



# NO<sub>x</sub> RECLAIM WORKING GROUP MEETING

FEBRUARY 14, 2019

SCAQMD

DIAMOND BAR, CA

# Agenda

- Landing Rule Updates
  - PAR 1134
  - PAR 1110.2
  - PR 1109.1
  - PAR 113
- New Source Review
  - Summary Key Issue #1
  - Summary Key Issue #2
  - Discussion of Key Issue #3 – Ensuring Sufficient Offsets



# LANDING RULE UPDATES

# Command-and-Control BARCT Rulemaking Status

## PAR 1134



### Gas Turbines

- Public Workshop held November 2018
- Stationary Source Committee Meeting February 15, 2019
- Public Hearing April 2019

## PAR 1110.2



### Gaseous- and Liquid-Fueled Engines

- Ongoing site visits
- Sent survey questionnaire
- Public Workshop 1<sup>st</sup> Quarter 2019
- Public Hearing 3<sup>rd</sup> Quarter 2019

## PR 1109.1



### Refineries

- Reviewing three proposals for third party verification
  - Contractor selection April Board Meeting
- Working Group Meeting #6 held on Jan. 31, 2019
- Public Hearing Oct. 2019

## PR 113



### Monitoring, Reporting, and Recordkeeping (MRR)

- Integrated MRR requirements
  - Former RECLAIM
  - Possibly non-RECLAIM
- Initiated preliminary analysis
- Conducted five site visits
- Public Hearing Oct. 2019



# UPDATE ON NEW SOURCE REVIEW

# Guiding Principles and Areas of General Agreement

Guiding Principles



Compliance with State and Federal Requirements

No Backsliding

- New and modified sources in RECLAIM must comply with Rule 2005 – New Source Review for RECLAIM
- New and modified sources outside of RECLAIM must comply with Regulation XIII – New Source Review
  - BACT is required for all new and for modified sources with an emission increase
  - Regulation XIII will apply to the first modification post-RECLAIM
- The transition of a facility from RECLAIM to command-and-control is not a NSR event

# Summary Three NSR Issues

## Key Issue #1

For new sources that are permitted in RECLAIM, what are the offset obligations as facilities transition out of RECLAIM?

**OFFSETTING  
REQUIREMENTS**

## Key Issue #2

When and how pre-modification potential to emit (PTE) is calculated to determine if an emission increase occurs that triggers NSR after facilities transition out of RECLAIM?

**PERMITTING**

## Key Issue #3

How will the SCAQMD ensure that sufficient offsets are available to satisfy NSR requirements?

**OFFSET  
AVAILABILITY**

# Key Issue #1 Summary

## (November 8 Working Group Meeting)

For new sources permitted in RECLAIM, what are the offset obligations as facilities transition out of RECLAIM?

- NSR requirements for RECLAIM facilities
  - Facilities that were permitted after the start of RECLAIM and facilities with emission increases above their starting allocation have ongoing **holding requirements** to hold RTCs equal to their PTE year-to-year
  - Facilities that existed at the start of RECLAIM only have to hold RTCs equal to their PTE for the first year
- NSR obligations for RECLAIM facilities after transitioning
  - Rule 2005 only has an ongoing holding requirement for some facilities
    - Equivalency to SIP commitment can be demonstrated programmatically
  - RECLAIM NSR does not have an ongoing **offsetting requirement**
    - Rule 2004 requirement to have sufficient RTCs for reconciliation of actual emissions is not an NSR requirement and will not be an ongoing obligation after RECLAIM

**OFFSETTING  
REQUIREMENTS**

# Key Issue #2 Summary

## (December 13 & January 10 Working Group Meetings)

After facilities transition out of RECLAIM, when and how will a pre-modification PTE be calculated to determine if NSR requirements are triggered?

- Regulation XIII will apply to the first modification post-RECLAIM
- Purpose of calculating a pre-modification PTE is to determine if there is an emissions increase, if so need
  - BACT
  - Offsets
  - Modeling
- Pre-modification PTE needs to be calculated in lbs/day
  - Hierarchy of methodologies will be used to calculate
  - Pre-NSR equipment based on existing Regulation XIII approach (2-year average)

**PERMITTING**



## KEY ISSUE #3

# Summary of Three Key NSR Issues

## Key Issue #1

For new sources that are permitted in RECLAIM, what are the offset obligations as facilities transition out of RECLAIM?

## Key Issue #2

For permits issued without a NO<sub>x</sub> PTE, when and how will a baseline be established to determine if an NSR event occurs after facilities transition out of RECLAIM?

## Key Issue #3

How will the SCAQMD ensure that sufficient offsets are available to satisfy NSR requirements?

# Regulation XIII – Purpose and Background

- Ensure facility operations do not interfere with the progress of attainment, and that future economic growth is not unnecessarily restricted
- When a facility applies for a new or modified source, it will be subject to Regulation XIII
- Regulation XIII requires offsets for any permitting action that results in an emission increase  $\geq 1$  lb/day of any nonattainment air contaminant

# Possible Consequences if Offsets are Not Available

- If offsets are not available, permits cannot be approved
  - Facility modernization of equipment that meets BACT can be hindered
  - Facilities cannot expand to meet economic demand
  - Can impact regional economy if facility operations are limited or halted
- Limited generation of opportunities
  - Majority of ERCs are generated from shutdowns
    - Incentivizing facilities to shut down equipment to generate ERCs is undesirable
  - Difficult to generate ERCs from over control due to rule-required calculation methodology and BACT discounting

# Framing Key Issue #3

How will the SCAQMD ensure that sufficient offsets are available to satisfy NSR requirements?

- Under Regulation XIII, if facilities transition out of RECLAIM the only source of offsets is the open market
- Two main questions:
  - Question 1: Can the open market support facilities that transition out of RECLAIM?
  - Question 2: If there are not sufficient offsets in the open market, what are possible options?

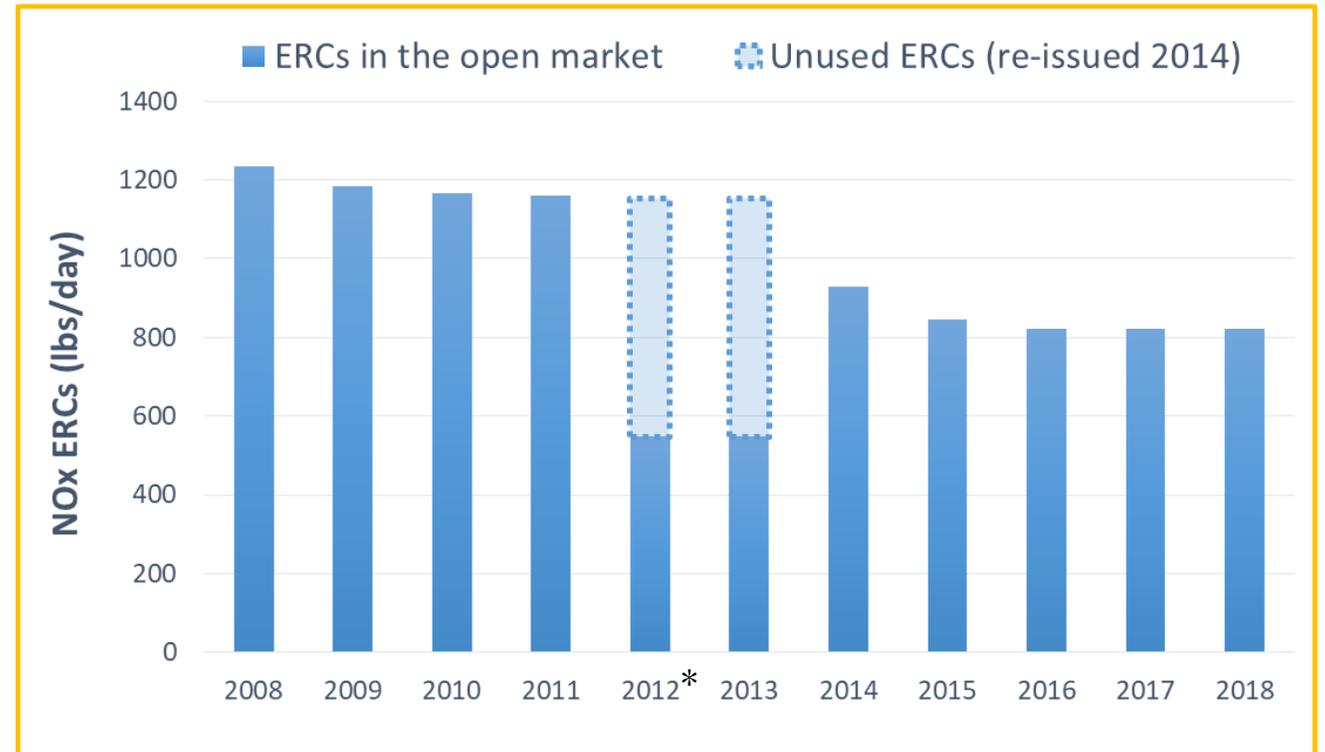
**OFFSETS  
AVAILABILITY**

# Question 1: Can the open market support facilities that transition out of RECLAIM?

- **Staff Response:** The open market cannot support the estimated demand from RECLAIM facilities for future NSR events
  - Insufficient ERCs
    - Supply in the open market
    - Possible demand for ERCs
  - Limited availability

# ERCs in the Open Market

- Amount of open market ERCs has been on a downward trend for the previous ten years
- Very little change in the previous three years
- Total available NOx ERCs in the open market: ~800 lbs/day<sup>^</sup>



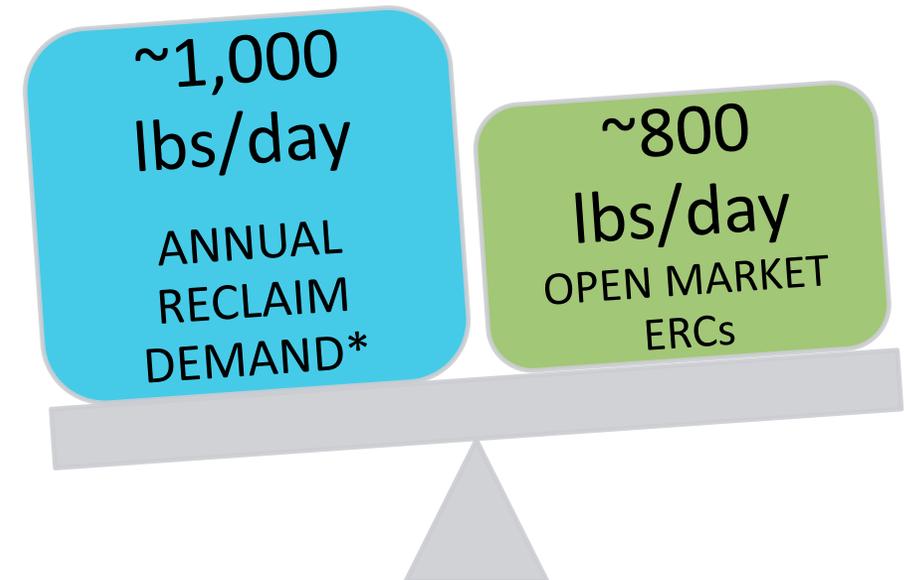
\*ERC reduction in 2012 was for a Permit to Construct issued in 2011. The unused ERCs were re-issued to the facility in 2014, pursuant to Rule 1309(g), after the permit was cancelled

# Possible NOx Offset Demand from RECLAIM

- New facilities (entered after inception of RECLAIM)
  - RTC hold required at the beginning of each compliance period
  - Amount of RTCs is equal to the post-modification PTE (i.e. pre-modification PTE = zero)
- Existing facilities (in RECLAIM at its inception)
  - RTC hold required only for the first year of operation
  - Amount of RTC hold equals increase in emission, not post-modification PTE
- Emission increases during the 5 year period from 2011–2015
  - Average annual: ~1,000 lbs/day
  - Maximum annual: ~ 2,500 lbs/day

# Insufficient ERCs - Open Market Challenge

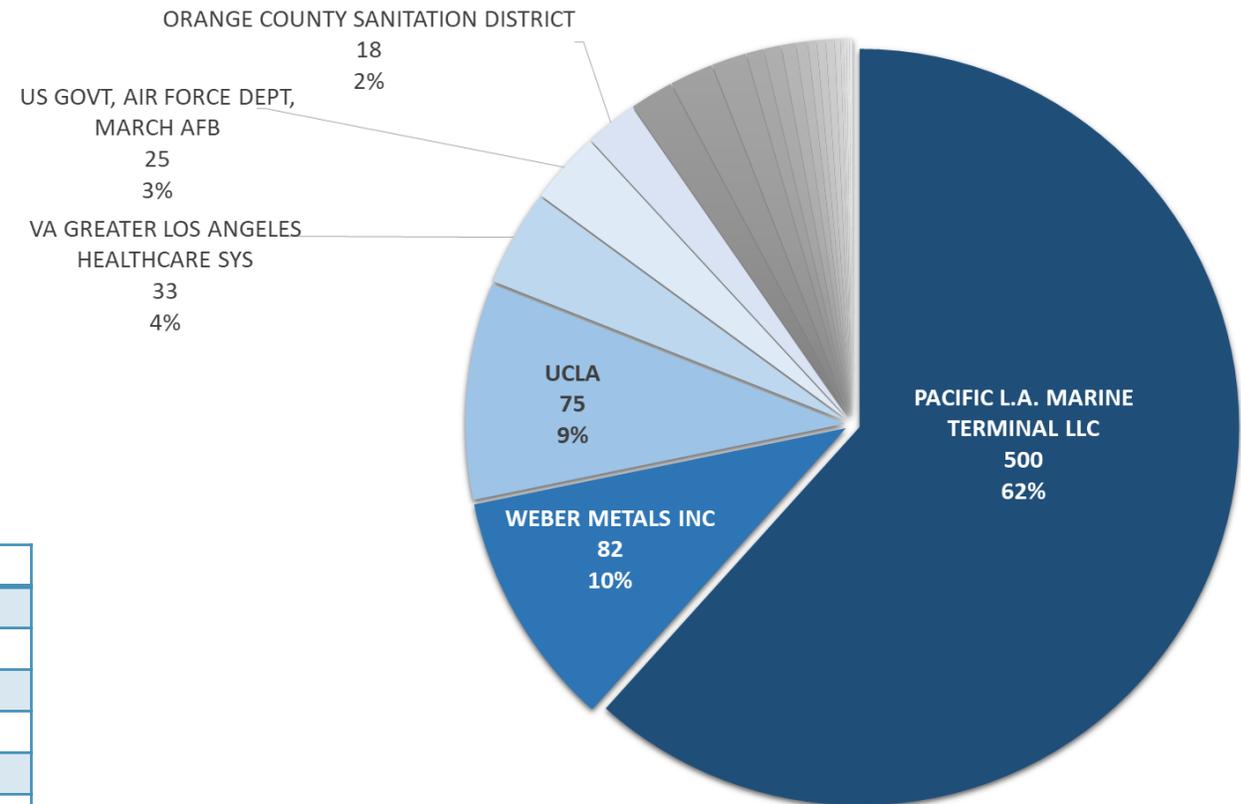
- Amount of ERCs in the open market is not sufficient to satisfy the RECLAIM demand
  - Average RECLAIM demand (1 year) > Total ERCs in open market
  - Supply of ERCs in the open market could be consumed in one year
- Possible average annual debit for RECLAIM: ~1,000 lbs/day\*
- Quantity is greater than the 800 lbs/day available in the open market



\* Annual RECLAIM demand based on new facilities and existing facilities with new or modified sources.

# Limited Availability of ERCs in the Open Market

- Not all ERCs in the open market are available for sale
  - Facilities may want to hold on to ERCs for future business growth
  - Facilities held on to ERCs even during peak price in 2009 ~\$400,000 tpy
- Availability is further limited by the small universe of ERC holders
  - ERCs are owned by a total of 21 facilities
  - 6 facilities hold 90% of ERCs

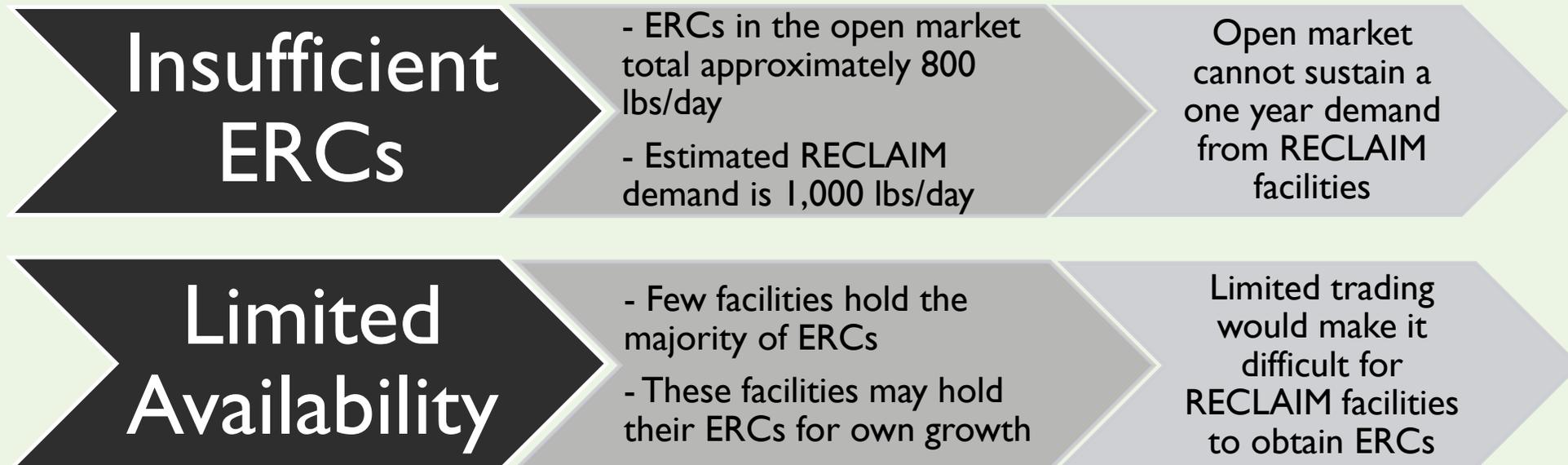


Owner	*ERCs (lbs/day)
PACIFIC L.A. MARINE TERMINAL LLC	500
WEBER METALS INC	82
UCLA	75
VA GREATER LOS ANGELES HEALTHCARE SYS	33
US GOVT, AIR FORCE DEPT, MARCH AFB	25
ORANGE COUNTY SANITATION DISTRICT	18

\*Coastal ERCs in the open market February 2018

# Summary and Recommendation for Question 1

- Former RECLAIM facilities would be allowed to use ERCs in the open market
- Additional source of offsets is needed to support the anticipated demand as facilities transition out of RECLAIM



Question 2: If there are not available offsets in the open market, what options are being considered?

Possible sources of offsets for former RECLAIM facilities

Open  
Market

SCAQMD  
Internal Bank

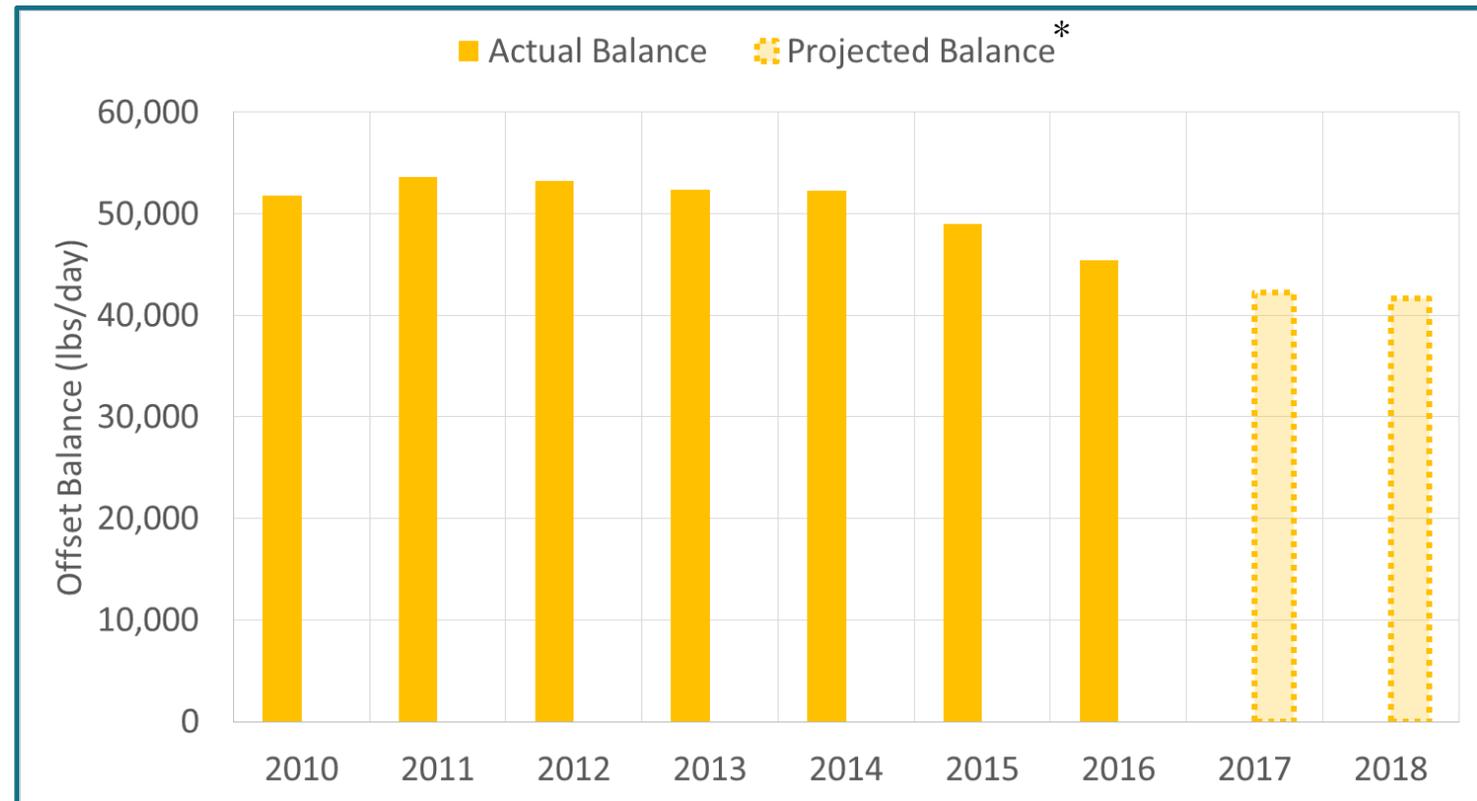
SCAQMD  
Large NOx  
Source  
Internal Bank

# SCAQMD Internal Bank

- SCAQMD's internal bank provides offsets for
  - Rule 1309.1 facilities (i.e. essential public services) through the Priority Reserve
  - Rule 1304 facilities exempt from offsetting (i.e. NOx PTE less than 4 tons per year)
- Offsets in the internal bank generated mostly from orphan shutdowns
  - Emission reductions from sources that shutdown but did not apply for emission reduction credits (ERCs)

# NOx Offsets in the SCAQMD Internal Bank

- SCAQMD internal bank currently has >40,000 lbs/day of NOx offsets
- Offsets are SIP approved
  - Real
  - Permanent
  - Enforceable
  - Quantifiable
  - Surplus (discounted annually to BARCT)
- Sufficient NOx offsets in the internal bank to “seed” Large NOx Source Internal Bank



\*Projected balance reported in Table 2 of the Final Determination of Equivalency report for the 2016 calendar year in the September 7, 2018 status report on Regulation XIII; Projection is based on the average of total annual debits and the average of total annual credits for the five prior years

# Rule 1315 (g) Thresholds for Internal Bank – Purpose and Implications

- Rule 1315 (g) establishes annual thresholds for use of offsets from the internal bank
  - Purpose of thresholds is to ensure net emission increases do not exceed the maximum emissions analyzed in the CEQA document
  - Analysis included sources that would be eligible to receive permits under Rule 1309.1 and Rule 1304
  - Thresholds were established based on the net emission increases according to the projected growth in the 2007 Air Quality Management Plan (AQMP)
- If annual threshold is exceeded
  - Offsets cannot be issued from the internal bank – permit moratorium
  - To resume issuing offsets from the internal bank, the cumulative net emission increase must be 10 percent below the corresponding threshold

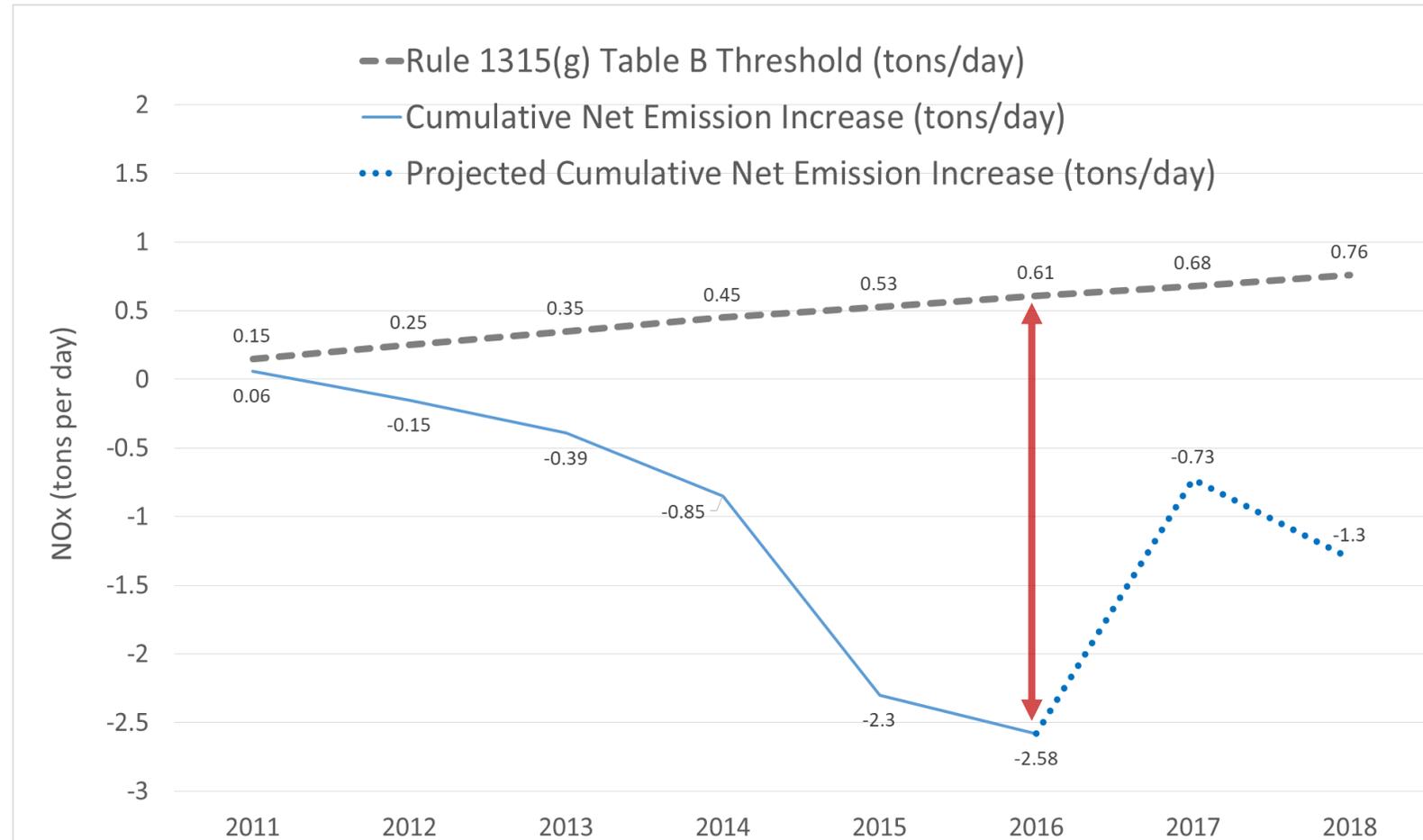
# Demonstration of Rule 1315 (g) Table B NOx Thresholds

- Table B thresholds are established from 2011 to 2030 for all five criteria pollutants (VOC, NOx, SOx, CO, and PM10)
- Comparison to annual thresholds is based on minor and major Rule 1309.1 and 1304 facilities that obtain offsets from the Internal Bank
- Net emission increases are calculated according to the cumulative increases and decreases from prior years
- Annual cumulative increases and decreases are reported in the SCAQMD's Regulation XIII Annual Status Report

Year	NOx
2011	0.15
2012	0.25
2013	0.35
2014	0.45
2015	0.53
2016	0.61
2017	0.68
2018	0.76
2019	0.84
2020	0.92
2021	1.00
2022	1.08
2023	1.15
2024	1.27
2025	1.39
2026	1.50
2027	1.62
2028	1.73
2029	1.85
2030	1.96

# Summary of Cumulative Net Emission Increases/Decreases Since 2011

- Since 2011, the annual cumulative net emission increase has been negative – more emission decreases than increases
  - Annual threshold has never been exceeded
- 2016 cumulative net emission increase for NOx is -2.58 tons/day
  - A total of 3.19 tons/day below the threshold



# Considerations of SCAQMD Internal Bank NOx Thresholds

- If RECLAIM facilities were to use the internal bank, may need to reevaluate NOx thresholds
  - Thresholds were based on Rule 1309.1 and 1304 facilities
  - 2018 threshold is 0.76 tons per day
  - The projected 2018 cumulative emission increase and decrease is 2.06 tons/day below the threshold
- Potential demand for offsets from RECLAIM facilities could be 2,500 lbs/day (1.25 tons/day) (Slide 17)
- Significant repercussions if an annual threshold is exceeded – permit moratorium

# Concept for Large NOx Source Internal Bank

- Establish a Large NOx Source Internal Bank for all former RECLAIM facilities and other facilities with a NOx PTE greater than 4 tons/year
- This second internal bank:
  - Provides assurance of a sufficient supply of offsets for Rule 1309.1 and 1304 facilities
  - Maintains existing thresholds for SCAQMD Internal Bank for Rule 1309.1 and 1304 facilities
  - Likely to require NOx offset thresholds – would be specific to sources accessing the bank

# Concept for Large NOx Source Internal Bank (Continued)

## Seeding the Large NOx Source Internal Bank

- Offsets from SCAQMD Internal Bank
- Possible RTC conversion to ERCs

## Offset Generation

- Generation of offsets from Large NOx Sources (PTE > 4 tons/year) would go back to the Large NOx Source Internal Bank

# Concept for Large NOx Source Internal Bank (Continued)

## Access

- All former RECLAIM would have access
  - Includes small RECLAIM emitters (NOx PTE less than 4 tons/year)
- Access will also be given to all other sources that are not eligible to use the existing internal bank per Rules 1304 and 1309.1
  - These facilities would have been in RECLAIM had the program continued

## Fees

- All facilities would pay fees to obtain offsets

# Large NOx Source Internal Bank – Next steps

- Determine the amount of offsets needed to seed the bank
  - Analyze the sustainability of SCAQMD Internal Bank and Large NOx Source Internal Bank
  - Can a portion of RTCs help seed the bank?
- New CEQA analysis may be required for the new internal bank
- Need to establish fee

# Alternative Option – Retain Rule 2005

- Maintain RECLAIM NSR pursuant to Rule 2005
- Continue using RTCs to satisfy RECLAIM NSR requirements
- Would eliminate baseline issues, offset supply issues, and concerns about backsliding
- Generation of RTCs would be based on shutdowns
- RECLAIM facilities would have to reconcile emissions

# Summary

- Insufficient offsets in the open market to meet the demand for RECLAIM after the transition
- SCAQMD Internal Bank has sufficient offsets to supply RECLAIM facilities
- Offsets in SCAQMD Internal Bank can seed a new Large NOx Source Internal Bank
  - Former RECLAIM facilities will have access to the new internal bank
  - Fee for use
- Alternative options still being considered (e.g., retaining Rule 2005)

# NSR – Process Moving Forward

Continuing discussions with USEPA regarding RECLAIM NSR transition

Ensure all NSR, AQMP, and CAA requirements will be met after sunset of RECLAIM program

Resume weekly calls with EPA

- Past cancellations due to government shutdown
- Prior discussions focused on Key Issue #1
- Last conference call focused on Key Issue #2

Face-to-face meeting for more extensive discussions tentatively scheduled for March

RECLAIM Working Group Meetings

Monthly working group meetings focused on NSR

Continued discussions with stakeholders

Updates to Stationary Source Committee (SSC)

Quarterly presentation with quarterly RECLAIM update

Monthly written report

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## New Source Review

- |  |  |
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