



Offset Shortage and Permit Moratorium in SCAQMD

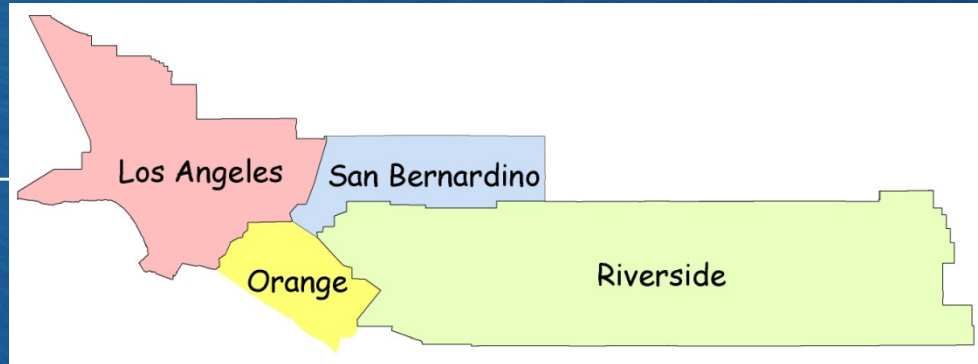
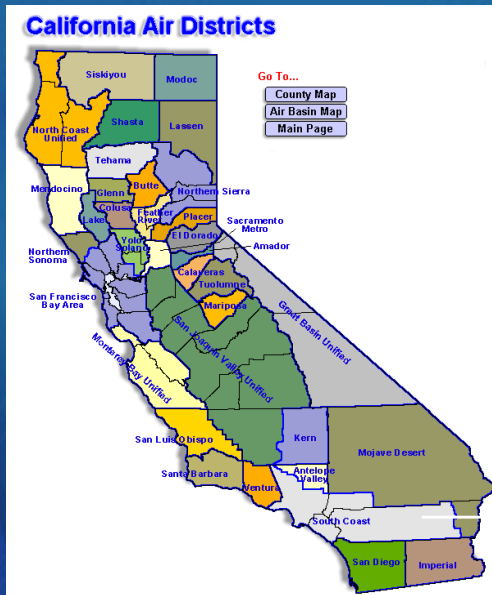
NACAA Permitting Workshop

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Chicago, Illinois*

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South Coast Air Quality Management District



What is South Coast Air Quality Management District (SCAQMD)?



- Local Air Pollution Control District in Southern California (Counties of LA, Orange, Riverside & San Bernardino)
- Population of over 16 million (about half of State's population)
- Covers 10,743 sq. miles
- Worst air quality in the nation (Ozone & PM 2.5)
- Process and receives about 10,000 permits annually



SCAQMD's Permitting Process

- Prior to construction or installation of equipment which releases or controls air emissions, the owner/ operator is required to obtain a written Permit to Construct from SCAQMD
- **New Source Review Requirements**
 - Best Available Control Technology
 - Air Quality Impact Analysis (Modeling)
 - **Emission Offsets**



Emissions Offset Thresholds for South Coast Air Basin

| Emittant | Local Threshold | CA Threshold | Federal Threshold* |
|----------|-----------------|--------------|--------------------|
| VOC | 1 lb/day | 1 lb/day | 10 ton/year |
| NOx | 1 lb/day | 1 lb/day | 10 ton/year |
| SOx | 1 lb/day | 15 ton/year | 100 ton/year |
| PM10 | 1 lb/day | 15 ton/year | 70 ton/year |
| PM 2.5 | N/A | N/A | 100 ton/year |

* Major Source threshold for Extreme O3 Non-Attainment & Non-Attainment for PM10/PM2.5



When are Emission Offsets Required Under Federal & State Laws?

- Emission Offsets are required for permitting of:
 - New Facilities & Relocations
 - Existing Facility Modifications/Expansions by:
 - Installation of New Equipment
 - Replacement of Existing Equipment
 - Modification and/or modernization of existing equipment
- However, under SCAQMD's NSR Rules certain sources are exempt from providing their own offsets, but SCAQMD still provides the required offsets free of charge to comply with Federal & State laws.



Sources Exempt from Offsets under SCAQMD's NSR Rules

- Rule 1309.1 - Priority Reserve
 - **Essential Public Service**
 - Sewage Treatment and Landfill facilities; Prison & Police facilities; Fire Fighting facilities; Schools; Hospitals.
 - Innovative Technology/ Research Operations
 - Limited Power Plants (with Mitigation Fees)
- Rule 1304 - Exemptions
 - Equipment Replacements/ Facility or Equipment Relocations/ Facility Modernizations
 - Emergency Equipment or Operations
 - Air Pollution Control Strategies/ Regulatory Compliance
 - Small Sources (< 4 Tons per Year)



SCAQMD New Source Review Rules Pertaining to Emissions Offsets

- Regulation XIII – New Source Review adopted in 1976 (prior to NSR in Clean Air Act):
 - Rule 1303 Requirements
 - Rule 1304 Exemptions
 - Rule 1306 Emission Calculations
 - Rule 1309 Emission Reduction Credits and Short Term Credits
 - Rule 1309.1 Priority Reserve
 - Rule 1309.2 Offset Budget
 - Rule 1315 Federal New Source Review Tracking System
- Regulation XX – RECLAIM
 - Rule 2005 NSR Rule for RECLAIM



SCAQMD Actions Taken in 1993-2002 Due to Offset Shortages & California Energy Crisis

- RECLAIM Trading Credits (Regulation XX)
 - Cap & Trade program created for NO_x and SO_x using RECLAIM Trading Credits (RTCs) rather than ERCs for emissions offsets.
 - Compliance with federally required offsets demonstrated programmatically.
- ERCs and Short Term Credits (Rule 1309)
 - ERCs banked and issued/converted as annualized Short Term Credits (STCs)
 - Permits require 5 years of STC offsets
 - Deadline to apply for banking emission reductions extended
- Power Plants (Rule 1309.1)
 - Priority Reserve rule amended to allow temporary access to SCAQMD offset credits
 - Pay Mitigation fees which are reinvested in emission reduction projects
- Offset Budget (Rule 1309.2)
 - Offset Budget established to provide offsets “bank of last resort” 8



SCAQMD Actions Taken in 2006/2007

- Electricity Supply (Rule 1309.1)
 - State agencies projected that there will be another electricity shortfall in Southern California in the near future
 - SCAQMD amended its NSR Rules to allow new cleaner and more efficient power plants limited access to use SCAQMD's internal offsets.
 - Power Plants were required to pay a mitigation fee to be used for emission reduction projects in the surrounding areas.
- NSR Offset Tracking (Rule 1315)
 - Since 1990, SCAQMD had been using a tracking system to show emission increases from exempt sources are offset by SCAQMD's internal offset credits.
 - As per EPA's request, SCAQMD adopted a rule to memorialize the tracking system.



SCAQMD's NSR Tracking System

CREDITS

PRE-1990

- Revised Beginning Balance

POST-1990

- Minor Source Orphans
- Major Source Orphans
- ERCs from Minor Sources
- ERCs at Major Facilities in Excess of Federal Offset Requirements
- NSR Offset Debt "Payback"
- BACT Discount of Newly-Banked ERCs if Reductions Exceed SIP Approved Reductions



OFFSETS

Rule 1304

- New or Modified Facility < 4 Tons/Yr & Relocations
- Replacements (*i.e.* Electric Utility Steam Boiler with Combined Cycle Turbine)

Rule 1309.1

- Essential Public Services
- Innovative Technology
- Research Operations
- Limited Power Plants

Rule 1309.2

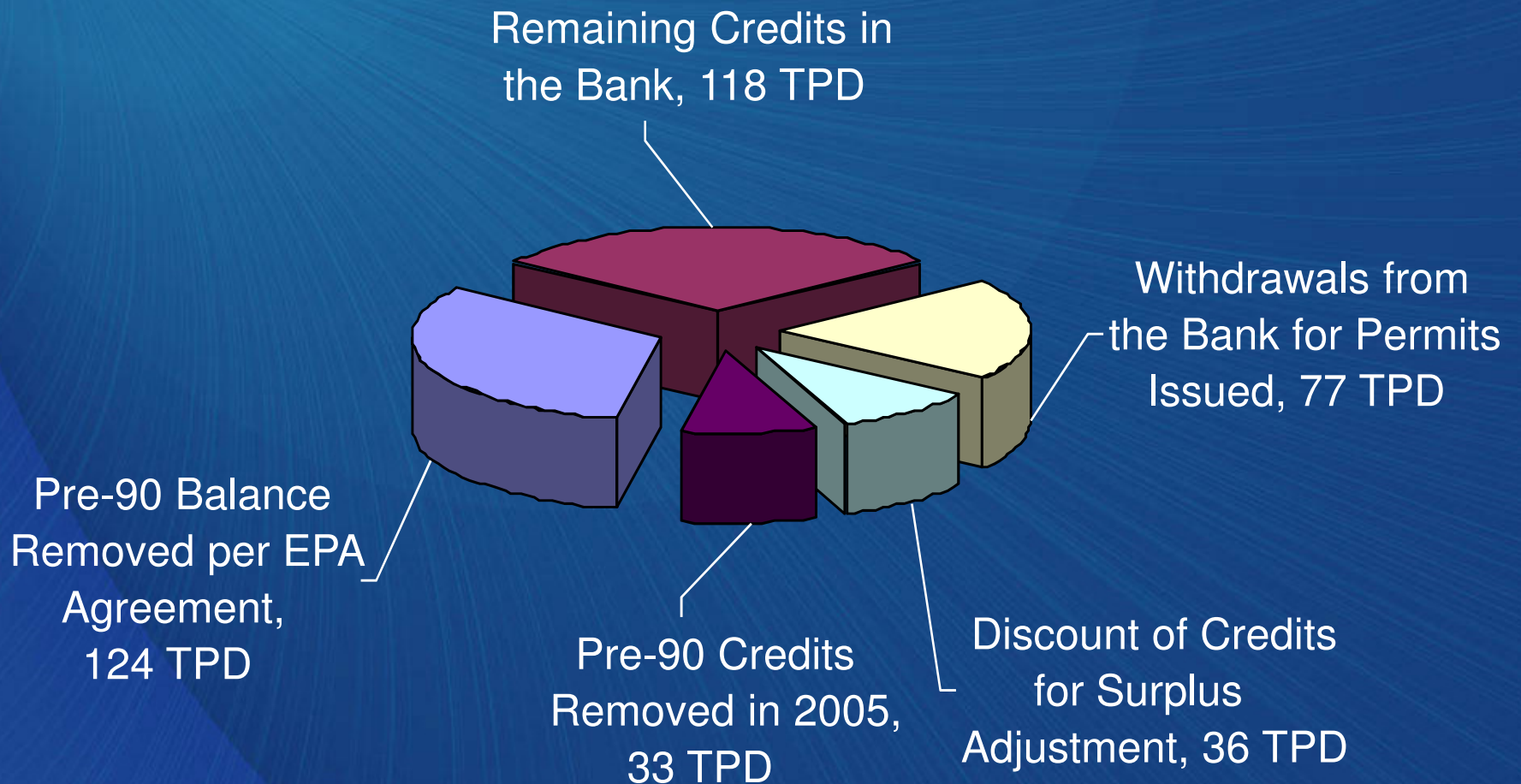
- All facilities except Electric Generating Facilities w/cap

ADJUSTMENTS

- Retired Pre-1990 Balance (Removed in 2005)
- Annual BARCT Discount



SCAQMD's Offset Accounts: Credit Use Profile for All Pollutants



Reflects Data through 2006



SCAQMD's NSR Tracking: Equivalency Determinations

- Preliminary Determinations of Equivalency
 - Due 12 months after reporting period.
 - Conservative assessment considering previous balance and new debits but not new credits.
- Final Determinations of Equivalency
 - Due 18 months after reporting period.
 - Final assessment considering previous balances and new debits and credits.
- Projections of account balances for the next two years



SCAQMD's NSR Tracking: Backstop Measures

- Discontinue permitting of projects if actual or projected shortfall.
- Implement one or more if actual shortfall:
 - Provide additional credits and/or suspend funding of SCAQMD's permitting offset accounts
 - Propose amendments to SCAQMD's NSR Rules to eliminate certain exemptions and/or certain sources' eligibility to receive offsets from SCAQMD



Environmental Organizations Lawsuit

- In October 2006 and August 2007 NRDC, CBE, CSE and CCAT filed lawsuits in State Superior Court challenging SCAQMD's Adoption of Rules 1315 and 1309.1 Amendments
- In July & November 2008, State Court Judge invalidated Rules 1315 & 1309.1 Amendments due to Environmental Impacts Analysis
- In August 2008, NRDC, CBE, CSE & DCAP filed a lawsuit in Federal court to invalidate all credits in SCAQMD's offset bank
- Decision on SCAQMD's Motion to Dismiss is still pending



As A Result of the State Court Decision

- Without AQMD's bank of offset credits:
 - No essential public service projects can be permitted
 - No other local government & business permits can be issued
 - No new or repowered power plant permits can be issued
- The only remaining option for local government and business is to purchase ERCs in Open Market
 - **Not enough ERCs in the open market**
 - **ERCs are expensive and potentially unaffordable**

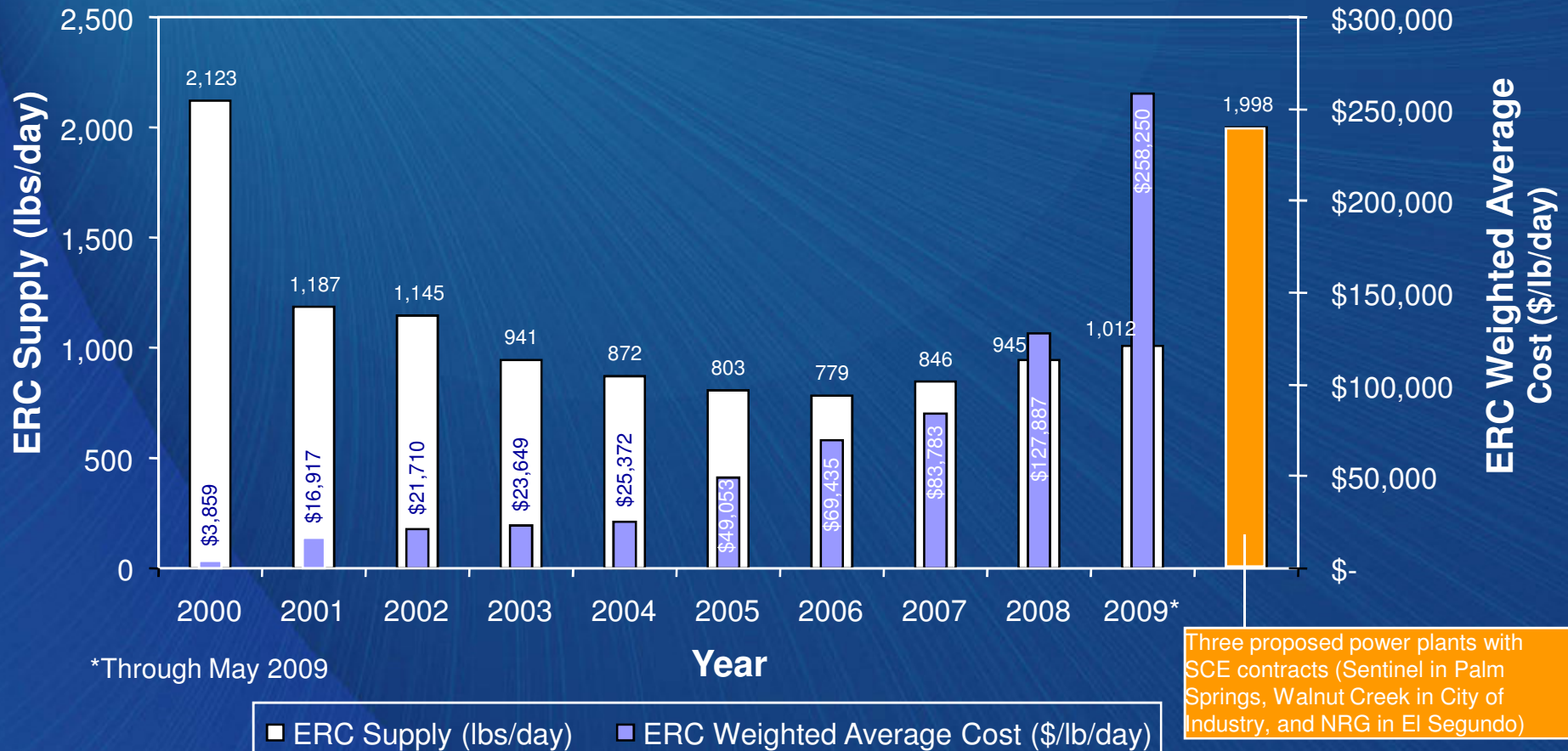


PM10 ERC Supply & Cost 2000 – 2009*

Supply Dropped by 52% since 2000

Cost increased by 6,592% since 2000

Highest price of PM10 ERC sold in 2009 is \$350,000 per lb/day





Present Status of Permit Moratorium

- Presently, over 1,400 permits which qualify for offset exemptions under Rules 1309.1 or 1304 cannot be issued without applicants providing ERCs.
- Of those, only about a dozen projects have purchased ERCs.
- About 3,400 permits issued to exempt sources since 2006 are potentially invalidated.
- Actions taken by AQMD :
 - Appealed the State court decision
 - Initiated work to re-adopt the NSR offset tracking rule
 - Engaged in Mediation with the Environmental Organizations
 - Proposed legislation to address the permit moratorium
 - ERC Generation from Non-Traditional Sources



ERC Generations

Rules/Protocols Under Consideration by SCAQMD

- Locomotive Head End Power Engines
- Shore Power – Hood Technology
- Shore Power – Grid Power
- Paving Public Unpaved Roads





Cost of ERCs for Businesses, If AQMD Does not Provide Offset Credits

Typical Projects

| | <u>Cost of ERCs*</u> |
|---|----------------------|
| • Police Station (Emergency Backup Generator) | \$77,000 |
| • Gas Station | \$234,000 |
| • Printer (Printing Press) | \$358,000 |
| • Auto body Shop (Spray Booth) | \$435,000 |
| • Hospital (Boiler) | \$1.8 million |
| • Food Processing (Tortilla Fryer & Oven) | \$1.6 million |
| • Sewage Treatment Plant Expansion | \$2.4 million |
| • Landfill Gas Recovery (Renewable Energy) | \$115 million |
| • Power Plants (state-of-the-art) | \$100-200 million |

** Based on typical project emissions and average market price of ERCs in 2008/09. Individual project emissions and ERC purchase prices may vary on a case-by-case basis.*