

# Twelve-Month Rolling Average Price of Compliance Years 2011 and 2012 NOx RTCs

July 2012 Quarterly Report to Stationary Source Committee

## **Summary**

The RECLAIM rules include an average current-year NOx RTC price threshold of \$15,000 per ton that, if exceeded, triggers additional evaluation, reports to the Board, and potential proposed program adjustments. Staff reports the twelvemonth rolling average prices of NOx RTCs to the Stationary Source Committee (SSC) on a quarterly basis. This report is the third quarterly report to SSC in calendar year 2012.

Since January 2010, the twelve-month rolling average prices of Compliance Year 2011 NOx RTCs have been on a general declining trend as shown in Table I of this report and have not exceeded the \$15,000 per ton threshold. The twelve-month rolling average price (July 2011 through June 2012) for NOx RTCs valid for Compliance Year 2011 is \$942 per ton. In comparison, the average price of Compliance Year 2010 NOx RTCs was \$1,369 per ton for the corresponding period, as reported in July 2011. For Compliance Year 2012 NOx RTCs, the twelve-month rolling average price for July 2011 through June 2012 is \$4,085. In comparison, the twelve-month rolling average of Compliance Year 2011 NOx RTCs was \$6,783 per ton for the corresponding period, ending June 2011. This is the appropriate basis for comparison because RTC prices generally decline as the expiration date approaches. The twelve-month rolling average prices are well below the \$15,000 per ton threshold specified by Rule 2002(f)(1)(C) and, therefore, do not trigger the requirement of reporting to, and potential further actions by, the Governing Board.

### **Background**

RECLAIM, a multi-industry cap-and-trade program for NOx and SOx, allows facilities several options to meet declining emission caps. Facilities can comply with their emission caps by adding controls, changing their operations and/or purchasing RECLAIM Trading Credits (RTCs). RTCs are issued for a specific twelve month period, with Cycle 1 RTCs expiring at the end of a Cycle 1 Compliance Year (which runs from January 1 through December 31), and Cycle 2 RTCs expiring at the end of a Cycle 2 Compliance Year (which runs from July 1 through June 30). At the end of each compliance year (Cycle 1 or Cycle 2, depending on the facility's cycle designation), there is a 60-day reconciliation period for RECLAIM facilities to obtain enough RTCs (Cycle 1 and/or Cycle 2) to cover their emissions.

The AQMD Governing Board amended Rule 2002(f) in January 2005 to reduce the NOx RTC holdings for Compliance Year 2007 and beyond by 22.5 % over five years (11.7 % in 2007 and an additional 2.7 % in each of the years 2008 through 2011), to convert the 10.8 % adjustment applied over the years 2008 through 2011 to Non-Tradable/Non-Usable RTCs, and to issue them to the parties that held the RTCs prior to conversion. These amendments also direct the Executive Officer to calculate the twelve-month rolling average price of NOx RTCs ("rolling average price") "for all trades for the current compliance year" excluding "RTC transactions reported at no price." Furthermore, pursuant to the RTC price reporting and averaging methodology approved by the Governing Board in September 2007, "swap" transactions (the exchange of RTCs for other RTCs or for other emissions credits) are also excluded from the calculation of rolling average prices.

In the event that the rolling average price exceeds \$15,000 per ton, the Executive Officer will report the rolling average price to the Governing Board. If the Governing Board concurs and determines that the rolling average price exceeds \$15,000 per ton, it may direct the Executive Officer to convert the annual incremental Non-Tradable/Non-Usable RTCs (2.7 %) back to active, tradable RTCs valid for the compliance year in which Cycle 1 facilities are operating at the time the finding is made. In its Resolution amending Rule 2002(f), the Governing Board directed the Executive Officer to report the NOx RTC twelve-month rolling average price data to the Stationary Source Committee at least quarterly. Therefore, staff began reporting twelve-month rolling average prices of Compliance Year 2008 NOx RTCs to the Stationary Source Committee in January 2008 and has continued to report this information to the Stationary Source Committee on a quarterly basis. The NOx RTC "shave" adopted in 2005 has been fully implemented since January 2011. Starting in Compliance Year 2012, there is no further scheduled incremental reduction of NOx RTCs. Therefore, if the rolling average price exceeds \$15,000 per ton for Compliance Year 2012 or later RTCs, no incremental reduction will be available for conversion to Tradable/Usable RTCs<sup>1</sup>. This Quarterly Report includes the twelve-month rolling average prices for both Compliance Years 2011 and 2012 NOx RTCs, which are the RTCs in current use.

## **Analysis**

Figure I presents the monthly average price of Compliance Year 2011 NOx RTCs for each month from January 2010 through June 2012, as well as the total volume of Compliance Year 2011 NOx RTCs traded in each of those months. Figure II shows the monthly average price and volume of Compliance Year 2012 NOx RTCs traded for each month from January 2011 through June 2012. The rolling average price can be calculated by dividing the total value traded (in dollars) during the twelve-month period by the total volume traded (in tons of NOx) for the same period. Tables I and II list the monthly total volume, total value traded and the rolling average price data for Compliance Year 2011 and 2012 NOx RTCs, respectively. The rolling average price data will continue to be

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<sup>&</sup>lt;sup>1</sup> District Rule 2015 – Backstop Provisions provides additional mechanism for re-evaluating and adjusting the RECLAIM program if average RTCs price exceeds \$15,000 per ton or based on findings from annual audits of the program

updated on a monthly basis and reported to the Stationary Source Committee on a quarterly basis. Historically, trading of a particular RTC has been most active during the final months of the compliance year and the subsequent reconciliation period. The trading volumes are normally higher, and prices also drop when compared to the other preceding months as the end of the annual reconciliation period approaches because these credits can no longer be traded beyond the annual reconciliation period.

As shown in Tables I and II, the monthly rolling average prices have not exceeded the \$15,000 per ton threshold specified in Rule 2002(f). The rolling average price of Compliance Year 2011 and 2012 NOx RTCs have been on a declining trend. The average price for Compliance Year 2011 NOx RTCs for July 2011 through June 2012 is \$942 per ton. In comparison, the average price of Compliance Year 2010 NOx RTCs was \$1,369 per ton for the corresponding period, as reported in April of 2011. For Compliance Year 2012 NOx RTCs, the average price for July 2011 through June 2012 is \$4,085. In comparison, the twelve-month rolling average price of Compliance Year 2011 NOx RTCs was \$6,783 per ton for the corresponding period ending June 2011. RTC prices generally decline as the expiration date approaches. Therefore, the appropriate comparison of the July 2011 through June 2012 average price of Compliance Year 2011 NOx RTCs is to the July 2010 through June 2011 average price of Compliance Year 2010 NOx RTCs. Similarly, the appropriate comparison of the July 2011 through June 2012 average price of Compliance Year 2012 NOx RTCs is to the July 2010 through June 2011 average price of Compliance Year 2011 NOx RTCs. Historically, Compliance Year 2012 NOx RTCs were only traded as part of Infinite-Year Block (IYB) trades that included a block of RTCs from a starting year and all the years thereafter. The first trade of Compliance Year 2012 discrete year NOx RTCs was not reported until October 2011. There were 25 trade agreements involving Compliance Year 2012 discrete year NOx RTC trades reported to date. They were traded in a price range of \$1,880 to \$6,500 per ton. Please note that staff has revised the trade data summarized in Table I to correct the numbers of trades of Compliance Year 2011 RTCs with price presented in the previous price report dated April 2012. However, this revision did not change any of the conclusions presented in the April 2012 rolling average price report.

#### Conclusions

Based on the average prices of NOx RTCs being well below the \$15,000 per ton threshold specified in Rule 2002(f)(1)(C), it is not necessary for the Executive Officer to provide a report on the NOx RTCs rolling average prices to the Governing Board or for the Governing Board to consider reinstating the incremental NOx RTC adjustment for Compliance Years 2011 or 2012.

Figure I

Monthly Average Price Data for Compliance Year 2011 NOx RTCs Traded –
January 2010 through June 2012

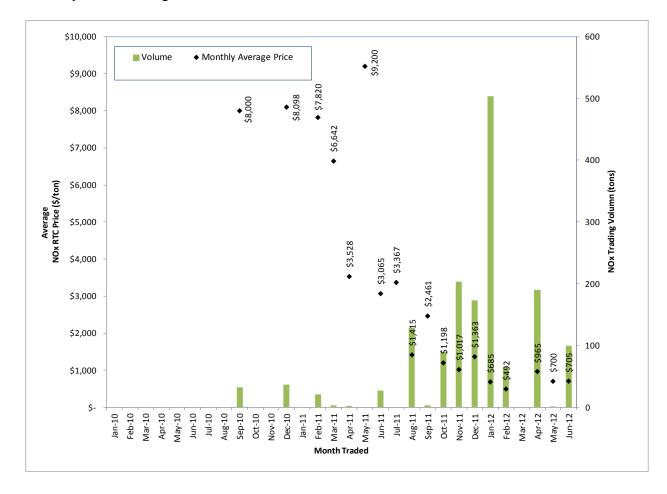


Table I

Twelve-Month Rolling Average Price Data for Compliance Year 2011 NOx RTCs

Twelve-Month Rolling Average Price Data for Compliance Year 2011 NOx RTC								
(January 2010 - June 2012)								
Reporting Month	12-Month Period	Total Volume Traded with Price During Past 12- month (tons)	Total Price of Volume Traded During Past 12-month (\$)	Number of Trades with Price	Rolling Average Price (\$/ton)			
Jan-11	Jan-10 to Dec-10	69.0	\$555,180	6	\$8,052			
Feb-11	Feb-10 to Jan-11	69.0	\$555,180	6	\$8,052			
Mar-11	Mar-10 to Feb-11	89.5	\$715,950	7	\$7,999			
Apr-11	Apr-10 to Mar-11	92.9	\$738,200	10	\$7,950			
May-11	May-10 to Apr-11	95.0	\$745,782	14	\$7,850			
Jun-11	Jun-10 to May-11	95.2	\$747,162	15	\$7,852			
Jul-11	Jul-10 to Jun-11	122.5	\$831,002	21	\$6,783			
Aug-11	Aug-10 to Jul-11	123.4	\$834,032	24	\$6,758			
Sep-11	Sep-10 to Aug-11	252.5	\$1,016,657	32	\$4,026			
Oct-11	Oct-10 to Sep-11	222.9	\$763,752	33	\$3,427			
Nov-11	Nov-10 to Oct-11	313.2	\$872,001	58	\$2,784			
Dec-11	Dec-10 to Nov-11	516.2	\$1,078,501	62	\$2,089			
Jan-12	Jan-11 to Dec-11	653.2	\$1,019,671	66	\$1,561			
Feb-12	Feb-11 to Jan-12	1,157.0	\$1,364,567	105	\$1,179			
Mar-12	Mar-11 to Feb-12	1,202.0	\$1,236,013	118	\$1,028			
Apr-12	Apr-11 to Mar-12	1,198.6	\$1,213,763	115	\$1,013			
May-12	May-11 to Apr-12	1,386.3	\$1,389,447	138	\$1,002			
Jun-12	Jun-11 to May-12	1,387.4	\$1,388,942	138	\$1,001			
Jul-12	Jul-11 to Jun-12	1,460.0	\$1,375,512	137	\$942			

Figure II

Monthly Average Price Data for Compliance Year 2012 NOx RTCs Traded – January 2011 through June 2012

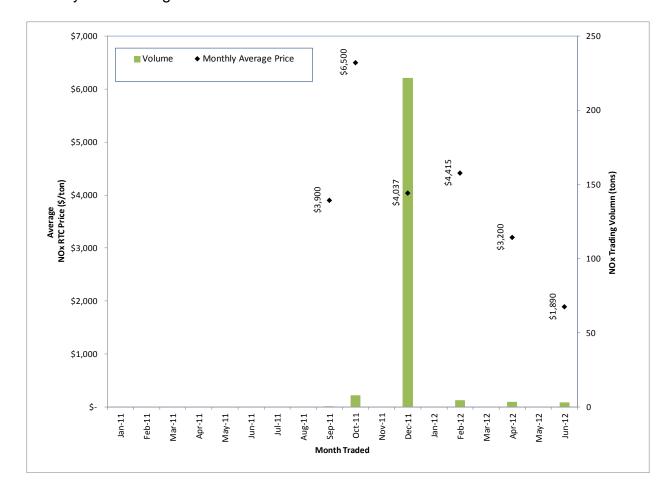


Table II

Twelve-Month Rolling Average Price Data for Compliance Year 2012 NOx RTCs

Twelve-Month Rolling Average Price Data for Compliance Year 2012 NOx RTC									
(January 2011 - June 2012)									
Reporting Month	12-Month Period	Total Volume Traded with Price During Past 12- month (tons)	Total Price of Volume Traded During Past 12-month (\$)	Number of Trades with Price	Rolling Average Price (\$/ton)				
Jan-12	Jan-11 to Dec-11	230.2	\$948,640	13	\$4,121				
Feb-12	Feb-11 to Jan-12	230.2	\$948,640	13	\$4,121				
Mar-12	Mar-11 to Feb-12	234.8	\$968,730	17	\$4,127				
Apr-12	Apr-11 to Mar-12	234.8	\$968,730	17	\$4,127				
May-12	May-11 to Apr-12	238.3	\$979,930	19	\$4,113				
Jun-12	Jun-11 to May-12	238.3	\$979,930	19	\$4,113				
Jul-12	Jul-11 to Jun-12	241.3	\$985,600	21	\$4,085				