

Powering On: Four Factors to Energize a Corporate Renewable Energy Program

November 2018

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MANAGEMENT CONSULTANTS



CORPORATE RENEWABLE ENERGY PROGRAM

The private sector is increasingly turning to renewable energy to achieve corporate sustainability goals. In order to accomplish this successfully, these companies depend on a clear corporate renewable energy program. A corporate renewable energy program is an implementation and management framework to help companies integrate renewable energy into their business operations. An effective program will include a clear goal (e.g., 100% renewable energy sourcing), a defined procurement strategy (e.g., renewable energy certificates (RECs), power purchase agreements (PPAs), etc.), and an iterative underlying process for ongoing management.

There is a range of corporate renewable energy goals and diverse strategies available to achieve them. Strategies include developing customer-owned on-site generation, purchasing RECs, participating in utility green tariffs, or signing a PPA directly with an on-site or off-site renewable energy project.

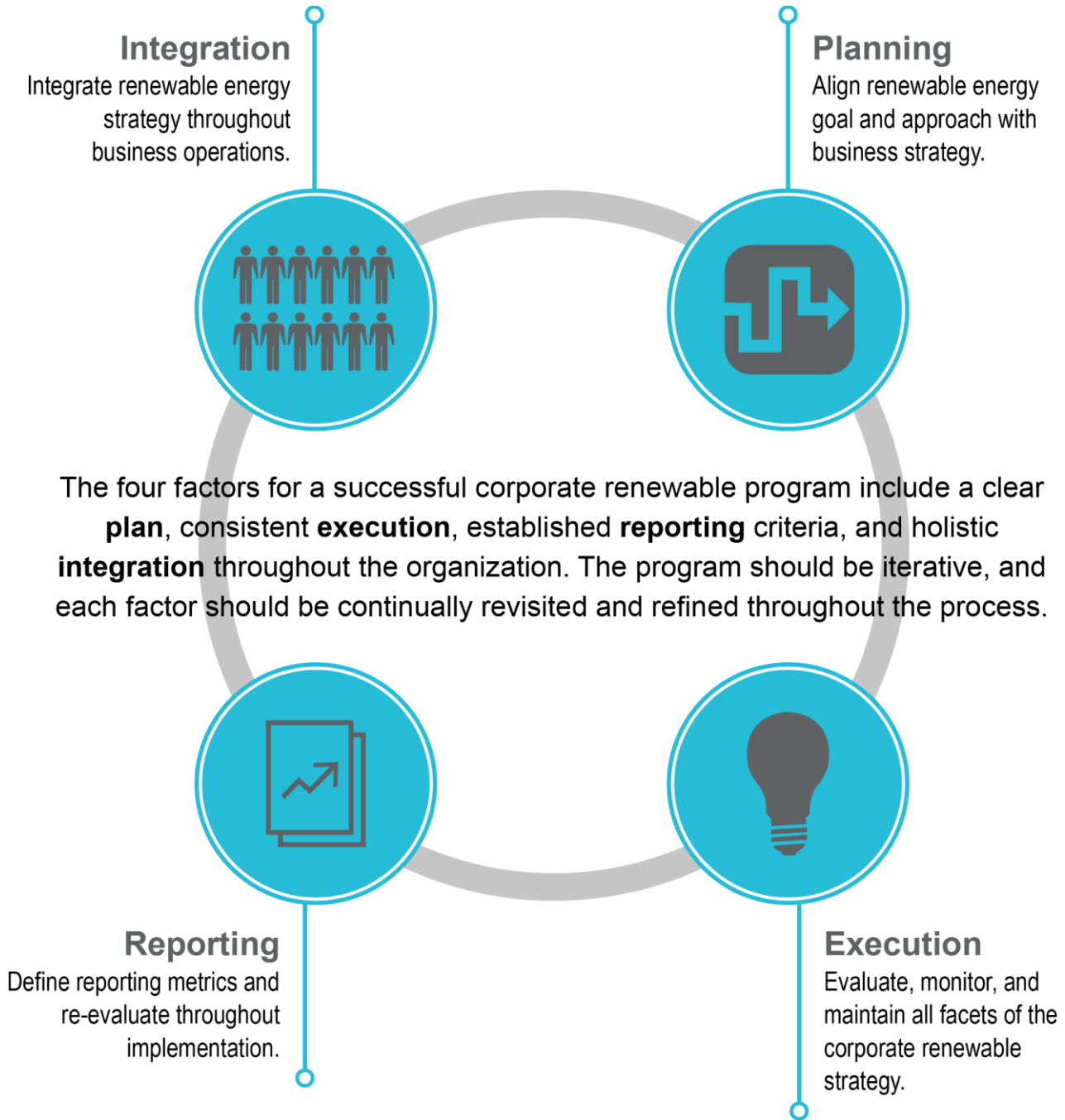
While RECs continue to be the primary approach to renewable energy procurement in the United States, corporate renewable PPAs and other installation contracts are becoming increasingly popular. For example, in 2016, companies aiming to achieve 100% renewable energy sourced 20% of the 11.6 TWh procured through corporate renewable programs from corporate renewable PPAs, a substantial jump from a mere 1% in 2015.

Regardless of a company's goal and strategy, ScottMadden has identified four key factors that make up a successful corporate renewable program:

- A **plan** that aligns a company's renewable goal and strategy with its business strategies
- Consistent **execution** and attention to all facets of the renewable strategy
- Pre-determined **reporting** metrics
- Internal and external **integration** throughout business operations

As detailed in Figure 1, these four factors are not linear, and companies should refine them throughout the process. A comprehensive and carefully executed program can help a company successfully transition toward renewable energy and achieve its energy goals.

Figure 1: Four Factors for a Successful Corporate Renewable Energy Program



PLANNING



The planning stage includes aligning a company's renewable energy goal and strategy with its overall business strategy. A well-executed plan will account for the extended timeframe associated with renewable energy strategies (e.g., contract terms of up to 25 years), help define the company's renewable energy goal, and outline key approaches to achieve it. Some key considerations during the planning process include:

- **Renewable Energy Goal** – Whether a company's goal is to source 100% renewable electricity, generate a certain percentage of its own electricity, or support an overall clean energy goal, the renewable goal must align with its corporate energy strategy and overall business strategy. Goal setting should be informed by current energy usage and usage profile, as well as long-term changes, including any future energy efficiency measures, site exits, and anticipated growth and acquisitions.
- **Renewable Energy Strategy** – There are multiple options for meeting renewable energy goals, each of which will impact a company's operational strategy and financial reporting differently. Companies must determine their approach prior to executing the strategy. Table 1 describes several types of renewable energy approaches and considerations for each.

Table 1: Strategies to Achieving Renewable Energy Goals

Strategy	Description	Considerations
RECs	RECs are purchased separately from energy and count toward corporate renewable energy goals	<ul style="list-style-type: none"> ▪ Particularly good in countries where RECs are not available ▪ Good for reconciling deficiencies in renewable energy at the end of the year ▪ RECs alone do not provide additionality
Off-site Generation: Bundled PPA	Energy and green attributes (e.g., RECs) are sold together	<ul style="list-style-type: none"> ▪ Single price per MWh for all energy and associated green attributes (all credits, benefits, emissions reductions, offsets, and allowances attributed to the renewable energy generation) ▪ Usually lower than the price of each separately
Off-site Generation: Unbundled PPA	Energy or RECs are purchased separately; product may include energy only or RECs only	<ul style="list-style-type: none"> ▪ Companies cannot report a renewable energy purchase if the RECs are not purchased and retired ▪ Companies may purchase energy only in the initial years of the agreement to account for the difference between the contract and market prices
Off-site Generation: Virtual PPA	Renewable energy is sold to the grid and the company earns or pays the difference between that contract and prices paid under a separate contract to purchase energy from the grid	<ul style="list-style-type: none"> ▪ Form of price hedge ▪ Accounting and finance teams must be included in these arrangements ▪ Unless the RECs are provided to the customer in the agreement, purchasing will not allow the corporation to report the renewable energy purchase

Table 1: Strategies to Achieving Renewable Energy Goals

Strategy	Description	Considerations
On-site Generation: Ownership	Corporation makes initial investment to own the generation facility	<ul style="list-style-type: none"> Eliminates all T&D costs found in off-site PPA contracts Requires significant long-term capital investment
On-site Generation: Lease	Corporation pays a cost of leasing the equipment	<ul style="list-style-type: none"> Eliminates all T&D costs found in off-site PPA contracts Company owns all production, including energy and RECs Eliminates up-front capital requirements
On-site Generation: PPA	Corporation pays for production (bundled or unbundled) of on-site project	<ul style="list-style-type: none"> Eliminates all T&D costs found in off-site PPA contracts Developer builds on the corporation site but maintains ownership of the plant

- Financial Risk** – Long-term power pricing is impossible to forecast; therefore, locking in energy prices for 15 to 25 years is inherently risky. If a company is considering a long-term investment, such as on-site generation or corporate renewable PPAs, it should prepare a long-term financial model that includes a pricing forecast and weighted average cost of capital projection for the duration of the purchase agreement term. Assessing financial risk throughout the long-term contract will help companies align their investment with their financial strategy.

EXECUTION



Execution includes evaluating, monitoring, and maintaining all facets of the corporate renewable strategy, including financial models and reviews. In the case of a PPA, for example, companies need to plan for and assess all aspects of the agreement, including the purchase price, the RFP and financial review process, and ancillary components, such as transmission and interconnection systems. Some key considerations during execution include:

- Financial Models** – Companies will need to create new financial models that incorporate all aspects of corporate renewable procurement. An approach that uses RECs to achieve renewable energy goals may be simple and straightforward; however, incorporating on-site generation or PPAs will be more complex and may include incentives and any costs associated with power sales. Financial models should project out for the entire length of the renewable energy procurement approach.
- RFP Process** – An RFP process will be important for any renewable energy purchase. The process is especially important for corporate renewable PPAs, as the process will be markedly different from purchasing traditional energy. Renewable PPAs go outside the scope of the general corporate RFP process and will likely require additional resources in order to negotiate contract terms. Companies should be prepared to identify delivery modes, transmission routes, and any additional entities that may be necessary to complete the transaction, such as outside legal counsel, delivery organizations, independent system operators, and FERC,

if the company intends to become a power marketer. Continual review of corporate plans and business processes will help a company identify the resources necessary to support the PPA.

- **Interconnection and Transmission** – With a corporate renewable PPA, the buyer must understand where the renewable energy project will interconnect in order to evaluate basis risk. Basis risk represents the price differential between the node where the power enters the electric grid and the trading hub where power is settled. High penetrations of renewables can reduce nodal prices, thereby requiring corporate buyers to cover unexpected basis risk. The basis risk, as well as transmission costs (i.e., wheeling and congestion fees), can impact the overall economics of a transaction.

REPORTING



Corporations and stakeholders are equally interested in a company's progress toward its renewable energy goals, and companies should plan to report and re-evaluate metrics throughout strategy implementation. Companies should be prepared to define performance metrics and incorporate them into the procurement approach. Some key considerations during execution include:

- **Reporting Frameworks** – Companies that choose to formally report corporate sustainability progress should select the reporting framework and metrics prior to pursuing renewable energy options. A clear and accurate reporting structure will help ensure that companies communicate the desired metrics effectively and integrate sustainability into the corporate brand.

Credible Renewable Energy Reporting

Understanding the requirements for credible reporting is important prior to executing a contract. The requirements for a credible claim of renewable energy usage includes:

- Credible generation data
- Attribute aggregation
- Exclusive ownership of attributes
- Exclusive claims on attributes
- Geographic market limitations of claims
- Vintage limitations of claims¹

¹ "Making Credible Renewable Electricity Usage Claims," RE100 Technical Advisory Group Briefing, April 2016, <http://there100.org/reports-briefings>.

- **Auditors** – Auditors can help streamline the PPA negotiation process and ensure the company receives the proper certifications for renewable energy purchases.
- **Corporate Sustainability Goals** – Corporate sustainability goals often include specific renewable energy attributes, such as additionality and locality. Both are important in assessing a company's overall sustainability portfolio, and companies need to understand each framework in order to report them effectively.

- **Additionality** addresses whether the project would have occurred without the corporation's participation. There is some debate on how precisely to measure additionality, but an auditor can confirm a corporation's contribution to additionality.
- **Locality** focuses on the location of renewable energy production. For example, a company consuming electricity in northern California needs to demonstrate that it is also adding renewable energy to the grid in northern California to meet any goals related to locality. If the company purchases RECs from a wind farm in Iowa, it does not contribute to local greenhouse gas emissions reductions in northern California. Companies must evaluate their overall business strategy in order to ensure all attributes are reported accurately.

Additionality and Yahoo

In 2015, Yahoo agreed to a virtual PPA with NJR Clean Energy Ventures for 23 MW from the 48 MW Alexander Wind Farm in Kansas, joining a growing list of companies signing renewable energy contracts directly with developers.

By agreeing to purchase the electricity at a fixed price and lowering the risk to the developer, Yahoo helped make the project a reality and could claim additionality.

If the company purchases RECs from a wind farm in Iowa, it does not contribute to local greenhouse gas emissions reductions in northern California. Companies must evaluate their overall business strategy in order to ensure all attributes are reported accurately.

INTEGRATION



Integration includes incorporating the renewable energy strategy throughout business operations. Companies should be deliberate about integrating their corporate renewable energy strategy into their internal and external business operations. This will help align renewable energy goals with corporate strategies. There are several considerations to help facilitate a smooth integration process:

- **Timing** – Compared to the relative ease of traditional energy purchases, a large-scale, long-term renewable energy purchase requires concerted internal planning prior to the purchase agreement. Companies should be deliberate about engaging corporate stakeholders at the correct time in the process. For example, including stakeholders in the planning process before a PPA is fully defined can lead to an abrupt end to the project. Conversely, waiting too long can lead to internal discord and failure. Recognizing the potential interests of each stakeholder group and addressing these concerns early in the process can help generate buy-in from corporate teams.
- **Executive Sponsor** – Securing an executive sponsor during the planning stage will help maintain momentum and corporate support throughout the life of the program.
- **Level of Engagement** – Effective internal marketing can help companies integrate their corporate and renewable energy strategies. This requires a multi-pronged outreach approach with various degrees of stakeholder action and buy-in. For example, the board of directors will likely not have specific actions related to implementation of a renewable energy strategy, but the board's support is vital to the program's success. Similarly, the sales team is also unlikely to have actionable tasks, but it would need to participate in a PPA planning process in order to market the purchase agreement or engage customers who develop renewable energy.

Other teams will be more directly impacted. Procurement and legal divisions will likely contribute a significant amount of time to the review process, and companies should engage these teams early in the process. Companies may also need to allocate additional resources

to support the legal and financial review. Additional teams may be involved at the end of the procurement process, and anticipating subsequent participation can help a company engage the correct teams at the appropriate times.

To illustrate the potential complexity, Table 2 lists examples of impacted teams and the potential roles they could play during the execution of a corporate renewable PPA.

Regulatory	CSR	Energy Management	Procurement	Board of Directors
<ul style="list-style-type: none"> Negotiate incentives/allowances 	<ul style="list-style-type: none"> New reporting requirements 	<ul style="list-style-type: none"> Procurement strategy adjustments 	<ul style="list-style-type: none"> New RFP process 	<ul style="list-style-type: none"> Approval/support
Finance	Branding/Marketing	Legal	Accounting	Sales
<ul style="list-style-type: none"> Develop new models Financial approvals 	<ul style="list-style-type: none"> PR Marketing Events 	<ul style="list-style-type: none"> Extended contract review Unfamiliar terms Cost of outside counsel 	<ul style="list-style-type: none"> Extended contract review New accounting/reporting requirements 	<ul style="list-style-type: none"> Maintaining customer/vendor balance

- External Opportunities** – External marketing can help a company promote its renewable energy goals and strategy. Planning joint press releases with the renewable energy developer is an effective marketing strategy, but they should be planned in concert with other corporate press releases. External marketing can help streamline a company’s internal and external message and ensure the renewable energy strategy is integrated into both.

A RENEWED STRATEGY

As companies increasingly turn to renewable energy, they are faced with the need to design and implement an overall program that suits their needs. Successful renewable energy programs require a comprehensive, iterative process, and companies should be prepared to develop a renewable energy **plan** that outlines goals and strategies, deliberately **executes** the renewable energy program, diligently tracks and **reports** metrics, and purposefully **integrates** sustainability into corporate goals. While each renewable energy approach or project will have its own nuances, attention to these planning elements will increase the probability of success. Corporate renewable energy strategies and corporate renewable PPAs are trending upward throughout the private sector, and incorporating these process elements can help transform complex energy problems into achievable, sustainable solutions.

ABOUT SCOTTMADDEN

ScottMadden is the management consulting firm that does what it takes to get it done right. Our practice areas include Energy, Clean Tech & Sustainability, Corporate & Shared Services, Grid Transformation, and Rates, Regulation, & Planning. We deliver a broad array of consulting services ranging from strategic planning through implementation across many industries, business units, and functions. To learn more, visit www.scottmadden.com | [Twitter](#) | [Facebook](#) | [LinkedIn](#)

ABOUT SCOTTMADDEN'S CLEAN TECH & SUSTAINABILITY PRACTICE

Leveraging our energy expertise, the ScottMadden Clean Tech & Sustainability practice helps our clients effectively navigate through the quickly changing energy landscape. We specialize in assisting our clients with sustainable energy strategies and making smart portfolio choices. We work with our clients to understand and effectively utilize cleaner, renewable sources of energy, such as wind, solar, bioenergy, and nuclear. Our experienced team of energy practitioners understands the roles of energy efficiency, demand response, and storage as part of an integrated strategy. We also assist clients with sustainability, bringing an understanding of energy-unique concerns.

ABOUT THE AUTHORS

Chris Vlahoplus (chrisv@scottmadden.com) is a partner and leads the firm's Clean Tech & Sustainability practice and Paul Quinlan (pquinlan@scottmadden.com) is a clean tech manager.