

# Corporate Metrics Report

September 2008

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produced by  
**SPP Market Monitoring Unit**



# Southwest Power Pool

## Corporate Metrics

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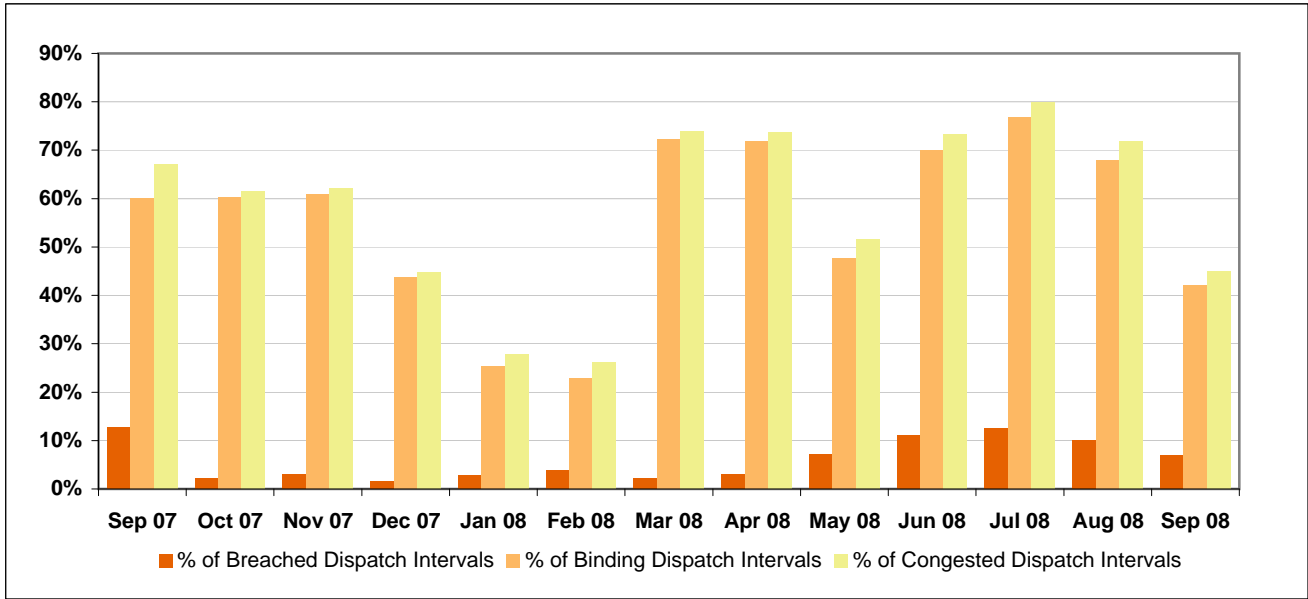
  

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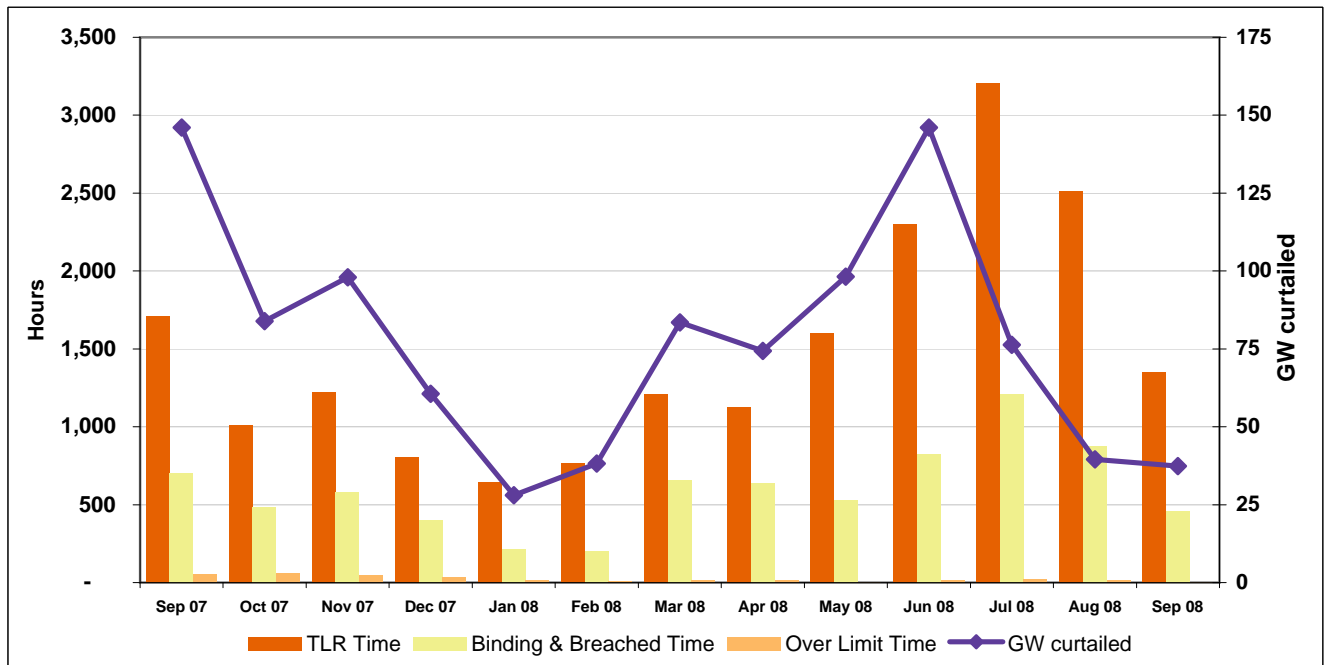
  

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### 1. Congestion

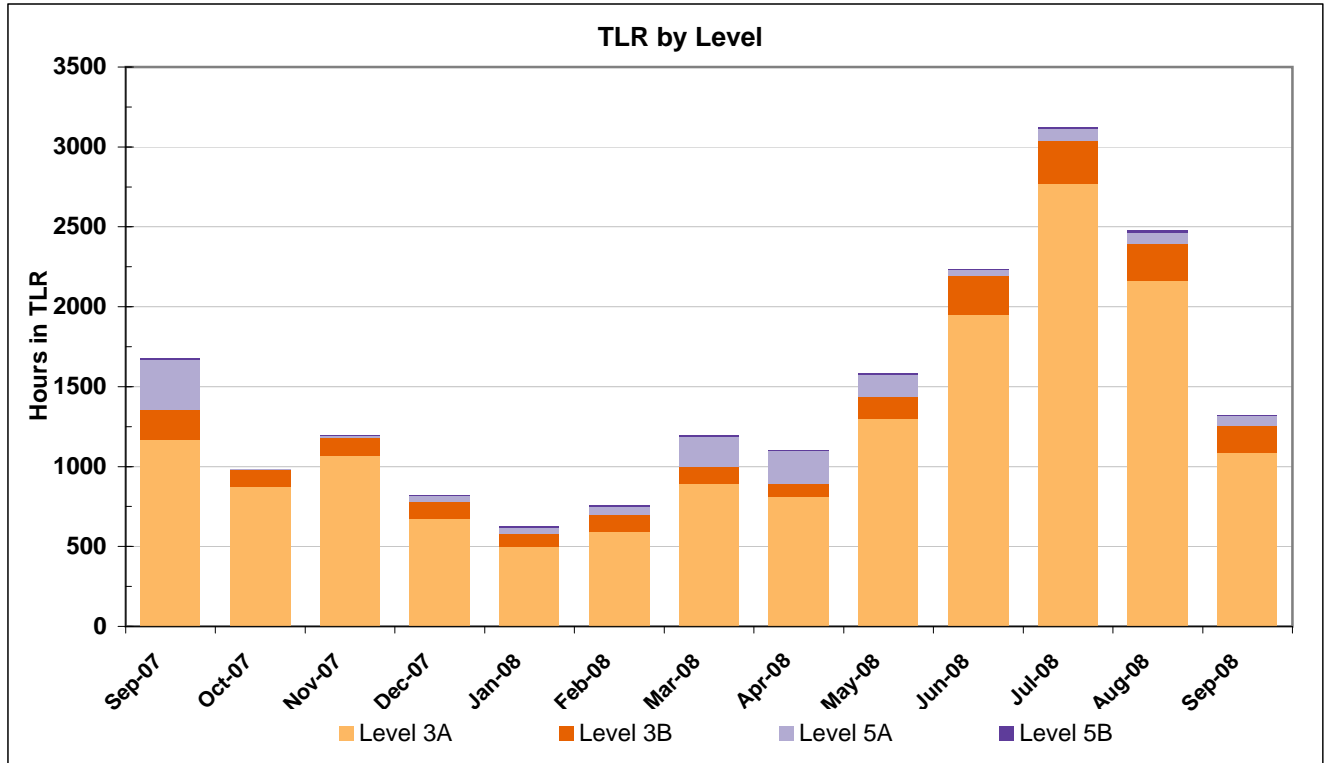


	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
% of Binding Dispatch Intervals	60%	60%	61%	44%	25%	23%	72%	72%	48%	70%	77%	68%	42%
% of Breached Dispatch Intervals	13%	2%	3%	1%	3%	4%	2%	3%	7%	11%	13%	10%	7%
% of Congested Dispatch Intervals	67%	62%	62%	45%	28%	26%	74%	74%	52%	73%	80%	72%	45%

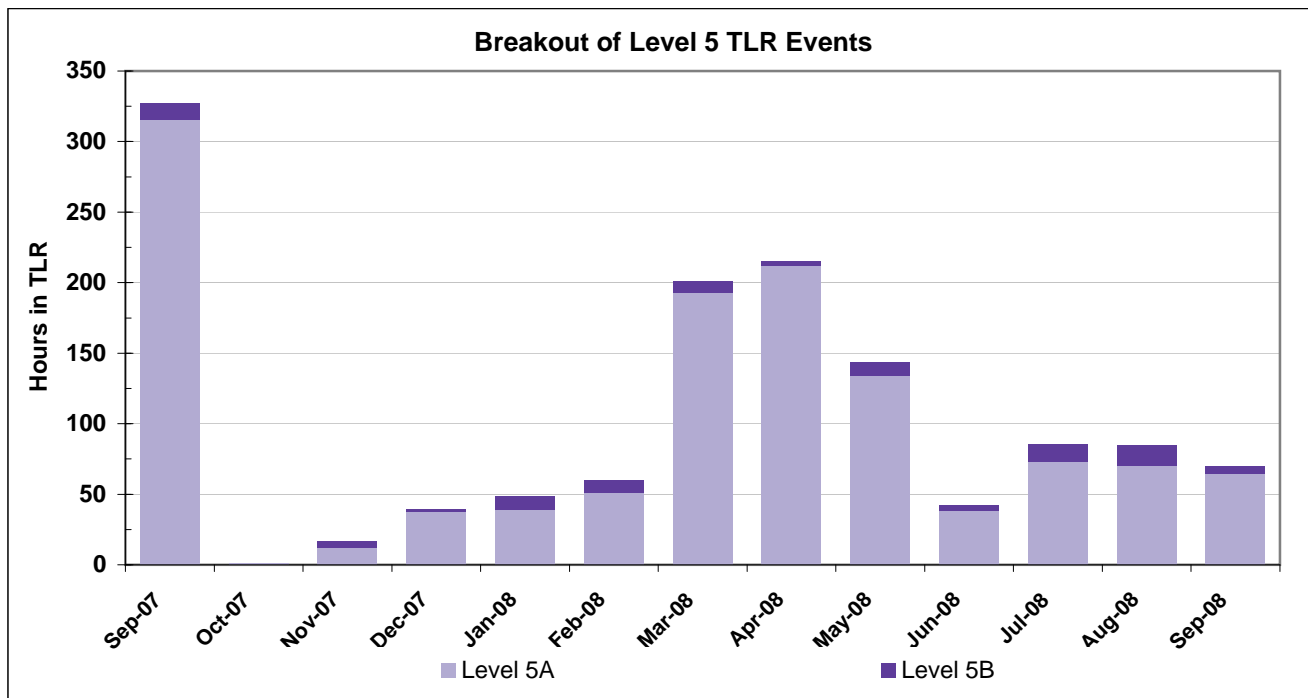


<i>in hours</i>	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
TLR Time	1714	1011	1221	807	646	766	1207	1125	1603	2297	3209	2511	1351
Binding & Breached Time	704	486	581	402	216	202	655	641	527	826	1213	878	460
Over Limit Time	58	59	50	37	15	9	14	14	6	14	21	19	6
GW curtailed	146.1	83.9	98.0	60.6	28.0	38.2	83.5	74.4	98.2	146.0	76.3	39.6	37.4

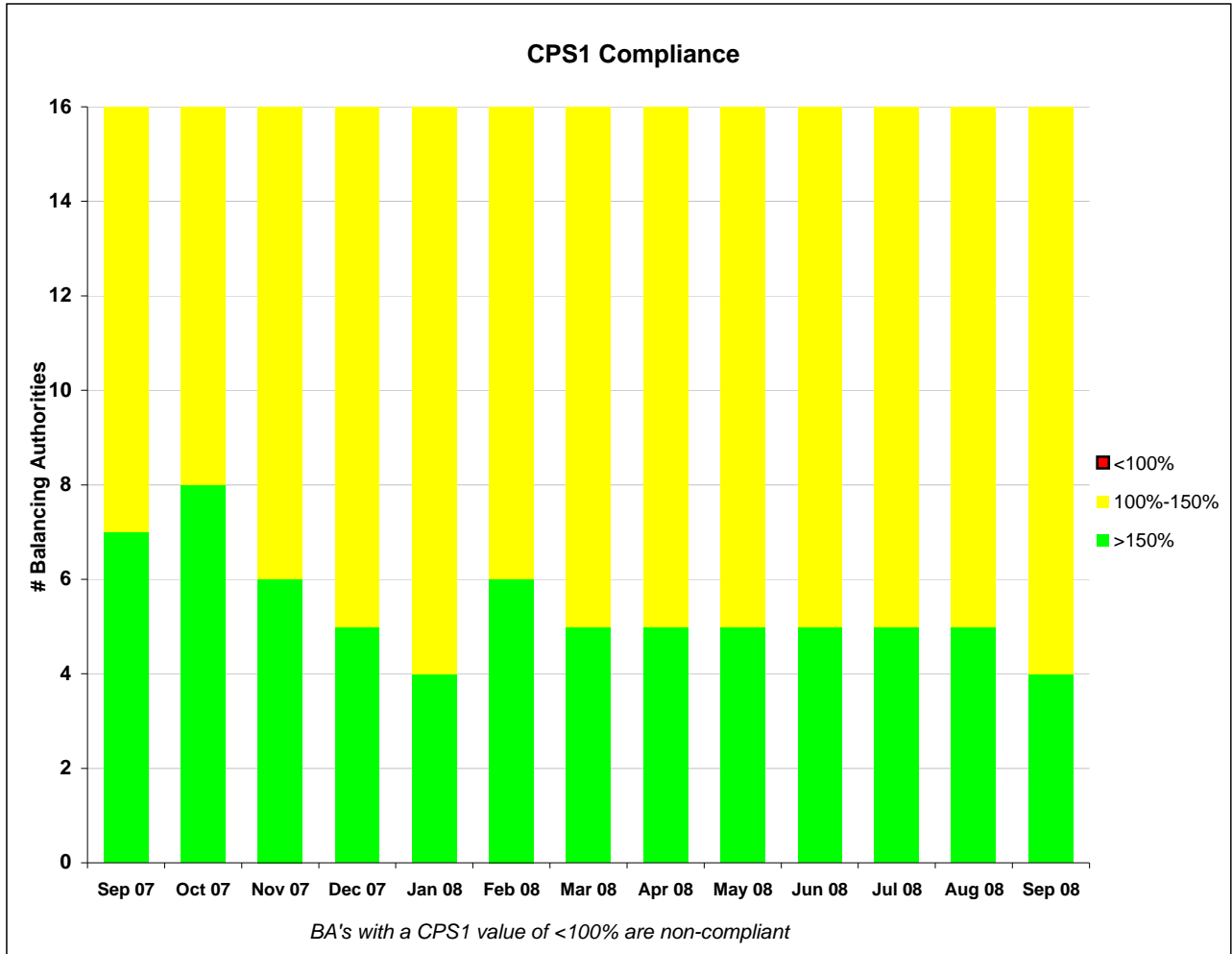
### 1. Congestion



<i>in hours</i>	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
Level 3A	1172	874	1067	675	499	590	892	808	1302	1953	2769	2165	1089
Level 3B	181	106	113	104	81	106	105	81	137	242	271	232	166
Level 5A	315	1	13	38	40	51	193	212	134	38	73	70	64
Level 5B	12	0	4	2	9	9	8	3	9	4	12	15	6



## 2. Regional Control Performance

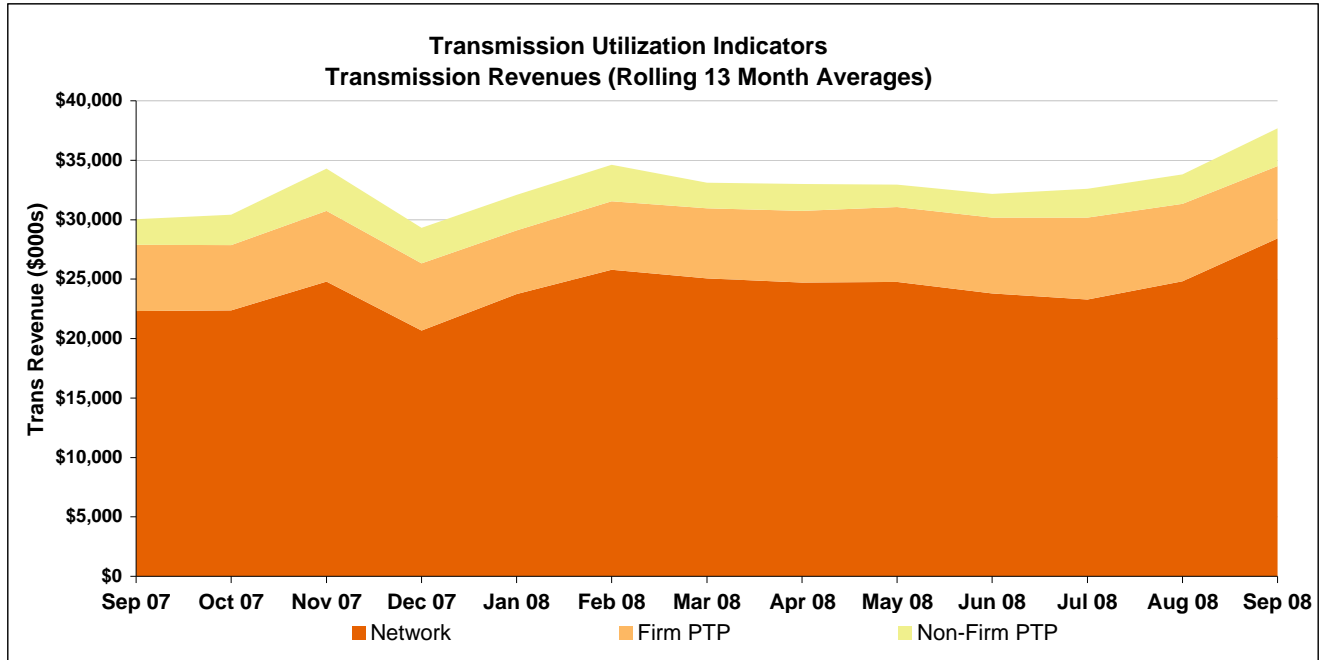


CPS1	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
>150%	7	8	6	5	4	6	5	5	5	5	5	5	4
100%-150%	9	8	10	11	12	10	11	11	11	11	11	11	12
<100%	0	0	0	0	0	0	0	0	0	0	0	0	0

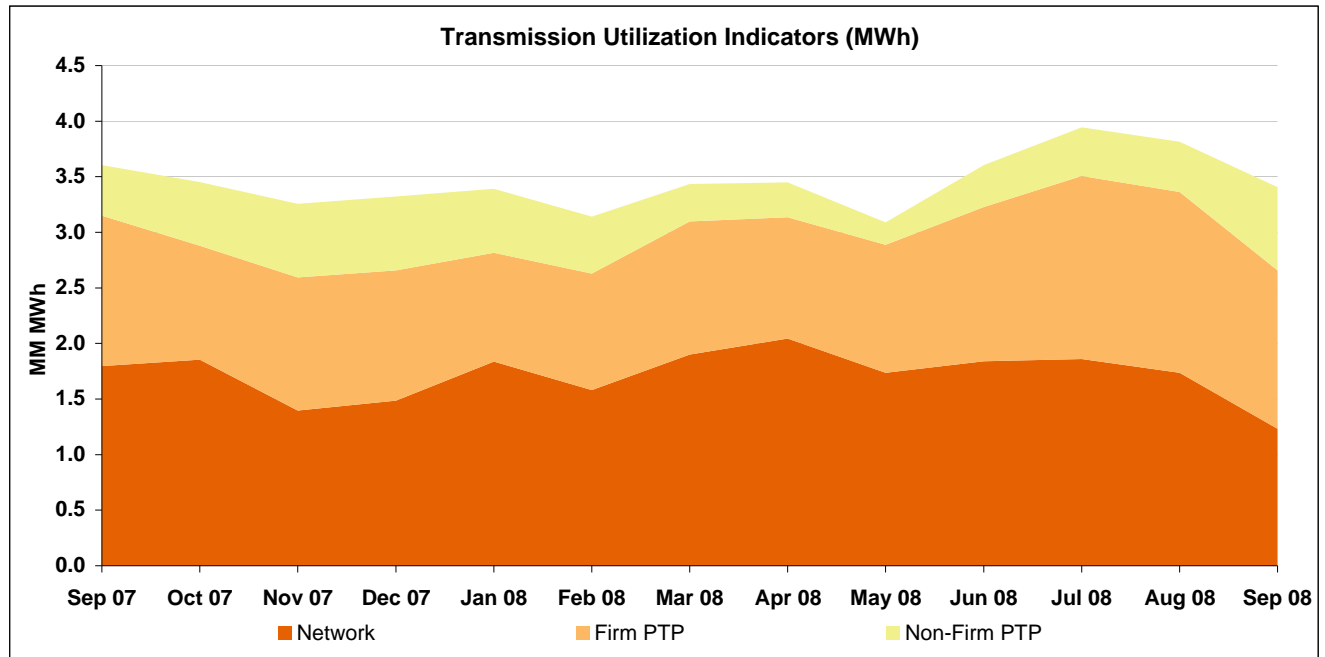
Violation if any 1 Balancing Authority has a violation in a 12 month period.



### 3. Transmission Utilization Proxy



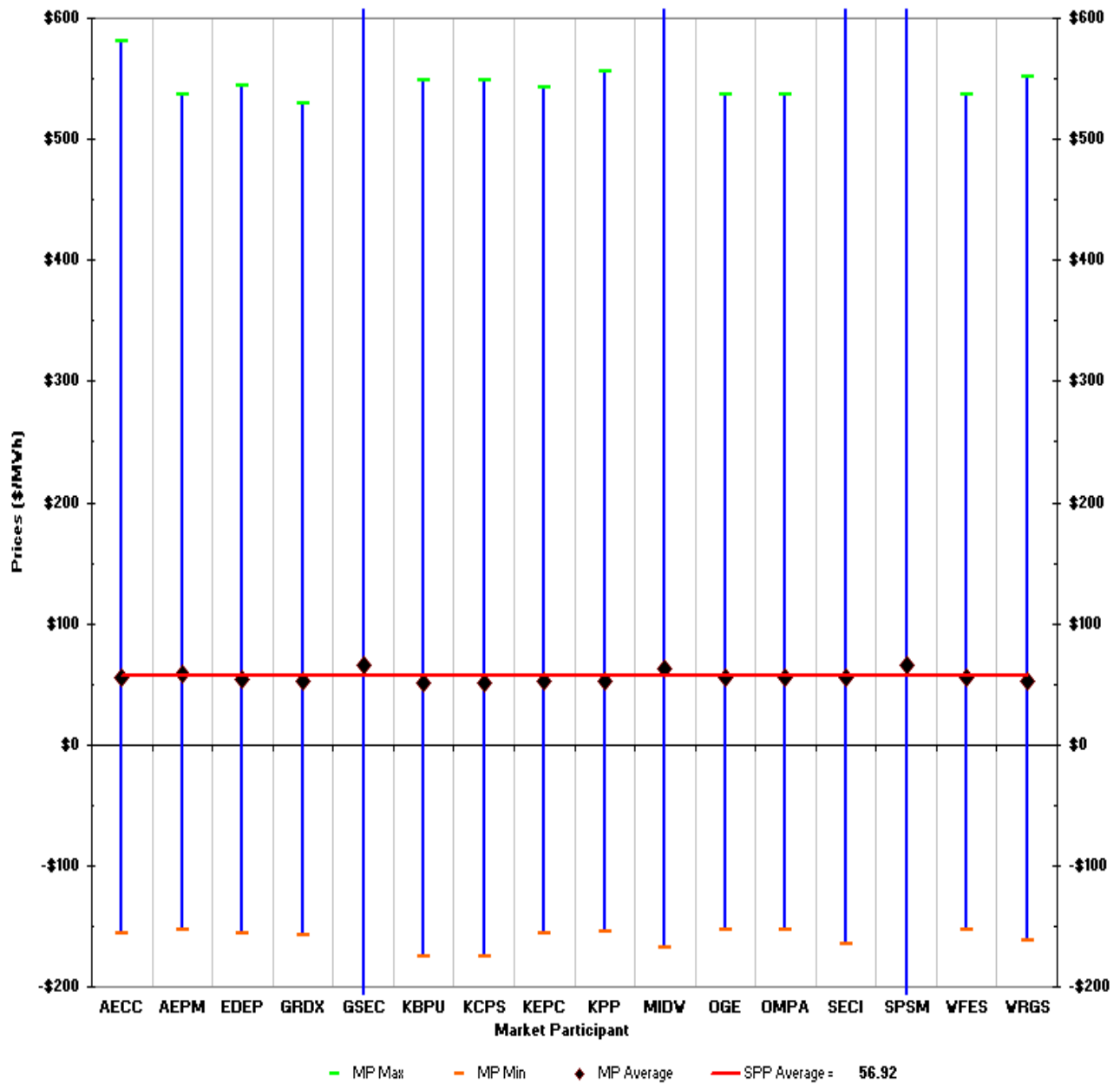
Type	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
Network (\$000)	\$22,308	\$22,356	\$24,798	\$20,672	\$23,732	\$25,798	\$25,068	\$24,701	\$24,756	\$23,804	\$23,284	\$24,820	\$28,415
Firm PTP (\$000)	\$5,589	\$5,509	\$5,951	\$5,657	\$5,357	\$5,752	\$5,877	\$6,033	\$6,308	\$6,363	\$6,889	\$6,506	\$6,081
Non-Firm PTP (\$000)	\$2,142	\$2,557	\$3,539	\$2,996	\$3,007	\$3,055	\$2,175	\$2,261	\$1,876	\$2,010	\$2,415	\$2,473	\$3,193



Type	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
Network (MM MWh)	1.80	1.85	1.40	1.48	1.84	1.58	1.90	2.05	1.74	1.84	1.86	1.74	1.23
Firm PTP (MM MWh)	1.35	1.02	1.20	1.17	0.98	1.05	1.20	1.09	1.15	1.39	1.65	1.63	1.43
Non-Firm PTP (MM MWh)	0.45	0.57	0.66	0.67	0.57	0.51	0.34	0.31	0.20	0.38	0.44	0.45	0.75
Total	3.60	3.45	3.26	3.32	3.39	3.14	3.44	3.45	3.09	3.60	3.94	3.82	3.41

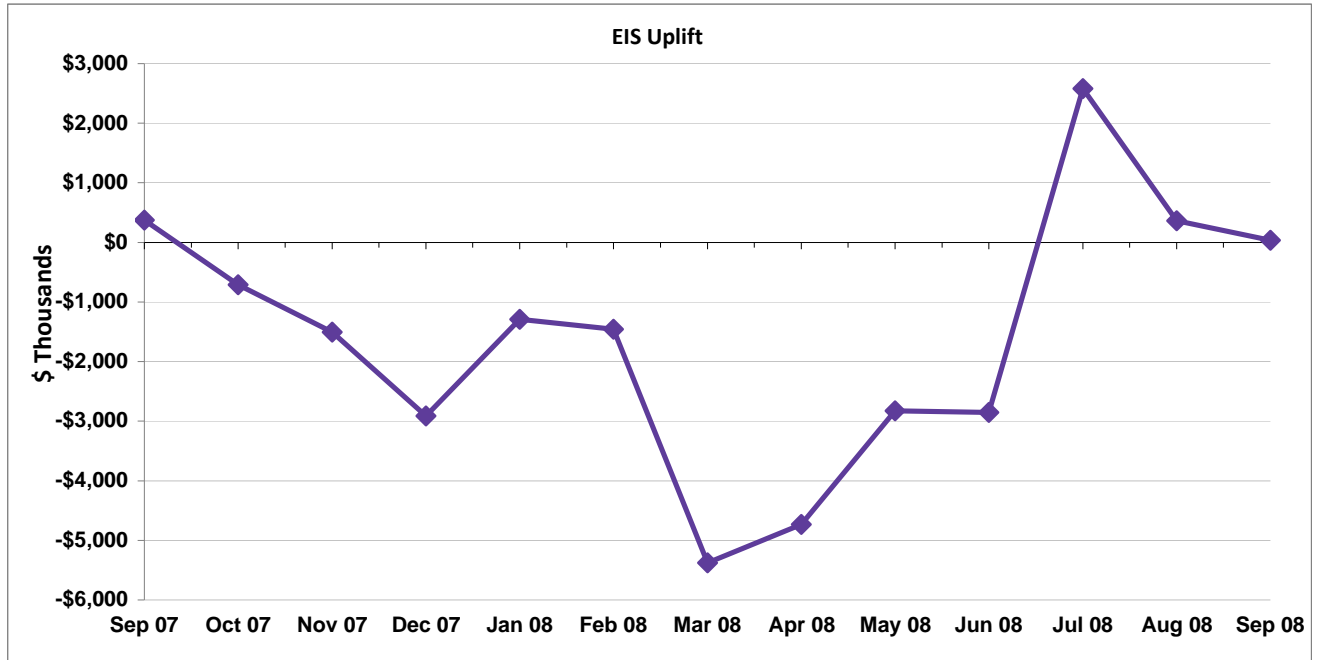


4. EIS Prices and Price Range  
 12 months from October 2007 through September 2008



	AECC	AEPM	EDEP	GRDX	GSEC	KBPU	KCPS	KEPC	KPP	MIDW	OGE	OMPA	SECI	SPSM	WFES	WRGS
MP Max	580	536	544	530	2302	548	548	543	556	971	537	537	833	2229	537	551
MP Avg	56	58	53	53	66	52	52	53	53	63	55	55	55	66	55	53
MP Min	-156	-153	-155	-157	-409	-175	-175	-156	-155	-167	-153	-153	-165	-418	-153	-161

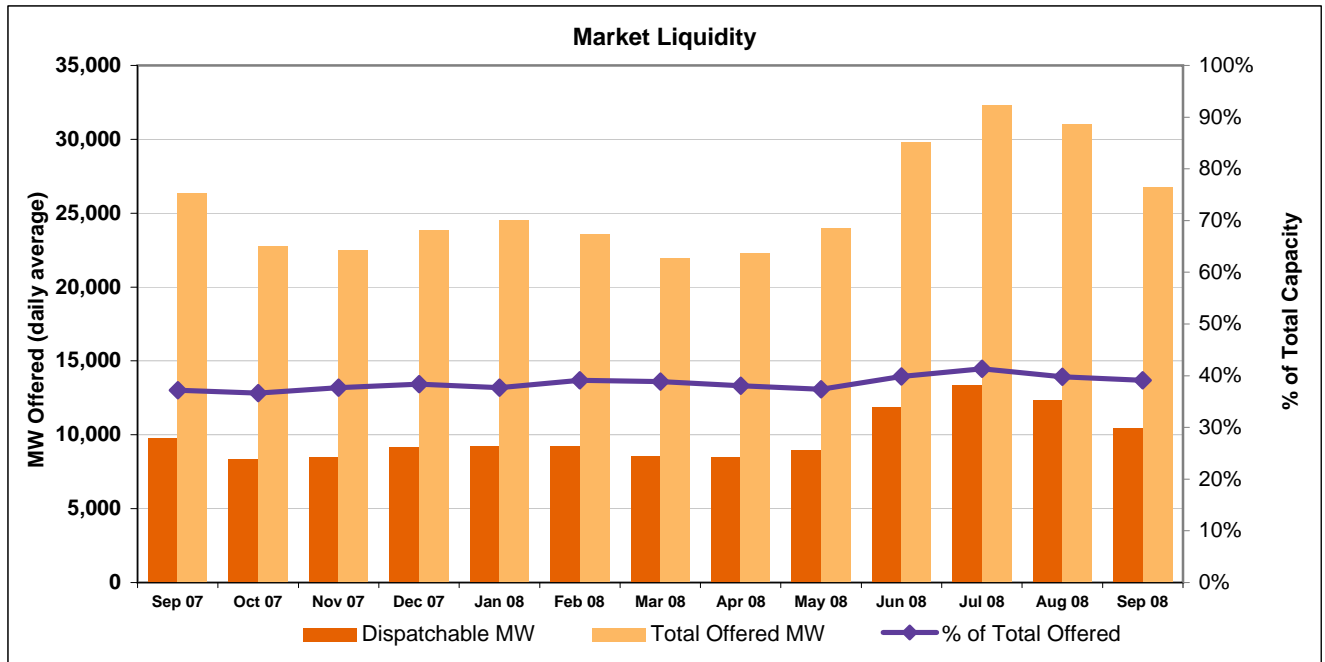
5. Congestion - Uplift



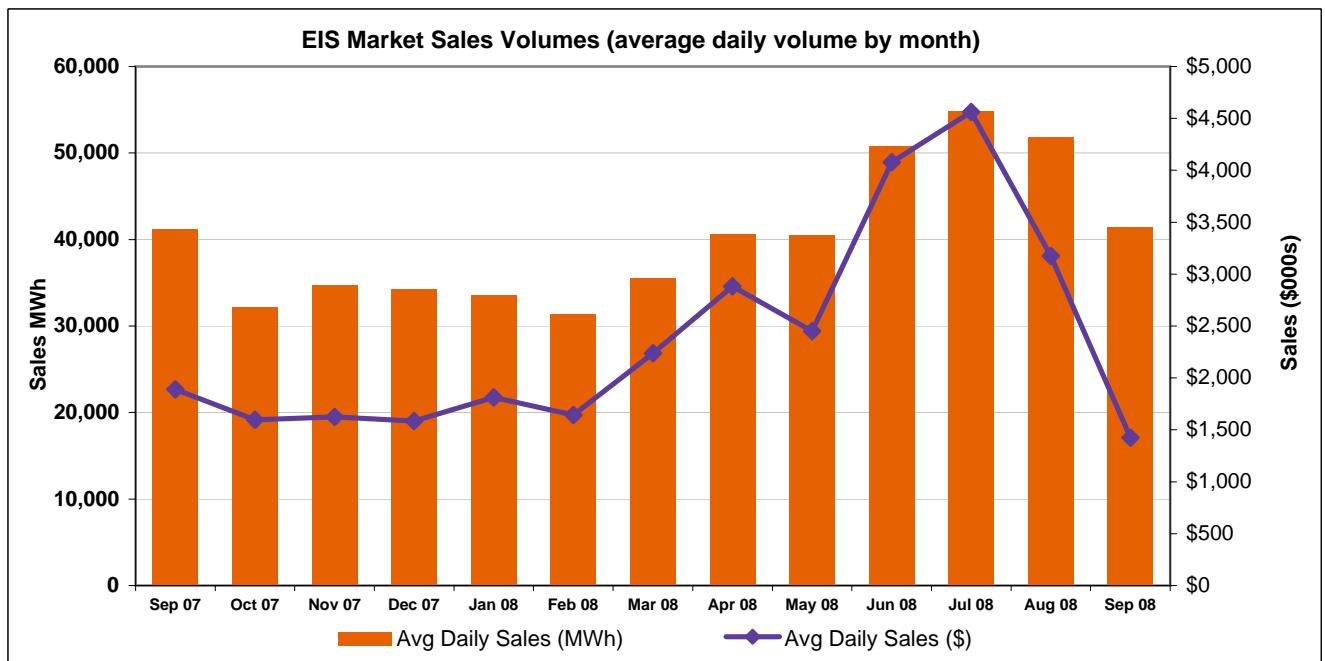
	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
EIS Uplift (\$000's)	377	-709	-1,506	-2,914	-1,289	-1,455	-5,376	-4,731	-2,829	-2,852	2,582	366	36

*The RNU Task Force has been re-convened and is studying the reasons, and possible solutions, for the wide variation in RNU. The Task Force will also establish appropriate target ranges for RNU.*

## 6. Market Liquidity

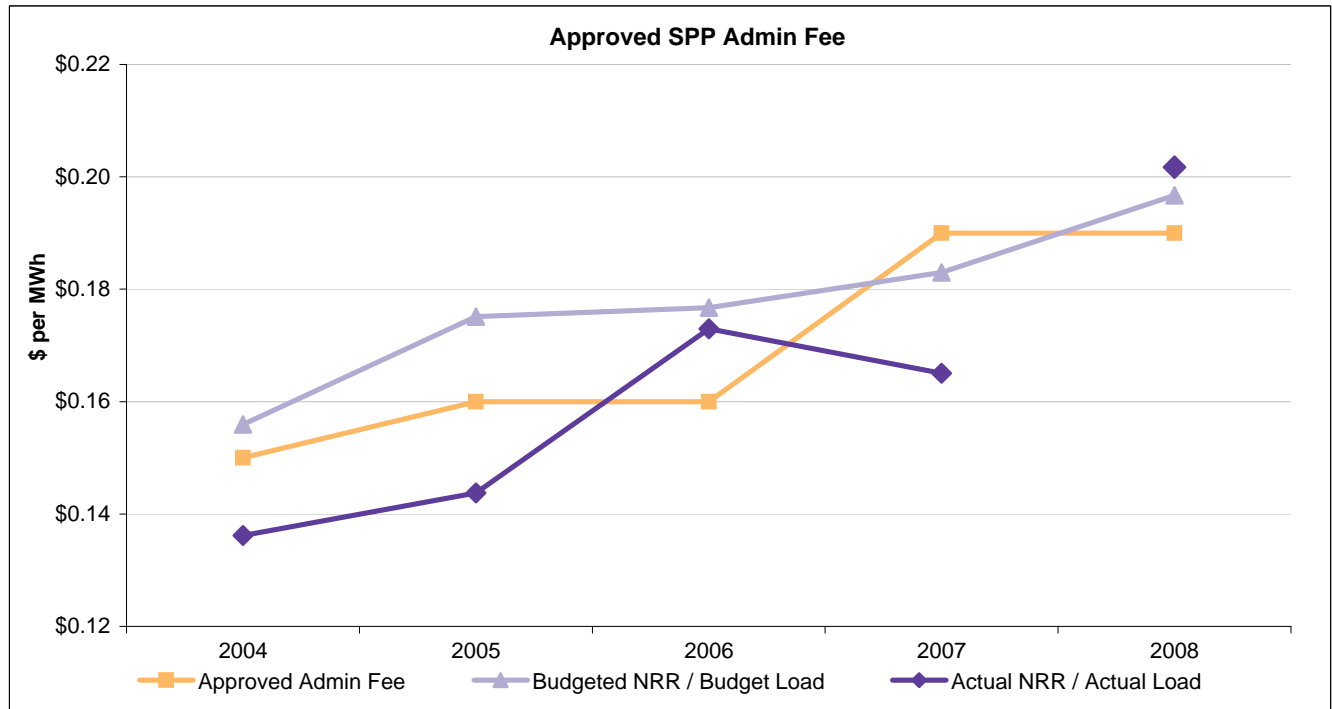


	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
Dispatchable MW	9,802	8,349	8,482	9,151	9,255	9,222	8,527	8,495	8,980	11,884	13,348	12,340	10,473
Total Offered MW	26,375	22,809	22,495	23,864	24,564	23,566	21,950	22,304	24,015	29,833	32,283	31,009	26,762
% of Total Offered	37%	37%	38%	38%	38%	39%	39%	38%	37%	40%	41%	40%	39%



	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
Avg Daily Sales (MWh)	41,230	32,204	34,747	34,325	33,541	31,372	35,581	40,661	40,499	50,812	54,867	51,848	41,435
Avg Daily Sales (\$)	1,889	1,595	1,623	1,585	1,813	1,644	2,237	2,883	2,451	4,078	4,561	3,176	1,424

## 7. SPP Admin Fee Performance



Financial Metrics

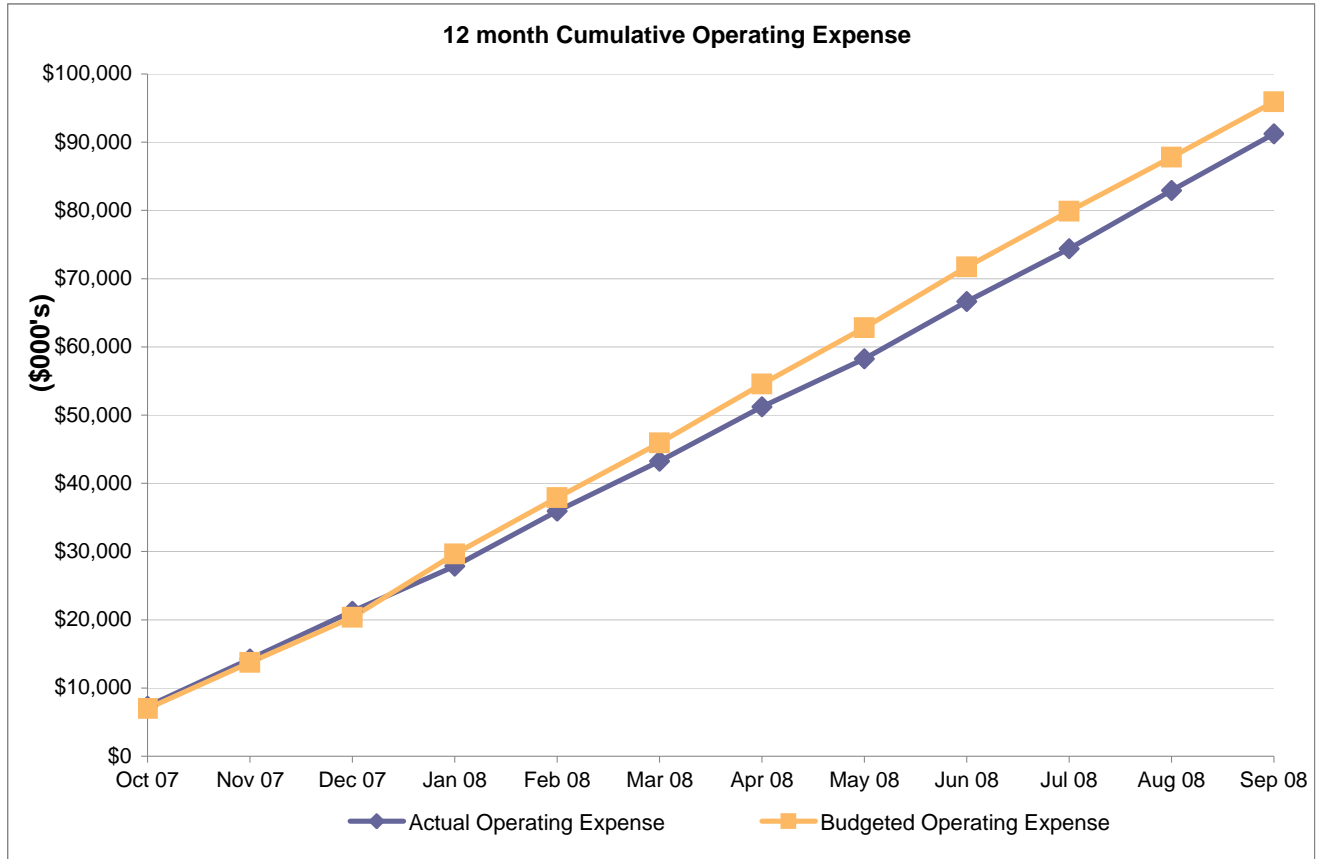
	2004	2005	2006	2007	2008
Budgeted Net Revenue Required (\$000's)	\$ 38,322	\$ 44,391	\$ 45,688	\$ 52,819	\$ 61,462
Budgeted Load (000's)	245,776	253,489	258,556	288,649	312,496
Budgeted NRR / Budget Load	\$ 0.156	\$ 0.175	\$ 0.177	\$ 0.183	\$ 0.197
Approved Admin Fee	0.15	0.16	0.16	0.19	0.19
Actual Net Revenue Required (\$000's)	\$ 33,443	\$ 38,415	\$ 49,549	\$ 49,691	\$ 44,565
Actual Load (000's)	245,571	267,239	286,446	301,053	220,955
Actual NRR / Actual Load	\$ 0.136	\$ 0.144	\$ 0.173	\$ 0.165	\$ 0.202
EIA-411 Load Growth Forecast	-0.37%	3.05%	-0.60%	1.80%	2.10%
Actual Load Growth	-1.60%	8.82%	7.19%	5.10%	

Note 1: Budgeted 2008 figures cover the entire 2008 calendar year, while actual 2008 figures cover the period through the date of this report.

Note 2: Actual load growth for 2008 will not be calculated until year end.

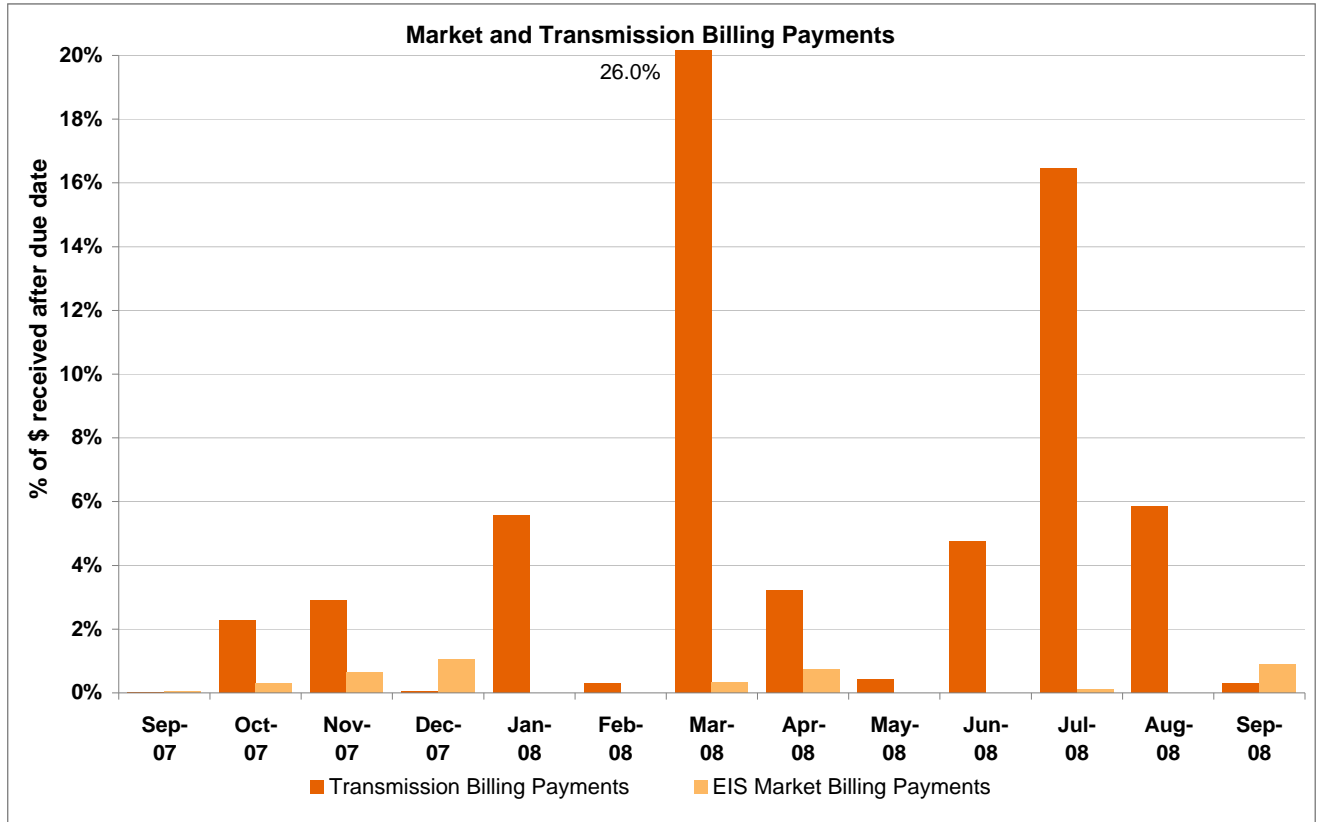
## 8. Budget Performance Monitor

Financial Metrics



<b>Cumulative</b>	<b>Oct 07</b>	<b>Nov 07</b>	<b>Dec 07</b>	<b>Jan 08</b>	<b>Feb 08</b>	<b>Mar 08</b>	<b>Apr 08</b>	<b>May 08</b>	<b>Jun 08</b>	<b>Jul 08</b>	<b>Aug 08</b>	<b>Sep 08</b>
Actual Operating Expense (\$000's)	7,299	14,255	21,233	27,858	35,936	43,225	51,223	58,268	66,633	74,383	82,911	91,235
Budgeted Operating Expense (\$000's)	7,006	13,749	20,354	29,632	37,899	45,919	54,565	62,806	71,736	79,868	87,800	95,899
Variance: Fav / (Unf)	(293)	(506)	(879)	1,774	1,963	2,694	3,342	4,538	5,103	5,485	4,889	4,664
% of Variance	-4%	-4%	-4%	6%	5%	6%	6%	7%	7%	7%	6%	5%

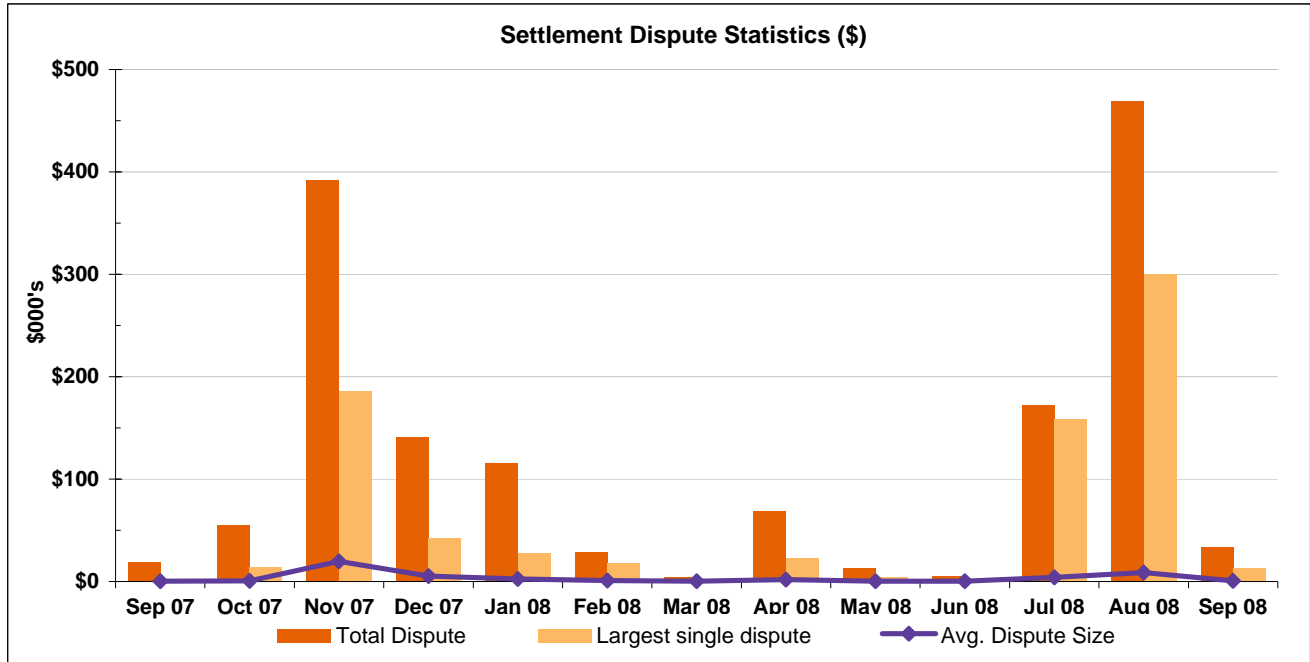
## 9. Financial Settlement Index



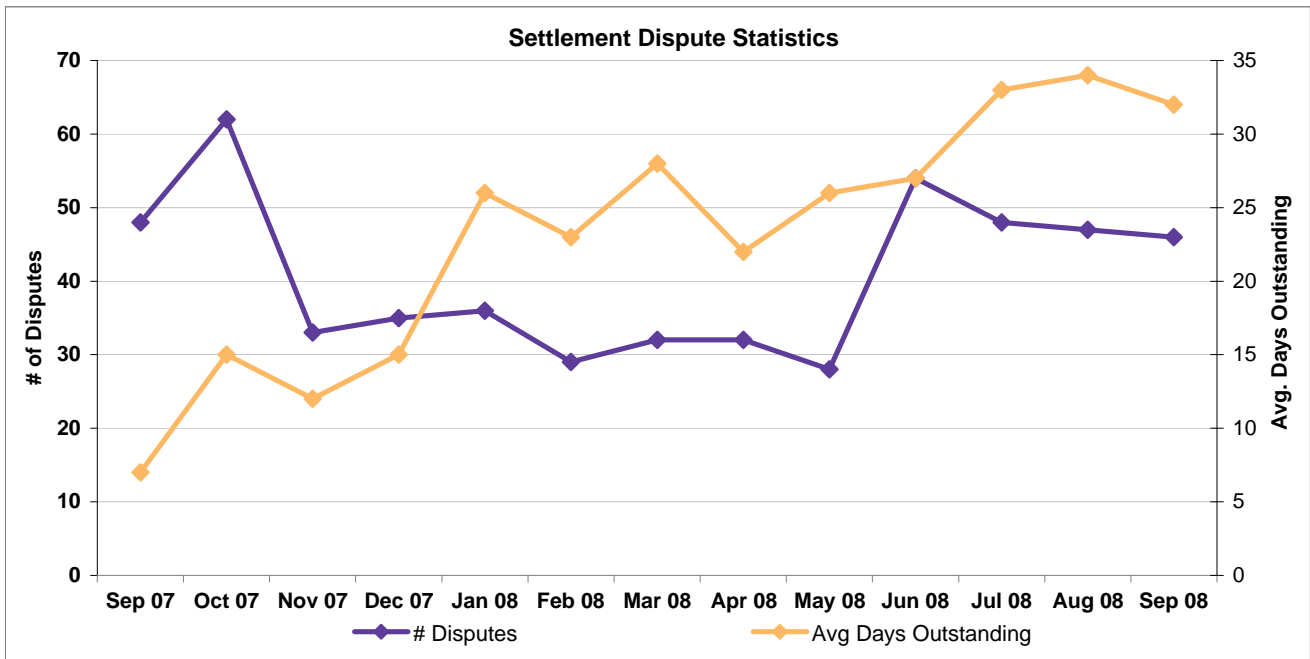
	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08
% of Transmission Payment \$ Received After the Due Date	0.0%	2.3%	2.9%	0.1%	5.6%	0.3%	26.0%	3.2%	0.4%	4.7%	16.4%	5.9%	0.3%
% of Market Payment \$ Received After the Due Date	0.0%	0.3%	0.7%	1.0%	0.0%	0.0%	0.3%	0.7%	0.0%	0.0%	0.1%	0.0%	0.9%

Note: Figures represent billings with a due date in month shown. For example, the September figures are related to the August 31 transmission billing, with payments due on September 20.

## 10. Financial Disputes Index

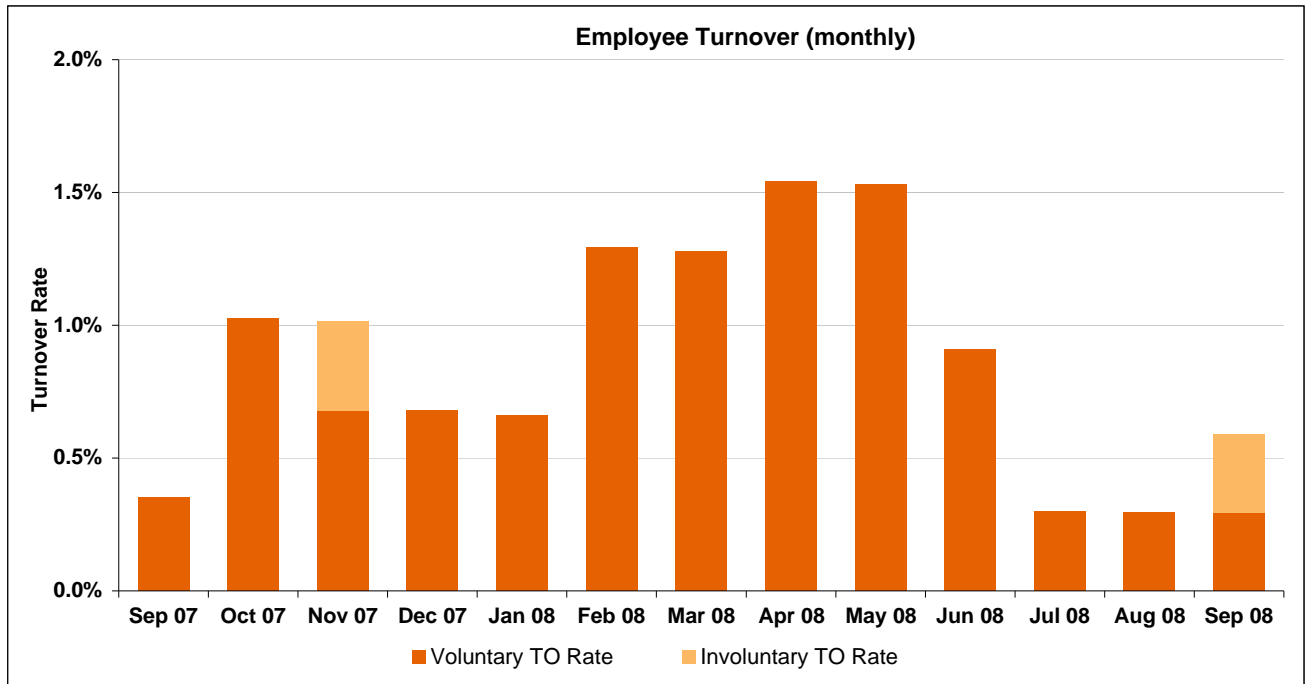


(Figures in \$000's)	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
Total Dispute	\$19.0	\$55.7	\$392.4	\$141.2	\$115.3	\$28.6	\$4.7	\$68.7	\$13.0	\$5.0	\$172.5	\$469.7	\$34.1
Avg. Dispute Size	\$.4	\$.7	\$19.6	\$5.4	\$2.5	\$1.0	\$.4	\$2.0	\$.4	\$.3	\$4.0	\$8.9	\$.8
Largest single dispute	\$1.3	\$14.1	\$186.0	\$42.5	\$27.6	\$18.0	\$1.2	\$23.0	\$4.4	\$2.1	\$159.2	\$300.0	\$13.3

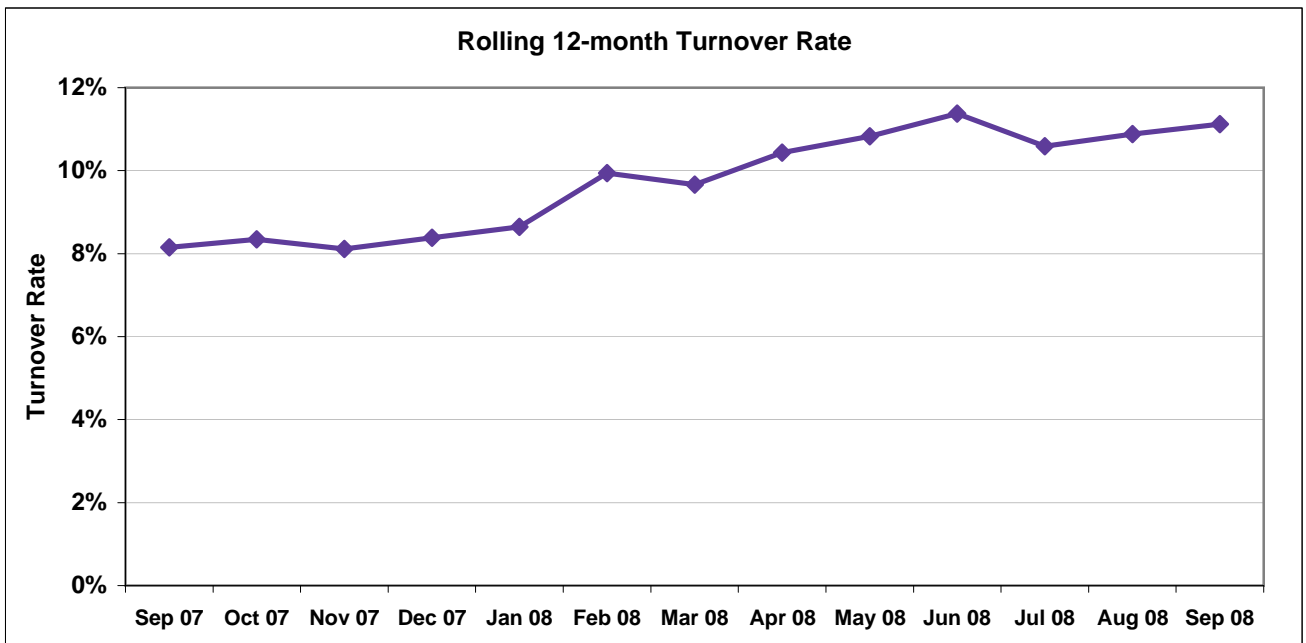


	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
# Disputes	48	62	33	35	36	29	32	32	28	54	48	47	46
Avg Days Outstanding	7	15	12	15	26	23	28	22	26	27	33	34	32

## 11. Employee Turnover

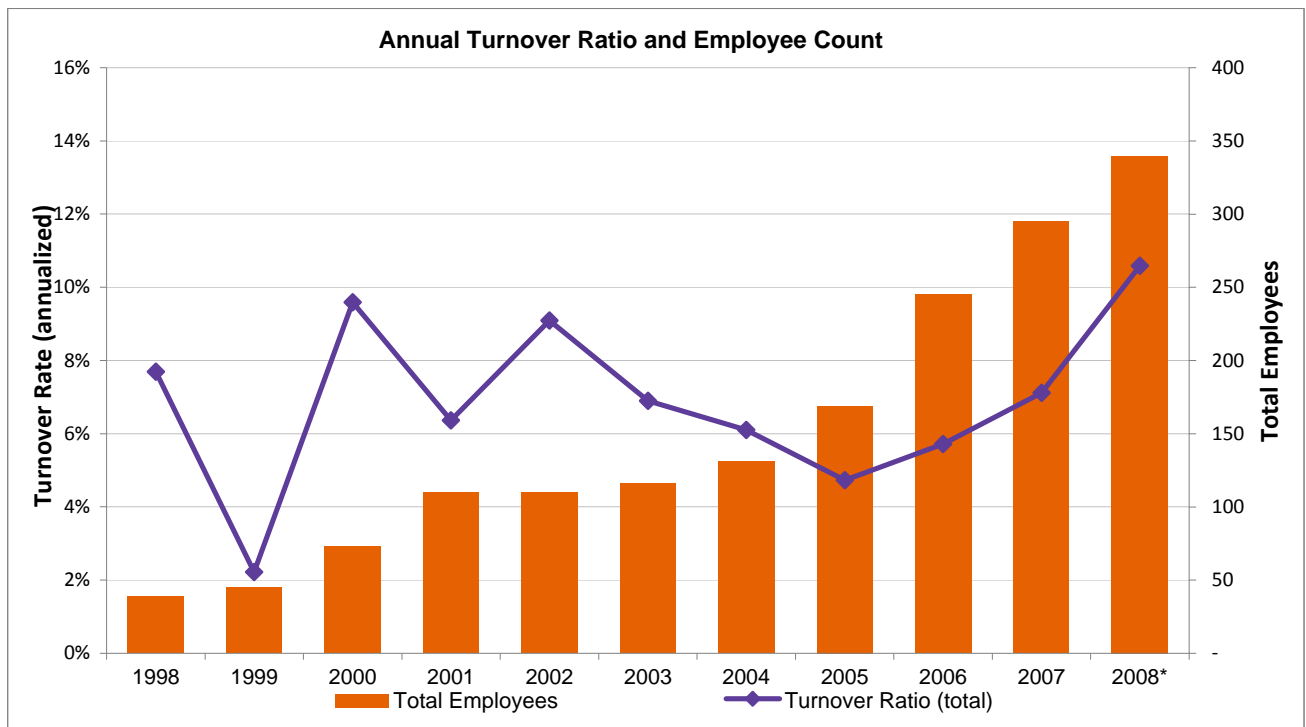


	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
Voluntary TO Rate	0.4%	1.0%	0.7%	0.7%	0.7%	1.3%	1.3%	1.5%	1.5%	0.9%	0.3%	0.3%	0.3%
Involuntary TO Rate	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
Total Turnover (# of employees)	1	3	3	2	2	4	4	5	5	3	1	1	2



	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
Rolling 12-month Turnover Rate	8.2%	8.3%	8.1%	8.4%	8.6%	9.9%	9.7%	10.4%	10.8%	11.4%	10.6%	10.9%	11.1%

## 11. Employee Turnover



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008*
Total Turnover	3	1	7	7	10	8	8	8	14	21	27
Total Employees	39	45	73	110	110	116	131	169	245	295	340
Turnover Ratio (total)	7.7%	2.2%	9.6%	6.4%	9.1%	6.9%	6.1%	4.7%	5.7%	7.1%	10.6%

Note 1: Total Turnover only includes voluntary and involuntary separations; retirements and interns are not used in the calculation.

\* 2008 figures are as of the end of the reported month, and extrapolated to a full-year equivalent.

Performance

## 12. Compliance with NERC Standards

### SPP RTO Compliance

	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
# Confirmed Violations	0	0	0	0	0	0	0	0	0	0	0	0	0

### SPP Registered Entity Compliance

	Sep 07	Oct 07	Nov 07	Dec 07	Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08
# Confirmed Violations	0	0	0	0	0	0	0	0	0	5	0	0	0

### 13. IT System Performance

#### System Availability for September 2008

System	Unplanned Outages	Minutes	Target Uptime	Actual Uptime	Resulting Market Outage	Comments
Market System (MOS)	2	365	99.98	99.16	Y	9/3/08 & 9/30/08, see below under "Overall EIS Market Status"
Market Portal	0	0	99.98	100.00	N	
Reliability (EMS)	1	75	99.98	99.83	Y	9/30/08 – 75 minute EMS outage that resulted from network problems that were caused by improper firewall monitoring activities. Corrective action has been taken to prevent recurrence.
Reliability (ICCP)	0	0	99.98	100.00	N	
Tariff Admin (OASIS)	0	0	99.98	100.00	N	
Scheduling (RTO_SS)	0	0	99.98	100.00	N	

\* Target Uptime is calculated to be not more than 10 minutes of unplanned outages per month.

<p><b>Overall EIS Market Status</b></p>	<p><b>2 UNPLANNED MARKET OUTAGES FOR SEPTEMBER 2008</b></p>	<p>The first outage (9/3) was a 290-minute suspension of market activities due to an SPP Market Participant being unable to submit data following model changes implemented by SPP staff. Corrective action is being taken to prevent future data submission issues from causing a market suspension.</p> <p>The second outage (9/30) involved multiple system outages that resulted when firewall monitoring activities caused network failures. Corrective action has been taken to prevent recurrence.</p>
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Performance

### 13. IT System Performance

#### System Availability Trends

System	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08
Market System (MOS)	100.00	99.92	99.92	100.00	99.28	100.00	99.90	100.00	100.00	100.00	100.00	100.00	99.16
Market Portal	100.00	100.00	99.97	100.00	100.00	100.00	100.00	100.00	100.00	98.47	100.00	100.00	100.00
Reliability (EMS)	99.99	99.90	99.80	99.81	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.83
Reliability (ICCP)	100.00	100.00	100.00	100.00	100.00	100.00	99.92	100.00	100.00	100.00	100.00	100.00	100.00
Tariff Admin (OASIS)	100.00	100.00	99.99	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Scheduling (RTO_SS)	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00



No unplanned outages



less than 10 minutes unplanned outages



10 minutes or more unplanned outages

Performance

# Southwest Power Pool Metrics Definitions

## Summary of Regional Operational Performance Indicators

Two groups of metrics will be monitored to provide an overall health indication of the regional transmission system and market. There are two primary areas of interest:

- Reliability Performance Indicators, which focus on the actual operations of the transmission system and whether or not it was operated within expected limits and standards.
- Market Performance Indicators, which focus on the performance of the market in terms of overall volume, prices and level of participation.

The intent is to monitor the trends in these areas over time to identify any unexpected performance in an area. Specific performance targets may be established in the future as experience is gained with the information.

## Purpose of Reliability Performance Indicators

This sub-group of metrics is designed to measure the operations of the transmission system from a reliability perspective in the prior 12 month period. Together, they form an aggregate representation to answer the following questions:

- Were any operating limits violated in the period? (see Congestion)
- How long were schedules curtailed due to congestion? (see Congestion)
- Was the system operated in compliance with the relevant control performance standards? (see Regional Control Performance)

Transmission & Market Indicators

### 1. Congestion

Provides a set of measures on the number of minutes control actions are taken to reduce the flow on one or more facilities below its System Operating Limit (SOL) or IROL limit.

- Percent of intervals binding (flow = SOL), breached (flow >SOL) and congested (either binding or breached) during the month.
- Time (in hours) during the month that flowgates were in TLR, Congested or Over the Limit.

TLR Time is the total period of time that the Reliability Coordinator (RC) issued a Transmission Loading Relief (TLR).

Binding/Breached Time is the the total period of time that the Security Constrained Economic Dispatch (SCED) engine was redispatching out of its normal economic order to relieve constraints on the system.

Over Limit Time is the total period of time that any real-time post-contingent flowgate flow was over the set rating of the flowgate.

GW curtailed is the number of GW curtailed using either schedules or market flow during TLR events.

- TLR Events by level (in hours)
  - Level 3 - curtailment of some non-firm schedules and market flow
  - Level 5 - curtailment of some non-firm and firm schedules and market flow

"A" Levels begin curtailing at the beginning of the next hour

"B" Levels begin curtailing immediately and lasts through the end of the next hour

Figures will be reported on a rolling thirteen month basis to allow comparison to prior seasons and similar months.

## 2. Regional Control Performance

Measures the aggregate performance to the NERC CPS (Control Performance Standards) of the Balancing Authorities in the region. This indicator is set based on the number of BAs within region that are in compliance with the NERC real time control performance standards (known as BAL-001 – Real Power Balancing Control Performance and BAL-002 – Disturbance Control Performance).

- CPS1 requires BAs to be in compliance for 100% of the periods measured within the month; and CPS2 requires BAs to be in compliance for 90% of the periods measured within the month.
- For the CPS1 standard, each BA's rolling 12 month performance is grouped into one of three performance bands (<100% [red], 100-150% [yellow], >150% [green]).
- The number of BA's whose CPS1 score falls into these bands is shown; with below 100% meaning non-compliant with the standard.
- CPS2 performance is depicted in the appropriate bands (<90% [red], 90-95% [yellow], >95% [green]) based on the monthly CPS2 score rather than a rolling 12 month average.

This sub-group of indicators provides a view of the effectiveness of the EIS market in the context of answering the following questions:

- What was the value of transmission services used in the month? (see Transmission Utilization)
- What was the average wholesale price paid in the region and what was its volatility? (see Price and Price Range)
- How much of the total congestion could be resolved through market mechanisms? (see Congestion Resolved by Market)
- What was the level of available generation offered to the market and EIS related energy sales in the month? (see Market Liquidity)

## 3. Transmission Utilization

Measures the volume of transmission service scheduled in the month in terms of the transmission service revenues paid by both Network Customers and Point-to-Point customers.

- The revenues paid by transmission customers are directly related to the amount of transactions scheduled on the transmission system and therefore provide a proxy as to the utilization of the transmission system in the period.
- The figure reported will be a simple sum of the transmission service revenues paid for Network Service, Firm Point-to-Point, and Non-Firm Point-to-Point transmission service.
- Figures will be reported on a rolling thirteen month basis to allow comparison to prior seasons and similar months.

## 4. Price and Price Ranges

Shows the EIS market prices for each market participant within the footprint on both a 12-month rolling average and for the previous month. It provides a summary of the average, high and low prices in each period.

## 5. Congestion - Uplift

Tracks amount of RNU (Revenue Neutrality Uplift) charged or credited to market participants during the month. RNU ensures settlement payments/receipts for each hourly settlement interval equal zero.

- Positive RNU - SPP receives insufficient revenue and "owes" market participants.
- Negative RNU - SPP receives excess revenue, which must be credited back to market participants.
- RNU Task Force has been re-convened to look at wide variation in monthly RNU.

Transmission & Market Indicators	<b>6. Market Liquidity</b>	<p>Measures the average daily MW capacity offered to the EIS market (dispatchable generation); presented as a percent of daily average capacity available in the hour.</p> <ul style="list-style-type: none"> <li>• Data was taken from the Resource Plans.</li> <li>• Average daily MWh sales into the EIS Market and their dollar value are shown as well.</li> <li>• Although no specific performance targets have been set, the intent is to monitor the trend of this index to identify significant deviations from average.</li> </ul>
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Financial Metrics	<b><i>Purpose of Financial Metrics</i></b>	
	This group of metrics provides a view of the organization's overall financial situation in terms of both the operating costs and settlement functions carried out.	
	<b>7. SPP Admin Fee Performance (Rolling)</b>	Measures actual costs incurred by SPP on an annual basis and compares this to the approved Admin Fee and Budgeted Net Revenue Requirement (NRR).
	<b>8 Budget Performance Monitor</b>	Measures the total actual operating expenses against the total budgeted operating expenses across the organization.
	<b>9 Financial Settlement Index</b>	Metric measures the timeliness of the financial settlements for both transmission billing and EIS market billing and provides a proxy for the strength of the organization's cash flow.
<b>10 Financial Disputes Index</b>	<p>Measures the number and value of disputes made with regards to the financial settlements of the markets. The objective in this area is twofold: (1) minimize the time to clear disputes; and (2) minimize the total value of dollars in dispute. The monthly indicators are the following three variables:</p> <ul style="list-style-type: none"> <li>Total number of disputes</li> <li>Total dollars in dispute</li> <li>Average # days to resolve disputes</li> </ul>	

Learning & Growth	<b><i>Purpose of Learning &amp; Growth Metrics</i></b>	
	These indicators provide insights to the organization's success in maintaining and supporting its desired staffing levels and employee growth plans.	
<b>11. Employee Turnover</b>	Measures both involuntary and voluntary turnover rates in the organization. Monthly turnover is charted on a rolling 12 month basis, while annual turnover ratio and number of employees is provided for historical purposes.	

<b>Performance</b>	<b><i>Purpose of Performance Metrics</i></b>	
	These Performance Metrics are divided into two categories, quarterly and annual, which describe the frequency with which they will be monitored. The metrics in this group focus on compliance and achievement of major initiatives. Only the NERC Compliance and IT System Availability metrics are reported as part of the Metrics Report document. The other measures in this category will be reported on a periodic basis in separate reports.	
	<b>12. NERC Compliance</b>	Measures SPP's compliance with all NERC standards. Status is green unless there is a self-reported violation of any criteria during the period. This metric excludes the control performance standards which are included in the Regional Control Performance metric.
	<b>13 IT System Availability</b>	Measures availability of SPP IT Systems. Target uptime for all systems is calculated to be not more than 10 minutes of unplanned outage per month. However, 100% availability is always the ultimate goal. Boxes showing green represent 100% actual uptime; yellow represents less than 100% uptime but under 10 minutes of unplanned outage; while red represents 10 minutes or more of unplanned outage.