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U.S. Environmental Protection Agency

GHG Accounting for Renewable Energy Credits (RECs)





Topics

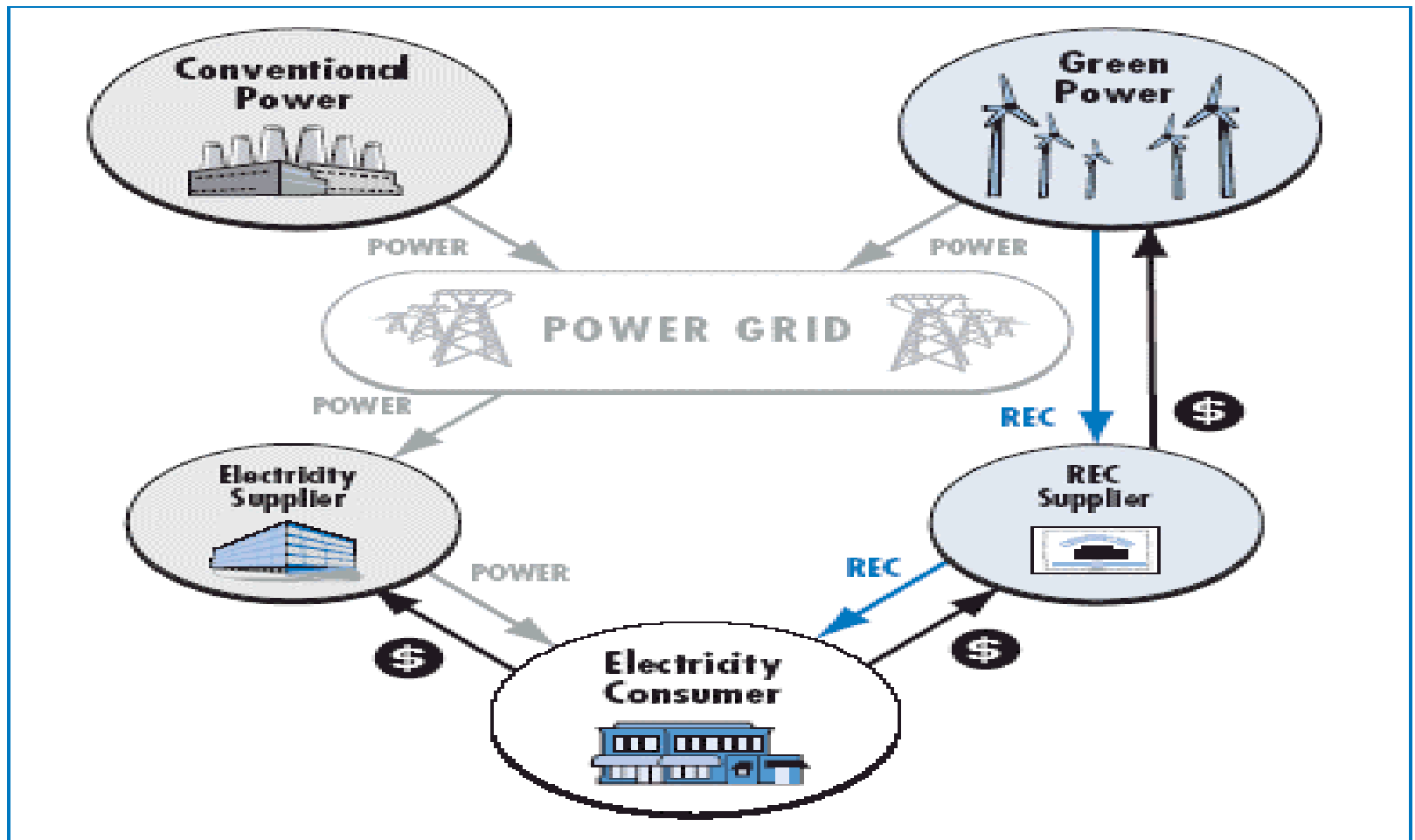
- ◆ Using RECs to meet Climate Leaders' Objectives
- ◆ Renewable Energy Credits (RECs)
- ◆ Refresher: Accounting for **Electricity Purchases** in GHG Inventory
- ◆ Accounting for **REC Purchase** in GHG Inventory
- ◆ Issues to Consider
- ◆ Next Steps/Questions



Using RECs to Meet Climate Leaders' Objectives

- ◆ Support renewable energy purchases as a corporate environmental strategy
- ◆ Provide a straightforward method of accounting for these actions
- ◆ Build upon CL's existing GHG inventory methodology

Renewable Energy Credits



Renewable Energy Credits

- ◆ Financial instrument that allows for the separation of the right to claim associated environmental benefits of RE (the REC) from the energy (MWh)
- ◆ Represent the characteristics of a MWh of electricity produced from a specific renewable energy facility including location, technology, and vintage (year)
- ◆ Can be sold either bundled w/ electricity or separately

Issues Raised by REC Purchase

- ◆ How to account for purchase in inventory?
 - Local REC
 - REC from across the country
- ◆ How to ensure REC is not double sold?
- ◆ How to ensure REC CO2 impact is real?

Accounting for Purchased Electricity

- ◆ Categorized as **Indirect Emissions**
- ◆ Estimated CO₂ Emissions =
Electricity (MWh) X Emission Rate (#/MWh)
- ◆ Emissions rate
 - From eGRID database
 - Average, annual, regional
 - Vary substantially (3x) by region

Accounting for REC Purchase

REC purchase treated as an adjustment to indirect emissions from purchased electricity

REC vintage must ~ equal inventory year

Steps

- ◆ (1) Calculate indirect emissions from purchased electricity
- ◆ (2) Calculate CO₂ impact of REC purchase
- ◆ (3) Net indirect emissions = (1) - (2)

Accounting for REC Purchase (cont.)

CO2 Impact of REC Purchase =

RECs (MWh) X Emission Rate (#/MWh)

- ◆ Emissions rate based upon average, regional eGRID factor **from region REC sourced**

Key Implication

- ◆ If REC is sourced from same region as electricity purchase effect is to “net out” emissions 1:1
 - i.e., 1 REC nets out emissions from 1 MWh purchased
- ◆ If REC is sourced from outside the region it's not that simple

Issues to Consider

- ◆ Does accounting approach make sense?
 - Consistent with existing CL inventory methods
 - Reasonably simple to apply/understand?
 - Enables use of RECs to reduce GHG inventories
- ◆ How to ensure REC is not double-sold and CO2 impact is real?
 - If sourced from within region w/ tracking system (Texas, Wisconsin, New England)
 - ✦ Maintain documentation and “retire” if possible
 - If sourced from outside region w/ tracking system
 - ✦ Attestation letter from seller?
 - ✦ Third-party certification?
 - ✦ What level of due diligence required?
 - Is REC also used to meet mandated requirements such as Settlement Agreement or RPS?

Next Steps/Questions

- ◆ Getting input from Partners
- ◆ Revise guidance on electricity purchases to include REC purchase

Any questions?