



**Southwest Power Pool**  
**BOARD OF DIRECTORS/MEMBERS COMMITTEE MEETING**  
**September 29, 2006**  
**Sheraton Grand Hotel DFW, Dallas, Texas**  
**• A G E N D A •**

10:00 a.m. – 3:00 p.m. CDT

1. Call to Order ..... Mr. Jim Eckelberger
2. Status Update ..... Mr. Lanny Nickell
  - a. Executive Summary
  - b. Status by Area
3. Deployment Test Observations..... Mr. Lanny Nickell/Mr. Richard Dillon
4. Market Systems Update..... Ms. Barbara Sugg
5. Certification Filing \* ..... Mr. Jim Eckelberger
6. Go/No Go Process..... Mr. Lanny Nickell
7. Project Schedule..... Mr. Richard Dillon

\* Action Item

**SPP Board of Directors**  
**Imbalance Market Bi-Weekly Status Report**  
**9/29/06**

## Table of Contents

Executive Summary.....	3
Status .....	5
Upcoming Events (next two weeks).....	11
Appendices.....	13
A. Market Footprint Report	
B. System Wide Deployment Test Statistics	
C. Management Response to Failed and Late Metrics	
D. Metrics Due in Next 2 Weeks (Sept. 26 <sup>th</sup> thru Oct 15 <sup>th</sup> )	
E. Market Participant Readiness Comments	
F. Workarounds for a November 1 Implementation	
G. Deployment Test Observations	
H. Metrics Task Force Results	
I. Load Forecasting	
J. CAT Deliverability and Deployment Test Metrics Task Force Issues	
K. Curtailment Adjustment Tool (CAT)	
L. CPS2 Violations	
M. LIP Volatility	

## Executive Summary

At this time, SPP Management still believes that a November 1 go-live of the SPP Energy Imbalance Services (EIS) Market is achievable.

- Market Trials have progressed to the point that as of the end of the day, 9/26, Market Participants have had the opportunity to exercise all of the SPP market systems functionality, as well as review associated settlement statements, with one exception. The remaining functionality that should undergo more comprehensive testing is the day-ahead simultaneous feasibility analysis. Although the analysis is being routinely completed, the analysis has seldom identified infeasible solutions due to low load patterns so that few Market Participants have seen the associated reports. SPP will coordinate with Market Participants interested in testing this functionality to prepare structured scenarios that will result in infeasible solutions. This will allow those Market Participants to gain experience with the reporting mechanism and allow SPP to analyze those market participants' responses. This additional testing will begin after the September 26 deployment test and is expected to be completed prior to November 1.
- Recent deployment tests have included more comprehensive TLR and reserve sharing simulation scenarios. Patches for deficiencies identified in previous tests have been implemented and tested successfully. The number and significance of new operational, system, and procedural issues identified as a result of these deployment tests continue to decline in comparison with previous tests.
- System patches and work-arounds are expected to resolve the remaining issues identified thus far in deployment tests and therefore are not expected to interfere with the November 1 go-live. Noteworthy issues and associated work-arounds or enhancements that remain to be completed include:
  1. Occasionally erroneous ramp information is transferred from RTOSS to MOS resulting in erroneous NSI calculations. A system patch was tested and installed prior to the September 26 deployment test.
  2. CAT does not correctly handle TLR called in a reverse direction from that in which a particular flowgate is defined. A work-around has been identified and will be utilized until the appropriate system patch is installed after November 1.
  3. The display of curtailed NLS and tagged schedules requested by Market Participants is expected to be added to RTOSS on October 10.
- The results of the Market Operations Tools Readiness Task Force (MOTRTF) metrics, which measure operational parameters, continue to be of concern. SPP staff is particularly concerned about the metrics measuring Short-Term and Mid-Term Load Forecasts, which is discussed in Appendix J. On September 26, SPP installed a system patch intended to address this issue but needs at least one additional week to evaluate the effectiveness of this patch. Preliminary indications are that the patch will significantly improve SPP's ability to meet the metric required for Short-Term Load Forecast results.
- The findings of the various market participant task forces that were formed to validate the Market Implementation Task Force's (MITF) requested items were due 9/13. Some of the task forces have not finalized their findings as of September 25. SPP has included in this report written responses to those issues identified in any draft reports submitted as of September 25.
- The standby Market Operations System (MOS) database is available in production; however, a system patch that is expected to allow successful failover between the production primary and standby MOS databases is needed. Testing of this patch is expected to be completed in an offline environment by September 29 at which point the final production implementation date can be determined.

- SPP has prepared a draft letter for the FERC-mandated certification to be filed on September 29. SPP has highlighted in the draft filing many of the issues identified in this summary.

## Status

Legend	
<b>R</b>	An issue that if not corrected would prevent a November 1 implementation
<b>Y</b>	An issue that may be worked around or completed in the timeline that creates additional risk; however, the November 1 go-live is still anticipated to be viable
<b>G</b>	Item is ready to go-live on November 1

## Policy and Regulatory

Area	R/Y/G	Comments
<b>FERC</b>	<b>Y</b>	<ul style="list-style-type: none"> <li>SPP currently has pending the following filings: 05/22/2006 compliance filing from Commission's 03/20/2006 order (division of responsibilities between SPP and its Balancing Authorities); 08/21/2006 compliance filing from Commission's 07/20/2006 order (modifying tariff provisions relating to EIS market); 08/21/2006 request for clarification or rehearing of Commissions' 07/20/2006 order (dealing with offer caps); and 09/01/2006 filing of new tariff provisions, including new effective date, and compliance materials currently pending.</li> <li>60 days prior to implementation filing was submitted.</li> <li>30 days prior to implementation certification filing - pending.</li> <li>Additional compliance filings are due on 1/2/2007 (Tariff provisions dealing with inclusion of external generators into market) and 11/1/2007 (design of automated systems check for transmission reservations to settlement locations; evaluation of TDUs participating in consolidated settlement location; and report dealing with incorporation of demand response into market).</li> <li>While not a FERC certification requirement, there are three dates on which the Go-No-Go Advisory Team will re-evaluate readiness (10/23/06, 10/30/06, and 10/31/06)</li> </ul>
<b>NERC</b>	<b>G</b>	<ul style="list-style-type: none"> <li>On September 20<sup>th</sup> the NERC Operating Reliability Subcommittee (ORS) approved a motion stating: "The ORS accepts the SPP Response to the NERC Technical Verification Team's Report and supports, based upon the additional information by SPP, the starting of the SPP Market."</li> </ul>
<b>State Regulatory</b>	<b>G</b>	<ul style="list-style-type: none"> <li>Order issued 9/19/2006 by the Kansas Corporation Commission granting SPP a limited Certificate of Convenience and Authority without conditions. This Order completes the pending filings of SPP and/or its Members regarding the Transfer of Functional Control and the EIS Market.</li> </ul>
<b>MITF</b>	<b>Y</b>	<ul style="list-style-type: none"> <li>The metrics task force results received by SPP highlighted some concerns and issues. Responses are included in the Appendices.</li> </ul>

### Testing

Area	R/Y/G	Comments
Testing	G	<ul style="list-style-type: none"> <li>There are 34 open system issues that need to be resolved prior to go-live. Of the 34 issues, 25 were identified during market trials and the remaining 9 have been requested by SPP staff based on market trials experience.</li> </ul>

### Market Trials

Area	R/Y/G	Comments
Certification (to Offer into the Market)	G	<ul style="list-style-type: none"> <li>No change in status.</li> </ul>
Deployment Tests	Y	<ul style="list-style-type: none"> <li>On 9/13, SPP conducted 4 hour Deployment test:               <ul style="list-style-type: none"> <li>15 CPS2 violations occurred (average of 3.75 violations per hour)</li> <li>1 RSS event Tested</li> <li>2 CAT Scenarios Tested, previously identified system issues were successfully retested</li> </ul> </li> <li>On 9/18, SPP conducted 4 hour Deployment test:               <ul style="list-style-type: none"> <li>25 CPS2 violations occurred (average of 6.25 violations per hour)</li> <li>Out of Order Merit Energy (OOME) Instructions tested</li> <li>2 CAT Scenarios Tested, previously identified system issues were successfully retested.</li> </ul> </li> <li>On 9/20, SPP conducted an 8 hour Deployment test, the longest to date:               <ul style="list-style-type: none"> <li>12 CPS2 violations occurred (average of 1.5 violations per hour)</li> <li>Out of Order Merit Energy (OOME) Instructions tested</li> <li>3 CAT Scenarios Tested, previously identified system issues were successfully retested</li> <li>2 RSS Events (one Joint Owned Unit and one non- Joint Owned Unit) Tested, previously identified system issue was successfully retested</li> </ul> </li> <li>3 more tests are planned; 1 prior to the FERC certification date.</li> <li>During the 9/20 test, SPP identified a necessary fix to CAT that will be implemented in time for the 9/26 test. We will continue testing in this area</li> <li>Additional tests include: CAT, and transition / reversion.</li> <li>Market Participants have questioned LIP Volatility. See Appendix for SPP Management Response.</li> </ul>
Structured Scenario Tests	Y	<ul style="list-style-type: none"> <li>The MITF decided to move forward into Parallel Operations – V (POPS V) without closing Structured Scenario Testing or Parallel Operations – IV. The MITF will continue to evaluate each cycle of Market Trials once completed and determine the value of moving forward based on the open issues and status of applicable metrics.</li> </ul>
Settlements	Y	<ul style="list-style-type: none"> <li>10 of 23 Market Participants returned settlement verification</li> </ul>

		acknowledgement forms for at least one week of Structured Scenario Testing.
--	--	---



**Applications and Infrastructure**

Area	R/Y/G	Comments
<b>Architecture</b>	Y	<ul style="list-style-type: none"> <li>The standby database is running in production; however, the overall standby implementation is not complete. The next steps include installation and testing of a patch from Oracle.</li> <li>Patches have been applied to the Production system to address the issue with slow running studies. As of 9/26, we have run for over 3 days without observing any slow running real time studies.</li> </ul>
<b>Applications</b>	Y	<ul style="list-style-type: none"> <li>During Parallel Operations IV Testing (9/11 - 9/20) 2706 of 2798 (96.7%) planned five-minute cases solved successfully. 3858 of 3996 (96.5%) of all other types of studies solved successfully. 98% of all dispatch instructions were sent successfully from SPP and the portal was available 100% of the time.</li> </ul>

**SPP Management Commentary on Internal Department Readiness**

Area	R/Y/G	Comments
<b>Department Readiness Summary</b>	Y	<ul style="list-style-type: none"> <li>Staffing contingency plans are being implemented for market operations.</li> </ul>

**Market Participant Readiness (As reported by Market Participants)\***

Area	R/Y/G	Comments
<b>Market Participants Ready to Go-live Now</b>	<b>G</b>	<ul style="list-style-type: none"> <li>• Tenaska Power Services</li> </ul>
<b>Market Participants Expected to be Ready to Go-live</b>	<b>Y</b>	<ul style="list-style-type: none"> <li>• Arkansas Electric Cooperative Corporation</li> <li>• American Electric Power</li> <li>• Calpine Energy Services</li> <li>• Entergy Power Ventures</li> <li>• Grand River Dam Authority</li> <li>• Kansas City Board of Public Utilities</li> <li>• Kansas City Power &amp; Light</li> <li>• Kansas Electric Power Coop</li> <li>• Kansas Power Pool</li> <li>• Oklahoma Gas and Electric</li> <li>• Oklahoma Municipal Power Authority</li> <li>• Western Farmers Electric Cooperative</li> <li>• Westar Energy</li> </ul>
<b>Market Participants that Do Not Expect to be Ready</b>	<b>R</b>	<ul style="list-style-type: none"> <li>• Coral Power</li> <li>• Kansas City Board of Public Utilities</li> <li>• Southwestern Public Service Company</li> <li>• Sunflower Electric Cooperative</li> <li>• Aquila Inc</li> </ul>
<b>Market Participants Not Responding</b>	<b>Y</b>	<ul style="list-style-type: none"> <li>• Empire District Electric</li> <li>• Exelon Generation Company</li> <li>• Golden Spread Electric Cooperative</li> <li>• ONEOK Energy Marketing and Trading</li> <li>• Redbud Energy</li> </ul>

*\*See Appendix F for specific comments received by Market Participants*

**SPP Management Commentary on Market Participant Readiness**

Area	R/Y/G	Comments
<b>Market Participant Readiness Summary</b>	<b>R</b>	<ul style="list-style-type: none"> <li>The Coral Power response reflected a concern about the ability to offer into the market and follow market dispatch instructions, which Coral does not have since they have not completed the required test. This does not affect the ability to go-live.</li> <li>The Kansas City Board of Public Utilities states that they “will continue to work diligently toward the Energy Imbalance Service Market, but cannot certify for a November 1 start at this time”.</li> <li>Sunflower Electric Power Cooperative does not believe that their software will be ready for November 1 go-live.</li> <li>Southwestern Public Service Company reports that they will not be ready, although the submitted comments seem to indicate their concern is with SPP readiness. Additionally, SPP has noted that Xcel is still working on contract issues with third parties in their balancing authority area that cause SPP some concern. One is with a Wind Facility for which, to-date, neither party is willing to accept responsibility. Another is the operating relationship between Xcel and a third party and the responsibility for submission of appropriate data. The consequences of these issues include the possibility that the resources may not be able to inject power or Xcel will be required to carry additional regulation in order to offset the injections.</li> <li>Aquila reports that they will not be ready due to concerns about their Net Schedule Interchange.</li> <li>Although many of the situations above may be education about the options in the market when generation is not market deployed, the addition of other participants statements about lack of readiness at this point in time may prevent going live on November 1.</li> </ul>

## Upcoming Events (October)

### Policy and Regulatory

- Certification due to FERC on 9/29
- SPP Board of Directors Status Report on 10/13
- SPP Board of Directors Annual Meeting on 10/24
- MWG Meeting on 10/5 - 6
- MOPC Meeting on 10/10 – 11
- Go / No Go Decision on 10/23
- Go / No Go Decision on 10/30
- Go / No Go Decision on 10/31

### Market Trials

- Deployment Test on 10/4
- Deployment Test on 10/11

### Applications and Infrastructure

- Completion of Production Market Operations System standby system
- Shutdown and Cleanup on 10/17

## Appendix A: Market Footprint Report

Market Footprint Report				
Market Participant	Max Generation in MW	Number of Assets	Certified Assets	Number of Load Points
Arkansas Electric Cooperative Corporation	657	4	X	1
American Electric Power	10929	41	X	2
Calpine Energy Services	1244	3	X	0
Coral Power	2282	3		0
Empire District Electric	1620	16	X	1
Entergy Power Ventures	580	1	X	0
Exelon Generation Company	894	1	X	0
Grand River Dam Authority	1504	5	X	2
Golden Spread Electric Cooperative	630	2	X	3
Kansas City Board of Public Utilities	622	7	X	1
Kansas Electric Power Coop	N/A	0	N/A	1
Kansas City Power & Light	4347	25	X	1
Kansas Power Pool	N/A	0	N/A	7
Oklahoma Gas and Electric	7042	26	X	1
Oklahoma Municipal Power Authority	200	3	X	3
ONEOK Energy Marketing and Trading	336	1		0
Redbud Energy	1264	1	X	0
Sunflower Electric Cooperative	570	5	X	1
Southwestern Public Service Company	5825	45	X	1
Tenaska Power Services	260	1	X	0
Aquilia Inc	785	9	X	1
Western Farmers Electric Cooperative	1349	7	X	3
Westar Energy	6176	35	X	4
<b>Total</b>	<b>49116</b>	<b>241</b>	<b>237</b>	<b>33</b>

## Appendix B: System Wide Deployment Test Statistics

System-Wide Deployment Control Test								
Date	Scenario	Peak Load	Total MW Level Offered	Total MW Level Deployed	Min LIP	Median LIP	Max LIP	Market Participants Not Participating
9/20/06	CAT/RSS/OOME Scenarios: 8 Hours <i>10 AM to 6 PM CDT</i>	21,848 MW	8,074 MW	12,988 MW	\$14.83	\$36.16	\$2089.72	• KPP (Load Only)
9/18/06	CAT/OOME Scenarios: 4 Hours <i>5 PM to 9 PM CDT</i>	28,935 MW	6,720 MW	9,707 MW	\$28.16	\$35.30	\$39.32	• KPP (Load Only)
9/13/06	CAT/RSS Scenarios: 4 Hours <i>10 AM to 2 PM CDT</i>	21,532 MW	9,416 MW	12,530 MW	\$(631.37)	\$48.61	\$7197.85	
9/10/06	Evening Drop Off: 4 Hours <i>9 PM to 1 AM CDT</i>	22,742 MW	9,583 MW	14,345 MW	\$(450.87)	\$24.48	\$57.07	
9/6/06	CAT Scenario: 3 Hours <i>12 noon – 3 PM CDT</i>	23,586 MW	8,915 MW	14,297 MW	\$(67.06)	\$57.39	\$302.76	
8/30/06	Morning Ramp: 4 Hours <i>5 AM – 9 AM CDT</i>	19,879 MW	8,050 MW	10,032 MW	\$(463.06)	\$24.80	\$162.12	
8/15/06	Evening Drop Off: 4 Hours <i>9 PM to 1 AM CDT</i>	27,468 MW	10,565 MW	13,674 MW	\$(2,615.71)	\$43.96	\$679.57	<ul style="list-style-type: none"> <li>• Coral Power</li> <li>• Entergy Power Ventures</li> <li>• Exelon Generation Company</li> <li>• Golden Spread Electric Cooperative</li> <li>• ONEOK Energy Marketing &amp; Trading</li> </ul>

System-Wide Deployment Control Test								
Date	Scenario	Peak Load	Total MW Level Offered	Total MW Level Deployed	Min LIP	Median LIP	Max LIP	Market Participants Not Participating
8/11/06	Peak Load: 3 Hours <i>11 AM to 2 PM CDT</i>	31,216 MW	8,552 MW	12,318 MW	\$(324.35)	\$68.20	\$1705.15	<ul style="list-style-type: none"> <li>• Coral Power</li> <li>• Entergy Power Ventures</li> <li>• Exelon Generation Company</li> <li>• Golden Spread Electric Cooperative</li> <li>• ONEOK Energy Marketing &amp; Trading</li> </ul>
6/28/06	Summer Peak: 3 Hours (Note: test terminated early after 2 hours) <i>11 AM to 2 PM CDT</i>	24,961 MW	12,122 MW	12,367 MW	\$(4.19)	NA	\$114.84	<ul style="list-style-type: none"> <li>• Arkansas Electric Cooperative Corporation</li> <li>• Calpine Energy Services</li> <li>• Coral Power</li> <li>• Entergy Power Ventures</li> <li>• Exelon Generation Company</li> <li>• Oklahoma Municipal Power Authority</li> <li>• ONEOK Energy Marketing &amp; Trading</li> <li>• Tenaska Power Services</li> </ul>
6/21/06	Summer Peak: 2 Hours <i>12 PM to 2 PM CDT</i>	29,870	6,306 MW	7,974 MW	\$(38.73)	NA	\$854.99	<ul style="list-style-type: none"> <li>• Arkansas Electric Cooperative Corporation</li> <li>• Calpine Energy Services</li> <li>• Coral Power</li> <li>• Entergy Power Ventures</li> <li>• Exelon Generation Company</li> <li>• Oklahoma Municipal Power Authority</li> <li>• ONEOK Energy Marketing &amp; Trading</li> <li>• Tenaska Power Services</li> </ul>

System-Wide Deployment Control Test								
Date	Scenario	Peak Load	Total MW Level Offered	Total MW Level Deployed	Min LIP	Median LIP	Max LIP	Market Participants Not Participating
5/9/06	Flat Load: 1 Hour 12 PM to 1 PM CDT	27,769	4,150 MW	5,332 MW	\$53.85	\$53.85	\$53.85	• Data not available

Legend	
<b>Peak Load</b>	Peak SPP market footprint load during the test.
<b>Total MW Level Offered</b>	Peak range of MWs deployable by the market system (technical explanation: resource plan maximum minus resource plan minimum for available resources with ramp rate not equal to zero).
<b>Total MW Level Deployed</b>	Peak sum of deployment instructions for those resources that were deployed.
<b>Min, Median and MAX LIP</b>	Hourly minimum, average and maximum locational imbalance prices.



## Appendix C: Management Response to Failed and Late Metrics\*

Legend	
<b>R</b>	Continued failure or lateness of task measured by metric has a significant impact to the ability to go-live November 1.
<b>Y</b>	Failure or lateness of task measured by metric is not yet resolved; however, task is expected to be complete or there is a viable work around so as not to impact a November 1 go-live.
<b>G</b>	Failure or lateness of task measured by metric has since been resolved or does not present a risk to go-live on November 1.

\* Note: Full metrics are provided separate from this status document. If more information is desired, the management response can be cross-referenced to the actual metric using the Metric Reference column.

Metric Reference	Readiness Metric	Status	Management Response	Risk
14.18	Market Participant Certification due to SPP	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>Date was changed to 9/27 from 9/25, which is why it's late.</li> </ul>	<b>Y</b>
17.3	At least 97.5% of Hour Ahead Balancing Studies solve within 30 minutes for the duration of the testing cycle	Failed Release 3 Metrics	<ul style="list-style-type: none"> <li>Metric failed due to the slow running RTB cases. SPP has received a fix for this issue which has been running successfully for three days in production.</li> </ul>	<b>Y</b>
17.4	At least 99% of 5-minute Real-time Balancing studies solve in less than 5 five minutes for the duration of the testing cycle	Failed Release 3 Metrics	<ul style="list-style-type: none"> <li>Same as 17.3.</li> </ul>	<b>Y</b>
17.5	No more than 3 Real-time Balancing studies fail in a row for the duration of the testing cycle	Failed Release 3 Metrics	<ul style="list-style-type: none"> <li>Same as 17.3.</li> </ul>	<b>Y</b>
17.10	ICCP availability of 99.5% throughout the testing cycle	Failed Release 3 Metrics	<ul style="list-style-type: none"> <li>Passed 9 out of 10 days.</li> <li>Issue identified on the 10<sup>th</sup> day is an issue with existing production systems (and being managed accordingly).</li> </ul>	<b>Y</b>

Metric Reference	Readiness Metric	Status	Management Response	Risk
17.11	Real-Time EIS Calculations successful ninety-nine percent (99%) of five (5) minute solutions for the duration of the testing cycle	Failed Release 3 Metrics	<ul style="list-style-type: none"> <li>Passed 8 out of 10 days.</li> <li>2 days that metric failed were the same issue as 17.3.</li> </ul>	
17.12	Market Flow Calculations successful ninety-seven percent (97%) of fifteen (15) minute solutions for the duration of the testing cycle	Failed Release 3 Metrics	<ul style="list-style-type: none"> <li>Passed 9 out of 10 days.</li> <li>1 day that metric failed was the same issue as 17.3.</li> </ul>	
17.15	Technical Test executed successfully.	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>This metric has passed for all systems except CAT. We expect that CAT will pass prior to the end of Market Trials.</li> </ul>	
17.17	FERC Reports Completed	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>One market monitoring report is two weeks late, but will not affect production date.</li> </ul>	
18.5	The Market Metrics Deployment Task Force renders an opinion that ACE maintained within range historically experienced by control area unless deviation is explained and explanation accepted by the control area as a deviation that should not interfere with normal market operations	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>Metric passed (late) on 9/22 instead of the original due date of 9/13.</li> </ul>	
18.6	The Market Metrics Deployment Task Force renders an opinion that NSI calculation 100% accurate	Failed Release 3 Metrics	<ul style="list-style-type: none"> <li>See Metrics Task Force Appendix.</li> </ul>	
18.7	The Market Metrics Deployment Task Force renders an opinion that constraints managed in accordance with NERC priorities and SPP protocols and tariff, and CAT working effectively to issue curtailment instructions	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>Metric is late, have not received response from task force.</li> </ul>	

Metric Reference	Readiness Metric	Status	Management Response	Risk
18.8	The Market Metrics Deployment Task Force renders an opinion that No line limits violated	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>• Same as 18.7.</li> </ul>	
18.9	The Market Metrics Deployment Task Force renders an opinion that LIPs within expected ranges	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>• Metric passed (late) on 9/22 instead of the original due date of 9/13.</li> </ul>	
18.45	No single Control Area can exceed 3 CPS2 violations for the duration of the 9/13 deployment testing period	Failed Release 3 Metrics	<ul style="list-style-type: none"> <li>• There were 15 CPS2 violations during this test (10 were related to a unit outage).</li> <li>• This metric has been passed in a prior test cycle and is also tracked in future cycles.</li> <li>• See Metrics Task Force Appendix.</li> </ul>	
18.49	No single Control Area can exceed 3 CPS2 violations for the duration of the 9/18 deployment testing period	Failed Release 3 Metrics	<ul style="list-style-type: none"> <li>• There were 25 CPS2 violations during this test (8 in one control area).</li> <li>• See Metrics Task Force Appendix.</li> </ul>	
21.10	Market Participants representing at least 80% of Market Footprint Generation return completed settlement statement and invoice verification spreadsheet acknowledging retrieval and review of applicable settlement statements and invoices	Failed Release 3 Metrics	<ul style="list-style-type: none"> <li>• 79.7% returned the requested forms.</li> <li>• SPP is not concerned about the response rate at this time.</li> </ul>	

Metric Reference	Readiness Metric	Status	Management Response	Risk
21.15	Market Participants representing at least 80% of Market Footprint Generation successfully test meter data view/query by OD functionality based on SPP provided test script and expected results for Structured Scenario Testing	Failed Release 3 Metrics	<ul style="list-style-type: none"> <li>63.6% returned the requested forms.</li> </ul>	Y
21.17	Market Participants representing at least 80% of Market Footprint Generation verify receipt of substitute LIP indicator on at least one Settlement Statement for Structured Scenario Testing	Failed Release 3 Metrics	<ul style="list-style-type: none"> <li>73.8% returned the requested forms.</li> </ul>	Y
21.25	The Market Metrics Settlements Task Force renders an opinion that 75% of Market Participants certify that they are able to download settlement statements and invoices or payout reports	Failed Release 3 Metrics	<ul style="list-style-type: none"> <li>50% returned the requested forms.</li> <li>See Metrics Task Force appendix.</li> </ul>	Y
21.34	The Market Metrics Settlements Task Force renders an opinion that all adjustments on the payout report are properly allocated	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>Task force conditionally passed this item pending confirmation once market is in production.</li> </ul>	
24.2	Performance Testing Executed Successfully	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>Open item is a server upgrade.</li> <li>Market trials to date has not shown the same performance issues identified during the test.</li> </ul>	
24.14	SPP Business Owners sign off on operational readiness testing as validating key performance areas working to specifications necessary for market go live	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>Same as 24.2.</li> </ul>	

Metric Reference	Readiness Metric	Status	Management Response	Risk
24.15	Technical Test executed successfully.	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>This metric has passed for all systems except CAT. We expect that CAT will pass prior to the end of Market Trials.</li> </ul>	Y
24.16	Infrastructure freeze date milestone met	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>The open item remains the implementation of the standby system.</li> </ul>	Y
25.4	Integration Test Release 3.1 High and Critical SIRs resolved	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>Market trials SIRs are not fully resolved.</li> <li>SPP still believes all known issues are solve-able prior to November 1<sup>st</sup>.</li> </ul>	Y
26.1	MITF approval of Parallel Operations IV Testing	Failed Release 3 Metrics	<ul style="list-style-type: none"> <li>Phase will remain open until slow running RTB and STLF issue is resolved.</li> <li>Slow running RTBs is same as 17.3; STLF is addressed in Metrics Task Force Appendix.</li> </ul>	Y
27.1	The Market Metrics Curtailment Adjustment Tool/ Deliverability Analysis Task Force renders an opinion that during constrained conditions, 100% of constraints were relieved strictly in accordance with Market Protocols and the CAT/DA Design	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>See Metrics Task Force Appendix.</li> </ul>	Y
27.2	The Market Metrics Curtailment Adjustment Tool/ Deliverability Analysis Task Force renders an opinion that all applicable MPs received appropriate communications directing relief or need for relief of a constraint for the appropriate time period	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>Same as 27.1.</li> </ul>	Y

Metric Reference	Readiness Metric	Status	Management Response	Risk
27.3	The Market Metrics Curtailment Adjustment Tool/ Deliverability Analysis Task Force renders an opinion that identified constraints were relieved in accordance with Market Protocols and the CAT and DA designs.	Late Release 3 Metrics	• Same as 27.1.	
27.4	The Market Metrics Curtailment Adjustment Tool/ Deliverability Analysis Task Force renders an opinion that appropriate Tagged and NLS schedules were curtailed	Late Release 3 Metrics	• Same as 27.1.	
27.5	The Market Metrics Curtailment Adjustment Tool/ Deliverability Analysis Task Force renders an opinion that curtailed schedules were removed from the Market engine and that the curtailments were appropriately reflected in the Balancing Area NSI	Late Release 3 Metrics	• Same as 27.1.	Y
27.6	The Market Metrics LIPs Task Force renders an opinion that LIPs calculated manually must be identical to LIPs calculated by MOS	Late Release 3 Metrics	• Same as 27.1.	Y
27.7	The Market Metrics Load Task Force renders an opinion that Day ahead forecasts developed by MPs serving load and SPP fall within a range of $\pm 10\%$ for 90% of hours during Parallel Operations IV - Release 3.	Late Release 3 Metrics	• Same as 27.1.	

Metric Reference	Readiness Metric	Status	Management Response	Risk
27.8	The Market Metrics Load Task Force renders an opinion that SPP day ahead load forecasts must be within 4% of the load calculated in SPP settlement statement reported load for 90% of hours during Parallel Operations IV - Release 3	Late Release 3 Metrics	<ul style="list-style-type: none"> <li>• Same as 27.1.</li> </ul>	Y

## Appendix D: Metrics Due in Next 2 Weeks (Sept. 26<sup>th</sup> thru Oct. 15<sup>th</sup>)

Reference Number	Type	Readiness Metric	Comments	Target	Actual
14.15	Exit	SPP submits written response to NERC addressing the concerns identified in the initial NERC verification team report.		9/20/2006	
14.18	Exit	Market Participant Certification due to SPP		9/25/2006	
<b>17. Parallel Operations IV - Release 3 (9/11 - 9/20)</b>					
17.2	Exit	Market Participants representing at least 80% of Market Footprint Generation submit Market and schedule data consistent with SPP protocols and timelines, using their expected production submission methods, for at least 3 consecutive days	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20		
17.3	Exit	At least 97.5% of Hour Ahead Balancing Studies solve within 30 minutes for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20		
17.4	Exit	At least 99% of 5-minute Real-time Balancing studies solve in less than 5 five minutes for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20		
17.5	Exit	No more than 3 Real-time Balancing studies fail in a row for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20		
17.6	Exit	Market Operations Portal functionality is available at least 99.5% of the time for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20		
17.7	Exit	State Estimator has ninety-seven percent (97%) availability of five (5) minute solutions for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20		
17.8	Exit	State Estimator solves 90% of the time with Mismatch level lower than 50 MW and with high accuracy throughout the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20		
17.9	Exit	Short term load forecast solves 97% of time with high accuracy (+/- 1%) throughout the testing cycle and Mid term load forecast solves 95% of time with high accuracy(+/- 3%) for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20		
17.10	Exit	ICCP availability of 99.5% throughout the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20		
17.11	Exit	Real-Time EIS Calculations successful ninety-nine percent (99%) of five (5) minute solutions for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20		
17.12	Exit	Market Flow Calculations successful ninety-seven percent (97%) of fifteen (15) minute solutions for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20		
17.13	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20		
17.14	Exit	Market Participants representing ≥ 80% of Market Footprint Generation Successfully Completed Parallel Operations IV based upon Market Trials Success Criteria	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20		
17.17	Exit	FERC Reports Completed	The reports required by FERC are completed by the Market Monitoring Group	9/16/2006	



Reference Number	Type	Readiness Metric	Comments	Target	Actual
<b>18. Deployment Testing (5/9 - 9/14)</b>					
<b>9/18 Deployment Test</b>					
18.43	Exit	At least 90% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 85% of the 9/18 deployment test duration			
18.44	Exit	No more than 18 CPS2 violations across all Market Footprint Control Areas for the duration of the 9/18 deployment testing period	Based on 3 hour test and 10 Market Control Areas (10 CAs * 3 hours * 6 intervals per hour * 10%)		
18.45	Exit	No single Control Area can exceed 2 CPS2 violations for the duration of the 9/18 deployment testing period	Based on 3 hour test (3 hours * 6 intervals per hour * 10%)		
18.46	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the deployment test.			
<b>9/20 Deployment Test</b>					
18.47	Exit	At least 90% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 85% of the 9/20 deployment test duration			
18.48	Exit	No more than 18 CPS2 violations across all Market Footprint Control Areas for the duration of the 9/20 deployment testing period	Based on 3 hour test and 10 Market Control Areas (10 CAs * 3 hours * 6 intervals per hour * 10%)		
18.49	Exit	No single Control Area can exceed 2 CPS2 violations for the duration of the 9/20 deployment testing period	Based on 3 hour test (3 hours * 6 intervals per hour * 10%)		
18.50	Exit	Market transition and reversion plan successfully executed			
18.51	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the deployment test.			
<b>9/27 Deployment Test</b>					
18.52	Exit	At least 90% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 85% of the 9/20 deployment test duration			
18.53	Exit	No more than 18 CPS2 violations across all Market Footprint Control Areas for the duration of the 9/20 deployment testing period	Based on 3 hour test and 10 Market Control Areas (10 CAs * 3 hours * 6 intervals per hour * 10%)		
18.54	Exit	No single Control Area can exceed 2 CPS2 violations for the duration of the 9/20 deployment testing period	Based on 3 hour test (3 hours * 6 intervals per hour * 10%)		
18.55	Exit	Market transition and reversion plan successfully executed			
18.56	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the deployment test.			
<b>9/6, 9/12, 9/18, 9/20, 9/27 Deployment Tests</b>					
18.57	Exit	Approval of completion of 9/6, 9/12, 9/18, 9/20, and 9/27 Deployment Tests based upon Market Trials Success Criteria			
18.58	Exit	MITF approves closure of 9/6, 9/12, 9/18, 9/20, and 9/27 Deployment Tests and submits motion to MWG			
<b>19. Parallel Operations Days (6/7 - 10/16)</b>					
19.4	Tracking	Successful participation in POD testing during September	Participants representing 80% of generation have participated in September POD testing  September POD testing dates: 9/12, 9/20, 9/27	10/1/2006	

Reference Number	Type	Readiness Metric	Comments	Target	Actual
<b>21. Settlements - Release 3 (7/31 - 10/19)</b>					
<b>Structured Scenario Testing - Release 3</b>					
21.10	Tracking	Market Participants representing at least 80% of Market Footprint Generation return completed settlement statement and invoice verification spreadsheet acknowledging retrieval and review of applicable settlement statements and invoices	Date rescheduled from 9/7 to 9/14	9/14/2006	
21.11	Tracking	Initial, Final, and Resettlement Statements are validated and posted for each Operating Day of the Structured Scenario testing cycle	Date rescheduled from 9/7 to 9/14	9/14/2006	
21.12	Tracking	Invoices that contain all Settlement Statements from the testing cycle are published during the Structured Scenario testing cycle	Date rescheduled from 9/7 to 9/14	9/14/2006	
21.13	Tracking	Market Participants representing at least 80% of Market Footprint Generation successfully test Meter Agent role functionality based on SPP provided test script and expected results for Structured Scenario Testing	Date rescheduled from 9/7 to 9/14	9/14/2006	
21.14	Tracking	Market Participants representing at least 80% of Market Footprint Generation successfully test Settlement Statement view/query by Settlement Date functionality based on SPP provided test script and expected results for Structured Scenario Testing	Date rescheduled from 9/7 to 9/14	9/14/2006	
21.15	Tracking	Market Participants representing at least 80% of Market Footprint Generation successfully test meter data view/query by OD functionality based on SPP provided test script and expected results for Structured Scenario Testing	Date rescheduled from 9/7 to 9/14	9/14/2006	
21.16	Tracking	Market Participants representing at least 80% of Market Footprint Generation verify receipt of Miscellaneous Charges/Credits on at least one Settlement Statement for Structured Scenario Testing	Date rescheduled from 9/7 to 9/14	9/14/2006	
21.17	Tracking	Market Participants representing at least 80% of Market Footprint Generation verify receipt of substitute LIP indicator on at least one Settlement Statement for Structured Scenario Testing	Date rescheduled from 9/7 to 9/14	9/14/2006	
<b>Parallel Operations IV - Release 3.1</b>					
21.18	Exit	At least 80% of Market Assets have meter data submitted for each settlement statement produced during the Parallel Operations IV testing cycle		9/27/2006	
21.19	Exit	At least 80% of Market Loads have meter data submitted for each settlement statement produced during the Parallel Operations IV testing cycle		9/27/2006	
21.20	Exit	At least 10 Control Areas submit Interchange Meter data for each settlement statement produced during the Parallel Operations IV testing cycle	Based on 11 Control Areas * 90%	9/27/2006	
21.21	Exit	Market Participants representing at least 80% of Market Footprint Generation return completed settlement statement and invoice verification spreadsheet acknowledging retrieval and review of applicable settlement statements and invoices		9/28/2006	
21.22	Exit	Initial, Final, and Resettlement Statements are validated and posted for each Operating Day of the Parallel Operations IV testing cycle		9/28/2006	
21.23	Exit	Invoices that contain all Settlement Statements from the testing cycle are published during the Parallel Operations IV testing cycle		9/28/2006	
21.24	Exit	Market Participants representing at least 80% of Market Footprint Generation successfully test Meter Agent role functionality based on SPP provided test script and expected results for Parallel Operations IV		9/27/2006	
<b>26. Parallel Operations V - Release 3.1 (9/26 - 10/6)</b>					
26.1	Entry	MITF approval of Parallel Operations IV Testing	MITF approval of close of cycle		

## Appendix E: Market Participant Readiness Comments

### Summary

The following comments are reported as received by SPP from Market Participants when collecting Market Participant readiness information.

### Market Participant Submitted Comments on Readiness

Market Participant	Comments
Arkansas Electric Cooperative Corporation	Initially some functionality may be implemented manually
American Electric Power	See comments below.
Calpine Energy Services	
Coral Power	Coral is not capable of participation until after certification with a deployment test when market conditions warrant dispatch into the SPP market.
Empire District Electric	
Entergy Power Ventures	This assumes no further changes to Specifications or software that could affect our internal systems. EPV is also assuming that per SPP request we will not use 'manual' status during plant start up but will schedule this power and set the resource status = 'self-scheduled' and we will not be labeled as UDC's during these periods.  LIP volatility from SPP systems seems excessive and is of a concern.
Exelon Generation Company	
Grand River Dam Authority	GRDA is still working with SPP to resolve issues to correctly account for our pump storage load. We believe we have a solution that will be tested on the 25 <sup>th</sup> and 26 <sup>th</sup> deployment test. Our only other issue is testing our settlement statement procedure. Our meter submission still has not been completed to be able to complete our settlement statement comparison.
Golden Spread Electric Cooperative	
Kansas City Board of Public Utilities	As of this date KCBPU faces many issues that we can not state will be resolved by November 1. KCBPU will continue to work toward resolving these issues in a timely manner.
Kansas Electric Power Coop	
Kansas City Power & Light	At this time, KCPS still has issues that need to be tested and/or addressed. Those issues include (but are not limited to): widely fluctuating LIPs during deployment tests; successful testing of our settlement statements; disgorgement due to curtailments; concerns about CAT; joint owned units interfaces; SPP short-term load forecast variations; and use of self-schedule for start-up/shut-down of units. Failure to successfully resolve these issues during upcoming tests would result in us changing our status to 'red'.
Kansas Power Pool	

Oklahoma Gas and Electric	The OG&E settlements system and processes are being tested from end to end. We are becoming more comfortable with those processes and their results, and expect to have them internally certified by late September. The training of our operations and settlements staff is progressing, and OG&E's core group is fully engaged in training the larger group of operating and settlement personnel while participating in the numerous MITF, MWG, and Market Testing conference calls. OG&E's continues to address the JOU issues for its participation in the EIS Market. A few contractual and scheduling procedures are outstanding, but we anticipate completion by October 1st. Sarbanes Oxley issues are currently being evaluated with expectations of full compliance by October 1st.
Oklahoma Municipal Power Authority	
ONEOK Energy Marketing and Trading	
Redbud Energy	
Sunflower Electric Power Corporation	Our software is not ready yet, but we are working to get it there. We also have concerns with the deployment tests that have been taking place. Please note the correct name for our organization.
Southwestern Public Service Company	See comments below.
Tenaska Power Services	
Aquila Inc	Our NSI is critical to our being ready and currently it is not accurate. In addition, the SPP process for handling dynamics Schedules inadequate. Further we are concerned that the SPP systems and the MP integrated systems may not be ready by market go-live and this is a major concern.
Western Farmers Electric Cooperative	ICCP failure caused SPP to attempt to deploy our resources to 0 MW on 9/20.
Westar Energy	Westar Comments : 1) during 9/20 deployment test, Westar had their native load schedules go to ZERO (from 100) after submission. This being investigated by Westar, SPP and OATI. 2) Westar does not consider the STLF ready for market go-live. Improvements must be made for events such as evening lighting load pick up. Also what is (should be) included in the STLF (KPP or not) needs to be resolved. 3) during CAT curtailments requesting 1 MW of relief, why were we cut 276 MW and KCPL another 200MW? 4) MP training of process and tools is difficult. Training of system operators continues to be difficult with market and API problems.

### **American Electric Power**

AEP has the following concerns related to Market Readiness:

- i.) It is still unclear to AEP how Market Participants will be notified of NLS curtailments. Within the deployment tests the real-time indications for the NLS curtailments were only available through a messaging view within RTOSS. This process required AEP staff to manually interpret and react to the NLS curtailments. Under the current process AEP will require additional staff effort in the areas of real time market operations, and settlements to manage the NLS adjustments.  
  
AEP continues to contend SPP needs to automate the NLS curtailments through existing systems and/or using an Automatic Program Interface. This type of automation has always been expected by many market participants. Absent the above changes, AEP may be unable to respond quickly to schedule changes thus leading to an exposure to imbalance cost and under scheduling charges which were not anticipated and may be in excess of its own fuel costs. While this reflects AEP's current experience and understanding, we also understand the RTOSS and CAT vendors are working with the SPP staff for alternate solutions which may become available prior to the market start.
- ii.) What guidelines should MP's, BA's and CA's use to interpret and apply the information from the Day Ahead Deliverability Analysis? At this time AEP has only reviewed the results of one study and the content and required action remain unclear. AEP has not received the Day Ahead Deliverability Analysis from 9/20 to 9/24.
- iii.) SPP continues to fail the metric associated with the short-term load forecast. The short-term load forecasting error has a direct impact on the regulation burden of both large and small Balancing Authorities. If the error level with the short-term load forecast is not reduced AEP may be required to maintain amounts of regulation significantly higher than the levels required for today's operation. Such actions will result in either higher cost, due to additional regulation capability being made available on line, or lower EIS benefits, due to the need to reduce the dispatchable range of units being offered for SPP dispatch.
- iv.) AEP was initially less concerned about the LIP volatility being seen during the early deployment tests. This lack of concern stemmed from AEP's experience in other markets and knowledge that some price volatility is to be expected. Additionally, AEP recognized that during testing some scripted conditions could produce results which are beyond what would occur under live operations. However, the LIP volatility during deployment tests have not declined as the tests have progressed; the initial findings of the LIPS Market metrics Task Force (TF) raise new perspectives on the issue; and SPP staff has recently indicated to the MITF that this volatility is expected to continue. All of these have caused AEP to question its initial assessment. AEP is continuing to analyze the information from the deployment tests and the LIPS TF to determine possible sources for the volatility.
- v.) AEP is still reviewing the conclusions of the Deployment Test and CAT Metrics Task Forces. AEP is concerned about the ability of SPP to address the issues raised in the TF's report with the time that is available.
- vi.) SPP has not established a planned production date to implement the 4-second RTOSS NSI. The current SPP project plan shows 7/28/06. AEP is concerned this functionality has been available but still is not in production.

**Southwestern Public Service Company**

SPS Comments:

Status: Red

Comments:

In preparation for the SPP EIS market, SPS has taken steps to prepare itself for participation pursuant to the market rules approved by the Federal Energy Regulatory Commission (FERC) and the associated protocols, business practices, and guidelines approved by the membership. SPS has taken or is in the process of taking the following steps to complete its preparations for market start:

- a. SPS has retained a third-party contractor to develop and install systems to support day ahead and real-time interaction with SPP's systems. While these systems are being continually improved, they are currently functioning at a level that SPS believes adequate to support SPS' day ahead and real-time interaction with SPP;
- b. SPS has retained a third-party contractor to develop and install systems to facilitate shadow settlement of the SPP EIS market. Again, these systems are being continually improved, and SPS believes that by market start they will be functioning at level sufficient to allow SPS to manage its market settlements with SPP;
- c. SPS will have conducted by November 1, 2006, sufficient internal and external training of day ahead, real-time, and accounting personnel to support interaction by SPS' personnel with the SPP EIS market.

At this time, SPS is not aware of any internal systems or personnel issues that would prevent SPS from effectively participating in the SPP EIS market effective November 1, 2006.

While SPS believes that it, as an individual market participant, will be ready to operate in the SPP EIS market, SPS nevertheless has significant concerns regarding the readiness of the SPP EIS market as a whole. First, we do not believe that it would be appropriate for SPS to expose its customers to the level of price risk that we have seen during deployment tests. For example, during the September 13 deployment test, average hourly market prices at different locations ranged from \$-631/MWh to \$7,197/MWh. SPP staff has suggested that, in at least some cases, this volatility may be due to market liquidity. However, at this point we are unclear about the root cause of this volatility and are concerned that it may persist once the market commences. SPS believes that it would be prudent for SPP to obtain an independent third-party analysis that addresses both of these issues before opening the EIS market.

In addition, SPS is concerned that SPP's systems and processes may not be fully compliant with the provisions of the EIS market tariff, and that certain SPP processes may not be sufficiently documented. SPS believes that it would be prudent for SPP to obtain an independent third-party analysis to ensure that its systems and processes are adequately documented and fully compliant with its EIS market tariff before market implementation.

Further, SPS is concerned that a number of SPP's IT systems are operating at a level that may be inadequate to effectively support the EIS market. For example, SPP has not demonstrated that its short and mid-term load forecast tools can meet the existing accuracy standards approved by the Market Operations Policy Committee (MOPC). To the extent that the required accuracy criteria are not met, balancing authorities such as SPS may be called upon to provide more regulation than would otherwise be necessary, resulting in increased costs that may not be recovered through the market. In addition, SPP has not developed an automatic programmatic interface for notifying a market participant if a native load schedule is curtailed by SPP's Curtailment Adjustment Tool. As a result, the ability of a market participant to learn of such a curtailment and adjust other schedules as needed to cover its obligations may be compromised. A market participant that is in this situation could be subjected to significant costs associated with unintentionally serving a portion of its obligations through the market. These examples are not intended to be exhaustive. Given that SPS has fairly limited visibility into SPP's systems, there may be other significant problems that exist within SPP's systems that are unknown to SPS.

## Appendix F: Workarounds for a November 1 Implementation

### Summary

As requested by the SPP Board of Directors, below are the operational issues that have work-arounds for a November 1 go-live date.

#### I. Treatment of Recallable Reserves for One Specific Balancing Authority

A single Balancing Authority sells energy in contracts that can be cancelled if the same energy is required for reserves. In order to accommodate this particular Balancing Authorities practice, schedules need to be down-adjusted while still maintaining the current deployment levels. The Market design does not currently support this functionality so SPP is working with the Balancing Authority to develop a mechanism to handle this situation. It is not anticipated that any system or Market design changes will be made prior to November 1 in support of this item.

#### II. Tag Adjustments during a Curtailment Event

When a schedule with a tag is curtailed, the quantities on the schedule are adjusted but the quantities on the associated tag are not. Although the functionality was designed, Market Participants have raised concerns with this approach during Market Trials. Therefore, SPP is working with the associated vendor to determine if tag quantities can also be modified during curtailment events (from CAT). In the interim, SPP posts curtailment information on the OASIS and contacts Balancing Authorities directly and asks them to adjust the tag quantities to match the curtailed schedule. SPP is awaiting a vendor estimate to confirm the ability to complete the change necessary to terminate this work-around prior to November 1 go-live.

**9/29 STATUS UPDATE:** This issue is resolved and verified during the 9/20 deployment test.

#### III. Ability to Provide Economic Max / Min

The system supports one set of maximum and minimum operating parameters for generation, which are expected to be set based on actual operating capabilities. However, there are circumstances where a Market Participant may want to operate in a tighter bandwidth due to economic reasons. The Market design does not currently support this functionality so SPP has recommended that the regulation reserves (up reg and down reg) be used to further narrow this bandwidth when required.


#### IV. Manual Treatment of Reverse Flowgates

CAT does not correctly handle TLR called in a reverse direction from that in which a particular flowgate is defined. Until the appropriate system patch is installed, SPP will follow the workaround of creating a real-time flowgate ("on the fly") in the opposite direction of that which is defined. This functionality can be exercised within an hour and will allow SPP to use this functionality for non-emergency relief of a flowgate in the reverse direction. Emergency relief will be obtained pursuant to the Market Protocols through the issuance of manual (e.g. – OOME) instructions.



## Appendix G: Deployment Test Observations\*

### 9/22 Deployment Test

 SOUTHWEST POWER POOL

## Deployment Test Observations

- ❖ Longest Test to Date (8 Hours)
- ❖ Only 15 CPS2 Violations Throughout Test
- ❖ Actual TLR Occurred During Test
- ❖ Two RSS Events Tested (non-JOU and JOU)
- ❖ OOME Tested
- ❖ Three CAT Scenarios Tested
  - ❖ MPs noticed a 10 minute delay between RTOSS schedule curtailments and EI NSI response during last CAT Scenario (SPP Investigating)
- ❖ Problem with an IPP not Following Dispatch Instructions
- ❖ Some BAs not Carrying URS/DRS

WWW.SPP.ORG

©Accenture 2006. All Rights Reserved5

*\* Slides provided are from materials reviewed by the MITF*

**9/14 Deployment Test**

## Deployment Test Observations

- ❖ **MPs followed dispatch instructions very closely**
- ❖ **First RSS test was successful (non-JOU)**
- ❖ **Some MPs did not submit consistent market data for the hour prior to and the hour after the test**
- ❖ **MPs must use Realistic Ramp Rates regardless of resource status**
- ❖ **RSS issue when relieving JOU outage**
- ❖ **First CAT Scenario was terminated due to actual RSS event. An issue was identified that might have caused RSS schedules to be curtailed by CAT.**

## Appendix H: Metrics Task Force Results

### Summary

The Metrics Task Force results were due on September 13. The summary of information received to date is below.

Area	Comments
<b>Settlements</b>	<ul style="list-style-type: none"> <li>As reported at the 9/15 SPP Board of directors status, the Market Metrics Settlements Task Force passed eight and conditionally passed a ninth out of ten metrics. The tenth metric has still not passed due to the number of settlement verification acknowledgement forms received.</li> <li>Since the 9/15 status, some follow up items have been identified that will be sent through the PRR process (market design change process).</li> </ul>
<b>Load Forecasting</b>	<ul style="list-style-type: none"> <li>No response received from task force.</li> <li>SPP has identified issues in this area, which are addressed in Appendix.</li> </ul>
<b>Business Continuity</b>	<ul style="list-style-type: none"> <li>Based on performance criteria for this task force, the metric was not met because all suppliers of Regulation Service did not submit data within the time specified.</li> <li>The task force noted a follow up item to create a process for developing alternative proxy data in the event a supplier of Regulation Services fails to submit proxy data pursuant to the protocols.</li> </ul>
<b>CAT Deliverability</b>	<ul style="list-style-type: none"> <li>After assessing SPP issues based on the specific task criteria, reviewing the issues uncovered during recent deployment test and receiving education on a few system design details, the task force believes that SPP systems are not ready to go live today</li> <li>Combined Report with Deployment Test</li> <li>Issues noted in Appendix</li> </ul>
<b>Deployment Tests</b>	<ul style="list-style-type: none"> <li>Reference CAT Deliverability Comments.</li> <li>Combined Report with CAT Deliverability</li> <li>Issues noted in Appendix</li> </ul>
<b>LIP Calculation</b>	<ul style="list-style-type: none"> <li>Initial report did not identify any issues. Portions of the analytical efforts remaining are somewhat time-consuming, but the task force expects to complete its efforts on a priority-based approach by Sept. 30<sup>th</sup>.</li> </ul>

## Appendix I: Load Forecasting

### SPP Identified Issues

As highlighted in the 9/15 SPP Board of Directors meeting, there is a short term load forecast metric identified by the MOTRTF that has not yet passed. SPP raised issues with how the metric is calculated, but also indicated that the metric was not passing at that time even with a revised calculation.

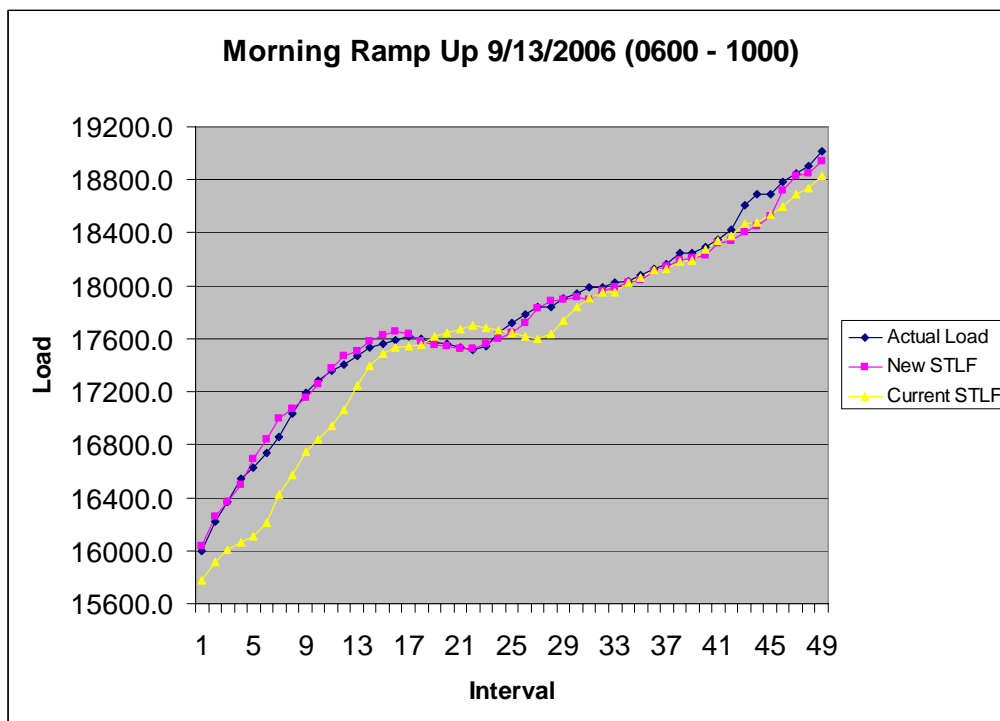
Since this meeting, SPP has investigated potential issues around the calculation of the Short Term Load Forecast (STLF) and discovered the following:

- Use of Mid Term Load Forecast (MTLF) as basis for STLF
  - Accuracy of the Short-Term Load Forecast depends heavily on the quality of historical data. The historical data required is 1 year of actual 5 minute load data from all Control Areas that participate in the Market and temperature profiles for the same year. Due to a lack of historical data, SPP used Mid Term Load Forecast (MTLF) as data input to calculate STLF. MTLF provides hourly forecasts for seven days in future using a combination of interpolation of hourly forecast values and biases obtained from actual load observations in order to obtain 5-minute load forecast data.
  
- Predictability
  - The accuracy of the load forecast is dependent upon historical data, and therefore unable to take into account "random" load fluctuations. For instance, some Control Areas have more than 1% load fluctuations that occur during different times of the day.
  - The failure of the metric is caused by errors in the load forecast between 1 – 2% in early morning and late afternoon. Overall, errors are encountered 3 – 4 hours a day in early morning and afternoon when the lights are turned on and off and the load swings several 100 MWs within an hour.

### Management Response

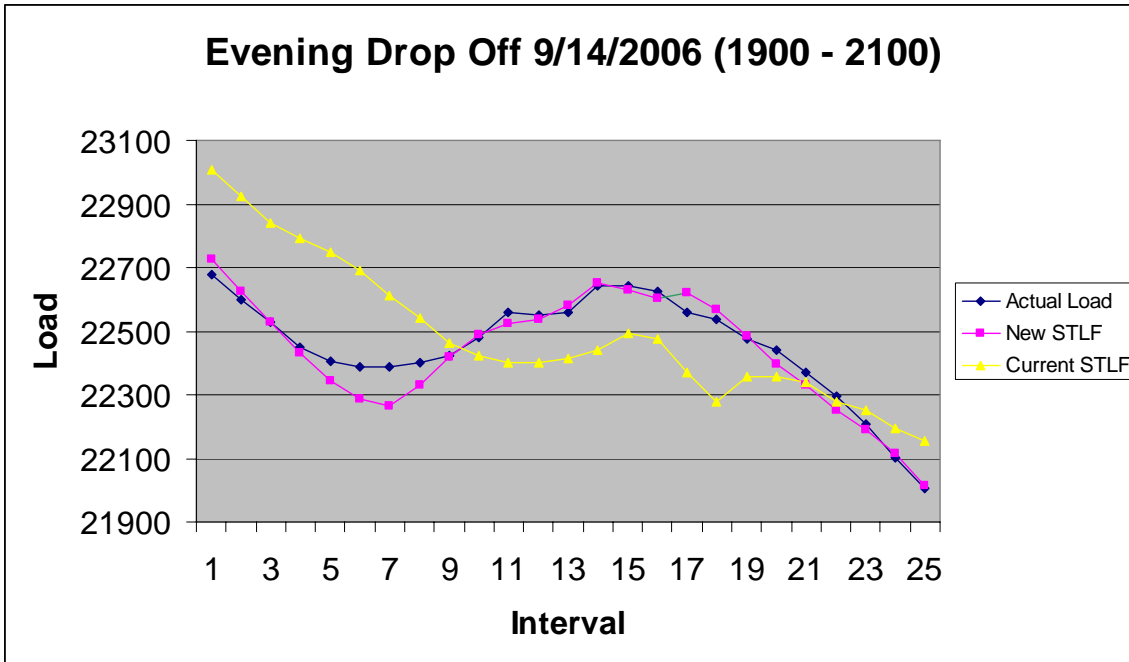
In order to improve upon the Short Term Load Forecast to meet this metric, SPP is working with its vendor to implement a new method to calculate STLF to capture intra-hour load fluctuations. This method is based on the similar day forecasting approach and assumes today's load has the same behavior as yesterday's (in terms of the shape of the load curve) except for a shift in load values which is applied as a correction term bias

Utilizing the new equation to calculate STLF, SPP has prototyped the results of the enhancement. The graph below compares the enhanced STLF values (per use of a prototype), the actual load, and the current calculated STLF values during the morning ramp up from 0600 to 1000 Central Time.



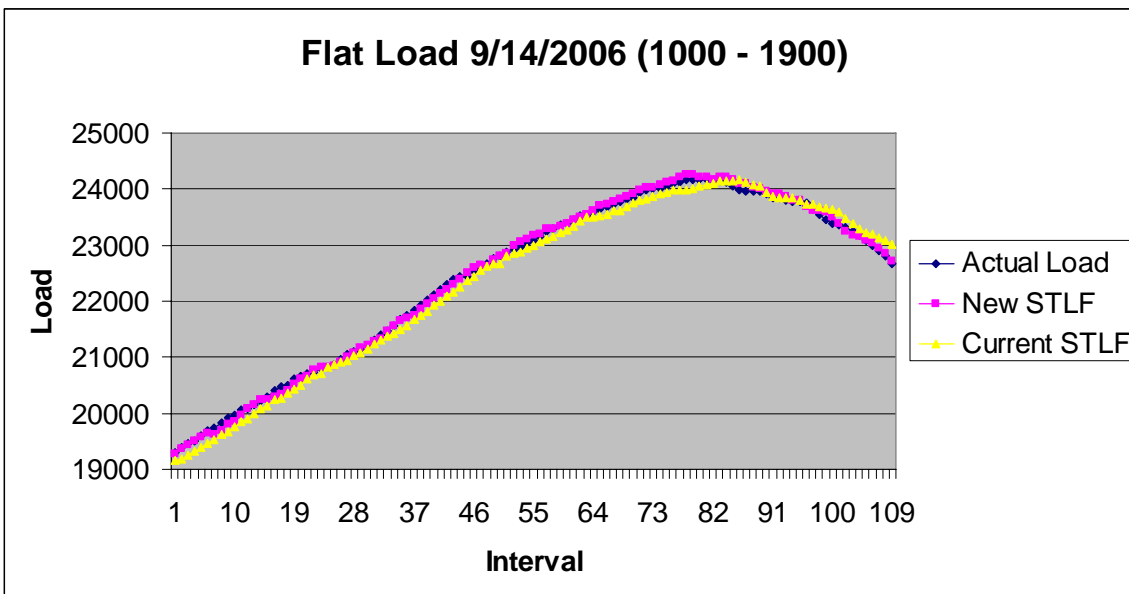
The graph indicates that the enhanced STLF values follow the load more closely than the current STLF during the morning ramp up period. For the prototype STLF values, there are only three 5-minute intervals with a load forecast error of greater than 1% (range from 1 – 1.1%) as compared to 17 5-minute intervals with a load error of greater than 1% (range from 1 – 3%) utilizing the existing STLF.

The following graph compares the actual load, prototyped STLF, and current STLF during the evening drop off from 1900 to 2100 Central Time on September 14, 2006.



The graph indicates that the enhanced STL values follow the load more closely than the current STL during the evening drop-off period. Only three 5-minute intervals of the prototyped STL values have a load forecast error of greater than 1% (range from 1.2 – 1.4%) as compared to 8 5-minute intervals with a load forecast error of greater than 1% (range from 1.2 – 1.5%) utilizing the existing STL.

During the flat load period as indicated of the graph below, the prototyped STL and current STL values generally closely follow the actual load. Of the 109 5-minute intervals, only 8 intervals of the current STL fail to meet the 1% threshold requirement (range from 1 – 1.28%). In comparison, the prototyped STL values are below the 1% threshold during the entire period from 1000 to 1900 Central Time.



SPP is working with its vendor to further improve upon capturing the load swings in early morning and late afternoon to meet this metric. An initial release of this solution was implemented in Production on September 25<sup>th</sup> with an enhancement expected to be deployed to production on September 26<sup>th</sup>.

## Appendix J: CAT Deliverability and Deployment Test Metrics Task Force Issues

### Task Force Identified Issues

Issue #	Issue
SPP20060920-1	Constant Error on Scheduled Resource and Balancing <ul style="list-style-type: none"> <li>Experiencing constant change request for balancing authorities when schedule errors are present which can cause the BA to achieve a MW error loop correction.</li> <li>BAs could continually raise or lower generation until the scheduling error is corrected or the unit is locked out of the market.</li> <li>BA could face imbalance and Uninstructed Deviation charges associated with the issues</li> </ul>
MOS20060920-2	Erroneous NSI values used for dispatch <ul style="list-style-type: none"> <li>Experiencing erroneous incidences of NSI during schedule changes. Erroneous NSI values seem to be caused by incorrect ramp handling and incorrect transitioning of NLS across operating hours.</li> <li>There also appear to be random instances of NLS changes being dropped.</li> </ul>
MOS20060920-3	Short Term Load Forecast Errors <ul style="list-style-type: none"> <li>The linear interpolation of the mid-term forecast ignores historical profiles dealing with intra-hour load variation (intra-hour load changes do not follow a linear path), which caused problems anticipating pickup or drops.</li> <li>Short Term load forecast is projecting hourly integrated amounts and not instantaneous peaks.</li> </ul>
CAT20060921-8	EIS Negative Counterflow Issue <ul style="list-style-type: none"> <li>Where there is large EIS counterflow, CAT may not be able to achieve the relief requested by the IDC</li> </ul>
MOSCM20060921-1	TLRs called on Flowgates in the Reverse Direction are not Handled Correctly in Constraint Manager
MOS20060920-1	Periodic Oracle Table Locks <ul style="list-style-type: none"> <li>Experiencing table locks which cause deployment instruction calculations to be suspended for unreasonably long lengths of time</li> </ul>
RTOS20060920-1	No visibility on Market and Native Load Schedule Curtailments <ul style="list-style-type: none"> <li>There currently is no alarming or other visibility on these schedule curtailments</li> </ul>
SFTDA20060921-9	<ul style="list-style-type: none"> <li>Calling up the market Impacts tab on the SFT Deliverability Analysis takes a few minutes.</li> <li>Attempting to sort the Market Impacts caused the display to go blank and eventually caused a software error</li> </ul>
CM20060921-2	<ul style="list-style-type: none"> <li>TLR in Reverse Direction</li> </ul>



## **SPP Management Response**

- Regarding the issue on Constant Error on Scheduled Resource and Balancing (“death spiral”), continued deviation from instruction will be reported to FERC by the market monitor. In the event of a reliability issue, the balancing authority must follow instructions from the reliability coordinator to address balancing issues that are identified as emergency situations.
- SPP recognizes the task force’s challenge in fully understanding the complexity surrounding CAT in a short amount of time. SPP concurs with the Task Force’s assessment that the issue raised about EIS Negative Counterflows is of a financial and settlements concern rather than a reliability concern and welcomes further discussion surrounding the issue in order to clarify and answer any concerns. This policy issue was vetted by both the MWG and the RTF during the preliminary design of the SPP CAT.
- On the Load Forecasting issues raised by this Task Force, see previous section.
- From a reliability perspective, during a congestion event, the MOS Constraint Manager (CM) will act to bind a constraint and the MOS will re-dispatch to provide the relief required by the IDC and to stay at or below the system operating limit for the bound constraint(s). If necessary, firm curtailments will be issued (TLR Level 5) and the CAT will act to curtail Native Load Schedules (NLS) which impact the constraint(s).
- SPP recognizes that the constraint manager currently can not correctly process a TLR which is called in the reverse direction. The CM vendor is currently developing a patch for release in order to address this concern. This patch will be in place after market go-live. In the interim, SPP will be following the workaround identified in Appendix F. SPP has determined that the risk associated with this issue is low when analyzing data associated with historical TLR events called in the reverse direction
- Periodic Oracle Table Locks. SPP has tested and applied patches that address this issue.
- Erroneous NSI values. SPP has tested and applied patches that address one issue, and we believe the other issue is market participant related.
- Short-term load forecast errors. SPP has tested and applied a patch that addresses this issue.
- TLRs in reverse direction. SPP has a workaround for this issue and does not believe it is critical.
- No visibility on market and native load schedule curtailments. SPP has fixed all the issues we’re aware of around this a few weeks ago.
- SFTDA market impacts tab. This was a user issue during the demonstration rather than a software issue.

## Appendix K: Curtailment/Adjustment Tool (CAT)

The purpose of the SPP Curtailment/Adjustment Tool (CAT) is to manage the simultaneous feasibility of schedules across a flowgate during a NERC TLR event. By design, SPP CAT performs this by calculating the EIS component of impacts from the market dispatch (market flow) and the scheduled impact. CAT then curtails and/or adjusts the EIS impact and market schedule impacts in the correct priority buckets in order to maintain the simultaneous feasibility of schedules. During a congestion management event, the MOS, in concert with CAT, begins binding the constraint in order to re-dispatch the SPP system so that the violated limit is honored. Only two types of physical schedules are curtailed/adjusted by CAT, Native Load Schedules and intra-control area tagged schedules from self-dispatched resources, other physical schedules (e.g., imports/exports and inter-BA self-dispatched tagged schedules) are curtailed/adjusted by the NERC IDC as they are today.

To date, there have been a total of 11 CAT Scenarios tested during System-wide Deployment tests. Below is a comprehensive list of the CAT scenarios tested, results of each test, issues identified and resolutions:

Date	Time (CDT)	Constraint	Scenario	Result	Issues Identified	Resolution
9/6/2006	1232 - 1251	FliGenFliTon	TLR 5B issued in order to demonstrate NLS Curtailment	Two Native Load Schedules curtailed	1) RTO_SS-CAT Curtailment flag not being set 2) CAT/Constraint Mgr timing issues	1) System fix delivered. Retested successfully in subsequent deployment tests 2) System fix delivered. Retested successfully in subsequent deployment tests
	1345 - 1421	SphWmcSumEmc	TLR 3B	6 non-firm market schedules adjusted, curtailed and then reloaded upon issuance of TLR 0		

Date	Time (CDT)	Constraint	Scenario	Result	Issues Identified	Resolution
9/11/2006	2357 - 0125	SwixfrMorLan	TLR 3A	3 non-firm, tagged intra-BA schedules were curtailed/adjusted and then reloaded upon issuance of TLR 0	1) Flowgate display issue for temporary flowgates 2) CAT issue with curtailing tags with multiple priorities 3) CM Process issue	1) System fix delivered. Retested successfully in subsequent deployment tests 2) System fix delivered and retested in subsequent deployment tests 3) Updated CM procedures implemented and utilized during subsequent deployment tests
9/13/2006	1118 - 1215	SphWmcSumEmc	TLR 3B	5 non-firm, tagged intra-BA schedules were curtailed/adjusted and then reloaded upon issuance of TLR 0	1) Test terminated early due to actual RSS event at 1203. CAT may have curtailed RSS schedules 2) Effective limit calculation issue identified	1) System fix delivered and retested in subsequent deployment tests 2) Temporary work around to be used until system fix delivered during (expected prior to go-live)
	1308 - 1342 1313 - 1342 1317 - 1342 1322 - 1342	FliGenFliTon	TLR 5B issued, and reissued requesting more relief to reach NLS adjustments	Significant positive EIS curtailed prior to adjustment/curtailment of 2 NLS and then reloaded upon issuance of TLR 0		

Date	Time (CDT)	Constraint	Scenario	Result	Issues Identified	Resolution
9/18/2006	1828 - 2000	RedArcRedArc	TLR 3B	5 non-firm, market schedules were adjusted/curtailed and then reloaded upon issuance of TLR 0	1) CAT curtailments not updating tags2) Erroneous curtailment of canceled tags3) Process issues identified with OOME	1) Code migration issue, system fix retested in subsequent deployment tests2) Fix identified, pending delivery and internal testing3) Updated OOME procedures tested in subsequent deployment test
	1831 - 2000 1858 - 2000	FliGenFliTon	TLR 5B issued, and reissued requesting more relief to reach NLS adjustments	1 NLS adjusted/curtailed in conjunction with the OOME issued @ 1831 and then reloaded upon issuance of TLR 0		
9/20/2006	1030 - 1255	SPPSPSTies	TLR 3B - issued in conjunction with real-time overload		1) IDC to MOS interface issue identified 2) Constraint Manager doesn't handle negative flow correctly	1) Vendor fix awaiting installation and testing. Will be retested during future deployment tests 2) Manual work-around available until vendor fix is delivered and tested
	1140 - 1255	SPPSPSTies	TLR 3A	Market tags adjusted/curtailed and reloaded upon issuance of TLR 0		
	1320 - 1400	RedArcRedArc	State of Emergency Declared (IROL) OOME Issued on Redbud Plant, followed by TLR 3B @ 1330	Resource moved in response to OOME. Adjustment/curtailment of appropriate schedules occurred		
	1605 - 1645	ScoDeaDelNeo	Reverse TLR issued (3B)	CAT functioned properly by adjusting/curtailing appropriate schedules		

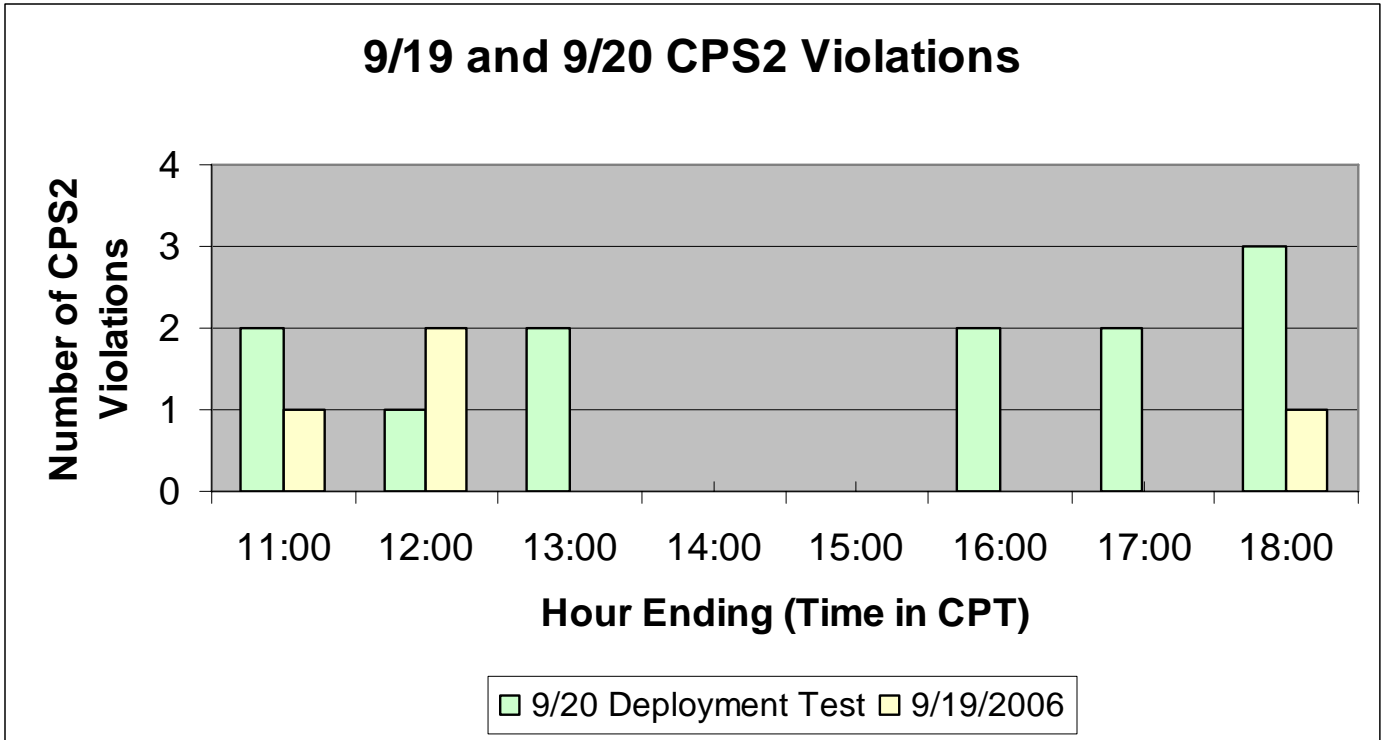
## **Appendix L: CPS2 Violations**

### **SPP Explanation of CPS2 Violations**

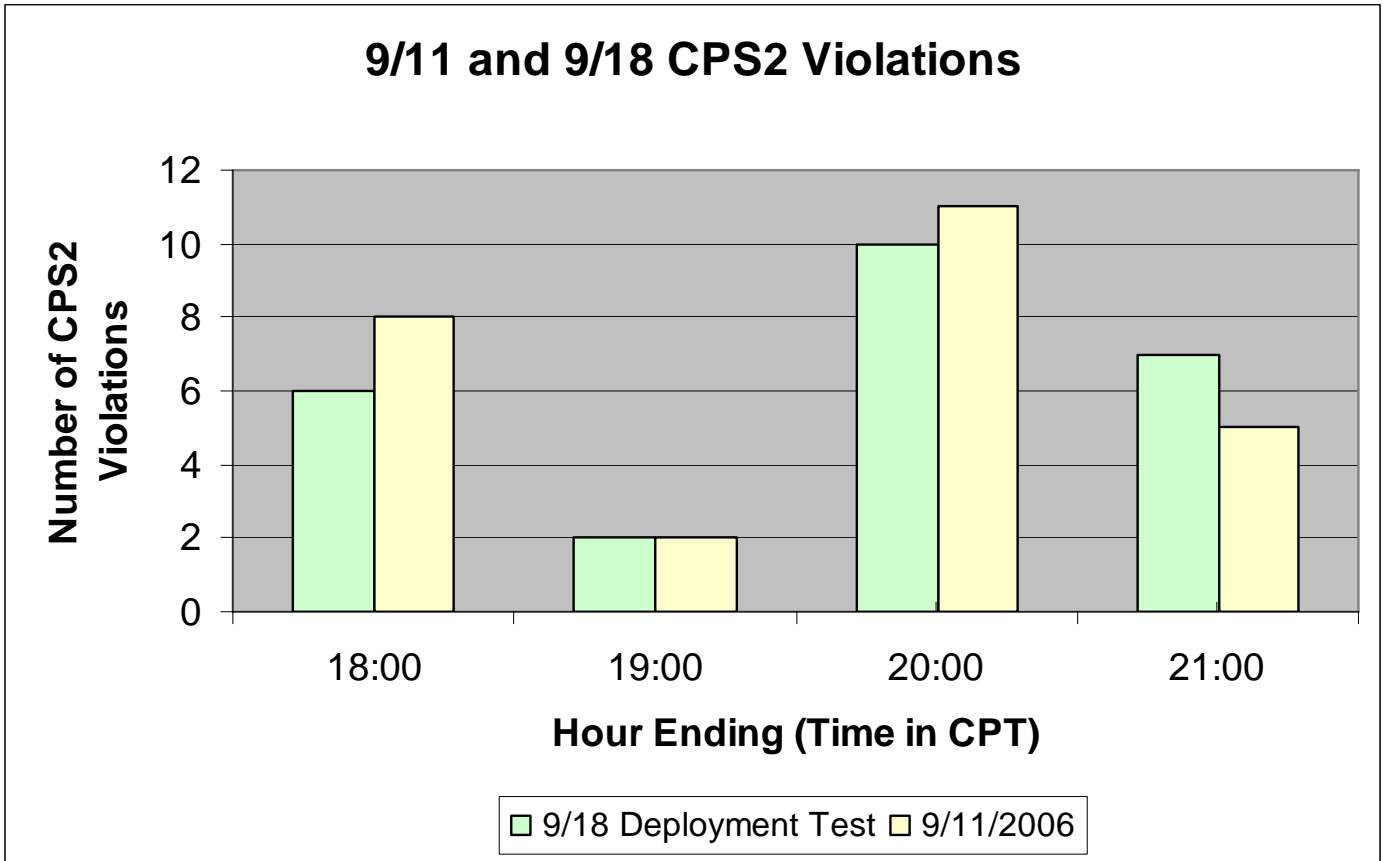
CPS2 is one of two NERC control performance standards used to measure a balancing authority's effectiveness at balancing real-time supply and demand. These are reported to NERC on a monthly basis.

SPP established metrics to track the affect of the market deployment on the number of CPS2 violations during the deployment tests. This was a quantitative measurement as to the impact of the market. It is not a measure of the markets' ability to operate the grid system as or more reliably than current operations.

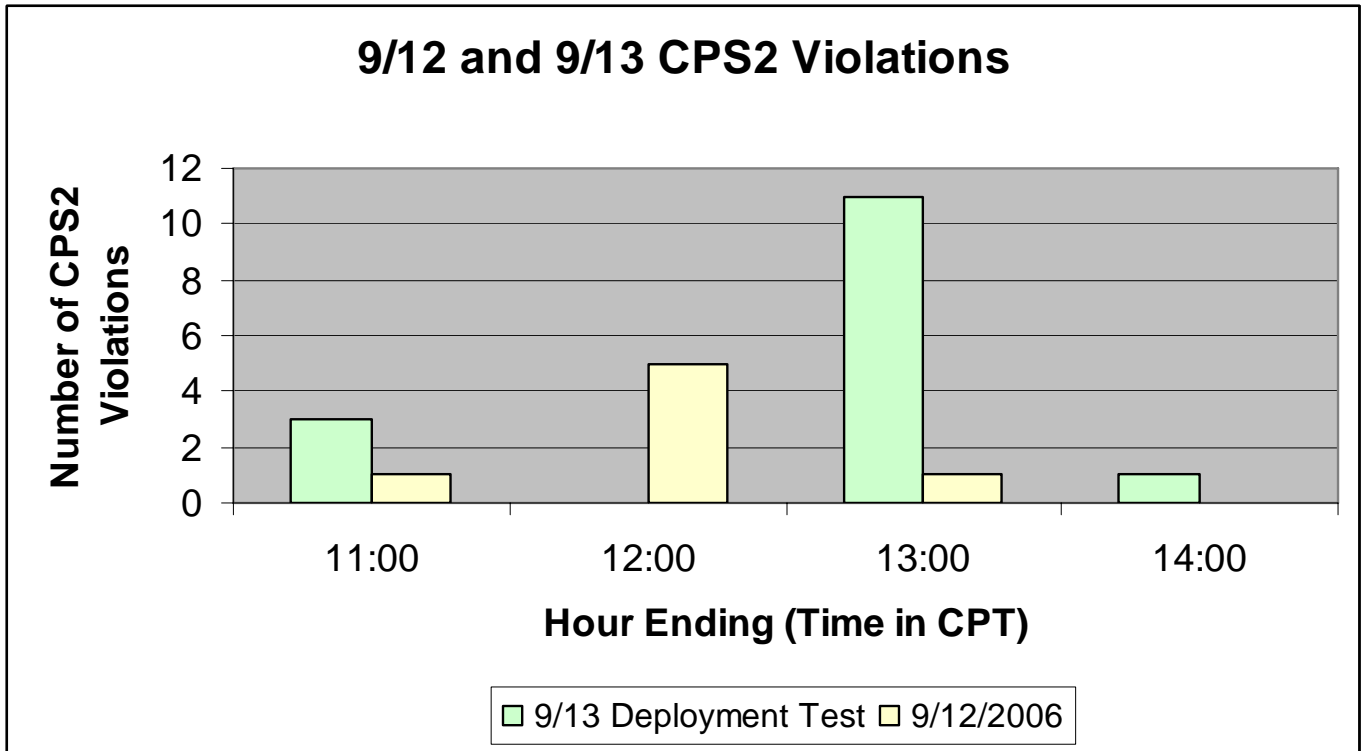
SPP has assessed how the Energy Market has impacted a Balancing Authority's ability to manage ACE by comparing the number of CPS2 violations that occurred during System-wide Deployment tests with the number of CPS2 violations that occurred during similar, non-market times. After reviewing the CPS2 data provided by the Balancing Authorities for the 9/20, 9/18, 9/13, 9/11 and 9/6 System-wide Deployment tests and computing the CPS2 violations each BA should have received during similar, non-market times, SPP has determined that the number of CPS2 violations recorded by all Market BAs during System-wide Deployment Tests falls within a reasonable range. Furthermore, the Deployment and CAT Task Force substantiates this position with their ACE analyst findings from the deployment test of 9/6 and 9/7.



Total CPS2 Violations Across Market BAs for Time Period	
9/20 Deployment Test	12
9/19/2006	4
Average CPS2 Violations Across Market BAs per Hour	
9/20 Deployment Test	1.5
9/19/2006	0.5



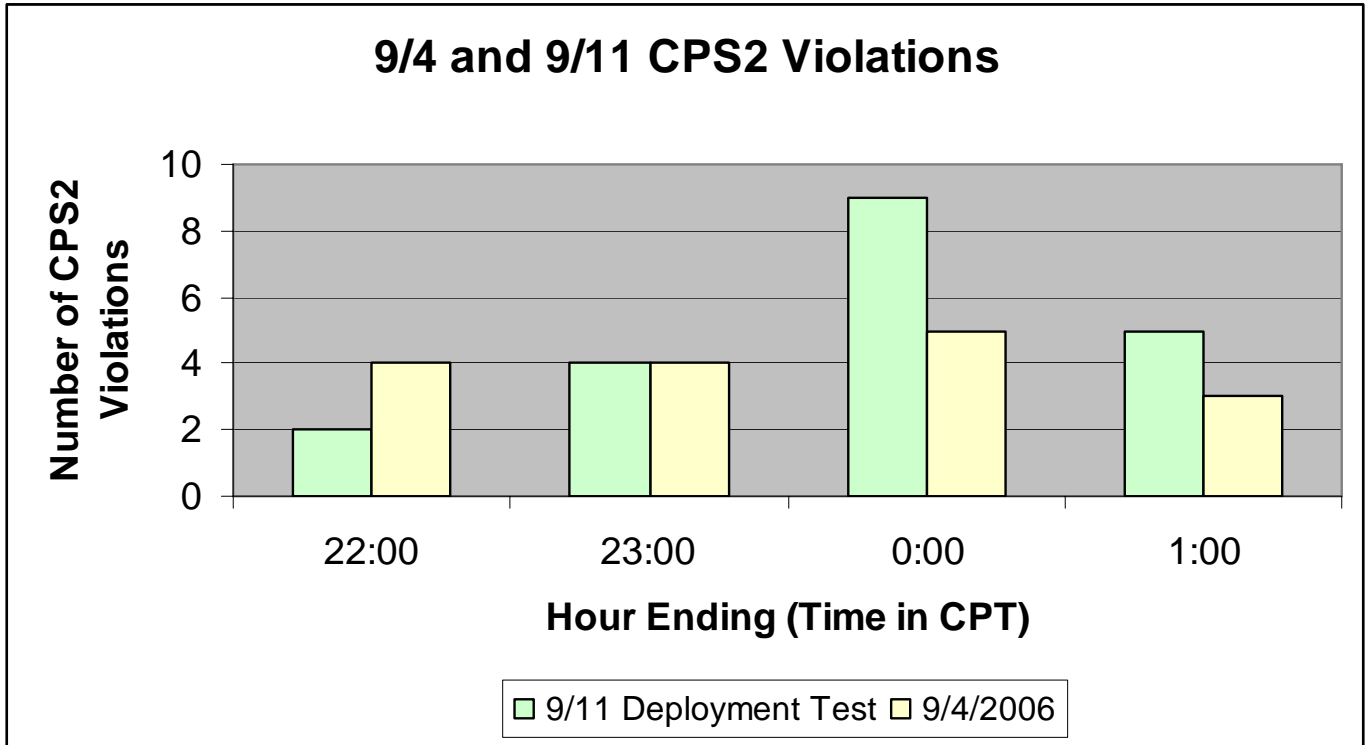
Total CPS2 Violations Across Market BAs for Time Period	
9/18 Deployment Test	25
9/11/2006	26
Average CPS2 Violations Across Market BAs per Hour	
9/18 Deployment Test	6.25
9/11/2006	6.5



Total CPS2 Violations Across Market BAs for Time Period	
9/13 Deployment Test	15*
9/12/2006	7
Average CPS2 Violations Across Market BAs per Hour	
9/13 Deployment Test	3.75
9/12/2006	1.75

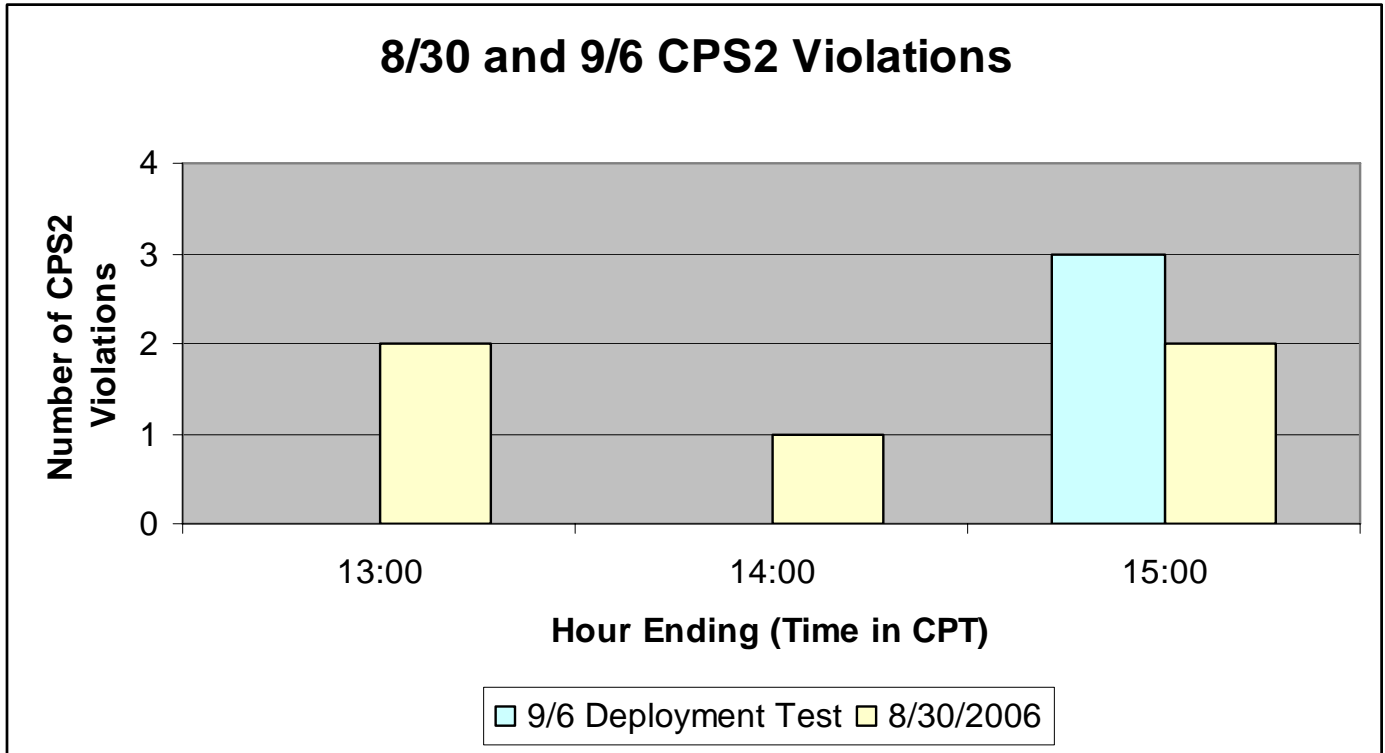
\* Note: 10 of these violations were caused by a system error that has since been fixed





Total CPS2 Violations Across Market BAs for Time Period	
9/11 Deployment Test	20*
9/4/2006	16
Average CPS2 Violations Across Market BAs per Hour	
9/11 Deployment Test	5
9/4/2006	4

\* Note: 8 of these violations were caused by a system error that has since been fixed



Total CPS2 Violations Across Market BAs for Time Period	
9/6 Deployment Test	3
8/30/2006	5
Average CPS2 Violations Across Market BAs per Hour	
9/6 Deployment Test	1
8/30/2006	1.6

SPP believes that the issues identified by the Market Metrics Deployment and CAT Task force that could impact the number of CPS2 violations accrued by BAs post market go-live have either been resolved or will be prior to Market go-live:

Issue # from MMTF Report	Short Description	Comments
MOS20060920-2	Erroneous NSI values used for dispatch	System patch has been delivered by the vendor and is currently being tested in SPP's internal testing environment. The system fix is planned to be installed in the production environment for retesting with participants during the 9/27/06 System-wide Deployment Test.
SPP20060920-1	Constant Error on Scheduled Resource and Balancing	SPP believes this is an education issue and has presented options for all MPs to use when starting and shutting down resources to minimize the amount of regulation that BAs use to cover large changes in online generation within their Control Areas
MOS20060920-3	Short Term Load Forecast Errors	This issue is addressed in the Short-term Load Forecast position paper

## **Appendix M: LIP Volatility**

See Attached Powerpoint Presentation – LIP Volatility



**Helping our members work together  
to keep the lights on...  
*today & in the future***

SOUTHWEST POWER POOL 



***Board of Directors***  
LIP Volatility  
September 6 - 20 Tests

September 29, 2006

[WWW.SPP.ORG](http://WWW.SPP.ORG)

## Market Design

- **Member driven design**
- **Vetted by the External Market Monitor in testimony**
- **Approved by FERC**
- **The prices are appropriate and indicate where transmission expansion is needed**
- **Some Market Participants have raised an concern that market depth from voluntary nature of market drives unreasonable LIP volatility**

WWW.SPP.ORG

3

## Input Data for LIP Calculation

- **September 25 draft report from the LIP Task Force reported that the calculation from deployed units results in appropriate prices.**
- **September 25 draft report from the Deployment Task Force reported that the deployment of Resources was appropriate.**

WWW.SPP.ORG

4

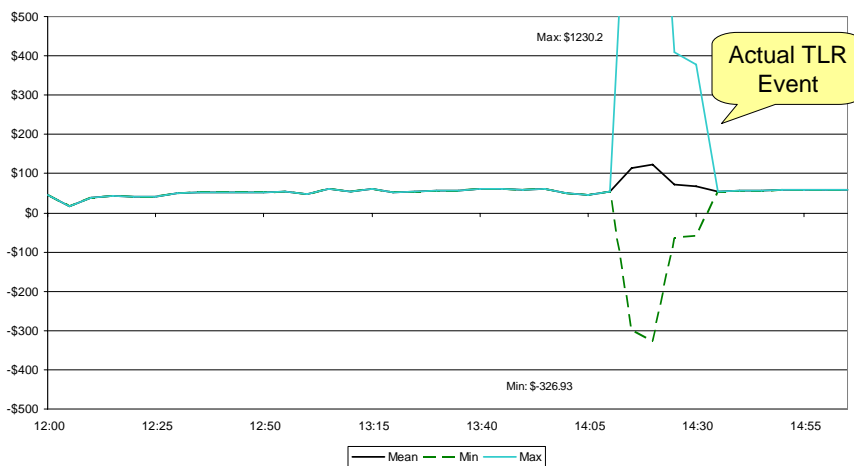
## Pricing

- The average price across all of the deployment intervals was \$80.93.
- Over 91% of the deployment intervals resulted in prices throughout the footprint less than \$100. Of the 294 observations, 18 were above \$200.
- All occurrences of high prices were due to specific transmission constraints.

WWW.SPP.ORG

5

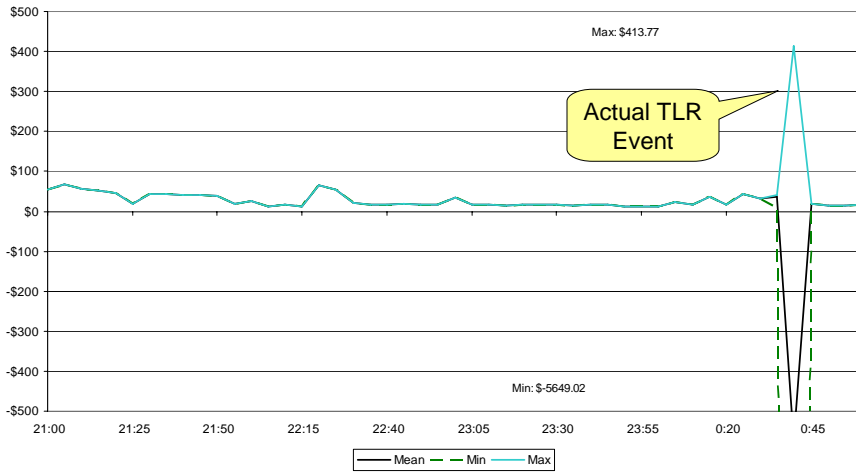
### Market Area 5 Minute Resource LIP September 6



WWW.SPP.ORG

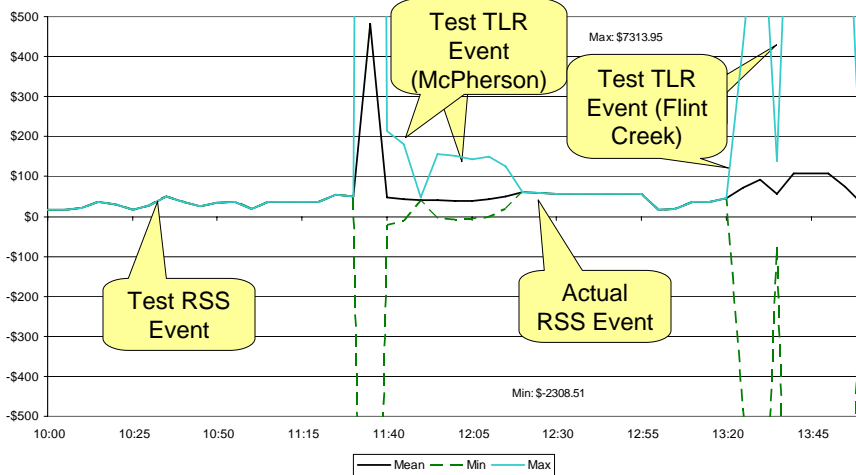
6

### Market Area 5 Minute Resource LIP September 11 - 12



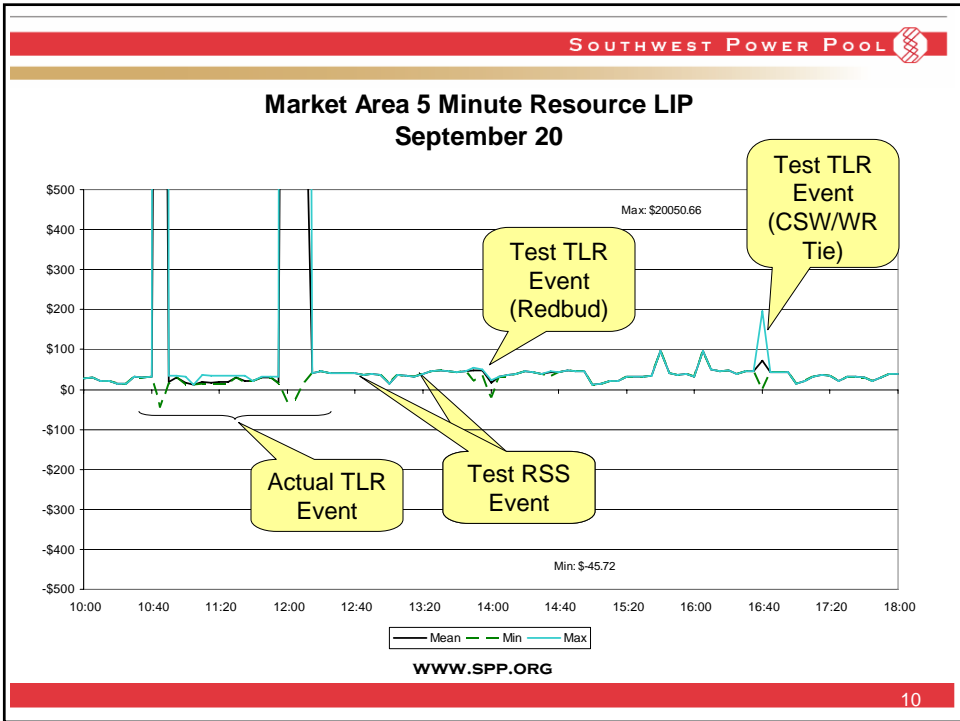
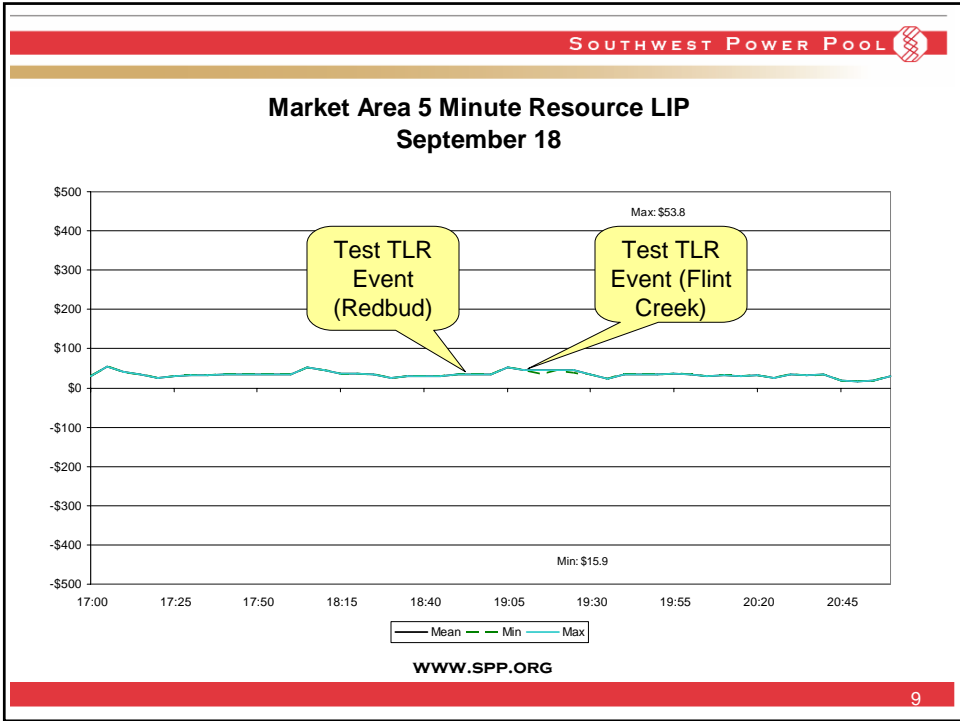
WWW.SPP.ORG

### Market Area 5 Minute Resource LIP September 13



WWW.SPP.ORG





## Reserve Sharing and Transmission Constraint Events

- **Reserve Sharing events were experienced 4 times.**
  - 1 event was due to an actual occurrence
- **Transmission constraint events were experienced 11 times.**
  - 2 events were due to an actual occurrence

## Pricing impact of Reserve Sharing System (RSS) events

- **LIPs did not significantly vary due to the RSS events.**
- **Significant loss of generation actually occurred resulting in an expected EIS generation response.**

## Pricing impact of Transmission Constraints

- **Significant price variations are due to existing issues for which physical solutions are identified**
  - **McPherson – SPP/Westar have identified a recommended reliability expansion to resolve**
  - **Flint Creek – AEP and AECC are proposing to site local generation to address transmission deficiencies in NW AR**
  - **SPP-SPS ties – Western half of the “X” plan has been identified to address this constraint**

WWW.SPP.ORG

13

## Pricing impacts of Transmission Constraints

- **Prices increased where generation was needed to resolve the issue.**
- **Prices decrease where generation needed to decrease to resolve the issue.**
- **The pricing properly reflected the desired action, regardless of generator status.**

WWW.SPP.ORG

14

Specific price spikes not due to depth of market.

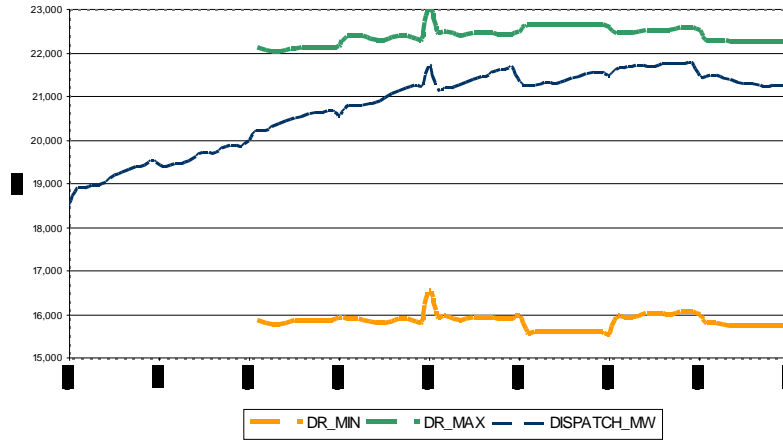
- **September 20 price spike due to improper ramp rates being submitted.**
- **September 18 did not have price spikes although there were two TLRs.**
- **September 13 price spikes were due to McPherson and Flint Creek constraints for which there are limited solutions and the test called for unreasonable relief.**

Specific price spikes not due to depth of market.

- **September 12 price spike due to a real TLR event with limited solutions.**
- **September 6 price spike due to a real TLR event involving McPherson with limited solutions.**

*Note: those items with limited solutions have been identified as requiring physical solutions, regardless of the EIS Market.*

### Dispatch Range September 20



WWW.SPP.ORG

### Market Dispatchable Generation September 20 Test

Time	# of Units	Max. Cap*	Min. Cap*
10:00	51	14,758	6,543
11:00	46	12,610	5,854
12:00	47	13,198	6,134
13:00	49	14,459	7,078
14:00	51	15,153	7,410
15:00	52	15,204	7,458
16:00	55	16,358	8,088
17:00	50	15,048	7,378
18:00	47	14,233	7,125

\*Adjusted for Regulation and Reserves

WWW.SPP.ORG

Market Depth has not been proven as an issue.

- **Max capacity of Market Dispatchable Resources throughout the September 20 test exceeded 60% of the load.**
- **Effective withholding of dispatchable resources through ramp rates/offer curves is subject to the FERC order regarding market monitoring.**

Pricing is only part of the equation.

- **Impact of LIP is reflected in settlement only to the extent of imbalance.**
- **Significant Imbalance Charges noted during deployment tests:**
  - **AEP - Owed to AEP \$82,000**
  - **SPS - Owed by SPS \$4,562,000\***
  - **WR - Owed by Westar \$606,000**

\*Note: \$4,429,000 due to three hours on September 20 of actual constraint.



Richard Dillon  
501-614-3228  
[questions@spp.org](mailto:questions@spp.org)

WWW.SPP.ORG

September 29, 2006

Honorable Magalie R. Salas, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20246

Re: Southwest Power Pool, Inc., Docket Nos. ER06-451-000, et seq. and  
ER06-1467-00\_

Dear Secretary Salas:

Pursuant to Rule 1907 of the Commission's regulations, 18 C.F.R. § 385.1907, and in accordance with the compliance requirements of Commission orders issued in the captioned dockets, Southwest Power Pool, Inc. ("SPP") submits the enclosed materials documenting the readiness of SPP to deploy its Energy Imbalance Services market ("EIS"), effective November 1, 2006. In support, SPP states as follows:

**I. Background and Overview**

In February, 2004, SPP received conditional approval of its proposal to become a regional transmission organization ("RTO") under Commission Order Nos. 2000 and 2000-A.<sup>1</sup> Since that time, SPP has implemented a series of market initiatives and tariff changes to comply with Commission directives, with the ultimate goal of improving the efficiency and reliability of electricity markets throughout SPP's eight-state, 250,000 square-mile service territory.

The development of SPP's real-time imbalance market represents the seminal step in SPP's energy market design efforts. Working through various task forces and committees, SPP has refined its original EIS proposal to satisfy the conditions imposed in a series of related Commission orders.<sup>2</sup>

More specifically, the Market Order and EIS Tariff Order, inter alia, directed SPP to make the following compliance filings with the Commission. First, SPP was required to file a set of transitional safeguards and readiness metrics ("Readiness Metric Condition") to measure SPP's progress relative to market implementation milestones. See

---

<sup>1</sup> See Southwest Power Pool, Inc., 106 FERC ¶ 61,110, order on compliance, 109 FERC ¶ 61,009 (2004), order on reh'g, 110 FERC ¶ 61,137 (2005).

<sup>2</sup> See, e.g., Southwest Power Pool, Inc., 112 FERC ¶ 61,303 (2005) ("September 19 Order"); Southwest Power Pool, Inc., 114 FERC ¶ 61,289 (2006) ("Market Order"); see also Southwest Power Pool, Inc., 116 FERC ¶ 61,053 (2006) ("EIS Tariff Order").



Market Order at P 23; accord EIS Tariff Order at P 45. Secondly, SPP was required to submit a written certification of SPP's market readiness ("Certification Condition") demonstrating SPP's "substantial[] complet[ion]" of the items included in its readiness metrics. The Certification Condition further directed SPP to provide to the Commission the results of the NERC on-site Working Group's evaluation of SPP's markets and NERC's recommendation on the readiness of SPP's imbalance markets. See Market Order at P 20; EIS Tariff Order at P 45.

On September 1, 2006 (as later corrected), in compliance with the Commission's Readiness Metric Condition, SPP filed with the Commission tariff revisions and other materials relating to SPP's EIS market. SPP included in the September 1, 2006 filing, for informational purposes, a menu of independently evaluated metrics relating to operational readiness and testing. As described in the September 1 filing, Accenture LLP was retained by SPP to assess the state of the EIS implementation program and to provide a set of metrics to monitor the program's progress.<sup>3</sup>

The purpose of the instant filing is to comply with the second condition which is a Certification Condition of the Market Order and EIS Tariff Order. In satisfaction of this condition, SPP is submitting this transmittal letter ("Transmittal"), the certification of SPP's President and Chief Executive Officer, Nicholas A. Brown, ("Readiness Certification"), and the required NERC evaluation and recommendation concerning SPP's market readiness ("NERC Assessment").

## **II. Discussion**

As discussed below, and as confirmed in the accompanying Readiness Certification and NERC Assessment, SPP is prepared to implement its EIS market as of November 1, 2006. SPP has tested its market systems, trained necessary personnel and committed the required resources to ensure the launch of the EIS market without compromising the reliability of operations in SPP's service region. All necessary legal and regulatory requirements specified in the Commission's orders regarding SPP's OATT have been, or will be, complied with to enable SPP to have the requisite authority to implement the EIS market on November 1, 2006.

SPP is also certifying that it has "substantially complete[d]" the items identified in its market readiness metrics. However, as was the case with other market start-ups,<sup>4</sup>

---

<sup>3</sup> As an additional layer of protection and to permit collaborative input by SPP stakeholders, Accenture agreed to certain additions to the original, master metric list.

<sup>4</sup> See, e.g., Midwest Independent Transmission System, Operator, Inc., 110 FERC ¶ 61,289, at P 35, 38 (2005) (accepting MISO's Readiness Certification, notwithstanding reservations concerning further system testing and acknowledging continuing efforts to meet certain readiness metrics at time of certification); see also Midwest Independent Transmission System, Operator, Inc., 110 FERC ¶ 61,049 at P 72 (2005) (stating that the Commission did not expect verification of "each and every metric," but rather

there are certain elements of SPP's market implementation plan that, as of the date of this filing, are undergoing further review and testing.<sup>5</sup>

In this regard, SPP notes that as part of its Market Transition and Reversion plan (filed May 19, 2006), a "Go/No-Go" Advisory Team was established, consisting of the Chairs of various SPP stakeholder committees, task forces and working groups, as well as SPP Staff, SPP's Board of Directors, the Regional State Committee and the Strategic Planning Committee. The Go/No-Go Advisory Team will provide updates on SPP's market systems in the days and weeks immediately preceding the November 1 launch date. See Section 4.1.4 of Market Transition and Reversion Overview. The final decision on whether to implement SPP's EIS market on November 1, 2006 (or delay such implementation) will be made in consultation with the Go/No-Go Advisory Team, based on a series of pre-launch assessments, including a checkpoint the final day of the transition period.

Extensive time and effort has been dedicated to ensure SPP's readiness to commence market operations effective November 1, 2006. These efforts will necessarily continue up to the "go/no-go" decision. SPP identifies below those implementation issues that, as of the date of this certification, are the subject of ongoing examination and refinement. SPP expects that these outstanding implementation issues will be addressed on or before November 1, 2006. As certified by Mr. Brown, none of the issues identified below poses an impediment to SPP's ability to reasonably operate the EIS market on November 1, 2006.

- Short-Term and Mid-Term Load Forecasts

As part of its market design efforts, SPP, through the Market Operations and Tools Readiness Task Force ("MOTRTF"), developed performance metrics of key systems in advance of market launch. These metrics, which measure specific operational

---

confirmation that an appropriate level of reliability and readiness had been achieved prior to market start-up).

<sup>5</sup> SPP acknowledges receipt of a "Preliminary Draft" report of the Market Metrics Deployment and CAT Task Force ("MMDCTF") dated September 21, 2005 expressing the view that a November 1, 2006 start date "is unrealistic." The Preliminary Draft reflects the MMDCTF's assessment of deployment tests run in early and mid-September. The MMDCTF is comprised of market participants, and the views of the MMDCTF are considered by SPP. Having reviewed the MMDCTF's Preliminary Draft, SPP has determined that the items identified in the report have either been remedied since the publication of the report, or are the subject of ongoing investigation and testing. Based on the totality of empirical test results and assessments, including the NERC evaluation and recommendation, SPP concludes that all systems and functions will be in place and operational to permit the safe and reliable implementation of SPP's EIS market as of November 1, 2006.

parameters, were included for informational purposes as part of SPP's September 1, 2006 filing to comply with the Readiness Metric Condition.<sup>6</sup>

Measurements during the most recent phases of Market Trials by the MOTRTF have shown that SPP is not currently meeting the performance metrics for Short-Term and Mid-Term Load Forecasts. The theoretical targets established by these metrics (minimum seven day period) provide for a 97% solve rate with +/- 1% accuracy for Short-Term Forecasts and a 95% solve rate with +/- 3% accuracy for Mid-Term Load Forecasts.<sup>7</sup>

SPP management has determined that the metric does not account for variations in Control Area Capacity of Load. As a result, smaller Control Areas with relatively low pass rates tend to bias the results, producing an inflated, system-wide, metric-fail rate.<sup>8</sup>

Since the MOTRTF completed their report, SPP has refined its load forecast tools in order to achieve higher solve/accuracy percentages in all Control Areas. The September 26 deployment test reflects improvement in the results. SPP is monitoring the modifications to ensure they maintain reliably accurate forecast results for all hours and all Balancing Authorities. SPP will submit an update to the Commission prior to November 1, 2006.

- System Processes to Resolve Real Time Imbalances

During recent trials, SPP experienced periodic slowdowns in system processes designed to resolve imbalances. Specifically, during the hours of 3:00 a.m. to 4:00 a.m., simultaneous use of databases by nightly maintenance routines prevented market dispatch from solving imbalances on a timely basis for more than three consecutive intervals (fifteen minutes).

SPP's software vendor has resolved this system issue and SPP will continue monitoring to confirm that system processes continue to solve in a timely fashion without daily successive failures. Results of continued monitoring of this issue will be included in the Go/No-Go decision points. Written verification will be provided to the Commission prior to November 1, 2006.

- Stand-By System Availability

Completion of the testing of a production stand-by system for the market operation systems data base, providing additional redundancy, is expected to be completed in

---

<sup>6</sup> See Exhibit III to SPP's September 1, 2006 compliance filing.

<sup>7</sup> Accuracy is calculated as a function of integrated raw Inter-Control Center Communication Protocols ("ICCP") measurements.

<sup>8</sup> For example, adjusting for Capacity Load variations increases the overall pass rate from 82.5% to 91.1%.

advance of the November 1, 2006 target date for the EIS market. SPP will provide an update to the Commission as soon as such installation and testing is complete.

- Metrics and Metrics Task Force Review

SPP utilizes an array of metrics to monitor progress towards a November 1, 2006 EIS market implementation due to the breadth and complexity of items required to achieve this date. These metrics are owned by the Market and Operations Policy Committee (“MOPC”) and are comprised of multiple types of metrics from the following sources:

- Metrics developed by Accenture LLP to monitor the progress of the markets initiative as well as participant readiness throughout implementation. These metrics were originally developed when the target implementation was May, 2006 but have been updated based on changes in project scope and schedule.

- Metrics developed by the MOTRTF to monitor performance of systems affecting key aspects of the market design (e.g. – load forecasting, market operations system, state estimator and network model). These were originally developed when the target implementation was May, 2006 but have continued to be monitored with the revisions in the project schedule.

- Metrics requested by the Market Implementation Task Force (“MITF”) and established through the efforts of the MOPC, which include those identified as Market Trials Success criteria as well as metrics assigned to six SPP task forces comprised of Market Participants. These metrics were established based on a November 1, 2006 implementation. As of the date of this certification, one of the six task forces – *i.e.*, the Load Forecasting task force -- had not yet submitted a report to SPP.<sup>9</sup> While SPP is encouraging this task force to move forward as quickly as practical, unless reliability issues are raised that cannot be satisfactorily resolved, neither the successful launch of SPP’s EIS market nor SPP’s ability to demonstrate “substantial[] complet[ion]” of its market readiness metric, per the Commission’s directive, is dependant upon completion of the task force’s analysis.

In the course of preparing for market implementation, 397 metrics, across 28 project phases, were examined. To date, 186 of these metrics passed on time; 49 of these metrics passed late; 44 of these metrics failed; 27 metrics are still not complete and late; and there are 91 metrics that are scheduled to be completed throughout the course of EIS market implementation.

- System Stability Verification

The development of the various systems and business processes required for SPP’s EIS market requires multiple project phases. The final phase is Market Trials which includes tests of the systems and processes across SPP, vendors and Market Participants. The results of these Market Trials often require detailed analysis and sometimes changes

---

<sup>9</sup> The remaining five task forces provided SPP with either draft or final reports of their assessments.

to processes or systems which then require additional Market Trials for validation. Ideally, systems issues identified through Market Trials would all be complete prior to certification on September 29, 2006.

Because the Market Trials phase has resulted in some system changes that are not yet complete, SPP has not been able to utilize final versions of all software in the testing to date. However, SPP expects to complete all system modifications in sufficient time to provide at least seven continuous days of system monitoring prior to November 1, 2006. This issue will be included in the Go/No-Go decision points.

- Open Regulatory Matters

Finally, SPP notes that certain matters relating to its EIS market design are pending Commission review. SPP's September 1, 2006 filing to comply with the Commission's Readiness Metric Condition has yet to be acted upon. Similarly, requests for rehearing of the Commission's EIS Tariff Order remain pending before the Commission. The representations contained in these certification documents are necessarily subject to the outcome of pending regulatory matters that may affect the terms and conditions of SPP's EIS market design.

### **CONCLUSION**

SPP's certification of market readiness reflects the facts and circumstances existing as of this date. In the event of any material circumstantial change between now and November 1, 2006, SPP will use its best judgment as system operator to determine whether any delay in the start-up of the EIS market is necessary.<sup>10</sup>

Based on the foregoing, SPP submits that it has met all Commission compliance requirements for implementation of the SPP EIS market. Accordingly, SPP requests Commission acceptance of this filing and approval for SPP to initiate operation of its EIS market effective November 1, 2006.

Respectfully submitted,

---

Jeffrey G. DiSciullo

David S. Shaffer

**Attorneys for  
Southwest Power Pool, Inc.**

---

<sup>10</sup> See Midwest ISO, 110 FERC at P 38 (in accepting MISO's readiness certification, FERC explicitly acknowledges MISO's commitment to delay market start-up in the event of any material contingencies arising post-certification).

Certification of Operational Readiness

I, Nicholas A. Brown, am President and Chief Executive Officer of Southwest Power Pool, Inc. (“SPP”). In addition to the representations below, I have read the transmittal letter and related materials accompanying this Certification and confirm, to the best of my information and belief, the accuracy of the statements therein.

- (1) As President and Chief Executive Officer of SPP, I am ultimately responsible for ensuring that SPP reliably operates the transmission assets under its functional control and that the Energy Imbalance Service (“EIS”) Market complies with all terms and conditions of SPP’s Open Access Transmission Tariff (“OATT” or “Tariff”) filed with the Federal Energy Regulatory Commission in Docket No. ER06-451, *et al.*;
  
- (2) Based upon my observation and my general and specific knowledge of system tests, and my examination of and reliance upon materials compiled for me concerning the status of SPP’s various systems, and subject to items identified in the transmittal letter and related materials submitted herewith, I certify that these systems are available, processing and producing information sufficient to support all of the functions of SPP’s market. In particular, I certify:
  - (A) SPP is ready and able to operate the transmission assets under its functional control and the EIS Market established by the OATT on November 1, 2006, without adverse impact on the reliability of operations in the SPP Region;
  
  - (B) SPP has completed substantially the independently evaluated market readiness metrics filed with the Commission on September 1, 2006, to track SPP’s operational readiness and its testing plan for the start-up of the EIS Market on November 1, 2006;
  
  - (C) SPP’s market internal processes and procedures, including but not limited to settlements, bidding and scheduling procedures, have been tested, have been demonstrated to be effective and are ready to be implemented on November 1, 2006;
  
  - (D) SPP has established the readiness and capabilities of the Balancing Authorities to meet their balancing functions necessary to support the implementation of the EIS Market on November 1, 2006;
  
  - (E) SPP systems necessary for market operations, including, but not limited to, Security Constrained Economic Dispatch (“SCED”) and the day-ahead resource plan process are sufficiently stable and provide the functionality required to support the EIS Market on November 1, 2006;

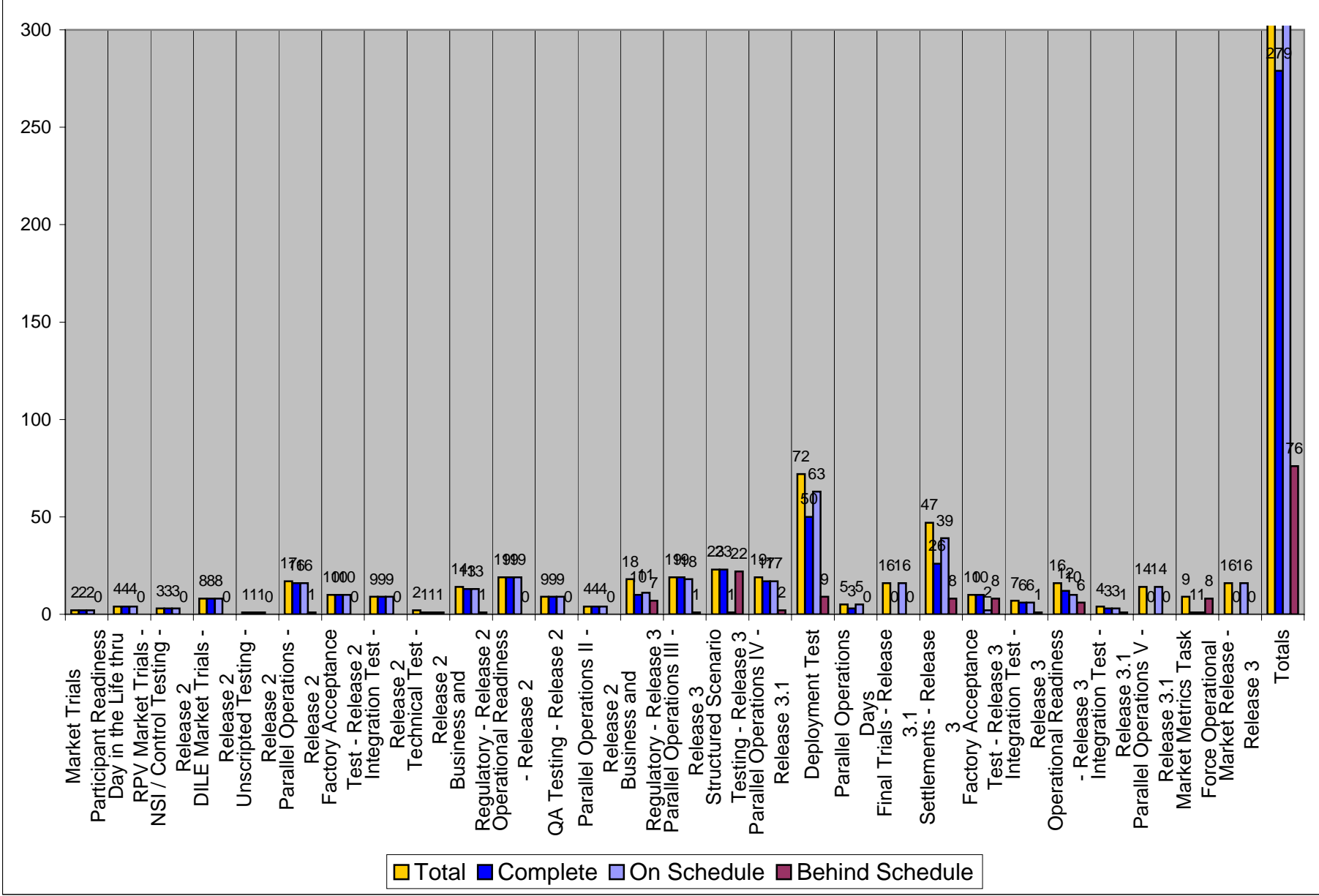
- (F) The NERC Operating Reliability Subcommittee has evaluated SPP's capabilities and reported that SPP is ready, from a reliability perspective, to commence market operations on November 1, 2006. This recommendation is based, in part, on the NERC Technical Verification Team's on-site evaluation and report on SPP's readiness to implement start-up of the EIS Market, which is included in the instant filing;
- (G) SPP will, prior to November 1, 2006, successfully test its Reversion Plan to address system operations in the event of a market failure, and the plan will be in place prior to the commencement of market operations on November 1, 2006;
- (H) SPP is sufficiently staffed to meet its business functions essential to implement the OATT that was filed with the Federal Energy Regulatory Commission in Docket No. ER06-451, *et al.*;
- (I) SPP has prepared its personnel for their duties and responsibilities in implementing the EIS Market on November 1, 2006 and to operate the EIS Market on an ongoing basis under normal and abnormal conditions;
- (J) SPP has sufficient financial resources to operate the EIS Market on November 1, 2006; and
- (K) SPP is ready to commence operations of the EIS Market on November 1, 2006.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Nicholas A. Brown

Reference Number	Phase	Total	Complete	On Schedule	Behind Schedule	Target Date	Expected Date	Comments Regarding Metrics Behind Schedule
1	Market Trials Participant Readiness							
1	ICCP/XML Connectivity - Release 2	2	2	2	0	9/30/2005	9/30/2005	
2	Day in the Life thru RPV Market Trials - Release 2	4	4	4	0	12/2/2005	12/2/2005	
3	NSI / Control Testing - Release 2	3	3	3	0	12/22/2005	12/22/2005	
4	DILE Market Trials - Release 2	8	8	8	0	2/10/2006	2/10/2006	
5	Unscripted Testing - Release 2	1	1	1	0	3/3/2006	3/3/2006	
6	Parallel Operations - Release 2	17	16	16	1	3/24/2006	8/1/2006	The archiving and data retention plan metric is being tracked as part of Operational Readiness - Release 3 and is not yet complete.
7	Factory Acceptance Test - Release 2	10	10	10	0	11/11/2005	11/11/2005	
8	Integration Test - Release 2	9	9	9	0	1/13/2006	1/13/2006	
9	Technical Test - Release 2	2	1	1	1	2/16/2006	9/1/2006	The 24X7 Technical Test Metric is not yet complete. This metric is being tracked as part of Parallel Operations IV - Release 3
10	Business and Regulatory - Release 2	14	13	13	1	4/20/2006	7/22/2006	The NERC waiver for the Congestion Management Process has not yet been received. This metric is being tracked as part of Business and Regulatory - Release 3.
11	Operational Readiness - Release 2	19	19	19	0	5/15/2006	5/15/2006	
12	QA Testing - Release 2	9	9	9	0	3/17/2006	3/17/2006	
13	Parallel Operations II - Release 2	4	4	4	0	5/5/2006	5/5/2006	
14	Business and Regulatory - Release 3	18	10	11	7	9/25/2006	9/27/2006	The target date for receiving the NERC waiver for the Congestion Management Process was 7/22/06. This metric was completed on 8/2. Additionally, the 60 day prior responses to be filed on 8/16 were filed on 9/1. The 8/16 date was incorrectly reflected in the project plan and should have been set to 9/1. The certification metric is anticipated to be delivered on 9/27/2006
15	Parallel Operations III - Release 3	19	19	18	1	6/15/2006*	9/1/2006	The market trials approach was approved during the 9/1/2006 MITF Meeting.
16	Structured Scenario Testing - Release 3	23	23	1	22	9/1/2006	9/20/2006	Structured Scenario Testing began 1 week late. The schedule was adjusted to reflect this. In regards to the participation metrics, participants during the MITF meeting requested to return completed verification forms by 9/20
17	Parallel Operations IV - Release 3.1	19	17	17	2	9/20/2006	9/29/2006	Only one part of 1 FERC report is outstanding. Solution is in place but data currently under investigation. Still awaiting stability of CAT to be fully measured
18	Deployment Test	72	50	63	9	8/9/2006	TBD	The 8/9 Deployment test was rescheduled for 8/11. The 8/23 deployment test was cancelled due to Production Issues. All of the metrics noted as part of the Deployment Test Task Force have been marked as late. Only 2 of these metrics are still outstanding
19	Parallel Operations Days	5	3	5	0	10/16/2006	10/16/2006	
20	Final Trials - Release 3.1	16	0	16	0	9/14/2006	9/14/2006	
21	Settlements - Release 3	47	26	39	8	10/19/2006	10/19/2006	The metrics marked as late were completed on 9/20 when settlement verification forms were submitted.
22	Factory Acceptance Test - Release 3	10	10	2	8	6/9/2006	9/22/2006*	The following FAT metrics were behind schedule: SPP code, AREVA code, Accenture Code, and DSS code. The late delivery of code was caused in part by the late addition of scope, which was approved through the stakeholder process. Additionally, SPP code, AREVA code, and Accenture code which was in scope, was delivered later in the process, but was successfully test as part of Integration Test - Release 3. The DSS code was delivered on 9/26 but this is only required for internal monitoring needed for market start.
23	Integration Test - Release 3	7	6	6	1	7/21/2006	TBD	1 High/ Critical SIR remains open
24	Operational Readiness - Release 3	16	12	10	6	7/21/2006	9/15/2006	The 24X7 Technical Test Metric is not yet complete. This metric is being tracked as part of Parallel Operations IV - Release 3. The completion of performance test is dependent upon the migration of LIPS, SLIPS, and Offer Caps (on SPP.org) to Production. Once this is complete, performance test can be fully executed and signed off by the business owners. The infrastructure freeze date has not been met due by issues with the MOS standby system.
25	Integration Test - Release 3.1	4	3	3	1	8/17/2006	TBD	Around 30 High/ Critical SIRs remain open, some of which are scheduled for Market Launch
26	Parallel Operations V - Release 3.1	14	0	14	0	10/6/2006	10/6/2006	
27	Market Metrics Task Force Operational Metrics	9	1	1	8	9/13/2006	TBD	Still awaiting presentation of final results
28	Market Release - Release 3	16	0	16	0	11/1/2006	11/1/2006	
<b>Totals</b>		<b>397</b>	<b>279</b>	<b>321</b>	<b>76</b>			





Reference Number	Type	Readiness Metric	Comments	Target	Actual
<b>14. Business and Regulatory - Release 3</b>					
14.1	Exit	Market Protocols Updated For Release 3		5/9/2006	5/8/2006
14.2	Exit	Transition & Reversion Plan Published & Included in 60 Days Post-Tariff Ruling Response	Includes Sign Off	5/19/2006	5/19/2006
14.3	Exit	60 Days Post-Tariff Ruling responses Filed with FERC		5/19/2006	5/19/2006
14.4	Exit	60 Days Prior responses Filed with FERC	A letter notifying the commission of the 11/1/2006 Market Implementation Date was filed with FERC on 8/2. Other compliance items related to the 60 days prior response are scheduled to be submitted prior to 8/31	8/16/2006	Complete - 9/1/2006
14.5	Exit	Independent Metrics Filed with FERC	The Independent Metrics are to be filed with FERC prior to 8/31	8/16/2006	Complete - 9/1/2006
14.6	Exit	Pro-Forma Reserve Sharing Agreement Filed with FERC	The Reserve Sharing Agreement is scheduled to be filed with FERC prior to 8/31	8/16/2006	Complete - 9/1/2006
14.7	Exit	Standard Metering Agent Agreement Filed with FERC	The Metering Agent Agreement was approved by Board and is scheduled to be filed prior to 8/31	8/16/2006	Complete - 9/1/2006
14.8	Exit	Market Participant readiness certification Filed with FERC	Participants representing 80% of generation	10/2/2006	
14.9	Exit	Control Area readiness certification Filed with FERC	100% of Control Areas	10/2/2006	
14.10	Exit	SPP readiness certification Filed with FERC		10/2/2006	
14.11	Exit	30 Days Prior responses Filed with FERC		10/2/2006	
14.12	Exit	IDCWG Evaluation of SPP Market Filed with FERC		10/25/2006	
14.13	Exit	NERC Readiness Recommendation of SPP Market Filed with FERC		10/25/2006	
14.14	Exit	Tariff Updates Approved by FERC with no conditions impacting the market go-live		10/1/2006	
14.15	Exit	SPP submits written response to NERC addressing the concerns identified in the initial NERC verification team report.		9/20/2006	Complete
14.16	Exit	NERC Waiver Received for Updated Congestion Management Process.		7/22/2006	Complete - 8/2/2006
14.17	Exit	Compliance filing due addressing FERC response to 5/19 filing	The Compliance Filing is scheduled to be filed prior to 8/31	8/21/2006	Complete - 9/1/2006
14.18	Exit	Market Participant Certification due to SPP	The Certification document went out this week and we asked for their response by 9/27 (ok'ed by MRT & Richard Dillon). I've received one thus far.	9/25/2006	Anticipated - 9/27/2006
<b>15. Parallel Operations III - Release 3 (8/7 - 8/17)</b>					
15.1	Entry	MITF approval of Market Trials Parallel Operations II	One participant had observations related to using the POC forms submitted by participants, and also requested more robust testing in the future. The MITF agreed to close Parallel Operations II noting Market Implementation should not proceed without fixes to the noted system issues.	Complete	
15.2	Entry	Market Trials Approach Completed		6/8/2006	Complete
15.3	Entry	Market Trials Success Criteria Defined		6/7/2006	Complete
15.4	Entry	Market Trials Approach Approved by MITF	Approved during 9/1/2006 MITF Meeting	6/15/2006	Complete - 9/1/2006
15.5	Tracking	Market Participants representing at least 80% of Market Footprint Generation submit Market and schedule data consistent with SPP protocols and timelines, using their expected production submission methods, for at least 3 consecutive days	SPP assumes that participants are using their expected production submission methods	Complete - 85.1%	
15.6	Tracking	Model updates made based on returned registration packages as of the 6/21 freeze date	All registration packets were received by 6/21	Complete	
15.7	Tracking	At least 97.5% of Hour Ahead Balancing Studies solve within 30 minutes for the duration of the testing cycle		Passed - ~99.6%	
15.8	Tracking	At least 99% of 5-minute Real-time Balancing studies solve in less than 5 five minutes for the duration of the testing cycle		Passed - 99.13%	
15.9	Tracking	No more than 3 Real-time Balancing studies fail in a row for the duration of the testing cycle	Only on August 16th - 11 cases failed	Failed	
15.10	Tracking	Market Operations Portal functionality is available at least 99.5% of the time for the duration of the testing cycle		Passed - 100%	
15.11	Tracking	State Estimator has ninety-seven percent (97%) availability of five (5) minute solutions for the duration of the testing cycle		Passed	
15.12	Tracking	State Estimator solves 90% of the time with Mismatch level lower than 50 MW and with high accuracy throughout the testing cycle	of the time with high accuracy (SE MW within 5% of the base rating or < 50 MW (larger of 2 values is target)) for 50 largest units.	Failed	
15.13	Tracking	1%) throughout the testing cycle and Mid term load forecast solves 95% of time with high accuracy(+/- 3%) for the duration of the testing cycle		Failed	
15.14	Tracking	ICCP availability of 99.5% throughout the testing cycle		Passed	
15.15	Tracking	Real-Time EIS Calculations successful ninety-nine percent (99%) of five (5) minute solutions for the duration of the testing cycle	Only failed for August 16th.	Failed	
15.16	Tracking	Market Flow Calculations successful ninety-seven percent (97%) of fifteen (15) minute solutions for the duration of the testing cycle	Only failed for August 16th.	Failed	
15.17	Tracking	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the testing cycle		No data available due to CAT not turned on in Production	
15.18	Entry	Market Trials Success Criteria Approved by MITF		7/14/2006	Complete

Reference Number	Type	Readiness Metric	Comments	Target	Actual
15.19	Exit	Market Participants representing ≥ 80% of Market Footprint Generation Successfully Completed Parallel Operations III based upon Market Trials Success Criteria		Complete - Based upon results of metric 15.5	
<b>16. Structured Scenario Testing - Release 3 (8/28 - 9/7)</b>					
16.1	Entry	MITF approval of Market Trials Parallel Operations III	MITF approval of close of cycle	Complete	
16.2	Exit	Market Participants representing at least 80% of Market Footprint Generation return completed test scripts as prescribed in the Market Trials Approach document	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Passed - 92.2%	
16.3	Exit	Market Participants representing at least 80% of Market Footprint Generation successfully test \$400 offer cap safety net functionality based on SPP provided test script and expected results	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Passed 82.2% out of 94.7% = 97.4%	
16.4	Exit	Market Participants representing at least 80% of Market Footprint Generation successfully test MP Level Load Forecast functionality based on SPP provided test script and expected results	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Passed 82.9% out of 86.6% = 95.7%	
16.5	Exit	Market Participants representing at least 80% of Market Footprint Generation successfully test over/under commitment functionality based on SPP provided test script and expected results	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Passed 80.3% out of 86.6% = 92.7%	
16.6	Exit	Market Participants representing at least 80% of Market Footprint Generation successfully view Offer Cap data on SPP.org based on SPP provided test script and expected results	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Passed 87.5%	
16.7	Exit	At least 75% of Market Control Area Operators successfully access the backup EI NSI values from OPS1	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	81.8% 9 out of 11	
16.8	Exit	At least 75% of Market Control Areas that have multiple MPs within their area of responsibility successfully test availability of MP related data for those participants within their respective Control Areas based on SPP provided test script and expected results: - Hourly Resource Plan - Ancillary Service Plan - Hourly load forecast - 5-minute dispatch instruction, excluding price - Schedules (if any) - Native Load Schedules (if any) - Energy Imbalance calculation for each Settlement Area - Scheduled and Actual Settlement Area Load and/or Generation - Registration information consisting of unit-to-plant groupings and associated settlement location names as well as information needed to associate SPP's network and SCADA models with the corresponding models maintained by the host Balancing Authority	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	83.3% 5 out of 6 Service Requests are in Progress	
16.9	Exit	At least 80% of Market Participants registered to use NLS successfully test enforcement of submission timing rules based on SPP provided test script and expected results	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Passed 83.1% out of 86.6% = 96%	
16.10	Exit	Market Participants representing at least 80% of Market Footprint Generation successfully view substituted LIPs on SPP.org based on SPP provided test script and expected results	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Passed 89.8%	
16.11	Exit	Market Participants representing at least 80% of Market Footprint Generation successfully view additional LIP data elements on SPP.org based on SPP provided test script and expected results	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Passed 89.1%	
16.12	Tracking	At least 97.5% of Hour Ahead Balancing Studies solve within 30 minutes for the duration of the testing cycle	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Passed - 97.52%	
16.13	Tracking	At least 99% of 5-minute Real-time Balancing studies solve in less than 5 five minutes for the duration of the testing cycle	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Failed - 98.90%	
16.14	Tracking	No more than 3 Real-time Balancing studies fail in a row for the duration of the testing cycle	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Failed - 4 missed RTBs from 04:20-04:45 on 9/6/2006	
16.15	Tracking	Market Portal is available at least 99.5% of the time for the duration of the testing cycle	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Passed	
16.16	Tracking	State Estimator has ninety-seven percent (97%) availability of five (5) minute solutions for the duration of the testing cycle	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Failed on 9/5 (93.4%)	
16.17	Tracking	State Estimator solves 90% of the time with Mismatch level lower than 50 MW and with high accuracy throughout the testing cycle	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Failed on 9/5 and 9/6	
16.18	Tracking	Short term load forecast solves 97% of time with high accuracy (+/- 1%) throughout the testing cycle and Mid term load forecast solves 95% of time with high accuracy (+/- 3%) for the duration of the testing cycle	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Failed - Based off of periods solved	
16.19	Tracking	ICCP availability of 99.5% throughout the testing cycle	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Passed	
16.20	Tracking	Real-Time EIS Calculations successful ninety-nine percent (99%) of five (5) minute solutions for the duration of the testing cycle	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Only failed on those days where there was a Planned Update	
16.21	Tracking	Market Flow Calculations successful ninety-seven percent (97%) of fifteen (15) minute solutions for the duration of the testing cycle	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Only failed on those days where there was a Planned Update	
16.22	Tracking	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the testing cycle		Failed	
16.23	Exit	Market Participants representing ≥ 80% of Market Footprint Generation Successfully Completed Structured Scenario Testing based upon Market Trials Success Criteria	Dates of SST were moved from 8/21 - 9/1 to 8/28 - 9/7	Passed - 92.2%	
<b>17. Parallel Operations IV - Release 3 (9/11 - 9/20)</b>					
17.1	Entry	MITF approval of Market Trials Structured Scenario Testing	The MITF decides to move forward into Parallel Operations IV (POPS IV) without closing Structured Scenario Testing (SST). Market Trials will not move beyond POPS IV and SST will not be closed until the reasons behind the failed metrics in SST have been identified and MITF members are comfortable that solutions have been implemented that would address those failures. MITF understands that demonstrating the effectiveness of the solutions may require additional testing.	Failed	

Reference Number	Type	Readiness Metric	Comments	Target	Actual
17.2	Exit	Market Participants representing at least 80% of Market Footprint Generation submit Market and schedule data consistent with SPP protocols and timelines, using their expected production submission methods, for at least 3 consecutive days	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20	Passed - 96.7% (Resource Plans Submitted by all MPs with generation except for 2)	
17.3	Exit	At least 97.5% of Hour Ahead Balancing Studies solve within 30 minutes for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20	Failed - ~96% from 9/11 - 9/19	
17.4	Exit	At least 99% of 5-minute Real-time Balancing studies solve in less than 5 five minutes for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20	Failed - ~96% from 9/11 - 9/19	
17.5	Exit	No more than 3 Real-time Balancing studies fail in a row for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20	Failed	
17.6	Exit	Market Operations Portal functionality is available at least 99.5% of the time for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20	Passed - 100%	
17.7	Exit	State Estimator has ninety-seven percent (97%) availability of five (5) minute solutions for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20	Passed	
17.8	Exit	State Estimator solves 90% of the time with Mismatch level lower than 50 MW and with high accuracy throughout the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20	Passed	
17.9	Exit	Short term load forecast solves 97% of time with high accuracy (+/- 1%) throughout the testing cycle and Mid term load forecast solves 95% of time with high accuracy(+/- 3%) for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20	Failed	
17.10	Exit	ICCP availability of 99.5% throughout the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20	Failed - 9/20 at 99.31% Failed - 9/12 at 98.26% Failed - 9/19 at 89.93% 96.53% - 9/16 (Due to Planned MOS Production Maintenance)	
17.11	Exit	Real-Time EIS Calculations successful ninety-nine percent (99%) of five (5) minute solutions for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20	94.79% - 9/16 - Due to Planned MOS Production Maintenance Failed - 9/19 - 86.46%	
17.12	Exit	Market Flow Calculations successful ninety-seven percent (97%) of fifteen (15) minute solutions for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20	Failed - 9/19 - 86.46%	
17.13	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the testing cycle	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20		
17.14	Exit	Market Participants representing ≥ 80% of Market Footprint Generation Successfully Completed Parallel Operations IV based upon Market Trials Success Criteria	Dates of Parallel Operations IV were moved from 9/5 - 9/15 to 9/11 - 9/20	Passed Based off of Results of Metric 17.2	
17.15	Exit	Technical Test executed successfully.	SPP Verifies all critical functioning of real time systems (MOS, RTO_SS, CAT) have remained active and stable for 24 Hours for 7 consecutive days. The Market Loss functionality impacting RTO_SS is not included in this metric. The solving of the solution will only be measured in regards to CAT. (Note: This metric excludes planned outages. Planned outages may be under an hour for patches and fixes and for significant changes, the outage should be within a reasonable timeframe).	9/1/2006	~9/21/2006 Stability of all but CAT has been completed successfully
17.16	Entry	Transition to 4-second RTO_SS NSI		9/1/2006	8/21/2006
17.17	Exit	FERC Reports Completed	The reports required by FERC are completed by the Market Monitoring Group	9/16/2006	Anticipated - 9/29/2006
17.18	Entry	All Market Functionality is Tested	Due Date moved from 9/1 to 9/7	9/7/2006	9/7/2006
17.19	Entry	All Market Settlement Functionality is Tested	Due Date moved from 9/1 to 9/7	9/7/2006	9/7/2006
<b>18. Deployment Testing (5/9 - 9/14)</b>					
18.1	Exit	100% of Market Control Areas Participate in each deployment test	Passed all Deployment Tests up to 8/16	In Progress	
18.2	Exit	Market Participants representing at least 80% of Market Footprint Generation participate in all Deployment Control Tests	Passed all Deployment Tests up to 8/16	In Progress	
18.3	Exit	All 5-minute Real-time Balancing Studies solve in less than 5 five minutes for the duration of the test	Passed for 6/21 and 6/28 test	In Progress	
18.4	Exit	The Market Metrics Deployment Task Force renders an opinion that units dispatched in correct economic order	Market Metrics Deployment Task Force renders an opinion that units are dispatched in correct economic order by the SPP MOS based upon actual unit operating levels, Resource Plans (ramp rate, unit minimum & maximum operating limits, ect.) and Ancillary Service Capacity Plans as well as unit offers submitted by Market Participants. However, the Market Metrics Deployment Task Force is also concerned about the volatility of LIPs seen from one 5-minute interval to the next	9/13/2006	Complete - 9/22/2006
18.5	Exit	The Market Metrics Deployment Task Force renders an opinion that ACE maintained within range historically experienced by control area unless deviation is explained and explanation accepted by the control area as a deviation that should not interfere with normal market operations	The Market Metrics Deployment Task Force renders an opinion that ACE maintained within range historically experienced by control areas during the deployment test on 9/6 and 9/11, however, the task force uncovered some critical issues that caused ACE problems during subsequent tests. These critical issues include: • MOS20060920-2 Erroneous NSI values used for dispatch • MOS20060920-3 Short Term Load Forecast Errors and • SPP20060920-1 Constant Error on Scheduled Resource and Balancing	9/13/2006	Complete - 9/22/2006
18.6	Exit	The Market Metrics Deployment Task Force renders an opinion that NSI calculation 100% accurate	Market Metrics Deployment Task Force (MMDTF) has reviewed the calculation of NSI during specific intervals for the deployment tests conducted on 9-06-06, 9-11-06 and 9-13-06, respectively. Based on our review, we believe there were two NSI and/or NLS issues during the deployment tests reviewed.	9/13/2006	Complete - 9/22/2006 - Failed
18.7	Exit	The Market Metrics Deployment Task Force renders an opinion that constraints managed in accordance with NERC priorities and SPP protocols and tariff, and CAT working effectively to issue curtailment instructions		9/13/2006	LATE
18.8	Exit	The Market Metrics Deployment Task Force renders an opinion that No line limits violated		9/13/2006	LATE
18.9	Exit	The Market Metrics Deployment Task Force renders an opinion that LIPs within expected ranges	Based on its review, the task force has not identified concerns with the manner in which the LIP is calculated or the process for dispatching units. Task force members are very concerned that the data analyzed suggests that there may be inadequate liquidity or depth to the market.	9/13/2006	Complete - 9/22/2006
<b>6/21 Deployment Test</b>					

Reference Number	Type	Readiness Metric	Comments	Target	Actual
18.10	Exit	All Market Control Areas certify ability to include EI NSI component into total NSI calculation by start of 6/21 Deployment test		Passed	
18.11	Tracking	At least 70% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 65% of the 6/21 deployment test duration		Passed - 85%	
18.12	Tracking	No more than 36 CPS2 violations across all Market Footprint Control Areas throughout the 6/21 deployment testing period	Based on 2 hour test and 10 Market Control Areas (10 CAs * 2 hours * 6 intervals per hour * 30%)	Passed	
18.13	Tracking	No single Control Area can exceed 4 CPS2 violations for the duration of the 6/21 deployment testing period	Based on 2 hour test (2 hours * 6 intervals per hour * 30%)	Failed	
<b>6/28 Deployment Test</b>					
18.14	Tracking	At least 75% of the online market footprint generation remains within 10% of deployment instructions for at least 70% of the 6/28 deployment test duration		Passed	
18.15	Tracking	No more than 36 CPS2 violations across all Market Footprint Control Areas for the duration of the 6/28 deployment testing period	Based on 2 hour test and 10 Market Control Areas (10 CAs * 2 hours * 6 intervals per hour * 30%)	Passed	
18.16	Tracking	No single Control Area can exceed 4 CPS2 violations for the duration of the 6/28 deployment testing period	Based on 2 hour test (2 hours * 6 intervals per hour * 30%)	Failed	
<b>5/9, 6/21, 6/28 Deployment Tests</b>					
18.17	Exit	Approval of completion of 5/9, 6/21, and 6/28 Deployment Tests based upon Market Trials Success Criteria	Deployment tests on 5/9, 6/21, and 6/28 have been completed. The MITF approved closure of the 6/21 deployment test and notes the following items associated with the test. SPP and market participants learned a good deal from this test, and MITF expects that experience during that test will result in improved performance in future tests. Examples of problems that were encountered that should be addressed going forward are: <ul style="list-style-type: none"> <li>• market participant responsibilities to manage ACE during a test,</li> <li>• inadequacy of dispatchable range,</li> <li>• higher than expected LIPs,</li> <li>• The unavailability of the SPP Curtailment/Adjustment Tool</li> <li>• Issues noted with the ability of balancing authorities to meet tracking metrics associated with CPS2.</li> </ul>	Complete	
18.18	Exit	MITF approves closure of 5/9, 6/21 and 6/28 Deployment Tests and submits motion to MWG.	A draft of the motion was developed during the 6/29 MITF Meeting	Complete	
<b>8/9 Deployment Test</b>					
18.19	Tracking	At least 80% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 75% of the 8/9 deployment test duration		Passed - 8/11/2006	
18.20	Tracking	No more than 36 CPS2 violations across all Market Footprint Control Areas for the duration of the 8/9 deployment testing period	Based on 3 hour test and 10 Market Control Areas (10 CAs * 3 hours * 6 intervals per hour * 20%)	Passed - 8/11/2006	
18.21	Tracking	No single Control Area can exceed 4 CPS2 violations for the duration of the 8/9 deployment testing period	Based on 3 hour test (3 hours * 6 intervals per hour * 20%)	Passed - 8/11/2006	
<b>8/16 Deployment Test</b>					
18.22	Tracking	At least 85% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 80% of the 8/16 deployment test duration			
18.23	Tracking	No more than 36 CPS2 violations across all Market Footprint Control Areas for the duration of the 8/16 deployment testing period	Based on 3 hour test and 10 Market Control Areas (10 CAs * 3 hours * 6 intervals per hour * 20%)	Passed - 31 Total CPS2 Violations	
18.24	Tracking	No single Control Area can exceed 4 CPS2 violations for the duration of the 8/16 deployment testing period	Based on 3 hour test (3 hours * 6 intervals per hour * 20%)	Failed 3 Control Areas Exceeded Max (8/7/10 Violations)	
<b>8/23 Deployment Test</b>					
18.25	Tracking	At least 85% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 80% of the 8/23 deployment test duration		Failed - Cancelled due to corruption of the production database	
18.26	Tracking	No more than 36 CPS2 violations across all Market Footprint Control Areas for the duration of the 8/23 deployment testing period	Based on 3 hour test and 10 Market Control Areas (10 CAs * 3 hours * 6 intervals per hour * 20%)	Failed - Cancelled due to corruption of the production database	
18.27	Tracking	No single Control Area can exceed 4 CPS2 violations for the duration of the 8/23 deployment testing period	Based on 3 hour test (3 hours * 6 intervals per hour * 20%)	Failed - Cancelled due to corruption of the production database	
18.28	Tracking	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the deployment test.		Failed - Cancelled due to corruption of the production database	
<b>8/30 Deployment Test</b>					
18.29	Exit	At least 90% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 85% of the 8/30 deployment test duration		Passed	
18.30	Exit	No more than 18 CPS2 violations across all Market Footprint Control Areas for the duration of the 8/30 deployment testing period	Based on 3 hour test and 10 Market Control Areas (10 CAs * 3 hours * 6 intervals per hour * 10%)	Failed - 40 Total	
18.31	Exit	No single Control Area can exceed 2 CPS2 violations for the duration of the 8/30 deployment testing period	Based on 3 hour test (3 hours * 6 intervals per hour * 10%)	Failed - HE 7, 8, 9	
18.32	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the deployment test.		Passed	
<b>8/9, 8/16, 8/23, 8/30 Deployment Tests</b>					
18.33	Exit	Approval of completion of 8/9, 8/16, 8/23, and 8/30 Deployment Tests based upon Market Trials Success Criteria		Failed - Due to Cancellation of 8/23 Test	
18.34	Exit	MITF approves closure of 8/9, 8/16, 8/23, and 8/30 Deployment Tests and submits motion to MWG		Failed - Due to Cancellation of 8/23 Test	
<b>9/6 Deployment Test</b>					
18.35	Exit	At least 90% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 85% of the 9/6 deployment test duration		Passed	
18.36	Exit	No more than 18 CPS2 violations across all Market Footprint Control Areas for the duration of the 9/6 deployment testing period	Based on 3 hour test and 10 Market Control Areas (10 CAs * 3 hours * 6 intervals per hour * 10%)	Passed	
18.37	Exit	No single Control Area can exceed 2 CPS2 violations for the duration of the 9/6 deployment testing period	Based on 3 hour test (3 hours * 6 intervals per hour * 10%)	Passed	

Reference Number	Type	Readiness Metric	Comments	Target	Actual
18.38	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the deployment test.			Passed
<b>9/12 Deployment Test</b>					
18.39	Exit	At least 90% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 85% of the 9/12 deployment test duration			Passed
18.40	Exit	No more than 27 CPS2 violations across all Market Footprint Control Areas for the duration of the 9/12 deployment testing period	Based on 4 hour test and 11 Market Control Areas (11 CAs * 4 hours * 6 intervals per hour * 10%)		Passed
18.41	Exit	No single Control Area can exceed 3 CPS2 violations for the duration of the 9/12 deployment testing period	Based on 4 hour test (4 hours * 6 intervals per hour * 10%)		Failed - 1 CA with 9 CPS2 violations
18.42	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the deployment test.			N/A
<b>9/13 Deployment Test</b>					
18.43	Exit	At least 90% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 85% of the 9/13 deployment test duration			Passed
18.44	Exit	No more than 27 CPS2 violations across all Market Footprint Control Areas for the duration of the 9/13 deployment testing period	Based on 4 hour test and 11 Market Control Areas (11 CAs * 4 hours * 6 intervals per hour * 10%)		Passed - Total of 15 CPS2 violations. 10 related to Unit trip.
18.45	Exit	No single Control Area can exceed 3 CPS2 violations for the duration of the 9/13 deployment testing period	Based on 4 hour test (4 hours * 6 intervals per hour * 10%)		Failed - 7/6
18.46	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the deployment test.			Passed - Reported Constraint in Constraint Manager at 11:25 on FG #5204 (SPHWMCSUMEMC). Dispatch instructions went out at 11:40.
<b>9/18 Deployment Test</b>					
18.47	Exit	At least 90% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 85% of the 9/18 deployment test duration			Passed
18.48	Exit	No more than 27 CPS2 violations across all Market Footprint Control Areas for the duration of the 9/18 deployment testing period	Based on 3 hour test and 10 Market Control Areas (10 CAs * 3 hours * 6 intervals per hour * 10%)		Passed - Total of 25 CPS2 Violations
18.49	Exit	No single Control Area can exceed 3 CPS2 violations for the duration of the 9/18 deployment testing period	Based on 3 hour test (3 hours * 6 intervals per hour * 10%)		Failed - One CA with 8 CPS2 Violations
18.50	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the deployment test.			Passed - Reported Constraint in Constraint Manager at 19:10 on FG # 5207 (REDARCREDAEC). Dispatch instructions went out at 19:25.
<b>9/20 Deployment Test</b>					
18.51	Exit	At least 90% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 85% of the 9/20 deployment test duration			Passed
18.52	Exit	No more than 53 CPS2 violations across all Market Footprint Control Areas for the duration of the 9/20 deployment testing period	Based on 8 hour test and 10 Market Control Areas (11 CAs * 8 hours * 6 intervals per hour * 10%)		Passed - Total of 12 CPS2 Violations
18.53	Exit	No single Control Area can exceed 5 CPS2 violations for the duration of the 9/20 deployment testing period	Based on 8 hour test (8 hours * 6 intervals per hour * 10%)		Passed
18.54	Exit	Market transition and reversion plan successfully executed			
18.55	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the deployment test.			Passed - Reported Constraint in Constraint Manager at 10:30 on FG # 5247 (SPPSPSTIES). Dispatch instructions went out at 10:45.
<b>9/27 Deployment Test</b>					
18.56	Exit	At least 90% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 85% of the 9/27 deployment test duration			
18.57	Exit	No more than 18 CPS2 violations across all Market Footprint Control Areas for the duration of the 9/27 deployment testing period	Based on 3 hour test and 10 Market Control Areas (10 CAs * 3 hours * 6 intervals per hour * 10%)		
18.58	Exit	No single Control Area can exceed 2 CPS2 violations for the duration of the 9/27 deployment testing period	Based on 3 hour test (3 hours * 6 intervals per hour * 10%)		
18.59	Exit	Market transition and reversion plan successfully executed			
18.60	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the deployment test.			
<b>9/6, 9/12, 9/18, 9/20, 9/27 Deployment Tests</b>					
18.61	Exit	Approval of completion of 9/6, 9/12, 9/18, 9/20, and 9/27 Deployment Tests based upon Market Trials Success Criteria			
18.62	Exit	MITF approves closure of 9/6, 9/12, 9/18, 9/20, and 9/27 Deployment Tests and submits motion to MWG			
<b>10/4 Deployment Test</b>					
18.63	Exit	At least 90% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 85% of the 10/4 deployment test duration			
18.64	Exit	No more than 18 CPS2 violations across all Market Footprint Control Areas for the duration of the 10/4 deployment testing period	Based on 3 hour test and 10 Market Control Areas (10 CAs * 3 hours * 6 intervals per hour * 10%)		
18.65	Exit	No single Control Area can exceed 2 CPS2 violations for the duration of the 10/4 deployment testing period	Based on 3 hour test (3 hours * 6 intervals per hour * 10%)		
18.66	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the deployment test.			



Reference Number	Type	Readiness Metric	Comments	Target	Actual
<b>10/11 Deployment Test</b>					
18.67	Exit	At least 90% of the online market footprint generation remains within 10% of deployment instructions (or 5 MW, whichever is greater) for at least 85% of the 10/11 deployment test duration			
18.68	Exit	No more than 18 CPS2 violations across all Market Footprint Control Areas for the duration of the 10/11 deployment testing period	Based on 3 hour test and 10 Market Control Areas (10 CAs * 3 hours * 6 intervals per hour * 10%)		
18.69	Exit	No single Control Area can exceed 2 CPS2 violations for the duration of the 10/11 deployment testing period	Based on 3 hour test (3 hours * 6 intervals per hour * 10%)		
18.70	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the deployment test.			
<b>10/4 and 10/11 Deployment Tests</b>					
18.71	Exit	Approval of completion of 10/4 and 10/11 Deployment Tests based upon Market Trials Success Criteria			
18.72	Exit	MITF approves closure of 10/4 and 10/11 Deployment Tests and submits motion to MWG			
<b>19. Parallel Operations Days (6/7 - 10/16)</b>					
19.1	Tracking	Successful participation in POD testing during June	Participants representing 80% of generation have participated in June POD testing June POD testing dates: 6/21, 6/28	7/1/2006	Complete
19.2	Tracking	Successful participation in POD testing during July	Participants representing 80% of generation have participated in July POD testing July POD testing dates: 7/19	8/1/2006	Failed 70% of generation participated
19.3	Tracking	Successful participation in POD testing during August	Participants representing 80% of generation have participated in August POD testing August POD testing dates: 8/9, 8/16, 8/23, and 8/30	9/1/2006	87.5% - 8/11 87.5% - 8/16 Failed - 8/23 No POD Testing Occurred
19.4	Tracking	Successful participation in POD testing during September	Participants representing 80% of generation have participated in September POD testing September POD testing dates: 9/12, 9/20, 9/27	10/1/2006	
19.5	Tracking	Successful participation in POD testing during October	Participants representing 80% of generation have participated in October POD testing October POD testing dates: 10/4 and 10/11	10/16/2006	
<b>20. Final Trials - Release 3.1 (10/9 - 10/17)</b>					
20.1	Entry	MITF approval of Market Trials - Parallel Operations IV	MITF approval of close of cycle		
20.2	Exit	Market Participants representing at least 80% of Market Footprint Generation submit Market and schedule data consistent with SPP protocols and timelines, using their expected production submission methods, for at least 3 consecutive days			
20.3	Exit	At least 97.5% of Hour Ahead Balancing Studies solve within 30 minutes for the duration of the testing cycle			
20.4	Exit	At least 99% of 5-minute Real-time Balancing studies solve in less than 5 five minutes for the duration of the testing cycle			
20.5	Exit	No more than 3 Real-time Balancing studies fail in a row for the duration of the testing cycle			
20.6	Exit	Market Operations Portal functionality is available at least 99.5% of the time for the duration of the testing cycle			
20.7	Exit	State Estimator has ninety-seven percent (97%) availability of five (5) minute solutions for the duration of the testing cycle			
20.8	Exit	State Estimator solves 90% of the time with Mismatch level lower than 50 MW and with high accuracy throughout the testing cycle			
20.9	Exit	Short term load forecast solves 97% of time with high accuracy (+/- 1%) throughout the testing cycle and Mid term load forecast solves 95% of time with high accuracy(+/- 3%) for the duration of the testing cycle			
20.10	Exit	ICCP availability of 99.5% throughout the testing cycle			
20.11	Exit	Real-Time EIS Calculations successful ninety-nine percent (99%) of five (5) minute solutions for the duration of the testing cycle			
20.12	Exit	Market Flow Calculations successful ninety-seven percent (97%) of fifteen (15) minute solutions for the duration of the testing cycle			
20.13	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the testing cycle			
20.14	Exit	Market Participants representing ≥ 80% of Market Footprint Generation Successfully Completed Final Trials based upon Market Trials Success Criteria			
20.15	Exit	MITF approval of Market Trials - Final Trials.	MITF approval of close of cycle		
20.16	Exit	System Freeze Date Milestone Met		10/17/2006	
<b>21. Settlements - Release 3 (7/31 - 10/19)</b>					
<b>Parallel Operations III - Release 3</b>					
21.1	Tracking	At least 60% of Market Assets have meter data submitted for each settlement statement produced during the Parallel Operations III testing cycle		8/23/2006	Passed
21.2	Tracking	At least 60% of Market Loads have meter data submitted for each settlement statement produced during the Parallel Operations III testing cycle		8/23/2006	Passed - -91%
21.3	Tracking	At least 6 Control Areas submit Interchange Meter data for each settlement statement produced during the Parallel Operations III testing cycle	Based on 11 Control Areas * 50%	8/23/2006	Passed
21.4	Tracking	Market Participants representing at least 80% of Market Footprint Generation return completed settlement statement and invoice verification spreadsheet acknowledging retrieval and review of applicable settlement statements and invoices		8/24/2006	Failed - -52%

Reference Number	Type	Readiness Metric	Comments	Target	Actual
21.5	Tracking	Initial, Final, and Resettlement Statements are validated and posted for each Operating Day of the Parallel Operations III testing cycle		8/24/2006	Passed
21.6	Tracking	Invoices that contain all Settlement Statements from the testing cycle are published during the Parallel Operations III testing cycle		8/24/2006	Passed
<b>Structured Scenario Testing - Release 3</b>					
21.7	Tracking	At least 70% of Market Assets have meter data submitted for each settlement statement produced during the Structured Scenario testing cycle	Date rescheduled from 9/6 to 9/13	9/13/2006	Passed
21.8	Tracking	At least 70% of Market Loads have meter data submitted for each settlement statement produced during the Structured Scenario testing cycle	Date rescheduled from 9/6 to 9/13	9/13/2006	Passed
21.9	Tracking	At least 8 of Control Areas submit Interchange Meter data for each settlement statement produced during the Structured Scenario testing cycle	Date rescheduled from 9/6 to 9/13 Based on 11 Control Areas * 70%	9/13/2006	Passed
21.10	Tracking	Market Participants representing at least 80% of Market Footprint Generation return completed settlement statement and invoice verification spreadsheet acknowledging retrieval and review of applicable settlement statements and invoices	Date rescheduled from 9/7 to 9/14	9/14/2006	79.70%
21.11	Tracking	Initial, Final, and Resettlement Statements are validated and posted for each Operating Day of the Structured Scenario testing cycle	Date rescheduled from 9/7 to 9/14	9/14/2006	Two MPs had no settlement statements posted for the duration of the test cycle
21.12	Tracking	Invoices that contain all Settlement Statements from the testing cycle are published during the Structured Scenario testing cycle	Date rescheduled from 9/7 to 9/14	9/14/2006	Two MPs had no invoices posted for the duration of the test cycle
21.13	Tracking	Market Participants representing at least 80% of Market Footprint Generation successfully test Meter Agent role functionality based on SPP provided test script and expected results for Structured Scenario Testing	Date rescheduled from 9/7 to 9/14	9/14/2006	90.9% 10 of 11
21.14	Tracking	Market Participants representing at least 80% of Market Footprint Generation successfully test Settlement Statement view/query by Settlement Date functionality based on SPP provided test script and expected results for Structured Scenario Testing	Date rescheduled from 9/7 to 9/14	9/14/2006	82.8%
21.15	Tracking	Market Participants representing at least 80% of Market Footprint Generation successfully test meter data view/query by OD functionality based on SPP provided test script and expected results for Structured Scenario Testing	Date rescheduled from 9/7 to 9/14	9/14/2006	63.6% 7 of 11 CAs
21.16	Tracking	Market Participants representing at least 80% of Market Footprint Generation verify receipt of Miscellaneous Charges/Credits on at least one Settlement Statement for Structured Scenario Testing	Date rescheduled from 9/7 to 9/14	9/14/2006	83.1%
21.17	Tracking	Market Participants representing at least 80% of Market Footprint Generation verify receipt of substitute LIP indicator on at least one Settlement Statement for Structured Scenario Testing	Date rescheduled from 9/7 to 9/14	9/14/2006	73.8%
<b>Parallel Operations IV - Release 3.1</b>					
21.18	Exit	At least 80% of Market Assets have meter data submitted for each settlement statement produced during the Parallel Operations IV testing cycle		9/27/2006	
21.19	Exit	At least 80% of Market Loads have meter data submitted for each settlement statement produced during the Parallel Operations IV testing cycle		9/27/2006	
21.20	Exit	At least 10 Control Areas submit Interchange Meter data for each settlement statement produced during the Parallel Operations IV testing cycle	Based on 11 Control Areas * 90%	9/27/2006	
21.21	Exit	Market Participants representing at least 80% of Market Footprint Generation return completed settlement statement and invoice verification spreadsheet acknowledging retrieval and review of applicable settlement statements and invoices		9/28/2006	
21.22	Exit	Initial, Final, and Resettlement Statements are validated and posted for each Operating Day of the Parallel Operations IV testing cycle		9/28/2006	
21.23	Exit	Invoices that contain all Settlement Statements from the testing cycle are published during the Parallel Operations IV testing cycle		9/28/2006	
21.24	Exit	Market Participants representing at least 80% of Market Footprint Generation successfully test Meter Agent role functionality based on SPP provided test script and expected results for Parallel Operations IV		9/27/2006	
<b>Market Metrics Settlement Task Force Metrics</b>					
21.25	Exit	The Market Metrics Settlements Task Force renders an opinion that 75% of Market Participants certify that they are able to download settlement statements and invoices or payout reports	Pending receipt of completed forms for W/E 9/8 Results per Settlements Task Force Report posted for 9/14 MITF Meeting	9/13/2006	Only received 50% of Forms - Failed
21.26	Exit	The Market Metrics Settlements Task Force renders an opinion that all calculations on settlement statement are accurate and all data used in the formulas is retrieved from the correct data source	Results per Settlements Task Force Report posted for 9/14 MITF Meeting	9/13/2006	Passed
21.27	Exit	The Market Metrics Settlements Task Force renders an opinion that all charges on settlement statement 100% verifiable with data that is readily available to MP	Results per Settlements Task Force Report posted for 9/14 MITF Meeting	9/13/2006	Passed
21.28	Exit	The Market Metrics Settlements Task Force renders an opinion that invoice can be traced to settlement statements and invoice is 100% accurate	Results per Settlements Task Force Report posted for 9/14 MITF Meeting	9/13/2006	Passed
21.29	Exit	The Market Metrics Settlements Task Force renders an opinion that calibrated meter data is accurate	Results per Settlements Task Force Report posted for 9/14 MITF Meeting	9/13/2006	Passed



Reference Number	Type	Readiness Metric	Comments	Target	Actual
21.30	Exit	The Market Metrics Settlements Task Force renders an opinion that the calculation of charges and credits for through and out losses is 100% accurate and consistent with protocols for both self-provided and financially settled losses	Results per Settlements Task Force Report posted for 9/14 MITF Meeting	9/13/2006	Passed
21.31	Exit	The Market Metrics Settlements Task Force renders an opinion that the total revenue neutrality and loss charges/credits for the SPP footprint are accurate	Results per Settlements Task Force Report posted for 9/14 MITF Meeting	9/13/2006	Passed
21.32	Exit	The Market Metrics Settlements Task Force renders an opinion that the revenue neutrality and loss charges/credits are properly allocated to MPs	Results per Settlements Task Force Report posted for 9/14 MITF Meeting	9/13/2006	Passed
21.33	Exit	The Market Metrics Settlements Task Force renders an opinion that any miscellaneous charge/credit includes adequate backup information in the settlement statement ZIP files to validate the charge/credit	Results per Settlements Task Force Report posted for 9/14 MITF Meeting	9/13/2006	Passed
21.34	Exit	The Market Metrics Settlements Task Force renders an opinion that all adjustments on the payout report are properly allocated	Passed using test scenarios. True test will not occur until market start when actual funds collected and dispersed. Results per Settlements Task Force Report posted for 9/14 MITF Meeting	9/13/2006	In Progress
<b>Parallel Operations V - Release 3.1</b>					
21.35	Exit	At least 80% of Market Assets have meter data submitted for each settlement statement produced during the Parallel Operations V testing cycle		10/11/2006	
21.36	Exit	At least 80% of Market Loads have meter data submitted for each settlement statement produced during the Parallel Operations V testing cycle		10/11/2006	
21.37	Exit	At least 10 Control Areas submit Interchange Meter data for each settlement statement produced during the Parallel Operations V testing cycle	Based on 11 Control Areas * 90%	10/11/2006	
21.38	Exit	Market Participants representing at least 80% of Market Footprint Generation return completed settlement statement and invoice verification spreadsheet acknowledging retrieval and review of applicable settlement statements and invoices		10/12/2006	
21.39	Exit	Initial, Final, and Resettlement Statements are validated and posted for each Operating Day of the Parallel Operations V testing cycle		10/12/2006	
21.40	Exit	Invoices that contain all Settlement Statements from the testing cycle are published during the Parallel Operations V testing cycle		10/12/2006	
21.41	Exit	Market Participants representing at least 80% of Market Footprint Generation successfully test Meter Agent role functionality based on SPP provided test script and expected results for Parallel Operations V		10/11/2006	
<b>Final Trials - Release 3.1</b>					
21.42	Exit	At least 80% of Market Assets have meter data submitted for each settlement statement produced during the Final Trials testing cycle		10/18/2006	
21.43	Exit	At least 80% of Market Loads have meter data submitted for each settlement statement produced during the Final Trials testing cycle		10/18/2006	
21.44	Exit	At least 10 Control Areas submit Interchange Meter data for each settlement statement produced during the Final Trials testing cycle	Based on 11 Control Areas * 90%	10/18/2006	
21.45	Exit	Market Participants representing at least 80% of Market Footprint Generation return completed settlement statement and invoice verification spreadsheet acknowledging retrieval and review of applicable settlement statements and invoices		10/19/2006	
21.46	Exit	Initial, Final, and Resettlement Statements are validated and posted for each Operating Day of the Final Trials testing cycle		10/19/2006	
21.47	Exit	Invoices that contain all Settlement Statements from the testing cycle are published during the Final Trials testing cycle		10/19/2006	
<b>22. Factory Acceptance Test - Release 3 (4/10 - 6/9)</b>					
22.1	Entry	OATI code modules developed			Complete
22.2	Entry	Areva code modules developed	<ul style="list-style-type: none"> <li>Deliverability Analysis code to was delivered to Integration Test by on 8/7. This was a late addition to scope following the normal stakeholder process.</li> <li>IDC to MOS is expected for a 7/17 delivery. This was originally to be included in the 6/9 release. This did not impact the start of integration test, but needs to be completed, so integration test may finish on time.</li> </ul>		Complete - 8/7/2006
22.3	Entry	Accenture code modules developed	<ul style="list-style-type: none"> <li>After scope was frozen, there was an item added to the scope through the normal stakeholder process. This item included Revenue Neutrality Report on Market Portal which was delivered to QA for Integration Test on 8/7</li> </ul>		Complete - 8/7/2006
22.4	Entry	DSS code modules developed	This module is anticipated to be complete by 9/22		Complete - 9/26/2006
22.5	Entry	SPP Internal (interface) modules developed	<ul style="list-style-type: none"> <li>Deliverability Analysis (MOS) to SFT Interface delivered on 8/7. This was a late addition to scope.</li> <li>MOS to OPS1 and Nodal LIPs were to be delivered on 6/9 and instead was delivered on 6/20</li> </ul>		Complete - 8/7/2006
22.6	Exit	Business Area signoff that OATI code has met standards necessary for migration of application to integration test			Complete
22.7	Exit	Business Area signoff that Accenture code has met standards necessary for migration of application to integration test			Complete - 8/7/2006
22.8	Exit	Business Area signoff that Areva code has met standards necessary for migration of application to integration test			Complete - 8/7/2006
22.9	Exit	Business Area signoff that SPP Internal code has met standards necessary for migration of application to integration test			Complete - 8/7/2006
22.10	Exit	Business Area signoff that DSS code has met standards necessary for migration of application to integration test			Complete - 9/26/2006
<b>23. Integration Test - Release 3 (6/19 - 7/21)</b>					
23.1	Entry	Integration Test Release 3 Approach Completed.		5/19/2006	Complete
23.2	Entry	Integration Test Release 3 Approach Signed Off.		5/26/2006	Complete
23.3	Entry	Integration Test Release 3 Resource Plan Complete.			Complete
23.4	Entry	Integration Test Release 3 Environment Configured.			Complete

Reference Number	Type	Readiness Metric	Comments	Target	Actual
23.5	Entry	Integration Test Release 3 Data Generation Procedures Complete.		6/2/2006	Complete
23.6	Tracking	Develop and deliver a functionality list at the conclusion of Integration Test Release 3 confirming the application readiness across all relevant testing functions.	Developed in coordination with the business owners and delivered to Market Trials team for expectation setting with participants.	7/21/2006	7/21/2006
23.7	Exit	Integration Test Release 3 High and Critical SIRs resolved	There remains 1 High SIR open around ISD link stability		
<b>24. Operational Readiness - Release 3 (6/19 - 7/21)</b>					
24.1	Exit	High Availability Testing Executed Successfully.	This testing will verify that transactions failover to the third node.	7/28/2006	7/27/2006
24.2	Exit	Performance Testing Executed Successfully	Performance test high volume market participant transactions on the Portal and batch processes (e.g. studies) that make up the core functionality of the Imbalance Market.  Will consist of the following high level items: - Online Processing - Batch Processing - Interface Processing  There remains 1 open High SIR relating to the Performance of the LIP page on SPP.org This SIR will be addressed with the upgrade of the server in September.	7/28/2006	Anticipated - 9/29/2006
24.3	Exit	TO's that participate in Market review their part of Transmission System as it is modeled in the SPP EMS and are able to provide confidence that their part is modeled correctly (Metric 1 as defined by MOTRTF).		7/31/2006	Complete
24.4	Exit	SPP has measured that Metric 2, the State Estimator has ninety-seven percent (97%) availability of five (5) minute solutions for a one (1) week period, has been Satisfied.	This metric will continue to be measured ongoing.	7/31/2006	Failed
24.5	Exit	SPP has measured that Metric 3, the State Estimator solves 90% of the time with Mismatch level lower than 50 MW and with high accuracy for a one (1) week period, has been Satisfied.	This metric will continue to be measured ongoing.	7/31/2006	Failed
24.6	Exit	SPP has measured that Metric 4, the Short term load forecast solves 97% of time with high accuracy (+/- 1%) for at least one week and Mid term load forecast solves 95% of time with high accuracy(+/- 3%) for at least one week, has been Satisfied.	This metric will continue to be measured ongoing.	7/31/2006	Failed
24.7	Exit	SPP has measured that Metric 5, ICCP availability of 99.5% measured each week, has been Satisfied.	This metric will continue to be measured ongoing.	7/31/2006	
24.8	Exit	SPP has measured that Metric 6, the Real-Time EIS Calculations successful ninety-nine percent (99%) of five (5) minute solutions for a one (1) week period, has been Satisfied.	This metric will continue to be measured ongoing.	7/31/2006	
24.9	Exit	SPP has measured that Metric 7, the Market Flow Calculations successful ninety-seven percent (97%) of fifteen (15) minute solutions for a one (1) week period, has been Satisfied.	This metric will continue to be measured ongoing.	7/31/2006	
24.10	Exit	SPP has measured that Metric 8, the Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint, has been Satisfied.	This metric will continue to be measured ongoing.	7/31/2006	
24.11	Exit	MOPC Approval that Metrics 1 through 8, as Defined by the MOTRTF, Have Been Met	Based off of the new market implementation date, this is no longer a valid metric	8/11/2006	
24.12	Exit	SPP has validated the LIP calculation			Complete
24.13	Exit	Archiving and Data Retention Plans for all Systems Performed on a Daily Basis.			Complete - 8/11/2006
24.14	Exit	SPP Business Owners sign off on operational readiness testing as validating key performance areas working to specifications necessary for market go live	There remains 1 open High SIR relating to the Performance of the LIP page on SPP.org This SIR will be addressed with the upgrade of the server in September.	7/28/2006	In Progress - Anticipated 9/29/2006
24.15	Exit	Technical Test executed successfully.	SPP Verifies all critical functioning of real time systems (MOS, RTO_SS, CAT) have remained active and stable for 24 Hours for 7 consecutive days. The Market Loss functionality impacting RTO_SS is not included in this metric. The solving of the solution will only be measured in regards to CAT. (Note: This metric excludes planned outages. Planned outages may be under an hour for patches and fixes and for significant changes, the outage should be within a reasonable timeframe).		This metric will continue to be tracked as part of Parallel Operations IV - Release 3, given that SPP does not feel comfortable passing this metric as it is not measuring functioning of the Real Time Systems for Release 3.
24.16	Exit	Infrastructure freeze date milestone met		8/1/2006	In Progress - Anticipated 10/7/2006
<b>25. Integration Test - Release 3.1 (8/4 - 8/17)</b>					
25.1	Entry	Integration Test Release 3.1 Test Planning Completed.	This integration test will include the following: • Deliverability Analysis • Revenue Neutrality Report on Market Portal • Adding Miscellaneous Charge Supporting Documentation to Settlement Statement ZIP File • Outage Data to DSS		Complete
25.2	Entry	Integration Test Release 3.1 Environment Configured.			Complete
25.3	Entry	Develop and deliver a functionality list at the conclusion of Integration Test Release 3.1 confirming the application readiness across all relevant testing functions.	Developed in coordination with the business owners and delivered to Market Trials team for expectation setting with participants.	8/18/2006	8/18/2006
25.4	Entry	Integration Test Release 3.1 High and Critical SIRs resolved	~30 High/Critical SIRs are outstanding.		In Progress
<b>26. Parallel Operations V - Release 3.1 (9/26 - 10/6)</b>					
26.1	Entry	MITF approval of Parallel Operations IV Testing	POPS IV will remain open until remaining issues are resolved		Failed
26.2	Exit	Market Participants representing at least 80% of Market Footprint Generation submit Market and schedule data consistent with SPP protocols and timelines, using their expected production submission methods, for at least 3 consecutive days			
26.3	Exit	At least 97.5% of Hour Ahead Balancing Studies solve within 30 minutes for the duration of the testing cycle			
26.4	Exit	At least 99% of 5-minute Real-time Balancing studies solve in less than 5 five minutes for the duration of the testing cycle			
26.5	Exit	No more than 3 Real-time Balancing studies fail in a row for the duration of the testing cycle			
26.6	Exit	Market Operations Portal functionality is available at least 99.5% of the time for the duration of the testing cycle			

Reference Number	Type	Readiness Metric	Comments	Target	Actual
26.7	Exit	State Estimator has ninety-seven percent (97%) availability of five (5) minute solutions for the duration of the testing cycle			
26.8	Exit	State Estimator solves 90% of the time with Mismatch level lower than 50 MW and with high accuracy throughout the testing cycle			
26.9	Exit	Short term load forecast solves 97% of time with high accuracy (+/- 1%) throughout the testing cycle and Mid term load forecast solves 95% of time with high accuracy (+/- 3%) for the duration of the testing cycle			
26.10	Exit	ICCP availability of 99.5% throughout the testing cycle			
26.11	Exit	Real-Time EIS Calculations successful ninety-nine percent (99%) of five (5) minute solutions for the duration of the testing cycle			
26.12	Exit	Market Flow Calculations successful ninety-seven percent (97%) of fifteen (15) minute solutions for the duration of the testing cycle			
26.13	Exit	Dispatch instructions that relieve a constraint have been sent out within 15 minutes of reporting the constraint (if applicable) for the duration of the testing cycle			
26.14	Exit	Market Participants representing ≥ 80% of Market Footprint Generation Successfully Completed Parallel Operations IV based upon Market Trials Success Criteria			
<b>27. Market Metrics Task Force Operational Metrics</b>					
27.1	Exit	The Market Metrics Curtailment Adjustment Tool/ Deliverability Analysis Task Force renders an opinion that during constrained conditions, 100% of constraints were relieved strictly in accordance with Market Protocols and the CAT/DA Design		9/13/2006	Late
27.2	Exit	The Market Metrics Curtailment Adjustment Tool/ Deliverability Analysis Task Force renders an opinion that all applicable MPs received appropriate communications directing relief or need for relief of a constraint for the appropriate time period		9/13/2006	Late
27.3	Exit	The Market Metrics Curtailment Adjustment Tool/ Deliverability Analysis Task Force renders an opinion that identified constraints were relieved in accordance with Market Protocols and the CAT and DA designs.		9/13/2006	Late
27.4	Exit	The Market Metrics Curtailment Adjustment Tool/ Deliverability Analysis Task Force renders an opinion that appropriate Tagged and NLS schedules were curtailed		9/13/2006	Late
27.5	Exit	The Market Metrics Curtailment Adjustment Tool/ Deliverability Analysis Task Force renders an opinion that curtailed schedules were removed from the Market engine and that the curtailments were appropriately reflected in the Balancing Area NSI		9/13/2006	Late
27.6	Exit	The Market Metrics LIPs Task Force renders an opinion that LIPs calculated manually must be identical to LIPs calculated by MOS		9/13/2006	Late - Anticipated 9/30/2006
27.7	Exit	The Market Metrics Load Task Force renders an opinion that Day ahead forecasts developed by MPs serving load and SPP fall within a range of ±10% for 90% of hours during Parallel Operations IV - Release 3.		9/13/2006	LATE
27.8	Exit	The Market Metrics Load Task Force renders an opinion that SPP day ahead load forecasts must be within 4% of the load calculated in SPP settlement statement reported load for 90% of hours during Parallel Operations IV - Release 3		9/13/2006	Late
27.9	Exit	The Market Metrics Business Continuity Task Force renders an opinion that Suppliers of Regulation Service will submit proxy LIP information to SPP within 24 hours of SPP's request for such information	Given the low likelihood that such an event will occur, the task force recommends that such a process be developed within six months of market start and that this metric be deemed passed, but conditioned upon the development of such alternative process.	9/13/2006	Complete - 9/25/2006
<b>28. Market Release - Release 3.1 (10/24 - 11/1)</b>					
28.1	Entry	Customer Relations Go-Live Procedures Completed.			
28.2	Entry	Customer Relations Go-Live FAQs Completed.			
28.3	Entry	Cutover Walkthrough Scheduled.			
28.4	Entry	Cutover Walkthrough Successfully Completed.			
28.5	Entry	Database cutover scripts completed.			
28.6	Entry	Production environment built.			
28.7	Tracking	Participant offer curves in production.		10/25/2006	
28.8	Tracking	Participant resource plans in production.		10/25/2006	
28.9	Tracking	Capacity Obligations posted by SPP for participants		10/30/2006	
28.10	Tracking	Participant ancillary service plans in production.		10/30/2006	
28.11	Tracking	Participant schedules in production.		10/30/2006	
28.12	Entry	Critical and High Issues resolved prior to Market Go Live.			
28.13	Entry	Go/ No Go Criteria developed.			
28.14	Entry	Go/ No Go Decision point, result is a Go.		10/28/2006	
28.15	Entry	Vendor SLAs for Post Production Support Complete.			
28.16	Tracking	Participant Load Forecast in Production		10/25/2006	

Legend (Phases)	
<span style="background-color: #cccccc; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>	Not Started
<span style="background-color: #90ee90; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>	On Track / Complete
<span style="background-color: #ffff99; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>	Minimal Risk
<span style="background-color: #ff9933; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>	High Risk
<span style="background-color: #808080; border: 1px solid black; display: inline-block; width: 15px; height: 10px;"></span>	Closed