



**PRACTICES FOR
JUST, EQUITABLE AND SUSTAINABLE
DEVELOPMENT OF CLEAN ENERGY**

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Practices for Just, Equitable and Sustainable Development of Clean Energy Resources

ABOUT CERES

Ceres is a sustainability nonprofit organization working with the most influential investors and companies to build leadership and drive solutions throughout the economy. Through powerful networks and advocacy, Ceres tackles the world's biggest sustainability challenges, including climate change, water scarcity and pollution, deforestation and inequitable workplaces.

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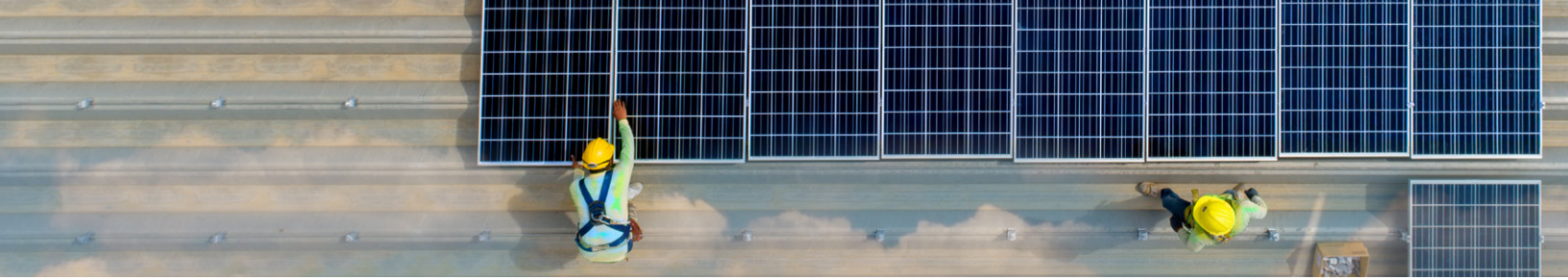
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Executive Summary

The U.S. energy sector's shift to clean energy is creating a once-in-a-generation opportunity to build a more just, equitable and sustainable society.

But this will not happen automatically.

Wind and solar are being rolled out at [record rates](#) nationwide in response to the magnitude of the climate crisis. In 2019, for the first time ever, renewable energy consumption eclipsed coal. The new U.S. administration's ambitious plan for making the power sector carbon free by 2035 is likely to accelerate the transition even more.

This transformation is not just reshaping the energy sector. It is also dramatically changing American jobs and communities. Whether those changes are perceived as positive by the American public depends on how we make the transition. Getting it wrong could make climate progress much more challenging.

Renewable energy development can deliver substantial environmental and economic benefits, while creating jobs for local communities that are safe, well-paid and offer a career pathway. Achieving this will require that the key actors, including power purchasers, investors, developers and regulators, expand their analysis of the potential impacts and opportunities of clean energy projects beyond cost and scale to include local jobs, communities and sensitive ecosystems and resources.

As we gear up for necessary acceleration of this energy transition during the next decade, we recommend the clean energy industry adopt five best practices to help ensure that the transition to clean energy in the U.S. is just, equitable and sustainable:

- **Engage stakeholders** about environmental, workforce and community concerns throughout the clean energy development process.
- **Protect and efficiently use environmental resources** by employing best practices for siting, wildlife protection, compensation and community involvement.
- **Adopt responsible contracting policies** that provide a framework for ensuring a clean energy transition delivers on its promise of good jobs and economic opportunity for local workers and communities.
- **Provide meaningful local economic benefits** by investing in, helping develop or advocating workforce investment, with a focus on underserved communities and workers of color and just transitions for conventional energy workers being displaced by clean energy projects.
- **Ensure compliance and monitoring** by evaluating developer commitment to provide long-term transparency for all project partners and stakeholders.

We have the opportunity now with the transformation of the U.S. energy grid to adopt practices that will ensure that this is a just transition, one that delivers local benefits, addresses negative impacts and expands support for clean energy policies and projects, starting with local communities.



The Business Case for Just, Equitable and Sustainable Clean Energy

The deployment of renewable energy at a massive scale is transforming the American landscape.

Propelled by concerns over climate change and plummeting renewable energy costs, large companies that are among the largest consumers of electricity and states and cities that have adopted renewable energy mandates are driving the build-out of wind and solar energy farms across the U.S. During the past decade, the cost of solar deployments plummeted by **more than 80%**, while the cost of building large wind farms declined by **more than 40%**, making solar and wind the **cheapest form** of new electricity in the world, including in the U.S.

The result:

For the first time ever, renewable energy consumption in the U.S. **surpassed coal in 2019**, while outputs from renewables are on track to **surpass natural gas** as soon as 2028. Renewable energy is forecast to be the **fastest growing power source** in the U.S. in 2020. Between now and 2050, around **\$11 trillion** will be poured into renewable energy power projects globally, with the U.S. accounting for \$1.7 trillion. The first and third fastest growing occupations in the U.S. are in wind and solar and, overall, the industry now employs **523,000 people**, a little less than half the number in the fossil fuel industry.

In some cases, this reshaping of the energy grid is delivering as promised, creating jobs and economic opportunity for local workers and communities. For instance, Xcel Energy and cooperatively-owned Great River Energy have both incorporated the creation of high-quality jobs and use of skilled local labor into their resource planning and project development process, which has translated into hundreds of new jobs and growing local support for clean energy in Minnesota.

Sometimes, however, the wind turbines and solar panels cropping up across America are not only manufactured thousands of miles away, but also installed by low-wage or traveling workers who move temporarily to communities to build a project, reducing the economic and workforce development benefits to local communities. At the same time, the communities and workers that kept the lights on for generations by extracting and burning fossil fuels face potentially devastating losses of family supporting jobs, business opportunities and tax revenues as fossil fuel plants retire.

As the energy transition gains even more momentum, it is becoming clear that this shift—for all its opportunities—also carries risks that could threaten the fortunes of the industry, the workforce in previously fossil fuel communities and the timely deployment of clean energy infrastructure across the U.S. These risks are not limited to just one or two actors. They affect everyone involved in this transformation of the grid, from regulators and energy purchasers to developers and investors.

For clean energy developers and contractors, a failure to prioritize local job creation and health and environmental safety throughout the entire process, including land acquisition, permitting, construction, operations, maintenance and changes to policy or regulation, could create a host of financial and brand risks.



Local politicians and regulators will be loathe to welcome clean energy development to a community if local stakeholders have not been engaged to ensure that the project will provide deep community benefits for the local workforce and environment. Lack of community support could undermine the rapid deployment of clean energy at precisely the time we need it most.

A lack of recognition of these risks on the part of investors and corporate energy buyers, meantime, could lead to costly delays in projects and reputational risks. With the price of wind turbines and solar panels continuing to drop year over year as technology improves, there is no question that clean energy can afford to deliver environmental benefits and cost savings along with worker safety, community benefits and protection of critical environmental habitats and resources.

By adopting practices that ensure the just, equitable and sustainable development of clean energy resources, the key players in the clean energy industry will unleash new opportunities including:

- **Helping** shape key regulations by collaborating with local governments, communities and unions.
- **Improving** customer loyalty and brand recognition and cement the license to operate in a community by engaging with stakeholders throughout the planning and building process.
- **Spurring** employee productivity, creativity and flexibility by ensuring good workforce conditions, equal opportunities and local hiring.
- **Getting** access to technical talent by supporting and investing in retraining programs.
- **Building** support for future projects by demonstrating a track record of pursuing projects designed to maximize benefits and minimize impacts.

Many leading clean energy developers already employ some, if not all, of the best practices because they recognize that their success depends on stable reputations and long-term results. They understand that the business case for renewable energy includes environmental, economic and social benefits. But it is not hard to find examples of developers whose practices have apparently hurt their customers and clean energy development broadly by fueling community opposition and burning bridges with local stakeholders who could have been project proponents.





Best Practices for Changing the Process

The first step the clean energy industry can take to address and mitigate the sustainability risks is to commit to just, equitable and sustainable development practices that deliver local benefits, address negative impacts and expand support for clean energy policies and projects, especially within local communities.

Sustainable development of clean energy projects requires developers operate in an ethical and transparent manner while also applying best practices that ensure: **1/** robust stakeholder engagement; **2/** protection and efficient use of environmental resources; **3/** responsible contracting—creating and maintaining high-quality jobs; **4/** meaningful local economic benefits, including employment opportunities for local workers; and **5/** compliance and monitoring to ensure long term transparency for all project partners and stakeholders.

1/ Engage Stakeholders

Permitting authorities, utilities, private power purchasers, project developers, construction companies and investors can ensure that projects have robust stakeholder engagement processes that result in environmental, workforce and community concerns being addressed at every stage in the clean energy development process.

Stakeholder engagement is a critical piece of any successful clean energy project and one that needs to happen early in the development of a project. Ignoring this step risks leading to misconceptions on the part of the local community and government and a lack of understanding of key concerns on the part of the developer, energy buyer and investor. Missteps early on can hurt the reputation and trustworthiness of the players involved in the project and threaten the viability not just of a specific project, but of other projects in a community or even a state.

By engaging stakeholders from the beginning to analyze the risks and understand community concerns, the backers of a project can create buy-in, cement the project's social license to operate and can work together with the community, regulators and policy makers to hammer out a project that benefits everyone. This stakeholder engagement is especially key as the scale and pace of the transition increases, impacting communities through a transition away from conventional energy jobs and massive build-outs of wind and solar farms.

Depending on the project, stakeholder engagement would include the local environmental community, local residents, workers and their union representatives, advocates of community economic development and land-owners. Discussions during these engagements would touch on topics such as how transparent the developer is on sharing project plans, outcomes and the company's track record on other similar projects, what steps the company has taken to maximize community benefits in the past, and what the company's track record with respect to employment of local workers has been.

Clean energy developers also face opposition from stakeholders that could be champions—local workers and labor union members who become frustrated by the failure of some in the industry to prioritize the hiring and development of a highly skilled local workforce that would deliver local economic benefits often promised as part of renewable energy investments. Resolving these issues will require the input of regulators, policymakers and developers. And it will require oversight by buyers and investors.

Lessons Learned

Minnesota, a long-time leader in renewable energy policy and deployment, provides a lesson in how stakeholder engagement can go from contentious to productive. In 2017, the state began seeing a backlash because of the use of out-of-state or low-wage temporary workers by some developers. In response, the Minnesota's Building Trades, which represent 70,000 union construction workers, [announced its opposition](#) to future energy projects that largely exclude locals or put workers at risk due to unsafe or unfair employment practices.

The dispute [came to a head](#) in 2018 when a coalition of construction unions and clean energy advocates, including the incoming Democratic leadership of Minnesota's House of Representatives, asked the state's Public Utilities Commission not to approve a proposed 150 MW wind project, citing the developer's past use of out-of-state workforce. The [subsequent hearings](#) were apparently a surprise not just to the developer, but also to the wind project's anonymous customer—a leading technology company. Yet, they also created an opportunity for dialogue, analysis and policymaking that reset the playing field.

Minnesota's Public Utilities Commission now [requires](#) developers to file quarterly reports on the use of local and non-local workforce to build large wind and solar projects. The data shows wide variation in local labor content, ranging from 12 to 68%, for projects built in the same part of the state during a relatively brief span of time. Reports filed with the commission also help to dispel the myth that the use of non-local labor was the result of low area unemployment rates or skill gaps.

A [2019 report](#) by Local Jobs North, a labor-backed campaign to boost use of local workforces, found that the local share of the wind energy construction workforce jumped from less than 20% to well over 50% within a year, an increase attributable in part to the commission's new local hire reporting requirement. The report estimated that use of a majority-local workforce could boost the local economic benefit of wind energy construction payrolls by \$62 million—a 54% increase compared to the previous reliance on a largely non-local workforce. The results show how local hiring can be driven by contractors' workforce strategies, including partnerships with local unions and apprenticeship programs, rather than underlying labor market conditions.

Lessons Lost

Michigan union workers have been among the clean energy industry's strongest champions in the state's Upper Peninsula, where wind energy development has become highly controversial. But union members in February 2020 [picketed construction](#) of a large wind farm that will supply power to Michigan's largest utility, DTE. The project's developer had solicited the support of a local union during the approval process, including holding a promotional event at a union training center. When it was time to start pouring foundations and putting up wind turbines, the developer brought in a general contractor that relied heavily on out-of-state workforce, according to the union.

One union representative explained his members' sense of betrayal to a local television station: "We came out and we spoke on behalf of the wind farm. Told them it was going to be a good thing, employ local people and they agreed with us. And said they were going to hire local union guys to this project."



2/ Protect and Efficiently Use environmental Resources

The benefits of clean energy infrastructure go far beyond lowering greenhouse house gas emissions; the clean energy transition delivers cleaner air and helps end the destructive impacts that extracting and consuming fossil fuels have on our land and natural habitats, as well as our rivers, lakes and oceans.

But the construction and operation of utility-scale clean energy facilities can also negatively impact species, soil, water and other environmental resources. With biodiversity already under threat from rapid urbanization and the growing nationwide water crisis, the build-out of these solar and wind farms and transmission lines needed to achieve a net-zero world risks putting even more pressure on critical land and habitats and clean water. Wind and solar generation requires at least **10 times as much land** per unit of power produced compared to coal-or natural gas-fired power plants (including land disturbed during the production and transportation of fossil fuels), according to the Brookings Institute. To achieve deep carbonization by 2050, the footprint of the U.S. wind and solar energy could be **as big as 76 million acres**, estimates The Nature Conservancy.

Sustainable development of clean energy on a large scale will require careful attention to siting, engineering, construction and maintenance to avoid environmental damage and opposition to projects that could lead to project delays and higher costs. A growing number of environmental groups are focusing on how solar energy facilities are being sited, especially in prime farmland or critical habitat and forests, and are pushing for localities and states to take into account the cumulative impact of clean energy projects. In 2019, Maryland regulators **denied permits** for **two solar projects** that would have cleared 400 acres of woodlands, citing concerns about water quality.

A commitment to best practices can help to minimize environmental impacts while gaining public support for rapid build-out of needed infrastructure. The U.S. Fish & Wildlife Service, for example, has published a [best-practice manual](#) for the siting, construction and operation of land-based wind energy facilities.

In some cases, it can be as simple as ensuring that engineering and construction functions are managed by responsible firms that understand the local environment and employ a skilled workforce. Energy purchasers and investors can disincentivize development of projects in critical habitats or prime farmland by integrating criteria for land and habitat citing and management into their procurement or financing agreements, helping reduce business risks including project delays and increased costs while advancing their energy, climate and conservation goals.

As part of strategic rethinking of what makes a “best project,” tech company Salesforce created a renewable energy procurement matrix that is used to score the renewable energy procurement projects it works with based on economic, social and environmental criteria. Each of these criteria is weighted according to Salesforce’s own prioritization to reflect the tradeoffs being made between them. Projects are then scored across each criteria, based on their Request for Proposal (RFP) responses.

Engaging with the community early, often and transparently, including local authorities, citizens, landowners, businesses and non-governmental organizations, is essential and pays dividends. A nationwide survey published in 2019 by the Lawrence Berkeley National Laboratory of people living near wind turbines found that positive attitudes correlated to community members feeling that they were fairly involved in the planning process and were being compensated for the project.



Lessons Learned

Cummins, a fortune 500 company headquartered in Indiana, worked with the Environmental Defense Fund and the Nature Conservancy to ensure that the project they procured energy from posed minimal risk to wildlife. The company [worked](#) with the project developer to ensure that special care be taken not to destroy or interfere with the natural habitat of the local bat and bird populations.

As part of its plan to increase the use of renewable energy company wide by 2020, the company, which manufactures heavy equipment, worked with the project developer to ensure that special care be taken not to destroy or interfere with the natural habitat of the local bat and bird populations. Cummins wanted to be sure that minimal undeveloped land would be disturbed by the project and would have minimal impact on sensitive habitats.

The partnership with EDF and the Nature Conservancy stemmed from the analysis the Cummins team undertook to minimize the impact the project would have on land and water usages and on wildlife.

Lessons Lost

Much attention has been paid to the impact of wind energy installations on bat and bird species, but clean energy projects have also come under scrutiny for other types of impacts.

Stormwater management and water retention, for example, have become such significant issues for Minnesota solar energy projects that the state's Department of Commerce, which conducts environmental review for large energy facilities, [issued comments](#) in a solar permitting case in January 2020 stating that "Numerous other solar project sites have experienced major construction issues due to stormwater runoff, water retention in farmed wetlands, and wet soils. These conditions resulted in construction delays and temporary site degradation, including trenches filled with water, rutting, road mud, erosion, as well as long-term wetland impacts and increased costs." A high-profile incident occurred in 2018 when a community solar garden in Scandia, Minnesota was the source of a stormwater breach that dumped about "100 tons of sediment" into a tributary of the St. Croix River, according to a local watershed director.



3/ Adopt Responsible Contracting Policies

Ensuring that clean energy projects are built safely and well, using industry best practices and in compliance with applicable laws and rules, is built on the use of responsible contractor policies. These policies create a framework for embedding key just practices in a project, providing guidance so that the clean energy transition delivers on its promise of good jobs and economic opportunity for local workers and communities.

Addressing job creation, job quality and workforce training in the procurement process can build community support for renewables projects and reduce the risks of project delays and disruptions.

These policies should be designed to ensure that the contractors who manage the building and maintenance of clean energy infrastructure consistently protect worker and public safety, provide fair wages, benefits and training, have a workplace free from discrimination, harassment or retaliation, comply with applicable laws and regulations and ensure that all subcontractors meet the same standards.

Buyers of renewable energy should align their RFPs, their bid review processes and their power purchase agreements (PPAs) with the worker expectations of responsible contractor policies (generally adopted by investors), and the best practices of regulators and policy makers who seek to ensure good local economic and workforce development for renewables projects.

A few key just transition practices for maximizing job quality and safety should be part of a request for developer proposals or power purchase agreement. These include requiring developers to engage organized labor early in the development process well before bidding so that local signatory contractors are notified of the bid opportunity. The policies should ensure that Project Labor Agreements, Community Workforce Agreements and prevailing wage requirements are being used for all construction. They should also provide a strong neutrality policy that requires the firm and contractors and subcontractors retained by the firm to protect workers' rights to organize.

Lessons Learned

ULLICO, an infrastructure and real estate asset manager ranked number one by the National Association of Building Trades Unions (NABTU) on its [annual asset manager scorecard](#) for its strong responsible contractor policy covering all of the active investments in its Infrastructure Fund. The Ullico Infrastructure Fund finished 2019 with \$1.7 billion in assets under management and a portfolio of fifteen completed transactions covering 260 assets in wind, solar, natural gas energy generation, electricity transmission, water distribution and treatment, and transportation and social infrastructure.

Two active Ullico Infrastructure Fund investments have created an [estimated six million working hours](#) for unionized workers. ULLICO's Responsible Contractor Policy covers construction, operations and sourcing materials for the project. All construction is done with a unionized workforce. If the investment includes project operations, then the workers are free to organize without interference. Whenever there are pre-existing collective bargaining agreements and ULLICO acquires an asset, they honor the agreement. For all materials, ULLICO applies its [labor standards](#) to the materials manufacturing.

Lessons Lost

Clean energy construction can be a dangerous business. In wind energy installation, for example, heavy equipment movements, huge suspended loads, live electrical connections and towers that are hundreds of feet tall expose workers to OSHA's "Fatal Four" workplace hazards. The safety programs and training protocols employed by leading contractors have helped to minimize worker deaths. Yet some contractors appear to experience fatalities at higher rates than others, and safety commitments are being tested as the industry races to meet Production Tax Credit deadlines. At [least six workers have died](#) on wind energy construction projects since 2015, including four in the past two years.

Washington State experienced a [worst-case scenario](#) for clean energy development in January of 2020 when Jonathan Stringer, a 24 year-old temporary worker employed by staffing agency AeroTek, was evidently buried alive trying to help a co-worker out of a collapsing trench on the RES Americas' Skookumchuck Wind project. In July, the state's Department of Labor & Industries cited RES Americas Construction, Inc. for six violations and RES Americas System 3, LLC for eight violations, with [total proposed fines](#) exceeding \$500,000.

4/ Provide Meaningful Local Economic Benefits

A commitment to supporting workforce investment and just transitions for workers who are being displaced by the shift from conventional to clean energy sources will be fundamental to the clean energy industry's long-term success and support.

The clean energy industry cannot single-handedly take responsibility for development of a skilled, local clean energy workforce or for providing employment to workers who are losing jobs in coal-fired power plants. But the industry can help shape how these shifts happen by supporting workforce investment and just transitions for workers who are being displaced. For instance, the industry can partner with labor-management apprenticeship and training programs that operate under the oversight of relevant federal agencies (“registered apprenticeship”) and prioritize opportunities for displaced workers in the construction and maintenance of clean energy facilities.

This is the moment to ensure that communities of color are included in the local economic benefits of clean energy projects. Developers, power purchasers, project regulators and investors can set equity targets to sustain and increase workforce diversity in collaboration with registered apprenticeship and other workforce partners.

In addition to a responsible contractor policy, local hire agreements, which are commitments to use registered apprenticeship programs and other community benefit agreements, can improve the outcomes of clean energy projects and build public support for the transition to clean energy.

Buyers of renewable energy can require that developers provide new employment, training and career opportunities to the conventional energy workforce wherever feasible. They can add a preference into their RFPs for contractors that use federally regulated apprenticeship programs to build a local workforce with job skills for clean energy construction, operations, and maintenance. They can require that developers engage with community partners and query the developers’ track record for community responsiveness and engagement around local hire and equity issues. And buyers, with their developer partners, can look for appropriate opportunities to make other business investments and create local jobs in the local community.

More broadly, buyers, community partners and unions along with investors can use their lobbying heft to help craft and back federal, state and local strategies, programs and project approval criteria that anticipate this displacement on a wider scale and work to address it.



Lessons Learned

The wind energy industry's growing use of local labor is creating opportunities for a new generation of Minnesotans to pursue construction careers by enrolling in registered apprenticeship programs. For example, [job opportunities](#) on the Xcel Energy's Blazing Star and Tenaska Power's Nobles 2 wind projects allowed a program affiliated with Ironworkers Local 512 to admit new apprentices.

Increased use of local workforce and training programs like these have boosted support for clean energy projects and policy in Minnesota. LIUNA Minnesota & North Dakota and Ironworkers Local 512, whose members help to build wind energy facilities, partnered with industry trade association Clean Grid Alliance to support ambitious clean energy legislation at the state level. LIUNA Minnesota & North Dakota, whose members also maintain coal-fired power generation and build oil pipelines, also signed an [historic agreement](#) in May 2019 with clean energy advocates and Xcel Energy, which proposed early retirement of coal plants and increased use of local workforce and registered apprenticeship programs for solar and wind projects.

Lessons Lost

North Dakota has gone from a state where clean energy developers could generally count on state and local regulators to approve new wind farm permits to one where its clean energy future hangs in the balance. The combination of a "war on coal" narrative as local coal mines and plants have shut down and the renewable industry's failure to employ enough local construction workers has made wind permitting increasingly contentious. A report by [Local Jobs North](#) estimates that reliance on out-of-state workers to fill four in every five wind energy construction jobs has cost North Dakota more than \$60 million in lost economic activity.

Concern over the future of coal came to a boil when Great River Energy (GRE) announced in 2020 that the state's largest coal plant will [cease operations](#) in 2022, generating an intense political [backlash](#) against both the utility and the wind industry. GRE's plans to build 1,100 MW of wind in the area [were stymied](#) when officials in McLean County, which is home to Coal Creek, adopted new restrictions on the siting of wind turbines and transmission lines. The county's pre-emptive strike amounted to a self-inflicted wound, since it will cost local residents hundreds of wind energy construction jobs while failing to delay the retirement of Coal Creek. But this did not prevent neighboring Mercer County from imposing a [similar moratorium](#) on the permitting of new renewable energy projects in an effort to protect its own coal industry, and other counties are reportedly considering following suit.



5/ Ensure Compliance and Monitoring

While there currently isn't a comprehensive just transition benchmark for renewable energy developers, a qualitative questionnaire approach for evaluating developer commitment to a just transition will provide a nuanced picture of whether they have adopted just transition principles. And it will demonstrate whether they are engaging with workers and communities around the issues of job creation, job quality, equity, job training and worker safety. This will provide buyers and investors with the insight needed to rank proposals that will contribute the full range of benefits possible from the development of clean energy.

Buyers and investors must look beyond what developers promise as “best efforts” and determine whether the developer has a track record of good practices.

National and local building trades unions and councils, including North America's Building Trades Unions (NABTU) and local building trades councils affiliated with the AFL-CIO, will be a useful source of information based on past experiences with developers and their contractors. To meet best practices, job safety practices should be transparent and made available to buyers and union representatives. Records of labor disputes and their resolution should be transparent to buyers and investors. Whistleblower protections should encourage workers to report concerns, incidents, and injuries without fear of retaliation.

Labor and management construction monitoring programs include prevailing wage monitoring of weekly certified payroll, construction site observations and field interviews of workers on the project to ensure workers are being reported and paid the proper wage, as well as random payroll confirmations, such as copies of check stubs, time cards and worker cancelled checks. These programs can correct potential wage or benefit violations before they disrupt the project, ensure a level playing field for all contractors bidding with the proper prevailing wage rates in mind and deter worker complaints and other prevailing wage issues that may hold up project completion or closeout.

Best practices around workplace safety and health include engaging workers and their representatives in the development of a comprehensive program and encouraging workers to participate in identifying safety and health hazards and developing solutions to improve safety and health. [Recommended practices include](#) transparent documentation of hazards and near misses, routine and random site inspections, training for workers and regular evaluation of the program performance.

Environmental monitoring cannot end with the Environmental Impact Report issued before permitting. Robust ongoing monitoring and reporting of environmental impacts during construction and operations will enhance community support and ensure that siting and species preservation efforts by the developer are realized when the project is in operation.



Conclusion

While it is clear that we must deploy clean energy as quickly as possible, we need to do it in the right way, so that we build the political, social, and human capital we will need to move our country to a net-zero future. Clean energy companies can't act alone. Up until now, to gain a share in the energy market, most market participants have been driven to focus on costs. As the pressures from the economy and society around the rapid and massive development of renewable energy grows because of the climate crisis, we need a reset. It is critical that we take stock of the risks that continuing down this course will have, along with the missed opportunities.

Everyone involved in developing the market, from the developers to the investors, the buyers to the regulators, will need to start from the same perspective—that a just, sustainable transition will guarantee the economic and social success of the deployment of renewable energy at a massive scale. The principles we lay out here are a starting place for getting to that goal. They are all based on some basic questions that every actor should be asking:

Questions about stakeholder engagement include:

1. What is the company's verifiable reputation in areas where projects have been developed or development has been attempted?
2. Is the company transparent with respect to sharing project plans, outcomes and the company's track record on other similar projects, including sharing information on environmental concerns and their mitigation, local employment and business opportunities?
3. What steps has the company taken or committed to take to maximize employment opportunities for local workers and ensure high-quality jobs with good wages, benefits and career ladders? What is the developer or construction company's history in collective bargaining and engagement with local labor representatives?
4. What is the company's track record with respect to employment of local workers and how does the record compare to that of competitors?
5. How does the company engage local environmental groups, state and local environmental protection agencies and other environmental advocates, including the environmental justice community?
6. What steps has the company taken to maximize the community benefits of past projects?

Questions about environmental practices include:

1. What siting, engineering and construction practices does the company use to minimize environmental impacts and maximize efficient use of resources?
2. How are disparate environmental impacts on disadvantaged local communities being addressed in project development, construction and electricity pricing?
3. What environmental benefits have been built into project plans in addition to lower emission power?
4. What standards, best practices and processes will the project employ at each stage to ensure that environmental impacts on species, soil, water, wetlands and other environmental resources will be maintained?

Questions about responsible contracting include:

1. Has the company (corporate customer, developer, investor or utility) adopted a Responsible Contractor Policy that comprehensively applies affirmative performance, responsibility and safety standards across the company's operations and investments, including contracts for the purchase of energy from facilities where the company is a sole or major customer?
2. What are the minimum contractor requirements in the areas of environmental protection, past performance and qualifications, worker and public safety, whistleblower protection, workforce practices, legal compliance and general ethical conduct?
3. Are local trade unions and other stakeholders engaged to identify responsible bidders that invest in safety, skill and workforce development?
4. What are the project's compliance and correction systems? Who is responsible and are there clear plans of action for addressing compliance issues? Does compliance include a zero injury goal and meaningful labor and whistleblower protections that ensure that workers can report concerns, incidents and injuries without fear of retaliation?

Questions about local economic benefits include:

1. What are the project's local hire commitments?
2. Does the company prioritize hiring of displaced workers from extractive industries?
3. Does the company require use of or give preference to contractors that participate in registered apprenticeship programs that cover the local areas and job skills relevant to the company's clean energy construction projects?





Tool Kit

Resources for Energy Procurers

The decisions energy procurers make about the types of renewable projects they back and choose to purchase energy from play a critical part in determining the type of renewable transition we will see. Below are some key resources to helping energy procurers address risks.

[More than a Megawatt](#)

In October 2020, Salesforce published a renewable energy procurement matrix that the tech company developed with the input of sustainability groups including Ceres, The Nature Conservancy and the Renewable Energy Buyers Alliance. Described in detail in the [More than a Megawatt](#) whitepaper, this tool is used to score the renewable energy procurement projects Salesforce is working with based on a variety of economic, environmental and social criteria. As part of this matrix, the Salesforce whitepaper lays out a qualitative evaluation approach that includes a set of RFP questions that will help evaluate development commitment to a just transition.

Recommended RFP Questions

1. Will the project be built and maintained under a Responsible Contractor Policy that includes affirmative performance, labor, environmental, and safety standards along with transparency and whistleblower protections?
2. Will jobs created by the project offer pay, benefits and career opportunities consistent with area standards for conventional energy jobs (e.g. coal, gas plants)?
3. Will the developer and EPC contractor partner with registered apprenticeship programs to train and employ workers who work in conventional energy and/or come from environmental justice communities?
4. Will the developer and EPC contractor work with local stakeholders, including labor unions, to maximize use of local workforce to build and maintain the project?

REBA Institute Research

The [Renewable Energy Buyers Alliance](#) (REBA), an alliance of clean energy buyers, service providers and NGOs working to unlock the marketplace for renewable energy buyers and accelerate the transition to a zero-carbon energy future, launched a project to gather feedback and input from large energy buyers, NGOs and scientists to build out a robust tool for all buyers to use when selecting renewable energy projects.

Resources for Clean Energy Investors

Investors can have a significant impact on ensuring that the developers they are funding are adopting and following these best practices. It is not the role of investors to be involved in on-the-ground operating decision-making. But by establishing standards and guidelines they want their investments to meet and by tracking the ESG risks of these investments, they can shape projects.

The starting point is adopting a responsible contractor policy that the firm expects its investments to follow. Ensuring that they are being implemented is the next step.

[Model Responsible Contractor Policy](#)

This policy provides an example of the approach that one investor is taking in laying out a framework of its expectations.

[NABTU Infrastructure Manager Report Card](#)

This evaluation by the NABTU of how well real estate and infrastructure investment managers are implementing policies provides an example of how to track whether the policies are being followed.

Resources for Clean Energy Project Developers

Clean energy developers face a wide range of risks related to the development and execution of projects, including land acquisition, labor issues, permitting, construction, operations and maintenance, and changes to policy or regulation.

[U.S. Fish and Wildlife Service Land-Based Wind Energy Guidelines](#)

This manual lays out detailed best practices for the siting, construction and operation of land-based wind energy facilities.

[Site Wind Right](#)

This interactive online map uses GIS technology and pulls from more than 100 data sets on wind resources, wildlife habitat, current land use and infrastructure to help inform siting decisions across 17 states. Tools and technologies and research support for the [American Wind Wildlife Institute](#), the [Avian Solar Working Group](#), and the [Bats and Wind Energy Cooperative](#) can help reduce the impact on wildlife of renewable energy projects.

[Model Project Labor Agreement](#)

This agreement provides an example of how developers can clearly lay out a framework that establishes the terms and conditions of employment for a specific construction project.

[National Survey of Attitudes of Wind Power Project Neighbors](#)

This four-year project from the Lawrence Berkeley National Laboratory and funded by the U.S. Department of Energy collected data from a broad-based and representative sample of individuals living near U.S. wind power projects. The aim was to widen the understanding of how U.S. communities are reacting to the deployment of wind turbines and provide insights into successful approaches to developing wind projects.

[ACORE](#)

The American Council on Renewable Energy has been an advocate for government policy and government incentives that will support just, equitable and sustainable clean energy project development.