
SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION

FINANCIAL CONFERENCE

OCTOBER 15, 1993



**Excellence
Through**

SERVICE, TEAMWORK, PRIDE

SELECTED INDUSTRY COMPARISONS
ON CAPACITY FACTORS AND PRODUCTION COSTS

SOURCES:

1. Utility Data Institute, Inc: databases for historical data on plants
2. Benchmarking Study for upper quartile plant data
3. STP Generation Plan
4. STP historical data
5. HL&P Corporate Planning Dept. provided fossil information

TABLE OF CONTENTS:

Page #

- i. Plant Listing for all populations used.
1. Graph showing historical and projected 3 year rolling average capacity factors for STP, the Problem Plant Group and the Top Quartile Group. Problem plants are any plant that has had a Diagnostic Evaluation and/or has ever been on the Watch List. The Top Quartile data represent entry points into the upper quartile. Entry points are determined by the lowest performer in the quartile. STP projections are based on the approved generation plan. Problem plant projections are based on a mathematical model. Top quartile projections are taken from the Benchmarking Study.
 - 1a. Table displaying data points for pg. 1 graph.
2. Graph showing historical and projected 3 year rolling average costs as mills/kwh for STP, the Problem Plant Group and the Top Quartile Group. Sources for Problem Plants and Top Quartile are as described for Page 1 above. STP figures are based on the following: 1994 Total O&M budget of \$350 mil. excluding A&G costs (a factor of 75% of the total O&M budget is used). For subsequent years, the 1994 O&M budget is escalated at 4% per year. STP forecasts include a fuel cost of 5.38 mills/kwh which remains constant.
 - 2a. Table displaying data points for pg. 2 graph.
3. Graph showing historical and projected 3 year rolling average costs as mills/kwh for STP, the Problem Plant Group and the Top Quartile Group. This graph is similar to the page 2 graph except the STP forecasts are based on a 1994 Total O&M budget of \$315 mil.
 - 3a. Table displaying data points for pg. 3 graph.

4. Graph showing actual and projected costs as mills/kwh for STP and for HL&P Fossil Plants. Costs for STP are as described in the page 2 graph. Figures were provided by HL&P Corporate Planning Department. The graph displays 1 year averages costs broken into Fuel, and non-fuel components.
5. Graph showing actual and projected costs as mills/kwh for STP and for HL&P Fossil Plants. Costs are as described in the page 4 graph but are displayed in 3 year rolling averages.
6. Graph showing historical non-fuel Production costs for those plants who have had a Diagnostic Evaluation and also been placed on the Watch List. The graph uses the year prior to being placed on the Watch List as a base line and plots the % change in O&M costs over time. The graph displays the average performance as well as the highest and lowest individual performance.
- 6a. Table displaying data points for pg. 6 graph.
7. Graph showing historical % change in non-fuel production costs for all plants that have had a Diagnostic Evaluation. Calculated as in page 6 graph, except that the baseline is the year prior to having the evaluation.
- 7a. Table displaying data points for pg. 7 graph.
8. Graph showing historical % change in non-fuel production costs for all plants that have been placed on the Watch List. Identical to page 6 graph except it includes all Watch List plants.
- 8a. Table displaying data points for pg. 8 graph.

COMPARABLE PLANTS:

Midwood 1&2
Iron 1&2
Callaway
Catawba 1&2
Diablo Canyon 1&2
Harris
McGuire 1&2
Milestone 3
Sequoyah 1&2
Summer
Vogtle 1&2
Wolf Creek

DET &
WATCH LIST:

Brunswick
Dresden
Fermi
Fitzpatrick
Turkey Point 3&4
Zion

DET PLANTS:

Arkansas One
Brunswick
Dresden
Fermi
Fitzpatrick
McGuire
Oyster Creek
Palo Verde
Perry
Turkey Point 3&4
Zion

WATCH LIST PLANTS:

Browns Ferry
Brunswick
Calvert Cliffs
Dresden
Fermi
Fitzpatrick
Fort Calhoun
Nine Mile Point 1
Palisades
Peach Bottom
Pilgrim
Rancho Seco
Sequoyah
Surry
Turkey Point 3&4
Zion

TOP QUARTILE
CAPACITY FACTOR:

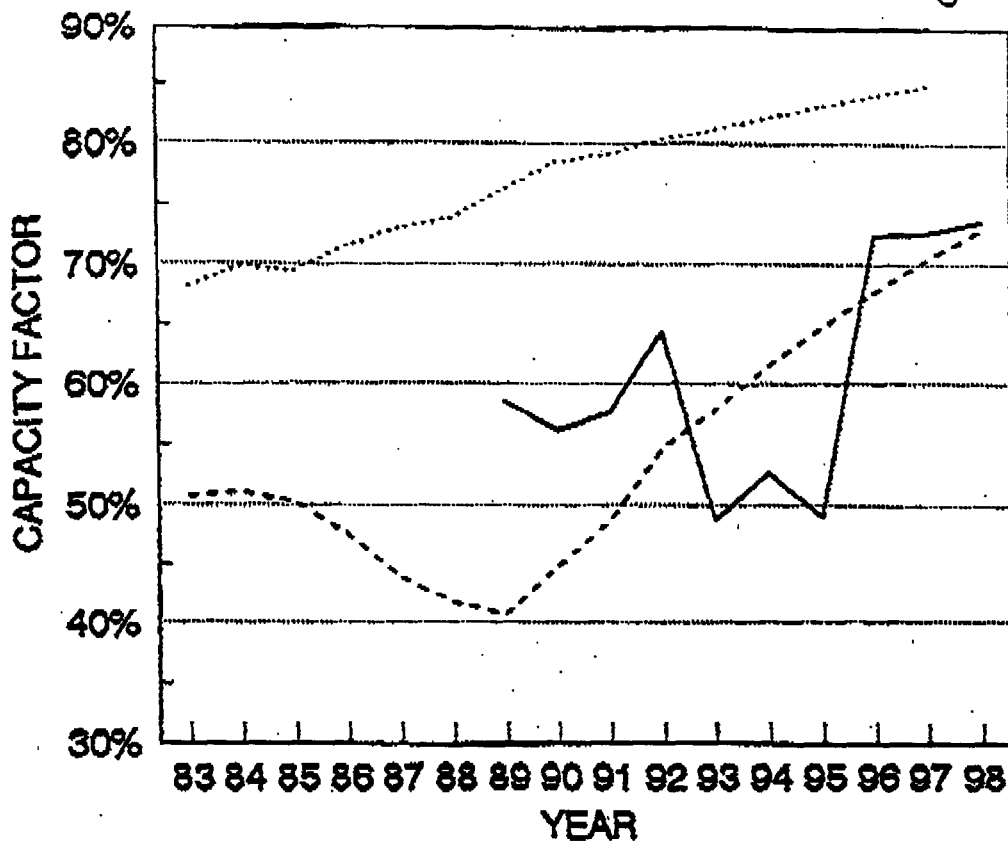
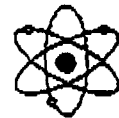
Monticello
Callaway
Prairie Island
Vermont Yankee
Kewaunee
Point Beach
Oconee
Diablo Canyon
TMI-1
Ginna
Waterford 3
Hope Creek
Grand Gulf
Farley
Summer
Susquehanna
St. Lucie
Vogtle (1992)
North Anna
Harris (1991)
Maine Yankee
Beaver Valley
Wolf Creek
McGuire (1989)
Yankee
Milestone 3
Milestone 1&2 (1990)

TOP QUARTILE
PRODUCTION M/KWH:

North Anna
Point Beach
Maine Yankee
Wolf Creek
Oconee
Byron
Braidwood
Prairie Island
Surry
LaSalle (1989)
Harris
South Texas (1991)
Callaway
Catawba
Sequoyah
Vogtle
McGuire (1990)
Summer (1992)
Monticello
Farley
St. Lucie
Kewaunee
DC Cook
Milestone 3
Quad Cities
Zion
Calvert Cliffs

CAPACITY FACTOR

3 YEAR ROLLING AVERAGE



STP PROBLEM PLANTS TOP QUARTILE

ASSUMPTIONS:

1983-1992 Actuals; 1993-1997 Forecasted

STP 1989-1991 factors do not have 3 complete years of data

STP projections for 1994-1997 taken from generation plan dated 9/10/93

CAPACITY FACTOR DATA

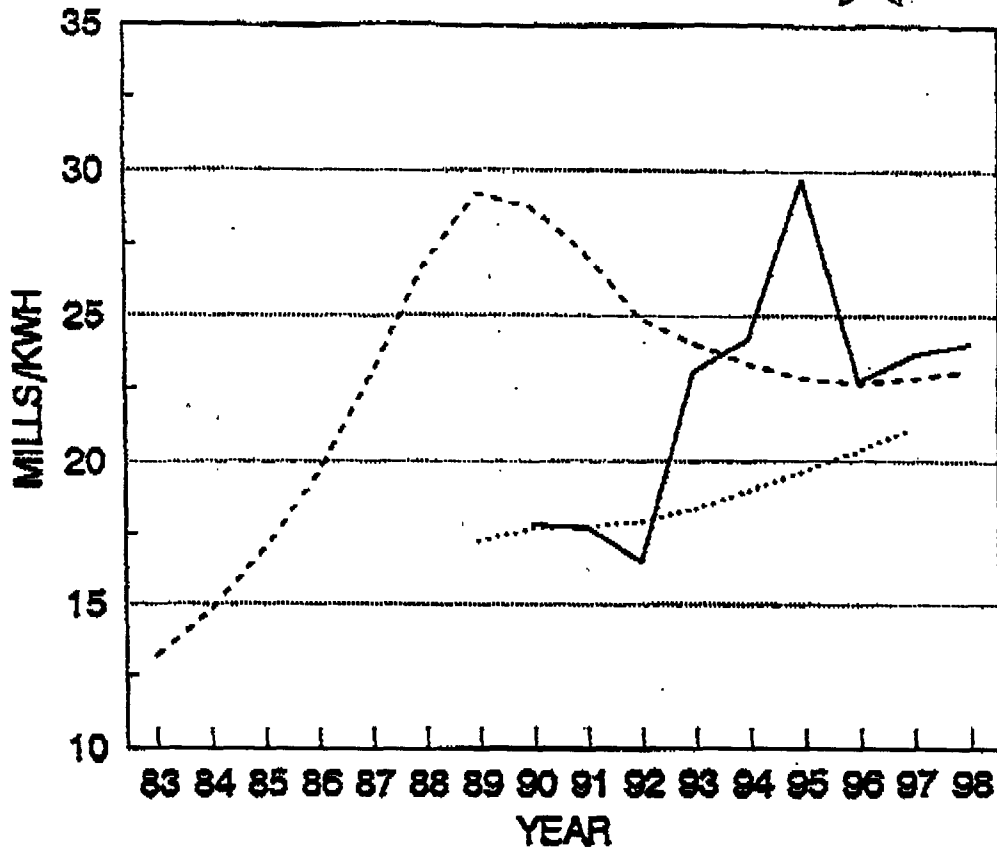
3 YEAR ROLLING AVERAGE



	TOP QUARTILE PLANTS	PROBLEM PLANTS	STP - 3 YR AVG.	STP - 1 YR AVG.
1983	88.17%	80.7%	%	%
1984	89.90	81.1		
1985	89.47	80.3		
1986	71.61	47.5		
1987	72.98	49.9		
1988	73.92	41.7		
1989	76.35	40.8	58.6	41.8
1990	78.50	44.8	58.9	54.1
1991	79.17	48.7	57.7	63.1
1992	80.41	64.8	64.4	78.2
1993	81.20	57.9	48.7	68
1994	82.23	61.5	62.8	75.4
1995	83.20	64.7	49.0	64.7
1996	84.12	67.7	72.4	77.0
1997	84.98	70.4	72.8	78.0
1998		72.9	73.6	67.8

COST PER KWH

3 YEAR ROLLING AVERAGE



STP PROBLEM PLANTS TOP QUARTILE

ASSUMPTIONS:

1983-1992 Actuals; 1993-1997 Forecasted

STP based on 1994 budget of \$350 mil., escalated at 4%

STP forecasts based on production cost factor of 75% of Total O&M

STP forecasts based on fuel cost of 5.98/kwh

COST PER KWH DATA

3 YEAR ROLLING AVERAGE



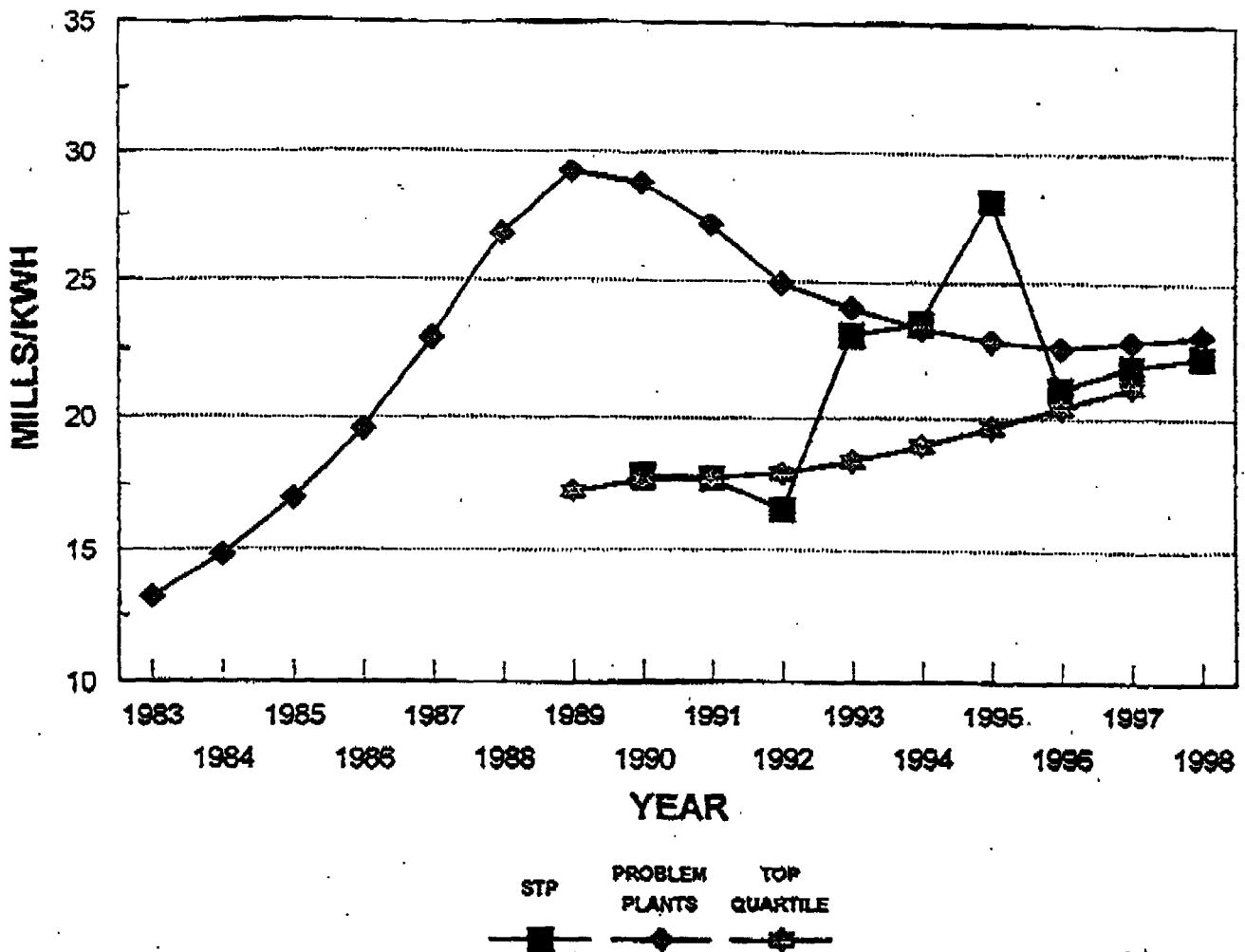
	TOP QUARTILE PLANTS	PROBLEM PLANTS	STP - 3 YR AVG.	STP - 1 YR AVG.
1983		13.20		
1984		14.82		
1985		16.98		
1986		19.56		
1987		22.90		
1988		26.78		
1989	17.26	29.23		
1990	17.72	28.79	17.83	18.18
1991	17.74	27.17	17.74	17.16
1992	17.93	24.93	18.55	14.90
1993	18.40	24.04	23.06	189.13
1994	18.99	23.31	24.21	22.54
1995	18.86	22.85	23.73	25.77
1996	20.38	22.82	22.72	22.28
1997	21.15	22.85	23.83	23.18
1998		23.07	24.04	27.04



PRODUCTION COSTS

3 YEAR ROLLING AVERAGES

DRAFT



ASSUMPTIONS:

1983-1992 Actuals; 1993-1997 Forecasted

STP based on 1994 budget of \$315 mil., escalated at 4%

STP forecasts based on production cost factor of 75% of Total O&M

STP forecasts based on fuel cost of 5.38/kwh

Top quartile figures from Benchmarking Study

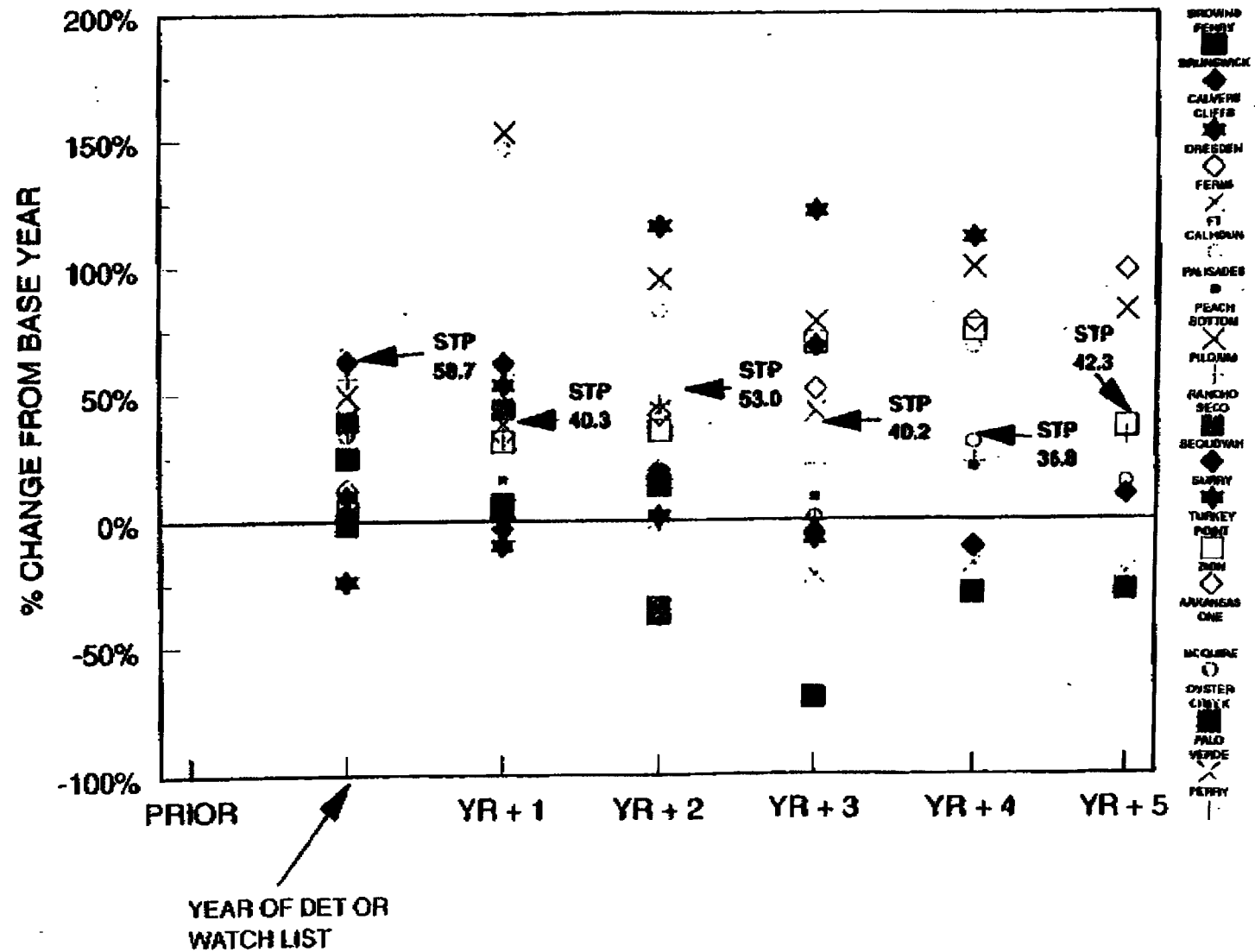
COST PER KWH DATA

3 YEAR ROLLING AVERAGE



	TOP QUARTILE PLANTS	PROBLEM PLANTS	STP - 3 YR AVG.	STP - 1 YR AVG.
1983		13.20		
1984		14.82		
1985		16.95		
1986		19.55		
1987		22.90		
1988		25.78		
1989	17.25	22.23		
1990	17.72	25.79	17.83	18.18
1991	17.74	27.17	17.74	17.15
1992	17.93	24.83	16.55	14.80
1993	18.40	24.04	22.05	18.13
1994	18.93	23.31	22.49	19.02
1995	18.95	22.85	23.14	23.04
1996	20.35	22.52	21.07	20.57
1997	21.15	22.65	21.92	21.47
1998		23.07	22.30	25.07

NON-FUEL PRODUCTION COSTS TROUBLED PLANTS % CHANGE



NON-FUEL PRODUCTION COSTS
TROUBLED PLANTS

	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
ARKANSAS ONE			142.5	139.7 -2.0%	152.6 14.1%	174.7 22.6%	171.1 \$Million 20.1% % Change
BROWNS FERRY	143.3	178.7 24.7%	149.5 4.4%	90.4 -38.9%	42.7 -70.2%	101.4 -29.2%	102.9 -28.2%
BRUNSWICK			125.9	131.2 3.4%	123.1 -3.0%	144.1 13.5%	213.7 68.4%
CALVERT CLIFFS		77.3	84.9 9.8%	118.4 53.2%	166.6 116.5%	171.2 121.5%	163.0 110.8%
DRESDEN	82.6	92.7 12.2%	117.4 42.1%	116.8 41.3%	125.0 51.2%	146.6 77.4%	163.5 97.6%
FERMI (1988)			138.8	139.4 0.4%	108.7 -21.7%	117.0 -17.9%	109.0 -21.5%
FORT CALHOUN		43.0	71.2 65.7%	105.8 146.2%	78.2 82.0%	72.4 69.5%	71.9 67.3%
MCGUIRE	102.5	137.0 33.7%	145.7 42.2%	156.2 52.5%	137.9 34.6%	178.3 74.0%	156.4 52.6%
OYSTER CREEK				102.6	101.3 -1.3%	109.4 6.6%	116.5 13.5%
PALISADES	65.7	63.6 -3.1%	76.1 15.9%	74.7 13.8%	71.4 8.7%	79.1 20.4%	71.5 8.9%
PALO VERDE			238.4	334.9 40.5%	355.3 49.1%	340.9 43.0%	339.4 42.4%
PEACH BOTTOM	123.1	183.8 49.3%	311.5 152.9%	239.7 94.7%	218.9 77.7%	245.1 99.1%	224.2 82.1%
PERRY			118.4	160.3 35.5%	156.2 32.0%	118.6 0.2%	117.4 -0.8%
PILGRIM	72.0	112.5 56.2%	113.5 57.6%	104.9 45.6%	87.4 21.3%	88.0 22.1%	95.4 32.6%
RANCHO SECO	88.9	124.0 39.4%	128.0 44.0%	59.6 -34.2%			
SEQUOYAH	122.0	196.6 62.9%	197.6 62.0%	145.7 19.4%	115.6 -5.3%	108.6 -11.0%	133.8 9.6%
SURRY			117.6	89.4 -24.0%	105.9 -10.0%	119.2 1.4%	108.9 -7.4%
TURKEY POINT	113.3	122.7 3.7%	155.1 31.1%	159.9 35.1%	200.4 69.4%	206.1 74.2%	161.0 36.1%
ZION				114.0	144.0 26.4%	153.5 34.7%	192.5 69.0%