TAC Update

Brad Jones and Kenan Ogelman TAC Chair and Vice Chair

ERCOT Board Meeting May 17, 2011

Summary of TAC Update

NPRRs Unanimously Recommended for Approval by TAC:

- NPRR306, Revisions to Protected Information to Include Black Start Documents Considered CEII
- NPRR310, Expand Output Schedule Acceptable Range to Include HSL and LSL
- NPRR350, Change to the Security Classification of the System Ancillary Service Capacity Monitor Dashboard – Urgent
- NPRR352, Real-Time HSL Telemetry for WGRs URGENT

SCR Unanimously Recommended for Approval by TAC:

SCR764, Public Access to Select MIS Dashboards – URGENT

NOGRR Unanimously Recommended for Approval by TAC:

 NOGRR054, Change in Facilitator for the Annual Operations Training Seminar

PGRR Unanimously Recommended for Approval by TAC:

 PGRR004, New Planning Guide Section 2, Synchronization with NPRR291, Reduce the Comment Period for NPRRs and SCRs

Summary of TAC Update

Review of Revision Request Changes to Project Prioritization List

Notice of Guide Revisions Approved by TAC

Valley Import Constraint – Proposed New Maximum Shadow Price

Future Agenda Items

NPRRs Unanimously Recommended for Approval by TAC

NPRR306, Revisions to Protected Information to Include Black Start Documents Considered CEII

Purpose (Operations Working Group)	This NPRR revises Section 1.3.6, Exceptions, to include Black Start documents that meet the definition of Critical Energy Infrastructure Information (CEII).
TAC Vote	On 4/7/11, TAC unanimously voted to recommend approval of NPRR306 as recommended by PRS in the 3/24/11 PRS Report.
Effective Date/Priority	June 1, 2011
ERCOT Impact	No system impacts; modifications to ERCOT business processes.

NPRR310, Expand Output Schedule Acceptable Range to Include HSL and LSL

Purpose (Tenaska)	This NPRR updates the criteria by which Output Schedules are deemed valid to include Output Schedules that are equal in value to the Resource High Sustained Limit (HSL) and Low Sustained Limit (LSL).					
TAC Vote	On 4/7/11, TAC unanimously voted to recommend approval of NPRR310 as recommended by PRS in the 3/24/11 PRS Report and the revised 4/6/11 Cost Benefit Analysis as revised by TAC.					
Effective Date/Priority	Upon System Implementation; Priority High; Rank 12.76					
ERCOT Impact	\$10-\$15k (2011 Post Go-Live Funding); impacts to Market Management System (MMS) and Settlements and Billing					
Cost Benefit Analysis	Net (Cost) – Benefit \$60k; Cost Benefit Ratio 5.6					
Highlights	 Reduces unnecessary validation notifications at the Resource limits; therefore, reducing the warning messages for invalid output schedules displayed in MIS 					
	 Allows for additional energy to be scheduled at the Resource limits (an additional 0.2MW capacity would be available to schedule for each unit running with an output schedule) 					

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NPRR350, Change to the Security Classification of the System Ancillary Service Capacity Monitor Dashboard - URGENT

Purpose (MIS User Group)	This NPRR proposes changing the posting category of items that make up the System Ancillary Service Capacity Monitor Dashboard from Market Information System (MIS) Secure Area to MIS Public Area.					
TAC Vote	On 5/5/11, TAC unanimously voted to recommend approval of NPRR350 as recommended by PRS in the 4/21/11 PRS Report with a recommended priority of Critical and rank of 9.22.					
Effective Date/Priority	Upon System Implementation – Priority Critical; Rank 9.22					
ERCOT Impact	\$5k - \$10k (2011 Post Go-Live Funding); impacts to Current Day Reporting (CDR), MIS, and ERCOT.com.					
Cost Benefit Analysis	Increases transparency					
Highlights	Provides enhanced public visibility into ERCOT system conditions					
	 Potential for reduction of Digital Certificate cost and administration 					
	Enables more level playing field between certificate and non- certificate holders					
	Enables development of new products by third parties					

NPRR352, Real-Time HSL Telemetry for WGRs - URGENT

Purpose (ERCOT)	This NPRR changes the process by which QSEs determine the HSLs to telemeter for Wind-powered Generation Resources (WGRs). The requirement that QSEs set the HSL equal to output immediately following a release from curtailment is removed. Instead QSEs will be expected to use their best judgment to determine the output capability of the WGR with the expectation that the value will consider the net real power of the WGR, turbine availability, weather conditions, and whether the WGR output is being affected by compliance with a Security-Constrained Economic Dispatch (SCED) instruction.
TAC Vote	On 5/5/11, TAC unanimously voted to recommend approval of NPRR352 as recommended by PRS in the 4/21/11 PRS Report.
Effective Date/Priority	June 1, 2011
ERCOT Impact	No impacts

Other Revision Requests Unanimously Recommended for Approval by TAC

SCR764, Public Access to Select MIS Dashboards - URGENT

Purpose (MIS Users Group)	This SCR proposes system changes to allow public access to a graphical view of non-confidential system conditions and pricing information for the following MIS Dashboards: Load Forecast vs. Actual, LMP Contour Map, SCED Up/Down, LMP Ticker with Selected Prices and Real-Time System Conditions.					
TAC Vote	On 5/5/11, TAC unanimously voted to recommend approval of SCR764 as recommended by PRS in the 4/21/11 PRS Report.					
Effective Date/Priority	Upon System Implementation – Priority Critical; Rank 9.2.1.					
ERCOT Impact	\$100k - \$125k (2011 Post Go-Live Funding); impacts to Current Day Reports (CDR), MIS, ERCOT.com.					
Cost Benefit Analysis Highlights	 Provides enhanced public visibility into ERCOT system conditions such as price separations and Real-Time system conditions Potential for reduction of Digital Certificate cost and administration Enables more level playing field between certificate and non-certificate holders Enables development of new products by third parties 					

NOGRR054, Change in Facilitator for the Annual Operations Training Seminar

Purpose (CenterPoint)	This NOGRR changes the responsibility of the annual Operations Training Seminar from the Texas Regional Entity to ERCOT.
TAC Vote	On 4/7/11, TAC unanimously voted to recommend approval of NOGRR054 as recommended by ROS in the 3/10/11 ROS Report.
Effective Date/Priority	June 1, 2011
ERCOT Impact	\$130k/year – additional FTE; \$145.6k/year of operating expenses (absorbed as part of base operations by existing ERCOT staff); impacts to business functions to implement processes to conduct annual operations training seminar
Cost Benefit Analysis Highlights	 Net (Cost) – Benefit \$200k; Cost Benefit Ratio 1.1 Provides forum for MPs to meet and analyze system operator specific topics related to the operation of the ERCOT System Enables better coordination between ERCOT and MPs on ERCOT System operation As an independent reviewer of the training materials, ERCOT can ensure accuracy, that it reflects relevant reliability issues and that the training is equitable across all MPs

PGRR004, New Planning Guide Section 2, Synchronization with NPRR291, Reduce the Comment Period for NPRRs and SCRs

Purpose (ERCOT)	This PGRR reduces the comment period for PGRRs from 21 days to 14 days and removes the requirement for the comment period to end at least three Business Days prior to the next regularly scheduled Planning Working Group (PLWG) meeting.
TAC Vote	On 4/7/11, TAC unanimously voted to recommend approval of PGRR004 as recommended by ROS in the 3/10/11 ROS Report.
Effective Date/Priority	June 1, 2011
ERCOT Impact	No impacts

Review of Recommended Revision Request Changes to Project Prioritization List (PPL)

New Revision Requests Recommended for Board Approval

2011 Priority	2011 Rank	Source Doc	Approval Status	Project Number	Project Name	2011 Budget Range	Project Status	Projected Start Date	-	Funding Source	Source
1- Critical	9.21	SCR764	Pending Board Approval	SCR/64	Public Access to Select MIS Dashboards	<\$125k	Not Started	TBD	TBD	Post Go- Live	Market
1- Critical	9.22	NPRR350	Pending Board Approval		Change to the Security Classification of the System Ancillary Service Capacity Monitor Dashboard	\$5k-\$10k	Not Started	TBD	TBD	Post Go- Live	Market
2-High	12.76	NPRR310	Pending Board Approval	NPRR310	Expand Output Schedule Acceptable Range to Include HSL and LSL	\$10k-\$15k	Not Started	June 2011	Aug 2011	Post Go- Live	Market
						\$90k-\$150k					

Draft Project Prioritization List (PPL)

	2011 Priority	2011 Rank	Source Doc	Approval Status	Project Number	Project Name	2011 Budget Range	Project Status	Projected Start Date	Projected End Date	Funding Source	Source
	1- Critical	0.1		Board Approved		Nodal Stabilization	\$10M-\$12M	Execution	Dec 2010	June 2011	Post Go- Live	Nodal Post Go-Live
	1- Critical	0.11	NPRR302	Board Approved	NPRR302	Correct Fuel Type Language for Mitigated Offer Cap	<\$5k	Complete	Jan 2011	Mar 2011	Post Go- Live	Market
	1- Critical	1		Board Approved	11000_01 10015_01 10016_01	Data Center Buildout	\$25M-\$30M	Execution	Oct 2009	Feb 2012	PPL	ERCOT
••••	1- Critical	2		Board Approved	99911	Minor Cap - Critical	\$500k-\$1M	Execution	Jan 2011	Dec 2011	PPL	ERCOT
	1- Critical	3	NPRR294	Board Approved	11002_01	Texas SET 4.0	\$1M-\$2M	Planning	Feb 2011	2012	PPL	PUCT / Market
	1- Critical	3.5	SCR760	Board Approved	SCR760	Recommended Changes Needed for Information Model Mgr and Topology Processor for Planning Models	\$500k-\$1M	Planning	Apr 2011	Apr 2013	Post Go- Live	Market
	1- Critical	4		Board Approved	90006_02	Information Lifecycle Mgmt – Mkt Systems, Archive, Reporting	\$1M-\$2M	Planning	Jan 2010	Jan 2012	PPL	ERCOT
	1- Critical	5		Board Approved	11003_01	Cyber Security Project #1	\$500k-\$1M	Not Started	TBD	TBD	PPL	ERCOT
	1- Critical	6		Board Approved	10052_01	Settlement System Upgrade	\$1M-\$2M	Planning	Mar 2010	2013	PPL	ERCOT
	1- Critical	7		Board Approved	11004_01	Cyber Security Project #2	\$250k-\$500k	Not Started	TBD	TBD	PPL	ERCOT
	1- Critical	8		Board Approved	11005_01	IT Security Infrastructure Upgrade	\$100k-\$250k	Not Started	TBD	TBD	PPL	ERCOT
	1- Critical	9		Board Approved	11006_01	MarkeTrak Upgrade and Enhancements (PLANNING)	\$100k-\$250k	Not Started	July 2011	2012	PPL	PUCT / Market
	1- Critical	9.2	NPRR329	Board Approved	NPRR329	Security Classification Changes for Extracts/Reports	\$5k-\$10k	Not Started	Apr 2011	May 2011	Post Go- Live	Market
	1- Critical	9.21	SCR764	Pending Board Approval	SCR764	Public Access to Select MIS Dashboards	<\$125k	Not Started	TBD	TBD	Post Go- Live	Market
	1- Critical	9.22	NPRR350	Pending Board Approval	NPRR350	Change to the Security Classification of the System Ancillary Service Capacity Monitor Dashboard	\$5k-\$10k	Not Started	June 2011	July 2011	Post Go- Live	Market

Draft Project Prioritization List (PPL)

2011 Priority	2011 Rank	Source Doc	Approval Status	Project Number	Project Name	2011 Budget Range	Project Status	Projected Start Date	Projected End Date	Funding Source	Source
1- Critical	9.3	NPRR339	Board Approved	NPRR339	Modifications to Heuristic Rules to Determine LMP at De-energized Electrical Bus and Treatment of CRR Offers at De- energized Settlement Points	<\$100k	Not Started	TBD	TBD	Post Go- Live	ERCOT
1- Critical	9.41	NPRR285	Board Approved	NPRR285	Generation Resource Base Point Deviation Charge Corrections	\$30k-\$40k	Execution	Apr 2011	May 2011	Post Go- Live	Market
1- Critical	9.42	NPRR282	Board Approved	NPRR282	Dynamic Ramp Rates Use in SCED	\$30k-\$35k	Not Started	May 2011	July 2011	Post Go- Live	Market
1- Critical	9.43		Board Approved		Deferred Defects and Workaround Processes	\$2M-\$3M	Execution	Dec 2010	Dec 2011	Post Go- Live	Nodal Post Go-Live
1- Critical	9.44		Board Approved		Planning Model	Funded by Stabilization	Complete	2010	Apr 2011	Post Go- Live	Nodal Post Go-Live
2-High	9.5	NPRR307	Board Approved	NPRR307	Change SASM Offer Procedures	\$15k-\$20k	Execution	Apr 2011	May 2011	Post Go- Live	Market
2-High	9.5	NPRR341	Board Approved	NPRR341	Remove Ancillary Service Offers from SASM that do not Meet the Lead Time	\$10k-\$15k	Not Started	June 2011	July 2011	Post Go- Live	ERCOT
2-High	10		Board Approved	50088_01	Data Research and Reporting	\$500k-\$1M	Execution	Nov 2006	Sept 2011	PPL	ERCOT
2-High	11		Board Approved	10055_01	Data Agg Performance Improvements	\$250k-\$500k	Planning	Sept 2010	Oct 2011	PPL	ERCOT
2-High	12		Board Approved	10031_01	Enterprise Records Management Automation (ERMA)	<\$50k	Execution	Jan 2010	Apr 2011	PPL	ERCOT
2-High	12.5		ERCOT Approved	11009_01	Fire Alarm System Upgrade	\$100k-\$250k	Closing	Feb 2011	Apr 2011	PPL	ERCOT
2-High	12.75	NPRR323	Board Approved	NPRR323	Correct DAM Credit Exposure Language and Enable Qualified Expiring CRRs to Offset PTP Bid Exposure	\$375k-\$475k	Planning	Apr 2011	Sept 2011	Post Go- Live	Market
2-High	12.76	NPRR310	Pending Board Approval	NPRR310	Expand Output Schedule Acceptable Range to Include HSL and LSL	\$10k-\$15k	Not Started	June 2011	Aug 2011	Post Go- Live	Market
2-High	12.8	NPRR320	Board Approved	NPRR320	Minimum PTP Option Bid and Settlement	\$95k-\$110k	Not Started	June 2011	Sept 2011	Post Go- Live	Market
2-High	12.9	NPRR326	Pending Board Approval	NPRR326	Adjust the Calculation of the Real- Time Settlement Point Price for a Resource Node	\$15k-\$20k	Not Started	TBD	TBD	Post Go- Live	ERCOT

Draft Project Prioritization List (PPL)

F	2011 Priority	2011 Rank	Source Doc	Approval Status	Project Number	Project Name	2011 Budget Range	Project Status	Projected Start Date	Projected End Date	Funding Source	Source
2	2-High	13	NPRR290	Board Approved	NPRR290	ERCOT Publication of DAM PSS/E Files	\$20k-\$25k	Not Started	July 2011	Aug 2011	Post Go- Live	Market
2	2-High	13.1	NPRR343	Board Approved	NPRR343	CRR Bid and PTP Obligation Bid Criteria Change	\$400k-\$450k	Not Started	TBD	TBD	Post Go- Live	ERCOT
2	2-High	14	NPRR293	Board Approved	NPRR293	Requirement to Post PTP Obligation Quantities Awarded in DAM	\$12k-\$15k	Execution	Apr 2011	May 2011	Post Go- Live	Market
2	2-High	14	NPRR303	Board Approved	NPRR303	Requirement to Post PTP Options Cleared in the DAM or Taken to Real Time	<\$5k	Execution	Apr 2011	May 2011	Post Go- Live	Market
2	2-High	15		Board Approved		Parking Deck Initiatives	\$3.0M-\$3.5M	Execution	Feb 2011	Mar 2012	Post Go- Live	Nodal Post Go-Live
2	2-High	15.1	NPRR208	Board Approved	NPRR208	Registration & Settlement of Distributed Generation (DG) <1 MW	\$5k-\$10k	Planning	Apr 2011	Aug 2011	Post Go- Live	Market
2	2-High	15.2	NPRR251	Board Approved	NPRR251	Sync PRR845, Definition for IDR Meters and Optional Removal of IDR Meters at a Premise Where an Advanced Meter Can be	\$30k-\$50k	Not Started	June 2011	Aug 2011	Post Go- Live	Market
2	2-High	15.3	NPRR316	Board Approved	NPRR316	Negative Self-Arranged Ancillary Services Quantity	\$15k-\$20k	Not Started	June 2011	July 2011	Post Go- Live	Market
2	2-High	16		Board Approved		Decommissioning Efforts	\$275k-\$325k	Execution	Jan 2011	July 2011	Post Go- Live	Nodal Post Go-Live
2	2-High	17		Board Approved		Program Risk Items	\$1.0M-\$1.5M	Execution	Mar 2011	Dec 2011	Post Go- Live	Nodal Post Go-Live
2	2-High	18		Board Approved	10018_01	Annual Storage Growth	<\$50k	Execution	Jan 2011	Apr 2011	PPL	ERCOT
2	2-High	19		Board Approved		Hardware and Software Systems License & Maintenance	\$7M-\$8M	Execution	Jan 2011	June 2011	Post Go- Live	Nodal Post Go-Live
2	2-High	20	NPRR221	ERCOT Approved	NPRR221	Automate Default Invoice	\$50k-\$75k	Planning	Apr 2011	Aug 2011	Post Go- Live	ERCOT
PPL	Cutline	and S	Summar	у		2011 Project Budget = \$36,364,000	Forecast =	\$32,864,161	١	/ariance =	\$3,499,839)

Nodal Post Go-Live Summary

2011 Post Go-Live Budget = \$25,191,000

Forecast = \$25,548,300

Variance = (\$357,300)

Notice of Guide Revisions Approved by TAC

RMGRR097, Synchronization with NPRR291, Reduce the Comment Period for NPRRs and SCRs

The RMGRR reduces the comment period for RMGRRs from 21 days to 14 days and removes the requirement for the comment period to end at least three Business Days prior to the next regularly scheduled Retail Market Subcommittee (RMS) meeting.

NOGRR056, Synchronization with NPRR291, Reduce the Comment Period for NPRRs and SCRs

The NOGRR reduces the comment period for NOGRRs from 21 days to 14 days and removes the requirement for the comment period to end at least three Business Days prior to the next regularly scheduled Operations Working Group (OWG) meeting.

COPMGRR025, Synchronization with NPRR291, Reduce the Comment Period for NPRRs and SCRs

The COPMGRR reduces the comment period for COPMGRRs from 21 days to 14 days and removes the requirement for the comment period to end at least three Business Days prior to the next regularly scheduled Commercial Operations Subcommittee (COPS) Communication Working Group (CCWG) meeting.

Valley Import Constraint – Proposed New Maximum Shadow Price

- Paragraph (4) of Nodal Protocol 6.5.7.1.11, Transmission Network and Power Balance Constraint Management, requires that ERCOT determine the methodology for setting maximum Shadow Prices for network constraints and for the power balance constraint and that after TAC recommendation, the ERCOT Board approves the final methodology.
- ERCOT developed a revised methodology for setting the maximum Shadow Price for the Valley Import Constraint. At its May meeting, TAC reviewed both the ERCOT and WMS recommendations for revising maximum Shadow Price for the Valley Import Constraint.
- TAC's recommendation to the Board is to approve the ERCOT proposal for the revised maximum Shadow Price for the Valley Import Constraint (which would sunset upon the approval of a revised "holistic" methodology for setting appropriate shadow price caps for constraints not resolvable by SCED) and to address the gap between operations and planning processes to be able to identify these constraints.
- The TAC recommendation passed with 19 votes in favor, six opposing votes from the Investor Owned Utility, Independent Generator, and Independent Power Marketer (4) Market Segments and four abstentions from the Independent Generator (3) and Cooperative Market Segments.

Future Agenda Items

NPRR264, Clarification of Nodal Protocol Requirements for Generators With Multiple Points of Interconnection

NPRR311, Correction of Wind Adjust Formula to Account for Daylight Savings Time NPRR317, Clarification of Entity Responsible for Hydro Responsive Testing NPRR318, Alignment of Nodal Registration Requirements with Current Registration Process

NPRR326, Adjust the Calculation of the Real-Time Settlement Point Price for a Resource Node

NPRR330, Change in Frequency of Four Protocol Required Audits from Annual to Periodic (formerly titled "Change in Frequency of Five Protocol Required Audits from Annual to Periodic")

PGRR007, New Planning Guide Section 6, Data/Modeling and 6.4, TPIT Report and Data Requirements