platts
100 YEARS

www.platts.com

Megawatt Daily

Originally published December 14, 2009

RGGI's first year seen as more tax than trade

The Regional Greenhouse Gas Initiative will mark its first anniversary on January 1 with the success of raising almost half a billion dollars from auctioning carbon allowances, but with that comes a lesson about how a cap-and-trade program can effectively become a tax without market pressure to change the behavior of greenhouse gas emitters.

RGGI will likely end 2009 with CO2 emissions from its covered power generators far below its annual cap and with the 10 Northeast and Mid-Atlantic states involved having sold 171.5 million allowances totaling $494.4 million. New York will receive the largest share of the take at $180.6 million, followed by Maryland at $96.2 million.

Formed in 2005, RGGI caps emissions at 188 million short tons annually from 2009 through 2014 then tightens the cap by 2.5% each year until a 10% reduction in emissions is achieved by 2018. The states raise funds for energy efficiency and renewable energy programs through quarterly allowance auctions that started in September 2008.

"RGGI auctions continue to run like clockwork. Six successful auctions, more than 100 bidders and $494 million for green energy and green jobs — RGGI is showing that cap-and-trade works," said RGGI Board of Directors Chairman David Littell in a December 4 statement after the program held its sixth allowance auction on December 2.

But looking at the main environmental intent of emissions cap-and-trade programs, RGGI was not a success in that it did not push generators to make operational changes, largely due to the program's rock-bottom allowance prices, according to market watchers. They attributed the low prices to a combination of the program cap being set too high, an unusual economic recession pushing down energy production, low natural gas prices and uncertainty about the future of the program.

When asked about RGGI's first year and the impact on generator behavior, RGGI Executive Director Jonathan Schrag in an e-mail response Thursday said only: "The RGGI participating states have put in place the US's first mandatory cap-and-trade program for greenhouse gas emissions and have proven that

platts Megawatt Daily

Volume 14, Issue 239 — December 14, 2009

ISSN: 1088-4319

Managing Editor
Paul Ciampoli

News Desk
202-383-2254,
electric@platts.com
Amy Fickling, Editor
Rod Kuckro, Chief Editor

Market Reporters
Eric Wieser, Daniel Guido, Leticia Vasquez, Milena Yordanova-Kline Mark Watson, Christine Cordner

Market Editors
Lisa Lawson, Mike Wilczek

Staff Reporters
Paul Carlsen, Catherine Cash, Jeffrey Ryser, Jason Fordney, Tom Tiernan, Lisa Weinzimer

Correspondents
Housley Carr, Lyn Corum, Ethan Howland, Harriet King, Bob Matyi, Mary Powers, Pam Radtke Russell, Lisa Wood

Editorial Director, U.S. Market Reporting
Brian Jordan

Editorial Director, U.S. Electricity
Kathy Carolin Larsen

Global Editorial Director, Power
Larry Foster

Vice President, Editorial
Dan Tanz

Platts President
Larry Neal

Manager, Advertising Sales
Ann Forte

Prices quoted in tables published in *Megawatt Daily* are obtained firsthand in confidential surveys of actual buyers and sellers. Platts makes no warranties, express or implied, as to the accuracy, adequacy or completeness of the data and other information set forth in this publication ("data") or as to the merchantability or fitness for a particular use with respect to the data. Platts assumes no liability in connection with any party's use of the data. Corporate policy prohibits editorial personnel from holding any financial interest in companies they cover and from disclosing information prior to the publication date of an issue.

Megawatt Daily is published daily by Platts, a division of The McGraw-Hill Companies. Registered office Two Penn Plaza, 25th Floor, New York, NY 10121-2298

Officers of the Corporation: Harold McGraw III, Chairman, President and Chief Executive Officer; Kenneth Vittor, Executive Vice President and General Counsel; Robert J. Bahash, Executive Vice President and Chief Financial Officer; John Weisenseel, Senior Vice President, Treasury Operations.

Copyright 2009 by Platts, The McGraw-Hill Companies, Inc.

All rights reserved. No portion of this publication may be photocopied, reproduced, retransmitted, put into a computer system or otherwise redistributed without prior authorization from Platts.

Permission is granted for those registered with the Copyright Clearance Center (CCC) to photocopy material herein for internal reference or personal use only, provided that appropriate payment is made to the CCC, 222 Rosewood Drive, Danvers, MA 01923, phone (978) 750-8400. Reproduction in any other form, or for any other purpose, is forbidden without express permission of The McGraw-Hill Companies, Inc.

Text-only archives available on Dialog File 624, Data Star, Factiva, LexisNexis, and Westlaw

Platts is a trademark of The McGraw-Hill Companies, Inc.

To reach Platts
E-mail: support@platts.com
North America
Tel: 800-PLATTS-8 (toll-free)
+1-212-904-3070 (direct)
Latin America
Tel: + 54-11-4804-1890
Europe & Middle East
Tel: +44-20-7176-6111
Asia Pacific
Tel: +65-6530-6430

Advertising
Tel: +1-720-548-5479

The McGraw-Hill Companies

Reprinted with permission from Platts, a division of The McGraw-Hill Companies © 2009

auctions are an effective way to allocate CO2 allowances."

The last auction saw prices come in at or close to the reserve price of $1.86/st, with 2009s at $2.05/st and 2012s at $1.86/st, a steep decline from the $3.51/st and $3.05/st reported from the year's first auction in March. Market players had initially traded 2009 allowances for December 2009 delivery in August 2008 at above $5/st, lower than the mid-2008 expectation of $7/st.

Paul Flemming, director of power and gas services at Wakefield, Massachusetts-based consultancy Energy Security Analysis Inc., said that RGGI states decided to overallocate the cap so the economic impact would not hit generators and retail power rates hard in the early years. This overallocation was made worse by basing the cap on a time period in the early 2000s, when dirtier oil-fired generators were running more due to cheaper commodity prices, and not on more recent years, when cheaper and cleaner gas-fired generation was running more.

Emissions in 2005 totaled 184,444,457 st, compared with the near-term high of 186,269,063 st hit in 2000 and the near-term low of 153,457,865 st in 2008. This year's emissions for the first three quarters reported so far total 93 million st, according to RGGI's web site on Friday. That total could increase as new data is reported to the Environmental Protection Agency.

Flemming said he expects that 2009 emissions will come in around 150 million to 160 million st since electricity demand, especially from large customers, dropped by 3% to 5% in the RGGI region. "It is pretty clear now that the surplus will be overwhelming next year," he said, noting that 2009 allowances, which all sold at auction, can be banked for compliance in 2010 and 2011.

"With the auction clearing price at the floor, that level is not a level to induce generator behavior changes. Prices need to be at least $10 to start to change behavior and $20 to get some older coal plants to retire.... RGGI is more of a nuisance now and just another tax if it is spent on budgets," Flemming said.

New York is planning to use some RGGI funds to address its state budget shortfall rather than spend all of its funds, as originally intended, on energy efficiency, renewable energy and other clean energy technologies.

Vic Niemeyer, the Electric Power Research Institute's project manager for climate change research, agreed that a $2/st allowance would not impact power prices or generator behavior, making the reserve price like a tax.

"If the view is this has a revenue consequence above and beyond the cap, it is essentially a tax," he said. "The money raised isn't the point. In terms of an environmental program, the environmental benefits are whether the cap is binding or not. Looking at revenue from an environmental perspective, there would be the same reduction if the states gave or sold allowances."

RGGI allowance prices did not substantially hike wholesale power prices at ISO New England, the PJM Interconnection and New York Independent System Operator trading hubs. Impacted by the large drop in gas prices and power demand, all hubs saw declines from 2008 prices. For example, on-peak Massachusetts Hub day-ahead bilateral prices this month have been in the high $40s/MWh, at least $15 lower than this time last year and far below the $130s/MWh seen this time in 2007. Prices for New England have not been consistently this low since before 2000, according to Platts data.

'Proof of concept' rather than reduction program?

Steve Fine, vice president at Fairfax, Virginia-based consultancy ICF International, which has done analytical work for the RGGI states, agreed that allowance prices would have to be at least $10/st to spur changes in generator dispatch. But he added that ICF had forecasted $2/st in 2009 and $3-$4/st in 2010 and 2011 to reflect that RGGI administrators had not expected to change behavior in the program's first few years when they decided to overallocate the cap.

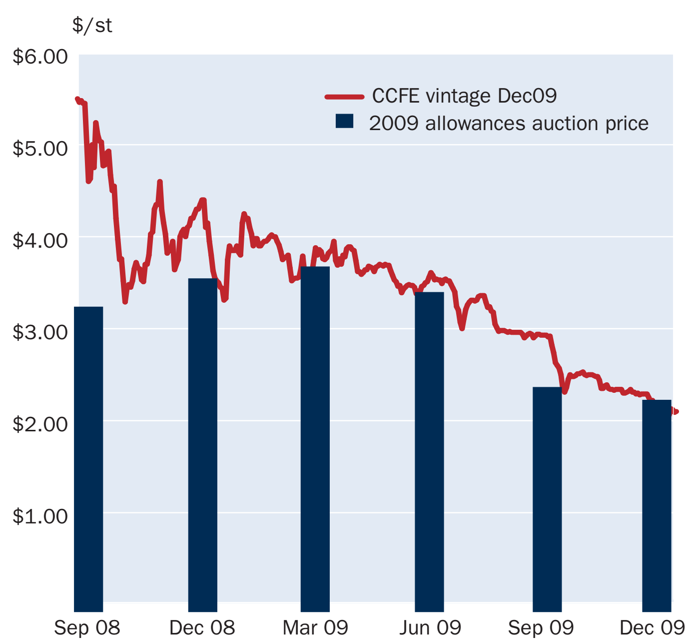
"In some ways, RGGI is more useful as proof of a concept than as an emissions reduction program because of its cap....People see it as more of a tax because of the auction nature of the program by those paying, because it is a cost. It doesn't matter if it is $2 or $20," he said. "It's a stretch to take that argument, that because there are no system changes [fuel switching] therefore it looks like a tax."

Also keeping RGGI prices low is the lack of belief that they will be worth something under a federal cap-and-trade program, Flemming said. Traders had the original idea of buying the allowances at $3-$4/st to make money on them by carrying them forward to a federal program in which allowances in 2012 are expected to start at least at $10/metric ton ($11/st), he said.

"But what has happened in [federal legislation] is that they will accept RGGI but credit what they paid for them," he said, making it a riskier prospect to buy them speculating on federal valuation.

With the federal climate bill debate set to continue into next year, two measures (H.R. 2454 and S. 1733) voted on this year would value 2009, 2010 and 2011 allowances as the average of

RGGI auction and futures prices since program start



Source: RGGI and Chicago Climate Futures Exchange

Copyright © 2009 The McGraw Hill Companies

each year's quarterly auctions. With a federal program start date in 2012, the value of those allowances was not set in the bills, becoming the main factor as to why the clearing price for RGGI 2012 allowances hit the reserve price in the last auction, according to RGGI market observers.

Flemming and Niemeyer pointed to the US sulfur dioxide cap-and-trade program as a better example of how to induce generator behavior changes. Started in 1995, the acid rain program has encouraged generators to invest in scrubbers and other means to reduce their allowance purchasing and has brought down SO2 emissions and allowance prices significantly as a result.

EPA announced Friday that generators decreased SO2 emissions to 7.6 million mt in 2008, or 52% compared with 1990 levels and below the 8.95 million-mt cap for compliance in 2010.

"It is a great example of cap-and-trade success," Flemming said, noting that allowance prices are now low because generators invested in equipment rather than continue to produce SO2 emissions and participate in the market. He noted, however, that SO2 reductions by scrubbers or burning cleaner coal were easier to make than CO2 reductions, with technologies such as carbon capture and storage far from commercialized.

The SO2 program provided flexibility to generators to reduce their emissions, Niemeyer said, noting that emissions fell almost by half and that the goal of the environmental program was met. "They started with the idea of cutting emissions rather than revenue generation," he said.

ICF's Fine said that the SO2 program, while it is an example of a cap being set correctly, is a national program that is not beset with regional issues in the way that RGGI is with generators participating in regional power markets along with non-RGGI generators.

"All regional programs that are there make sense in terms of moving the [cap-and-trade] ball forward, but the ultimate solution is a national program. They have done things that are useful, but a regional program is inherently limited," Fine said.

Dallas Burtraw, senior fellow at Washington-based nonprofit Resources for the Future, expressed similar thoughts. "RGGI had a great first year and the program has proven to have a strong design" since it accomplished many things, including a commitment to reducing emissions that serves as a federal model and successful auctions that maintained a price signal that would ensure real emissions reductions would be achieved, he said.

"The low allowance prices reflect the limited ability of the region to act by itself, but the fact that there is a price means that decisions in the electricity sector will take CO2 emissions into account for the first time and that there are real emissions reductions," he said.

"By design, RGGI is constrained to have low allowance prices. Nonetheless, the positive price is a cost that generators will try to avoid, and the allowance price floor means that generators can count on a price of at least this magnitude into the future. The year 2009 showed the model worked extremely well."

Despite low price, success shines through: observers

Flemming and Niemeyer also did not see RGGI's first year as unsuccessful because its administrators are looking at this with a long view, with the near-term goal being simply to get a program in place and to see how it works without too much of a burden on generators and retail customers.

Down the road, Flemming noted, RGGI can review its cap for adjustment in 2012, but he said he expects that to be politically difficult to do, along with raising the reserve price for the auctions, which would only underscore the perception of a tax-like nature of the program to date.

"I wouldn't call it a failure because the states didn't know what would happen with the economy….Generators are not doing anything they have not been asked to do. They are under the cap as it is now, so that is not a failure of the system," Niemeyer said.

RGGI generators have yet to put out year-end data on how much they have spent on allowances in 2009, but some details have been revealed in their third-quarter earnings filings to the Securities and Exchange Commission, indicating relatively minor spending for these multibillion-dollar companies.

For instance, NRG Energy reported spending $6 million on allowances during the third quarter and $15 million in the first three quarters, while Public Service Enterprise Group reported spending $25 million in the three quarters, and Mirant reported spending $12 million in the third quarter and $39 million in the first three quarters.

RGGI's next allowance auction, when 2010 and 2012 allowances will be offered, is set for March 10, 2010. As a sign that prices will rebound next year, the federal Energy Information Administration on Tuesday in its Short-term Energy Outlook projected that improvements in the economy would contribute to a 1.5% increase in CO2 emissions from fossil fuels in 2010, after seeing them fall 6.1% this year due to a weak economy and changes in fuels used by generators. *— Christine Cordner*

Copyright © 2009 The McGraw Hill Companies