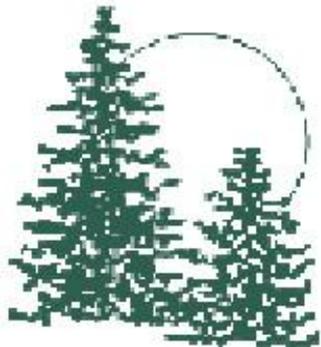


Renewable Energy Markets

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Federal-State RPS Interactions



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 - Lawrence Berkeley National Laboratory
 - New York State Energy Research and Development Authority
 - Renewable Energy Marketers Association
 - Union of Concerned Scientists
 - US Environmental Protection Agency

Introduction

- 29 states and DC have adopted an RPS (RES)
 - ▶ To demonstrate compliance, most states require that “utilities” obtain and retire RECs, or make alternative compliance payments
 - ▶ Because RECs are tradable commodities, market rules governing RECs are very important
- There are two main RPS bills before Congress
 - ▶ House: HR 2454, aka ACESA or Waxman-Markey
 - ▶ Senate: S 1462, aka Bingaman
- What happens when federal RES is layered on top of state RPS?

No State Preemption



- Many states have adopted more stringent RPS
 - ▶ Nothing diminishes the authority of a state to adopt or enforce any law or regulation re: renewable energy
 - ▶ But of course states must meet Fed requirement
 - ▶ Waxman-Markey specifically allows state programs that exceed the federally required amount of renewable energy

Dual REC System



- Both bills contemplate a dual REC system—each unit of energy is the basis for issuing one federal REC and one state REC
- Alternative: Single REC system
 - Federal RES compliance eligibility is just another attribute attached to the REC
 - Less confusing, but unlikely to happen
- A dual REC system can work, but it's a little trickier

REC Definition



- ▶ REC definitions vary from state to state
 - ▶ What attributes or benefits must be included?
- ▶ If federal RECs have attributes, there could be double counting if generator sells federal REC and state REC to two different parties
- Federal REC should have no renewable attributes and support no environmental claims
 - ▶ Its only use should be for compliance
 - ▶ Bills do not refer to any attributes

Waxman-Markey: REC = 1 MWh
Bingaman: REC = 1 kWh

Surplus Federal RECs



- If state targets are higher than federal, utilities in those states will have more federal RECs than needed for their own federal compliance
 - ▶ Utilities in these states could sell their surplus federal RECs to lower their cost of compliance
- But if these surplus federal RECs are sold to other utilities for federal RES compliance, the higher state requirements will be undercut
 - ▶ They'll be used for compliance by a utility in another state without creating any additional generation
 - ▶ Federal RES will become a ceiling rather than a floor
- States with higher targets may want to protect their efforts: Require that a federal REC be retired for every non-federal REC used for state compliance
- In both bills, states could do this, but a state option will lead to market confusion—which RECs are additional?

Surplus Federal RECs - 2



- Similar situation for voluntary purchases of non-federal RECs
 - ▶ Buyers expect their purchase will create RE above any mandates, but if federal REC is not retired with voluntary purchase, it will be sold to and used by a utility, relieving it of the need to create additional RE generation
- Three options to ensure additionality:
 - Marketers buy and retire federal RECs to match each voluntary purchase
 - State option to require 1-1 retirement (federal and non-federal REC)
 - Better: Bills should require that a federal REC be retired for each non-federal REC used for compliance with a state RPS or to supply a voluntary product or program

REC Ownership



- By creating a new commodity—federal RECs—RES bills may inadvertently create uncertainty about ownership rights under existing contracts that are silent about federal RECs
 - ▶ As a result, double claims on the federal RECs may occur
- Current bills address only utility PPAs that are silent as to ownership. They give the federal RECs to the utility purchasing the power, but there are other situations not addressed:
 - ▶ Pre-existing REC-only contracts
 - ▶ Pre-existing contracts for energy bundled with RECs
 - ▶ Pre-existing utility PPAs that are silent because a separate contract with a third party conveys the RECs
- ▶ Unless contracts state otherwise, federal RECs should be conveyed to the purchaser of the non-federal RECs

REC Tracking Systems



- Should Feds develop a new national tracking system for federal RECs?
 - ▶ States are invested in tracking systems for reporting and to prevent double counting
 - ▶ Costly duplication of effort
 - ▶ Generators would have to register twice
 - ▶ Participants manage multiple accounts, pay extra fees
- Waxman-Markey directs FERC to work with existing regional and state tracking systems “to the extent practicable”
 - Existing systems could be modified to handle either a dual REC or single REC approach
- Bingaman says DOE “may delegate to regional entities the tracking of dispatch of renewable generation”
 - ▶ Nothing to prevent coordination

What?

Alternative Compliance Payments

- General rule: RECs are issued to generators, but
- Both bills would issue RECs to utilities based on payments to the state, including ACP payments
 - ▶ based on the quantity of RE resulting from “the payment of taxes, fees, surcharges or other financial obligations.” (Bingaman)
 - ▶ for “generation that is attributable” to such payments (Waxman-Markey)
- ▶ Rationale: Utilities in central procurement states should be credited for their payments to the state

ACPs - 2



- Issuing RECs to utilities based on generation presents a big risk of double counting
 - ▶ If a payment results in the issuance of a REC, that REC has already been issued to the generator
 - ▶ Issuing a REC to the utility is double-counting
- Simpler method: Don't issue RECs to utilities, but reduce their obligation by an accounting adjustment
- Simpler still: Don't count state ACP payments towards federal RES

Renewable Energy Funds



- Both bills now require utilities that make ACPs to pay directly to the state where they operate
 - ▶ Held in a separate account administered by state
- Money must be used as follows:
 - Waxman-Markey: Deploy technologies that generate RE, or implement cost-effective EE
 - Bingaman:
 - Increase quantity of RE including nuclear and advanced coal technology for CCS
 - Promote deployment and use of electric vehicles and batteries
 - Offset costs of the RES by direct grants to consumers
 - Invest in energy efficiency

Energy Efficiency



- Bingaman: State (or TVA) may petition to allow max 26.67% of the obligation (e.g. 4% in 2021) to count towards RES
 - ▶ EE credits issued and fully tradable
- Waxman-Markey: EE accepted for up to 25% of obligation, plus state may petition to increase that to 40%
 - ▶ No EE credits issued
 - ▶ Utilities can purchase EE savings but only from within the state served by the utility

For More Perspectives

- Clean Energy States Alliance

- ▶ <http://www.cleanenergystates.org/JointProjects/State-Federal-RPS.htm>

- Union of Concerned Scientists

- ▶ http://www.ucsusa.org/clean_energy/

- Renewable Energy Marketers Association

- ▶ <http://www.renewablemarketers.org/index.php?id=44&page=Documents>