

Climate Clean on Renewable Energy Certificates (RECs)

Renewable Energy Credits/Certificates (RECs), also known as “Green Tags,” are actively marketed as carbon offsets by a range of American firms. While these claims may at face value seem intuitive and straightforward, the reality of the matter is that **RECs (“Green Tags”) are not carbon offsets**.

Before we delve into the specifics of this assertion, let us back up and define our terms.

What is a REC?

Simply stated, RECs are the environmental attributes from approved environmentally benign (generally renewable) energy production; these attributes are stripped from grid-bound kilowatts and sold either bundled with energy service or retailed on a secondary market. In effect RECs represent the property rights for a given renewable energy kWh. The proceeds from a REC sale are described by one retailer as follows: “the environmental attributes from the renewable energy facility are credited to the customers who have paid a premium to create that benefit by buying Green Tags.”¹

Many REC retailers meet Green-e standards² for REC sales and only sell energy rights to “new energy” (*i.e.*, kWhs produced from renewable facilities built or retrofitted since 1998). Further in keeping with Green-e certification requirements, these firms follow strict accounting protocols to ensure their RECs are not double counted.

What is an offset?

An offset is a beyond “business as usual” greenhouse gas elimination or reduction project made possible by external, additional funding and technical expertise. Upon creation of an offset project, emissions are monitored and matched against projected “business as usual” baselines; forgone emissions are accordingly issued emission reduction credits.

Carbon offset projects exist in a range of sectors from renewable energy to methane capture to energy efficiency. High quality offsets are third-party verified and modeled on robust UN methodology that establishes a number of screens and tests to ensure the projects, and in turn credits, represent truly additional emission reductions that wouldn’t have happened otherwise (*i.e.*, they are additional). **So-called “additionality” is the crux of carbon offsetting, and a criterion that RECs do not meet.**

Why aren’t RECs offsets?

The claim that RECs offset carbon emissions is based on two faulty assertions:

¹ <https://www.greentagsusa.org/GreenTags/faq.cfm>

² “Green-e energy certification” is a REC validation program developed by the Center for Resource Solutions established to monitor REC quality insofar as assuring RECs are from acceptable power sources and are properly counted, **Green-e does not certify or make any claims to REC additionality.**

- 1) “The Green Tags reflect the avoided pollution that results from substituting new wind, solar and other renewable electricity sources for coal or gas.”³

This assumption presupposes that the renewable energy embodied in a REC displaces existing hydrocarbon-based energy sources or stems the need for further expansion of “dirty” energy production. The problem with such reasoning is that **RECs do not bring new renewable energy online**. RECs subsidize existing projects, in this case relatively new projects, but nevertheless projects that are already in the ground. Proponents of RECs argue that these projects were developed under the assumption that REC receipts would provide another source of funding beyond electricity contracts and government subsidies, making otherwise infeasible projects profitable. However, as recently noted in a *BusinessWeek* cover story, the economics behind this opaque transaction severely undermine the argument that RECs influence renewable construction.

“The trouble stems from the basic economics of RECs. Credits purchased at \$2 a megawatt hour, the price Aspen Skiing and many other corporations pay, logically can't have much effect. Wind developers receive about \$51 per megawatt hour for the electricity they sell to utilities. They get another \$20 in federal tax breaks, and the equivalent of up to \$20 more in accelerated depreciation of their capital equipment. Even many wind-power developers that stand to profit from RECs concede that producers making \$91 a megawatt hour aren't going to expand production for another \$2. ‘At this price, they're not very meaningful for the developer,’ says John Calaway, chief development officer for U.S. wind power at Babcock & Brown, an investment bank that funds new wind projects. ‘It doesn't support building something that wouldn't otherwise be built.’”⁴

To put these numbers in perspective, *NativeEnergy* a REC retailer who heavily markets “forward RECs” (a practice that is highly problematic for a host of reasons outside the scope of this primer) recently stated in written testimony to Congress that facilitating an otherwise untenable project realistically requires 15 to 25 per cent of a project’s cost upfront⁵ – a far cry from an unpredictable orders of magnitude smaller financing stream of RECs over the life of the project, which brings us to the inevitable follow-up argument in favor of RECs.

- 2) “Green Tags support new renewable electricity generation.”⁶

Flushed out, this line of argumentation proceeds: RECs support new renewable electricity generation by creating a market for future renewable project development. The idea here is that a thriving REC market will send a strong price signal for renewable developers. However, as the noted *BusinessWeek* and *NativeEnergy* cases illustrate this price signal would have to be (1) sufficiently large to affect real change (*i.e.*, much larger and more expensive than at present), and (2) offer requisite consistency and predictability for the finance world to accept inherent investment risks.

³ <https://www.greentagsusa.org/GreenTags/faq.cfm>

⁴ http://www.businessweek.com/magazine/content/07_44/b4056001.htm

⁵ <http://globalwarming.house.gov/tools/assets/files/0022.pdf>

⁶ https://www.greentagsusa.org/GreenTags/offset_average.cfm

In sum, however well minded RECs (and their retailers) may be, the economics underlying their offset claims do not “pencil out.” While RECs may offer the opportunity to own the property rights of a given amount of green energy attributes, such rights are – from the perspective of reducing emissions – worthless. Accordingly, claiming that such purchases offset carbon emissions is at best an empty boast based on ignorance, at worst a calculated and concerted greenwash effort.

A closing note on REC retailers

Climate Clean does not question the organizational aims of REC retailers; some are admirable institutions insofar as they reinvest their profits in environmentally beneficial pet projects. Climate Clean’s objection lies in the marketing claims used in support of RECs. At issue is the assertion that RECs offset carbon dioxide when it has not been established that RECs make possible projects that wouldn’t have otherwise been developed. As an intangible artificially created commodity, a carbon offset needs to sufficiently satisfy a strict burden of proof. Any project that can’t meet this burden of additionality – by proving a causal correlation between project financing and emission reductions – cannot be said to offset GHG emissions.

To conclude, the difference between the function of a REC and an offset is perhaps most straightforwardly summarized as follows: **RECs potentially stimulate clean power production, whereas offsets reduce and/or eliminate GHG emissions.**