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IS YOUR "GREEN POWER" REALLY JUST "GREEN WASHING?"

MARCH 12, 2014, BY MICHAEL GILLENWATER

The short answer to the provocative question posed in the title is, in all but a few rare cases, yes.

The longer answer follows, in which I unpack the mind-bending question central to this controversy, "What is an unbundled renewable energy attribute?"

But first, a quick caveat to prevent potential confusion. The discussion that follows focuses on the *voluntary* green power market where consumers pay a premium to their utility or some other company to claim they are receiving electricity from renewable generation. The findings that follow are not about government mandates and other policies such as Renewable Portfolio Standards, which can also utilize environmental markets and commodities.^[1]

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Green power in GHG accounting: It began with offsets

As some of you are aware, I have been researching the voluntary green power market for several years. The impetus for this research was a question that has created problems for years in corporate greenhouse gas (GHG) reporting and the carbon offset market. Should Renewable Energy Certificates, or RECs, sold through voluntary green power markets, be convertible to GHG emission offset credits?

A decade ago, it was widely claimed by voluntary green energy proponents that RECs could be used just like offsets because they represented emission reductions. The logic went that switching to green power reduced your emissions by avoiding GHGs from fossil fuel-fired generation. At the time a number of companies coalesced around this marketing tactic, selling RECs as offset credits in the voluntary market. Even today, though outright claims of equivalence between RECs and offsets are less common, this line of argumentation can still be seen in the marketing language used to claim that participation in the voluntary green power market reduces emissions.^[2]



Why would a business purchase RECs?

RECs are used by businesses for a variety of reasons:

- ▶ To offset the carbon emissions associated with their electricity use

Can I be sure that my RECs really reduce greenhouse gas (GHG) emissions?

Yes, all RECs purchased from BEF are certified by the nation's leading, independent certification organization—the **Center for Resource Solutions' (CRS) Green-e Energy program**. CRS conducts an annual audit of BEF to verify that the RECs were produced from a specific facility, delivered to consumers in the amounts specified, and not double-sold to any other party.

Now, after more than a decade of research and analysis (by this author and others), the consensus on this question has finally pushed past the marketing spin. It is understood by a majority, or at least an influential plurality, that RECs are not the same as emission offset credits. I am not going to re-litigate that debate, as it has been exhaustively documented in

the articles listed as references below.^[3] And we can also now say it has been empirically proven in two recent studies (Gillenwater et al. 2014, Gillenwater 2013). RECs are not offsets and the voluntary green power market does not reduce emissions from electricity generation.

Green power accounting: A shift to contracts, or just contract shuffling?

In this new decade, the debate has shifted to a more nuanced marketing claim: If, as an electricity consumer, you pay a green power premium, purchase a REC, or avail yourself of some other kind of green power contractual arrangement, you can claim that your electricity still comes from renewable energy and so your indirect emissions from electricity purchases (i.e., Scope 2) are now zero.

In the language of green power marketers, you are buying renewable energy "attributes" even though how you physically receive your electricity has not changed. It comes from the same grid everyone else uses.

So, what the heck is an attribute? Effectively, the claim is that these contractual arrangements for "attributes" allow you to bypass the power grid and virtually plug-in to individual wind farms. The claim is no longer that RECs are offsets. Instead, they are now a tool to virtually divvy up the generation supplying the grid so that a few companies can pick off and claim ownership to the green parts of the supply chain.

What is wrong with encouraging companies to pay a little extra that goes to support green power, such as what the U.S. EPA Green Power Partnership does? Clearly we want to encourage companies to reduce their emissions and transparently disclose their GHG footprint. And maybe the voluntary green power market does not have an impact now, but if we allow it to grow, in the future it could.

EPA United States Environmental Protection Agency

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Green Power Partnership

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Buying Green Power

Green Power Benefits

Your organization's purchased electricity use can be a significant source of air pollution and greenhouse gas emissions. Buying green power can help reduce your organization's environmental impact while also providing valuable benefits:

- Avoid carbon dioxide (CO₂) emissions
- Reduce some types of air pollution
- Hedge against future electricity price increases (certain products)
- Serve as a brand differentiator
- Generate customer, investor, or stakeholder loyalty and employee pride
- Create positive publicity and enhance your organization's public image
- Demonstrate civic leadership

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I recently had the opportunity to deeply ponder this question with a small group of sharp-minded colleagues. Our conclusion?

For the purpose of voluntary corporate GHG accounting, the use of contractual approaches for attributing Scope 2 emissions from grid connected electricity purchases is fundamentally flawed and not credible.

(The detailed rationale supporting this conclusion is presented in an [open letter](#). I encourage you to read it in full, including the Q&A where we address submitted counterarguments, and then offer your own thoughts in the comments section.)

We reached this conclusion in parallel with a [GHG Protocol workgroup process](#) on Scope 2 reporting, which is heading for a dual reporting compromise: that is, report both a grid average and an adjusted contractual Scope 2 estimate that treats RECs as zero emissions. So what is wrong with endorsing the reporting of Scope 2 emissions estimated using contractual-based green claims? To quote our open letter...

The problem with this approach is that emission factors based on contractual arrangements or REC purchases do not reflect the emissions actually caused by the reporting company's activities. For all other reporting under the GHG Protocol, a physical relationship is presumed between a company's activities and the emissions that result from those activities. This physical relationship is the basis for establishing a "true and fair" account of a

company's GHG emissions. A contractual approach to Scope 2 accounting breaks that fundamental relationship. It allows a company to lower its reported Scope 2 emissions without changing how it physically obtains electricity and without altering how electricity is delivered and sold into the grid. There is no evidence of any causal link between the vast majority of REC or green power purchases and the quantity of renewable energy produced.

Physically, an entity cannot choose whether the electricity it uses from the grid comes from a renewable or fossil fuel source. Contractual arrangements do not change this physical reality.

The environmental attribute trade: A problem beyond GHG accounting

The problem here is bigger than just GHG accounting. We need to consider the implications of endorsing contractual approaches for attributional environmental accounting more broadly. Can anyone contractually buy "environmental attributes" for anything and adjust their environmental accounts accordingly? In an open voluntary reporting system this sets up a massive game of contract shuffling, leading to a meaningless reporting system.

I think we are all strong supporters of policies and voluntary initiatives that promote expansion of renewable energy supply to electricity grids. But, I also strongly believe that environmental accounting needs to be rigorous, credible, and based on sound logic. We see no logical argument that justifies contractual approaches to Scope 2 or any other type of environmental accounting where it overrides physical linkages. If you disagree, we invite you to share your justification below or in the comment section of the [Scope 2 open letter](#).

Good intentions

It is important to clearly communicate that voluntary green power markets and those engaged in them are not ill intentioned. Just the opposite. These markets were developed and promoted with the hope that they would cause additional renewable energy investment. And most people engaged in the green power market believe they do or ultimately will.

The problem is that green power markets, as currently structured, cannot achieve this goal. They were created on a fundamentally flawed foundation—that buying a virtual attribute can substitute for physically consuming a specific good or service. Further, the incentives of the participants in green power markets—power companies selling RECs, intermediaries marketing them, organizations certifying them, and companies buying them—are aligned, leaving no one with a strong interest in questioning the claims being made.

With these concerns in mind, we are challenging everyone to question their own

assumptions about voluntary green power markets.

[1] See Gillenwater 2014, 2008b, and 2008c for discussions on the interactions between compliance and voluntary green power markets.

[2] I want to again be clear that I am only referring to the voluntary green power market. This blog post does not address Renewable Energy Portfolio markets for RECs, which are driven by regulatory compliance demand. See the reference section for articles that discuss how these two markets are related.

[3] This conclusion holds for the vast majority of voluntary green power market activity. This conclusion, though, does not mean that there is not a rare renewable energy project, such as some solar projects, that can make a credible claim of additionality. The problem is that the voluntary green power market has no internal or external mechanism for differentiating from the roughly one percent or less of potentially additional projects and all others that are not (Gillenwater 2013). Also, while the U.S. voluntary market was the focus of this research, there is no reason to expect the conclusions not to hold for voluntary green power markets in other countries.

References

Note: Please email info@ghginstitute.org to receive a copy of any of the copyrighted journal articles below.

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12 responses to "Is your "green power" really just "green washing?""



1. *Joe Abraham* says:

March 13, 2014 at 10:02 am

Michael,

I think this is of particular importance to the higher education community, specifically those of us who spend time thinking about how to move our institutions towards the aspirational goal of carbon neutrality since signing the American College and University Presidents Climate Commitment. I am not entirely clear on the current language, but I believe RECs are 1:1 for reducing scope 2 emissions under guidance associated with the ACUPCC. I would like to think that the higher education community would be more willing to look at this critically, and in particular not interested in claiming emission reductions that aren't real. Thank you for your time engaging others about this issue.

Reply



2. *Michael Gillenwater* says:


March 13, 2014 at 11:09 am

You may be interested in a group that is marketing a new type of environmental commodity as green power that is a little different. Effectively, they are claiming to be selling RECs that are additional. I discussed this idea back in my 2008 Part 2 article on Redefining RECs (link to article in References section above).

<http://goldpower.net/>

I have not investigated their work, so I am not endorsing nor criticizing what they are doing. Only noting an interesting activity in the field related to this issue.

Reply


3.  *Rob V* says:
March 13, 2014 at 1:43 pm

To paraphrase (and see if I understand your point – sorry if I am missing it here):
A utility that invests in a solar array which feeds into their grid is not green-washing. It becomes 'green-washing' when they sell generic power from their grid to some customers at a higher rate (since these customers are told to think they are reducing emissions into the environment). There is no trade-able or marketable 'credit' to gain from the differential of the higher premium and generic electricity.

So "green power at a premium" programs are: good, bad, not useful for GHG credit trading, or _____?

"Green power at a premium programs" result in no emissions reductions, but the solar power going into the grid does?

Reply

4.  *Al Vazquez, Closewaters.com* says:
March 14, 2014 at 7:16 am

I agree that the we are playing a sad "shell game" with green energy "offsets" in the US.

CDM managed the challenge through rigorous validation of additionality. Though CDM was not perfect (and is now a market crippled by the lack of government leadership with the exception of the EU), CDM offsets truly did result in incremental carbon abatement. My big problem with CDM is that is it too complicated, expensive and slow.

It is CRITICAL TO AVOID COMPLEXITY to promote green power because COMPLEXITY ENABLES THE "SHELL GAME".

In a country with our government and grid infrastructure, the best (simple) protocol would a federal mandate be to provide each power buyer the opportunity to purchase directly from green sources anywhere on the grid. The local power company would