Date: March 9, 2009

To: Lane Lanford, Executive Director, Public Utility Commission of Texas (PUCT)
Larry Grimm, CEO & Chief Compliance Officer, Texas Regional Entity (TRE)

From: Mark Bruce, Chairman, ERCOT Technical Advisory Committee (TAC)

Subject: Nodal Protocols Section 8, Performance Monitoring and Compliance

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In response to your memorandum of Dec. 8, 2008, the TAC presents the following status report on its efforts to develop the performance monitoring and compliance standards necessary for nodal market implementation.

As you are aware, the ERCOT Board of Directors (Board) approved Nodal Protocol Revision Request (NPRR) 097 in August 2008. This NPRR amended Section 8 of the Nodal Protocols to incorporate the role of the TRE, Independent Market Monitor (IMM), and the concept of market compliance. It was the intent of the stakeholders and the Board that the specific performance measures and compliance standards not incorprated in the Nodal Protocols would be included in the Nodal Operating Guide.

Following the approval of NPRR 097, ERCOT Staff developed a proposed new Section 9 of the Nodal Operating Guide which will contain the various performance monitoring functions, reporting requirements, and compliance standards needed to effectuate the concept of market compliance in the nodal market. This proposal was filed as Nodal Operating Guide Revision Request (NOGRR) 025 on Feb. 6, 2009 and is attached for your reference.

On Feb. 12, the Reliability and Operations Subcommittee (ROS) referred NOGRR 025 to the Operations Work Group (OWG) with the assignment to review the ERCOT draft and divide the issues into groups for referral to the stakeholder committees with the appropriate expertise to develop the detailed requirements needed to fully develop the performance monitoring and compliance regime necessary to ensure reliable system operations.

Attached for your reference, please find a spreadsheet prepared by ERCOT Staff and the OWG which enumerates the issues currently identified in the NOGRR. Many of these items address the issues identified in the PUCT Staff/TRE Proposal of August 13, 2008 which is attached to your Dec. 8, 2008 memo and attached here for your convenience. Where such items from the joint PUCT/TRE Proposal are not specifically enumerated in the OWG spreadsheet, they will be developed by the appropriate TAC subcommittee.

In direct response to the requests in your Dec. 8 memo, TAC provides the following update:

- *The plan and timeline for defining, developing, testing, and completing appropriate monitoring programs and metrics that depict measurable and acceptable performance and compliance for inclusion in Nodal Protocols and/or Nodal Operating Guides. Please explain any Metrics work that significantly impacts the Nodal Project scope, schedule, or cost. Also, please explain any related Metrics activity associated with on-going synchronism work of the Zonal Protocols and the Nodal Protocols.*

It is the stakeholders' goal to define the required monitoring, reporting, and compliance language by ERCOT's requested July 31, 2009 deadline in order to allow sufficient time for ERCOT Staff development of forms and reports prior to the nodal market start date. However, it is also TAC's expectation that some issues will present complexities requiring more time, perhaps several additional weeks, to fully resolve. The testing schedule will need to be integrated into a final approved Nodal Project schedule, which is currently pending before the PUCT. Upon Commission approval, a testing program can be developed.

At this time, it is not yet fully known whether any Metrics work will significantly impact the Nodal Project scope, schedule, or cost. The attached Preliminary Impact Analysis performed by ERCOT Staff estimates the cost of implementing NOGRR 025 as currently drafted will be between $50,000 and $100,000. Although much detail remains to be added to the NOGRR in the coming months, at this time it is not expected that further refinement will significantly impact this cost estimate. It is TAC's intention that work on the Metrics be organized to first complete any tasks which impact the Nodal Project schedule in order minimize those impacts.

TAC anticipates some synchronization work between the Zonal and Nodal Protocols should be completed as part of NOGRR 025. Specifically, several new performance measures for wind-only QSEs have been recently implemented in the Zonal Protocols, including Wind Generation Resource (WGR) Qualified Scheduling Entity (QSE) scheduling metrics; WGR QSE meteorological data telemetry requirements; and WGR QSE Resource Plan adjustments whenever ERCOT runs capacity adequacy studies. These synchronization issues will be addressed by the appropriate TAC subcommittee as part of the overall NOGRR 025 project.

- *The identification of the responsible organization(s) and individuals leading the overall Metrics effort and a description of the process being used to ensure the adequacy and completeness of the approved monitoring programs and performance and compliance metrics.*

Due to the varied subject matter expertise required to develop meaningful Metrics and an effective monitoring and compliance program, TAC anticipates a number of specialized task forces and work groups will engage in NOGRR 025 deliberations. At this time, it is anticipated that much of the work relating to performance measures for ERCOT and the Transmission Service Providers (TSPs) will be developed by the Operations Work Group, chaired by Jack Thormahlen of the Lower Colorado River Authority, under the Reliability and Operations Subcommittee, chaired by Ken Donohoo of Oncor. Is it also anticipated much of the work relating to performance measures applicable to QSEs will be developed by the QSE Managers Work Group (QMWG), chaired by David Detelich of CPS Energy, under the Wholesale Market Subcommittee, chaired by Barbara Clemenhagen of Topaz Power. To ensure the adequacy and completeness of the approved monitoring programs and compliance Metrics, NOGRR 025

will be processed in accordance with TAC procedures in which all stakeholders, including PUCT and TRE Staff, are welcome to participate. All documents associated with this project are available in the public section of the ERCOT website and all meetings and materials are clearly posted on the ERCOT website as well.

- *Where possible, the identification of the types of Metrics and/or reports intended to support monitoring and enforcement functions for the NPRR 097 areas.*

Please see the attached OWG spreadsheet for identification of specific Metrics and reports.

- *The identification of all Metrics which may require IT support beyond what is available today or already included in the development plan for monitoring and compliance with Zonal Protocol and/or Zonal Operating Guides.*

Specific Metrics requiring additional IT support have not yet been identified. However, the attached Preliminary Impact Analysis prepared by ERCOT Staff estimates 2.0 additional FTEs may be required in the System Operations area and 1.8 additional FTEs may be required in the Market Operations area .

- *The plan for educating the market regarding compliance with the new Nodal Protocols and Nodal Operating Guides.*

TAC recognizes the importance of effectively educating the market regarding compliance with the new Nodal Protocols and Nodal Operating Guides. An educational effort can be designed once the content of the new performance monitoring and compliance regime is known and the proposed revised nodal implementation schedule is approved by the PUCT. At this time, TAC expects educational outreach may take numerous forms, including additions to the existing Nodal Market training curriculum; publication of Market Bulletins; and inclusion in the annual ERCOT Operators' Training program beginning in Spring 2010.

As always, TAC welcomes the participation of PUCT and TRE Staff in the ongoing deliberations on these important issues in the stakeholder process. It is TAC's intent to provide additional updates to you as conditions warrant, with the next report coming no later than a status report following the July 31, 2009 goal for completing the definition of all Metrics and reports required to establish a performance monitoring and compliance program which ensures reliable system operations.

cc: Pam Whittington, Director, PUCT Division of Oversight and Enforcement
Victor Barry, Director of Compliance, TRE
Jan Newton, Chairman, ERCOT Board of Directors
Michel Gent, Vice-Chairman, ERCOT Board of Directors
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