

Public Workshop for 2020-2021 Annual Offset Equivalency Demonstration

October 26, 2021

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

ERC Public Advisory Workgroup (PAW)

- Created by District Governing Board in August 2020
 - Provide a forum for discussion/suggestions to assist the District in developing solutions/enhancements related to the District’s ERC and offset equivalency system
 - Hear perspectives and receive input on the District’s ERC and offset equivalency system from stakeholders
 - Provide workgroup members and interested members of the public the knowledge and tools necessary to meaningfully participate
- Kick-off Meeting held September 18, 2020
 - District has held on-going meetings (9 meetings to-date)

On-going ERC PAW Meetings

- District has presented/discussed a number of topics to the PAW committee:
 - Federal Offsetting and Offset Equivalency
 - 2020 Annual Offset Equivalency Report
 - ERC Supply and Demand
 - Role of Emission Reduction Credits in District SIPs
 - Potential new Offset Quantity Concepts
 - Potential new Creditable Emission Reductions Concepts
- Questions/input from the PAW assisted in the development of the 2020-2021 Annual Offset Equivalency Report and will continue to assist with the District's ongoing offset program efforts

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)
- *Actual Emission Reductions from Orphan Shutdowns*
- *Actual Emission Reductions from BACT on Existing Equipment at 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

2020-2021 Offset Equivalency Demonstration

Current Status of Equivalency

from 2019-2020 Report

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

Current Offset Equivalency Implications

Effective November 20, 2020:

- **VOC:** All new major sources or federal major modifications triggering offsets for VOC required to provide ERC for the full federal offset quantity and surplus at time of ATC issuance
- **NO_x:** All new major sources or federal major modifications triggering offsets for NO_x under the District NSR rule required to provide ERC surplus at time of ATC issuance
- **PM₁₀, PM_{2.5}, and SO_x:** No change to the offset quantity and ERC surplus value requirements

2020-2021 Offset Equivalency Demonstration

- District finalizing 2020-2021 Offset Equivalency Report
- End of the current tracking period was August 20, 2021
- Tracked federal projects for this tracking period
 - 16 Federal Major Modifications (4 NO_x only, 7 VOC only, and 5 both NO_x and VOC)
 - No Federal Major Modifications for SO_x, PM₁₀, or PM_{2.5}
 - 0 New Major Sources
- Federal offsets required during current tracking period
 - 60.9 tpy of NO_x and 23.9 tpy of VOC
- VOC no longer part of equivalency demonstration
 - ERCs required for full federal offset quantity and must be surplus at time of ATC issuance

2020-2021 Federal Offset Summary

Region	Project	Federal Offset Required (tpy)				
		NOx	VOC	SOx	PM10	PM2.5
C	1191691	0.0	2.8	0.0	0.0	0.0
C	1203750	13.4	0.0	0.0	0.0	0.0
N	1181193	0.0	4.9	0.0	0.0	0.0
N	1200345	4.1	0.0	0.0	0.0	0.0
N	1201116	0.0	0.0	0.0	0.0	0.0
N	1201405	13.5	0.0	0.0	0.0	0.0
N	1203800	0.8	0.0	0.0	0.0	0.0
N	1204622	0.0	0.4	0.0	0.0	0.0
S	1200016	0.0	0.0	0.0	0.0	0.0
S	1200501	0.0	1.2	0.0	0.0	0.0
S	1200729	3.4	1.7	0.0	0.0	0.0
S	1201688	2.6	0.4	0.0	0.0	0.0
S	1202811	0.0	2.8	0.0	0.0	0.0
S	1203245	7.6	3.7	0.0	0.0	0.0
S	1203797	5.1	1.0	0.0	0.0	0.0
S	1204327	10.4	5.0	0.0	0.0	0.0
Total		60.9	23.9	0.0	0.0	0.0

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DRAFT Annual Offset Equivalency Report

DRAFT Offset Quantity Equivalency

Summary for 08/20/2020 through 08/19/2021

Pollutant	Number of New Major Sources	Number of Federal Major Mods	Offsets	Offsets	Current Year Excess or Shortfall	Previous Year-End Total	Year-to-Year Adjustment to Carryover Balance	Year-End Total
			Required under Federal NSR	Required under District NSR		Carryover Excess or Shortfall	Year-End Total	
			(a)	(b)	(c) = (b) - (a)	(d)	(e)	(f)=(d)+(e)+(c)
NOx	0	9	60.9	23.8	-37.1	353.1	-7.9	308.1
PM10	0	0	0.0	10.6	10.6	326.1	0.0	336.7
PM2.5	0	0	0.0	0.0	0.0	192.3	0.0	192.3
CO	0	0	0.0	0.0	0.0	198.1	0.0	198.1
SOx	0	0	0.0	6.4	6.4	1,223.5	-0.3	1,229.6
VOC ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Notes:

- All values are in tons per year

¹ Effective November 20, 2020, VOC was no longer Offset Quantity equivalent and Rule 2201 remedy was enacted to require federal offset quantity ERCs for projects requiring VOC offsets under Rule 2201. Therefore, VOC are not included in Offset Quantity equivalency demonstration.

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DRAFT Annual Offset Equivalency Report

DRAFT - Surplus Value Equivalency

Summary for 08/20/2020 through 08/19/2021

Pollutant	Number of New Major Sources	Number of Federal Major Mods	Offsets	Surplus	Current Year Excess or Shortfall	Previous	Year-to-	Current Year New Creditable Reductions	Year-End Total Carry-over Creditable Reductions
			Required under Federal NSR (a)	Reductions Used for Equivalency This Year (b)		Year-End Total Carry-over Creditable Reductions (d)	Year Adjustment to Carryover Balance (e)		
PM10	0	0	0.0	0.0	0.0	330.0	0.0	10.8	340.8
PM2.5	0	0	0.0	0.0	0.0	197.0	0.0	6.1	203.1
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	338.2	-0.3	5.2	343.1
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

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.

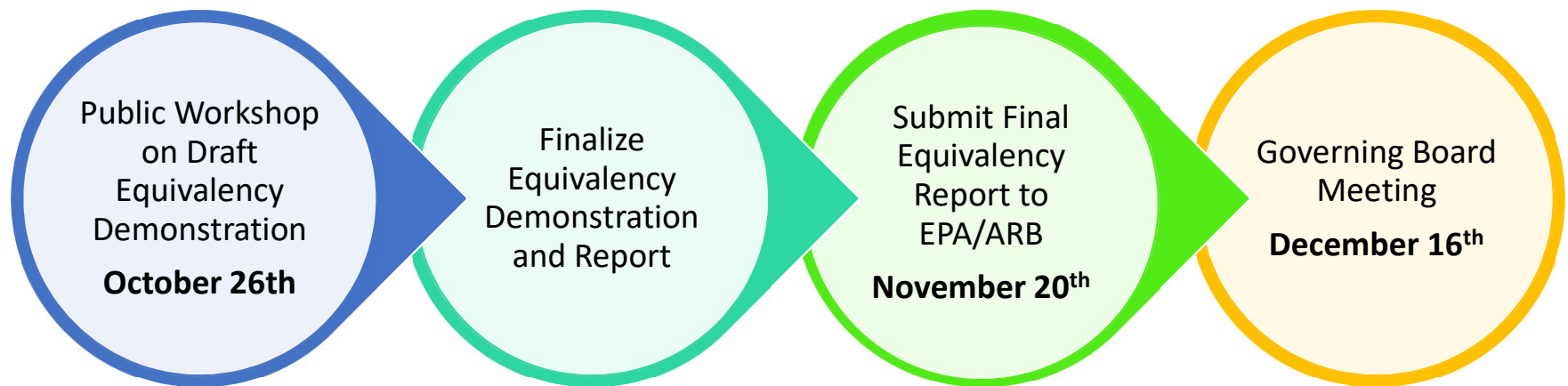
Projected 2020-2021 Offset Equivalency Outcome

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 2020-2021 Offset Equivalency Implications

- Test 1 – Offset Quantity
 - No change to current status
 - 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
- Test 2 – Surplus Value
 - No change to current status
 - PM₁₀, PM_{2.5}, SO_x, and CO demonstrate equivalency
 - All new major sources or federal major modifications triggering offsets for NO_x or VOC under the District NSR rule required to provide ERC surplus at time of ATC issuance

2021 Offset Equivalency Next Steps



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Comments/Questions