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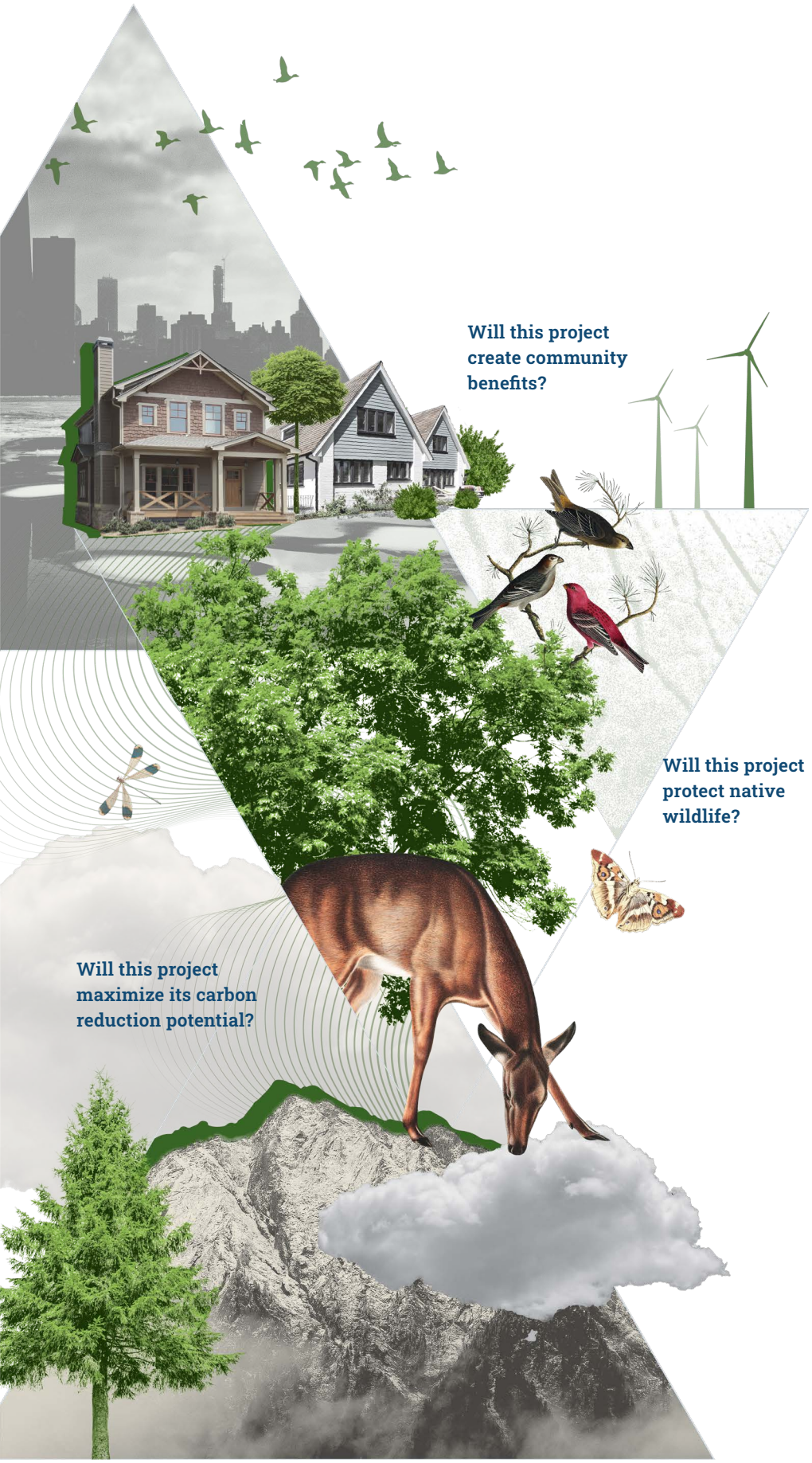
Beyond Carbon-Free:

A Framework for Purpose-Led Renewable Energy Procurement and Development



Supporting a sustainable and equitable clean energy transition

starts with embracing the 3 C's in clean energy development and procurement: Communities, Conservation, and Climate.

Communities

Developers should engage early and often with the communities their projects are built in. Projects should have strong community support, employ diverse local workforces, and ensure local economic and community benefits.

Conservation

Projects should be sited thoughtfully to minimize impacts on wildlife, habitats, and natural areas.

Climate

Renewable development can create greater relative carbon reductions when built in areas with high fossil fuel generation, and should minimize the carbon released by construction-related disturbances to forests, wetlands, and other ecosystems.

Achieving net-zero emissions will require the U.S. to develop an additional 3 terawatts of renewable capacity by 2050.

New industry standards and practices for development and procurement are critical to ensuring that the renewable energy transition occurs in a sustainable and equitable way.

Corporate energy buyers and developers play an important role in the clean energy transition. By embracing the 3 C's, they can maximize their positive impact.

LevelTen Energy · The Nature Conservancy (Protecting nature. Preserving life.) · Audubon

Contents

Acknowledgements

The lead authors of this white paper are Zach Starsia, Director of Transactions at LevelTen Energy, and Nathan Cummins, Great Plains Renewable Energy Strategy Director at The Nature Conservancy. They can be reached at Zach.Starsia@LevelTenEnergy.com, and ncummins@tnc.org.

Contributing authors were Bruce McKenney, The Nature Conservancy, Garry George, The National Audubon Society, and Rob Collier, LevelTen Energy.

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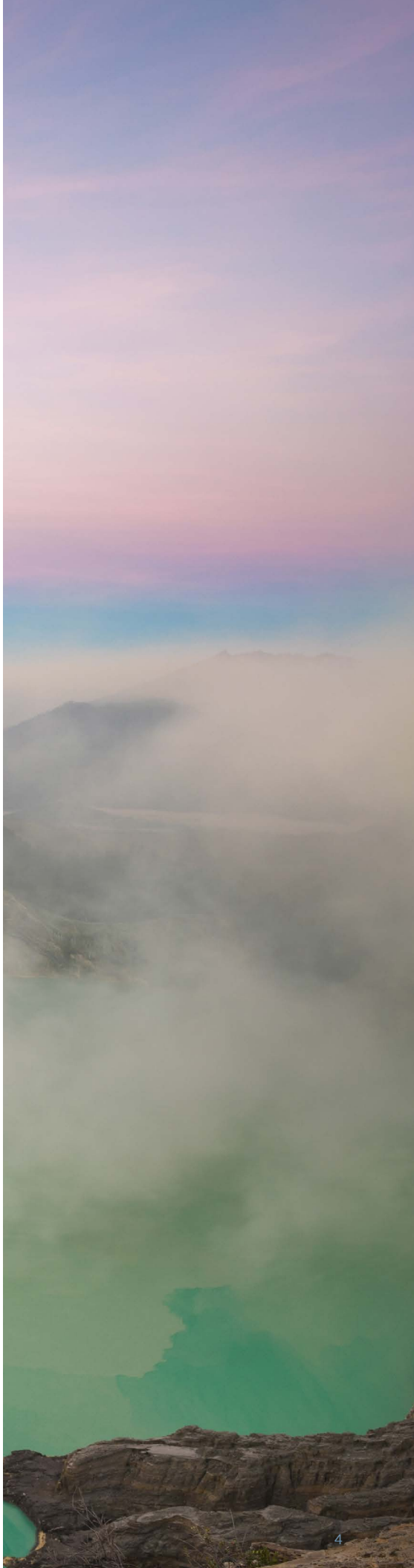
A Note From the Authors

This white paper seeks to amplify the growing recognition of a need to embed additional perspectives beyond financial and risk criteria into renewable energy procurement. The principles put forth here are a first step in what we hope can become a standardized procurement approach that will be strengthened through future considerations and iterations. We recognize that this is only the beginning of a long and important conversation, especially as our collective organizations represent only a fraction of the voices needed to ensure that community, conservation, and climate concerns are holistically addressed. There is still much we can do to learn from—and support the efforts of—local leaders and Indigenous communities, labor groups, and activists working to ameliorate countless societal issues. We hope this is the beginning of a shared dialogue in which we can advance learnings across the industry and amplify community, conservation, and climate voices. We welcome and appreciate feedback and additional partners in this collaborative initiative.



Introduction

The global transition to a clean energy economy must occur at a truly unprecedented pace to meet critical climate goals and decrease dependency on fossil-based energy generation. In today's rapidly evolving energy landscape, this transition looks more achievable than ever. Governments and corporations are making ambitious clean energy and climate commitments, while solar and wind energy prices continue to plummet. We now stand before our next great challenge: An enormous global build-out of energy infrastructure that will generate, transmit, and deliver low-carbon electricity.

This substantial expansion of onshore wind and solar generation will require massive areas of land for development. In the United States, Princeton University's Net-Zero America report estimates that the renewable energy resources needed to achieve net-zero emissions by 2050 could require a footprint of 228,000 square miles—a land area greater than that of Wyoming and Colorado, combined. This tremendous need for land poses significant land-use challenges, and the potential for unintended consequences on both local communities and natural habitats.

At the same time, there is growing recognition of the role corporate buyers are playing not only in expanding the renewable energy market, but transforming it. Salesforce's market-leading More than a Megawatt white paper, along with associated efforts through the Renewable Energy Buyers Alliance, provides a framework for how renewable buyers can procure from projects that not only reduce emissions, but also bring positive community, conservation, and climate impacts. Google and partners like the World Resources Institute have developed innovative methods to increase positive carbon impacts in their renewable procurements through 24/7 carbon-free energy models. And Microsoft's 100/100/0 goal includes specific purchasing partnerships that create targeted investments in under-resourced communities, and increase diversity in the renewable energy industry to deliver co-benefits to the frontline communities that need them the most. The innovation of these and other corporate buyers has raised the bar for how the renewable energy industry operates, and has shifted what is commonly understood to be possible through renewable PPAs (power purchase agreements).

Corporate renewable energy buyers are shaping renewable markets and demonstrating leadership on the global stage through their ambitious renewable energy and sustainability commitments. These relatively new market entrants are playing a pivotal role in how the clean energy transition hits the ground, and are setting examples for utilities, governments, and other institutions to follow. In an effort to advance the conversation around industry standards for high-impact projects, this paper will put forth a framework outlining the "3 C's" of impactful procurements: Community, Conservation, and Climate. We hope doing so can create clarity around what constitutes a high-impact renewable energy project in order to empower renewable buyers and developers alike to align more rapidly around these priorities, and incorporate such considerations into the heart of how the industry operates.

What Do We Mean by "Communities"?

Throughout this white paper, we reference terms like "Community," "local communities," "community goals," and "community benefits." We intend for these usages to be broadly applicable, and therefore inclusive of Indigenous Peoples—such as sovereign Tribal Nations and/or Peoples with cultural or historic ties to the surrounding lands and local towns, cities, or citizen associations in which renewable projects are constructed. This is aligned with globally recognized conservation and community engagement conventions and organizations, such as the Convention on Biological Diversity and LandMark. We recognize that while Indigenous Peoples and local communities can share interests, it is not appropriate to assume that these interests always intersect, or that any one group represents the views of all involved members or interests. Instead, we hope that by addressing these groups under a common framing of "Communities," we can help elevate their roles in facilitating an equitable clean energy transition.

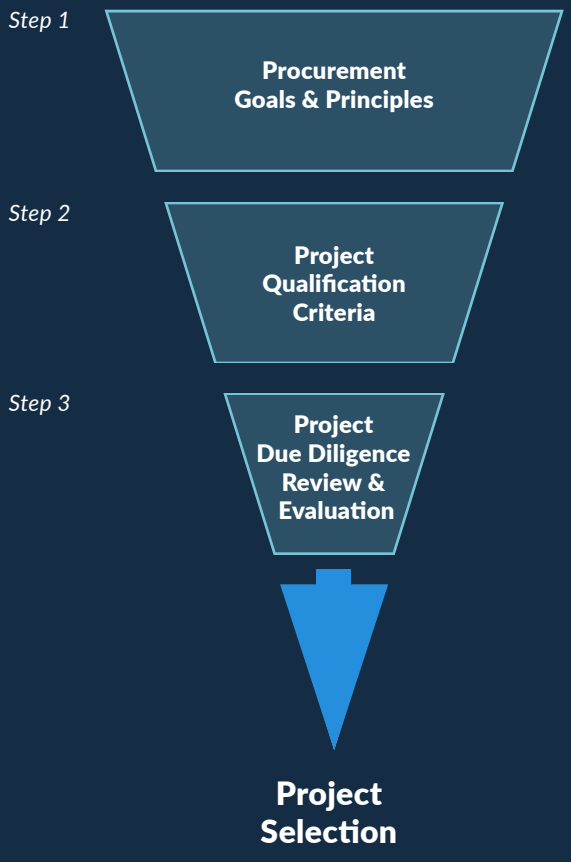
Our Vision

We have an opportunity to build a better, more impactful renewable energy market—a market that allows for development practices that go above and beyond "business as usual" for community, conservation, and climate. This is why LevelTen Energy, The Nature Conservancy, and National Audubon Society have co-developed clean energy buying solutions to further these goals across the renewable energy market.

There is also a business case for large-scale renewable energy projects that maximize the benefits they can provide to communities and the environment. Projects built to drive positive impacts face fewer delays, unexpected costs, and negative perceptions, thus reducing important price, completion, and PR risks that companies work to mitigate throughout the procurement journey. What's more, today's organizations are looking to drive positive change in myriad ways, and high-impact procurements often allow for the advancement of several ESG goals at once. And on an industry-wide level, corporate power purchasers utilizing impactful principles and solutions send market signals to the developer community that reinforce best practices for climate, nature, and community considerations.

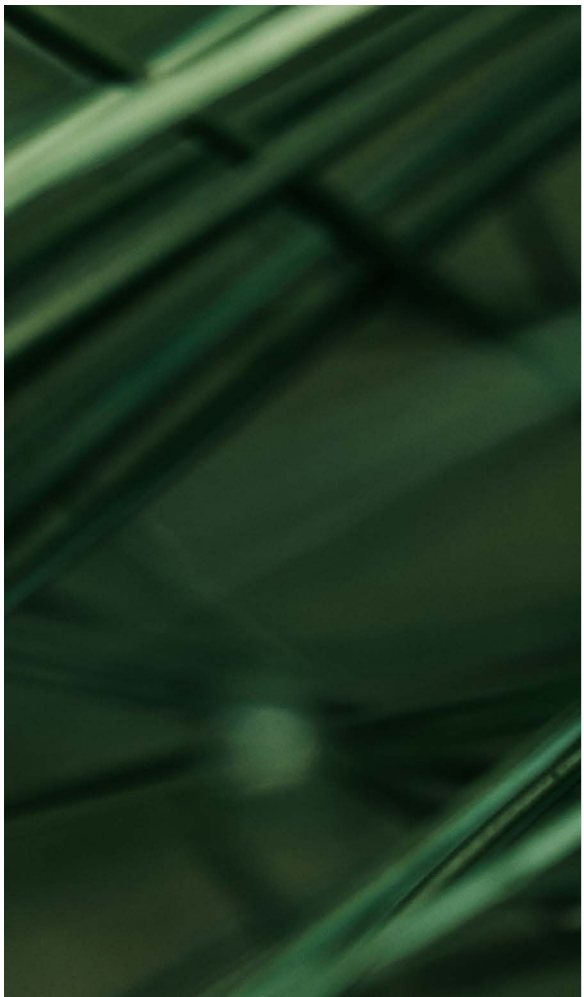
The Renewable Energy PPA Procurement Journey

Guidelines for managing a traditional PPA procurement already exist. But the more impactful "3C" approach was developed to provide more detailed evaluations at each stage of procurement to allow purchasers to incorporate these principles into their business decisions. We believe that by utilizing these principles as a guide, power purchasers can maximize the benefits associated with their procurements while minimizing risks.



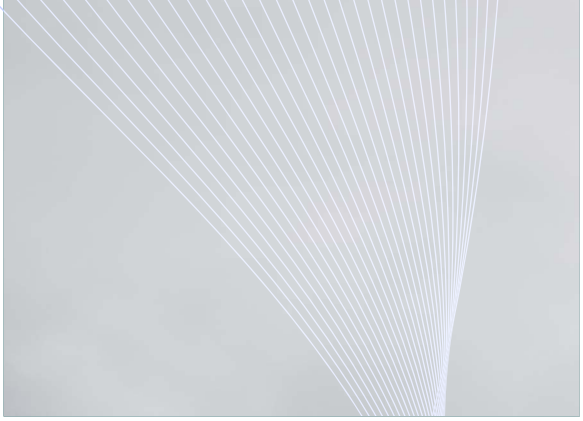
STEP ONE

Renewable Energy Procurement Goals and Principles: Meeting and Exceeding ESG Targets



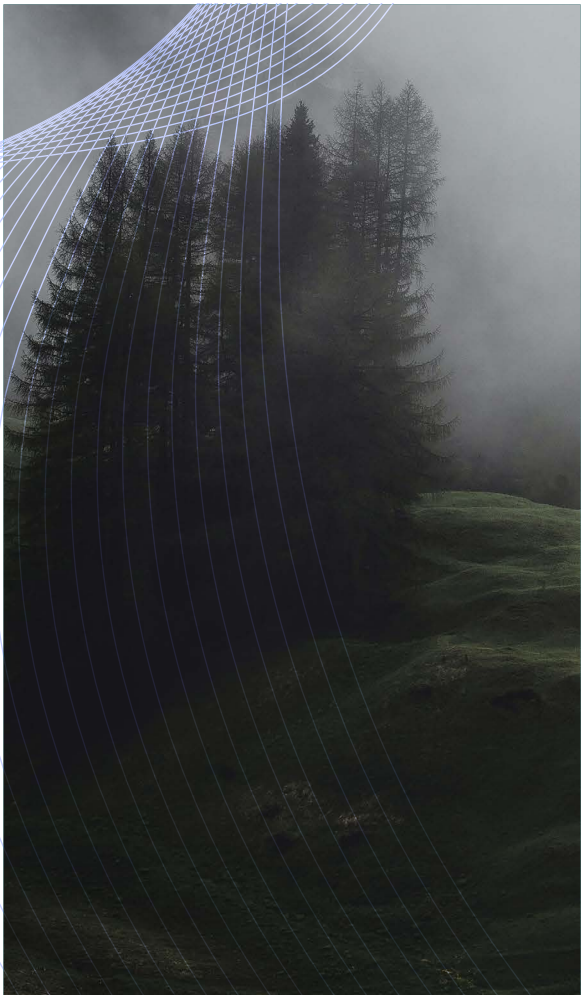
For companies with RE100 commitments, SBTi (Science Based Targets initiative) goals, or some other public sustainability commitment, sourcing offsite renewable energy projects is often necessary. Soliciting the market for a utility-scale renewable energy project can be challenging, and often takes a team of internal stakeholders working in conjunction with experienced advisors to support this journey. Using a 3C approach for the RFP process and during final project selection allows companies to not only accomplish publicly stated sustainability initiatives, but also other ESG-related priorities.

Building off the efforts of Google, Microsoft, and Salesforce highlighted earlier, we believe the principles below provide a framework that corporate clean power purchasers can use to maximize the benefits associated with their renewable energy purchases, while minimizing unintended negative consequences. These principles were built to meet both a growing demand from renewable energy buyers to increase the impact of the projects that drive their climate goals, as well as increasing recognition from renewable energy developers of opportunities to improve development practices. They are intended to be flexible and broadly applicable for any company looking to purchase renewable energy—from an offtaker looking to contract for the entirety of a renewable facility's generating capacity, to organizations looking for smaller quantities of energy or who are just beginning their renewable journey. We also believe that developers of all sizes who are looking to align their development practices with the latest ESG best-practices will find significant value in the guidance these principles outline.



Impact Procurement Principles

These Impact Principles are designed to drive change in three core areas, or "3 C's" for short: Community, Conservation, and Climate. Below are overviews of each principle, as well as the risks they stand to address.



Community Principles

- Engage local communities early and often to build a trusting dialogue around the project and community goals, avoid negative community and cultural impacts, and support community needs and benefits.
- Support local workforce development and diversity, equity, and inclusion goals.

Lack of consultation with communities can lead to projects that fail to benefit their local communities, and result in negative publicity, project delays, and even cancellation. These principles enable community members to express their needs and concerns about the project, and help ensure and amplify localized benefits.

Conservation Principles

- Avoid and minimize impacts to wildlife, habitat, and natural areas.
- Conduct appropriate consultation with relevant agencies about potential environmental impacts and mitigation planning.

Habitat loss and climate change are two major drivers of the biodiversity crisis. These principles ensure that renewable energy projects are properly sited to avoid and minimize harm to wildlife, habitat, and natural areas.

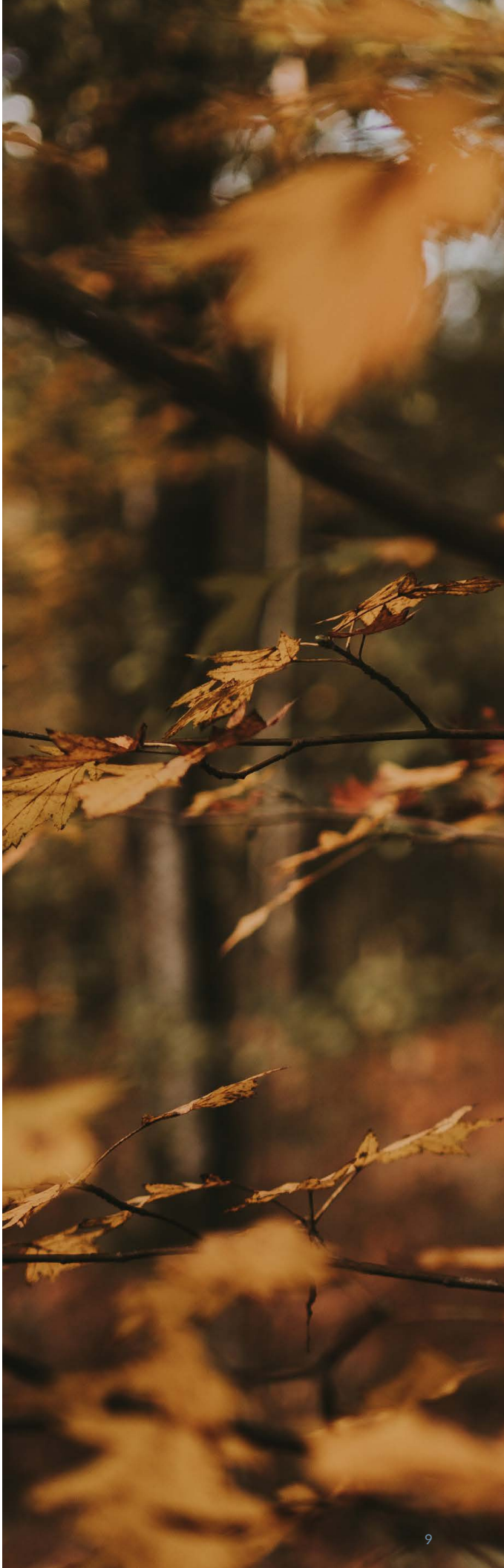
Climate Principles

- Support the highest relative reduction of greenhouse gas emissions for the project.
- Avoid development that releases carbon stored in natural areas, such as forests, wetlands, and grasslands.

Renewable energy projects avoid emissions by displacing fossil-based electricity generation. The regional grids of the United States have different emissions profiles, meaning projects sited on "dirtier" grids can have even more pronounced relative emission reductions. These principles encourage projects, where possible, to have the greatest impact on emissions through strategic location decisions and thoughtful siting practices.

Historically, corporate buyers have approached procurements with a primary focus on financial value and risk, and many buyers missed opportunities to closely investigate a project beyond that opportunity's financial viability. Through these new Impact Procurement Principles for to-be-built renewable energy projects, corporate buyers can more accurately assess a wind or solar farm's expected impact on the planet and people their investment inherently involves. By leveraging this framework, buyers can prioritize projects based on a number of unique characteristics that indicate whether or not the project goes beyond "business as usual" while also mitigating price, completion, and PR risks. These principles are focused on the largest segment of the renewable energy market to date: onshore, utility-scale wind and solar projects. Future refinements should consider additional growing market segments, such as distributed generation, storage, and offshore development.

It is important to note that these procurement principles are intended to act as a framework to guide corporate decision-making and support a market where buyers and developers incorporate community, conservation, and climate considerations. Once a company has established their goals and adopted these principles as integral to their procurement strategy, they will then need to operationalize them to fit into their specific corporate values and procurement objectives—beginning with developing the right guideposts for project qualification.



STEP TWO

Project Qualification: Current Market Practices, Opportunities for Improvement, and Differentiation Criteria

Renewable energy developers often must balance a number of unique parameters when deciding on a suitable location for a wind or solar asset. Developers look to optimize a few core criteria, including interconnection capacity/costs, resource (solar irradiance, wind speed, etc.), ability to secure local construction permits, and cost of land with private landowner. This methodology has enabled thousands of new projects to be constructed and become operational across the United States, but other location-specific indicators are sometimes ignored. The three tables below show how incorporating Impact Principles can improve development and procurement practices from "Business and Usual" to "Optimized for Impact."

Guidance for Community Principles

Business as Usual	Optimized for Impact
Community needs and benefits are not prioritized during renewable energy planning and development.	A project centers community needs by sponsoring a cultural resources survey and Community Benefit Agreement (or equivalent) to support community goals.
Suppliers for major system components are selected without requirements for supply chain traceability or DEI practices.	DEI indicators are prioritized for the developer company and project workforce during project construction, such as responsible contractor policies. Supply chain traceability protocols are built into procurement practices for major system components.
Project owner takes responsibility for, and bears the costs of, decommissioning at the end of a renewable energy project's useful life as required by local ordinances.	Decommissioning plans include recycling of major system components after useful life has expired, and returning property to its original state.

STEP TWO ***continued***

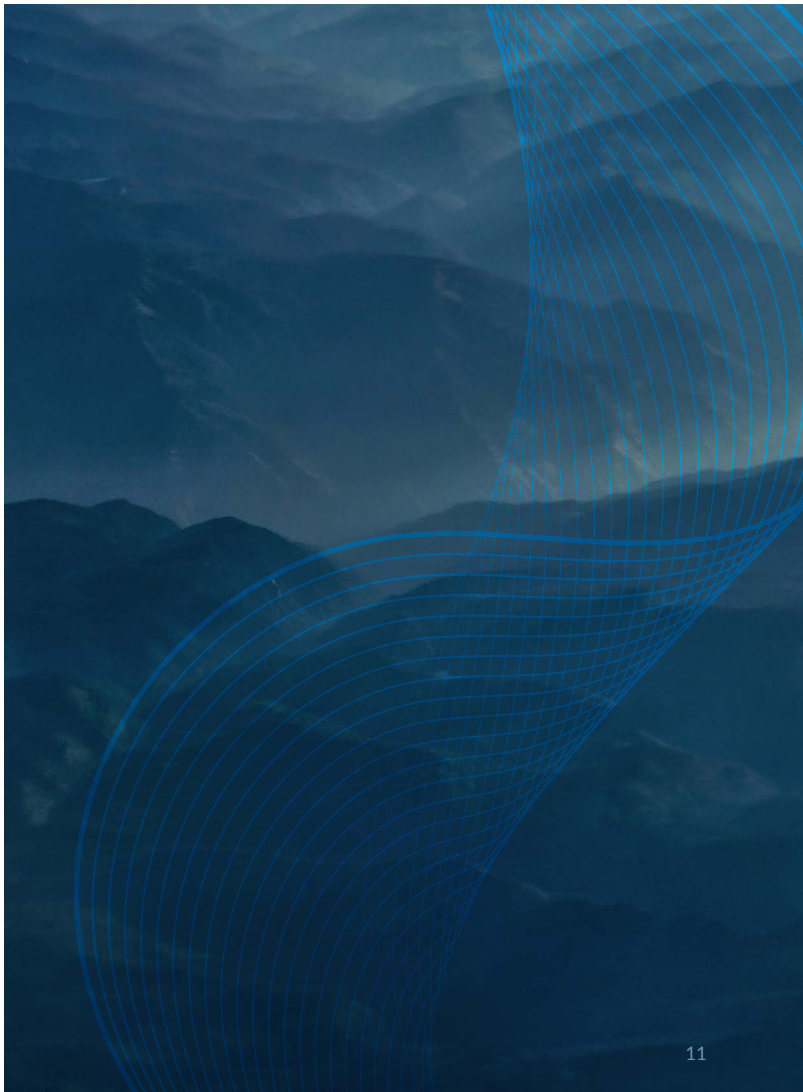
Project Qualification: Current Market Practices, Opportunities for Improvement, and Differentiation Criteria

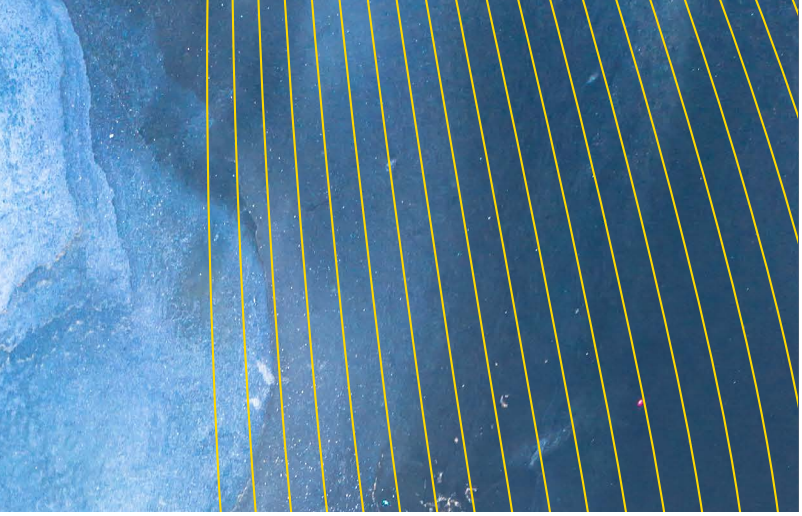
Guidance for Conservation Principles

Business as Usual	Optimized for Impact
Material project decisions (e.g., real estate purchases, RFP shortlisting) are made before environmental siting concerns, like biodiversity impacts, are fully understood and able to be considered.	Environmental risk screening criteria (such as desktop screening tools) and early engagement with state and federal wildlife agencies are integrated into business development and procurement practices to ensure environmental risks are understood and addressed before material decisions begin.
Projects prioritize environmental impact minimization and mitigation measures after the project has been sited and/or shortlisted for consideration.	Projects with moderate-to-high probability of significant adverse impacts that cannot be appropriately mitigated as determined by a broad consensus of wildlife professionals are abandoned/disqualified early in the process.
Environmental project enhancements such as native plantings, wildlife-permeable fencing, land-use optimization, and wildlife-deterrent technologies are considered at the end of the project development and procurement timeline.	Environmental project enhancements are integrated into project design and RFP criteria, allowing for greater positive impacts with reduced variable costs.

Guidance for Climate Principles

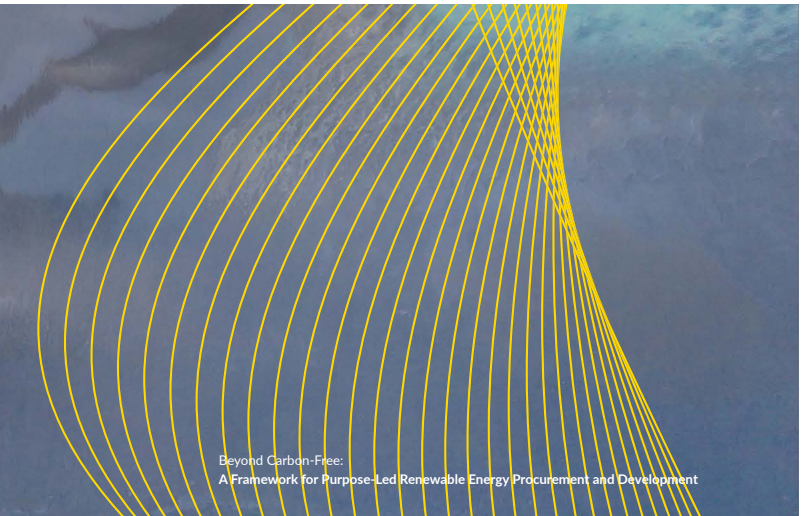
Business as Usual	Optimized for Impact
Physical project location is based on transmission interconnection, the ability to secure required permits for construction/operation, and resource optimization (wind speed, solar irradiance).	Project location criteria includes consideration of carbon avoidance and any displacement of conventional fossil fuel-based generation a project would bring.
Project development may require construction activities that can harm natural climate solutions (e.g., clear-cutting forests for solar development, plowing native prairie for wind turbine placement).	Buyers and developers work collaboratively to develop construction plans that account for, avoid, and minimize natural carbon storage losses at sites and, where ecologically appropriate, plant deep-rooted native vegetation.
Buyers optimize for highest expected contracted financial value in the local electricity market.	Buyers can optimize for carbon avoidance and/or 24/7 carbon-free electricity within a project's grid region.





Incorporating a 3C Approach

At the conclusion of a renewable RFP, corporations are tasked with evaluating a list of hundreds of offers from wind and solar projects across the country. Each project comes with unique characteristics regarding physical location, access to transmission infrastructure, degree of community support or opposition, prevailing regulatory landscape, local incentives for clean energy, and much more. To efficiently evaluate these opportunities, corporate renewable energy buyers should consider a suite of "bright line" criteria that narrow the focus of this process to projects that meet their specific impact solicitation requirements and provide the desired benefits. Perhaps the most important benefit to the corporation is the collection of the project's renewable energy attribute certificates (RECs) that are used to make public sustainability and decarbonization claims. However, each project can also provide extensive and unique additional benefits to local community, conservation, and climate concerns that may otherwise go unrecognized unless highlighted in the procurement process.



Traditional bright line criteria used to **eliminate** projects and their offers from further consideration include:

- Timing of project commercial operation date
- Expected financial value with respect to desired threshold

Buyers can incorporate 3C priorities into these elimination criteria to further sort projects for shortlisting. Examples include:

Community:
- Project lacks broad community support

Conservation:
- Project negatively impacts important habitat

Climate:
- Renewable project that does not provide "additionality"

In contrast, there are other aspects to a renewable energy project **that may enhance** its chances for gaining a buyer if it meets other criteria, including:

Community:
- Supplier is achieving diversity commitments

Conservation:
- Project is sited on previously developed lands

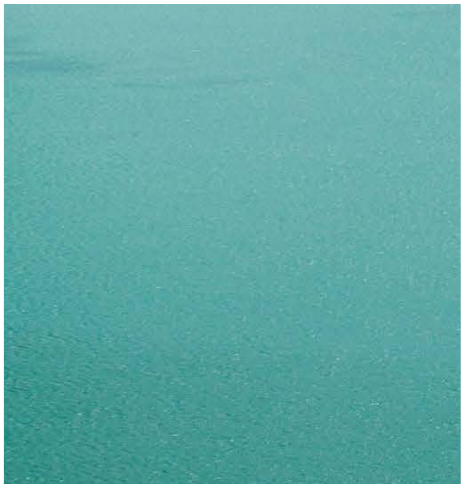
Climate:
- Project optimizes carbon displacement potential

Incorporating a 3C filter into the shortlisting process can actually help expedite the project selection process. These criteria should be weighted and scored during the initial phases of renewable energy procurement to ensure unique opportunities with high-impact projects are not lost. For offtakers committed to maximizing the 3C impact of their procurement, incorporating these considerations could change what this process may have historically looked like. For example: a project that brings higher costs over a 10-15 year period but provides a local job training program focused on minority communities to provide long-term economic development may receive shortlisting priority over a project with more appealing forecasted financials. If a buyer fails to consider these positive project benefits alongside other elimination criteria, they may lose the chance to tell a unique story, and more importantly, miss an opportunity to promote equitable development practices.

STEP THREE

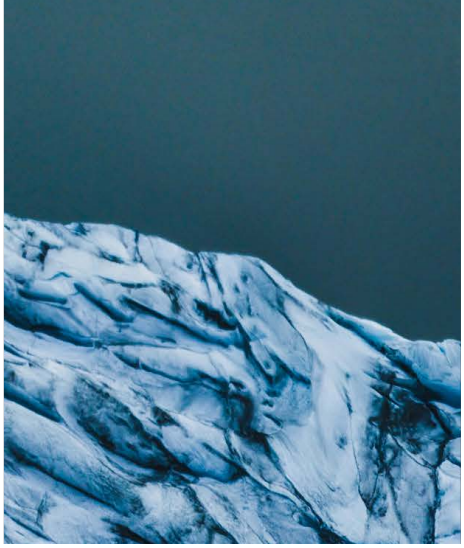
Project Selection: Due Diligence Questions and Evaluation Criteria

After going through the elimination and selection process for the full list of RFP results, additional due diligence will be required to arrive at an awarded project. On the right is an illustrative list of questions that can be used to address Community, Conservation, and Climate principles. Buyers may decide to include some, all, or iterations of these questions in a renewable energy procurement to better understand the nuances each unique opportunity represents. These questions are not exhaustive, and there are other issues that should be investigated through the due diligence process based on project-specific details.



Community

1. Please describe perspectives in the host community on the project, including any favorable or unfavorable feedback.
2. What is your community engagement plan? Will there be a Community Benefit Agreement in place between the project and the host community? If so, at what stage are these discussions currently?
3. Who benefits from ownership in the project? Do mechanisms exist for re-investing profits in the community? If so, please share.
4. Will the project provide targeted investments for local communities that have been disproportionately impacted by climate change, industrial waste, pollution, etc?
5. Has the project completed an archaeological and cultural resources survey in consultation with relevant tribal governments? If so, please share.
6. What percentage of the project's workforce will be graduates of a state or federally approved apprenticeship program? What percentage of the project's workforce will be under collective bargaining? Of the total jobs the project will create, what percentage will be filled by local community members?
7. If there will be a project-sponsored job training program, will it include specific diversity, equity, and inclusion targets? If there will not be, why not?
8. Will the percentage of supplier diversity for sourcing and/or subcontracting be tracked for this project? Have these suppliers been screened for supply chain protocols, such as anti-forced labor provisions?



STEP THREE ***continued***

Project Selection: Due Diligence Questions and Evaluation Criteria

Conservation

1. Will the project be located in an area specifically designated as a preferred renewable energy development zone?

2. Will the project be located on previously impacted land, such as brownfield, built structure, landfill, or mine lands?

3. Will the project be located on agricultural land? Is the agricultural land categorized as “prime” or “important” agricultural land?

4. Will the project have a moderate-to-high probability of significant adverse impacts to species of concern or their habitat such as federally or state-listed candidate species or their habitat, or “species of greatest conservation need” identified in State Wildlife Action Plans?

5. Did state and federal wildlife agencies concur with the conclusions to Question 4? Will a mitigation plan be developed to address these impacts (first avoid, then minimize, and as a last resort, offset impacts)?

6. Will the project be located entirely on, partially on, or adjacent to important natural habitats as identified by the wildlife layer of The Nature Conservancy’s Site Renewables Right Map?

7. Will the project be located entirely on, partially on, or adjacent to Important Bird Areas as identified by The National Audubon Society?

8. Does your project have any environmental impact minimization and/or enhancement characteristics (i.e., pollinator-friendly plantings, wildlife-permeable fencing, bat-and-bird-deterrent technologies)? If yes, please describe.

Climate

1. Is the project offering “additional” electricity generation in displacement of conventional generation technologies?

2. Are you tracking the sourcing practices and GHG footprint of major equipment components required for the project?

3. Is there tree clearing required for project development? If so, have you estimated the projected payback period from lost carbon storage?

4. How will your project decommissioning plan reflect the community’s priorities? Does the project have a decommissioning plan that includes recycling components and returning land to original values?

Project Selection: Due Diligence Questions and Evaluation Criteria

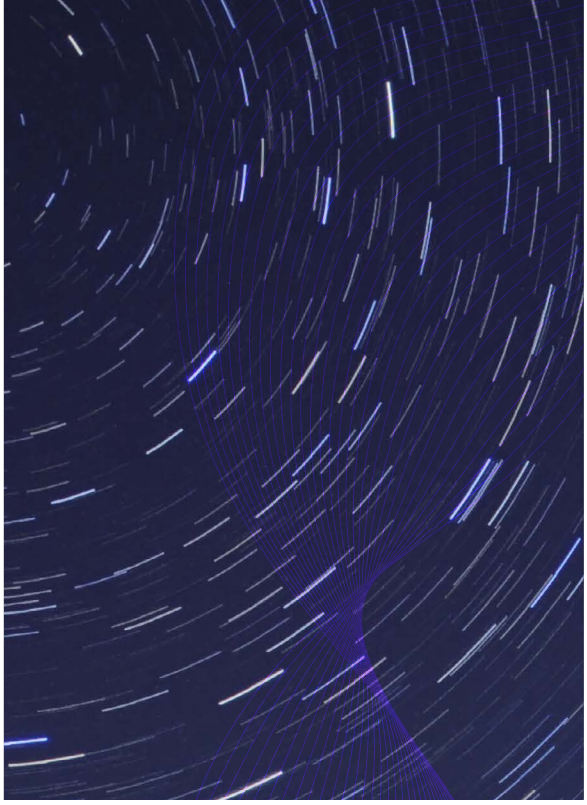
Once these due diligence questions have been reviewed, companies can then utilize the resulting additional project data to inform their final selection process. For example, companies can expand from traditional scoring criteria (Table 1) on financial attributes and risk to also include scores from Community, Conservation, and Climate questions (Table 2). Doing so allows companies to make holistic decisions inclusive of a broad array of project impacts, and find the projects that will advance their triple-bottom line priorities. Notice how in Table 1, traditional evaluation criteria leads to Project 1 being preferential, whereas in Table 2, the incorporation of the 3 C's into the evaluation criteria makes it clear that Project 2 is actually the preferred, higher-impact project.

	Financial Value (60%)	Counterparty Risk (40%)	Project Preference
Project 1	**1st**	**2nd**	**1st**
Project 2	2nd	1st	2nd
Project 3	3rd	3rd	3rd

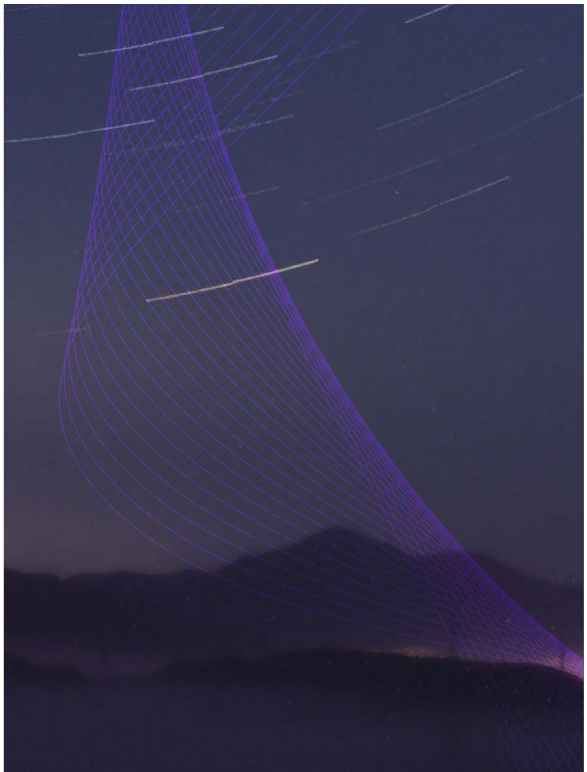
Table 1

	Financial Value (30%)	Conservation Score (20%)	Community Score (20%)	Climate Score (20%)	Counterparty Risk (10%)	Project Preference
Project 1	1st	3rd	2nd	3rd	2nd	2nd
Project 2	**2nd**	**2nd**	**1st**	**1st**	**1st**	**1st**
Project 3	3rd	1st	3rd	2nd	3rd	3rd

Table 2



The challenges presented by the sheer magnitude of the global energy transition is also a tremendous opportunity to create a better world.

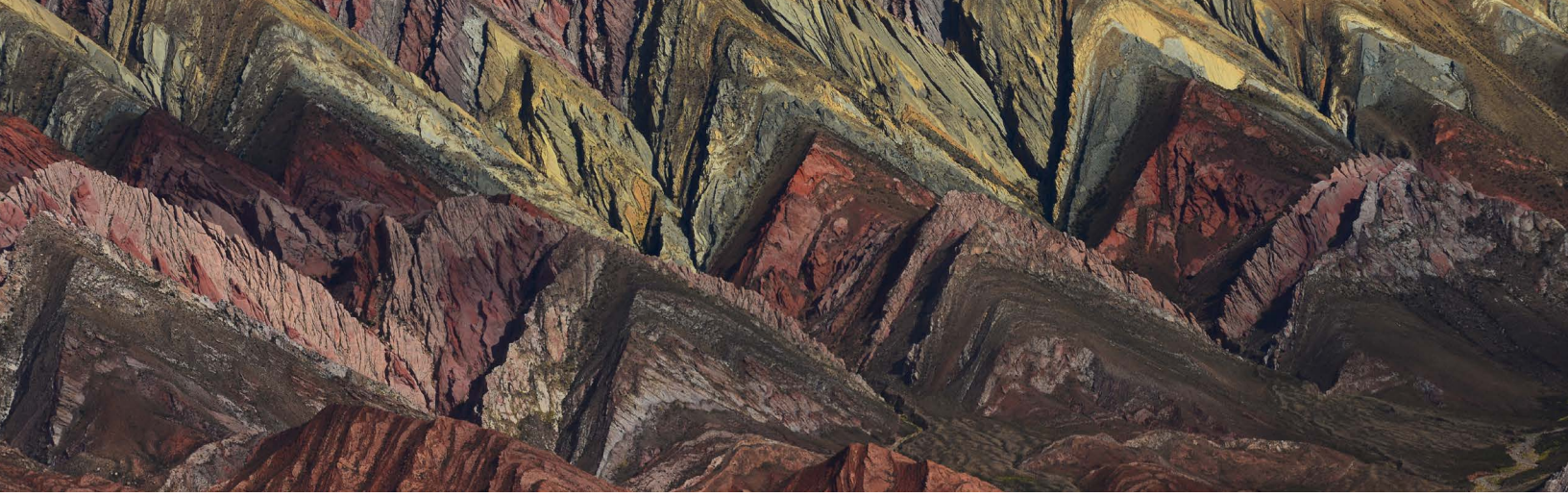


Looking Forward

This white paper adds to the growing list of initiatives that are helping to advance and accelerate the renewable energy market in a direction that will not only decarbonize our world, but also advance other important equity and conservation goals. With these Impact Procurement Principles, the renewable community can rally around a shared goal of driving positive change across multiple areas of concern through a single framework. Buyers can bring these principles into the core of their procurement processes, and developers can respond by prioritizing measures that produce community, conservation, and climate benefits to create positive change and help their projects stand out from the pack. Intermediary and advisory parties can use this framework to easily direct their clients towards more impactful offerings, and service providers can develop platforms that will further operationalize these principles. The public sector, too, can learn from the innovative practices forward-thinking corporate buyers are modeling, and adopt similar policies to drive additional renewable market growth while also amplifying all available co-benefits. As the renewable transition accelerates, it is incumbent upon all participants to thoughtfully and strategically maximize every opportunity to build a better world.

There is also room to incorporate a 3C approach into 24/7 carbon-free energy goals, and to adapt these principles to other wings of the renewable transition such as distributed resources and storage. As traction grows and these approaches become the industry standard, such principles can also be adapted to, and adopted by, markets around the globe—further amplifying the benefits of renewable build-out. Considering the immense size of the global energy transition that lies before us, the potential for far-reaching benefits is truly massive.

This white paper works to serve a longer and larger effort to ensure that those impacted by the energy transition are an integral part of the discourse that defines the nature of this global shift. We welcome the feedback of anyone with valuable perspectives and ideas for creating a more equitable and sustainable renewable energy transition, and will continue to listen and improve these principles with the guidance of the broader communities in which clean energy development occurs. The challenges presented by the sheer magnitude of the global energy transition is also a tremendous opportunity to create a better world. Using these Impact Procurement Principles as a guiding framework, we hope to help the renewable sector realize the fullest potential of a more sustainable and equitable future for all.



Resources

Focus Area	Resource	Summary	Organization
Communities, Conservation, Climate	Beyond the Megawatt	Overarching resource library for buyers to advance non-financial market objectives	REBA Institute
Conservation	Site Renewables Right Map	Desktop evaluation tool for conservation impacts of renewable energy projects	The Nature Conservancy
Climate	24/7 Carbon-Free Energy	White paper outlining the opportunities to accelerate climate action through 24/7 procurement	Google
Communities	Working Wisdom Listening Tour	Summary of listening tour with frontline community advocates on opportunities for renewable energy buyers to advance a clean and equitable energy transition	Groundswell, REBA
Communities, Conservation, Climate	More than a Megawatt	White paper about embedding social and environmental impact into the renewable procurement process	Salesforce
Conservation	American Wind and Wildlife Guide	Guide about developing onshore wind energy in the U.S. while protecting wildlife and their habitats	American Wind and Wildlife Institute
Conservation	Center for Pollinators in Energy	A national clearinghouse and catalyzer of pollinator-friendly solar information, standards, best practices, and state-based initiatives	Fresh Energy
Climate	Carbon-Free Energy Principles	The Coalition for 24/7 Carbon-Free Energy's energy principles	Google
Climate	Emissionality Calculator	Calculator that uses data-driven marginal emissions analysis techniques to measure and compare the avoided emissions of different potential renewable energy projects	WattTime
Communities, Climate	Equitable Energy Storage	Collection of resources on how energy storage technology works, where it needs improvement, and what we can do to promote wider adoption of energy storage to maximize benefits for the climate and all communities	Union of Concerned Scientists

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