

The Role & Importance of Additionality for Corporate Renewable Energy Procurement

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CORPORATE RENEWABLE ENERGY BUYERS' PRINCIPLES: INCREASING ACCESS TO RENEWABLE ENERGY



4. Access to new projects that **reduce emissions beyond business as usual**,

We would like our efforts to result in new renewable power generation. Pursuant to our desire to promote new projects, ensure our purchases add new capacity to the system, and that we buy the most cost-competitive renewable energy products, we seek the following:

We're working with our suppliers to ensure that the projects they select have the greatest potential for impact. For these projects, we aim to displace fossil fuel-based energy sources, demonstrate **additionality**—meaning create new clean energy that adds to the energy sources already delivering to the grid—and, wherever possible, require stringent accountability to ensure no double-counting. The most additional and impactful solutions often take time to build, and each supplier is making great progress toward meeting its commitment to 100 percent renewable energy for all Apple production by the end of 2018. The following describes the commitments made to date.

It's a convoluted system, but long-term PPA contracts do offer Google the certainty of knowing how much we'll be paying for future energy, while providing renewable energy developers the stability to finance and build new projects — thereby upholding the **"additionality"** principle that every power deal should add more renewable energy to the grid. "This purchasing structure wasn't optimal, of course, since we essentially have to buy power 'twice' — once at the wholesale level and again at the retail level," Demasi says. "But in 2009 optimal didn't exist."

To address this challenge and continue to help the market grow, several intermediaries have entered the marketplace that are capable of signing long-term PPAs and carving them up into products with shorter terms, smaller volumes, and simpler contracts. This will help to bring off-site renewable energy products to nontraditional off-site PPA customers. Several companies actively exploring this intermediary model attended REBA and explored challenges facing this business model, largely having to do with **additionality** (i.e., getting new renewable energy capacity built vs. taking credit for renewables that are already on the grid), matchmaking between supply and demand for aggregated deals, and contracting complexity.

The Role of RE and Additional

IN GREEN POWER MARKETS

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renewable choice
ENERGY

is now **Schneider**
Electric

CLICKING CLEAN: WHO IS WINNING THE RACE TO BUILD A GREEN INTERNET



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Serious business:
Corporate procurement rivals policy
in driving growth of renewable energy

OPPORTUNITIES TO INCREASE CORPORATE ACCESS TO ADVANCED ENERGY: A NATIONAL BRIEF

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Meister Consultants Group
Commissioned by Advanced Energy Economy

2017

STATE OF CORPORATE

RENEWABLE ENERGY

PROCUREMENT

APEX
CLEAN ENERGY

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GHG Protocol Scope 2 Guidance

***An amendment to the GHG Protocol
Corporate Standard***



“like other markets and products, individual voluntary purchases and consumer programs may or may not result in changes in low-carbon supply, depending on supply and demand dynamics.”

“if there is insufficient demand to drive overall change on the grid, stakeholders may be concerned that the market-based method results only in a reallocation of attributes between those consumers who care about claiming low-carbon energy, and those who are unaware of or uninterested in the opportunity to make these claims.”



United Nations

Framework Convention on Climate Change

“the effect of the [carbon offset project] to reduce anthropogenic GHG emissions below the level that would have occurred in the absence of the [project]; or [for a forestry project], the effect of the [project] to increase actual net GHG removals by sinks above the sum of the changes in carbon stocks in the carbon pools within the project boundary that would have occurred in the absence of the [project].”



“‘Additional’ means, in the context of offset credits, greenhouse gas emission reductions or removals that exceed any greenhouse gas reduction or removals otherwise required by law, regulation or legally binding mandate, and that exceed any greenhouse gas reductions or removals that would otherwise occur in a conservative business-as-usual scenario.”

Why is additionality
critical for carbon offsets,
but not for RECs?

Additionality and Renewable Energy Certificates

Understanding the value of REC claims

Updated March 7, 2016

Additionality is a term used in markets for tradable greenhouse gas (GHG) emissions reductions (carbon offsets). It means that a project or activity that reduces GHGs would not have happened without the offset buyer or collective buyers in the market. In a business-as-usual scenario—where the market for offsets didn't exist—the project would not have taken place. So, additionality enables offset buyers to claim to be reducing emissions.

While it is one of the most important qualities for carbon offset projects, additionality is not required for renewable electricity generators to create Renewable Energy Certificates (RECs), which embody the generation attributes of one megawatt-hour of renewable energy generation. Additionality is not required in order for REC buyers to claim use of renewable electricity, or the reduced carbon footprint that comes from switching to renewable electricity. Even without additionality, REC buyers are still impacting the development of new renewable resources.

Why Isn't Additionality Required To Claim Use Of Renewable Energy Using RECs?

A consumer can purchase and use renewable energy without having to demonstrate that their purchase caused that renewable energy to be created. The consumer gets the benefits of using that clean energy. Their choice still affects their own usage and may still have an impact in the electricity market by increasing demand for renewable energy. This is how consumers affect demand-side change in any market for any product.

Because all electricity is identical and electrons can't be tracked, use of renewable electricity generation on a shared distribution grid is determined contractually. In the U.S., RECs are the legally enforceable contractual instrument for verifying use and delivery of renewable electricity on the grid. RECs demonstrate the use of a clean electricity product.

They enable suppliers and utilities to deliver renewable electricity to specific customers (both through state programs and in response to voluntary demand) and they allow grid customers to claim use of renewable electricity.

RECs and renewable electricity may be sourced from new or existing renewable energy generators that were built for a variety of reasons without affecting a consumer's claim to be using that generation or to the benefits of that generation, which is nevertheless proved with RECs. An individual renewable energy purchase may not result in the creation of new renewable generation or a new renewable plant to supply that renewable electricity. Nonetheless, the purchaser may legitimately claim to have changed their usage and reduced their environmental impact, regardless of additionality.

In 2015, The Greenhouse Gas Protocol, a joint initiative of the World Resources Institute (WRI) and World Business Council on Sustainable Development (WBCSD), released new guidance on how companies should calculate and report their GHG emissions from purchased electricity—Scope 2 GHG emissions.¹ The guidance "does not require that contract instruments claimed [...] fulfill criteria such as offset 'additionality' or prove the overall market impact of individual purchases or supplier programs result in direct and immediate changes in overall supply" in order for RECs to be used to reduce a consumer's Scope 2 emissions (p. 90). It says: "[a]ll energy has a direct emissions factor associated with generation, and the use of that emissions factor does not depend on whether the generation facility is existing or new, or why the generation has occurred. [...] [R]egardless of what causes the project to be built, the energy attribute certificate still serves as the instrument conveying claims about the attributes of the underlying energy generation for consumers purchasing that generation" (p. 91).

Since RECs are the way to purchase and use renewable energy, they are also the way for consumers to affect

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GHG Protocol Scope 2 Guidance

An amendment to the GHG Protocol Corporate Standard



	RECs	Carbon Offsets
Unit	MWh	Metric tons CO ₂ -e
Purpose	Expand consumer choice, address impacts of conventional electricity generation, support renewable energy development	Diminish GHG emissions and lower costs of climate mitigation
Scope of the Market	USA, parts of Canada and Mexico	Global
Definition/what's included	Full suite of renewable attributes	GHG emissions reductions
End User's Claim	"I buy/use renewable electricity."	"I've offset my carbon emissions," or "I've reduced emissions."
Project Types	Renewable Energy	Various
Quality Assurances	Resource quality and eligibility, ownership and double counting, other sustainability criteria	Reductions are permanent, verified, and real. Projects are additional. Ownership is enforceable and exclusive.
Project additionality required	No	Yes
Carbon Footprint	Only address the emissions associated with purchased electricity (Scope 2 emissions)	Address all scopes of emissions



Green-e

Not “additionality” criteria:

- Regulatory surplus
(beyond no double counting)
- “New date”

“Additionality” for renewable energy

What is it?

Why is it important?

Who is it important for?

What can be verified?

What should change?

What are the implications?