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Guidelines on new Argus renewables and carbon coverage: June 2012

US renewables markets have developed rapidly, and the need for dynamic, robust and comprehensive market data, analysis and news has never been greater. Argus is meeting this demand with an enhanced suite of renewable energy certificates (RECs) price assessments and expanded coverage of carbon markets.

Starting 1 June, Argus Air Daily will increase its industry-leading market data coverage for RECs, adding new assessments for California, Green-e's Western Electricity Coordinating Council (WECC) area, Maryland and Ohio.

Argus' expanded carbon coverage includes a daily volume-weighted average for California Carbon Allowances for compliance in 2013 and delivery in December 2013. Trades reported and confirmed each day are also reflected as a cumulative average for the prevailing month. Argus has published California Carbon Allowance assessments since August 2011, and the market is expected to grow this year ahead of the start of cap-and-trade in 2013.

California RECs

California expanded the portion of electricity that must be derived from renewable sources from 20pc in 2010 to 33pc by 2020 with the enactment of SB 2X in April 2011. The new rules divide renewable resources into three categories:

- Category 1 sources must interconnect or dynamically transfer electricity to a California balancing authority.
- Category 2 represents incremental renewable electricity that is "firmed and shaped," meaning power and RECs are bought from an out-of-state source and matched with another power source scheduled to a California balancing authority.
- Unbundled tradable RECs fall into category 3, which is limited to 25pc of renewable portfolio standard supplies in the 2011-2013 compliance period, 15pc in 2014-2016 and 10pc in 2017-2020.

Some details of how SB 2X will be implemented are still being developed, including rules on REC banking.

The California Public Utilities Commission regulates investor-owned utilities and competitive electricity suppliers. The investor-owned utilities procure renewable resources through solicitations for contracts, which then must receive approval from the Public Utilities Commission. The Energy Commission develops regulations for municipal utilities and publishes guidebooks on renewable resource eligibility.

WECC Green-e wind

The nonprofit Center for Resource Solutions certifies RECs with the "Green-e" trademark.

These RECs are usually bought by utilities with voluntary green power programs or by companies with sustainability goals. Sometimes RECs may be cross-marketed as both Green-e certifiable and useable for compliance with a state's renewable portfolio standard.

The growth of WECC Green-e REC supplies has been rapid. In 2011, there were 17.2mn Green-e eligible RECs registered in WREGIS, up from 10.2mn in 2010 and 6.3mn in 2009.

WECC encompasses territory stretching from the Canadian provinces of Alberta and British Columbia, the northern portion of Baja California, Mexico, and all or portions of the 14 US western states between. Green-e RECs are tracked in the Western Renewable Energy Generation Information System (WREGIS).

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California Carbon Allowances volume-weighted average

Argus Air Daily has begun publishing a volume-weighted average of all allowance trades for 2013 compliance and December 2013 delivery that are reported and confirmed each day, along with a cumulative average for the prevailing month. The California carbon market has been slowly getting its footing as the first year of compliance – 2013 – approaches. While activity in the market remains stop-and-go, volumes are expected to grow this summer and fall as many compliance entities begin to wade into the market.

The volume-weighted average is calculated by dividing the total value of all conforming trades by their total volume. The daily volume-weighted average will be left blank on days when no trades are reported.

In 2013 and 2014 California’s cap-and-trade program will cover the electric and large industrial sectors, being expanded in 2015 to cover emissions from transport fuels and natural gas. The state plans to auction off a significant share of the allowances in the program with quarterly auctions starting in November 2012.

Gas-implied, carbon-adjusted SP-15 spark spreads

Marginal unit	Heat rate (mmBtu/MWh)	Carbon cost (\$/MWh)
Gas-implied	12.326	10.16
Carbon-adjusted	9.978	8.22
Western grid electric exports		6.63
Bonneville Power Administration exports		1.33

Adjusted spark spreads in \$/MWh				
Heat rate	7	8	10	12
Gas-implied	18.65	15.15	8.14	1.14
Carbon-adjusted	12.88	8.55	-0.10	-8.75
Carbon cost	5.77	6.59	8.24	9.89

The data display the spread of fuel and carbon costs of running a power plant compared with the assessed power price at SP-15 and carbon cost per heat-rate point and for unspecified power imports. Data are based on today’s assessed forward calendar year power price at SP-15, the forward calendar year gas price at SoCal and the December 2013-Delivery CCA contract. For more information about this data, please contact airdaily@argusmedia.com or +1 (202) 775-0240.

Maryland Tier I

Maryland’s renewable portfolio standard requirements increase sharply from 6.5pc of electricity sales in 2012 to 20pc in 2022 and later.

Those figures include a solar “carve-out,” meaning a percentage set aside for solar renewable energy certificates (SRECs). For 2012, the solar carve-out is 0.1pc. Legislation passed this year, and signed by governor Martin O’Malley on 22 May, accelerates the solar requirements to 0.25pc in 2013, stepping up to 2pc in 2020 and later.

Tier I REC prices represent the non-solar portion of the requirement. Maryland Tier I RECs are sometimes dual-qualified with other states, such as New Jersey or the District of Columbia. Because of those market linkages, Maryland Tier I prices tend to move in tandem with RECs from those other markets.

Maryland uses a calendar year for RPS compliance. Electricity suppliers must submit their reports from the prior year to the state Public Service Commission by 1 April.

Maryland is in the PJM Interconnection, and RECs for compliance with the state’s RPS are tracked through the Generation Attribute Tracking System (GATS) operated by PJM’s Environmental Information Services. At the end of each month, GATS creates RECs from generation in the month before. For example, RECs from June 2012 generation will be minted on 31 July 2012.

RECs from out-of-state systems comprised 86pc of the RECs retired for 2011 compliance in Maryland. Black liquor biomass and municipals solid waste made up the largest fuel sources, followed by wind, wood and landfill gas.

Legislation enacted in May 2011 moved waste-to-energy facilities connected to the Maryland distribution grid from Tier II to Tier I.

Maryland Tier I RECs trade well below the non-solar alternative compliance payment rate of \$40/MWh because supply is plentiful.

Ohio in-state, non-solar RECs

RECs for compliance in Ohio trade less frequently than for states with more demanding renewable portfolio standards. For 2012, the total renewable energy obligation is 1.5pc of retail electricity sales, compared to 6.3pc for New Jersey. Ohio’s compliance obligation steps up to 12.5pc in 2024.

Ohio’s RPS includes a requirement that 50pc of the RECs retired for compliance come from in-state generation. The other 50pc must at least be deliverable to the state.

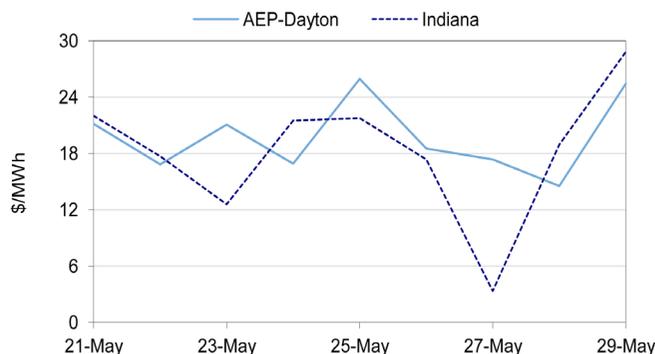
The rules effectively divide the market into four classes of RECs:

- in-state non-solar
- adjacent state non-solar
- in-state solar
- adjacent state solar

Ohio uses the calendar year for compliance. For 2012, utilities must obtain 0.75pc of their supply from renewable resources inside the state in 2012, and 0.03pc of that supply must come from solar resources.

Assuming retail electricity sales remain at 2010 levels, electricity suppliers would be expected to retire 1,109,847MWh of in-state,

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non-solar RECs. A law that takes effect on 16 July allows industrial facilities in Ohio to generate RECs from cogeneration projects fueled by blast furnace waste gases. The legislation was written to improve the viability of a project AK Steel plans to begin operating in September 2015. The project is expected to produce about 1mn MWh/yr of RECs. That would equal 37pc of the total in-state non-solar compliance requirement for the entire year of 2015, based on 2010 retail electricity sales.

Electricity suppliers must submit compliance reports annually by 15 April.



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