



# South Coast Air Quality Management District

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## **Twelve-Month and Three-Month Rolling Average Price of Compliance Years 2016 and 2017 NO<sub>x</sub> and SO<sub>x</sub> RTCs**

January 2017 Quarterly Report to Stationary Source Committee

### **Background**

#### **NO<sub>x</sub> RTCs**

The Governing Board's January 7, 2005 amendments to Rule 2002 - Allocations For Oxides of Nitrogen (NO<sub>x</sub>) And Oxides of Sulfur (SO<sub>x</sub>) established a \$15,000 per ton threshold for the twelve-month rolling average price of current Compliance Year NO<sub>x</sub> RTCs. Staff has been calculating the twelve-month rolling average price of current Compliance Year NO<sub>x</sub> RTCs each month and reporting the results to the Stationary Source Committee quarterly. On December 4, 2015, the Governing Board amended Rule 2002 to replace the \$15,000 per ton threshold with a \$22,500 per ton threshold for the twelve-month rolling average price of current Compliance Year NO<sub>x</sub> RTCs and establish a new \$35,000 per ton threshold for the three-month rolling average price of current Compliance Year NO<sub>x</sub> RTCs. The December 2015 amendments also established a \$200,000 per ton "price-floor" threshold for the twelve-month rolling average price of infinite-year block (IYB) NO<sub>x</sub> RTCs that will become effective in 2019. The reporting of the three-month rolling average price for current Compliance Year NO<sub>x</sub> RTCs and the twelve-month rolling average price of IYB NO<sub>x</sub> RTCs started on May 1, 2016.

The December 2015 amendments directed the Executive Officer to report to the Governing Board if (a) the cost of current Compliance Year NO<sub>x</sub> RTCs exceeds \$22,500 per ton based on the twelve-month rolling average price, (b) \$35,000 per ton based on the three-month rolling average price, or (c) the twelve-month rolling average price of IYB NO<sub>x</sub> RTCs falls below \$200,000 per ton. If (a) or (b) above occurs, the Governing Board may convert the Non-tradable/Non-usable NO<sub>x</sub> RTCs valid for the period in which the RTC price(s) exceeded an applicable threshold to Tradable/Usable NO<sub>x</sub> RTCs pursuant to Rule 2002(f)(1)(H). Additionally, the Executive Officer's report to the Governing Board will include a "commitment and schedule to conduct a more rigorous control technology implementation, emission reduction, cost-effectiveness, market analysis, and socioeconomic impact assessment of the RECLAIM program."

## **SOx RTCs**

On November 5, 2010, the Governing Board amended Rule 2002 - Allocations For Oxides of Nitrogen (NOx) And Oxides of Sulfur (SOx) and established a \$50,000 per ton threshold for the twelve-month rolling average price of current Compliance Year SOx RTCs. The amendments direct the Executive Officer to calculate, starting January 2017, the twelve-month rolling average price of SOx RTCs for the current Compliance Year and to report to the Governing Board in the event that the SOx RTC prices exceed the threshold based on the twelve-month rolling average at a duly noticed public hearing within sixty days from the determination. The Executive Officer will announce that determination on the SCAQMD website. At the public hearing, the Governing Board will decide whether or not to convert any portion of the Non-tradable/Non-usable RTCs, as determined pursuant to Rule 2002 (f)(1)(O) and (f)(1)(P), and how much to convert if any, to Tradable/Usable RTCs. The reporting of the twelve-month rolling average price of the current Compliance Year SOx RTCs starts on January 1, 2017 and ends on February 1, 2020.

Therefore, commencing with this quarterly report, the Executive Officer is adding the twelve-month rolling average prices for current Compliance Year SOx RTCs (Table VI and VII). Previously, this report has only contained the twelve-month rolling average prices for current Compliance Year NOx RTCs (Tables I and II), the three-month rolling average prices of current Compliance Year NOx RTCs (Tables III and IV) and the twelve-month rolling average prices of IYB NOx (Table V).

## **Analysis**

The average NOx RTC prices listed in Table I through IV and the average SOx RTC prices listed in Table VI and VII have all remained well below the applicable reporting thresholds. It is, therefore, not necessary for the Executive Officer to provide a report on the NOx or SOx RTCs rolling average prices to the Governing Board or for the Governing Board to consider conversion of the Non-tradable/Non-usable to Tradable/Usable NOx or SOx RTCs. The twelve-month rolling average price of IYB NOx RTCs, as shown in Table V, was in the \$268,106 to \$380,252 per ton range for the April through December 2016 period.

Table I

Twelve-Month Rolling Average Price Data for Compliance Year 2016 NOx RTCs  
(Report to Governing Board if rolling average price greater than \$22,500/ton)

Twelve-Month Rolling Average Price Data for Compliance Year 2016 NOx RTC					
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 <sup>1</sup> (\$/ton)
Jan-16	Jan-15 to Dec-15	224.2	\$635,305	13	\$2,833
Feb-16	Feb-15 to Jan-16	234.0	\$704,059	14	\$3,008
Mar-16	Mar-15 to Feb-16	272.7	\$865,831	17	\$3,175
Apr-16	Apr-15 to Mar-16	278.1	\$886,546	19	\$3,188
May-16	May-15 to Apr-16	284.8	\$915,100	24	\$3,213
Jun-16	Jun-15 to May-16	304.4	\$998,506	28	\$3,280
Jul-16	Jul-15 to Jun-16	308.0	\$1,015,244	31	\$3,296
Aug-16	Aug-15 to Jul-16	305.8	\$997,732	35	\$3,262
Sep-16	Sep-15 to Aug-16	328.5	\$1,085,907	43	\$3,305
Oct-16	Oct-15 to Sep-16	235.5	\$910,370	46	\$3,866
Nov-16	Nov-15 to Oct-16	300.5	\$1,099,373	63	\$3,658
Dec-16	Dec-15 to Nov-16	352.3	\$1,204,903	67	\$3,421
Jan-17	Jan-16 to Dec-16	758.4	\$2,264,069	77	\$2,985

<sup>1</sup>District Rule 2015(b)(6) - Backstop Provisions provides additional "evaluation and review of the compliance and enforcement aspects of the RECLAIM program" if the average RTC price exceeds \$15,000 per ton.

Table II

Twelve-Month Rolling Average Price Data for Compliance Year 2017 NOx RTCs  
(Report to Governing Board if rolling average price greater than \$22,500/ton)

<b>Twelve-Month Rolling Average Price Data for Compliance Year 2017 NOx RTC</b>					
<b>Reporting Month</b>	<b>12-Month Period</b>	<b>Total Volume Traded with Price During Past 12-month (tons)</b>	<b>Total Price of Volume Traded During Past 12-month (\$)</b>	<b>Number of Trades with Price</b>	<b>Rolling Average Price<sup>1</sup> (\$/ton)</b>
Jan-17	Jan-16 to Dec-16	79.5	\$558,841	10	\$7,025

<sup>1</sup> District Rule 2015(b)(6) - Backstop Provisions provides additional "evaluation and review of the compliance and enforcement aspects of the RECLAIM program" if the average RTC price exceeds \$15,000 per ton.

Table III

Three-Month Rolling Average Price Data for Compliance Year 2016 NOx RTCs  
(Report to Governing Board if rolling average price greater than \$35,000/ton)

<b>Three-Month Rolling Average Price Data for Compliance Year 2016 NOx RTC</b>					
<b>Reporting Month</b>	<b>3-Month Period</b>	<b>Total Volume Traded with Price During Past 3-month (tons)</b>	<b>Total Price of Volume Traded During Past 3-month (\$)</b>	<b>Number of Trades with Price</b>	<b>Rolling Average Price (\$/ton)</b>
May-16	Feb-16 to Apr-16	50.8	\$211,041	10	\$4,158
Jun-16	Mar-16 to May-16	31.7	\$132,675	11	\$4,188
Jul-16	Apr-16 to Jun-16	29.9	\$128,699	12	\$4,304
Aug-16	May-16 to Jul-16	32.9	\$130,194	12	\$3,953
Sep-16	Jun-16 to Aug-16	36.0	\$134,963	16	\$3,747
Oct-16	Jul-16 to Sep-16	39.4	\$142,688	18	\$3,623
Nov-16	Aug-16 to Oct-16	157.2	\$436,641	32	\$2,778
Dec-16	Sep-16 to Nov-16	186.2	\$453,996	28	\$2,438
Jan-17	Oct-16 to Dec-16	635.3	\$1,741,442	41	\$2,741

Table IV

Three-Month Rolling Average Price Data for Compliance Year 2017 NOx RTCs  
(Report to Governing Board if rolling average price greater than \$35,000/ton)

Three-Month Rolling Average Price Data for Compliance Year 2017 NOx RTC					
Reporting Month	3-Month Period	Total Volume Traded with Price During Past 3-month (tons)	Total Price of Volume Traded During Past 3-month (\$)	Number of Trades with Price	Rolling Average Price (\$/ton)
Jan-17	Oct-16 to Dec-16	41.1	\$310,586	6	\$7,561

Table V

Twelve-Month Rolling Average Price Data for Infinite-Year Block NOx RTCs  
(Report to Governing Board if rolling average price after 2018 is less than \$200,000/ton)

Twelve-Month Rolling Average Price Data for Infinite-Year NOx RTC					
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)
May-16	May-15 to Apr-16	806.0	\$216,080,023	45	\$268,106
Jun-16	Jun-15 to May-16	782.5	\$212,055,023	45	\$271,014
Jul-16	Jul-15 to Jun-16	352.4	\$128,924,099	32	\$365,856
Aug-16	Aug-15 to Jul-16	513.8	\$167,048,669	33	\$325,150
Sep-16	Sep-15 to Aug-16	518.5	\$168,336,169	33	\$324,655
Oct-16	Oct-15 to Sep-16	442.8	\$150,972,051	31	\$340,968
Nov-16	Nov-15 to Oct-16	322.8	\$121,624,924	26	\$376,820
Dec-16	Dec-15 to Nov-16	322.8	\$121,623,424	25	\$376,830
Jan-17	Jan-16 to Dec-16	302.7	\$115,116,675	21	\$380,252

Table VI

Twelve-Month Rolling Average Price Data for Compliance Year 2016 SOx RTCs  
(Report to Governing Board if rolling average price greater than \$50,000/ton)

<b>Twelve-Month Rolling Average Price Data for Compliance Year 2016 SOx RTC</b>					
<b>Reporting Month</b>	<b>12-Month Period</b>	<b>Total Volume Traded with Price During Past 12-month (tons)</b>	<b>Total Price of Volume Traded During Past 12-month (\$)</b>	<b>Number of Trades with Price</b>	<b>Rolling Average Price<sup>1</sup> (\$/ton)</b>
Jan-17	Jan-16 to Dec-16	32.2	\$52,049	3	\$1,618

<sup>1</sup> District Rule 2015(b)(6) - Backstop Provisions provides additional "evaluation and review of the compliance and enforcement aspects of the RECLAIM program" if the average RTC price exceeds \$15,000 per ton.

Table VII

Twelve-Month Rolling Average Price Data for Compliance Year 2017 SOx RTCs  
(Report to Governing Board if rolling average price greater than \$50,000/ton)

<b>Twelve-Month Rolling Average Price Data for Compliance Year 2017 SOx RTC</b>					
<b>Reporting Month</b>	<b>12-Month Period</b>	<b>Total Volume Traded with Price During Past 12-month (tons)</b>	<b>Total Price of Volume Traded During Past 12-month (\$)</b>	<b>Number of Trades with Price</b>	<b>Rolling Average Price<sup>1</sup> (\$/ton)</b>
Jan-17	Jan-16 to Dec-16	6.5	\$19,361	1	\$3,000

<sup>1</sup> District Rule 2015(b)(6) - Backstop Provisions provides additional "evaluation and review of the compliance and enforcement aspects of the RECLAIM program" if the average RTC price exceeds \$15,000 per ton.