

FEATHER RIVER AIR QUALITY MANAGEMENT DISTRICT
MEMORANDUM
06/02/2025

TO: FRAQMD BOARD OF DIRECTORS

FROM: Christopher D. Brown AICP, APCO

SUBJECT: Informational Item Update on Emission Reduction Credit Program

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 District to verify that the emission reduction is real, enforceable, quantifiable, and permanent. If the project meets all of this 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.

The 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 | 330.77 |
| NO _x | Oxides of Nitrogen | 246.90 |
| PM ₁₀ | Particulate Matter <10 microns | 311.69 |
| SO _x | 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 permit actions that required offsets. A list of these larger permit actions 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 |
| NO _x | 221.08 | FRAQMD |
| PM ₁₀ | 99.61 | FRAQMD |
| VOC | 0 | Yolo-Solano AQMD |
| NO _x | 31.97 | Yolo-Solano AQMD |
| PM ₁₀ | 14.11 | Yolo-Solano AQMD |
| VOC | 0 | Glenn APCD |
| NO _x | 12.00 | Glenn APCD |
| PM ₁₀ | 0 | Glenn APCD |
| VOC | 0.28 | Colusa APCD |
| NO _x | 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 |
| NO _x | 21.00 | Glenn APCD |

2023 – Green Leaf 1 Project ERCs used

| Pollutant | Tons/year | Home District |
|------------------|------------------|----------------------|
| VOC | 2.48 | FRAQMD |
| NO _x | 4.75 | FRAQMD |
| PM ₁₀ | 7.07 | FRAQMD |

A permit action can use ERCs that were generated locally, ERCs that were generated in other air districts within the air basin, or a combination. 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. It is the decision of the applicant to procure and select which ERCs they wish to apply.

The District has also helped provide ERCs for permitting actions in other air districts within the Sacramento Valley Air Basin. The Board of Directors must approve the transfer of ERCs for use outside the District. A list of the ERCs that were exported outside the District 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 |
| NO _x | 5.39 | Colusa APCD | Colusa Generating Station - 2010 |
| SO _x | 1.27 | Colusa APCD | Colusa Generating Station - 2010 |
| VOC | 2.38 | Sac-Metro AQMD | Chevron - 2013 |
| VOC | 0.1255 | Sac-Metro AQMD | Chevron - 2014 |
| NO _x | 0.7995 | Placer County APCD | GenPower, LLC - 2014 |
| VOC | 1.307 | Sac-Metro AQMD | Mitsubishi – 2016 |
| NO _x | 0.5875 | Sac-Metro AQMD | Mitsubishi – 2016 |
| CO | 5.4825 | Sac-Metro AQMD | Mitsubishi - 2016 |
| VOC | 2.097 | Sac-Metro AQMD | SMUD - 2016 |
| NO _x | 4.388 | Sac-Metro AQMD | SMUD - 2016 |
| PM ₁₀ | 2.763 | Sac-Metro AQMD | SMUD - 2016 |
| VOC | 1.32375 | Sac-Metro AQMD | Mitsubishi - 2020 |
| PM ₁₀ | 4.933 | Sac-Metro AQMD | Mitsubishi - 2020 |
| VOC | 6.734 | Placer County AQMD | Sierra Pacific Industries - 2023 |

Every air district is required to report to the California Air Resources Board (CARB) the value of all transactions. In the District, as of 2023, VOC credits are valued around \$27,000 per ton, NO_x credits are valued around \$30,000 per ton, and PM₁₀ credits are valued around \$32,500 per ton. No recent transactions included SO_x or CO to calculate an average price 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>. 2023 is the most recent dataset available for ERC transactions.

ERC DATABASE

The District Board of Directors approved a contract with Advanced Database Design for the ERCs Management System in Permits Pro. The modernized ERC tracking database was completed in December 2023.

SUMMARY

Overall, the District has imported more ERCs than it has exported. The District currently holds a large supply of ERCs in its banking register. 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 air basin.