



***Use of Emission Banking and Trading Programs
(EBTP) for Permit Offset Requirements in the
Houston-Galveston-Brazoria (HGB) Eight-Hour Ozone
Nonattainment Area***

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Presented to the Emissions Banking and Trading Stakeholder Group
December 12, 2011



Overview

- Background
- Offsetting
 - Permit Offset Requirements
 - Offset Ratio
- Use of EBTP for Offsets
- Informal Comments
- Open Discussion



Background

- Offsets are required for Nonattainment New Source Review permits, per 30 Texas Administrative Code (TAC) §116.150(d)(3), if the net emissions increase is greater than the significant levels. Emission Reduction Credits (ERC) are commonly used to meet this offset requirement.
- Currently, the ERC Registry in the HGB eight-hour ozone nonattainment area has a total of:
 - 24.3 tons per year (tpy) of Nitrogen Oxides (NO_x) ERCs; and
 - 143.1 tpy of Volatile Organic Compounds (VOC) ERCs.
- Besides ERCs, the following alternatives are available to meet this offset requirement:
 - Discrete Emissions Reduction Credits (DERC);
 - Mass Emissions Cap and Trade (MECT) allowances; and
 - Highly Reactive Volatile Organic Compound (HRVOC) Emissions Cap and Trade (HECT) allowances.



Offsetting

- Offsetting
 - Offsetting is a reduction in emissions from an existing source that mitigates the impacts of a proposed new or modified source.
- Permit Offset Requirement
 - From the Federal Clean Air Act, offsets are required to be supplied for the emissions associated with the project undergoing nonattainment review.



Offsetting

- Offset Ratio
 - When a new or modified facility or facilities commence operation, the emissions increases from the new or modified facility or facilities must be offset. The proposed facility shall use the offset ratio for the appropriate nonattainment designation as defined in 30 TAC §116.12(18).

Designation	Offset Ratios
Marginal	1.10 to 1
Moderate	1.15 to 1
Serious	1.20 to 1
Severe	1.30 to 1



ERCs as Offsets

- ERC Overview
 - ERCs are generated in units of tpy.
 - ERCs are generated from the reduction of:
 - Carbon Monoxide (CO);
 - NO_x;
 - Particulate matter with an aerodynamic diameter 10 micrometers or less (PM₁₀);
 - Sulfur Dioxide (SO₂); and
 - Volatile Organic Compounds (VOC).
- ERCs may only be generated and used in nonattainment areas.



ERCs as Offsets

- ERC Overview (continued)
 - ERC Credibility
 - Permanent – An emission reduction that is long-lasting and unchanging for the remaining life of the facility or mobile source.
 - Enforceable – A company must commit to permanently operate at the new level.
 - Real – A reduction in which actual emissions are reduced. ERCs cannot be generated from reductions of allowable emissions.



ERCs as Offsets

- ERC Overview (continued)
 - ERC Credibility
 - Quantifiable – An emission reduction that can be measured or estimated with confidence using replicable methodology.
 - Surplus – An emission reduction that is not otherwise required of a facility or mobile source by any local, state, or federal law, regulation, or agreed order and has not been otherwise relied upon in the state implementation plan (SIP).

Note: An ERC must be surplus at the time it is created, as well as when it is used.



ERCs as Offsets

- ERC Overview (continued)
 - ERC Generation
 - Shutdowns
 - Installation of pollution control equipment with higher-than-required efficiency
 - Process changes resulting in decreased emissions
 - Enforceable production curtailments
 - Pollution prevention projects
 - Fugitive monitoring beyond applicable requirements



ERCs as Offsets

- How to use ERCs as Offsets
 - Obtain ERCs by submitting a Form EC-4 (Application for Transfer of Emission Credits).
 - Submit a Form EC-3 (Notice of Intent to Use Emission Credits).
 - This form must be submitted before the ERC expiration date.
 - This form must be submitted after the permit is administratively complete but prior to construction.
 - After submitting a completed Form EC-3, the credits are safe from future regulatory changes that would devalue the ERC.
 - The Emission Banking and Trading (EBT) team will approve the intent to use after the Air Permits Division verifies and enforces the offset amount in the permit's special conditions.



ERCs as Offsets

- How to use ERCs as Offsets (Permitting Timeline)
 - A company submits a Form PI-1 (General Application), which includes a Major New Source Review Applicability (Nonattainment Review) analysis.
 - If Nonattainment Review is triggered, company proposes the Lowest Achievable Emission Rate (LAER) and submits the Form EC-3 to the EBT team.
 - The Air Permits Division completes the review of the LAER level of controls and confirms the amount of offsets necessary for the project.



ERCs as Offsets

- How to use ERCs as Offsets (Permitting Timeline, continued)
 - Permit special conditions are developed. The special conditions include a federally enforceable requirement that the proper amount of offsets be provided. The new permit is issued, or a major modification of an existing permit is approved.
 - The EBT team completes the request to use ERCs as offsets (ensuring that sufficient offsets are available, are the same amount as required in the permit special conditions, and that the offsets are considered permanently relied upon).
 - The company can commence operation of its new or modified operation.



DERCs as Offsets

- DERC Overview
 - DERCs are generated in units of tons.
 - DERCs are generated from the reduction of:
 - CO;
 - NO_x;
 - PM₁₀;
 - SO₂; and
 - VOC.
 - Credit is for past actions.



DERCs as Offsets

- DERC Overview (continued)
 - DERC Credibility
 - Quantifiable – An emission reduction that can be measured or estimated with confidence using replicable methodology.
 - Surplus – An emission reduction that is not otherwise required of a facility or mobile source by any local, state, or federal law, regulation, or agreed order and has not been otherwise relied upon in the SIP.

Note: A DERC must be surplus only at the time it is generated.
 - Real – A reduction in which actual emissions are reduced.



DERCs as Offsets

- How to use DERCs as Offsets
 - Prior to the start of each year of operation, a company must have enough DERCs to satisfy the offset requirement for the upcoming year and at least one additional year.
 - Submit the Form DEC-2 (Notice of Intent to Use Discrete Emission Credits) at least 45 days prior to the start of each year of operation.
 - Submit the Form DEC-3 (Notice of Use of Discrete Emission Credit) within 90 days after the end of each year of operation.



MECT Allowances as Offsets

- MECT Overview
 - A market-based component of the SIP that provides certain stationary sources (facilities) that emit NO_x compliance flexibility to the emission specifications in 30 TAC Chapter 117.
 - The MECT program establishes a mandatory cap for total NO_x emissions from affected facilities in the HGB eight-hour ozone nonattainment area.



MECT Allowances as Offsets

- How to use MECT Allowances as Offsets
 - For a new site, submit the Form ECT-4 (Application for Permanent Transfer of Allowance Ownership) for the 1:1 portion of the NO_x offset requirement.
 - The EPA requires allowances to be in the account on the first day of the year.
 - Additional Guidance is under development and will be available on our Web page.
 - To satisfy the 0.3:1 portion of the NO_x offset requirements, use ERCs or DERCs.



MECT Allowances as Offsets

- How to use MECT Allowances as Offsets (continued)
 - The Air Permits Division may consider the use of MECT allowances for the 0.3:1 portion of the NO_x offset requirement.
 - These allowances would be permanently retired through the submittal of a Form ECT-4 transferring allowances to the TCEQ's retirement account.



MECT Allowances as Offsets

- How to use MECT Allowances as Offsets (continued)
 - To generate NO_x ERCs, that can be used as offsets, a company must forfeit MECT allowances.
 - The company will do the following:
 - follow the ERC generation requirements of Chapter 101, Subchapter H, Division 1; and
 - make a permanent reduction of MECT allowances.



HECT Allowances as Offsets

- HECT Overview
 - HRVOC emissions
 - Ethylene
 - Propylene
 - 1,3 – butadiene
 - All isomers of butene
 - Currently limited to Harris County
 - Covers HRVOC emissions from vents, flares, and cooling towers (30 TAC Chapter 115, Subchapter H, Divisions 1 and 2)



HECT Allowances as Offsets

- How to use HECT Allowances as Offsets
 - The Air Permits Division may consider the use of HECT allowances for all or part of the 1:1 portion of the VOC offset requirement.
 - For a new site, submit the Form ECT-4 for the 1:1 portion of the offset requirement.
 - The EPA requires allowances to be in the account on the first day of the year.
 - Additional guidance is under development and will be made available on our Web page.
 - To satisfy the 0.3:1 portion of the VOC offset requirement, use ERCs or DERCS.



Informal Comments

- The TCEQ is accepting informal comments on the current options available for using emission credits and allowances to satisfy offset requirements and on potential alternatives or modifications to the current programs.
 - Please submit comments by January 17, 2012.
 - Mail comments to Mr. Brandon Greulich, MC-206, Air Quality Division, Chief Engineer's Office, TCEQ, PO Box 13087, Austin, TX 78711-3087.
 - Fax comments to (512) 239-5687.
 - All comments should reference "EBT Stakeholder-Offsetting Alternatives" in the subject line.



Open Discussion





Contact Information

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