

State of California
California Environmental Protection Agency

AIR RESOURCES BOARD

**Emission Reduction Offset Transaction Cost
Summary Report for 2000**

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Prepared by

Regulatory Assistance Section
Project Assessment Branch
Stationary Source Division

This report has been reviewed by the staff of the California Air Resources Board. Publication does not signify that the contents necessarily reflect the views and policies of the Air Resources Board.

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The data for this report was compiled from information provided by
all Air Pollution Control/Quality Management Districts
in California

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EXECUTIVE SUMMARY

In 1992, the California Legislature passed AB 3785 (Quackenbush) that amended Health and Safety Code Sections 40709 and 40709.5 and the Government Code Section 6254.7(f) requiring local air quality management districts / air pollution control districts (AQMDs / APCDs or districts) to collect information about the cost of offset transactions from stationary source owners who purchase offsets as required by district New Source Review programs. These changes in State law also required all districts to adopt emission reduction credit banking programs. Districts are required to collect specific information about offset transactions including the price paid in dollars per ton, the pollutant traded, the amount traded and the year of the transaction. Districts are also required to annually publish this information without revealing the identity of the parties involved with the transaction.

The Air Resources Board (ARB) has compiled information regarding offset transactions collected from all 35 districts and has assembled it into this report summarizing statewide emission reduction offset transactions in California for the year 2000. All the districts reported to ARB regardless of whether they had any offset transactions. A total of 341 transactions were reported to have taken place in California in 2000. In this report we are not including information on five South Coast reported transactions involving asset transfer transactions (two were no cost intra-company transfers, two were no cost joint venture transactions, and 1 was a no cost merger transfer). Of the remaining 336 transactions, 67 were for NO_x, 172 were for HC, 45 were for PM₁₀, 20 were for CO, and 32 were for SO_x.

Table 1 presents the average, median, high and low costs for NO_x, HC, PM₁₀, CO, and SO_x offsets reported in 2000. For a specific breakdown of all transactions by district, see Table 2.

Table 1					
2000 Prices Paid in Dollars Per Ton for Offsets					
	NO_x	HC	PM₁₀	CO	SO_x
Average (mean)	\$19,354	\$6,567	\$17,057	\$7,760	\$11,468
Median	\$15,000	\$5,000	\$14,000	\$5,625	\$10,685
High	\$72,000	\$54,000	\$46,575	\$20,000	\$20,137
Low	\$2,600	\$300	\$580	\$1,000	\$2,250

The districts which reported offset transactions included: Bay Area AQMD, Butte County APCD, Imperial County APCD, Kern County APCD, Mojave Desert AQMD, Monterey Bay Unified APCD, Placer County APCD, Sacramento Metropolitan AQMD, San Diego County APCD, San Joaquin Valley Unified APCD, Santa Barbara County APCD, South Coast AQMD, Ventura County APCD, and Yolo-Solano AQMD.

Some points of interest to note from Table 2, which begins on page 7, are that in 2000 the majority of the transactions occurred in the lower half of the state excluding the Bay Area which had 66 transactions in 2000 compared to 20 transactions in 1999. Also, the number of transactions has increased from 289 in 1999 to 341 in 2000. In addition, there has been a significant increase in costs per ton for NO_x, PM₁₀, CO, and SO_x. The average cost per ton for NO_x in 1999 was \$13,884 compared to \$19,354 in 2000; the average cost per ton of PM₁₀ was \$10,400 in 1999 compared to \$17,057 in 2000; the average cost per ton for CO in 1999 was \$3,033 compared to \$7,760 in 2000; and the average cost per ton for SO_x in 1999 was \$4,864 compared to \$11,468 in 2000.

For further comparisons, a compilation of the offset transactions and trends in California that occurred from 1993 through 1999 can be found on our website "Emission Reduction Credit Offsets," at <http://www.arb.ca.gov/erco/erco.htm>.

INTRODUCTION

Section 40709.5(e) of the Health and Safety Code mandates that local air quality management and air pollution control districts (districts) collect information regarding the cost of offsets from stationary source owners who purchased offsets as required by district New Source Review programs. This report presents a compilation of the transactions in California from January 1 through December 31, 2000, as supplied by the districts.

This report does not attempt to analyze the cost data collected or attempt to predict future prices or offset availability. As required by Section 40709.5(e), this report does not contain information that identifies the parties involved in the transactions.

Emission reduction credit transactions play a role in California's efforts to promote economic growth while protecting public health and the environment. The use of emission reduction credits to offset emissions from new or modified sources gives industry flexibility to mitigate emissions in the most cost-effective manner available.

This report may be used as a tool by interested parties to evaluate the price paid for offsets in 2000. The report will also give a sense of the number of transactions and related costs taking place in California's emission credit market. By informing interested parties about emission reduction credit costs, future credit transactions may be facilitated.

We have not included RECLAIM Trading Credits from the South Coast Air Quality Management District's RECLAIM program because they are not comparable to emission reduction credits.

Also, our tables and calculations do not include data on the cost of leasing credits from the SEED (Solutions for the Environment and Economic Development) program of the Sacramento Metropolitan Air Quality Management District.

NEW SOURCE REVIEW AND CALIFORNIA'S AIR QUALITY MANAGEMENT PROGRAM

The responsibility for controlling emissions from stationary sources of air pollution rests with California's local districts. The California Clean Air Act requires districts to adopt a New Source Review permitting program that results in no net increase in emissions from new and modified stationary sources which have the potential to emit over a specified amount of nonattainment pollutants or their precursors. As part of New Source Review, stationary sources may be required to apply the Best Available Control Technology (BACT) to reduce emissions and, in some cases, to provide emission reduction offsets to mitigate the impact of emissions from the source remaining after the application of BACT. These emission reduction offsets are sometimes called emission reduction credits. To be used as mitigation, offsets must meet certain criteria: the emission reductions must be surplus to any federal, state or local laws or regulations; and must be enforceable, quantifiable and permanent.

Emission Reduction Credit Banking and Trading:

Emission reduction credit banking is defined as "a means by which emission reductions may be banked or otherwise credited to offset future increases... or a calculation method which enables internal emission reductions to be credited against increases" (Health & Safety Code Section 40709.5). Once created, emission reduction credits may be banked with the district for future use by the source that generated them, used concurrently to offset new projects, or sold to other sources for use as mitigation.

The most common method of creating emission reduction credits is to control or curtail the emissions from an existing stationary source. Control of emissions is generally from the application of emission control technology not required by any regulation or rule. Curtailment could be from a change in operating hours of a source, or through the shutdown of a source. Another method of creating emission reduction credits is to reduce emissions from mobile sources. The procedures for generating these credits are outlined in the Air Resources Board's Mobile Source Emission Reduction Credits: Guidelines for the Generation and Use of Mobile Source Emission Reduction Credits. Additionally, credits may be generated from the reductions in emissions from eliminating the burning of agricultural wastes. In all cases, credits must be generated pursuant to district rules and regulations, and must be reviewed and certified by the district to be used as mitigation. The legal requirements of credit generating programs are specified in the Health and Safety Code and further defined by rules in place in each district.

Example: Siting a New Stationary Source in California:

A new stationary source that locates in California is required to apply for an authority to construct permit and a permit to operate from the local air quality district. As part of the district's New Source Review (NSR) process for granting of permits, the source is required to demonstrate that it meets the district's NSR rules regarding Best Available Control Technology and emission offsets. Unlike the Federal NSR program which is based on net emission increases at a source, in California, if the potential to emit nonattainment pollutants or their precursors of a new or modified facility is equal to or above a level specified in State law, the facility will be required to provide offsets (e.g. no net increase in emissions are required for new or modified sources with the potential to emit 10 tons per year for a severe nonattainment district up to 25 tons per year in a moderate nonattainment district).

REQUIREMENTS TO REPORT COST OF OFFSETS

Section 40709 of the Health and Safety Code requires all districts to establish banking programs for emission reduction credits and establishes a mechanism for districts to collect data regarding the price paid for offsets. The text of Section 40709 is in Appendix A. The following is a summary of the requirements of the Government Code and the California Health and Safety Code:

- Section 6254.7(f) of the Government Code authorizes districts to obtain information on cost of offsets from applicants.
- Section 40709 of the California Health and Safety Code makes an emission reduction banking

- system mandatory in every district.
- Section 40709(c) of the Health and Safety Code specifies that emission reductions proposed to offset simultaneous emissions increases within the same stationary source need not be banked prior to use as offsets.
 - Section 40709.5(e) requires that any district that has established a banking system is required to develop a program which provides the following information as public record:
 - Annual publication of the costs in dollars per ton, of emission offsets purchased for new and modified emission sources, excluding the identity of the parties involved
 - The annual publication shall specify for each offset purchase transaction:
 - the date of the offset transaction (year only)
 - the amount of offset purchased by pollutant
 - the total cost, by pollutant of the offsets purchased
 - Each application for use of emission reductions banked shall provide sufficient information, as determined by the district, to perform the cost analysis

DATA COLLECTION PROCESS

In 1994, a subcommittee of the California Air Pollution Control Officers Association (CAPCOA) Engineering Managers worked with ARB to develop a uniform reporting form for collecting data from the districts for this report. The reporting form was designed to transmit information to ARB in such a way as to make the information about the transaction available without disclosing the names of the transaction parties.

The form distinguishes between the methods of generating emission reduction credits. Possible generating methods include stationary, mobile and agricultural offsets. The prices paid for credits may be affected by the type of source from which reductions are obtained. This is particularly true with mobile sources that have a finite life span.

The lifespan of the credit may significantly affect the price paid for offsets. The form allows the district to identify length of useful life if the credit life is limited. Mobile source credits and lease agreement transactions can be distinguished using this section of the form.

The other major distinction on the reporting form involves the type of payment agreement. Possible situations include direct sale of the credit, barter for services or equipment, a transaction between subsidiary parties, or an assets transfer within a company. In each case the type of transaction agreement may affect the price of the transaction.

Knowing these facts about each transaction will aid in analysis of market values for credits by interested parties. A copy of the reporting form and instructions is in Appendix B.

DESCRIPTION OF 2000 DATA

Table 2 presents all of the reported pollutant transactions which took place in the State, listed by

individual districts. There were a total of 341 transactions statewide in 2000. Five of these transactions are not reported here because the trades involved asset transfers for which there were no associated costs. These transactions are not included in Table 2 because they do not represent the final cost paid by an end-user of the offsets. Only credits sold to an end-user are reflected in the data presented.

The majority of transactions reported involved emission reductions from stationary sources. Seventeen of these were agricultural offset transactions, and there was only one mobile source emission reduction transaction during 2000. Of the total reported 336 transactions, 67 were NO_x transactions, 172 were HC transactions, 45 were PM₁₀ transactions, 20 were CO transactions, and 32 were SO_x transactions. All the districts reported to ARB regardless of whether they had any offset transactions. Table 3 lists the districts that reported no transactions in 2000.

Tables 4, 6, 8, 10 and 12 present information by district for NO_x, HC, PM₁₀, CO and SO_x respectively. Each of these tables presents the cost per ton of pollutant, the total tons of pollutant traded, and additional explanatory notes. The price paid per ton was calculated by dividing the total cost of the transaction by the total tons traded. There is no assumption made about the number of years of operation of the facility or how the payment schedule is arranged. All of these tables group transactions by district since credit markets, and therefore cost per ton, may vary from district to district. Districts are reported alphabetically and the districts' transactions are ordered by increasing cost per ton of pollutant.

Tables 5, 7, 9, 11 and 13 summarize the data of each preceding table. The summary tables include the average (mean), the median, and the high and low of the price paid per ton of pollutant. (The median is the number in the middle of a set of numbers, i.e., half of the numbers have values greater than the median and half of the numbers have values less than the median.) These tables exclude asset transfer, subsidiary, barter, and other non-monetary transactions where there were no associated costs to include in the calculations.

TABLE 2

**2000 California
Emission Reduction Credit Transaction Costs By District
Reported in Total Tons**

District	Pollutant	\$/ton	Tons	Notes
Bay Area Total of 66 Transactions	NOx	\$6,153	299	
	NOx	\$6,500	6.5	
	NOx	\$7,000	0.6	
	NOx	\$7,000	14.56	
	NOx	\$8,500	0.04	
	NOx	\$8,800	6.42	
	NOx	\$9,650	142.25	
	NOx	\$9,650	468	
	NOx	\$10,500	32.9	
	NOx	\$10,995	1.17	
	NOx	\$12,200	20.9	
	NOx	\$12,245	1.310	
	NOx	\$12,708	11.66	
	NOx	\$12,708	32.24	
	NOx	\$13,000	437.56	
	NOx	\$15,000	48.96	
	HC	\$5,000	50.2	
	HC	\$5,448	5.14	
	HC	\$6,153	5.3	
	HC	\$6,600	23.72	
	HC	\$7,000	1.6	
	HC	\$7,000	43.82	
	HC	\$7,000	94.34	
	HC	\$8,000	1	
	HC	\$8,000	2.1	
	HC	\$8,000	7.08	
	HC	\$8,000	14.97	
	HC	\$8,000	85.86	
	HC	\$8,520	5.87	
	HC	\$8,800	0.91	
	HC	\$8,800	52.27	
	HC	\$9,650	2.7	
	HC	\$10,995	0.39	
	HC	\$12,000	10	
	HC	\$12,245	0.1	
	HC	\$12,708	0.2	
	HC	\$12,708	0.46	
	HC	\$13,000	125.88	
	HC	\$15,000	17.37	
	HC	\$15,500	49.9	
	PM10	\$6,153	25	
	PM10	\$6,500	12.33	

TABLE 2 (cont.)
2000 California
Emission Reduction Credit Transaction Costs By District
Reported in Total Tons

District	Pollutant	\$/ton	Tons	Notes
Bay Area (continued)	PM10	\$7,000	2.21	
	PM10	\$8,800	7.64	
	PM10	\$9,650	28	
	PM10	\$10,995	6.44	
	PM10	\$12,245	7.7	
	PM10	\$12,708	0.67	
	PM10	\$12,708	1.54	
	PM10	\$13,000	209.9	
	CO	\$1,000	15.66	
	CO	\$7,000	9.8	
	CO	\$8,800	1.65	
	CO	\$9,650	33	
	CO	\$9,650	70	
	CO	\$12,708	1.13	
	CO	\$12,708	2.61	
	CO	\$13,000	450.6	
	SOx	\$6,153	158.20	
	SOx	\$8,800	0.03	
	SOx	\$9,650	90	
	SOx	\$9,650	465.27	
	SOx	\$10,995	0.179	
	SOx	\$12,708	0.04	
	SOx	\$12,708	0.09	
SOx	\$13,000	321.9		
Butte County Total of 1 Transaction	HC	\$1,053	40.84	
Imperial County Total of 15 Transactions	HC	\$300	2.66	1Yr 4th Quarter Ag Offset
	HC	\$300	3.01	1Yr 4th Quarter Ag Offset
	HC	\$814	1.68	1Yr 3rd Quarter Ag Offset
	HC	\$814	4.46	1Yr 3rd Quarter Ag Offset
	HC	\$1,000	0.15	1Yr 3rd Quarter Ag Offset
	HC	\$1,000	0.31	1Yr 3rd Quarter Ag Offset
	HC	\$1,000	0.76	1Yr 3rd Quarter Ag Offset
	HC	\$1,000	0.91	1Yr 3rd Quarter Ag Offset
	HC	\$1,400	0.5	1Yr 3rd Quarter Ag Offset
	HC	\$1,450	5.1	1Yr 3rd Quarter Ag Offset
	HC	\$1,500	0.42	1Yr 4th Quarter Ag Offset
	HC	\$1,500	0.69	1Yr 4th Quarter Ag Offset
	HC	\$1,500	0.79	1Yr 4th Quarter Ag Offset
	HC	\$1,500	1.77	1Yr 4th Quarter Ag Offset
	HC	\$1,500	2.53	1Yr 4th Quarter Ag Offset

TABLE 2 (cont.)

**2000 California
Emission Reduction Credit Transaction Costs By District
Reported in Total Tons**

District	Pollutant	\$/ton	Tons	Notes
Kern County Total of 2 Transactions	HC	\$3,600	150	
	HC	\$5,000	1.98	
Mojave Desert Total of 1 Transaction	PM10	\$580	265	
Monterey Bay Unified Total of 5 Transactions	NOx	\$2,894	52.62	
	HC	\$2,894	1.97	
	PM10	\$2,894	4.23	
	CO	\$2,894	26.71	
	SOx	\$2,894	0.85	
Placer County Total of 1 Transaction	HC	\$25,000	135	
Sacramento Metropolitan Total of 9 Transactions	NOx	\$6,160	12	
	NOx	\$17,825	11.55	
	NOx	\$20,000	5.04	
	PM10	\$14,250	18	
	PM10	\$17,825	2.91	
	PM10	\$20,000	0.36	
	CO	\$17,825	7.62	
	CO	\$20,000	1.02	
	SOx	\$17,825	0.035	
San Diego County Total of 12 Transactions	NOx	\$29,494	17.5	
	NOx	\$45,333	4.4	
	NOx	\$72,000	1.3	
	HC	\$1,000	15.2	1 Year Lease
	HC	\$1,613	0.62	1 Year Lease
	HC	\$1,613	0.62	1 Year Lease
	HC	\$1,939	1.86	1 Year Lease
	HC	\$2,415	1	1 Year Lease
	HC	\$29,494	0.3	
	HC	\$36,500	30.1	
	HC	\$47,500	10.3	
	HC	\$54,000	25	
	San Joaquin Valley Total of 41 Transactions	NOx	\$3,000	11.3
NOx		\$8,500	24.1	
NOx		\$11,000	23.3	
NOx		\$11,600	187.5	
NOx		\$12,500	12	Credits Valid in Third Quarter
	NOx	\$12,500	133	

TABLE 2 (cont.)

**2000 California
Emission Reduction Credit Transaction Costs By District
Reported in Total Tons**

District	Pollutant	\$/ton	Tons	Notes
San Joaquin Valley (continued)	NOx	\$13,000	4.5	Credits Valid in First Quarter
	NOx	\$13,000	4.5	Credits Valid in Third Quarter
	NOx	\$13,000	4.5	Credits Valid in Third Quarter
	NOx	\$14,000	4.8	
	NOx	\$14,000	24.1	
	NOx	\$18,000	4	
	NOx	\$18,000	21	Credits Valid in Fourth Quarter
	NOx	\$18,000	111.7	
	NOx	\$18,700	931	
	HC	\$3,962	48.5	
	HC	\$4,000	0.95	
	HC	\$4,000	0.96	
	HC	\$4,000	1.7	Credits Valid in Fourth Quarter
	HC	\$4,000	4.8	
	HC	\$4,000	9.8	
	HC	\$6,000	1	
	HC	\$6,200	28.3	
	HC	\$6,600	42	
	HC	\$7,500	7	
	HC	\$7,500	23.2	
	HC	\$7,500	190	
	HC	\$16,000	1.5	Credits Valid in Fourth Quarter
	PM10	\$8,250	4.8	
	PM10	\$8,250	11.8	Credits Valid in 1st & 4th Quarter
	PM10	\$12,600	23.8	Credits Valid in 1st, 2nd, & 4th Qtr
	PM10	\$13,000	23.7	Credits Valid in Fourth Quarter
	PM10	\$14,000	3.3	Credits Valid in Fourth Quarter
	PM10	\$14,000	9.8	Credits Valid in 3rd & 4th Quarter
	PM10	\$14,000	12.3	
	PM10	\$14,000	18.7	Credits Valid in Fourth Quarter
	PM10	\$16,500	0.5	Credits Valid in Fourth Quarter
	SOx	\$5,000	1.9	Credits Valid in Second Quarter
	SOx	\$5,200	1.4	
SOx	\$5,500	1.25	Credits Valid in Fourth Quarter	
SOx	\$6,000	100		
Santa Barbara County Total of 7 Transactions	NOx	\$5,000	7.2	
	NOx	\$10,000	9	
	NOx	\$40,083	0.4	10 Yr Mobile Source Offset Credit
	HC	\$5,000	0.2	
	HC	\$5,000	13.8	
	HC	\$10,000	5	
SOx	\$5,000	3.8		

TABLE 2 (cont.)

**2000 California
Emission Reduction Credit Transaction Costs By District
Reported in Total Tons**

District	Pollutant	\$/ton	Tons	Notes
South Coast Total of 168 Transactions	NOx	\$15,068	0.2	
	NOx	\$15,068	0.2	
	NOx	\$15,068	0.4	
	NOx	\$15,068	0.4	
	NOx	\$15,068	0.7	
	NOx	\$15,068	0.7	
	NOx	\$15,068	0.7	
	NOx	\$15,068	0.7	
	NOx	\$15,068	0.7	
	NOx	\$15,068	0.7	
	NOx	\$15,068	1.1	
	NOx	\$15,068	3.8	
	NOx	\$21,918	0.7	
	NOx	\$27,397	3.1	
	NOx	\$27,397	6.9	
	NOx	\$27,397	21	
	NOx	\$53,699	0.7	
	NOx	\$54,795	3.8	
	NOx	\$54,795	14.1	
	NOx	\$54,795	21	
	NOx	\$55,580	0.4	
	NOx	\$55,580	0.4	
	NOx	\$60,274	0.4	
	HC	\$1,096	4.6	
	HC	\$3,107	0.4	
	HC	\$3,107	11	
	HC	\$3,107	11	
	HC	\$3,107	21.9	
	HC	\$3,107	37	
	HC	\$3,425	36.7	
	HC	\$3,523	63.9	
	HC	\$3,562	0.4	
	HC	\$3,732	11.9	
	HC	\$3,736	20.1	
	HC	\$3,836	0.5	
	HC	\$3,836	0.5	
	HC	\$3,836	0.5	
	HC	\$3,836	0.5	
	HC	\$3,836	0.5	
	HC	\$3,836	0.5	
	HC	\$3,836	0.7	
	HC	\$3,836	0.7	
HC	\$3,836	0.7		
HC	\$3,836	0.7		
HC	\$3,836	0.7		

TABLE 2 (cont.)
2000 California
Emission Reduction Credit Transaction Costs By District
Reported in Total Tons

District	Pollutant	\$/ton	Tons	Notes
South Coast continued	HC	\$3,836	0.7	
	HC	\$3,836	0.7	
	HC	\$3,836	0.9	
	HC	\$3,836	0.9	
	HC	\$3,836	0.9	
	HC	\$3,836	0.9	
	HC	\$3,836	2.2	
	HC	\$3,836	55.8	
	HC	\$3,901	112.8	
	HC	\$3,934	0.4	
	HC	\$3,945	0.5	
	HC	\$3,945	0.5	
	HC	\$4,110	7.8	
	HC	\$4,110	20.8	
	HC	\$4,247	15.3	
	HC	\$4,466	4.6	
	HC	\$4,521	1.3	
	HC	\$4,521	2.2	
	HC	\$4,521	2.4	
	HC	\$4,521	6.2	
	HC	\$4,658	2.2	
	HC	\$4,658	6.4	
	HC	\$4,658	18.3	
	HC	\$4,658	63.9	
	HC	\$4,795	0.4	
	HC	\$4,795	30.7	
	HC	\$4,932	0.7	
	HC	\$4,932	2.7	
	HC	\$4,932	2.9	
	HC	\$4,932	6.4	
	HC	\$4,932	55.8	
	HC	\$5,096	15.3	
	HC	\$5,096	18.1	
	HC	\$5,096	31.4	
	HC	\$5,096	37	
	HC	\$5,205	0.4	
	HC	\$5,205	1.1	
	HC	\$5,205	9.7	
	HC	\$5,282	36.5	
	HC	\$5,468	36.5	
HC	\$5,468	643.7		
HC	\$5,479	0.7		
HC	\$5,479	3.7		
HC	\$5,644	0.2		
HC	\$5,671	2.2		
HC	\$5,699	9.1		

TABLE 2 (cont.)
2000 California
Emission Reduction Credit Transaction Costs By District
Reported in Total Tons

District	Pollutant	\$/ton	Tons	Notes
South Coast (continued)	HC	\$5,699	18.3	
	HC	\$5,907	30.5	
	HC	\$6,027	2.7	
	HC	\$6,027	6.4	
	HC	\$6,027	8.2	
	HC	\$6,301	4.6	
	HC	\$6,301	12.4	
	HC	\$6,301	36.7	
	HC	\$6,312	14.4	
	HC	\$6,575	0.9	
	HC	\$6,575	1.1	
	HC	\$6,575	7.3	
	HC	\$6,849	0.7	
	HC	\$6,849	63.9	
	HC	\$7,123	0.9	
	HC	\$7,123	0.9	
	HC	\$7,123	7.8	
	HC	\$7,534	6.4	
	HC	\$9,041	6.4	
	HC	\$9,315	0.9	
	HC	\$9,315	5.5	
	HC	\$9,315	48.2	
	HC	\$10,274	6.6	
	HC	\$10,411	6	
	HC	\$10,411	8.6	
	HC	\$10,685	12.8	
	HC	\$10,877	9.1	
	HC	\$10,913	5.5	
	HC	\$10,959	12.4	
	HC	\$11,507	13.9	
	HC	\$12,055	2.7	
	HC	\$12,603	1.1	
	HC	\$12,603	1.1	
	PM10	\$12,329	19.2	
	PM10	\$15,890	0.9	
	PM10	\$15,890	4.7	
	PM10	\$16,438	0.2	
	PM10	\$21,918	2	
	PM10	\$23,014	0.2	
	PM10	\$24,658	0.2	
	PM10	\$24,658	0.2	
	PM10	\$24,658	0.5	
PM10	\$24,658	0.5		
PM10	\$24,658	0.7		

TABLE 2 (cont.)
2000 California
Emission Reduction Credit Transaction Costs By District
Reported in Total Tons

District	Pollutant	\$/ton	Tons	Notes
South Coast (continued)	PM10	\$26,658	19.2	
	PM10	\$27,397	1.3	
	PM10	\$27,397	2	
	PM10	\$28,356	0.4	
	PM10	\$30,137	0.7	
	PM10	\$30,137	2.7	
	PM10	\$34,247	0.2	
	PM10	\$46,575	1.1	
	CO	\$3,288	5.3	
	CO	\$3,288	42.3	
	CO	\$3,288	123.6	
	CO	\$3,973	1.3	
	CO	\$4,329	123.6	
	CO	\$5,260	2.7	
	CO	\$5,288	1.8	
	CO	\$5,605	2.4	
	CO	\$5,644	0.2	
	SOx	\$9,041	9.1	
	SOx	\$9,370	8.8	
	SOx	\$9,370	20.8	
	SOx	\$9,863	16.1	
	SOx	\$10,411	0.5	
	SOx	\$10,959	0.7	
	SOx	\$10,959	1.6	
	SOx	\$11,342	3.1	
	SOx	\$14,247	69	
	SOx	\$19,178	2.4	
	SOx	\$19,178	3.1	
	SOx	\$19,178	8.6	
	SOx	\$20,137	2.6	
SOx	\$20,137	3.5		
SOx	\$20,137	11		
SOx	\$20,137	13.7		
Ventura County Total of 3 Transactions	NOx	\$2,600	17	1 Year Lease
	NOx	\$2,678	18.14	1 Year Lease
	HC	\$2,600	7.7	1 Year Lease
Yolo-Solano Total of 5 Transactions	NOx	\$6,814	18.14	
	HC	\$2,584	28.08	
	PM10	\$9,000	21.15	
	PM10	\$9,000	218.36	
	SOx	\$2,250	34.75	

TABLE 3

~~Districts With No Offset Transactions to Report in 2000~~

Amador County Air Pollution Control District
Antelope Valley Air Pollution Control District
Calaveras County Air Pollution Control District
Colusa County Air Pollution Control District
El Dorado County Air Pollution Control District
Feather River Air Quality Management District
Glenn County Air Pollution Control District
Great Basin Unified Air Pollution Control District
Lake County Air Quality Management District
Lassen County Air Pollution Control District
Mariposa County Air Pollution Control District
Mendocino County Air Pollution Control District
Modoc County Air Pollution Control District
North Coast Unified Air Quality Management District
Northern Sierra Air Quality Management District
Northern Sonoma County Air Pollution Control District
San Luis Obispo County Air Pollution Control District
Shasta County Air Pollution Control District
Siskiyou County Air Pollution Control District
Tehama County Air Pollution Control District
Tuolumne County Air Pollution Control District

TABLE 4

**2000 California
NOx Emission Reduction Credit Transaction Costs
Reported in Total Tons**

District	\$/ton	Tons	Notes
Bay Area	\$6,153	299	
	\$6,500	6.5	
	\$7,000	0.6	
	\$7,000	14.56	
	\$8,500	0.04	
	\$8,800	6.42	
	\$9,650	142.25	
	\$9,650	468	
	\$10,500	32.9	
	\$10,995	1.17	
	\$12,200	20.9	
	\$12,245	1.31	
	\$12,708	11.66	
	\$12,708	32.24	
	\$13,000	437.56	
	\$15,000	48.96	
Monterey Bay Unified	\$2,894	52.62	
Sacramento Metropolitan	\$6,160	12	
	\$17,825	11.55	
	\$20,000	5.04	
San Diego County	\$29,494	17.5	
	\$45,333	4.4	
	\$72,000	1.3	
San Joaquin Valley	\$3,000	11.3	Credits Valid in Third Quarter
	\$8,500	24.1	
	\$11,000	23.3	
	\$11,600	187.50	
	\$12,500	12	Credits Valid in Third Quarter
	\$12,500	133.0	
	\$13,000	4.5	Credits Valid in First Quarter
	\$13,000	4.5	Credits Valid in Third Quarter
	\$13,000	4.5	Credits Valid in Third Quarter
	\$14,000	4.8	
	\$14,000	24.1	
	\$18,000	4	
	\$18,000	21	Credits Valid in Fourth Quarter
\$18,000	111.7		
\$18,700	931		

TABLE 4 (cont.)

**2000 California
NOx Emission Reduction Credit Transaction Costs
Reported in Total Tons**

District	\$/ton	Tons	Notes
Santa Barbara County	\$5,000	7.2	
	\$10,000	9	
	\$40,083	0.4	10 Yr Mobile Source Offset Credit
South Coast	\$15,068	0.2	
	\$15,068	0.2	
	\$15,068	0.4	
	\$15,068	0.4	
	\$15,068	0.7	
	\$15,068	0.7	
	\$15,068	0.7	
	\$15,068	0.7	
	\$15,068	0.7	
	\$15,068	0.7	
	\$15,068	1.1	
	\$15,068	3.8	
	\$21,918	0.7	
	\$27,397	3.1	
	\$27,397	6.9	
	\$27,397	21	
	\$53,699	0.7	
	\$54,795	3.8	
	\$54,795	14.1	
	\$54,795	21	
	\$55,580	0.4	
	\$55,580	0.4	
	\$60,274	0.4	
Ventura County	\$2,600	17	
	\$2,678	18.14	
Yolo-Solano	\$6,814	18.14	

TABLE 5

2000 Summary Statistics For a Total of 67 NOx Transactions*

	\$/ton	Tons
Total		3282.46
Average (mean)	\$19,354	
Median	\$15,000	
High	\$72,000	
Low	\$2,600	

* Excludes asset transfer, subsidiary, barter, and other non-monetary transactions with no cost data.

CHART 1

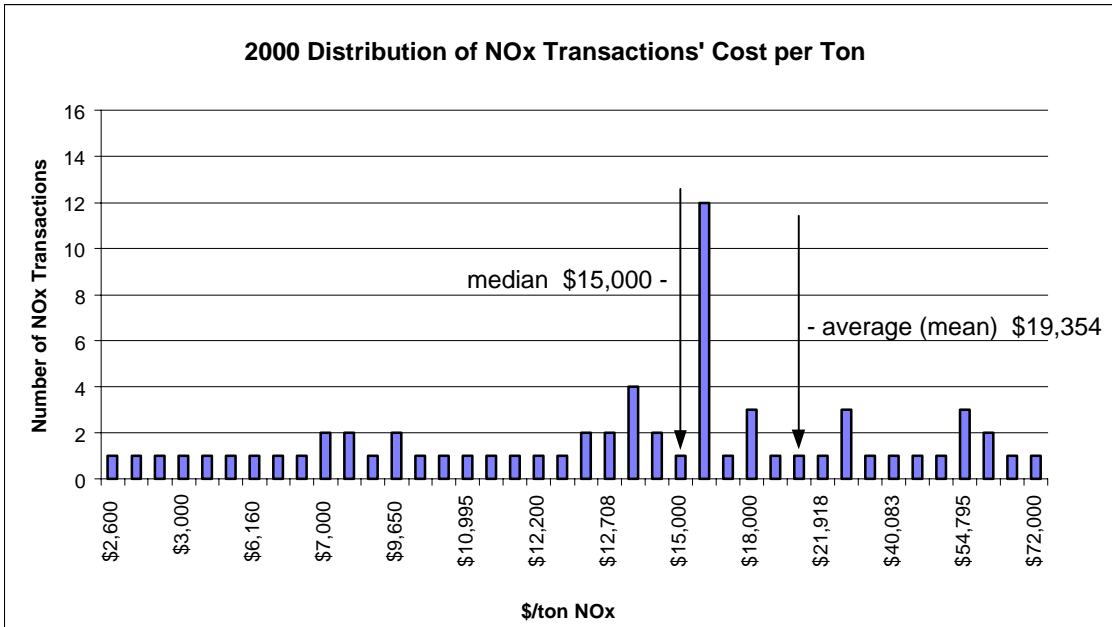


TABLE 6

**2000 California
HC Emission Reduction Credit Transaction Costs
Reported in Total Tons**

District	\$/ton	Tons	Notes
Bay Area	\$5,000	50.2	
	\$5,448	5.14	
	\$6,153	5.30	
	\$6,600	23.72	
	\$7,000	1.6	
	\$7,000	43.82	
	\$7,000	94.34	
	\$8,000	1	
	\$8,000	2.1	
	\$8,000	7.08	
	\$8,000	14.97	
	\$8,000	85.86	
	\$8,520	5.87	
	\$8,800	0.91	
	\$8,800	52.27	
	\$9,650	2.7	
	\$10,995	0.39	
	\$12,000	10	
	\$12,245	0.1	
	\$12,708	0.2	
\$12,708	0.46		
\$13,000	125.88		
\$15,000	17.37		
\$15,500	49.9		
Butte County	\$1,053	40.84	
Imperial County	\$300	2.66	1Yr 4th Quarter Ag Offset
	\$300	3.01	1Yr 4th Quarter Ag Offset
	\$814	1.68	1Yr 3rd Quarter Ag Offset
	\$814	4.46	1Yr 3rd Quarter Ag Offset
	\$1,000	0.15	1Yr 3rd Quarter Ag Offset
	\$1,000	0.31	1Yr 3rd Quarter Ag Offset
	\$1,000	0.76	1Yr 3rd Quarter Ag Offset
	\$1,000	0.91	1Yr 3rd Quarter Ag Offset
	\$1,400	0.5	1Yr 3rd Quarter Ag Offset
	\$1,450	5.1	1Yr 3rd Quarter Ag Offset
	\$1,500	0.42	1Yr 4th Quarter Ag Offset
	\$1,500	0.69	1Yr 4th Quarter Ag Offset
	\$1,500	0.79	1Yr 4th Quarter Ag Offset
	\$1,500	1.77	1Yr 4th Quarter Ag Offset
	\$1,500	2.53	1Yr 4th Quarter Ag Offset
Kern County	\$3,600	150	
	\$5,000	1.98	

TABLE 6 (cont.)

**2000 California
HC Emission Reduction Credit Transaction Costs
Reported in Total Tons**

District	\$/ton	Tons	Notes
Monterey Bay Unified	\$2,894	52.62	
Placer County	\$25,000	135	
San Diego County	\$1,000	15.2	1 Year Lease
	\$1,613	0.62	1 Year Lease
	\$1,613	0.62	1 Year Lease
	\$1,939	1.86	1 Year Lease
	\$2,415	1	1 Year Lease
	\$29,494	0.3	
	\$36,500	30.1	
	\$47,500	10.3	
	\$54,000	25	
San Joaquin Valley	\$3,962	48.5	
	\$4,000	0.95	
	\$4,000	0.96	
	\$4,000	1.7	Credits Valid in Fourth Quarter
	\$4,000	4.8	
	\$4,000	9.8	
	\$6,000	1	
	\$6,200	28.3	
	\$6,600	42	
	\$7,500	7	
	\$7,500	23.2	
	\$7,500	190	
	\$16,000	1.5	Credits Valid in Fourth Quarter
Santa Barbara County	\$5,000	0.2	
	\$5,000	13.8	
	\$10,000	5	
South Coast	\$1,096	4.6	
	\$3,107	0.4	
	\$3,107	11	
	\$3,107	11	
	\$3,107	21.9	
	\$3,107	37	
	\$3,425	36.7	
	\$3,523	63.9	
	\$3,562	0.4	
	\$3,732	11.9	
	\$3,736	20.1	
	\$3,836	0.5	

TABLE 6 (cont.)

**2000 California
HC Emission Reduction Credit Transaction Costs
Reported in Total Tons**

District	\$/ton	Tons	Notes
South Coast	\$3,836	0.5	
(continued)	\$3,836	0.5	
	\$3,836	0.5	
	\$3,836	0.5	
	\$3,836	0.5	
	\$3,836	0.7	
	\$3,836	0.7	
	\$3,836	0.7	
	\$3,836	0.7	
	\$3,836	0.7	
	\$3,836	0.7	
	\$3,836	0.7	
	\$3,836	0.9	
	\$3,836	0.9	
	\$3,836	0.9	
	\$3,836	0.9	
	\$3,836	2.2	
	\$3,836	55.8	
	\$3,901	112.8	
	\$3,934	0.4	
	\$3,945	0.5	
	\$3,945	0.5	
	\$4,110	7.8	
	\$4,110	20.8	
	\$4,247	15.3	
	\$4,466	4.6	
	\$4,521	1.3	
	\$4,521	2.2	
	\$4,521	2.4	
	\$4,521	6.2	
	\$4,658	2.2	
	\$4,658	6.4	
	\$4,658	18.3	
	\$4,658	63.9	
	\$4,795	0.4	
	\$4,795	30.7	
	\$4,932	0.7	
	\$4,932	2.7	
	\$4,932	2.9	
	\$4,932	6.4	
	\$4,932	55.8	
	\$5,096	15.3	
	\$5,096	18.1	
	\$5,096	31.4	
	\$5,096	37	

TABLE 6 (cont.)

**2000 California
HC Emission Reduction Credit Transaction Costs
Reported in Total Tons**

District	\$/ton	Tons	Notes
South Coast (continued)	\$5,205	0.4	
	\$5,205	1.1	
	\$5,205	9.7	
	\$5,282	36.5	
	\$5,468	36.5	
	\$5,468	643.7	
	\$5,479	0.7	
	\$5,479	3.7	
	\$5,644	0.2	
	\$5,671	2.2	
	\$5,699	9.1	
	\$5,699	18.3	
	\$5,907	30.5	
	\$6,027	2.7	
	\$6,027	6.4	
	\$6,027	8.2	
	\$6,301	4.6	
	\$6,301	12.4	
	\$6,301	36.7	
	\$6,312	14.4	
	\$6,575	0.9	
	\$6,575	1.1	
	\$6,575	7.3	
	\$6,849	0.7	
	\$6,849	63.9	
	\$7,123	0.9	
	\$7,123	0.9	
	\$7,123	7.8	
	\$7,534	6.4	
	\$9,041	6.4	
	\$9,315	0.9	
	\$9,315	5.5	
\$9,315	48.2		
\$10,274	6.6		
\$10,411	6		
\$10,411	8.6		
\$10,685	12.8		
\$10,877	9.1		
\$10,913	5.5		
\$10,959	12.4		
\$11,507	13.9		
\$12,055	2.7		
\$12,603	1.1		
\$12,603	1.1		

TABLE 6 (cont.)

**2000 California
HC Emission Reduction Credit Transaction Costs
Reported in Total Tons**

District	\$/ton	Tons	Notes
Ventura County	\$2,600	17	
Yolo-Solano	\$2,584	28.08	

TABLE 7

2000 'Summary Statistics For a Total of 127 HC Transactions*

	\$/ton	Tons
Total		3,377.550
Average (mean)	\$6,567	
Median	\$5,000	
High	\$54,000	
Low	\$300	

* Excludes asset transfer, subsidiary, barter, and other non-monetary transactions with no cost data.

CHART 2

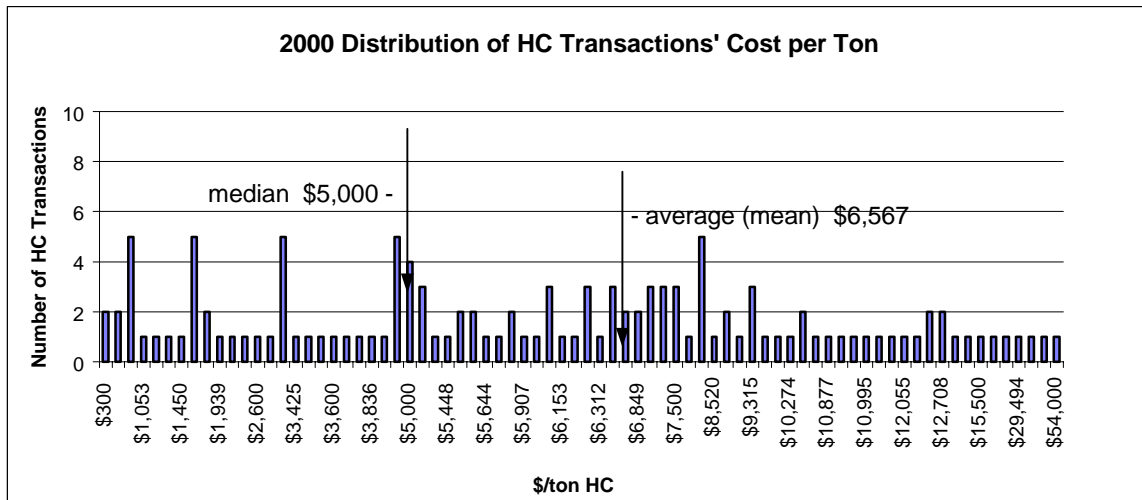


TABLE 8

**2000 California
PM10 Emission Reduction Credit Transaction Costs
Reported in Total Tons**

District	\$/ton	Tons	Notes
Bay Area	\$6,153	25.00	
	\$6,500	12.33	
	\$7,000	2.21	
	\$8,800	7.64	
	\$9,650	28	
	\$10,995	6.44	
	\$12,245	7.7	
	\$12,708	0.67	
	\$12,708	1.54	
	\$13,000	209.9	
Mojave Desert	\$580	265	
Monterey Bay Unified	\$2,894	4.23	
Sacramento Metropolitan	\$14,250	18	
	\$17,825	2.91	
	\$20,000	0.36	
San Joaquin Valley	\$8,250	4.8	
	\$8,250	11.8	Credits Valid in 1st & 4th Quarter
	\$12,600	23.8	Credits Valid in 1st, 2nd, & 4th Qtr
	\$13,000	23.7	Credits Valid in Fourth Quarter
	\$14,000	3.3	Credits Valid in Fourth Quarter
	\$14,000	9.8	Credits Valid in 3rd & 4th Quarter
	\$14,000	12.3	
	\$14,000	18.7	Credits Valid in Fourth Quarter
\$16,500	0.5	Credits Valid in Fourth Quarter	
South Coast	\$12,329	19.2	
	\$15,890	0.9	
	\$15,890	4.7	
	\$16,438	0.2	
	\$21,918	2	
	\$23,014	0.2	
	\$24,658	0.2	
	\$24,658	0.2	
	\$24,658	0.5	
	\$24,658	0.5	
	\$24,658	0.7	
	\$26,658	19.2	
\$27,397	1.3		

TABLE 8 (cont.)

**2000 California
PM10 Emission Reduction Credit Transaction Costs
Reported in Total Tons**

District	\$/ton	Tons	Notes
South Coast (continued)	\$27,397	2	
	\$28,356	0.4	
	\$30,137	0.7	
	\$30,137	2.7	
	\$34,247	0.2	
	\$46,575	1.1	
Yolo-Solano	\$9,000	21.15	
	\$9,000	218.36	

TABLE 9

2000 Summary Statistics For a Total of 45 PM10 Transactions*

	\$/ton	Tons
Total		
Average (mean)	\$17,057	
Median	\$14,000	
High	\$46,575	
Low	\$580	

* Excludes asset transfer, subsidiary, barter, and other non-monetary transactions with no cost data.

CHART 3

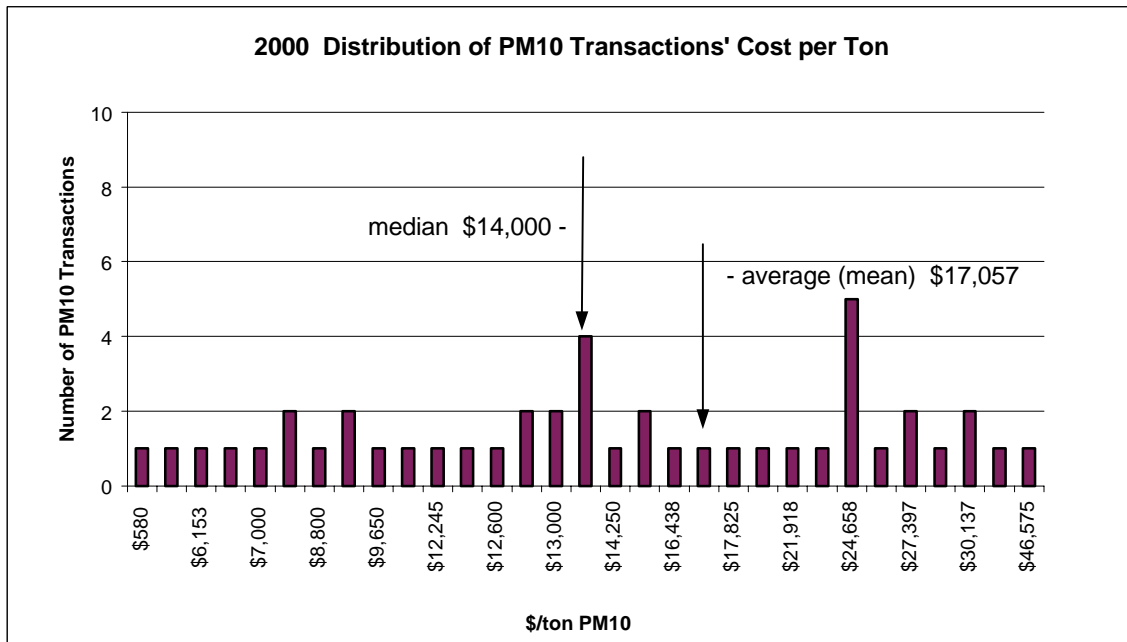


TABLE 10

**2000 California
CO Emission Reduction Credit Transaction Costs
Reported in Total Tons**

District	\$/ton	Tons	Notes
Bay Area	\$1,000	15.66	
	\$7,000	9.8	
	\$8,800	1.65	
	\$9,650	33	
	\$9,650	70	
	\$12,708	1.13	
	\$12,708	2.61	
	\$13,000	450.6	
Monterey Bay Unified	\$2,894	26.71	
Sacramento Metropolitan	\$17,825	7.62	
	\$20,000	1.02	
South Coast	\$3,288	5.3	
	\$3,288	42.3	
	\$3,288	123.6	
	\$3,973	1.3	
	\$4,329	123.6	
	\$5,260	2.7	
	\$5,288	1.8	

TABLE 12

**2000 California
SOx Emission Reduction Credit Transaction Costs By District
Reported in Total Tons**

District	\$/ton	Tons	Notes
Bay Area	\$6,157,760	158.2	
	\$8,805,625	0.03	
	\$9,650,000	90	
	\$9,650	465.27	
	\$10,995	0.179	
	\$12,708	0.04	
	\$12,708	0.09	
	\$13,000	321.9	
* Excludes asset transfer, subsidiary, parent, and other non-monetary transactions			
Monterey Bay Unified	\$2,894	0.85	
Sacramento Metropolitan	\$17,825	0.035	
San Joaquin Valley	\$5,000	1.9	
	\$5,200	1.4	
	\$5,500	1.25	
	\$6,000	100	
Santa Barbara County	\$5,000	3.8	
South Coast	\$9,041	9.1	
	\$9,370	8.8	
	\$9,370	20.8	
	\$9,863	16.1	
	\$10,411	0.5	
	\$10,959	0.7	
	\$10,959	1.6	
	\$11,342	3.1	
	\$14,247	69	
	\$19,178	2.4	
	\$19,178	3.1	
	\$19,178	8.6	
	\$20,137	2.6	
	\$20,137	3.5	
	\$20,137	11	
\$20,137	13.7		
Yolo-Solano	\$2,250	34.75	

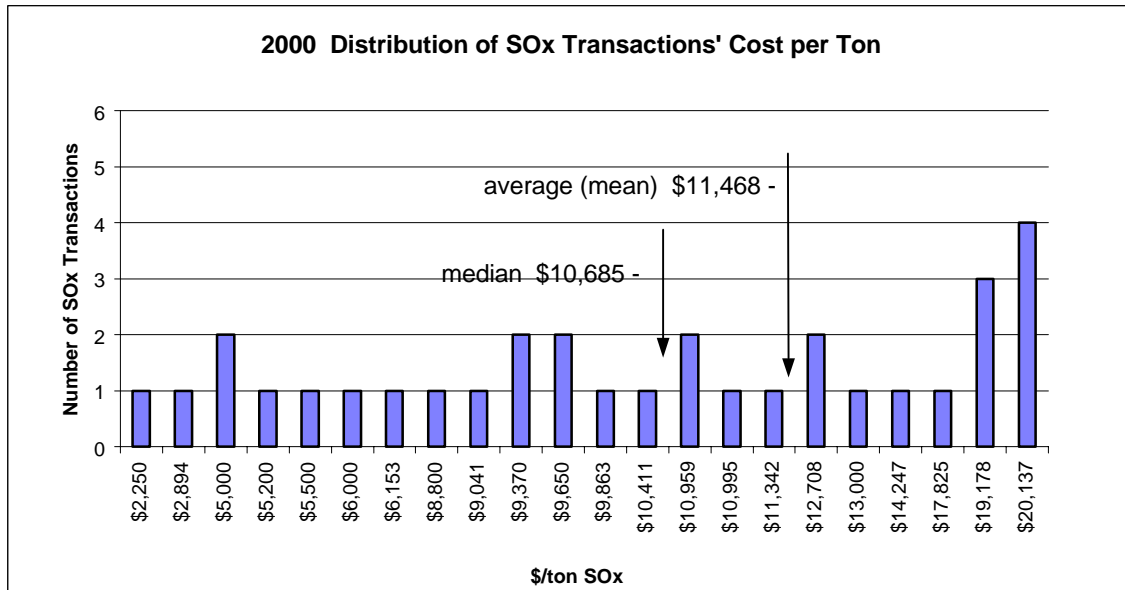
TABLE 13

2000 Summary Statistics For a Total of 32 SOx Transactions*

	\$/ton	Tons
Total		1354.294
Average (mean)	\$11,468	
Median	\$10,685	
High	\$20,137	
Low	\$2,250	

* Excludes asset transfer, subsidiary, barter, and other non-monetary transactions with no cost data.

CHART 5



APPENDIX A: AB 3785 (Quackenbush, 1992)

Assembly Bill No. 3785

CHAPTER 612

An act to amend Section 6254.7 of the Government Code, and to amend Sections 40709 and 40709.5 of the Health and Safety Code, relating to air pollution.

[Approved by Governor September 8, 1992. Filed with Secretary of State September 9, 1992.]

LEGISLATIVE COUNSEL'S DIGEST

AB 3785, Quackenbush. Air pollution.

(1) Existing law provides that air pollution emission data are public records, and data used to calculate emission data are not public records.

This bill would prescribe the circumstances when data used to calculate the costs of obtaining emissions offsets are, or are not, public records. The bill would require certain air pollution control districts and air quality management districts to annually publish the cost of emission offsets purchased, thereby imposing a state-mandated local program.

(2) Existing law authorizes air pollution control districts and air quality management districts to establish a system by which reductions in air contaminant emissions may be banked and used to offset future emission increases.

This bill would require the adoption of that system, thereby imposing a state-mandated local program.

(3) Existing law required the state board to establish a technical review group and required the technical review group to report to the state board by January 1, 1989, regarding the emission credit system and emission offset requirements.

This bill would delete those provisions.

(4) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by

this act for a specified reason.

The people of the State of California do enact as follows:

SECTION 1. Section 6254.7 of the Government Code is amended to read:

6254.7. (a) All information, analyses, plans, or specifications that disclose the nature, extent, quantity, or degree of air contaminants or other pollution which any article, machine, equipment, or other contrivance will produce, which any air pollution control district or air quality management district, or any other state or local agency or district, requires any applicant to provide before the applicant builds, erects, alters, replaces, operates, sells, rents, or uses the article, machine, equipment, or other contrivance, are public records.

(b) All air or other pollution monitoring data, including data compiled from stationary sources, are public records.

(c) All records of notices and orders directed to the owner of any building of violations of housing or building codes, ordinances, statutes, or regulations which constitute violations of standards provided in Section 1941.1 of the Civil Code, and records of subsequent action with respect to those notices and orders, are public records.

(d) Except as otherwise provided in subdivision (e) and Chapter 3 (commencing with Section 99150) of Part 65 of the Education Code, trade secrets are not public records under this section. "Trade secrets," as used in this section, may include, but are not limited to, any formula, plan, pattern, process, tool, mechanism, compound, procedure, production data, or compilation of information which is not patented, which is known only to certain individuals within a commercial concern who are using it to fabricate, produce, or compound an article of trade or a service having commercial value and which gives its user an opportunity to obtain a business advantage over competitors who do not know or use it.

(e) Notwithstanding any other provision of law, all air pollution emission data, including those emission data which constitute trade secrets as defined in subdivision (d), are public records. Data used to calculate emission data are not emission data for the purposes of this subdivision and data which constitute trade secrets and which are used to calculate emission

data are not public records.

(f) Data used to calculate the costs of obtaining emissions offsets are not public records. At the time that an air pollution control district or air quality management district issues a permit to construct to an applicant who is required to obtain offsets pursuant to district rules and regulations, data obtained from the applicant consisting of the year the offset transaction occurred, the amount of offsets purchased, by pollutant, and the total cost, by pollutant, of the offsets purchased is a public record. If an application is denied, the data shall not be a public record.

SEC. 2. Section 40709 of the Health and Safety Code is amended to read:

40709. (a) Every district board shall establish by regulation a system by which all reductions in the emission of air contaminants which are to be used to offset certain future increases in the emission of air contaminants shall be banked prior to use to offset future increases in emissions. The system shall provide that only those reductions in the emission of air contaminants which are not otherwise required by any federal, state, or district law, rule, order, permit, or regulation shall be registered, certified, or otherwise approved by the district air pollution control officer before they may be banked and to offset future increases in the emission of air contaminants. The system shall be subject to disapproval by the state board pursuant to Chapter 1 (commencing with Section 41500) of Part 4 within 60 days after adoption by the district).

(b) The system is not intended to recognize any pre-existing right to emit air contaminants, but to provide a mechanism for districts to recognize the existence of reductions of air contaminants that can be used as offsets, and to provide greater certainty that the offsets shall be available for emitting industries.

(c) Notwithstanding subdivision (a), emissions reductions proposed to offset simultaneous emissions increases within the same stationary source need not be banked prior to use as offsets, if those reductions satisfy all criteria established by regulation pursuant to subdivision (a).

SEC. 3. Section 40709.5 of the Health and Safety Code is amended to read:

40709.5. Any district which has established a system pursuant to Section 40709 by which reductions in emissions may be banked or otherwise credited to offset future increases in the emissions of air contaminants, or which utilize a calculation method which enables internal emission reductions to be credited against increases in emissions, and as of January 1, 1988, is within a federally designated nonattainment area for one or more air pollutants, shall develop and implement a program which, at a minimum, provides for all of the following:

(a) Identification and tracking of sources possessing emission credit balances accruing from the elimination or replacement of older, higher emitting equipment.

(b) Periodic analysis of the increases or decreases in emissions which occur when credits are used to bring new or modified emission sources into operation.

(c) Procedures for verifying the emission reductions credited to the bank or accruing to internal accounts, and for adjusting of credited emissions based on current district requirements.

(d) Periodic evaluation of the extent to which the system has contributed or detracted from the goal of allowing economic growth and modification of existing facilities, and has contributed to or detracted from the district's progress toward attainment of ambient air quality standards.

(e) Annual publication of the costs, in dollars per ton, of emission offsets purchased for new or modified emission sources, excluding information on the identity of any party involved in the offset transactions. This publication shall specify, for each offset purchase transaction, the year the offset transaction occurred, the amount of offsets purchased, by pollutant, and the total cost, by pollutant, of the offsets purchased. Each application to use emissions reductions banked in a system established pursuant to Section 40709 shall provide sufficient information, as determined by the district, to perform the cost analysis. The information shall be a public record.

SEC. 4. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for

the program or level of service mandated by this act.
Notwithstanding Section 17580 of the Government Code, unless
otherwise specified in this act, the provisions of this act shall
become operative on the same date that the act takes effect
pursuant to the California Constitution.

APPENDIX B: REPORTING FORM AND INSTRUCTIONS

Annual Emission Reduction Credit Transaction Report Instructions

General:

1. One transaction record per pollutant should be filled out for each transaction which takes place in the district between two or more parties.
2. Transactions should be reported in the year in which the final transaction occurs and money, or barter agreements are exchanged.
3. The annual report should be submitted to the Air Resources Board no later than January 31 of each year. The Air Resources Board will compile all data from the districts and publish a statewide report on the cost of offsets by the following April.
4. For cases of offset transactions which occur across district boundaries, transactions should be reported in the district in which the offsets are used. This is the district which will most likely have access to the transaction cost information necessary for reporting.

District ID# 1		Quantity of Pollutant (tons/year) 5 <input style="width: 100%; height: 20px;" type="text"/>
<u>Pollutant</u> <input type="radio"/> NOx <input type="radio"/> SOx 2 <input type="radio"/> CO <input type="radio"/> HC <input type="radio"/> PM10 <input type="radio"/> Other	<u>Credit Source</u> <input type="radio"/> Stationary 3 <input type="radio"/> Mobile <input type="radio"/> Agricultural <input type="radio"/> Other <hr/> <input type="checkbox"/> Annual or <input type="checkbox"/> Quarter 4 <input type="radio"/> Q1 <input type="radio"/> Q2 <input type="radio"/> Q3 <input type="radio"/> Q4	Price Paid (\$/ton) 6 <input style="width: 100%; height: 20px;" type="text"/> <input type="radio"/> Barter Transaction 7 <input type="radio"/> Subsidiary Transaction Length of Life/Lease 8 <input style="width: 100%; height: 20px;" type="text"/>

District ID# <input type="text"/>		Quantity of Pollutant (tons/year) <input type="text"/>
<u>Pollutant</u> <input type="radio"/> NOx <input type="radio"/> SOx <input type="radio"/> CO <input type="radio"/> HC <input type="radio"/> PM10 <input type="radio"/> Other	<u>Credit Source</u> <input type="radio"/> Stationary <input type="radio"/> Mobile <input type="radio"/> Agricultural <input type="radio"/> Other	Price Paid (\$/ton) <input type="text"/>
	<input type="checkbox"/> Annual or <input type="checkbox"/> Quarter <input type="radio"/> Q1 <input type="radio"/> Q2 <input type="radio"/> Q3 <input type="radio"/> Q4	<input type="radio"/> Barter Transaction <input type="radio"/> Subsidiary Transaction Length of Life/Lease <input type="text"/>

District ID# <input type="text"/>		Quantity of Pollutant (tons/year) <input type="text"/>
<u>Pollutant</u> <input type="radio"/> NOx <input type="radio"/> SOx <input type="radio"/> CO <input type="radio"/> HC <input type="radio"/> PM10 <input type="radio"/> Other	<u>Credit Source</u> <input type="radio"/> Stationary <input type="radio"/> Mobile <input type="radio"/> Agricultural <input type="radio"/> Other	Price Paid (\$/ton) <input type="text"/>
	<input type="checkbox"/> Annual or <input type="checkbox"/> Quarter <input type="radio"/> Q1 <input type="radio"/> Q2 <input type="radio"/> Q3 <input type="radio"/> Q4	<input type="radio"/> Barter Transaction <input type="radio"/> Subsidiary Transaction Length of Life/Lease <input type="text"/>

District ID# <input type="text"/>		Quantity of Pollutant (tons/year) <input type="text"/>
<u>Pollutant</u> <input type="radio"/> NOx <input type="radio"/> SOx <input type="radio"/> CO <input type="radio"/> HC <input type="radio"/> PM10 <input type="radio"/> Other	<u>Credit Source</u> <input type="radio"/> Stationary <input type="radio"/> Mobile <input type="radio"/> Agricultural <input type="radio"/> Other	Price Paid (\$/ton) <input type="text"/>
	<input type="checkbox"/> Annual or <input type="checkbox"/> Quarter <input type="radio"/> Q1 <input type="radio"/> Q2 <input type="radio"/> Q3 <input type="radio"/> Q4	<input type="radio"/> Barter Transaction <input type="radio"/> Subsidiary Transaction Length of Life/Lease <input type="text"/>

1. **District ID #** The district ID # should be in the format:

A A Y Y X X X

Where AA is a two letter district code (a list of district codes is attached), YY is a two digit year identifier (e.g. 95 for 1995), and XXX is a three-digit transaction number from 001 to 999.

This ID number will only be used to track the origin of data and for data validation. The assignment of a transaction number will ensure quality control of data transfer between the district and the Air Resources Board. Individual transactions will not be identified in Air Resources Board summary reports.

2. **Pollutant** Please check one pollutant per transaction. If trade involved more than one pollutant, use separate transaction records for each pollutant traded. HC is equivalent to other acronyms used for hydrocarbons such as POC, ROC, ROG and VOC.
3. **Credit Source** Please indicate the source of emission reduction credits (ERC). This information will aid in the analysis of ERC prices paid. Stationary source credits typically do not have a finite useful life, whereas mobile and agricultural source ERCs have specific limiting conditions which limit useful life. It is important that a distinction be made between these kinds of offsets when analyzing the cost of offsets.
4. **Annual/Quarter:** Please indicate if credits are valid on an annual basis or quarterly. Additionally, if credits are valid quarterly, indicate which quarter they can be used for. This applies to seasonal credits or credits that are only valid in a specific quarter.
5. **Quantity of Pollutant** Regardless of district recording practices or the transaction agreement, please give the quantity of pollutant in tons/year.

Example 1: For Single Quarter Transactions

$$1 \frac{\text{lb}}{\text{day}} \times 1 \frac{\text{lb}}{\text{day}} \times 365 \frac{\text{days}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = 0.1825 \frac{\text{tons}}{\text{year}}$$

Example 2: For Annual Transactions

$$1 \frac{\text{lb}}{\text{quarter}} \times 1 \frac{\text{lb}}{\text{quarter}} \times 4 \frac{\text{quarters}}{\text{year}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = 0.0020 \frac{\text{tons}}{\text{year}}$$

Example 3: For Quarterly Credits Used to Offset Annual Sources

$$(Q_1 \quad Q_2 \quad Q_3 \quad Q_4) \frac{\text{lbs}}{\text{year}} \quad \text{Convert to tons per year}$$

6. **Price Paid** This is the bottom line price paid by the purchaser to the owner of the credit. Government Code Section 6254.7 authorizes the district to obtain this information from applicants. Net present value should not be calculated for lease transactions. If price is given in dollars per pound, please convert to dollars per ton by multiplying by 2000 lb/ton.
7. **Barter and Subsidiary Transactions** If barter was involved and/or no money was exchanged for the offsets, the district should request the applicant to calculate a dollars/ton value for the credit transaction. Barter can include one company (A) placing controls on another (B) to generate credits. The price paid should then reflect what company A paid to install equipment on company B and any additional fees paid to company B as part of the agreement. The price paid for offsets should be the value of the offset at the time of the transaction.

If transaction occurred between two subsidiaries of the same parent company check the subsidiary transaction box. This also applies to transactions which occur between agencies of the same governmental system for example between two agencies of the county. Since the price charged in barter and subsidiary transactions may not reflect the market value of credits, this information will be helpful in analyzing prices paid for credits.
8. **Length of Use/Lease** Please indicate the valid length of credit life for this transaction. This applies to stationary source credits that are sold as a limited life lease agreement, or to other types of credit which have a finite useful life. If no limit is placed on the useful life, leave this box blank.

DISTRICT TWO-LETTER CODES

AM

Amador County APCD

AV	Antelope Valley APCD
BA	Bay Area AQMD
BT	Butte County APCD
CA	Calaveras County APCD
CO	Colusa County APCD
ED	El Dorado County APCD
FR	Feather River AQMD
GL	Glenn County APCD
GB	Great Basin Unified APCD
IM	Imperial County APCD
KE	Kern County APCD
LA	Lake County AQMD
LS	Lassen County APCD
MA	Mariposa County APCD
ME	Mendocino County AQMD
MO	Modoc County APCD
MD	Mojave Desert AQMD
MB	Monterey Bay Unified APCD
NC	North Coast Unified AQMD
NO	Northern Sierra AQMD
NS	Northern Sonoma County APCD
PL	Placer County APCD
SM	Sacramento Metropolitan AQMD
SD	San Diego County APCD

SJ	San Joaquin Valley Unified APCD
SL	San Luis Obispo County APCD
SB	Santa Barbara County APCD
SH	Shasta County AQMD
SI	Siskiyou County APCD
SC	South Coast AQMD
TE	Tehama County APCD
TU	Tuolumne County APCD
VE	Ventura County APCD
YS	Yolo-Solano AQMD