

**FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT
MEMORANDUM
02/27/2023**

TO: FRAQMD BOARD OF DIRECTORS
FROM: Christopher D. Brown AICP, APCO
SUBJECT: Emission Reduction Credits (ERCs) Update

DISCUSSION

Pursuant to the Federal Clean Air Act of 1990, State and Federal requirements were imposed to create no net increases in criteria air pollutants. The District can only allow new or modified, large sources of air pollution to be built if they "offset" the emissions above a certain threshold. To offset these emissions, the applicant must provide Emission Reduction Credits (ERCs).

To create an ERC, a company must reduce their emissions beyond what is required by all District, State, and Federal regulations. This is usually done by either shutting down a permitted source, curtailing operations (such as limiting the acreage of rice burned), or adding air pollution control equipment. The company must then submit a banking application to the Air District to verify that the emission reduction is real, enforceable, quantifiable, and permanent. If the project meets all of these criteria, the District would issue an ERC certificate and add the document to the District's banking register.

Companies that own ERC certificates may hold on to them for their own potential expansion options in the future or they may sell the credits to other companies that require them. The actual value of an ERC will fluctuate depending on market conditions. The District takes no part in the negotiations and has no financial interest in the trade; it solely processes the paperwork after the trade occurs.

Each Air District is required to maintain a bank of all ERCs that were created within the District boundaries. Currently, the District has the following amount of ERCs available in its banking register:

Current FRAQMD ERC Registry

Pollutant Acronym	Pollutant	Tons/year
VOC	Volatile Organic Compounds	338.75
NOx	Oxides of Nitrogen	251.65
PM ₁₀	Particulate Matter <10 microns	318.75
SOx	Oxides of Sulfur	76.49
CO	Carbon Monoxide	3,456.34

The majority of the District's permitting actions are for small sources of air pollution, and offsets are not required for these small sources. However, the District has had a few larger

projects that required offsets. A list of these larger projects as well as the associated ERCs used is given below:

1999 – Sutter Energy Center ERCs used

Pollutant	Tons/year	Home District
VOC	28.44	FRAQMD
NOx	221.08	FRAQMD
PM ₁₀	99.61	FRAQMD
VOC	-	Yolo-Solano AQMD
NOx	31.97	Yolo-Solano AQMD
PM ₁₀	14.11	Yolo-Solano AQMD
VOC	-	Glenn APCD
NOx	12.00	Glenn APCD
PM ₁₀	-	Glenn APCD
VOC	0.28	Colusa APCD
NOx	12.56	Colusa APCD
PM ₁₀	0.06	Colusa APCD

2003 – Yuba City Energy Center ERCs used

Pollutant	Tons/year	Home District
VOC	0.53	FRAQMD
VOC	5.23	Placer APCD
VOC	0.70	Glenn APCD
NOx	21.00	Glenn APCD

Each of these projects in FRAQMD used a combination of ERCs that were generated locally and ERCs that were generated in other Air Districts within the Air Basin. ERCs that are generated in other Districts are generally applied at a reduced value based on the distance between the original location of the ERC and the location of the proposed project. Even with the reduced value, it may still be cheaper for the applicant to use ERCs from other Districts than to use only FRAQMD ERCs.

FRAQMD has also helped provide ERCs for projects in other Air Districts. A list of the ERCs that were exported is given below:

FRAQMD ERC Exports to other Districts

Pollutant	Tons/year	Sent to	Project
PM ₁₀	13.48	Sac-Metro AQMD	Grafil Inc. - 2006
NOx	5.39	Colusa APCD	Colusa Generating Station - 2010
SOx	1.27	Colusa APCD	Colusa Generating Station - 2010
VOC	2.38	Sac-Metro AQMD	Chevron - 2013
VOC	0.1255	Sac-Metro AQMD	Chevron - 2014
NOx	0.7995	Placer County APCD	GenPower, LLC - 2014
VOC	1.307	Sac-Metro AQMD	Mitsubishi – 2016
NOx	0.5875	Sac-Metro AQMD	Mitsubishi – 2016
CO	5.4825	Sac-Metro AQMD	Mitsubishi - 2016

VOC	2.097	Sac-Metro AQMD	SMUD - 2016
NOx	4.388	Sac-Metro AQMD	SMUD - 2016
PM10	2.763	Sac-Metro AQMD	SMUD - 2016
ROG	1.32375	Sac-Metro AQMD	Mitsubishi -2020
PM ₁₀	4.933	Sac-Metro AQMD	Mitsubishi -2020

As previously stated, ERCs are traded based on fluctuating market conditions. Every Air District is required to report to the California Air Resources Board (CARB) the value of all transactions. In the Sacramento Valley, VOC credits are usually valued around \$8,000 per ton and NOx credits are usually valued around \$15,000 per ton. These values can change significantly throughout all the Air Basins in California as there are areas with a limited amount of available ERCs. To further review all ERC market transactions within California, please visit the following CARB website: <http://www.arb.ca.gov/nsr/erco/erco.htm>.

ERC DATABASE

The District Board of Directors approved a contract with Advanced Database Design for the ERCs Management System in Permits Pro. The District staff have been working on the execution of this new management system with the consultant which will modernize the tracking of ERCs in a more secure system.

CURRENT ERC ACTION

The Greenleaf 1 Project facility produces electricity for commercial sale for emergency use under California Energy Commission License Approval Docket #21-TPG-02. It is located at 5087 South Township Road on a 16-acre site located in Sutter County. The facility is shared with Calpine Sutter Energy operating under Title V Permit to Operate #13005. This is a contiguous property under the same ownership/control and the same NAICS code. The facility operates two simple cycle electric turbines with singular annular combustors and water injection. This addition triggered the need for additional ERCs to offset the new equipment emissions. The District is currently working on processing the request. All surrendered ERCs are from FRAQMD.

SUMMARY

Overall, the District has imported more ERCs than it has exported. The District currently holds enough ERCs in its banking register to permit additional large projects. If for some reason the District's banking register starts to drastically decrease, the market should drive more local industries to create ERCs and sell them for profit. The District also continues to work with neighboring Air Districts to import and export ERCs to where they are needed within the basin.