Clean Energy and Emission Reduction Claims:
WHAT YOU NEED TO KNOW
Thousands of organizations worldwide rely on clean energy in the form of energy attribution certificates [such as renewable energy certificates (RECs/I-RECs), Guarantees of Origin (GOs), and GoldPower], carbon offsets (verified emission reductions, or VERs), and power purchase agreements (PPAs) in order to meet their environmental, social, and economic goals.

How organizations can use these products to accurately represent their emissions reductions can sometimes be a source of confusion. Different non-governmental organizations (NGOs) and reporting bodies have varying positions on credible emission reduction claims. Making false or inaccurate claims can lead an organization to run afoul of agencies such as the World Resources Institute (WRI), the Center for Resource Solutions (CRS), the Environmental Protection Agency (EPA), CDP, and even the Federal Trade Commission (FTC).
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Understanding Emission Scopes

Understanding how to communicate about clean energy usage and emissions reductions first requires a foundational knowledge of how greenhouse gases (GHGs) are tracked, quantified, and reported.

The GHG Protocol Corporate Standard—developed jointly by WRI and the World Business Council on Sustainable Development (WBCSD)—is the customary tool for the worldwide accounting of GHG emissions produced by organizations. The collective emissions of a company, generally known as its carbon footprint, are determined by applying a variety of emission factors (multipliers based on the global warming potentials of GHGs) to the organization’s emissions-producing activities. The Protocol divides emissions into three different categories, or scopes. Organizations use different mechanisms to address the impact of each of these scopes.

Direct emissions are from sources that are owned or controlled by an organization.

Indirect emissions are connected to an organization’s activities, but are owned or controlled by a different entity. For example, a company’s purchased electricity is a sizeable component of its carbon footprint, but is ultimately controlled by the utility or governmental agency from which it is purchased.

<table>
<thead>
<tr>
<th>EMISSION SCOPE</th>
<th>EMISSION SOURCE</th>
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<tbody>
<tr>
<td>Scope 1</td>
<td>All direct emissions (e.g. onsite fuel combustion, company-owned vehicles)</td>
</tr>
<tr>
<td>Scope 2</td>
<td>Indirect emissions from purchased electricity, heat, steam, or cooling</td>
</tr>
<tr>
<td>Scope 3</td>
<td>Indirect emissions from sources including, but not limited to:</td>
</tr>
<tr>
<td></td>
<td>» The supply chain</td>
</tr>
<tr>
<td></td>
<td>» Employee commute and business travel</td>
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<td></td>
<td>» Waste disposal</td>
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GHG Reduction Mechanisms and Their Relationship to the GHG Protocol

There are effectively two mechanisms that organizations can utilize to address the reduction of their GHG emissions: 1) energy attribute certificates and 2) verified emission reductions, commonly known as carbon offsets.
Energy Attribute Certificates

RECs, I-RECs, and GOs are all types of Energy Attribute Certificates (EACs), a form of green tags, or tradeable renewable certificates. EACs are produced at the same time that electricity from a clean source of generation, such as wind, solar, geothermal, water, or biomass power, is created, in a 1:1 ratio per megawatt-hour (MWh). EACs represent the “green” attributes of that renewable electricity and are the proof that the electricity was generated from a clean source. However, the electricity and the EACs are two separate, distinct commodities. The electricity itself is sold onto a wholesale electricity market—the power grid—while the EACs are sold separately via their own commodity markets.

Once separated from EACs, the renewable electricity is no longer considered clean generation—it is null. The electricity itself must be bundled with EACs in order to make any type of renewable electricity or emission reduction claims.

Any consumer can purchase EACs, and once purchased, the buyer becomes the owner of the EAC and the environmental attributes of the clean energy generation that produced it. Ownership of EACs, when bundled with a corresponding purchase of electricity, allows the buyer to make renewable energy and emission reduction claims. All entities that wish to make these types of claims—including utilities, homeowners, and businesses—must own EACs.

Consumer protection agencies like the U.S.’s Center for Resource Solutions (CRS) exist in developed markets (such as North America, the EU, and Australia) to certify EACs, verifying their generation and the chain of custody from generator to owner to retirement. This ensures that EACs are not double-counted. Double-counting can occur if an EAC is sold to and claimed by multiple parties, which invalidates any claim of carbon-free electricity generation the EAC represents.

In emerging international markets, verification is less assured. While certification bodies are under development in many countries in order to establish a trusted platform for the tracking and trading of renewable energy, these bodies are nascent. It is useful, therefore, to work with a partner like Renewable Choice when seeking to acquire EACs in emerging markets. All EACs sold by Renewable Choice are third-party certified by either CRS’s Green-e® Energy program or the equivalent for the appropriate region of usage.

EACs may be used to address the GHG impact of Scope 2 purchased electricity. Learn more in the Marketing & Emission Reduction Claims section of this Guide.

Carbon Offsets

Carbon offsets—areaka verified emission reductions (VERs)—are commodities that are generated from a variety of project types responsible for reducing the volume of GHG emissions entering the atmosphere, preventing those emissions from entering the atmosphere in the first place, or removing GHG emissions from the atmosphere entirely. Common carbon offset project types include landfill or agricultural gas capture, forestry, and fuel switching (where one carbon-intensive fuel, such as wood, is exchanged for a less carbon-intensive one).
Offsets may be purchased by individuals or organizations to counterbalance their own emissions. It is extremely difficult to achieve carbon neutrality through efficiencies alone. Carbon offsets are a powerful tool for organizations that wish to more fully address their full carbon footprint, particularly Scope 3 emissions.

Carbon offsets are used to track and trade ownership of emission reductions. After purchase, the buyer becomes the owner of the carbon offset, and once it is retired from circulation, the owner can use the purchase to make claims about emission reductions. A variety of agencies—including the Climate Action Registry, Verified Carbon Standard, and Green-e Climate—verify the legitimacy of carbon offsets and their retirement, in order to avoid double-counting and claims of greenwashing. All carbon offsets sold by Renewable Choice Energy are verified by a carbon registry.

Carbon offsets may be used to address the GHG impact of Scope 1, some Scope 2, and Scope 3 emissions.

Table 2: Mechanisms Used to Address GHGs by Emission Scope

<table>
<thead>
<tr>
<th>EMISSION SCOPE</th>
<th>CARBON-REDUCING INSTRUMENT</th>
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<tbody>
<tr>
<td>Scope 1: Direct emissions</td>
<td>Verified emission reductions (VERs)</td>
</tr>
<tr>
<td>Scope 2: Indirect emissions</td>
<td>Purchased electricity: EACs</td>
</tr>
<tr>
<td></td>
<td>Purchased heat, steam, or cooling: VERs</td>
</tr>
<tr>
<td>Scope 3: Indirect emissions</td>
<td>VERs</td>
</tr>
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</table>

Distinguishing Between EACs and Carbon Offsets

It is important to clarify that EACs and carbon offsets are not the same. Certified EACs generally allow an organization to claim that it is using electricity from a clean generation source, and, if purchased in a 100% quantity to match the entity’s purchased electricity, that its Scope 2 emissions are now zero. This is hugely valuable to organizations that have limited or no control over the grid mix of their purchased electricity, and is one of the only ways companies can achieve zero carbon emissions for Scope 2.

However, the renewable electricity represented by the EACs does not necessarily displace fossil fuel generation, because most EACs are sourced from existing clean power projects. It can be difficult to establish a direct cause-and-effect relationship between a purchaser and actual grid emission reductions of these projects. EAC purchases aren’t “offsetting” anything—they are the proof of clean generation that conveys environmental attributes and claims.

As a result, EACs allow an organization to address the carbon emissions from its own footprint but are not generally considered additional. Additionality is a nuanced concept that essentially means that “but for my action, this result would not have occurred.” Additionality is typically attributed to carbon offsets.
“[Renewable energy] emission claims... relate to a company’s own electricity use and its corresponding GHG emissions impact or ‘footprint’, and are not equivalent to claims about the amount of renewable energy or GHG emissions on the grid or globally. In other words, they are not equivalent to carbon offset claims, which demonstrate global emission reductions on the grid beyond a baseline.

Without test for offset quality criteria such as ‘additionality’, renewable generation and avoided grid emissions are not necessarily caused by the consumer’s purchase and are not necessarily occurring beyond a baseline. Additionality is not required to claim use of renewable energy that avoids emissions on the grid. Hence, renewable energy usage can only be used to reduce the portion of one’s corporate carbon footprint associated with purchased electricity.”

although there are EACs in some compliance markets with a legitimate claim to additionality where these EACs are in demand and command a high price.

Projects with additionality would not have taken place otherwise—in other words, they have advanced renewables beyond business as usual. As a result, these projects play a material role in offsetting global emissions. RECs and other EACs are essential to address Scope 2 emissions and increase demand for renewable energy, but it can be difficult to demonstrate that an organization’s purchase of EACs was the sole action that caused a new clean electricity source to be built. However, consumer demands for EACs do provide a critical market indicator. Over time, this demand can drive up the price of supply in a given market, or lead to development of a new market, both of which may eventually lead to new generation.

Organizations that make longer-term, larger commitments to renewable generation via a power purchase agreement (PPA), tax equity investment, or other contracting mechanism, will more likely have a credible claim to additionality, as it was the action of their commitment that led to a new project being built. However, claims to additionality alone do not translate into ownership of environmental attributes—only EACs can do that.

For a deeper analysis of the relationship between EACs [RECs] and additionality and the crucial value of each to renewable energy development, please download our white paper.

Purchasing Methodologies and Associated Claims
There are four primary means by which today’s organization can utilize EACs and make associated emission reduction and marketing claims:

» Direct purchase of EACs from a credible provider, such as Renewable Choice

» Acquisition of EACs as part of an executed PPA contract

» Acquisition of EACs bundled with onsite power generation via solar, geothermal, or other means

» Green power utility purchasing programs that are bundled with EACs

Direct purchase of EACs allows the buyer to associate the EACs with its purchased electricity, even if the electricity itself is not generated from a clean source. Buyers are not restricted in the type of EAC they purchase, but specific criteria for Scope 2 claims do apply to the purchase (to be detailed in the following section). They are also not restricted in the volume of EACs that they purchase. Buyers may select to use EACs for a portion of their electricity use, for the full 100% of use, or for an amount beyond 100%.

EACs are generally treated in one of three ways in a PPA or onsite generation. They may be:

1. Retained for use and retired from circulation by the purchasing organization in order to make green claims,
2. Sold by the purchasing organization, and then replaced with lower-priced EACs in order to make green claims, or
3. Sold by the purchasing organization, which relinquishes the organization’s right to green claims.

The choice of how to treat EACs in an offsite PPA or onsite generation purchase is critical if the organization intends to use the purchase towards its own carbon reduction reporting. Relinquishment of the EACs may still allow organizations to make additionality claims, but will forfeit their ability to make any type of claims about the environmental attributes of the energy generation.

Some organizations choose to participate in their utility’s green power purchasing program. In this case, the electricity purchased is bundled with EACs by the utility to provide the buyer with a single green electricity product. Organizations that participate in these programs may be able to make green claims, but must ascertain from the utility that they are the sole owner of the bundled EACs.

In all of these cases, the bottom line is that the organization making a green claim must have ownership of and retire the EACs associated with that claim. It is the EAC that confers and conveys the environmental attributes of the clean generation.

This can lead to confusion, particularly in onsite generation. Merely installing solar panels is not enough to make carbon reduction claims; the purchasing organization must also retain the ownership of the EACs associated with that installation. In some cases, utilities provide attractive incentives to buyers to invest in onsite generation. However, these incentives are commonly provided in exchange for ownership of the associated EACs, as utilities have their own goals to meet around clean generation. Buyers should ensure that they understand how the EACs in their deal will be allocated, and who will own them, prior to executing any contracts.

**Marketing & Emission Reduction Claims**

Organizational renewable electricity buyers are typically interested in using EACs to make emission reduction claims, marketing claims, or both. Emission reduction claims are useful when disclosing total Scope 2 emissions and emission reductions via annual reporting platforms such as CDP, GRI, DJSI, or others. Marketing claims are generally used to help communicate an organization’s commitment to clean energy with a broader audience including shareholders, customers, the media, and the public at-large.

In January 2015, the GHG Protocol issued new guidance on Scope 2 reporting and claims. The new guidance was developed to create a consistent, transparent methodology for accounting for Scope 2 emissions while providing the means to report the impact of EAC purchases on an organization’s overall footprint.

Prior to the new guidance, organizations were reporting Scope 2 emissions based on their activity and the application of either regional or national emissions factors. Under this framework, there was ambiguity about how buyers could use EACs or PPA—referred to in the new guidance as types of contractual instruments—to make carbon-free electricity claims. However, the
new guidance introduces changes to how buyers can account for their claims and what information needs to be disclosed as a result.

**Under the new guidance, if a company’s operations are based in markets where there is consumer choice available regarding renewable electricity use, then Scope 2 emissions must be reported in two ways: location-based and market-based.** In other words: if a company has operations in a region where it is possible to purchase contractual instruments (such as EACs), then the company should report its emissions using both a location-based and market-based method, even if the company does not utilize contractual instruments in that region.

**Location-based** reporting and disclosure captures the picture of the emission averages from the grid in which a company’s operations are located and is similar to the way emissions were reported prior to the new guidance. By accounting for and sharing this information, organizations demonstrate the actual physical dynamics of generation and distribution in their operational regions. However, the location-based method is constrained in its ability to help address emissions, as generally the only ways to decrease location-based emissions are by reducing operational consumption of electricity or via incremental changes in grid average emissions factors (which are based on the grid becoming incrementally cleaner over time through the addition of new renewables).

**Market-based** reporting and disclosure acknowledges that, in many markets, buyers have a choice about the type of electricity supply that they purchase. This choice may come in many forms. A buyer’s ability to choose green power on the free market (in the form of EACs), as part of a utility-provided bundle, as part of a contract made directly with individual generators, or even in the form of contracts for fossil fuel generation all represent the types of free market operations should theoretically be able to use continental European-sourced RECs.

We encourage our clients to remember that Scope 2 guidance is exactly that: guidance. Reporting entities are encouraged to calculate their impacts and reductions in the spirit of the guidance rather than by any fast rule. Market boundaries in emerging markets should be reasonable in order to make an associated renewable electricity usage claim. For this reason, the guidance provides a hierarchy of emission factors to allow organizations to report as precisely as they are able to in today’s market.
contracts included in the market-based method. The goal of the market-based method of reporting and disclosure is to raise buyer awareness about the emissions derived from these contractual instruments in order to incentivize clean energy choice, which ultimately drives renewable energy development. The new market-based guidance is more comprehensive and precise in its allocation of emissions and affiliated emissions-reducing mechanisms. Key to the market-based method are the quality requirements outlined by the guidance for contractual instruments like EACs. This is particularly valuable in a developing renewable energy market, where buyers want to have the assurance that the EACs they are purchasing are not only valid and reliable, but that there is also a clear chain of custody.

**Scope 2 Quality Criteria for Contractual Instruments**

All contractual instruments must be:

» Generated in a 1:1 ratio with the electricity they represent.

» The only instruments conveying the environmental attributes of the electricity they represent.

» Tracked and retired by or on behalf of the purchasing organization.

» Issued, purchased, and retired as close to the date of associated electricity consumption as possible.

» Sourced from the same market in which the organization’s electricity-consuming operations are located and to which the environmental attributes of the instrument are applied.

All instruments must:

» Include applicable GHG emission rate attributes. If there are multiple market-based emissions factors for each operational facility, reporting organizations should choose the most precise contractual instrument.

Utility-specific emission factors must also be:

» Determined based on delivered electricity and bundled EACs which have been retired on behalf of the purchaser.

**Companies purchasing electricity directly from a generator, or generating their own onsite electricity must:**

» Ascertaining that the contractual instruments associated with their generation are owned and retired only by themselves and no other entity.

The rationale behind creating a two-step disclosure method is sound. As WRI shares in its guidance materials, companies have already been tracking and reporting their GHG emissions using one of these two methodologies, but not necessarily with an articulation to one another, which has created opacity in the inventory and disclosure process. What the requirement to report both methods does is create an apples-to-apples comparison across all organizations and grid regions. This permits organizations to more readily set and achieve reduction targets. It also provides for the easier use of comparative data across analyses conducted by organizations like CDP (who has adopted the guidance inside its 2016 Climate Change disclosure questionnaire).

**Emerging International Markets**

Renewable energy generation is growing around the world, driven by rapidly falling prices; NGO and governmental pressure and incentives; and a desire to have a positive impact on climate change, air quality, and human health. As a result, contractual instruments like EACs and PPAs are increasingly available. Established markets for contractual instruments exist in North America, Australia, the EU and the UK, with markets developing rapidly in Latin America, Japan, India, and Southeast Asia.
Table 3: Location-Based v. Market-Based Reporting

<table>
<thead>
<tr>
<th>LOCATION-BASED</th>
<th>MARKET-BASED</th>
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<tbody>
<tr>
<td>Identifies emissions associated with energy grid</td>
<td>Identifies emissions associated with contractual instruments</td>
</tr>
<tr>
<td>Based on defined geographic region</td>
<td>Based on consumer choice of instruments</td>
</tr>
<tr>
<td>Relies on grid average emission factors</td>
<td>Relies on emission factors associated with qualified contractual instrument</td>
</tr>
<tr>
<td>Emission reductions dependent on reduced consumption and the grid becoming incrementally cleaner</td>
<td>Emission reductions dependent on choosing low-carbon contracts</td>
</tr>
<tr>
<td>Tracks energy flow</td>
<td>Tracks claims flow</td>
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</table>

It can be challenging to grasp the nuances of the new guidance. In effect, it requires reporting organizations to track and disclose 1) their electricity consumption [or activities] and 2) the emissions-reducing tools available in the markets where the organization operates [or contractual instruments]. While the actual calculation of an inventory will be more complex, particularly for organizations with operations in multiple, international locations, understanding the new guidance doesn’t have to be.

The important take-away is that commonly used public disclosure platforms, such as CDP⁴, encourage the use of the guidance on both reporting and reductions. By providing a market-based disclosure, companies will be able to report the specific emissions associated with their contractual instruments. In the case of EACs, this will allow companies to report zero carbon emissions for the electricity bundled with those EACs because the emission factor of the EAC itself is zero.

PPAs create an added level of nuance to Scope 2 accounting and reporting. In addition to the EACs associated with a PPA—which represent their own zero-carbon emissions factor—PPAs have the potential claim to avoided emissions (which is what allows them to be considered additional). If the construction of a new project was due to the PPA, and resulted in displaced fossil fuel-based emissions, then the PPA purchase can report project-level, avoided GHG emissions. These emissions are reported separately from an organization’s footprint calculation and should not be subtracted from the entity’s total footprint.

Companies can—and should—use both location-based and market-based metrics to set targets on Scope 2 performance. The location-based method can be used to set consumption reduction goals and drive energy efficiency within operations. Companies can also use their clout to

Sample Location-Based Goal: Company XYZ will reduce its electricity consumption by 5% across all U.S. facilities by 2017, based on a 2013 baseline.

Sample Location-Based Claim: Company XYZ has reduced its electricity consumption by 5% at all U.S.-based facilities relative to a 2013 baseline.

Sample Market-Based Goal: Company XYZ is committed to achieving zero Scope 2 emissions by 2020.

Sample Market-Based Claim: Company XYZ has purchased carbon-free green power equivalent to 100% of its purchased electricity use.
apply pressure to utility commissions and governments to affect change at the grid-level, which shifts the overall generation mix available in a given region. The market-based method can be used to set goals for emissions reductions via renewable electricity supply. These goals can help drive market development, particularly in emerging markets without well-established contractual instrument quality criteria.

For some companies, reporting on a two-market method creates tension between what they want to disclose and what they feel they actually can. Many corporations and their suppliers already report their annual emissions to CDP. Many of these same organizations are also buying green power, either through a direct EAC purchase or by retaining and retiring the EACs associated with an offsite PPA or onsite generation purchase. However, not all organizations are comfortable disclosing the details of these purchases for competitive reasons, which means that their ability to disclose emission reductions via the market-based method is hindered. We invite any company struggling with this choice to contact us for advice.

Whether making emission reduction or marketing claims, organizations must choose their language carefully to ensure they are conveying truthful information about their renewable electricity purchase.

It is critical for companies to ensure that their EACs have been verified. Without verification, it is possible for EACs to violate the Scope 2 guidance requirements for a credible claim, which includes reliable generation data, the aggregation of the EAC’s attributes into a single instrument, single ownership of the EAC, single claims of the EAC’s attributes, and defined market boundaries and vintage (or birth date) of the EAC. **Credible EACs must meet all of these issuance criteria.** Remember that in order to claim the attributes of an EAC, the purchasing entity must be the sole owner of that EAC. Companies that use EACs with questionable criteria open themselves up to the possibility of challenged claims and the associated consequences, such as censure or fine by the FTC.

Companies that wish to make claims about the role of EACs (or other contractual instruments) in reducing their emissions must also verify that they have calculated their overall consumption. For example, a company that wishes to say that it is using 50% renewable electricity must know what 100% of its electricity usage is and purchase EACs for a full 50% of that usage. As usage is not static from year-to-year, it is important that companies update their usage numbers annually and purchase EACs accordingly.

Overall, organizations should be as specific as possible when making claims. To claim that a company uses renewable electricity when it only purchases EACs to cover a fraction of its annual purchased electricity usage is disingenuous. Rather, companies should disclose information about material purchases and be prepared to back those purchases up with verification of the EACs used to make the associated claims. For more examples of appropriate claims for both EACs and carbon offsets, please download our Communication Guidance.
Conclusion

Commercial, industrial, and institutional buyers can—and should—use their purchase of RECs, GOs, PPAs, VERs, and other contractual instruments to make claims about their associated emissions reductions. However, in order for these claims to be valid, buyers must utilize a variety of criteria, including generation data, ownership, and the Scope 2 reporting and quality assurance guidance.

Renewable energy markets are rapidly evolving, and, likewise, reporting and claim criteria are keeping pace. For more information or with specific questions about how to apply and claim a purchase of renewable energy, or support on Scope 2 reporting claims for CDP or other reporting platforms, we invite you to contact us.

For 15 years, the team of experts at Renewable Choice Energy has been connecting consumers to clean energy and carbon-reducing products and services. Recognized as a market-leading supplier by the Environmental Protection Agency and Sustainable Purchasing Leadership Council, Renewable Choice is the exclusive 2016 North American partner to CDP on offsite renewables.

Renewable Choice works to help its commercial, industrial, and institutional buyers set and achieve strategic emissions reduction targets through the purchase of EACs, VERs, and PPAs. Together, Renewable Choice and its clients have—to date—added more than 1,000 MW of new wind and solar to the U.S. grid. The company works throughout North America, the EU, and Asia. To learn more visit www.renewablechoice.com.
Endnotes


3 There is some distinction between various reporting platforms (such as CDP and GRI) in how to report Scope 2 emissions and emissions-reducing activities. While widespread adoption of the GHG Protocol’s Scope 2 Guidance across platforms is likely over time, companies should ensure that they refer directly to the specific reporting body’s instructions when compiling their reports.

4 CDP has issued a “call to action” to reporting companies to put climate commitments into action beginning in 2016. As a result, in addition to both location- and market-based reporting and disclosure questions, CDP has added several questions inside the questionnaire that pertain to the action steps companies can take on climate change, such as setting science-based reduction targets and purchasing renewable energy. Reporting organizations can expect that CDP’s emphasis on action will only continue to grow in importance and relative weight within the reporting process. Renewable Choice is CDP’s North American partner on offsite renewables for 2016.

References


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Aran Rice oversees the business development efforts for Renewable Choice Energy, where he is responsible for the Commercial and Green Building sales teams as well as the Domestic and International Commodities Development group. Aran has served Renewable Choice in a variety of leadership roles during his nine-year tenure, including Director of Operations, Director of Commodities Sourcing, and VP of Business Development. With deep expertise in renewable energy and carbon markets, Aran is directly involved in helping Renewable Choice clients achieve complex renewable energy and sustainability goals. He holds a BA from the University of California, Los Angeles.

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Amy Haddon is responsible for driving communications, marketing, and sustainability strategy for Renewable Choice Energy. Amy also works closely with Renewable Choice clients to design and execute communications strategies and content that highlight their commitment to clean energy and sustainability. Concurrent to her role at Renewable Choice, Amy served for five years as the marketing manager and a sustainability consultant for Renewable Choice’s former subsidiary, Mosaic Sustainability, where she led consulting engagements with several top international brands. She is a frequent contributor to the conversations on renewable energy, sustainability, and responsible business. Amy received her M.Ed. from Colorado State University.

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Erin Decker focuses on supporting Renewable Choice Energy clients as they navigate long-term PPAs. She has deep expertise in the corporate sustainability space, including negotiating internal execution processes for renewable energy transactions. Previously, Erin was a senior sustainability manager at Salesforce, where she oversaw the global sustainability team, helped set a 100% renewable energy commitment and strategy, and executed the company’s first long-term PPA. Erin is a frequent industry speaker on renewable energy and sustainability. She draws on past professional experience as a CPA in her work at Renewable Choice. Erin received an MBA in Sustainability from Presidio Graduate School.