

Public Workshop for 2020 Annual Offset Equivalency Demonstration

November 5, 2020
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District Air Quality Efforts

- Long history of implementing air quality strategies, with numerous plans achieving significant emissions reductions
 - Adopted nearly 650 of the most stringent rules in the nation for stationary sources under District jurisdiction
 - Innovative clean air incentive programs accelerating deployment of cleanest technologies (\$3 billion public/private investment)
- Stationary source NO_x emissions (primary precursor for both ozone and PM_{2.5}) have been reduced by over 90%
- District also implements a permitting program designed under state law to ensure on a regional basis there is no net increase in emissions for new or modified sources

District's New Source Review Permitting Process

- Requirements of the District's NSR rule include:
 - New or modifying permitted sources must be equipped with the best available air pollution control technology (BACT)
 - Prohibition on new/modifying equipment that would generate a significant health risk to the surrounding population
 - Public notification with an opportunity to comment prior to permit issuance for significant projects
 - New or modifying permitted sources must provide offsets (ERCs) to further mitigation emission increases above specified thresholds
- ERCs cannot be used in lieu of meeting other air pollution control requirements
- As allowed by the federal Clean Air Act, the District operates an offset equivalency system as its program differs from a direct implementation of the federal offsetting requirements

CARB Review of ERC Program

- At January 2019 board meeting, CARB Board directed their staff to review the District's ERC and offset equivalency program
 - Response to request from environmental advocacy organizations
 - CARB review focused on District's ERC program, including equivalency demonstration, relative to overarching federal, state, and local regulations
- District worked with CARB staff to:
 - Communicate concerns and expectations, including that the review be conducted objectively and in context of state, federal, and District regulations
 - Aid in the understanding of the District's ERC system and permitting program
 - Provide all requested information
- CARB final report released June 5, 2020
- CARB Board hearing held June 26, 2020
 - Approved their staff's recommendations including commitment to support the District's local process moving forward

District Response to CARB Review

- District appreciates CARB's general recognition of the stringency of the District's air quality programs and the success in reducing emissions from stationary sources in the Valley
- CARB's review points to the need to revisit and enhance aspects of the ERC and offset equivalency program moving forward
- District has committed to:
 - Enhancing transparency in offset equivalency process and taking specific actions to revisit emission reduction categories used in the equivalency demonstration
 - Holding a public workshop on the draft annual equivalency demonstration prior to submitting the report to the District Governing Board
 - Convening a public advisory workgroup consisting of affected stakeholders to assist in developing solutions related to the offset equivalency program

Public Advisory Workgroup

- Created by Governing Board in late August 2020
- Provides a forum for discussion/suggestions to assist the District in developing solutions/enhancements related to the ERC and offset equivalency system, as needed to maintain an effective permitting system that allows for the protection of public health and strong economic growth in the Valley
- Hear perspectives and receive input on the ERC and offset equivalency systems from stakeholders
- Provides workgroup members and interested members of the public the knowledge and tools necessary to meaningfully participate

Equivalency Demonstration

District Offset Equivalency Program

- District performs an annual demonstration that the District's ERC program is at least as stringent as federal offsetting requirements
 - Approach approved by EPA and CARB in 2001
 - Demonstration submitted to EPA and CARB annually for review and presented to Governing Board at public hearing
- Annual report must demonstrate both of the following:
 - Test 1: The quantity of offsets required by Rule 2201 equals or exceeds the quantity of federal offsets that would have been required
 - Test 2: The surplus value of offsets required by Rule 2201, plus the surplus value of additional creditable emission reductions, equals or exceeds the quantity of federal offsets that would have been required
- Should the system fail to demonstrate equivalency, Rule 2201 contains tailored remedies that are enacted

Components of Equivalency



Federal NSR (increases)

- Federal Offset Quantity for New Major Sources
- Federal Offset Quantity for Major Modifications



District NSR (decreases)

- ERCs Reserved/Withdrawn (District Offset Quantity)
- ERCs Surrendered
- ERCs Newly Issued (AQID)
- Orphan Shutdowns
- *BACT on Existing Minor Sources*

Federal Offset Quantity

- Each project resulting in a New Major Source or Federal Major Modification is tracked based on date the Authority to Construct (ATC) is issued
- The quantity of surplus at time of use offsets required under federal NSR (federal offset quantity) is determined during the evaluation of the project prior to issuance of the ATCs
- New Major Sources or Federal Major Modifications projects are subject to public notification and review prior to ATC issuance and are concurrently submitted to EPA and ARB for review

ERCs Reserved/Withdrawn

- Each project requiring District offsets under Rule 2201 is tracked based on the date the project is final
- The ERCs reserved/withdrawn to satisfy the offsetting obligation are tracked
 - Quantity of ERCs (surplus value at time of banking)
 - Surplus value of ERCs at time of use & ongoing surplus value of ERCs
- The quantity of ERCs reserved/withdrawn is used as necessary to demonstrate Quantity of Offset Equivalency
 - Unused balance is carried forward
- The surplus value of ERCs reserved/withdrawn is used as necessary to demonstrate Surplus Value Equivalency
 - Unused balance is included in the surplus carry-over

ERCs Surrendered

- Each ERC that is surrendered to the District is tracked based on the date the ERC surrender project is final
 - Quantity of ERCs (surplus value at time of banking)
 - Surplus value of ERCs at time of use & ongoing surplus value of ERCs
- The surplus value of ERCs surrendered is used as necessary to demonstrate Surplus Value Equivalency
 - Unused balance is included in the surplus carry-over
- The surplus value of ERCs surrendered can also be used as necessary to satisfy Quantity of Offset Equivalency shortfalls

ERCs Issued

- Each newly issued ERC is tracked based on date banking project is final
- At time of banking, the actual emission reduction associated with the ERC is discounted by 10% and the District takes ownership in the form of the Air Quality Improvement Deduction (AQID)
- The surplus value of AQID is tracked over time and used as necessary to demonstrate Surplus Value equivalency
- Unused AQID is included in the surplus carry-over
- The surplus value of AQID can also be used as necessary to satisfy Quantity of Offset Equivalency shortfalls

Orphan Shutdowns

- Reductions from facility shutdowns for which ERCs were not banked by the owner
 - Does not include facilities where source shifting may be an issue (gasoline stations, dry cleaners, etc.)
 - AG-ICE projects were treated as a type of orphan shutdown project
- Historically, each orphan shutdown (OSD) was tracked based on date the facility permits were surrendered
- The surplus value of OSDs were tracked over time and used as necessary to demonstrate Surplus Value equivalency
- Unused OSD was included in the surplus carry-over
- The surplus value of OSD could also be used as necessary to satisfy Quantity of Offset Equivalency shortfalls

2020 Offset Equivalency Demonstration

Current Status of Equivalency

- On Sept. 17, 2020, District Governing Board took proactive action to:
 - Provisionally remove all emission reductions from orphan shutdowns and Ag-ICE projects from the equivalency system (used for surplus equivalency test 2)
 - Direct the reintroduction of the appropriate portion of the emission reductions from the projects once EPA and ARB accepted mechanisms and methodologies are developed
- Action allows the public process to inform the development of mechanisms and methodologies for the use of these and other types of creditable emission reductions in demonstrating equivalency
- With removal, system cannot demonstrate equivalency with the surplus value test for NO_x and VOC
 - Rule 2201 remedy enacted on September 17, 2020
 - All new major sources or federal major modifications triggering NO_x or VOC offsets under the District NSR Rule require “surplus at time of use” ERCs

2020 Offset Equivalency Demonstration

- Tracking year: August 20, 2019 through August 19, 2020
- Tracked federal projects:
 - 15 Federal Major Modifications (3 NO_x only, 8 VOC only, and 4 both NO_x and VOC)
 - 0 New Major Sources
- Significant adjustments incorporated into 2020 Demonstration:
 - Incorporate Board's action regarding removal of AG-ICE and orphan shutdown credits (affects PM₁₀, PM_{2.5} and SO_x; affects surplus test)
 - Address cancelled/non-implemented projects (affects all pollutants; affects tracked increases and decreases; affects quantity and surplus tests)
 - Federal Offset Ratio correction (affects NO_x and VOC tracked increases from 8/20/2010 to 8/19/2014; affects quantity and surplus tests)
- Enhancing process and report to increase transparency

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2019-20 New Surplus Reduction Summary

Category	NOx ¹	SOx	PM10	PM2.5	VOC ¹
ERC Reserved/Withdrawn	n/a	2.3	15.1	12.4	n/a
ERCs Surrendered	n/a	0.0	0.0	0.0	n/a
ERCs Newly Issued (AQID)	n/a	0.0	0.1	0.1	n/a
Orphan Shutdowns	n/a	0.0	0.0	0.0	n/a
BACT on Minor Sources	n/a	0.0	0.0	0.0	n/a
Total	n/a	2.3	15.2	12.5	n/a

Notes:

- All values are in tons per year

¹ Effective September 17, 2020, NOx and VOC were no longer Surplus Value equivalent and Rule 2201 remedy was enacted to require surplus at time-of-use ERCs for projects requiring NOx and VOC offsets under Rule 2201. Therefore, these pollutants are not included in Surplus Value demonstration.

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Total Adjustments to Unused Surplus Carry-over Creditable Reductions by Category

Surplus Value Equivalency

Category	NOx ¹	SOx	PM10	PM2.5	VOC ¹
Removal of Orphan Shutdown Projects	n/a	(338.0)	(1,146.7)	(613.5)	n/a
Removal of Ag Engine Electrification Projects	n/a	(3.0)	(56.8)	(46.8)	n/a
Addition of Prior Year ERCs Reserved/Withdrawn	n/a	0.0	0.0	0.8	n/a
Resurplusing of Prior Year Carry-over	n/a	(665.4)	0.0	0.0	n/a
Adjustments to District Offset Quantity	n/a	(441.1)	(196.7)	(135.3)	n/a
Adjustments to Federal Offset Quantity	n/a	(128.6)	41.2	0.0	n/a
Total Adjustment to Unused Carry-over	n/a	(1,576.1)	(1,359.0)	(794.9)	n/a

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Total Adjustments to Offset Quantity Carry-over Balance by Category

Offset Quantity Equivalency

Category	NOx	SOx	PM10	PM2.5	VOC
Adjustments to District Offset Quantity	(2,000.7)	(1,379.4)	(181.2)	(148.7)	(1,472.1)
Adjustments to Federal Offset Quantity	90.5	(128.6)	41.2	0.0	(1,041.5)
Addition of Prior Year Federal Major Modifications	(6.5)	0.0	0.0	0.0	(4.7)
Addition of Prior Year ERCs Reserved/Withdrawn	0.0	0.0	0.0	0.8	0.0
Total Adjustment to Unused Carry-over	(1,916.7)	(1,508.0)	(140.0)	(147.9)	(2,518.3)

Notes:

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Surplus Value Equivalency

Summary for 08/20/2019 through 08/19/2020

Pollutant	Number of New Major Sources	Number of Federal Major Mods	Offsets Required under Federal NSR	Surplus Reductions Used for Equivalency This Year	Current Year Excess or Shortfall	Previous	Year-to-Year Adjustment	Current Year New Creditable Reductions	Year-End
						Total Carry-over Creditable Reductions			Total Carry-over
NOx ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
VOC ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
PM10	0	0	0.0	0.0	0.0	1,898.0	(1,359.0)	15.2	554.1
PM2.5	0	0	0.0	0.0	0.0	1,020.0	(794.9)	12.5	237.5
CO	0	0	0.0	0.0	0.0	763.0	0.0	0.0	763.0
SOx	0	0	0.0	0.0	0.0	2,038.0	(1,576.1)	2.3	464.2

Notes:

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Offset Quantity Equivalency

Summary for 08/20/2019 through 08/19/2020

Pollutant	Number of New Major Sources	Number of Federal Major Mods	Offsets	Offsets	Current Year Excess or Shortfall	Previous	Year-to-Year Adjustment to Carryover Balance	Year-End
			Required under Federal NSR	Required under District NSR		Total Carryover Excess or Shortfall		Total Carryover Excess or Shortfall
NOx	0	7	18.8	26.8	8.0	4,319.9	(1,916.7)	2,411.2
VOC	0	12	50.0	35.0	(15.0)	733.4	(2,518.3)	(1,799.9)
PM10	0	0	0.0	15.1	15.1	837.5	(140.0)	712.6
PM2.5	0	0	0.0	12.4	12.4	377.7	(147.9)	242.2
CO	0	0	0.0	0.0	0.0	198.1	0.0	198.1
SOx	0	0	0.0	8.5	8.5	2,863.6	(1,508.0)	1,364.1

Notes:

- All values are in tons per year

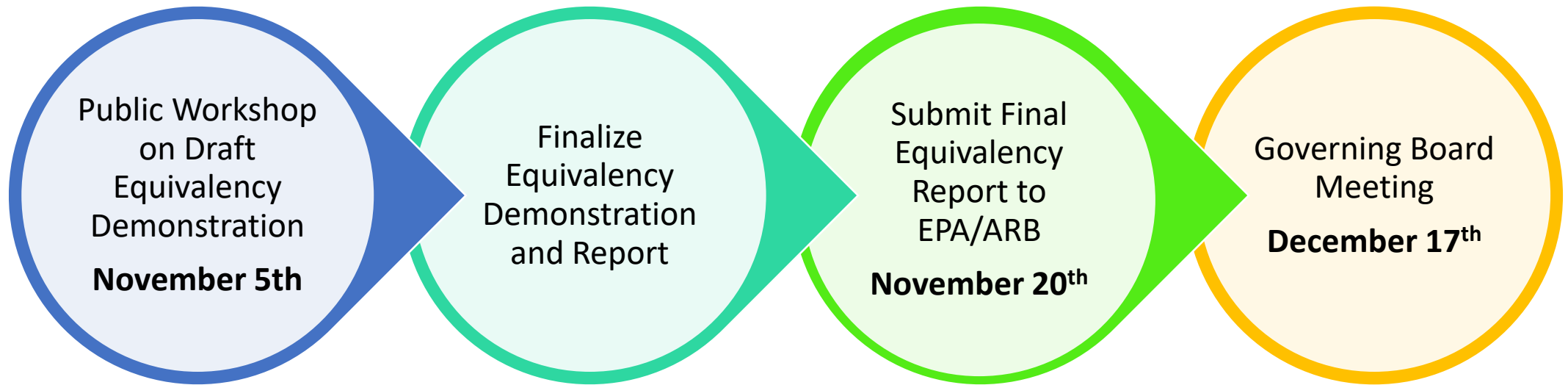
Projected 2020 Offset Equivalency Outcome

Equivalent?	NOx	VOC	PM10	PM2.5	CO	SOx
Test 1: Offset Quantity	Yes	No	Yes	Yes	Yes	Yes
Test 2: Surplus Value	No	No	Yes	Yes	Yes	Yes

Projected 2020 Offset Equivalency Implications

- Test 1 – Offset Quantity
 - NO_x, PM₁₀, PM_{2.5}, SO_x, and CO demonstrate equivalency
 - VOC cannot demonstrate equivalency
 - All new major sources or federal major modifications triggering VOC offsets required to provide the full federal offset quantity
 - Per Rule 2201, remedy would be enacted on November 20, 2020
- Test 2 – Surplus Value
 - No change to current status
 - PM₁₀, PM_{2.5}, SO_x, and CO demonstrate equivalency
 - Surplus at time of use remedy for NO_x and VOC already enacted by Governing Board September 17, 2020

2020 Offset Equivalency Next Steps



Offset Equivalency Contact

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Comments/Questions

Attendees via Zoom
Please “raise your hand”
for comments and questions.

Comments via email:
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(Please state your name and affiliation)