Status of the Voluntary Renewable Energy Markets

Renewable Energy Markets 2010 Conference

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Overview

• Voluntary market growth in 2009
• Sales and customer trends
• Price premiums and REC prices
• Highlights from 2010
• Market forecast
Innovation for Our Energy Future

Green Power Sales Up in 2009 by 17%

REC market sales continued to lead growth; growth in all sectors was slower than last year. Mixed market - some programs/marketers reported losses.
Voluntary Markets on Par with Compliance Markets

- Voluntary markets have been sizable, on par with new renewables required by state RES targets.
- In 2009, requirements for new renewables from compliance markets overtook the voluntary market for the first time.
- Compliance market requirements increase significantly in coming years.

Data sources: LBNL, NREL 2010
Nonresidential purchases represented more than 75% of annual green power sales in 2009.
Customer Numbers Surge, Led by Texas

Participation in REC markets and utility green pricing programs remained relatively flat; one new competitive program pushed competitive market participation up by 110%.
Voluntary REC retirements in Texas, including those by competitive marketers and utility green power programs, increased by 22.7% between 2008 and 2009, from 7.3 million MWh to 8.9 million MWh.
Wind Continued to Be Dominant Resource

*Wind remained the dominant resource supplying the voluntary market.*

**Estimated Green Power Sales by Source**

- **Wind**: 74%
- **Landfill gas/Biomass**: 10%
- **Hydro**: 10%
- **Geothermal**: 0.2%
- **Solar**: 0.1%
- **Unknown**: 6%
Green power premiums continued to decrease in 2009 as a result of increasing competitiveness of renewables.
In 2009, prices paid for nationally sourced voluntary RECs from any technology ranged from about $0.88/MWh to $3.00/MWh.
GHG offsets sourced from U.S.-based RE sources increased approximately 39% from 2008 to 2009. In 2009, 485,700 MWh of U.S.-based RE was sold as a GHG offset.
Highlights of 2010

• FTC issues proposed updates to Green Guides
• CEQ issues Federal GHG Guidance allowing RECs to meet federal GHG reduction goals
• Utilities roll-out community-solar programs
• Voluntary Renewable Energy Coalition Launched (May)
• Marin Energy Authority purchases green power; increased interest in community choice aggregation ahead?
• CA proposed decision on RECs for RPS compliance, influence on Western market
• Substantial growth in on-site solar market, leasing options take off
2010 on track to be record year, 339 MW installed in first half of 2010; 435 MW installed in 2009; $6.90/watt average residential; $5.00/watt commercial systems (before incentives); total installed capacity 1,200 MWdc end of 2009
What About 2010 Voluntary Market Growth?

• Limited data on 2010, but some indicative data available
• Texas growth may not be fully captured in 2009 data
• 2010 EPA Green Power Partnership data
  • Partner purchases up 5% from year-end 2009 to 18 million MWh from 17.1 million
  • Number of partners also up 5% to nearly 1,300
  • New purchases tempered by suspended purchases
Projects the total voluntary demand for renewable energy in 2015 to range from 63 to 157 million MWh annually. The negative policy impacts scenario reflects a market size of 24 million MWh in 2015.
Additional Information

http://eere.energy.gov/greenpower/

Recent Reports:
Green Power Marketing in the United States: A Status Report
Voluntary Green Power Market Forecast through 2015