewable power procurement

### for cor renewab

### **Green tariffs & utility products**

Where a company procures a "green tariff" or "green electricity supply" contract with their utility or power supplier. Variations:

- Portion of utility renewable PPA (green tariff)
- Grey tariff plus unbundled energy attribute certificate (EAC)
- Other more innovative utility products currently under development, e.g., green tariff plus additionality

### Power purchase agreements (PPAs)

Where a company signs a long-term contract to procure power from an off-site, near-site or on-site renewable power asset, which enables a third party to finance the project. Variations:

- On-site, e.g., on-site PPA, private wire PPA
- Off-site physical or virtual PPA (including multi-buyer/ aggregated, multi-seller, cross-border, multitechnology PPA and 24/7 PPA variations)

### **Unbundled energy attribute certificates (EACs)**

Where a company buys EACs separate from their power supply to equate to their consumption. Known as:

- Renewable energy certificates (RECs) in the US
- Guarantees of origin (GOs) in Europe
- Renewable energy guarantees of origin (REGOs) in the UK
- International renewable energy certificates (iRECs) in many other geographies.

NB: Companies may also "bundle" all variations when procuring through PPA or green tariffs and utility products described previously.

Over the past years, there has also been diversification and innovation within each method, for example, the linking of green tariffs to additional projects or 24/7 PPAs and supplier contracts that offer a percentage of hourly matching of power supply from the asset and corporate buyer demand.

The most appropriate procurement method depends heavily on the company's procurement and sustainability strategy, the characteristics of the corporate buyer, their demand profile, the policy and regulatory frameworks in the markets where they are operating, and the availability of each method in these markets. Figure 5 and Figure 6 highlight the significant variations that exist in terms of companies' individual characteristics, meaning buyer type and demand profile, and those of the markets they operate in.

Figure 5: Buyer characteristics

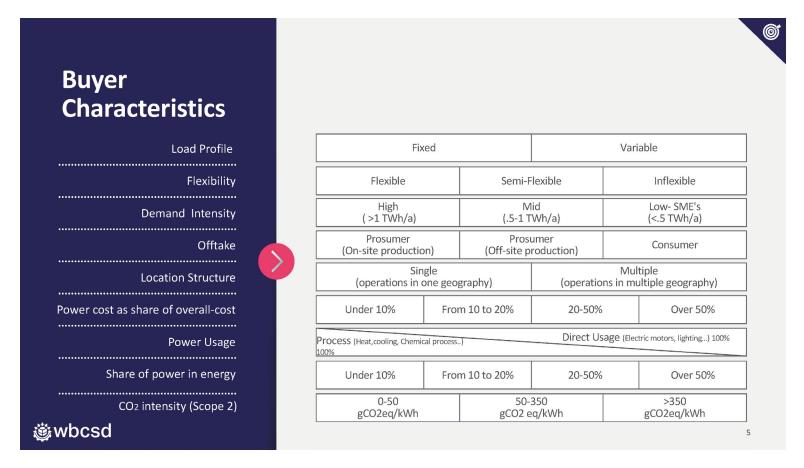
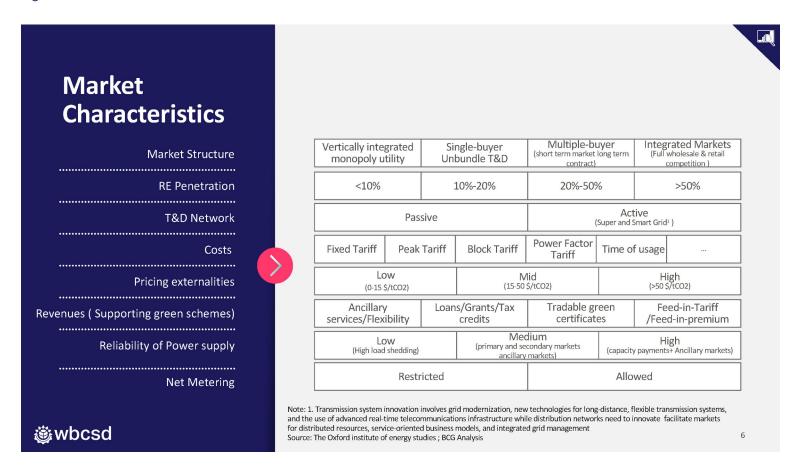


Figure 6: Market characteristics



This ever-growing diversification in methods and corporate procurement and sustainability strategies is key to leadership approaches to corporate renewable procurement in this decade. More diversified approaches enable companies to achieve their desired positive impact through procurement projects by capitalizing on their individual characteristics and those of the markets that they operate in.

**Section 2: Drivers of** impactful corporate renewable power procurement are evolving



## Section 2: Drivers of impactful corporate renewable power procurement are evolving

Over the years, companies have frequently listed economics, meeting sustainability goals, brand and leadership as the main drivers in procuring renewable power. The worthy ambitions of procuring 100% of power consumption from renewable sources and striving to add new renewable power capacity to the grid (additionality) have been at the forefront of best practices in the corporate renewable power procurement movement for many years.

On the path to a sustainable power system that is equitable, nature-positive and in line with a 1.5°C scenario, there is now a period of transition both with respect to the sustainability aspirations of companies and their stakeholders and the dynamics of the power system itself. Expectations are growing for companies to ensure that they are credibly integrating broader sustainability considerations into procurement decisions, such as measuring and reducing negative impacts on people and the planet and providing benefits for nature and communities locally.

At the same time, changing power market dynamics are altering the way the power system operates and how companies can procure and consume power. While the original drivers for companies to procure renewable power remain, these ongoing developments in company sustainability ambitions and in the power system are new drivers for companies to evolve their renewable power procurement strategies.

Figure 7: Six major developments in the transition to a sustainable power system

#### **DEVELOPMENTS IN SUSTAINABILITY AMBITION DEVELOPMENTS IN THE POWER SYSTEM** More stringent More Increase in Increased Increase In standards and Rising ambition distributed electricity price need for grid stakeholder of voluntary regulations generation and volatility flexibility and expectations commitments prosumers balancing

#### NEW DRIVERS FOR COMPANIES TO EVOLVE THEIR POWER PROCUREMENT STRATEGIES

### Sustainability ambitions of companies



stakeholder expectations Meeting increasing stakeholder pressure: Stakeholder expectations for the credibility of sustainable decision-making have risen in recent vears, from both internal pressure from corporate boards and employees and external pressure from shareholders, customers and civil society organizations. This includes the expectation to set and report against targets transparently and to consider a more comprehensive set of sustainability criteria in decision-making, such as nature and social indicators. In the US, shareholder resolutions focusing on environmental and social issues – as varied as climate change, diversity and human rights – comprised half of all shareholder resolutions in 2017, up from 33% from 2006 to 2010.14 Including a more comprehensive range of sustainability criteria in renewable power procurement can help to respond to these expectations.



of voluntary commitments

Keeping pace with the rising ambition of voluntary commitments: As the movement by companies to procure renewable power matures, many are seeking to raise the ambition of their corporate renewable procurement strategies by going beyond reductions in their own operational emissions to ensure that their procurement decisions have a positive impact on the sustainability of the power system as a whole. New methodologies and metrics are emerging that consider system-level decarbonization, as well as asset life cycle, nature and the social impacts of procurement decisions. Demonstrating broader positive impact is becoming a real differentiator in the corporate renewable power. procurement movement and companies are identifying their own approaches where they can have the highest impact. The Nextgen Activator initiative by the Clean Energy Buyers Institute (CEBI) outlines the need to activate the next generation of procurement markets, that enable systemic grid decarbonization beyond the ambition of current corporate commitments. 15



More stringent standards and regulations

Adhering to more stringent sustainability reporting standards and regulations: Sustainability reporting regulations are developing worldwide, with the trend heading towards more standardization and stringent rules. One example is the creation of the International Sustainability Standards Board (ISSB), which will be responsible for developing a comprehensive global baseline of high-quality sustainability disclosure standards to inform regional and national reporting regulations. 16 The rigor of reporting regulations is expected to increase and the ability of companies to show material positive impact from their procurement decisions will gain importance. Getting ahead of these requirements, particularly in power procurement where companies are making decisions for the next 5, 10 or 15 years, is essential to reduce the risk of non-adherence in the future.

### Power system operation



Increase in electricity price volatility

Managing increased electricity price volatility: Volatility in prices is common in liberalized power markets due to the cost of the marginal power plant generating at any point in time due to the different technologies used. The evolution to higher proportions of variable renewable power sources onto the grid increases supply variation, making it one factor that increases power price volatility now and into the future. For example, Baringa's power market price projections predict that higher and more variable wholesale power prices in Europe will continue until 2030, partly due to geopolitical tensions and the war in Ukraine. 17 Companies, therefore, need to manage and plan for increased power price volatility, including limiting their risk exposure and capitalizing on the opportunities it presents.



need for grid flexibility and

balancing

Capitalizing on the growth of flexibility services: Increased penetration of renewables on the supply side will augment the need for demandside flexibility in the power system. Historically, companies have generally not adapted their production or service to respond to the cost of power. Going forward, in some markets companies can gain revenue by operating plants with an element of flexibility, in response to volatile electricity prices. Corporate buyers of renewable power can capitalize on this opportunity by offering demand-side flexibility services in power markets where this option exists, meaning by increasing, decreasing or shifting their load. The increased digitalization of power grids, companies' production assets, and the use of advanced metering infrastructure (AMI) could help inform and accelerate this opportunity.



distributed generation and prosumers

Capitalizing on prosumer models: Utilities and transmission and distribution companies are not the only electricity providers. Companies invest in their own distributed energy resources, such as solar, wind, electric vehicle fleets or battery storage. In 2021, Enel announced that it had already reached over 1 million prosumers (businesses and households) connected to its networks globally. This trend will continue to grow as it helps companies optimize their self-consumption rates, reduce carbon emissions and hedge price volatility. In an era where utilities are transforming their business models to increase and integrate renewable power sources into the grid, companies with distributed energy resources can enable utilities to accelerate this transition and find new revenue streams for their own operations.



More stringent standards and regulations

Aligning with evolving power sector regulations: Regulations in the power sector will continue to evolve to use renewable energy source capabilities, accommodate their restrictions in the grid, and adjust market design to incorporate greater power supply and demand variability overall. These regulations (such as cross-border electricity trade reforms and standardizing grid codes that ensure harmonization and interoperability) improve technical standards or are used as regulatory carrots and sticks to encourage better compliance. They directly affect corporate buyers, irrespective of the geography where they operate. Therefore, it is essential for companies to collaborate early with policymakers and regulators to support the development and evolution of new regulations.

As these drivers will continue to evolve, it is essential for corporate buyers to stay informed of the latest developments in their power markets and to work closely with their suppliers and third-party advisors to manage renewable power procurement risks.

In conclusion, developments in both company sustainability ambitions and the power system present risks and opportunities for companies as they evolve their strategic approach to renewable power procurement. The concrete actions companies take to achieve broader positive impact with their procurement decisions and materially contribute to the transition to a sustainable energy system will depend on company strategy and characteristics such as market, sector and size, which reiterates the need for a diversified range of approaches to corporate renewable power procurement in the future.

**Section 3: Diverse leadership** approaches exist for companies to support a sustainable power system



## Section 3: Diverse leadership approaches exist for companies to support a sustainable power system

The drivers we outline in section 2 directly affect how leading companies procure and consume power. They have triggered a shift to a broader range of approaches, including time factors, grid stability considerations, decarbonizing emissions-intensive regions, and ensuring sustainable resource use and social impacts.

These new approaches should not detract from the significant progress that companies striving to achieve 100% renewable power goals are already making. Instead, they should build on existing successes from the renewable power procurement movement, enabling companies to maximize the positive impact they can make from each procurement decision.

## EMERGENCE OF NEW LEADERSHIP APPROACHES TO PROCURE RENEWABLE POWER

On the following pages, we set out six power procurement approaches that go beyond the worthy goal of adding renewable power capacity to the grid and that companies can use to evolve their procurement strategies and respond to the risks and opportunities the transition to a sustainable power system presents:

- Procuring renewable power at the same time it is generated
- 2. Supporting grid flexibility

- 3. Integrating an asset's emission abatement potential into procurement decision-making
- 4. Using resources and materials sustainably
- 5. Ensuring renewable power procurement projects are nature-positive
- 6. Ensuring renewable power procurement projects support the just energy transition

We provide a high-level overview to distill the key common features of these approaches to inform companies' thinking on strategy development for renewable power procurement. To dive deeper into each approach and understand in more detail how to take these approaches forward to implementation, please see the 'recommended resources' at the end of each segment.



Approach 1	PROCURING RENEWABLE POWER AT THE SAME TIME IT IS GENERATED
Risks and opportunities addressed	Increase in electricity price volatility  Increase in electricity price volatility  Increase in electricity price volatility  Increase in electricity price distributed generation and prosumers  Increase in electricity price volatility  Incr
Definition	The 24/7 RES Hub defines procuring renewable power at the time it is generated as matching a given volume of electricity demand with an equivalent volume of renewable electricity generated (injected) at the same time, validated by meter/grid data and energy attribute certificates with a time stamp of one hour or less, where possible. <sup>19</sup> The ambition is to increase the proportion of hourly matching over time, taking a pragmatic approach that ensures it does not lead to over-procurement.
What does it mean for corporate buyers?	Corporate buyers can leverage a comprehensive power procurement solution portfolio to better match their power consumption with renewable power generation at a more granular level (e.g., hourly).
Examples of steps companies can consider to integrate this approach into renewable power procurement strategies	Devise a strategy to increase hourly matching: Work with data providers to investigate current levels of hourly matching in the company's power procurement portfolio and work with consultants and suppliers to explore 24/7 procurement offerings and to procure and ensure credible evidence.  Introduce metrics into sustainability reporting: Track percentage of hourly load renewable sources meet to record progress over time.  Join hourly matching initiatives to develop expertise and influence standards: Examples include UN 24/7 CFE Compact, EnergyTag and the European 24/7 Hub.
Where this approach has been put into practice	Google   Information Technology company   Europe As part of its commitment to operate entirely on carbon-free energy, 24 hours a day, at its data centers and offices worldwide by 2030, Google signed a first-of-its-kind agreement in Europe to purchase the clean energy that will help ensure that operations in Germany will operate on nearly 80% carbon-free energy on an hourly basis beginning in 2022. As part of this agreement, supplier ENGIE has developed a carbon-free energy portfolio on Google's behalf that has the ability to flex and grow as the company's needs change in the region. (Read more)
Recommended resources to dive deeper into this topic	The Next Generation Carbon-Free Electricity Procurement Activation Guide, Clean Energy Buyers Institute  Tracking and Verifying 24/7 Carbon-Free Energy Purchases, WRI  Advancing Decarbonisation Through Clean Electricity Procurement, IEA

Approach 2	SUPPORTING GRID FLEXIBILITY		
Risks and opportunities addressed	Increase in electricity price volatility  More distributed generation and prosumers  Increased need for grid flexibility and balancing  More stringent standards and regulations		
Definition	Using International Renewable Energy Agency's (IRENA) definitions as a guideline there are three types of system flexibility that corporate buyers can employ: demand-side flexibility (e.g., sector coupling); flexibility from energy storage (e.g., batteries); and improved operation (e.g., shifting operations and maintenance in line with power supply availability).		
What does it mean for corporate buyers?	Corporate buyers can reduce costs by preloading (advancing power consumption) or delaying consumption in such a way that contributes to the stability and flexibility of the power grid.		
Examples of steps companies can consider to integrate this approach into renewable power procurement strategies	Investigate existing load flexibility: Identify loads that can shift temporally/geographically to take advantage of availability of renewable power/different grid conditions or supply options.  Participate in demand response: Bid demand-side services into utility programs wholesale energy markets or ancillary services markets, possibly through a third-party aggregation program, to reduce grid congestion and receive financial compensation.  Consider technologies that support flexibility in procurement contracting models: Work with suppliers to investigate innovative procurement models, for example, hybrid procurement contracts that include storage technologies.		
Where this approach has been put into practice	MTN   Telecommunication company   Africa Telecommunications network provider MTN, headquartered in Johannesburg, implemented Huawei's PowerStar solution, an artificial intelligence (Al)-enabled network-level energy optimization solution. This solution analyzes site traffic demand to improve overall energy efficiency and reduce energy demand, without altering the user's experience. (Read more)		
Recommended resources to dive deeper into this topic	Actions large energy buyers can take to transform and decarbonize the grid: procurement practices for achieving 100% carbon free electricity. World Resources Institute (WRI)		

Approach 3	INTEGRATING PROJECT EMISSIONS ABATEMENT POTENTIAL INTO RENEWABLE POWER PROCUREMENT DECISION-MAKING
Risks and opportunities addressed	Increased need for grid flexibility and balancing  More stringent standards and regulations  Rising ambition of voluntary commitments  Rising ambition stakeholder expectations
Definition	Analytics companies REsurety and Brattle define locational marginal emissions (LME), also referred to as "avoided emissions" or "emissionality", as a metric to measure the tons of carbon emissions displaced by 1 MWh of clean power injected into the grid at a specific location at a particular point in time. Timing, location, the physics of the power grid and power market economics all affect the carbon abatement value.
What does it mean for corporate buyers?	Corporate buyers can seek to procure renewable power from projects that yield the largest GHG emissions reductions.
Examples of steps companies can consider to integrate this approach into renewable power procurement strategies	Timing – strategically maximize use of renewable power in operations: Work with consultants to start evaluating emissions-intensive times of day and seasons of regional grid mix and procure power such that renewable power generation asset operations yield the largest carbon emissions reductions.  Location – consider emissions intensity of the grid before siting new renewable power procurement projects: Companies can prioritize new sites at emissions-intensive grid locations, where market boundaries for reporting allow the company to do so.
Where this approach has been put into practice	Salesforce   Cloud-based service as a software (SaaS) company   North America In October 2020, Salesforce became the first corporate entity to publicly commit to evaluating "avoided emissions" as part of its renewable energy procurement decisions. The company announced its first international renewable energy agreement with X-ELIO's Blue Grass solar farm in the Western Downs region of Queensland. This project checked several boxes in the company's procurement matrix guide, including high avoided emissions, ideal siting and strong community engagement. (Read more)
Recommended resources to dive deeper into this topic	Avoided Emissions / Emissionality – Procure renewable energy in higher-impact locations, WattTime  Locational Marginal Emissions, REsurety & Brattle Group

### Approach 4

### **USING RESOURCES AND MATERIALS SUSTAINABLY**

## Risks and opportunities addressed







#### **Definition**

The manufacturing and disposal of renewable power generation technologies and plants result in life-cycle environmental and social impacts, which companies should manage to limit the impact on climate, nature and people for the project's full life cycle.

## What does it mean for corporate buyers?

Corporate buyers can ensure sustainable resource use during development, construction, operation and decommissioning of renewable power procurement projects.

### Examples of steps companies can consider to integrate this approach into renewable power procurement strategies

**Assess life-cycle emissions of renewable power projects:** Work with developers or a third party to assess emissions throughout the life cycle of the asset, including design, production, operations, and decommissioning.

**Stipulate end-of-life resource management at the beginning of projects:** Request information on the planned approach to the end-of-life and decommissioning of renewable power projects and challenge the sustainability of the proposed approach. Extending, refurbishing or repowering can increase resource use sustainability and correct disposal and recycling can enable the reuse of resources. Currently, it is possible to recycle about 78% of materials from solar panels.<sup>20</sup> The first fully recyclable wind turbine blade was manufactured in 2021.<sup>21</sup>

**Ensure sustainability of supply chain components:** Companies can request further information from developers on the sustainability of component parts to reduce risk of human rights violations and environmental risks in the supply chain.

## Where this approach has been put into practice

### Apple | Computer and consumer electronics company | North America

The 16-inch MacBook Pro features aluminum smelted through the innovative Elysis process, a collaboration between two aluminum manufacturers. This process eliminates direct GHG emissions from the traditional smelting process, making it a direct emissions-free process for the first time. Apple, in partnership with the governments of Canada and Quebec, has invested in the research and development of this technology through Elysis to reduce the emissions associated with its products and to drive industry-wide impact by increasing the availability of this material. (Read more)

## Recommended resources to dive deeper into this topic

More Than a Megawatt: Embedding Social & Environmental Impact in the Renewable Energy Procurement Process, Salesforce

Beyond Carbon-Free: A Framework for Purpose-Led Renewable Energy Procurement and Development, LevelTen Energy

<u>Decommissioning solar energy systems resource guide</u>, Center for Rural Affairs

## Approach 5 Risks and opportunities addressed

### **ENSURING RENEWABLE POWER PROCUREMENT PROJECTS ARE NATURE-POSITIVE**







Renewable power projects can negatively impact nature, even if these are not always intentional or predicted. Environmental impact assessments are crucial to reducing unintended negative impacts on nature. There are examples of intentional nature-positive approaches that companies can integrate into procurement decisions.

## What does it mean for corporate buyers?

Definition

Corporate buyers can work with developers to ensure renewable power procurement projects do not negatively impact nature and integrate nature-positive approaches into power procurement decision-making wherever possible.

### Examples of steps companies can consider to integrate this approach into renewable power procurement strategies

**Assess sites based on land use characteristics:** The expansion of renewable power generation projects will put significant strain on land requirements globally. Corporate buyers can focus development in low-impact areas by accounting for land-use concerns in their decision-making. This includes ensuring development is on brownfield sites wherever possible.

Assess sites based on habitat characteristics: New renewable power projects can adversely affect local habitats. To mitigate these impacts, corporate buyers can discourage projects in vital habitats and steer clear of any potential harm that could arise from building in areas vital for wildlife and farming.

## Where this approach has been put into practice

### Cummins | Technology company | North America

Global power equipment manufacturer Cummins developed its own cost-benefit framework to select renewable procurement projects that offer the greatest opportunities for environmental and social impact. Cummins worked to ensure that their PPA signed in 2017 in Indiana minimized land and water usage as well as partnering with the Environmental Defense Fund and the Nature Conservancy to ensure the project posed minimal risk to wildlife, including working with the project developer to take special care not to destroy or interfere with the natural habitat of the local bat and bird populations. (Read more)

## Recommended resources to dive deeper into this topic

Exploring Natural Capital Opportunities, Risks and Exposure, Encore

Site Wind Right Map, The Nature Conservancy

<u>Green Light Study: Economic and Conservation Benefits of Low-Impact Solar Siting in California</u>, ECONorthwest and The Nature Conservancy

### Approach 6

### ENSURING RENEWABLE POWER PROCUREMENT PROJECTS SUPPORT THE JUST ENERGY TRANSITION

### Risks and opportunities addressed







### **Definition**

Renewable power projects can bring opportunity and risk to local communities regarding investment, infrastructure, jobs, education and environmental justice.

## What does it mean for corporate buyers?

Corporate buyers can work with developers to put people and communities at the center of renewable power procurement projects to ensure no workers and communities are left behind, and local communities benefit from investment in local projects.

### Examples of steps companies can consider to integrate this approach into renewable power procurement strategies

**Consider equitable siting of new projects:** Companies can work with developers to strategically site projects to maximize economic opportunities for marginalized communities, including projects that upskill and hire staff from impacted communities, and leverage their expertise in project planning and development to empower them economically.

**Encourage community engagement for new projects:** Companies can request a community engagement plan from developers during the request for tender process, to understand how early and how often the community has been engaged on each project.

**Consider benefit sharing approaches:** Work with developers to understand how renewable power projects can share benefits with local communities, including additional investment in the local area and providing dividends for host communities.

## Where this approach has been put into practice

### Anglo American | Mining company | Africa

Anglo American Platinum is working to benefit the communities surrounding its Mogalakwena mine in South Africa with the Pele Green Energy-EDF Renewables South Africa consortium. To ensure that the local communities benefit from the 100 MW solar PV plant, Anglo American Platinum has included a 10% equity ownership with no requirement for equity capital in the consortium that will build, own and operate the facility for its entire lifetime. This arrangement intends to provide dividends directly to the host communities over time. (Read more)

## Recommended resources to dive deeper into this topic

Corporate and Community Engagement Primer, Clean Energy Buyers Institute (CEBI)

How to Ensure a Just Transition?, BCG

Just Energy Transition (JET) Framework, Council for Inclusive Capital

## COMPANY ACTIONS BEYOND POWER PROCUREMENT DECISIONS

Beyond the individual power procurement decisions companies make, there are further actions some take to increase their positive impact on the development of a sustainable power system.

### **Engaging suppliers and customers**

Many companies are using their sphere of influence to reduce their scope 3 GHG emissions with their suppliers and customers. Companies can, for example, educate customers and suppliers about the benefits of renewable energy and encourage them, whether by incentive or requirement, to procure renewable power for their operations. A few companies are already running supplier and customer engagement programs to procure renewable power. Examples include Microsoft's Renewable Energy Procurement Hub, which provides a series of capacity-building resources to help its suppliers develop procurement roadmaps. learn about procurement options and implement their plans, <sup>22</sup> and the Energize Program, an initiative run by a consortium of pharmaceutical companies in partnership with Schneider Electric to educate and support their suppliers with renewable power procurement.<sup>23</sup> Others are raising the bar by asking suppliers to set renewable power procurement targets. For companies with a high proportion of scope 3 GHG emissions in particular, this can be a route to exponentially increase their positive impact in the transition to a sustainable power system.

## Collaborating with stakeholders to scale new technologies, policies and market mechanisms

Collaborating with various stakeholders, including investors, utilities, regulators, transmission system operators (TSOs) and distribution system operators (DSOs) and developers is essential to develop. implement, and scale new technologies, policies, and market mechanisms that will increase the use of renewable power and improve the integration of renewable energy sources into the grid. Corporate buyers can, for example, collaborate with investors to finance renewable power projects. Additionally, they can collaborate with regulators to advocate for policies that promote renewable power and energy efficiency. By working with TSOs and DSOs, companies can also support the integration of renewable energy sources into the grid, by participating in demand response programs.

## Taking an integrated approach to energy procurement as a whole

As companies procure power for their operations sustainably, they equally need to approach their entire energy procurement strategy more holistically to fully realize opportunities and mitigate risks. A truly leading energy procurement strategy considers power along with other energy loads, including heating for buildings and manufacturing processes and fuels for transport. It also takes optimizing consumption into account along with procurement. Such an integrated energy strategy sets out how to achieve a company's energyrelated financial and environmental objectives - considering all energy uses within its operations and across its energy-related value chain. Our Guidelines for an Integrated Energy Strategy explain this further.



## Conclusion



## **Conclusion**

Corporate buyers have already made great strides in driving the decarbonization of power systems through renewable power procurement. On the path to a sustainable power system that is equitable, nature-positive and in line with a 1.5°C scenario, there is now a period of transition with respect to the sustainability aspirations of companies and

their stakeholders as well as the dynamics of the power system itself. Companies must adapt to the developments of this transition to mitigate the risks and capitalize on the opportunities presented by the transition. The variety of leadership approaches outlined in this report will help them to evolve their procurement strategies in such a manner.

Leaders in the transition to a sustainable power system will go beyond their own power procurement, exploring opportunities to engage suppliers and customers and take an integrated approach to energy procurement and consumption.



### **Endnotes**

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REscale brings together leading companies representing the full renewable energy value chain to accelerate the deployment of renewables and the transition to a low-carbon electricity system. REscale members share the ambition to scale up renewable deployment beyond average growth.

This report builds on previous reports on corporate PPAs, including Corporate Renewable Power Purchase Agreements: Scaling up globally (26 October 2016), Innovation in Power Purchase Agreement Structures (27 March 2018), How multi-technology PPAs could help companies reduce risk

(7 March 2019), Cross-border Renewable PPAs in Europe: An overview for corporate buyers (7 December 2020) and Pricing Structures for Corporate Renewable PPAs (7 June 2021). The WBCSD Corporate Renewable PPA Forum is the platform undertaking this work.

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