

DIRECT TESTIMONY OF

BOB KAHN

PRESIDENT AND CHIEF EXECUTIVE OFFICER

ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.

IN SUPPORT OF

ERCOT'S APPLICATION FOR APPROVAL

OF A REVISED NODAL MARKET

IMPLEMENTATION SURCHARGE

1 **DIRECT TESTIMONY OF BOB KAHN**

2

3 **I. POSITION AND QUALIFICATIONS**

4

5 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

6 A. My name is Bob Kahn. My business address is 7620 Metro Center Drive, Austin,
7 Texas 78744.

8

9 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

10 A. I am employed by the Electric Reliability Council of Texas, Inc. (“ERCOT”) as
11 President and Chief Executive Officer (“CEO”). I joined ERCOT in July 2007.

12

13 **Q. PLEASE OUTLINE YOUR EDUCATION AND PROFESSIONAL**
14 **QUALIFICATIONS.**

15 A. Before returning to ERCOT as CEO, I served on the ERCOT Board of Directors
16 from 2002 through 2006, including several terms as Chair of the Board’s Human
17 Resources and Governance Committee. Immediately prior to accepting the CEO
18 position, I served as the Deputy General Manager for Austin Energy. In my
19 sixteen (16) years at Austin Energy, I also served as General Counsel and Vice-
20 President for Legal Services for eight years. In that position, and in my prior role
21 as a senior attorney, I was responsible for providing counsel on all electric utility
22 legal, regulatory and legislative matters for Austin Energy. I was involved in the
23 negotiation and drafting of SB 7 on behalf of the public power industry, and have
24 actively participated in the evolution of competitive markets in the ERCOT
25 region.

26 Before joining Austin Energy, I was in private practice in Austin, where I
27 provided advice to municipally owned electric utilities and served as lead counsel
28 in proceedings before this Commission, the Texas Commission on Environmental
29 Quality, and the Texas Railroad Commission. Previous to entering private
30 practice, I was a staff attorney in the Public Utility Commission (“Commission”)
31 General Counsel's Office, where I represented the public interest in electric and

1 water utility rate and certification cases. In these various roles, I have been an
2 active participant in the Texas electric industry for over twenty (20) years.

3 Before beginning my career in the electric industry, I served in the United
4 States Air Force as a Judge Advocate, directing administrative hearings and
5 investigations, and represented the Air Force before the Merit Systems Protection
6 Board. I earned my J.D. in 1978 from the University of Dayton School of Law
7 and a bachelor of arts in psychology from Ohio University in 1975.

8
9 **Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS CHIEF**
10 **EXECUTIVE OFFICER.**

11 A. I am responsible for both the overall operations and strategic direction of ERCOT.
12 I am the ERCOT officer ultimately responsible for carrying out the policies of the
13 ERCOT Board of Directors, as well as policy directives from the Commission and
14 the Texas Legislature. My key responsibilities include ensuring that ERCOT has
15 the physical infrastructure, human resources, and funding necessary for ERCOT
16 to meet the objectives established by legislative and regulatory oversight, and by
17 other governing documents, such as the ERCOT Protocols. In my role as CEO, I
18 also maintain active communications with the various stakeholders and
19 policymakers who have interests in the development of the ERCOT market.

20
21 **Q. WHAT IS YOUR ROLE IN THE TEXAS NODAL MARKET**
22 **IMPLEMENTATION PROGRAM?**

23 A. I was involved in the development of the Texas Nodal Market Implementation
24 Program (“Nodal Program”) as an ERCOT Board member, and now, as ERCOT’s
25 CEO, have the task of ensuring the Nodal transition is completed successfully.
26 The Commission approved the Nodal transition based on the Commission’s
27 expectation of the tremendous potential benefits it holds for the ERCOT region’s
28 electric market. Throughout the Nodal transition, ERCOT personnel have worked
29 with Market Participants to create robust systems that can deliver on the potential
30 of a Nodal market, and I am proud of the magnitude and quality of their efforts.
31 Both as a Board member and as CEO, my objectives regarding delivery of the

1 Nodal market are the same: (1) to implement the Nodal Protocols on a timely
2 basis to achieve a reliable and efficient Nodal market in the ERCOT region; (2) to
3 successfully transition the ERCOT organization into the Nodal market
4 environment when new Nodal market systems and operations come on line; and
5 (3) to seek every reasonable opportunity to control Nodal Program costs.
6

7 **Q. IS ERCOT “IMPLEMENTING THE NODAL PROTOCOLS ON A**
8 **TIMELY BASIS TO ACHIEVE A RELIABLE AND EFFICIENT NODAL**
9 **MARKET”?**

10 A. Yes, the people involved in the Nodal Program are working tirelessly to meet
11 ERCOT’s objective of a timely “Go-Live” for well-running, fully tested Nodal
12 market systems. I recently joined ERCOT Vice-President and Chief Information
13 Officer (“CIO”) Ronald Hinsley in meetings with several of the project managers
14 responsible for the Nodal Program. Every project managers with whom I met
15 detailed the progress of their work and expressed confidence that the work would
16 be complete at acceptable quality levels, in time to meet the Go-Live schedule,
17 and within the revised budget recently approved by the ERCOT Board of
18 Directors. I have discussed Nodal transition issues in great detail with the Nodal
19 Program team – including ERCOT financial and operational personnel as well as
20 major vendors supporting Nodal systems delivery – and am convinced that the
21 successful completion of the transition is within reach.

22 That is not to say there are not many serious challenges to the completion
23 of the Nodal transition, including vendor delivery, testing, and system-integration
24 issues. But at this time, the most serious known obstacle to completion of the
25 Nodal transition is the one that brings ERCOT before the Commission: the need
26 to revise the Nodal surcharge to meet unexpected increases in the cost to complete
27 the Nodal transition.
28

29 **Q. HOW DO YOU EXPLAIN THE INCREASE IN COSTS SINCE THE**
30 **COMMISSION APPROVED THE NODAL SURCHARGE IN MAY 2007?**

1 A. The testimony of ERCOT Vice-President and CIO Mr. Ronald Hinsley
2 and that of Nodal Program Executive Director Mr. Jerry Sullivan explain the
3 numerous events and decisions that have resulted in our increased cost
4 projections. I defer to their expertise in explaining the detailed reasons. It is
5 clear, however, that there is no single reason why the costs have exceeded
6 ERCOT's previous forecasts. Since the Commission approved the Nodal
7 surcharge, there have been significant additions to the scope of work for the
8 Nodal Program, brought on in large measure by changes in the Nodal Protocols
9 that required both reworking software designs and undertaking new requirements
10 and design work not previously anticipated. The massive software integration
11 effort necessary for all Nodal systems to "talk" to one another has grown in
12 complexity as the details of Nodal systems have been refined.

13 In addition, the final, detailed statements of work from vendors (which
14 were not available when the Nodal surcharge was initially developed) were often
15 higher than anticipated as vendors absorbed the full extent of the systems'
16 requirements. In some cases, ERCOT went through very difficult, but I believe
17 ultimately successful, negotiations with key vendors to ensure strong budget and
18 quality controls were observed. Even with effective controls in place, however,
19 there have been increases in vendor and labor costs that I am convinced were
20 unavoidable given the Nodal Program's tight schedule and high standards for
21 quality. Finally, there has been an ongoing problem with the Nodal Program
22 losing key personnel. ERCOT has taken steps to improve retention, and we have
23 seen improvements as the Nodal Program has progressed. Nevertheless, there is
24 an extremely limited pool of people with the knowledge base needed to lead many
25 of the key Nodal projects. The loss of critical individuals at crucial junctures has
26 caused several setbacks during the course of the Nodal transition. Those setbacks
27 have almost always resulted in some increase in cost as new personnel fill the
28 gaps left by key departures, and commit the resources required to avoid slippage
29 in the overall completion date.

30

1 **Q. WHAT IMPACT WILL APPROVAL OF ERCOT'S REQUEST TO**
2 **REVISE THE NODAL SURCHARGE HAVE ON THE NODAL**
3 **TRANSITION?**

4 A. Simply put, without additional funding for the Nodal Program, ERCOT cannot
5 hope to successfully complete the Nodal transition. The ERCOT Board of
6 Directors, its Technical Advisory Committee ("TAC"), the Nodal Transition Plan
7 Task Force ("TPTF"), and ERCOT's Nodal Program Management Office have all
8 carefully examined the Nodal Program's budget, and I have vetted the
9 information supporting the budget and the requested increase in the Nodal
10 surcharge. All of the bodies guiding and governing ERCOT, along with
11 ERCOT's officers and executives, would prefer to complete the Nodal transition
12 without seeking additional funding. At the same time, however, all parties
13 responsible for the stewardship of ERCOT recognize the necessity for increased
14 funding authority to complete the Nodal transition. The Board of Directors voted
15 at its January 2008 meeting to approve this request for an increase in the Nodal
16 surcharge, and ERCOT welcomes the Commission's scrutiny of this filing, but
17 also respectfully urges the Commission to approve it as expeditiously as possible.

18

19 **Q. WHAT ARE THE OTHER MAJOR CHALLENGES FACING THE**
20 **NODAL PROGRAM?**

21 A. If sufficient funding is secured, there are three overarching challenges confronting
22 ERCOT as we complete the Nodal transition: (1) scope creep; (2) ERCOT and
23 Market Participant Readiness; and (3) the significant work, both within ERCOT
24 and with vendors, that remains to be done to ensure that the upcoming 168-Hour
25 Test is successful and on-schedule. These concerns are related, but not identical,
26 to the four categories that have caused the Nodal Program's increased costs,
27 which are explained in detail in Mr. Sullivan's testimony.

28

29 **Q. PLEASE EXPLAIN YOUR CONCERNS ABOUT PROGRAM SCOPE.**

30 A. The scope of the Nodal transition project must be "locked down" so that software
31 system design and testing can be completed. If project scope is a moving target, it

1 creates numerous problems for a complex project like the Nodal Program. When
2 meeting a scheduled completion date is extremely important for a project (as the
3 “Go-Live” date is for the Nodal Program), the program staff must know all the
4 components of the tasks that must be completed. Moreover, scope changes late in
5 a project’s life cycle cause cost and budget problems that are much more severe
6 than those occurring earlier in the process.

7 Scope changes already have been a problem for the Nodal Program. The
8 need to implement seventy-four (74) Nodal Protocol Revision Requests
9 (“NPRRs”) forced the Nodal Program to revisit requirements documentation,
10 revise software designs, and otherwise deploy resources away from critical path
11 items. This is not to say that adoption of NPRRs was a bad idea – in many areas
12 the Nodal Protocol revisions will substantially improve Nodal market
13 functionality, and in several cases ERCOT Nodal team staff instigated the
14 changes. Whatever the rationale for their adoption, however, NPRRs affecting
15 project scope have caused both unanticipated costs and resulted in changes to
16 testing and implementation schedules. As the Nodal transition enters its “home
17 stretch” in 2008, ERCOT management is working hard to keep additional change
18 in program scope to a bare minimum. If significant additional changes are
19 required, it could throw the established testing and completion schedule severely
20 off track.

21
22 **Q. WHAT ARE YOUR CONCERNS REGARDING ERCOT AND MARKET**
23 **PARTICIPANT READINESS?**

24 A. The second major challenge involves ERCOT’s and Market Participants’
25 readiness to implement the processes and systems associated with the Nodal
26 market. I know from my time on ERCOT’s Board of Directors, as well as from
27 my tenure as ERCOT’s CEO, that an enormous amount of effort has gone into
28 readying the ERCOT market for the tremendous changes related to the Nodal
29 transition. Within ERCOT, we still have work to do to make certain all aspects of
30 our organization are trained and ready for the numerous new tasks and processes
31 that are part of the Nodal transition. The status of “ERCOT Readiness” remains

1 “Amber” – due to training and staffing improvements still underway within
2 several divisions within the organization. ERCOT must be ready for the internal
3 “home team” to run Nodal systems during the 168-Hour Test in September, so we
4 are moving quickly to fill gaps in process documentation and training. In
5 addition, as the Commission is aware, ERCOT has been and continues to be
6 vulnerable to losses of core personnel whose knowledge base is vital to
7 completing the Nodal transition. As Go-Live nears, it is critical that ERCOT
8 maintain the services of key staffers with a depth of experience and knowledge in
9 the still-evolving Nodal systems.

10 Market Participant readiness goes hand-in-hand with ERCOT readiness.
11 The Nodal systems cannot be adequately tested if the Market Participants who
12 will operate in the Nodal market are not trained and ready to participate in testing.
13 As with ERCOT, it is critical that Market Participants do what is necessary to be
14 prepared for the upcoming 168-Hour Test and the various program milestones
15 leading up to it.

16
17 **Q. WHAT ARE YOUR CONCERNS REGARDING THE IMPORTANCE OF**
18 **THE 168-HOUR TEST?**

19 A. The 168-Hour Test is a critical milestone for the Nodal Program. The test aims to
20 simulate Nodal market operations on a 24/7 basis over the course of a full seven
21 (7) day week (*i.e.*, 168-Hours), as a way to test Nodal systems end-to-end. The
22 168-Hour Test is scheduled for September 2008, a few months ahead of the Go-
23 Live date, to provide time for systems problems (*e.g.*, software functionality,
24 integration interfaces, data transmission issues) to be identified, rectified, and re-
25 tested before Nodal goes live. Until this critical test is complete, ERCOT will not
26 have verifiable evidence that the integrated systems needed for the Nodal market
27 all function as required. For these reasons, ERCOT cannot certify, as required by
28 Protocol Revision Request (“PRR”) 727, that the Go-Live date will be met until
29 after the 168-Hour Test has been completed and evaluated.

1 **Q. WHY DO YOU BELIEVE THESE ISSUES PRESENT THE BIGGEST**
2 **CHALLENGES TO THE NODAL TRANSITION?**

3 A. The scope, readiness, and testing issues all have a direct impact on ERCOT's
4 ability to complete and implement Nodal systems. In addition, they are all
5 capable of confounding budget and schedule controls as the program nears
6 completion. For example, if the 168-Hour Test reveals severe problems that must
7 be addressed before ERCOT can open the Nodal market with confidence, the
8 fixes necessary could drive up costs or affect the completion schedule. Problems
9 discovered in simulation testing have delayed the Nodal market efforts of other
10 Independent System Operators ("ISOs"), and remain a risk for ERCOT until we
11 know the results of systems testing. Similarly, if scope changes or other
12 unforeseen problems make it impossible to have confidence in the functionalities
13 that must be fully tested before Go-Live, it could delay the 168-Hour Test (and
14 therefore the entire remainder of the schedule) and cause costs to increase (as they
15 have already due to changes in scope). Finally, if ERCOT or Market Participants
16 do not complete readiness activities in a timely manner, no amount of elegant
17 software design will remedy the market's lack of preparedness. Therefore, while
18 I believe the Nodal Program is moving forward on a timely basis, there are
19 certainly threats to its completion that could generate increased costs or unwanted
20 delay—including significant challenges that are not entirely within ERCOT's
21 control.

22
23 **Q. YOU STATED THAT IT IS ALSO YOUR OBJECTIVE AS CEO TO**
24 **"SUCCESSFULLY TRANSITION THE ERCOT ORGANIZATION INTO**
25 **THE NODAL ENVIRONMENT." PLEASE EXPLAIN.**

26 A. The Nodal transition represents the largest and most complex single project
27 ERCOT has undertaken, more so even than the retail market opening. Based on
28 my industry experience and on discussions with other ISOs, I believe the Nodal
29 transition is also one of the most complex projects taken on by any ISO in the
30 country. As extraordinary as the Nodal Program is, however, ERCOT must
31 maintain – and continue to improve – its other functions during and after the

1 Nodal transition. In order for ERCOT as an organization to successfully
2 transition to a Nodal environment, ERCOT must manage the transition prudently
3 from a financial and organizational standpoint. Our efforts to achieve the timely
4 and successful completion of the Nodal market cannot overshadow the need to
5 make certain ERCOT is in a good position to carry out its myriad duties during
6 the transition and after Nodal goes live.

7
8 **Q. HOW ARE THESE CONCERNS REFLECTED IN THE PROPOSED**
9 **NODAL SURCHARGE?**

10 A. ERCOT has structured the proposed increase in the Nodal surcharge with
11 ERCOT's overall financial stability as the primary concern. The proposed
12 surcharge seeks to minimize the additional debt ERCOT incurs to fund the Nodal
13 Program, while also avoiding spikes in the surcharge that would be a disservice to
14 Market Participants. As ERCOT's Vice-President and Chief Financial Officer
15 Steve Byone explains in his testimony, the proposed surcharge is designed to
16 balance these concerns while at the same time assuring adequate funding to
17 recover ERCOT's costs associated with the Nodal transition.

18
19 **Q. DOES APPROVAL OF THE NODAL SURCHARGE HAVE OTHER**
20 **IMPACTS ON ERCOT'S FINANCIAL CONDITION?**

21 A. Yes. If ERCOT has authority to recover Nodal Program costs through the
22 surcharge, it can more accurately budget for its other needs. The surcharge
23 isolates Nodal funding in a way that provides certainty as ERCOT plans its future
24 activities in a post-Go-Live environment. The post-Nodal market will present
25 new challenges for ERCOT as an organization, but it is important that those
26 challenges can be budgeted independent of the substantial development costs that
27 are attributable specifically to the Nodal transition. As the Commission
28 recognized when it originally approved a Nodal-specific surcharge, the special
29 purpose surcharge approach is in the long-term interest both of ERCOT and the
30 Market Participants who provide its funding.

- 1 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY AT THIS TIME?**
- 2 A. Yes.