



# Market Participant Test Approach – Long-Term Congestion Rights

10/30/2014

Congestion Hedging

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## Revision History

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<b>09/19/2014</b>	Jennifer Swierczek	Published	
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# Section 1: Overview of Market Participant Testing for LTCR

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## **Objectives**

This document is intended for Southwest Power Pool Market Participants (MPs), and provides instructions and information to aid in preparing and executing MP testing for the Long-Term Congestion Rights (LTCR) Project. The LTCR Project is part of Project Pinnacle, the second phase of the Integrated Marketplace.

The purpose of MP testing is to validate Participant systems, processes, and staff are able to operate in alignment with Integrated Marketplace Protocols. MP testing serves as the Participant integration test stage. By simulating production activities, MP testing will validate Participants and Participant systems can successfully interact with SPP systems, processes and staff. MP testing will be conducted in the Member Testing Environment (MTE), in order to efficiently test and deploy the integrated systems solution for production.

## **Approach**

MP testing will be held from November 10, 2014, through January 16, 2015. LTCR MP testing will consist of performing the following activities:

- LSE Attestation submission
- Transmission Service Verification
- LTCR Allocation 1
- LTCR Allocation 2
- LTCR Allocation 3 and Monthly Auction concurrently
- Annual Allocation
- Annual Auction

MPs are responsible for creating transactional data for the TCR System, including all Nominations, Bids and Offers for the Allocation and/or Auction. While SPP will not create Nominations, Bids or Offers for the annual processes (LTCR Allocation, ARR Allocation, and TCR Auction), SPP will create ARRs and TCRs for self-convert and sells in the Monthly Auction. Financial players (MPs who do not own resources or serve load) will be allowed to participate in MP testing for applicable activities.

The LSE Attestation activity will allow LSEs to submit Attestation forms to SPP, which will classify long-term point-to point transmission service/GFAs as load serving. The Transmission Service Verification activity will allow MPs to verify their transmission service is correctly identified as long-term and also if LSE and non-LSE status is correct based on the submitted LSE Attestation forms.

SPP will hold then three similar LTCR Allocations to allow for ample testing of the new LTCR functionality. Each LTCR Allocation will test the 2015 LTCR period (June 2015 – May 2016). All data from the third LTCR Allocation will be used in the following Annual Allocation and Auction activities. Due to these conditions, a purge of test data and downloads will occur between LTCR

Allocation 2 and LTCR Allocation 3. **Please note: MPs will need to save copies of any results and downloads needed prior to the purge.**

SPP will also hold a Monthly Auction during the third LTCR Allocation to simulate overlapping credit activities. SPP is mocking up data in the Monthly process to allow a full user experience and will not create nominations/bids in any other LTCR test case. During the Annual Allocation, MPs will be able to verify their awarded LTCRs and resulting TCRs reduce possible nominations in the Annual Allocation. In the Annual Auction, MPs will be able to sell their TCRs from the LTCR Allocation process.

## **Supporting Documents**

The following table provides a list of supporting documents that will be provided for Participants to prepare and execute LTCR MP testing. **The documents are currently being developed and will be made available at the links provided prior to the start of testing.**

Document Name	Document Location
TCR MUI User's Guide (updated)	<a href="#">Integrated Marketplace Phase 2-Long Term Congestion Rights</a>
2015 and 2016 LTCR Processes Quick Reference Guide	<a href="#">SPP Learning Center (LMS)</a>
LTCR System Navigation Reference Guide	<a href="#">SPP Learning Center (LMS)</a>
LTCR Testing Timeline and Activities Quick Reference Guide	<a href="#">SPP Learning Center (LMS)</a>
PR20130016 LTCR MP Test Cases	<a href="#">Integrated Marketplace Phase 2-Long Term Congestion Rights</a>
LTCR Member Impacting Project Overview (MIPO)	<a href="#">Integrated Marketplace Phase 2-Long Term Congestion Rights</a>

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## Section 2: Scope of Market Participant Testing for LTCR

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### Components in Scope

- iHedge® System (TCR MUI)
  - This is the system that MPs will use to engage in the LTCR Allocation, Annual Allocation and Annual Auction as well as the place where MPs will be able to download data reports.
  - System Components
    - iHedge®
    - MUI
    - API applications installed on server(s)
- OTT (OASIS Transfer Tool)
  - Data: The most up-to-date data will be pulled from OASIS on October 15, 2014
  - OTT is a tool used by SPP staff to obtain Firm Transmission Service Reservations (TSRs) from OASIS and add them as Candidate LTCRs. This is a SPP internal system with which MPs do not need to interact.
- Credit Management System (CMS)
  - CMS will be used to manage and verify the credit of MPs. This is a SPP internal system with which MPs do not need to interact directly.
  - Upgrades to CMS are intended to be online at the time the LTCR Testing begins in order to perform real-time credit checks.
  - Credit limit reports and TCR reference prices will be available via the Portal.

### Components Out of Scope

The following systems are out of scope due to no changes resulting from Long-Term Congestion Rights:

- Settlements
  - Settlements is a downstream system from the Congestion Hedging Market to settle awarded ARR and TCRs in conjunction with the Day-Ahead market.
  - LTCRs, ARRs, and TCRs awarded during MP testing will not be settled in testing. This data will not be stored for settlements.
- Parallel Flow Calculator (PFC)
  - PFC is the tool used by Congestion Hedging staff to create a forecast of MW flow on flowgates based on historical parallel flows.
  - PFC is intended to be online at the time the LTCR Testing begins in order to provide the Congestion Hedging team with necessary parallel flow data. This is a SPP internal system with which MPs do not need to interact.
- EADS
  - EADS is the database which will house data for Market Monitoring. That functionality is intended to be online prior to go-live, but is not needed for MP testing.
- TCRXFER

- TCRXFER is the tool used by Congestion Hedging staff to acquire the TCR network and commercial model. In the case of LTCR MP Tests, network and commercial model data will be provided via OTT system.
- Portal
  - The Portal is the interface by which MPs will access the various Integrated Marketplace applications.
  - The Portal is also needed for authentication of MP access to Marketplace Systems.
  - Data: MPs will be responsible for setting up their users through their LSA.
  - MPs will go through the Portal to get to the TCR MUI with the use of a digital certificate.
  - The Portal is required to be online at the time of MTE Connectivity Testing due to complete October 3, 2014 preceding LTCR MP testing.

## Section 3: LTCR Test Schedule and Execution

### LTCR Process Timeline / Details

- Market Testing
  - Process conducted in accordance with Protocols 21.a, sections 5.1 and 5.2.
  - Schedule of activities as follows:

Stage	Testing Activity	SPP Activity	MP Activity	Start Date	End Date
1	<b><u>LSE Attestation submission</u></b>		X	10/1/2014	11/21/2014
2	<b><u>TSR Verification</u></b>		X	11/7/2014	11/21/2014
3	<b><u>LTCR Allocation 1</u></b>				
	Perform SFT	X		11/5/2014	11/7/2014
	Submit Nominations		X	11/10/2014	11/13/2014
	Post Results	X		11/14/2014	11/14/2014
	Review Results		X	11/17/2014	11/20/2014
4	<b><u>LTCR Allocation 2</u></b>				
	Perform SFT	X		11/18/2014	11/20/2014
	Submit Nominations		X	11/21/2014	11/24/2014
	Post Results	X		11/25/2014	11/26/2014
	Review Results		X	12/1/2014	12/2/2014
	**Purge of LTCR Allocation 1 and 2 Data from MTE in the afternoon December 2, 2014**			12/2/2014	12/2/2014
5	<b><u>LTCR Allocation 3 and Monthly Auction</u></b>				
	<b><u>LTCR Allocation 2</u></b>				
	Perform SFT	X		12/1/2014	12/2/2014
	Submit Nominations		X	12/3/2014	12/5/2014
	Post Results	X		12/8/2014	12/8/2014
	Review Results		X	12/9/2014	12/11/2014
	<b><u>Monthly 2-round process Allocation</u></b>				
	Data prep/Mock Allocation results posted	X		12/1/2014	12/2/2014
	<b><u>Auction Round 1</u></b>				
	Submit Bids		X	12/3/2014	12/4/2014
	Perform SFT	X		12/5/2014	12/5/2014



Stage	Testing Activity	SPP Activity	MP Activity	Start Date	End Date
	Post Results	X		12/8/2014	12/8/2014
	Review Results		X	12/9/2014	12/11/2014
	<u>Auction Round 2</u>				
	N/A				
<b>6</b>	<b><u>Annual Allocation</u></b>				
	<u>Round 1</u>				
	Submit Nominations		X	12/15/2014	12/17/2014
	Perform SFT	X		12/18/2014	12/19/2014
	Post Results	X		12/22/2014	12/22/2014
	Review Results		X	12/23/2014	1/2/2015
<b>7</b>	<b><u>Annual Auction</u></b>				
	Submit Bids		X	1/5/2015	1/6/2015
	Perform SFT	X		1/7/2015	1/8/2015
	Post Results	X		1/9/2015	1/9/2015
	Review Results		X	1/12/2015	1/16/2015

### **Important Cutoff Dates**

- OASIS data: Use data as of October 15, 2014
  - A refresh of OASIS data will be used prior to LTCR Allocation 3 stage of testing: data as of November 21, 2014.
- GFA data: Submitted by October 15, 2014
  - All GFAs used in the production Congestion Hedging markets will be used in the LTCR Testing.
  - Any additional Grandfathered Agreements a MP would like to have included in LTCR testing must be submitted by this date.
  - Any additional GFAs submitted by November 21, 2014 will be included in the LTCR Allocation 3 stage of LTCR Testing.
- LSE Attestation: October 15, 2014
  - Any LSE Attestations a MP would like to have included in all LTCR Testing must be submitted by this date.
  - Any LSE Attestations not submitted correctly by October 15, 2014 will not be included in the initial LTCR Testing.
  - MPs are encouraged to continue to submit LSE Attestations by November 21, 2014 to be included in LTCR Allocation 3 stage of testing
  - LSE Attestations submitted after November 21, 2014 will be accepted by SPP, although not included in LTCR Testing
- Purge of LTCR Allocation 1 and 2 Data: Afternoon of December 2, 2014
  - Any results, nominations, or downloads will need to be saved locally and will not be available in the iHedge application MTE environment after December 2, 2014.

- After December 2, 2014, MTE will only store information from test stages 5 and beyond (i.e. LTCR Allocation 3 and forward in the process).

## **Test Execution**

The MP test execution window for LTCR functionality in MTE is November 10, 2014, through January 16, 2015. A test cases spreadsheet will be provided for activities above with an “X” in the MP Activity column. Following are the details needed for test execution.

- Tests will be performed in the [MTE Marketplace Portal](#).
- MP connectivity to MTE must be established via MTE Connectivity project by October 3, 2014.

To complete testing:

1. A copy of the LTCR MP Test Cases will be provided via [RMS](#). Access to the test cases is also available on spp.org in the Integrated Marketplace Phase 2-Long Term Congestion Rights.
2. Execute the tests based on the directions within each section, and compare to the expected results. Refer to the LTCR Navigation Guide as needed.
3. As you complete the tests, document results as Pass, Fail, or Not Applicable, noting any Comments as necessary.
4. At the appropriate time by activities scheduled, return your completed spreadsheets via the same RMS ticket provided.

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## Section 4: Communication Plans

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### **General Information and Inquiries**

Inquiries should be submitted to [RMS](#) using the Project Pinnacle: Long-Term Congestion Rights Quick Pick:

- General Inquiries
- Submitting LSE Attestation Forms
- Testing questions or issues reporting

SPP will distribute information related to LTCR testing through the CWG exploder, LTCR Liaison distribution list, and via RMS directly to the assigned LTCR Liaison Primary POC:

- MP Test Cases and (5) result test cases will be located in the specific RMS ticket

### **Weekly Conference Calls**

Communication of status, updates and general information will occur on weekly LTCR testing calls, scheduled to begin November 6, 2014. The weekly calls will be used to monitor testing progress, pass/fail status, and overall fulfillment of the MP testing objectives. LTCR testing calls are scheduled as follows:

Thursday, November 6: 10am (Testing kickoff)

Monday, November 17, 24: 2pm

Monday, December 1, 8, 15: 2pm

Monday, January 5, 12: 2pm

### **Issue Reporting**

During MP testing, there will be activities that are expected to result in data being rejected upon submission. For unexpected errors/results that occur during test execution, which require SPP troubleshooting or intervention, please provide error steps and details using the Project Pinnacle: Long-Term Congestion Rights Quick Pick.

An updated issues list will be posted each week in the [Integrated Marketplace Phase 2-Long Term Congestion Rights](#) area of spp.org, and discussed during weekly calls.

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## Section 5: LTCR Test Metrics

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### **Entry Criteria**

Prior to the kick-off of LTCR MP testing on November 10, 2014, MPs are responsible to have done the following:

- Completed MTE Connectivity Test by October 3, 2014. (reference MTE Connectivity docs folder)
- Upgraded to Internet Explorer 10, Mozilla Firefox 20+, or Google Chrome 25+ (for using the TCR MUI).
  - Internet Explorer 11 will not be tested in either production or LTCR project testing; Internet Explorer 11 users can utilize “Compatibility View settings” under Tools.
- Submitted LSE Attestation (if applicable) by October 15, 2014.
- SPP will pull OASIS and GFA data by October 15, 2014.
- Completed LTCR training sessions with SPP Training.
- Confirm Primary Liaison point of contact has RMS access

### **Exit Criteria**

Exit of MP testing occurs when the scheduled activities have been executed and fulfillment of the MP testing objectives has been met.

## Section 6: Assumptions and Risks

The following assumptions and risks have been made in relation to LTCR MP testing.

ID	Assumption Description	Impact to the Test
1	The iHedge® System will be fully functional.	If this system is not ready, LTCR MP testing cannot begin. System is currently in testing at SPP.
2	The CMS upgrades should be ready and available for MP testing. Credit limits and reference prices will be available.	If CMS is not ready, credit system responses will be manually simulated.
3	Settlements not participating in LTCR testing.	No Settlements tests or results will be provided, since there are no impacts to existing Settlements functionality due to LTCR process.
4	MPs have completed MTE Connectivity Testing by October 3, 2014.	If MTE Connectivity is not in place, MPs will not be able to participate in MP testing.
5	MPs have completed LTCR Training session(s) <a href="#">LMS Registration link</a>	Training participation is intended to enhance the MP testing experience.
6	Testing will be conducted for LTCR/Annual TCR Year “2015” (June 2015-May 2016)	Testing data is subject to change before project implementation in February 2015.
7	No structured tests are planned for LTCR verification, but SPP staff strongly recommends MPs perform LTCR verification during testing.	Transmission Service verification for LTCR eligibility will be done in production February 2015; short timelines in production may warrant performing this validation during the LTCR testing timeframe.

ID	Risk Description	Severity	Contingency Plan
1	FERC Ruling resulting in software changes.	High	The software changes would delay internal and member testing as well as push the implementation date beyond February 2015.
2	Congestion Hedging Resource Contention with IS Integration and LTCR projects	Medium	SPP is aware that analysis and planning for the IS Integration project may cause resource contention with testing resources assigned to Project Pinnacle. SPP will address those resource constraints as they arise.
3	Overlap of FIT and Member Testing for LTCR	High	Unknown defects and risks could affect testing timelines. Closely monitor FIT and MP testing.

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## Appendix

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### Acronyms

API	Application Program Interface
ARR	Auction Revenue Rights
CMS	Credit Management System
CROW	Control Room Operations Window
EADS	Enterprise Analytic Data Store
FIT	Functional Integration Testing
GFA	Grandfathered Agreement
LSA	Local Security Administrator
LSE	Load Serving Entity
LTCR	Long-Term Congestion Rights
MP	Market Participant
MTE	Member Test Environment
MUI	Market User Interface
OASIS	Open Access Same-Time Information System
OTT	OASIS Transfer Tool
PFC	Parallel Flow Calculator
SAT	Site Acceptance Testing
TCR	Transmission Congestion Rights
TSR	Transmission Service Reservation