



CHAPTER

8

# Capturing the Benefits of the Purchase

To view the full Guide, visit <https://www.epa.gov/greenpower/guide-purchasing-green-power>



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There are many potential benefits to purchasing green power: environmental, economic, stakeholder relations and development of domestic energy resources. Some of them may be benefits internal to your organization, such as price stability or predictability, cost savings, or increased reliability, which are intrinsic to the purchase itself. Others may be satisfying organizational goals for 100 percent renewable energy, reducing the organization's emissions footprint, or enhancing employee satisfaction, which require the organization to be more proactive in communicating results.

For some of these accomplishments, an organization may want to measure and record its accomplishments in a registry or corporate annual report, or through a third-party group campaign or initiative. Companies may also seek recognition for their actions as part of branding, public relations, or product differentiation—and to contribute publicly to the momentum around purchasing green power. In all cases, an organization must own the renewable energy certificates (RECs) to substantiate its green power claims and to take credit for the benefits of its green power purchases. This chapter addresses several ways to capture the environmental and stakeholder relations benefits: emissions inventories, emission reductions, building certification, promotion of purchases and best practices in advancing public claims about environmental benefits.

## The Environmental Benefits

The environmental benefits stemming from an organization's purchase of green power depend on a number of factors, including the quantity of zero-emissions energy purchased and consumed. As a start, organizations should compare the amount of green power purchased or generated and consumed to the full amount of energy used across their facilities. Percentage of green power use is the basis of many environmental claims, and organizations must be able to substantiate and document these claims.

### Value of Emissions Inventories

Concerns about climate change have prompted many organizations to complete an emissions inventory. An inventory is a detailed quantitative calculation of emissions by source and type of greenhouse gas, usually expressed in metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e).

An inventory serves many purposes, including the following:

- Identifying opportunities for reducing and managing emissions.
- Participating in reporting programs and reduction initiatives.
- Documenting an organization's emission reductions as a basis for promoting these actions to customers and other stakeholders.

An inventory also allows organizations to record their emission information in a formal registry. Several emissions registry programs have been established to record emissions inventories, including The Climate Registry (TCR), CDP (formerly the Carbon Disclosure Project), and Wisconsin's Voluntary Emissions Reduction Registry. The U.S. Environmental Protection Agency's (EPA's) Center for Corporate Climate Leadership provides resources and guidance on preparing a corporate emissions inventory.<sup>1</sup> Most registries will refer the prospective user to the Greenhouse Gas (GHG) Protocol at [www.ghgprotocol.org](http://www.ghgprotocol.org) for guidance on how to calculate emissions that will be reported in the registry. Although methods may be based on the GHG Protocol, many registries have their own reporting rules and requirements.

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<sup>1</sup> U.S. Environmental Protection Agency. (n.d.). EPA Center for Corporate Climate Leadership greenhouse gas inventory guidance. Retrieved from <https://www.epa.gov/climateleadership/center-corporate-climate-leadership-greenhouse-gas-inventory-guidance>

## Accounting for Emissions

The GHG Protocol, supported by the World Resources Institute (WRI) and the World Business Council for Sustainable Development, works with organizations around the globe to create accounting and reporting platforms for greenhouse gas emissions. It has established comprehensive and standardized frameworks for measuring and managing emissions. The GHG Protocol is the world's most widely used emissions accounting standard for companies.

In particular, the GHG Protocol Corporate Standard provides requirements and guidance for companies and other organizations preparing an organization-level emissions inventory.<sup>2</sup> This standard and supplemental reporting protocols have been adopted by the largest emissions inventory platforms in the world, including CDP and TCR. The idea is that an emissions inventory is a strong basis for setting emission reduction goals and for measuring progress toward those goals.

Capturing the benefits of emission reductions entails creating an inventory and reporting the organization's emissions, usually in a public registry. If the organization does not want to create a comprehensive emissions inventory, it may simply report that it is purchasing low- or zero-emissions green power (see environmental claims best practice below).

The GHG Protocol provides guidance for accounting for direct emissions (called Scope 1) that are under the direct control of the reporting organization; indirect emissions (called Scope 2) resulting from the organization's purchase of electricity, steam and heat; and other indirect emissions (called Scope 3), which are emissions from the organization's supply chain.

An organization that owns or controls electricity generation facilities is directly responsible for the emissions, and if it creates an emissions inventory, would report those emissions as Scope 1 emissions. If it sells that electricity and its environmental attributes (or the attributes alone) for use by someone else, the purchaser of the electricity and attributes becomes indirectly responsible for those emissions and would report them as Scope 2 emissions. An organization can use zero emissions REC-based green power in place of fossil-fired generation that emits emissions to reduce its Scope 2 emissions responsibility, i.e., its footprint.<sup>3</sup>

Per the Scope 2 Guidance, organizations in a market where electricity supplier or product choices are available must report emissions calculated using two different methods. The location-based method calculates emissions using average emission factors from the grid region(s) where an organization's operations take place, regardless of any direct purchases or contractual agreements an organization may use to purchase green power. The location-based method can show an organization's "business-as-usual" scenario, absent any specific choices of energy supply. It can also show location-specific risks associated with conventional power use, such as air pollution from coal combustion. The market-based method calculates emissions using emission factors that reflect any specific energy choices an organization makes or any contractual agreements it uses to purchase power (e.g., unbundled RECs, power purchase agreements (PPAs), or differentiated utility products). An organization will account for its reduced Scope 2 emissions from green power purchases as part of the market-based method. Regardless of the green power procurement

### Avoided Emissions Claims

When an organization buys and uses green power, the renewable generation affects the operation of other generators on the grid and may reduce emissions. While avoided emissions are conveyed by RECs, organizations must exercise care when making avoided emissions claims because the RECs or generation attributes do not convey tons of emissions reductions. Also, the owner of each generating source that is affected by the organization's use of green power is ultimately responsible for its direct emissions and has the right to claim any resulting tons of direct emissions reductions. There are circumstances, however, where an organization may optionally report its avoided indirect emissions impact under its greenhouse gas inventory. Organizations should understand these subtleties before making avoided emissions claims. See the Scope 2 Guidance referenced in Chapter 10 for more information. The authoring organizations of this document are available to help organization better understand making avoided emissions claims.

<sup>2</sup> Greenhouse Gas Protocol. (n.d.). Corporate standard. Retrieved from <http://ghgprotocol.org/corporate-standard>

<sup>3</sup> The GHG Protocol Scope 2 Guidance explains how to account for green power purchases correctly. Greenhouse Gas Protocol. (2015). Scope 2 guidance. Retrieved from [http://www.ghgprotocol.org/scope\\_2\\_guidance](http://www.ghgprotocol.org/scope_2_guidance)

option used, each purchase must include the renewable attributes of the energy purchased including the emissions factor of renewable source of generation - as reflected in RECs - in order to be claimed in the market-based Scope 2 figure.

## Green Buildings Certification

Renewable energy purchases and on-site generation may earn building owners credit toward a variety of green building standards. For example, the U.S. Green Building Council runs the Leadership in Energy and Environmental Design (LEED) certification program, which recognizes buildings that generate or purchase renewable energy for a certain amount of their electricity use, awarding credit proportional to generation and purchase amount. For purchased renewable energy, LEED requires that renewables meet the Green-e standard, or equivalent.

### Case Study: Using Green Power for Promotion and Branding

Church & Dwight features the Green-e logo on a number of products and brands, including Arm & Hammer, Vitafusion, Lil Critters, and First Response. The Green-e logo represents that these products have been made at manufacturing plants that purchase renewable energy to match 100% of the facilities' annual electricity load. Church & Dwight continues to explore ways to utilize renewable energy for their operations. In addition to other environmental initiatives, the company has committed to achieving carbon neutral status by the end of 2025.

## Promoting the Organization's Purchase

Environmental responsibility has become a major factor in the purchasing decisions of many consumers. Purchasing green power, reducing one's emissions footprint and publicly promoting those purchases and emission reductions can improve an organization's brand and increase the level of trust among environmentally conscious customers. Promotion can motivate an organization's employees by showing them that sustainability is more than a buzzword and that the organization is willing to walk the talk. Promoting green power purchases positions an organization as a market leader and amplifies the environmental impact beyond the organization by influencing customers, suppliers and policymakers.

### Internal Promotion

One of the benefits of buying green power is improving employee morale. It is also important to maintain internal support for purchasing green power. To achieve these goals, companies and organizations often choose to promote their purchase or installation internally using the following methods:

- **Include “energy” or “sustainability” news in internal publications.** Internal publications, such as newsletters or online employee portals, are valuable ways of communicating information to an organization's employees, stakeholders and affiliates. They also help support the organization's mission, growth and development.
- **Establish a staff adoption and recognition program.** Such a program encourages employees to buy green power for their home electricity use through an organization-wide program. A staff adoption program should create incentives, provide information, set milestones for staff purchases over time and recognize individual achievements.
- **Identify ways to measure increased customer attraction and retention from green power purchases.** Many customers prefer doing business with companies that take visible action to protect the environment. Organizations might consider performing surveys of customers to gauge the importance of the organization's green power purchase to them. They should communicate the results to management to show the bottom line impact of green power purchases and ensure continued commitment.

## RECs are Not Offsets

Organizations should take care not to confuse RECs with project offsets. This confusion may arise because RECs and project offsets are both tradable instruments commonly used in U.S. energy markets to account for GHG emissions. However, RECs and project offsets serve different purposes and represent different claims.

- A REC is measured in megawatt-hours and represents the environmental attributes (including emissions from the generating facility) associated with the generation of 1 megawatt-hour of renewable electricity. The organization that purchases REC-based electricity can claim use of zero or low emissions (depending on the actual emissions at the generating facility) electricity, as part of its indirect, or Scope 2, emissions accounting, but RECs are not a basis for claiming global, or Scope 1, direct emission reductions.
- A project offset is measured in metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e) and represents a direct reduction of global GHG emissions that can compensate for or offset emissions made elsewhere. Project offsets may be created from a variety of actions not necessarily related to energy production, such as energy efficiency or changes in land use. While a project offset allows its owner to claim direct global emissions reductions, offsets do not support claims of renewable energy use.

For more information regarding the differences between RECs and Project Offsets please see EPA's white paper titled "Offsets and RECs: What's the Difference?" <https://www.epa.gov/greenpower/offsets-and-recs-whats-difference>.

## External Promotion

Strategic external public relations maximize the positive publicity surrounding an organization's purchase of green power. In addition to the public relations benefits, the purchase can motivate additional green power purchases by the general public, the organization's customers and its supply chain, thereby extending the impact of the initial purchase. To be effective, organizations must be sure to substantiate any claims made, per Federal Trade Commission (FTC) marketing guidelines (see Chapter 10).

- **Construct a public relations plan.** Organizations may construct a plan to communicate their purchases or installations to target audiences. The plan should include strategies for using existing distribution channels such as email, social media, blogs, websites and direct mail to promote the organization and its commitment to renewable energy. An organization can create special print materials and press releases for distribution and conduct email campaigns that distinguish it as an innovative leader. Retail companies sometimes circulate special offers and coupons and even host events—such as renewable energy celebrations—at stores to attract new customers and communicate the benefits of their green power purchases.
- **Use media contacts and press.** An organization may wish to write a press release describing its purchase and circulate it to local and national media outlets. An organization can also research and contact local environmental writers and publications to encourage feature stories about the organization and its commitment to the environment.
- **Train staff to promote the organization's purchase.** Purchasers can instruct their staff about the details of the organization's purchase and the best ways to highlight it to customers in daily sales interactions. Organizations might also teach staff how to answer general questions about renewable energy. Providing presentation slides or other collateral for executives to use when speaking publicly can be effective for reaching audiences other than customers, such as investors or trade press.
- **Take advantage of all opportunities to promote the purchase.** Effective organizations use strategic business engagements and speaking events as well as existing interactions with the public to talk about the organization's environmental commitment. These opportunities might include marketing the organization's purchase on its products and encouraging its suppliers and affiliates to also buy green power. Commercial organizations can offer retail customers the opportunity to sign up for green power at point of sale, and reward them with benefits such as discounts or gift cards, merchandise or collateral products (e.g., T-shirts, hats) that tout the company as an environmental leader.

- **Work with third-party organizations.** Third-party organizations can help provide credibility to green power purchases that meet minimum purchasing benchmarks. These organizations also offer publicity channels that promote renewable energy. They can share accomplishments throughout networks of peer companies and others. Often, other green power purchasers will acknowledge or echo the initial accomplishment on social media or elsewhere. All the organizations sponsoring this guidebook help their partners and companies publicize their achievements in buying green power. Members of EPA's Green Power Partnership and those who participate in Green-e Marketplace can also use these programs' respective logos in their outreach and communication materials.
- **Participate in awards competitions.** A number of entities recognize leadership in the purchase of renewable energy through an awards program, including EPA's Green Power Partnership and the Center for Resource Solutions' Green-e program as part of the annual Renewable Energy Markets Conference. Once an organization wins such an award it can highlight the award on its website, press releases and other communication materials.

## Example Claims

The FTC and RE100 have guidelines on how to market and promote green power purchases in ways that are not deceptive for consumers, with several examples of deceptive claims. These resources may be found in Chapter 10. Below are some example claims organizations might make regarding their use of renewable energy and purchases of green power.

### Legitimate

- A manufacturer that self-generates half of the electricity for a manufacturing plant while also retaining the associated RECs from its onsite solar array and that also purchases additional RECs to match nonrenewable consumption for the remaining half of the plant may promote on its website that the products manufactured at this plant are manufactured using 100 percent renewable electricity.
- An owner of a local warehouse that sources 100 percent of the warehouses' energy consumption from wind energy via a PPA and maintains ownership of the wind project RECs may promote on its website and in meetings with customers that the warehouse is fully powered by wind.

### Deceptive

- A retail store has a sticker on its front entrance claiming, "Powered by renewable electricity" when only half of the store's electricity use has been matched with purchased RECs.
- A commercial real estate firm advertises to prospective tenants that a building is powered by green power, when the firm has only purchased green power for the common areas and not for the tenant spaces throughout the building.
- A company enters into a PPA with a renewable energy facility for enough power to cover 100 percent of its operations and promotes to customers that it uses renewable energy, but it does not own the RECs associated with the power, which are retained by the project and sold to a compliance entity for the state's renewable portfolio standard program.

## Best Practices

Making unsubstantiated and inaccurate claims about use of green power could lead to legal and financial risks while damaging an organization's reputation. Hence, it is important for organizations to make credible claims and substantiate them through REC ownership and retirement. Organizations can follow the below guidance in making environmental claims:

- **Ensure contractual right to make claims.** The ability of an organization to make claims of using green power is contingent upon its ownership of the environmental attributes associated with the electricity it consumes. In the

United States, RECs represent these environmental attributes. Thus, an organization must ensure it possesses exclusive and full rights to the RECs associated with its electricity consumption to make environmental claims. This rule applies in all cases, whether the organization owns the renewable system or is purchasing the green power from a third-party owned system through an agreement like a physical PPA, financial PPA, or utility program.

- **Ensure green power purchases do not count towards a mandate.** A long-standing consumer requirement of the voluntary market is that buyers want to know that their individual investments in and use of green power do not go towards supporting a mandate that would have otherwise occurred absent the voluntary consumer's proactive use of green power. The concept of going beyond what is mandated is sometimes referred to as "regulatory surplus." Most states prohibit electricity suppliers from counting voluntary demand towards their compliance obligations, but it is worth checking with the supplier.

From a different perspective, some organizations may want to consider the nonvoluntary renewable energy component of their standard electricity service when setting a corporate renewable energy goal. Organizations should be aware that disaggregation of the resource components of the standard electricity supply for corporate renewable energy goal-setting purposes may not be accepted by different programs or for commercial marketing claims. For more information, please see the GHG Protocol and FTC guidance on making renewable electricity use claims.

- **Limit claims to match the scope of the purchase.** If an organization is buying green power to meet only part of its energy consumption or just for a subset of the organization, then the organization's environmental claims must also accurately reflect this scale or scope of the green power purchase.
- **Retain ownership of the RECs from self-generation supply options.** Ownership and/or operation of a renewable energy project on-site does not automatically guarantee claims to the associated RECs, unless the organization retains them. If an organization sells the RECs from its project, it must purchase replacement RECs to support its environmental claims.
- **Retire the RECs associated with green power purchases to prevent double claims.** Making an environmental claim constitutes a retirement of the REC; selling or transferring RECs after making environmental claims leads to double counting, as two different parties will claim the same environmental benefits from the green power purchase. Once the organization makes a green power purchase claim, it must retire the associated RECs (or ensure the RECs are retired on its behalf). The organization can consult with its green power supplier or tracking system representatives on the formal REC retirement options.
- **Buy certified green power to support claims.** Organizations should strive to buy green power products that are certified and verified by independent third-party entities. Certification provides credibility and affirmation of the environmental benefits associated with a green power purchase. The verification process involves auditing by an independent entity, which avoids double counting of environmental benefits while accurately accounting for the quantity and quality of the green power product. Thus, certified and verified green power products bolster credibility and substantiate the environmental claims made by an organization.
- **Limit claims to indirect emissions (Scope 2 emissions).** Organizations should be cautious when making claims related to emission reductions. Purchase of green power reduces only indirect emissions or Scope 2 emissions. Indirect emissions are based on power that an organization buys from an electricity service provider. The emissions factor from the power generator is the critical environmental attribute included in RECs. EPA advises organizations to limit their environmental claims to reduction of emissions footprint, and avoid claims of reducing total organizational emissions emitted into the atmosphere.<sup>4</sup>

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<sup>4</sup> For further guidance, please refer to the GHG Protocol Scope 2 Guidance. Greenhouse Gas Protocol. (2015). Scope 2 guidance. Retrieved from [http://www.ghgprotocol.org/scope\\_2\\_guidance](http://www.ghgprotocol.org/scope_2_guidance)

- **Avoid claiming emissions not included in purchases.** Organizations must limit their claims to only attributes included in the purchase of green power. Claiming emission reductions of nitrogen oxides (NOx) and sulfur oxides (SOx) might necessitate a purchase of those emission allowances independent of the REC purchase. In markets where NOx and SOx are regulated by cap and trade programs, an organization must purchase separate NOx and SOx emission allowances and retire them in order to claim the associated emission reduction. Similarly, in regions with (CO<sub>2</sub>) cap-and-trade programs, though an organization can nevertheless claim receipt of zero-emissions RE and scope 2 reductions, an organization must ensure that allowances have been retired in order to claim avoided grid emissions.
- **Use the terms “REC” and “offset” correctly in claims.** RECs are not project offsets. Using RECs and offsets as interchangeable terms for environmental claims is not an acceptable practice. The definition of offsets can vary across greenhouse gas registries and programs. In regulated cap-and-trade programs, offsets have specific legal meaning as a noun. In voluntary markets, offsets refer to verifiable emission reductions achieved by individual projects, which demonstrate global emissions reductions beyond a baseline, and often are not even related to renewable energy. Offset instruments do not convey a renewable electricity use claim to their owner. Similarly, a REC does not convey a metric ton of global emissions reduced to its owner.
- **Be able to substantiate claims.** An organization’s environmental claims must be substantiated at the time they are made. This means that the organization is able to prove, through legal ownership of generation attributes or RECs (or retirement of same on their behalf by their green power provider), its unique right to make the claim. This demonstration may be made through an audit of contracts to show chain of custody, or by purchasing RECs registered and retired in an independent and transparent REC tracking system.
- **Avoid project claims of “additionality.”** Claims of additionality are often made by consumers to imply project causation and enhanced direct global emissions reduction benefits. Organizations should avoid using the terms “additionality” or “additional” in the context of green power use and renewable energy project development unless the green power project has been shown to meet offset project quality criteria for additionality. Organizations, are encouraged to make verifiable “impact” claims, when such claims are included and conveyed through their chosen supply option or purchase.
- **Follow available market guidance.** The FTC provides important market guidance for environmental claims included in labeling, advertising, promotional materials and all other forms of marketing, whether implied or stated explicitly. Organizations should be familiar with this guidance. The FTC Green Guides cover all claims on environmental attributes for a wide range products and services across all organizational sectors

Many of these best practices can be achieved by purchasing a certified product and ensuring that claims are verified by a third party. Organizations can make informed decisions on environmental claims by consulting the market guidance documents of the FTC, EPA, RE100, WRI, Center for Resource Solutions and others listed in Chapter 10.

