

# Voluntary Renewable Energy Markets 101

## Motivations, Claims, & Standards



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# Green Power Partnership Overview

- **Summary**

- The U.S. EPA's Green Power Partnership is a **voluntary** program that encourages US based organizations to use green power.

- **Objectives**

- Reduce U.S. greenhouse gas emissions
- Expand the voluntary green power market
- Standardize green power procurement as part of best practice environmental management

- **Program Activities**

- Provide technical assistance and tools on how to procure green power
- Provide recognition platform for organizations using green power in the hope that others follow their lead

- **+1,500 Partners are purchasing >60 B kWh annually**

# REC value

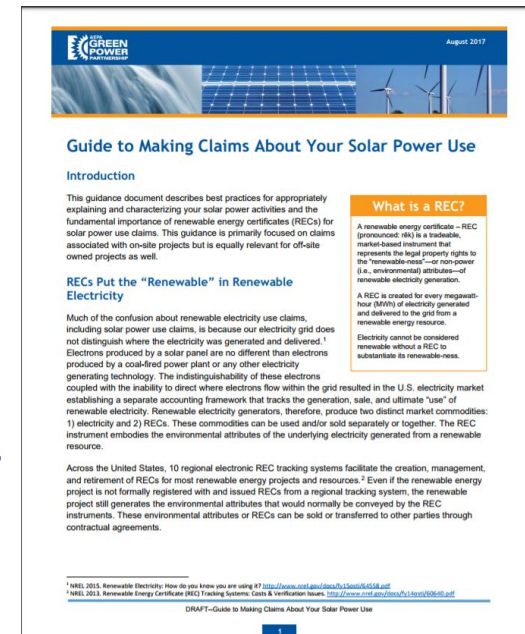
- Currency of renewable energy markets – both compliance and voluntary
  - Allow access to, allocate, and claim use of renewable generation on a shared grid
- Inherent in all green power procurements; from unbundled RECs to investing in your own RE project
  - Green power purchases can be customized based on several criteria (i.e., resource, geography, supplier, term etc.)
  - You must retain the RECs associated with onsite projects in order to claim to be using renewable electricity
- They are not offsets – different instruments, different applications and claims
- EPA recommends buying certified and verified green power products as a best practice

# Why are RECs important?

- Instrument through which renewable energy and environmental claims are substantiated
- Tool used for meeting corporate goals for greenhouse gas reporting as well as for state policy mandates under Renewable Energy Portfolio (RPS) standards
  - They are used by organizations as a tool to reduce their scope 2 emissions
- Influence electricity market dynamics by allowing the expression and aggregation of consumer preferences for specific forms of electricity generated from renewables
  - REC procurement reduces available REC supply sending a demand signal to the market to develop more supply
- Incent new renewable energy project development
  - Voluntary users can qualify their preference for specific renewables
  - States can spur development through mandated programs (SREC programs)

# Making Environmental Claims

- Explain green power & the environmental benefits
  - Public has limited understanding of green power and its benefits
  - Provide simple information about the difference you will make
  - Ensure that you have retained the contractual rights to make claims
- Make your message transparent and tangible
- A simple, safe claim
  - I use renewable electricity from a zero emissions resource
- Focus on GHG emission claims, rather than clean air benefits
  - Environmental regulations for SO<sub>2</sub> and NO<sub>x</sub> complicate those claims



<https://www.epa.gov/greenpower/guide-making-claims-about-your-solar-power-use>

# Types of Partner Claims

- Purchaser claims

- Powered in part or wholly by renewable electricity
- Reducing our emissions associated with purchased electricity
- Supporting renewable energy

- Generator claims

- Generates renewable electricity
- Produces zero or low emissions electricity

# Direct or Express Claims

- FTC Example: A toy manufacturer places solar panels on the roof of its plant to generate power, and advertises that its plant is “100% solar-powered.” The manufacturer, however, sells renewable energy certificates based on the renewable attributes of all the power it generates. Even if the manufacturer uses the electricity generated by the solar panels, it has, by selling renewable energy certificates, transferred the right to characterize that electricity as renewable.
- The manufacturer’s claim is therefore deceptive.

# Implied Claims

- A toy manufacturer places solar panels on the roof of its plant to generate power....
- It also would be deceptive for this manufacturer to advertise that it “hosts” a renewable power facility because reasonable consumers likely interpret this claim to mean that the manufacturer uses renewable energy.



# Implied Claims, continued

- A university issues a press release about its recent power purchase agreement for a on-campus, 1 MW solar array
- Press release highlights:
  - University's goal of achieving carbon neutrality by 2030
  - University's new purchase of fixed price electricity from the on-campus solar facility.
- Both claims are technically accurate.
- However, reasonable consumer would interpret as the university is using solar to reduce its carbon footprint.

# Determining REC Ownership

- Review power purchase agreement (PPA) contracts, interconnection and net-metering agreements, state and utility incentives, and other solar contracts.
- Look for “renewable energy certificates”, “renewable energy credits”, “environmental attributes”, “green tags”, or similar.
- Solar Energy Industries Association’s Solar Business Code
  - Guiding Principles
    - 5.12: Renewable Energy Certificate (“REC”) ownership is a Material Term in a solar contract, regardless of ownership structure (e.g., purchase, lease, power purchase agreement).
    - 5.14: Many Consumers are unfamiliar with RECs and their characteristics.... The Company must take steps to educate its Consumer about RECs, including providing ...: Guidelines for Renewable Energy Claims: Guidance for Consumers and Electricity Providers, Center for Resource Solutions (Feb. 26, 2015) [<http://resource-solutions.org/site/wp-content/uploads/2015/07/Guidelines-for-Renewable-Energy-Claims.pdf>]

# Determining REC Ownership

## Environmental Attributes and Environmental Incentives.

Unless otherwise specified on Exhibit 1, Seller is the owner of all Environmental Attributes and Environmental Incentives and is entitled to the benefit of all Tax Credits, and Purchaser's purchase of electricity under this Agreement does not include Environmental Attributes, Environmental Incentives or the right to Tax Credits or any other attributes of ownership and operation of the System, all of which shall be retained by Seller. Purchaser shall cooperate with Seller in obtaining, securing and transferring all Environmental Attributes and Environmental Incentives and the benefit of all Tax Credits, including by using the electric energy generated by the System in a manner necessary to qualify for such available Environmental Attributes, Environmental Incentives and Tax Credits. Purchaser shall not be obligated to incur any out-of-pocket costs or expenses in connection with such actions unless reimbursed by Seller. If any Environmental Incentives are paid directly to Purchaser, Purchaser shall immediately pay such amounts over to Seller. To avoid any conflicts with fair trade rules regarding claims of solar or renewable energy use, Purchaser, if engaged in commerce and/or trade, shall submit to Seller for approval any press releases regarding Purchaser's use of solar or renewable energy and shall not submit for publication any such releases without the written approval of Seller. Approval shall not be unreasonably withheld, and Seller's review and approval shall be made in a timely manner to permit Purchaser's timely publication.

"Environmental Attributes" means any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, attributable to the System, the production of electrical energy from the System and its displacement of conventional energy generation, including (a) any avoided emissions of pollutants to the air, soil or water such as sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO) and other pollutants; (b) any avoided emissions of carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change, or otherwise by law, to contribute to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere; and (c) the reporting rights related to these avoided emissions, such as Green Tag Reporting Rights and Renewable Energy Credits. Green Tag Reporting Rights are the right of a party to report the ownership of accumulated Green Tags in compliance with federal or state law, if applicable, and to a federal or state agency or any other party, and include Green Tag Reporting Rights accruing under Section 1605(b) of The Energy Policy Act of 1992 and any present or future federal, state, or local law, regulation or bill, and international or foreign emissions trading program. Environmental Attributes do not include Environmental Incentives and Tax Credits. Purchaser and Seller shall file all tax returns in a manner consistent with this Section 5. Without limiting the generality of the foregoing, Environmental Attributes include carbon trading credits, renewable energy credits or certificates, emissions reduction credits, emissions allowances, green tags tradable renewable credits and Green-e® products.

# Potential Consequences of Deceptive Claims

- Legal: Federal Trade Commission and state attorney general offices
- Contractual & Financial: Breach of contract
- Brand & Reputation: Issuance of clarifying statement
- Renewable Energy Market: Double “use” claim on the same renewable electricity
- GHG Accounting: Double accounting for same zero emission resource

# Market Standards & Guidance

- **U.S. EPA**
  - Green Power Partnership minimum purchase requirements
- **U.S. FTC revised Green Guides on marketing claims**
- **WRI/WBCSD GHG accounting standards**
- **Third-party certification/verification**
  - Certification is a best practice for voluntary REC markets
  - While certification is not mandatory or necessary for REC generation, the standards used by REC certifiers set expectations for both the compliance and voluntary REC markets



# Interactive Claims Workshop

# Scenario 1 – Appropriate claims and emissions statement

- Scenario 1: Company A has onsite solar system and owns associated RECs. What claims can this company claim about their use and generation of renewable energy and associated greenhouse gas emissions? Select all that apply.
  - We are using solar power
  - Our solar panels are reducing our carbon footprint
  - Our solar panels are helping to reduce our energy costs and generate revenue through the sale of the RECs
  - Apply the zero emissions rate conveyed by the REC to your purchased electricity consumption under Scope 2
  - Apply grid average emissions rate or grid residual mix

# Scenario 1 – Appropriate claims and emissions statement

- Scenario 1: Company A has onsite solar system and owns associated RECs.
  - **We are using solar power**
  - **Our solar panels are reducing our carbon footprint**
  - Our solar panels are helping to reduce our energy costs and generate revenue through the sale of the RECs
  - **Apply the zero emissions rate conveyed by the REC to your purchased electricity consumption under Scope 2**
  - Apply grid average emissions rate or grid residual mix



# Scenario 2– Appropriate claims and emissions statement

- Scenario 2: Company B has onsite solar system but does not own associated RECs. What claims can this company claim about their use and generation of renewable energy and associated greenhouse gas emissions? Select all that apply.
  - We are using solar power
  - We are not using solar power but our solar system is helping to green the grid
  - Our solar panels are helping to reduce our energy costs and generate revenue through the sale of the RECs
  - Apply the zero emissions rate conveyed by the REC to your purchased electricity consumption under Scope 2
  - Apply grid average emissions rate or grid residual mix

# Scenario 2– Appropriate claims and emissions statement

- Scenario 2: Company has onsite solar system but does not own associated RECs.
  - We are using solar power
  - **We are not using solar power but our solar system is helping to green the grid**
  - **Our solar panels are helping to reduce our energy costs and generate revenue through the sale of the RECs**
  - Apply the zero emissions rate conveyed by the REC to your purchased electricity consumption under Scope 2
  - **Apply grid average emissions rate or grid residual mix**

# Scenario 3– Appropriate claims and emissions statement

- Scenario 3: Company C has onsite solar and does not own associated Solar RECs, but purchases wind RECs equal to 100% of power needs. What claims can this company claim about their use and generation of renewable energy and associated greenhouse gas emissions? Select all that apply.
  - We are not using solar power but our solar system is helping to green the grid
  - Our solar panels are reducing our carbon footprint
  - Our solar panels are helping to reduce our energy costs and generate revenue through the sale of the RECs
  - Apply grid average emissions rate or grid residual mix

# Scenario 3– Appropriate claims and emissions statement

- Scenario 3: Company has onsite solar and does not own associated Solar RECs, but purchases wind RECs equal to 100% of power needs.
  - **We are not using solar power but our solar system is helping to green the grid**
  - Our solar panels are reducing our carbon footprint
  - **Our solar panels are helping to reduce our energy costs and generate revenue through the sale of the RECs**
  - Apply grid average emissions rate or grid residual mix
  - **Apply zero emissions rate from the replacement wind RECs but not claim it to be of solar origin.**

# Scenario 4 – Appropriate claims and emissions statement

- Scenario 4: University D signs a physical PPA to offtake production from 10 MW of wind power (and associated RECs) with a yet-to-be developed off-site 100 MW system. Nine other institutions have similar 10 MW PPA agreements and because of this PPA, the project is now being built. What claims can this company claim about their use and generation of renewable energy and associated greenhouse gas emissions? Select all that apply.
  - We are using solar power
  - We helped develop new renewable energy supply
  - We are not using solar power but our solar system is helping to green the grid
  - Apply the zero emissions rate conveyed by the REC to your purchased electricity consumption under Scope 2
  - Apply grid average emissions rate or grid residual mix

# Scenario 4 – Appropriate claims and emissions statement

- University D is getting **some** of its power through the PPA and the associated RECs. Their off-take represents 10% of the output. Their engagement **helped** get this project built.
  - **We are using solar power**
  - **We helped develop new renewable energy supply**
  - We are not using solar power but our solar system is helping to green the grid
  - **Apply the zero emissions rate conveyed by the REC to your purchased electricity consumption under Scope 2**
  - Apply grid average emissions rate or grid residual mix

# Scenario 5– Appropriate claims and emissions statement

- Scenario 5: Company E signs a 20-year physical PPA with a new off-site system, but per agreement the developer owns RECs for the first 5 years and company will receive replacement nationally sourced wind RECs. For years 5-20 the company will own RECs. What claims can this company claim about their use and generation of renewable energy and associated greenhouse gas emissions?

Select all that apply.

- We generate solar energy but do not keep the RECs.
- We are using solar power /powered by solar energy
- Our solar panels reduce our carbon footprint
- Apply zero emissions rate from the replacement wind RECs but not claim it to be of solar origin.
- Apply the zero emissions rate conveyed by the REC to your purchased electricity consumption under Scope 2

# Scenario 5– Appropriate claims and emissions statement

- Scenario 5: Company E signs a 20-year physical PPA with a new off-site system, but per agreement the developer owns RECs for the first 5 years and company will receive replacement nationally sourced wind RECs. For years 5-20 the company will own RECs.
  - **For Year 1 – 5:** We generate solar energy but do not keep the RECs. However, we purchase 100% wind power and have zero scope 2 emissions.
- Apply zero emissions rate from the replacement wind RECs but not claim it to be of solar origin.
  - **For year 5 – 20:**
    - We are using solar power /powered by solar energy
    - Our solar panels reduce our carbon footprint
    - Our electricity comes from solar panels
- Apply the zero emissions rate conveyed by the REC to your purchased electricity consumption under Scope 2



# Claims: Best Practices

- If you are claiming to use solar electricity, ensure you either own, or have exclusive contractual rights to, the RECs associated with the solar electricity you are claiming to use.
- If you don't own the RECs associated with your onsite system, don't make public claims about using renewable electricity.
- Avoid making unqualified claims. Be specific and clearly define RECs and who owns them in any public communication.
- Avoid making implied claims.
- Ask for communications assistance from industry experts and key stakeholders.
- Ensure individuals throughout your organizations understand importance of accurate claims and have multiple stakeholders review communications materials.

# Claims: Additional Resources

- Visit Green Power Partnerships' Claims web page:
  - <https://www.epa.gov/greenpower/making-environmental-claims>
- Center for Resource Solutions (CRS) REC claims and ownership
  - <http://resource-solutions.org/learn/rec-claims-and-ownership>
- National Association of Attorneys General (NAAG)  
*Environmental Marketing Guidelines for Electricity*
  - [http://apps3.eere.energy.gov/greenpower/buying/pdfs/naag\\_0100.pdf](http://apps3.eere.energy.gov/greenpower/buying/pdfs/naag_0100.pdf)
- Vermont Attorney General's Office  
*Guidance for Third-Party Solar Projects*
  - <http://ago.vermont.gov/assets/files/PressReleases/Consumer/Guidance%20on%20Solar%20Marketing.pdf>
- RE100  
*Making credible renewable energy usage claims*
  - <http://media.virbcdn.com/files/62/53dc80177b9cc962-RE100CREDIBLECLAIMS.pdf>