Introduction and Goals

On January 24th, 2019, the California Air Resources Board (CARB) directed staff to conduct a review of the San Joaquin Valley Air Pollution Control District (SJVAPCD or District) Emission Reduction Credit (ERC) program. CARB is conducting this review in a public process and with cooperation from SJVAPCD. This report provides an update on the status of the ongoing review and a schedule for completion.

CARB’s goal is to review the SJVAPCD ERC system, including the equivalency determination, and explain it in the context of the broader District program for reducing emissions from stationary sources including New Source Review (NSR), permitting, and regulatory requirements. The final review, when completed, will contain four elements:

1. ERC Program. Explain the basis for and function of the SJVAPCD ERC banking program.
2. ERC Banking Actions. Evaluate a sample of ERC banking actions to assess consistency with District rules.
3. Federal Offset Equivalency Tracking System. Evaluate the District’s equivalency system for demonstrating that the District’s offset program is at least as stringent as federal requirements under the federal Clean Air Act.
4. Application of Offset Requirements to Permitting. Evaluate the District’s implementation of offset requirements under NSR.

CARB is conducting this review consistent with State law as defined in sections 41500 et seq. of the California Health and Safety Code (HSC). State law defines CARB’s important role in reviewing district attainment plans, rules, regulations, and enforcement practices. The role includes programmatic reviews such as this one and also includes day-to-day review of individual district actions, such as permits for major modifications, issuance of ERCs, adoption of rules, and granting of variances.

For the past decade, CARB has reduced its focus on air district stationary source permitting programs due to demands associated with developing, implementing, and enforcing an unprecedented number of mobile source related regulations. As we have implemented these regulations we have also sought to analyze and improve them, including programmatic improvements, regulatory updates, and in some cases new laws to support implementation and enforcement. This iterative approach has
generated improvements. CARB staff plans to take a similar approach with stationary sources, re-engaging in district permitting programs and working as a constructive partner with the districts and federal government to ensure existing programs are as successful as possible. Doing so, as in this review, may help provide answers to questions posed by stakeholders and provide assurance that District programs are effective and consistent with underlying regulations.

The remainder of this report is structured as follows. First, we provide an overview of emission reductions credits. Second, we discuss the process for demonstrating equivalency between local programs, like SJVAPCD’s ERC program, and federal requirements. Third, we consider the current status of banked ERCs in SJVAPCD’s program. Fourth, we outline our process (currently under way) for reviewing SJVAPCD ERCs. Fifth, we discuss the current status of our review. We conclude by laying out proposed next steps as well as the associated timing.

ERCs are issued for reductions of criteria pollutants and, in some cases, greenhouse gases. This review is primarily focused on the evaluation of ERCs for emission reductions of criteria pollutants from stationary sources as they affect regional air quality.

Overview of ERCs

The federal Clean Air Act establishes requirements for the permitting of stationary sources. Generally, states have the direct responsibility to meet requirements of the federal Clean Air Act and corresponding federal regulations with respect to permitting. California law, however, allows for delegation of permitting activities to the local and regional air districts. All thirty-five California air districts have taken advantage of the opportunity to implement their own permitting program for stationary sources. In California, maintaining a structure of air districts performing permitting with CARB review has been largely successful. Individual air districts are generally well suited to maintain localized regulations, which has led to improved air quality across the state. CARB retains oversight authority to monitor the performance of district programs and to conduct district functions if the district fails to meet certain responsibilities.

In accordance with the federal Clean Air Act, U.S. EPA sets ambient air quality standards for criteria pollutants. A geographic area that does not meet these standards is called a non-attainment area. The San Joaquin Valley is classified as extreme non-attainment for 8-hour ozone and serious non-attainment for PM2.5. Non-attainment areas must develop State Implementation Plans (SIPs) that have or commit to adopt emission control measures to attain and maintain ambient air quality standards. The local air districts develop and implement portions of the SIP that cover stationary sources through rulemaking, permitting, and enforcement.
Generally, any stationary source that emits or has the potential to emit air pollution is subject to local air district permitting requirements. New or modified sources of air pollution must obtain approval from the local air district in the form of an Authority-to-Construct (ATC) permit. Most ATC permit approvals are subject to NSR, and in California NSR is implemented at the district level. The federal Clean Air Act, implementing regulations, and State law establish the minimum requirements for non-attainment NSR air permitting programs. U.S. EPA allows implementing authorities to tailor their NSR requirements to address local air quality conditions, provided the local NSR program is at least as stringent as required by federal standards. Generally speaking, NSR programs require sources exceeding an emissions threshold to install best available control technology (BACT) and to offset emission increases which occur after the installation of BACT with emissions reductions. These emissions reductions are referred to as offsets. NSR programs generally require offsets so that there is no net increase in emissions, on a regional basis, of nonattainment pollutants and their precursors.

Offsets are either past or contemporaneous emission reductions used to counterbalance newly permitted emission increases. Past emission reductions above and beyond what is required and not immediately used to counter balance new emission increases can be stored in the form of ERCs. ERCs are the currency of offsets, and are a way of “banking” emission reductions for future use, either at the site they were generated or elsewhere within the air basin (or, in limited circumstances, in a downwind air basin).

Because of the emission-offsetting requirement of NSR, both the federal Clean Air Act and State law require non-attainment areas to have an ERC banking system. To qualify for banking as an ERC, an emission reduction must meet the following criteria:

- **Real** – the reduction must be in actual emissions not potential, allowed or permitted emissions.
- **Quantifiable** – the reduction must be calculable based on actual verifiable operational data and the best available emission factors and source test data.
- **Surplus** – the reduction must go beyond what is required by law, regulation, or SIP commitment at the time the ERC was originally banked.
- **Permanent and Enforceable** – the reduction must be legally and practically enforceable and permanent through permit conditions and limits, or surrender of the operating permit.

These ERC criteria help ensure the integrity of an ERC program. These criteria are also universal to programs across the United States, and provide the framework CARB staff is using in the review of SJVAPCD ERC banking actions.
Equivalency with Federal NSR Requirements for Offsets

The offsetting requirements of the SJVAPCD NSR rule are different than the offsetting requirements under federal NSR (which apply as a backstop for state and local NSR programs). For example, federal NSR requires offsets from major sources but not from minor sources, whereas the SJVAPCD NSR rule requires offsets from both major and minor sources if the emissions are calculated to exceed specified offset thresholds, as shown in Table 1.

Table 1. SJVAPCD Offset Thresholds

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>SJVAPCD Offset Thresholds (lb/year)</th>
<th>Federal Thresholds Applicable in SJVAPCD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Major Source (lb/year)</td>
<td>Major Modification (lb/year)</td>
</tr>
<tr>
<td>Volatile Organic Compounds</td>
<td>VOC</td>
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<tr>
<td>Nitrogen Oxides</td>
<td>NOx</td>
<td>20,000</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>CO</td>
<td>200,000</td>
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<tr>
<td>Sulfur Oxides</td>
<td>SOx</td>
<td>54,750</td>
</tr>
<tr>
<td>Particulate Matter (10 microns)</td>
<td>PM10</td>
<td>29,200</td>
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<tr>
<td>Particulate Matter (2.5 microns)</td>
<td>PM2.5</td>
<td>Same as federal</td>
</tr>
</tbody>
</table>

An important caveat to bear in mind when interpreting the thresholds in Table 1 is that the District and federal calculation methods to determine “when” offsets are required and “how much” offsets are required are different, especially for modified sources. Thus, even where the pollutant thresholds are the same, the same project will produce different offset quantities for the same pollutant when evaluated under District versus federal NSR.

Other differences exist, which, depending on the facts of a given ATC project, may make either federal NSR or SJVAPCD NSR more stringent regarding offset requirements for a particular project (though the local NSR program must remain more stringent overall). Among the most significant difference in offsetting requirements is when the “surplus” value of an ERC is determined. SJVACPD values ERCs at the “time of issuance” whereas federal NSR values ERCs at the “time of use.”

Specifically, under the SJVAPCD NSR rule, similar to most California air districts, the value of an ERC is calculated when the ERC is issued, and the ERC retains that value throughout its life until it is used. In contrast, under the federal NSR rules, the value of
an ERC is calculated first when it is created, and again when it is used. In a 1993 memorandum, entitled “Use of Shutdown Credits for Offsets,” U.S. EPA has stated that this approach is designed to avoid double counting emission reductions in a SIP. Under the federal approach, each ERC must be re-evaluated based on the rules, regulations and SIP commitments that apply at the time-of-use. Because many years often elapse between when an ERC is created and when it is used, the adoption of progressively stricter emissions standards can cause the surplus value of an ERC to drop significantly. For example if a boiler had a NOx reduction technology installed that reduced emissions by 1 ton per year above and beyond what was required at the time of retrofit and an ERC was issued for the reduction, the value of the ERC is 1 ton per year when it is issued. Under “time of issuance”, the ERC holds it value of 1 ton per year in perpetuity even if new rules are subsequently adopted that require boiler retrofits. Subsequently, if a new rule requiring NOx reductions from boilers is adopted 5 years after the retrofit, and the ERC is to be used to offset new emissions, under a time-of-use scenario, the ERC’s value would have to be re-evaluated and reduced (discounted) to reflect current boiler requirements. Under a time of use scenario, the 1 ton per year ERC discussed above, as issued could be worth less than 1 ton per day or even zero, depending on the level of controls the new rule required.

Due to the differences between the federal and District NSR programs, in 1999 U.S. EPA and SJVAPCD entered into an agreement requiring SJVAPCD to implement an annual federal offset equivalency tracking system. U.S. EPA required this agreement as a condition of approving SJVAPCD’s amended NSR rule for incorporation into the SIP. The purpose of the tracking system is to show, on a program-wide basis, that SJVAPCD’s NSR rule requires an equal or greater amount of offsets than would be required under the terms of federal NSR.

From the time the tracking system was adopted in August 2001 until present, SJVAPCD has never failed to show equivalency. As a result, SJVAPCD has been able to maintain its offsetting system instead of adopting federal offset requirements for new major sources and federal major modifications to existing major sources. If SJVAPCD were to fail to show equivalency, they would be required, by their existing NSR rule, to follow Federal offsetting standards.

The District’s NSR Rule contains language that describes how the district would modify its program if it were to fail to show equivalency. When originally established, the District’s program required more offsets than the federal program, primarily because District emissions offset thresholds and offset ratios were more stringent compared to federal NSR. However, in 2010, as the San Joaquin Valley’s non-attainment ozone classification increased from severe to extreme, the federal major source and major modification thresholds for ozone precursors dropped to levels that have effectively eliminated the advantage SJVAPCD’s NSR program had in offset stringency over the federal NSR program. Since the reclassification to extreme non-attainment for ozone
in 2010, SJVAPCD’s tracking system frequently relies on the carry-over of past mitigations and creditable reductions. These past mitigations and reductions are often from unbanked emission reductions resulting from orphan shutdowns and electrification projects (i.e., creditable reductions not used for ATC projects) to demonstrate equivalency for NOx and VOC. For example, between 2010 and 2018, half of all VOC reductions, and 75% of all NOx reductions included in the District’s equivalency demonstrations were provided by orphan shutdowns and electrification projects, with the remaining value provided by ERCs.

Status of SJVAPCD ERC Bank

The District publishes on its website a daily summary of the available (or currently valid) ERCs. Table 2 provides an example of the daily summary from August 1, 2019. The summary reports the ERCs by the region in which the ERCs were banked, however an ERC from one region may be used (retired) to mitigate emission increases in any other region. In 2016, the District estimated that approximately 18% of its NOx ERCs were surplus at the time, if evaluated and discounted under a “surplus-at-time-of-use” assumption. This analysis appears generally consistent with CARB’s analysis to date.

Table 2. Available Annual ERCs in the San Joaquin Valley

<table>
<thead>
<tr>
<th>Pollutant (lbs/year)</th>
<th>Northern Region</th>
<th>Central Region</th>
<th>Southern Region</th>
<th>District Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>748,373</td>
<td>589,689</td>
<td>8,647,900</td>
<td>10,186,043</td>
</tr>
<tr>
<td>NOx</td>
<td>2,605,863</td>
<td>740,185</td>
<td>8,242,410</td>
<td>10,598,458</td>
</tr>
<tr>
<td>CO</td>
<td>1,891,011</td>
<td>1,014,453</td>
<td>51,326,838</td>
<td>54,932,202</td>
</tr>
<tr>
<td>PM10</td>
<td>730,089</td>
<td>580,277</td>
<td>952,531</td>
<td>2,881,897</td>
</tr>
<tr>
<td>SOx</td>
<td>1,654,602</td>
<td>664,589</td>
<td>3,914,109</td>
<td>6,233,291</td>
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<tr>
<td>Acetone</td>
<td>71,526</td>
<td>none</td>
<td>none</td>
<td>74,521</td>
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<tr>
<td>Ethane</td>
<td>none</td>
<td>14,134</td>
<td>1,879,617</td>
<td>1,953,751</td>
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<tr>
<td>Hydrogen Sulfide</td>
<td>none</td>
<td>167</td>
<td>45,065</td>
<td>45,122</td>
</tr>
<tr>
<td>PM 2.5</td>
<td>none</td>
<td>none</td>
<td>3,216</td>
<td>3,216</td>
</tr>
<tr>
<td>Sulfate Particulates</td>
<td>none</td>
<td>none</td>
<td>191,193</td>
<td>191,193</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pollutant (metric tons/year)</th>
<th>Northern Region</th>
<th>Central Region</th>
<th>Southern Region</th>
<th>District Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2E</td>
<td>2,444</td>
<td>259,575</td>
<td>374,296</td>
<td>636,315</td>
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</table>

Figures 1 and 2 below show the percentage of available VOC and NOx ERCs in the bank according to the age (grouped by decade) of the emission reductions that created them. The charts show that the majority of VOC (89%) and NOx (85%) ERCs remaining in the bank unused today are based on emission reductions that occurred more than 20 years ago. (Note that the ERC totals (lb/yr) for VOC and NOx in the charts below will not equal the VOC and NOx totals in Table 2 above because the charts only represent banking actions through 2018, whereas Table 2 is current as of August 1, 2019.)
Figure 1. Age of VOC ERCs Available in the SJVAPCD Bank

1977 - 1987, 5,688,473 lb/yr
1988 - 1997, 3,525,147 lb/yr
1998 - 2007, 719,174 lb/yr
2008 - 2017, 423,827 lb/yr

Data from SJVAPCD for ERCs Issued Through 2018

Figure 2. Age of NOx ERCs Available in the SJVAPCD Bank

1979 - 1987, 3,483,504 lb/yr
1988 - 1997, 291,789 lb/yr
1998 - 2007, 5,904,227 lb/yr
2008 - 2017, 1,377,958 lb/yr

Data from SJVAPCD for ERCs Issued Through 2018
ERC Review Process

Accessing Information

CARB staff has worked extensively with SJVAPCD staff and executive management to conduct this review, including through in-person meetings, teleconference meetings, and numerous phone calls and emails. As a result of data and information requests, the District provided electronic copies of hundreds of documents related to over 50 ERC banking actions and the federal offset equivalency tracking system. The documents include SJVAPCD and Kern County Air Pollution Control District NSR and banking rules, SJVAPCD policies and guidance documents related to ERC banking, ERC applications and supporting documents related to CARB-selected banking actions, and SJVAPCD engineering evaluations supporting the decision to issue the ERC certificates. Information related to Kern County APCD was needed because prior to unification of the San Joaquin Valley Air District in 1991, Kern County had an independent permitting program which banked a large number of ERCs that were moved over to the unified air district upon unification. In addition, on four occasions, SJVAPCD provided CARB staff with electronic access to the SJVAPCD Permits Administration System (PAS). PAS is a comprehensive database where all permitting and ERC related actions are recorded and related documents are stored. From PAS, CARB staff retrieved dozens of documents including ERC transaction histories, emission inventories, source test records, and inspection reports related to the original ERC banking actions under review.

Another part of the ERC program review includes SJVAPCD’s federal offset equivalency tracking system. SJVAPCD staff has been helpful and informative in face-to-face meetings to explain the tracking system. SJVAPCD has provided CARB staff with information about the tracking system and access to a number of facets of the offset equivalency database. CARB staff is continuing to work with the air district to better understand specific components of the database to develop an understanding of the tracking system as a whole.

The review continues to progress each day, and CARB staff submits new information requests to the District regularly to obtain the necessary information for the review. As CARB progresses in the review, it frequently becomes apparent that more information is needed for a particular facet of the system. CARB prepares an information request to the District and the District works to fulfill that request.

Public Participation

In November 2018, a report was released by Earthworks titled Undeserved Credit: Why emissions banking in California’s San Joaquin Valley puts air quality at risk. The Earthworks Report contained a number of findings and recommendations that
included: “a significant proportion of ERCs in the San Joaquin Valley Air Pollution Control District’s bank appear to be invalid”; “CARB should audit the San Joaquin Valley Air District ERC system”; “equivalency should be questioned”; and “CARB should not allow ERCs to last forever.” In a January 9th, 2019 letter to Mary Nichols, Chairman of the Board, and in testimony at the January 24, 2019 CARB Hearing, a coalition of environmental and health advocacy groups representing the Southern San Joaquin Valley requested that CARB “…conduct a thorough review of the Emission Reduction Credit (ERC) banks administered by the San Joaquin Valley Air Pollution Control District….” This public input helped initiate this review.

CARB staff has taken steps to ensure this review is an open, public process.

As part of the review, on April 30, 2019, staff held an initial public meeting to define the scope and timeline of the project and solicit feedback. The meeting was hosted at the Bakersfield District office, which was linked to the Fresno and Modesto offices by the District’s video teleconference system. The meeting was also webcast through CARB’s web site and translation services were made available at all three District office locations.

CARB staff have also had numerous in person meetings and conference calls with stakeholders and community groups regarding this project. Staff maintains a website specifically for this project and an email address (valleyERCs@arb.ca.gov) for project questions. The website includes posting of documents related to the current ERC review, past CARB reviews of the District ERC banking program, and ERC banking in general.

Staff plans to hold a public workshop to discuss the draft update report in early September 2019. As this project continues, staff will continue to engage the public and conduct additional public meetings prior to returning to the Board with a final report.

Stakeholder Concerns

Stakeholders have identified a number of issues of potential relevance to CARB’s review, including the following:

- Validity and Use of Older ERCs

  Stakeholders have expressed concerns regarding the District’s ability to continually identify additional offsets beyond ERCs to account for the difference between time-of-issuance and time-of-use in order to demonstrate equivalency with the federal program. These additional offsets are required because the vast majority of ERCs currently in the bank in the San Joaquin Valley appear to have relatively little value at time-of-use. Many times, the value of an ERC has degraded by the
time it is used due to more stringent regulations that are adopted or proposed between the time-of-issuance and time-of-use.

Because the ERC bank is relatively large, stakeholders have expressed concern that the use of a large number of older ERCs could result in a failure to demonstrate federal equivalency. At the same time, some stakeholders believe that the use of a large number of older ERCs could result in a large amount of new emissions in the Valley, which could impact local air quality and regional attainment demonstrations.

Stakeholders have also questioned whether certain ERCs were generated in conformance with legal requirements.

- **Availability of ERCs**
  
  Because ERCs are the currency of offsets, and offsets are required in order to modify or build a new emissions source, ERCs are critical to on-going economic development in the San Joaquin Valley. A properly functioning NSR program ensures environmental protection and enables economic development. Some stakeholders expressed concern over possible “invalidation” of some ERCs, which could have an effect on ERC availability and pricing.

- **No Net-Increase**
  
  Under the District program, offsets are required above certain thresholds, but not below those thresholds. Stakeholders have asked whether this maintains the general goal of no-net-increase in emissions from stationary sources.

- **Local Air Quality**
  
  Under State and Federal law, ERCs are a tradeable commodity, and as such do allow emissions to increase at one location while decreasing at another location. While Districts have rule provisions that require analysis, such as emissions modeling, health risk assessments, and application of BACT, which are intended to protect the public from local increases of criteria pollutant and toxics emissions, some stakeholders question the effectiveness of these approaches, and whether emissions trading is appropriate.

- **Transparency**
  
  The District’s NSR program is quite complicated. Many stakeholders are struggling to understand the program. While public documents regarding the program are available, stakeholders have expressed difficulty in accessing relevant information and understanding the program. Stakeholders have expressed difficulty in understanding how to formulate and submit requests for information, although the District has made information available to stakeholders upon request. This difficulty may be a result of stakeholders not knowing exactly how to specifically identify or
describe the information they need to understand the program, or not being able to ascertain the connections and relevance of the provided information “connecting the dots”. There appears to be a desire for stakeholders to understand how permitting and NSR works, and the District is willing to offer this training upon request.

Current Status of Review
This section provides a status update on CARB’s review of the following elements of the ERC system:

- ERC Program Explanation
- ERC Banking Actions
- Federal Offset Equivalency Tracking System
- Application of Offset Requirements to Permitting

ERC Program Explanation
Staff is currently developing a detailed description of NSR programs and the ERC system as implemented by federal, state, and local laws and regulations.

ERC Banking Actions
Staff is evaluating a sample of ERC banking actions to assess consistency with District rules. The 52 selected banking actions (representing 162 individual single pollutant ERC certificates) include those addressed in the Earthworks Report and additional banking actions chosen by CARB staff to provide a representative overview of the program.

Because the Earthworks Report identified potential issues with specific ERCs, CARB staff included in this review all of the ERCs discussed in the Earthworks Report. In an effort to ensure the entire ERC program is represented and to have a representative sample of ERCs, CARB selected additional ERCs for evaluation using a random selection and representing the following criteria:

- A variety of locations, including varied regions of SJVAPCD;
- A variety of industries;
- A range of magnitude of emissions banked; and
- A range of dates in which the banking action took place.

CARB’s sampling methodology is designed to be representative across time and across industries. We estimate the methodology provides an 85-90% confidence rate
with a 10% margin of error. Specifically, 50 out of the 1,358 projects correlates to an 85% confidence rate with a 10% margin of error, and CARB selected 52 projects for evaluation. Further, 92 of the 2,101 ERC certificates correlates to a 90% confidence rate with a 10% margin of error, and CARB selected 162 certificates for evaluation, which is much greater than 92. An ERC project reflects an entire shutdown or over-control project at a facility. Each pollutant banked from a project is issued one certificate, therefore one ERC project can contain one certificate or several certificates, depending on how many pollutants are being banked.

The ERC project codes associated with the 52 ERC projects are listed below, in Table 3. ERC project codes are assigned by District staff when an ERC application is submitted. The first letter of the project code indicates which region the reduction originated in (N for northern, C for central, and S for southern). The remaining number indicates the project number.

Table 3. ERC Banking Action Project Codes

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<table>
<thead>
<tr>
<th></th>
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<th></th>
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<td>C-1011235</td>
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</tr>
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</tbody>
</table>

Details of each of these projects, including the facility name can be found on CARB’s website at the following address: https://ww2.arb.ca.gov/our-work/programs/san-joaquin-valley-emission-reduction-credit-program-review.

For each of these projects, staff requested the contents of the project file from the District. Staff is evaluating the information provided relative to the District rules that were in effect at the time of application. CARB staff is in the process of preparing summaries of findings for all 52 ERC projects reviewed.
Annual Federal Offset Equiv realmency Tracking System

CARB is in the process of evaluating the District’s offset equivalency tracking system to assess consistency with: (1) the requirements under District NSR; and (2) the requirement that the District’s offset program be at least as stringent as federal NSR offsetting requirements. CARB staff has met with District staff in Fresno three times to specifically discuss the federal equivalency program. District staff presented a high level discussion of how the equivalency system works, how the District performs calculations to determine equivalency, and how the equivalency database operates. CARB staff is also researching other air district’s equivalency systems. As described above, SJVAPCD has provided CARB staff with information about the tracking system and access to a number of facets of the offset equivalency database. CARB staff is continuing to work with the air district to understand the tracking system.

Application of Offset Requirements to Permitting

CARB will initiate this portion of the evaluation in October 2019.

Observations

The current SJVAPCD ERC bank contains nearly 11 million pounds per year of NOx ERCs when valued at time-of-issuance, more than 80% of which were generated more than 20 years ago. However over the years the District’s regulatory program has become more stringent, and the District estimated in 2016 that these NOx ERCs, when valued at time-of-use, were worth about 18% of the time-of-issuance value.

At the same time, the District’s NSR program, once significantly more stringent than federal requirements, is now closer to the federal requirements for NOx and VOC because of the District’s reclassification to extreme non-attainment status for ozone in 2010.

Taken together, the District’s increasingly stringent regulatory program reduces the time-of-use value of the current ERC bank, while the District’s extreme non-attainment status limits the degree to which the District’s NSR program is more stringent than federal requirements and therefore limits the surplus emission reductions, which are necessary to offset their program that is rooted in valuing ERCs at time-of-use.

In fact, since 2010, the vast majority of emissions reductions used to show equivalency for NOx and VOC do not come from ERCs and instead come from unclaimed emission reductions from facilities that have closed and not applied for ERCs, and from emission reduction (e.g. electrification) projects generated by third parties. In both cases, (orphan shutdowns and electrification projects), the reductions appear real, and
are allowed to be used in the equivalency process by the District’s federally-approved NSR rule, but are not banked through the same process as traditional ERCs.

**Next Steps**

Staff’s review is ongoing, and there are several areas where work needs to continue in order to provide a complete and thorough review of the District’s ERC program. Staff is compiling results of findings from the 52 individual ERC actions which were reviewed in order to develop generalized conclusions about the functioning of the program. Staff is continuing to review the District equivalency database and associated reduction projects to evaluate: (1) how federal equivalency is demonstrated; (2) the discount ratios of individual ERCs and of the bank as a whole; and (3) the nature of additional emissions reductions used to offset the time-of-issuance value of ERCs in the District program. Finally, staff will initiate its evaluation of the District’s application of offset requirements to permitting actions, including how and when offsets are triggered and ERCs are used (or not used). As part of this evaluation, staff is reviewing how the banking, use, and tracking of ERCs is included in the SIP.

Given the anticipated work, staff estimates data requests and analysis will continue throughout 2019 and into 2020. Once the program review is complete, staff will release a draft report for public review, and hold a public workshop to take stakeholder comments. The draft report will then be finalized and will reflect stakeholder input. We anticipate returning to the Board in the spring of 2020 with the final report and recommendations.