

DOCKET NO. _____

**ERCOT ACCOUNTING OF THE COSTS §
AND REVENUES OF IMPLEMENTING § PUBLIC UTILITY COMMISSION
THE NODAL MARKET § OF TEXAS**

**ERCOT ACCOUNTING OF THE COSTS AND REVENUES
OF IMPLEMENTING THE NODAL MARKET**

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**ERCOT ACCOUNTING OF THE COSTS AND REVENUES
OF IMPLEMENTING THE NODAL MARKET**

COMES NOW, Electric Reliability Council of Texas, Inc. (ERCOT), and, pursuant to Public Utility Commission of Texas (“Commission”) Orders in Docket Nos. 32686,¹ 36851,² 38840,³ and 39865,⁴ files its “accounting of the costs and revenues of implementing the nodal market.”⁵ In this filing, ERCOT also includes information required by settlement agreements and Commission Orders in the above-referenced nodal program funding proceedings.

I. BACKGROUND

In Docket No. 32686, the Commission approved the creation of the “nodal surcharge” as a special-purpose fee used to fund the costs of implementation by ERCOT of the Texas Nodal Market Implementation Program (TNMIP, or Nodal Program). As part of the Commission’s approval of the nodal surcharge, it required the following filings after the completion of Nodal Program:

¹ Docket No. 32686, *Application of the Electric Reliability Council of Texas for Approval of a Nodal Market Implementation Surcharge and Request for Interim Relief*, Final Order (May 23, 2007) and *Order Nunc Pro Tunc* (June 13, 2007).

² Docket No. 36851, *Application of the Electric Reliability Council of Texas for Approval of a Revised Nodal Market Implementation Surcharge*, Final Order (October 14, 2009).

³ Docket No. 38840, *Application of ERCOT For Approval of Post-Go-Live Utilization of the Texas Nodal Market Implementation Surcharge*, Order (December 20, 2010).

⁴ Docket No. 39865, *Petition of Electric Reliability Council of Texas, Inc. For Approval of Revision To The Final Order in Docket No. 32686*, Order (December 19, 2011).

⁵ *Id.*, at 1.

ERCOT shall file with the Commission within 12 months after the Nodal market “goes live” and again within 12 months after ERCOT stops collecting the nodal surcharge an accounting of the costs and revenues of implementing the Nodal market.⁶

At the time of the Commission’s 2007 order, ERCOT did not expect to expend revenues generated by the nodal surcharge after the nodal market’s “go-live” date. Therefore, the Commission and ERCOT expected that a complete accounting of nodal costs could be provided within one year after completion of nodal go-live, with an accounting of nodal surcharge revenues to be provided after all nodal program charges (including debt service) were repaid using nodal surcharge revenues.

The “go-live” date for nodal market operations was December 1, 2010. On December 20, 2010, the Commission approved a change regarding the time period in which ERCOT could utilize nodal surcharge revenues. In Docket No. 38840, the Commission approved “post-go-live utilization of nodal surcharge revenues for expenses associated with the transition to the nodal market incurred after nodal go-live on December 1, 2010 (post-go-live charges).”⁷ The Commission’s order authorized ERCOT to use nodal surcharge revenues through calendar year 2011 in support of post-go-live expenses associated with ERCOT’s transition to nodal operations. In light of the extended time period for use of nodal surcharge revenues, the Commission authorized ERCOT to defer the date of its post-go-live accounting of nodal costs and revenues until July 1, 2012.⁸

Also in 2010, the Commission initiated an audit of the nodal program, including the expenditures associated with it. The Commission retained Navigant Consulting (PI) LLC (Navigant), to conduct an investigation and evaluation of the design, development and implementation of the nodal program. On July 8, 2011, the Commission issued an order in Project No. 31600 requiring that “ERCOT shall pay for the audit by using nodal surcharge

⁶ Docket No. 32686, Order *Nunc Pro Tunc*, at 2 (Ordering Paragraph 1c.).

⁷ Docket No. 38840, *Application of Electric Reliability Council of Texas for Approval of Post-Go-Live Utilization of the Texas Nodal Market Implementation Surcharge*, Order, at 1 (December 20, 2010).

⁸ Docket 39865, Order, at 4 (December 19, 2011).

revenues or other appropriate revenues.”⁹ The Navigant audit report will provide the Commission an additional tool for reviewing and confirming the data included in ERCOT’s post-go-live accounting filing.

As part of the settlement of its request for a revision of the nodal surcharge in Docket No. 36851, ERCOT committed to provide information in its nodal accounting filing related to: (a) post-go-live expenditures related to completing or correcting nodal systems; and (b) the “limited issue of whether the Commission should grant an exemption from the nodal surcharge for distributed renewable generation.”¹⁰ ERCOT includes the required information in this filing, together with the data reflecting the costs and revenues of the nodal program.

In this proceeding, ERCOT requests that the Commission find that ERCOT has complied with prior Commission Orders requiring the submission of this accounting of nodal costs and revenues. ERCOT will file the second part of its nodal accounting “within twelve (12) months after ERCOT stops collecting the nodal surcharge.”¹¹ As of the date of this filing, ERCOT anticipates full repayment of nodal program costs, including debt service, in late 2012 or early 2013.¹² Since the nodal surcharge is collected on a per megawatt-hour (MWh) basis, the timing of its collection is dependent on the amount of electricity consumed in ERCOT over the coming months.

II. CONTENTS OF FILING

ERCOT’s accounting filing includes the following documents in addition to this pleading:

- A. Exhibit A: Testimony of Michael W. Petterson, ERCOT Vice-President of Finance and Treasury, in support of schedules detailing nodal program costs and revenues.
- B. Exhibit B: Nodal Program Costs Schedules 1-21.

⁹ Project No. 31600, *Transition to an ERCOT Nodal Market Design*, Order, at 3 (July 8, 2011).

¹⁰ Docket No. 36851, Order, at 16 (Finding of Fact 19).

¹¹ Docket No. 32686, Order *Nunc Pro Tunc*, at 2 (Ordering Paragraph 1c.).

¹² See Exhibit B, Nodal Program Costs, Schedule 21.

C. Exhibit C: Testimony of Mandy Bauld, ERCOT Director of Commercial Market Operation, providing the “estimated cost and time required by ERCOT to make the system changes necessary to implement a distributed renewable generation exemption”¹³ from the nodal surcharge.

D. Exhibit D: ERCOT’s *Notice* of its Petition.

III. P.U.C. PROC. R. 22.73(1) STATEMENT OF COMMISSION JURISDICTION

The Commission has jurisdiction over this Application pursuant to the Texas Public Utility Regulatory Act (PURA) §§ 14.001, 32.001, 36.001, and 39.151. ERCOT is an independent organization, certified by the Commission pursuant to PURA.¹⁴ In this docket, ERCOT submits a compliance filing required by Commission Orders in Docket Nos. 32686, 36851, 38840, and 39865. In Docket No. 32686, the original docket authorizing the nodal surcharge, the Commission held it had jurisdiction over the subject matter and parties pursuant to the provisions of PURA identified above.¹⁵

IV. ERCOT’S COMPLIANCE FILING SATISFIES THE REQUIREMENTS FOR THE NODAL ACCOUNTING STATED IN PRIOR COMMISSION ORDERS

A. The Nodal Program Costs Schedules Submitted in Exhibit B Provide a Full Accounting of the Costs of the Nodal Program.

The Nodal Program Costs are detailed in twenty-one schedules, submitted as Exhibit B, and supported by the testimony of ERCOT Vice-President of Finance and Treasury Mr. Michael W. Petterson. The Nodal Program Costs schedules provide an accounting of all expenditures on the nodal program through December 31, 2011. Pursuant to the Commission’s Order in Docket No. 38840, ERCOT was authorized to utilize nodal surcharge funding for “expenses associated

¹³ Docket No. 36851, Order, at 16 (Finding of Fact 19).

¹⁴ PURA § 39.151(e). ERCOT was certified as the “independent organization” for its region in Docket No. 22061, *Application of ERCOT ISO For Certification As The Independent Organization To Perform Transmission and Distribution Access, Reliability, Information Exchange, and Settlement Functions*, Final Order (Feb. 2, 2001).

¹⁵ Docket No. 32686, Order, at 8 (Conclusion of Law No. 1) (May 23, 2007).

with the transition to the nodal market incurred after nodal go-live on December 1, 2010 and through December 31, 2011.”¹⁶

The Nodal Program Costs schedules include an overall summary of program costs (Schedule 1), organized by major cost category (*e.g.*, internal and external labor, software and hardware expense), as well as more detailed summaries (Schedules 2 – 20) for each of the major assets developed as part of the Nodal Program (*e.g.*, Market Management System, Energy Management System, Outage Scheduler). The final schedule (Schedule 21) sets forth ERCOT’s projected schedule for recovery of Nodal Program costs. The final repayment date and amount is dependent on the speed at which the nodal surcharge is collected during 2012, which depends on the amount and pace of MWh consumption in the ERCOT region. The sooner that the full amount is collected, the less overall interest ERCOT will have to pay to complete full repayment of nodal program costs.

As reflected in Exhibit B, Schedule 1, total Nodal Program costs are composed of the following (\$ in millions):

Cost at Go-Live (As of Dec. 1, 2010)	\$ 509.4
Nodal Stabilization Projects (Through Dec. 31, 2011)	\$ 23.8
Post-Go-Live Interest (Estimated through 2012)	<u>\$ 11.5</u>
Total	<u>\$ 544.7</u> ¹⁷

The nodal surcharge will recover all Nodal Program costs, except for completion of the “zonal/nodal dependency” projects funded from System Administration Fee revenues. The zonal/nodal dependency projects are “projects relating to zonal market operations that are required to be completed before ERCOT can begin implementation of the nodal market.”¹⁸ In

¹⁶ Docket No. 38840, Order, at 2 (Ordering Paragraphs) (December 20, 2010).

¹⁷ Exhibit B, Schedule 1 & Schedule 21 (Notes).

¹⁸ Docket No. 32686, Final Order at 7 (Finding of Fact 8).

Docket No. 32686, the Commission determined that these projects were properly funded through the System Administration Fee rather than the nodal surcharge. The projects were completed, at a total cost of \$39.7 million (\$37 million in project costs, plus interest), and those costs were not recovered from nodal surcharge revenues.¹⁹

The \$0.375 per MWh nodal surcharge was set, in Docket No. 36851, at a level to recover \$604 million in Nodal Program costs.²⁰ Due to the all-in program costs coming in significantly lower, ERCOT expects to complete recovery of nodal program costs in late 2012 or early 2013. ERCOT will provide a final report on the collection of the nodal surcharge in its second accounting, which will be filed within twelve (12) months after ERCOT completes collecting the nodal surcharge.

B. The Testimony Submitted in Exhibit C Satisfies ERCOT's Obligation to Provide Estimates Regarding a Nodal Surcharge Exemption for Distributed Renewable Generation.

Docket No. 36851 was the 2009 Commission proceeding that established the \$0.375 per MWh nodal surcharge. The parties resolved the issues in Docket No. 36851 through a settlement agreement that was adopted by the Commission.²¹ The settlement included a commitment by ERCOT to provide information in its first post-go-live nodal accounting proceeding regarding a potential nodal surcharge exemption for distributed renewable generation (DRG).²² The parties to the Docket No. 36851 settlement did not agree that the Commission should grant an exemption to the nodal surcharge for DRG. Rather, the parties agreed to ask the Commission to consider the issue in the nodal accounting proceeding, and ERCOT agreed to submit testimony to provide a factual basis for the Commission's consideration.²³ ERCOT has provided such

¹⁹ See Exhibit B, Schedule 21 (Notes).

²⁰ Docket No. 36851, Order, at 15 (Finding of Fact 7).

²¹ Docket No. 36851, Order, at 20.

²² The settlement agreement is limited to "distributed renewable generation" as it is defined in PURA § 39.916: "electric generation with a capacity of not more than 2,000 kilowatts provided by a renewable energy technology, as defined by Section 39.904, that is installed on a retail electric customer's side of the meter." Section 39.904 defines "renewable energy technology" as "any technology that exclusively relies on an energy source that is naturally regenerated over a short time and derived directly from the sun, indirectly from the sun, or from moving water or other natural movements and mechanisms of the environment." PURA § 39.904(d).

²³ See, *id.* at 10: "Parties to the Stipulation agreed that consideration of a distributed renewable generation exemption will not be viewed as raising the issue of the appropriate methodology for allocating repayment of the

testimony in Exhibit C, the Testimony of Ms. Mandy Bauld, ERCOT Director of Commercial Market Operations.

To add some context, when the Commission issued its Order in Docket No. 36851, parties did not anticipate that the nodal surcharge would be paid off as quickly as is now expected. ERCOT's estimates, which were based on an anticipated need to recover a higher amount of nodal costs than were actually incurred, showed the nodal surcharge payoff in late 2013. As noted above, ERCOT now expects full repayment by the end of 2012 or early 2013. Therefore, any prospective exemption from the surcharge for DRG would impact only the few months remaining in the repayment period. As discussed in the testimony of Ms. Bauld, the process for changing ERCOT Protocols and internal operating procedures to implement an exemption would consume most, if not all, of the time left between now and the end of the repayment period. This circumstance would make the value of a prospective exemption *de minimus*. Ultimately, the cost of preparing to provide the exemption may exceed the dollar value of the actual exemption.

Moreover, Ms. Bauld's testimony includes an estimate of the amount of nodal surcharge payments that DRG has made since the nodal surcharge was instituted. Ms. Bauld's testimony shows that, based on the megawatts attributable to DRG registered in ERCOT, DRG is estimated to have made a total of \$11,313.76 in nodal surcharge payments since the inception of the surcharge in 2006.²⁴ As Ms. Bauld notes, ERCOT seeks to avoid retroactive applications of changes in Protocols, which would be required to refund estimated payments made by DRG during the nodal surcharge collection period. If such a repayment was required, however, the small amount of the repayment may result in the repayment process costing ERCOT more to perform than is refunded to DRG entities.

costs of the Nodal Program, the structure or allocation of the nodal surcharge, the ERCOT system administration fee, or any other ERCOT fees and charges. Furthermore, it will not constitute a waiver in other forums by ERCOT or any party to the Stipulation of their positions with regard to these issues, nor will it affect their right to address any issues relating to distributed renewable generation in those forums.”

²⁴ Exhibit C, Testimony of Many Bauld, at 10.

Based on Ms. Bauld's testimony, and the small benefit for the associated costs of creating an exemption, ERCOT recommends that the Commission make no changes to its prior Orders regarding nodal repayment that would change the treatment of DRG.

C. ERCOT Previously Provided the Information On All Remaining Issues In Its Filings in Docket No. 38840, In Support of Post-Go-Live Utilization of Nodal Surcharge Revenues During 2011.

In addition to the DRG issue, the settlement agreement in Docket No. 36851 also included a stipulation that ERCOT would provide testimony in its nodal accounting proceeding regarding post-go-live "changes to nodal system functionalities planned to address nodal market design deficiencies, nodal operational system deficiencies, or needed enhancements to the nodal system that are identified within the first eighteen months after the nodal go-live."²⁵ ERCOT submits that subsequent events have overtaken this portion of the stipulation, in particular, the Commission's approval of post-go-live nodal surcharge expenditures for nodal stabilization projects.

When the Docket No. 36851 stipulation was adopted, the Commission's extant nodal surcharge orders did not contemplate that any ERCOT expenditures after the go-live date (other than debt service) would be funded by nodal surcharge revenues. Therefore, the parties in Docket No. 36851 reserved their rights to ask the Commission to require payment of post-go-live nodal market expenses from the nodal surcharge or from the ERCOT System Administration Fee. The focus of this portion of the stipulation was on repairing problems or implementing needed enhancements identified within the first eighteen months after nodal go-live (*i.e.*, projects identified by June 1, 2012) which, at the time, were not eligible for funding from nodal surcharge revenues.

Coincident with nodal go-live in December 2010, however, the Commission approved ERCOT's request to fund such projects, in calendar year 2011, using nodal surcharge revenues. ERCOT's application for post-go-live utilization of the nodal surcharge detailed the "parking deck" initiatives, system stabilization and improvement work, and zonal system

²⁵ Docket No. 36851, Order, at 17.

decommissioning projects that would be funded during 2011 using nodal surcharge revenues.²⁶ ERCOT and market participants identified these projects as being necessary to correct “design” or “operational deficiencies” and make the “enhancements” that were referenced in the Docket No. 36851 settlement and Order. The eighteen-month period since go-live referenced in Docket No. 36851 has passed, and ERCOT submits there are no uncompleted projects that would appropriately qualify for continued post-go-live funding from the nodal surcharge.

ERCOT believes that the authorization of post-go-live projects pursuant to the Commission’s Order in Docket No. 38840 resolves and renders moot the potential issue in this proceeding regarding the funding of parking deck items and other post-go-live corrections or enhancements. ERCOT respectfully suggests that there is no need for additional testimony on this issue, and requests that the Commission find its accounting filing complete without the need to file testimony on the issue.

V. P.U.C. PROC. R. 22.73(2) IDENTIFICATION OF AFFECTED PARTIES

The allocation of fees supporting ERCOT services is addressed in PURA § 39.151(e), which provides that the Commission “may authorize [ERCOT] to charge a reasonable and competitively neutral rate to wholesale buyers and sellers to cover [its] costs.” The Commission determined in the Docket No. 32686 that the nodal surcharge should be “charge[d] to QSEs representing generation resources, multiplying the surcharge factor . . . by the total net metered generation aggregated to the QSE level.”²⁷ Any changes in the Nodal Surcharge most directly affect the QSEs representing generation who pay the fee; however, issues that could affect allocation of an ERCOT fee potentially affect all buyers and sellers of electricity.

In this docket, ERCOT does not propose any change in the amount of the nodal surcharge or in the manner or timing of its collection. Rather, ERCOT files an accounting of nodal program costs and revenues in compliance with prior Commission orders. ERCOT is providing notice of this docket to all parties who have previously intervened in Commission proceedings affecting the nodal surcharge, as well as to lists of market participants maintained by ERCOT

²⁶ See, e.g., ERCOT’s initial application, at 5, in which ERCOT identifies the categories of projects and amount of nodal surcharge funding requested for post-go-live purposes. (Docket No. 38840, Interchange Item 1).

²⁷ *Id.* (Finding of Fact 20).

that include buyers and sellers of electricity who may contend they are affected by the outcome of this proceeding.

VI. IDENTIFICATION OF APPLICANT

The name and address of the Applicant is Electric Reliability Council of Texas, Inc., 7620 Metro Center Drive, Austin, Texas 78744. The name, address, telephone, and facsimile number of Applicant's authorized representative is:

Bill Magness
General Counsel
ERCOT
7620 Metro Center Drive
Austin, Texas 78744
(512) 225-7076 (Phone)
(512) 225-7079 (Fax)
bmagness@ercot.com

VII. NOTICE

ERCOT will post the documents included in its Accounting of Nodal Program Costs and Revenues to its website at http://www.ercot.com/about/governance/legal_notices; send a copy of its filing via first-class U.S. mail to the parties of record in Docket No. 32686, and to the parties in all other proceedings in which the Commission addressed issues regarding the nodal surcharge (Docket Nos. 35428, 36412, 36851, 38840, and 39865). ERCOT will also provide Notice of its Petition via electronic mail to ERCOT's email exploder lists of committees as follows:

- ERCOT Board of Directors and Others
- Technical Advisory Committee and Others (TAC)
- Retail Market Subcommittee (RMS)
- Wholesale Market Subcommittee (WMS)
- Reliability and Operations Subcommittee (ROS)
- Commercial Operations Subcommittee (COPS), and
- Protocol Revisions Subcommittee (PRS)

A copy of ERCOT's form of Notice is attached as Exhibit D.

VIII. REQUEST FOR RELIEF

ERCOT files this “accounting of the costs and revenues of implementing the nodal market,” together with the other items addressed herein, pursuant to Commission Orders in Docket Nos. 32686, 36851, 38840, and 39865. ERCOT respectfully requests that the Commission find that ERCOT has fulfilled the requirements for filing the first of the two nodal accounting compliance filings required in the Commission’s Orders in the above-referenced proceedings, and that it grant ERCOT all other such relief to which it is entitled.

Respectfully submitted,

By: _____

Bill Magness
General Counsel
Texas Bar No. 12824020
Austin, Texas 78744
(512) 225-7076 (Phone)
(512) 225-7079 (Fax)
bmagness@ercot.com

ATTORNEY FOR ELECTRIC RELIABILITY
COUNCIL OF TEXAS, INC.

CERTIFICATE OF SERVICE

I hereby certify that a copy of this document was served on all parties of record in Docket Nos. 32686, 35428, 36412, 36851, 38840, and 39865 on July 2, 2012 by hand-delivery, electronic mail, or first-class U.S. mailing.

Exhibit A

DIRECT TESTIMONY OF

MICHAEL W. PETTERSON

VICE-PRESIDENT FINANCE AND TREASURY

ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.

IN SUPPORT OF

ERCOT ACCOUNTING OF COSTS AND REVENUES OF

IMPLEMENTING THE TEXAS NODAL MARKET

1 **DIRECT TESTIMONY OF MR. MICHAEL W. PETTERSON**

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Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Michael W. Petterson. My business address is 7620 Metro Center Drive, Austin, Texas 78744.

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

A. I am employed by Electric Reliability Council of Texas, Inc. (“ERCOT”) as Vice-President Finance and Treasury.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC UTILITY COMMISSION OF TEXAS?

A. Yes. I was a witness in Docket No. 31824 (ERCOT System Administrative Fee case), filed testimony in Docket Nos. 32686, 35428, 36851, and 38840 (ERCOT nodal surcharge cases), and have presented ERCOT financial and budget updates to the Commission at numerous Open Meetings.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I have a Bachelor of Business Administration degree from the University of Wisconsin at Madison (1985), and a Master of Business Administration degree from the University of Texas at Austin (1991). I am a Certified Public Accountant, licensed in the State of Texas. I joined ERCOT in 2001 as

1 Controller. I am responsible for directing the daily financial affairs of the
2 organization and preparing financial analyses of operations, including monthly
3 and annual financial statements with supporting schedules. I also supervise
4 ERCOT's general accounting, asset accounting, payroll, budget and reporting,
5 financial analysis, and billing and revenue functions.

6
7 **Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY.**

8 A. In the Commission's prior Orders authorizing ERCOT to collect a special purpose
9 surcharge to fund the Texas Nodal Market Implementation Program (nodal
10 surcharge), the Commission directed ERCOT to file an "accounting of the costs
11 and revenues of implementing the nodal market." I have supervised the
12 preparation of ERCOT's accounting documents, which are filed herewith as
13 Exhibit B to ERCOT's submission in this docket.

14
15 **Q. PLEASE SUMMARIZE THE CONTENTS OF EXHIBIT B.**

16 A. Exhibit B is composed of twenty-one (21) financial schedules. Schedule 1
17 provides overall summary of program costs (Schedule 1), organized by major cost
18 category (*e.g.*, internal and external labor, software and hardware expense).
19 Exhibit B includes more detailed summaries (Schedules 2 – 20) for each of the
20 major assets developed as part of the Nodal Program (*e.g.*, Market Management
21 System, Energy Management System, Outage Scheduler). The final schedule
22 (Schedule 21) sets forth ERCOT's projected schedule for recovery of Nodal
23 Program costs. The final repayment date and amount is dependent on the speed at

1 which the nodal surcharge is collected during 2012, which depends on the amount
2 and pace of MWh consumption in the ERCOT region. The sooner that the full
3 amount is collected, the less overall interest ERCOT will have to pay to complete
4 full repayment of Nodal Program costs.

5
6 **Q. DO THE SCHEDULES IN EXHIBIT B PROVIDE A COMPLETE**
7 **ACCOUNTING OF THE COSTS AND REVENUES OF THE NODAL**
8 **PROGRAM?**

9 A. Yes, the schedules provide a full accounting of the costs of completing the Nodal
10 Program. The only outstanding variable, as noted above, is the total amount of
11 interest ERCOT will incur to completely repay the debts incurred to complete the
12 Nodal Program. A final accounting that includes the final dollar amount of debt
13 repayment will be filed in the second post-go-live accounting proceeding required
14 by the Commission's nodal surcharge orders. That filing will be made within
15 twelve (12) months of the date on which the nodal surcharge collection period
16 ends.

17
18 **Q. HAS THE INFORMATION IN EXHIBIT B BEEN REVIEWED BY**
19 **OUTSIDE ACCOUNTING FIRMS OR AUDITORS?**

20 A. The Nodal Program transactions underlying the schedules provided were
21 reviewed by Ernst & Young, ERCOT's outside accounting firm. As part of the
22 2009, 2010, and 2011 financial statement audits, Ernst & Young reviewed

1 revenue and material, and Nodal Program expenditures (including internal labor,
2 external resources, hardware and software purchases, internal allocations, and
3 interest expense). Additionally, as part of the 2010 financial statement audit,
4 Ernst & Young reviewed the capitalization of Nodal Program costs (as of the date
5 of implementation) into the nodal software assets. As evidenced by the
6 unqualified audit opinions issued in connection with the 2009, 2010, and 2011
7 financial statement audits, Ernst & Young did not identify any concerns with the
8 accuracy of the accounting for the Nodal Program. Ernst & Young has not
9 reviewed any nodal transactions related to 2012 nor have they reviewed the
10 specific schedules included in Exhibit B.

11

12 **Q. TO THE BEST OF YOUR KNOWLEDGE, IS THE INFORMATION IN**
13 **THE SCHEDULES INCLUDED IN EXHIBIT B TRUE AND CORRECT?**

14 A. Yes.

15

16 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

17 A. Yes, it does.

Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 1: Summary of Costs by Category

Exhibit B

Line	Cost Category	Reference	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor		\$ 81,975,687	\$ 6,052,042	\$ 88,027,728	16.3%
2	External Resource		274,045,043	11,239,194	285,284,237	52.7%
3	Administrative & Employee Expenses		2,067,982	39,365	2,107,347	0.4%
4	Software & Software Maintenance		36,236,409	4,043,928	40,280,337	7.4%
5	Hardware & Hardware Maintenance		49,295,959	2,455,901	51,751,861	9.6%
6	Subtotal - Direct Costs		443,621,079	23,830,430	467,451,509	86.3%
7	Backfill		6,336,184	-	6,336,184	1.2%
8	Indirect Support Allocation		15,664,674	-	15,664,674	2.9%
8	Facilities Allocation		7,317,153	-	7,317,153	1.4%
9	Interest Expense		36,496,635	8,330,528	44,827,163	8.3%
10	Subtotal - Indirect Costs		65,814,645	8,330,528	74,145,173	13.7%
11						
12	Total - Nodal Program Costs	\$2	\$ 509,435,724	\$ 32,160,959	\$ 541,596,683	100%

The costs shown are the Nodal direct and indirect costs (including interest expense) through December 31, 2011. Interest will continue to be incurred daily until revenue surcharges have recovered the Nodal debt balance. The 2012 interest expense is \$1,566,971 as of April 30th, 2012 and is projected to total \$3,153,158 at the end of the year.

Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 2: Summary of Costs by Nodal Asset

Line	Description	Reference	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Market Management System (MMS)	S3	\$ 121,474,666	\$ 433,340	\$ 121,908,006	22.5%
2	Energy Management System (EMS)	S4	61,588,842	419,983	62,008,825	11.4%
3	External Web Services (EWS)	S5	52,113,946	169,730	52,283,676	9.7%
4	Market Information System (MIS)	S6	33,893,928	255,749	34,149,677	6.3%
5	Settlement and Billing (S&B)	S7	28,461,257	230,377	28,691,633	5.3%
6	Network Model Management System (NMMS)	S8	27,085,687	290,614	27,376,301	5.1%
7	Enterprise Data Warehouse (EDW)	S9	27,011,860	141,437	27,153,297	5.0%
8	Congestion Revenue Rights (CRR)	S10	18,799,051	78,931	18,877,982	3.5%
9	Current-Day Reports (CDR)	S11	15,370,502	29,175	15,399,677	2.8%
10	Commercial Systems Integration (CSI)	S12	11,189,896	29,795	11,219,691	2.1%
11	Credit Management Module (CMM)	S13	8,090,398	235,814	8,326,211	1.5%
12	Registration (REG)	S14	5,534,598	160,264	5,694,862	1.1%
13	Market Participant Identity Management (MPIM)	S15	5,114,643	10,189	5,124,832	0.9%
14	Outage Scheduler (OS)	S16	2,891,479	384,375	3,275,854	0.6%
15	ERCOT Visibility (Openview)	S17	2,743,704	356,877	3,100,581	0.6%
16	Planning Model On Demand (MOD)	S18	1,455,606	5,477	1,461,083	0.3%
17	ERCOT.com Website Enhancements	S19	112,198	-	112,198	0.0%
18	Program Operating Expense	S20	86,503,463	28,928,832	115,432,295	21.3%
19			\$ 509,435,724	\$ 32,160,959	\$ 541,596,683	100%

**Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 3: Market Management System (MMS)**

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 15,544,948	\$ 352,183	\$ 15,897,130	13.0%
2	External Resource	82,020,516	67,831	82,088,347	67.3%
3	Administrative & Employee Expenses	121,845	-	121,845	0.1%
4	Software & Software Maintenance	5,324,327	-	5,324,327	4.4%
5	Hardware & Hardware Maintenance	7,125,763	2,266	7,128,029	5.8%
6	Subtotal - Direct Costs	110,137,399	422,279	110,559,679	90.7%
7	Backfill	19,641	-	19,641	0.0%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	11,317,626	11,061	11,328,686	9.3%
10	Subtotal - Indirect Costs	11,337,267	11,061	11,348,328	9.3%
11					
12	Total - Asset Costs	\$ 121,474,666	\$ 433,340	\$ 121,908,006	100%

Market Management System (MMS), a real-time mission critical system, consists of a set of market clearing engines and a relational database housing the set of market rules as defined in the ERCOT protocols to be used in operating and managing the ERCOT markets – Day Ahead Market, Ancillary Services, Reliability Unit Commitment, Congestion Revenue Rights, and the Real-Time Security Constrained Economic Dispatch/Locational Marginal Price Calculator.

Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 4: Energy Management System (EMS)

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 9,265,244	\$ 262,266	\$ 9,527,510	15.4%
2	External Resource	39,881,883	143,855	40,025,738	64.5%
3	Administrative & Employee Expenses	119,023	-	119,023	0.2%
4	Software & Software Maintenance	3,189,245	-	3,189,245	5.1%
5	Hardware & Hardware Maintenance	4,996,283	2,770	4,999,054	8.1%
6	Subtotal - Direct Costs	57,451,678	408,891	57,860,569	93.3%
7	Backfill	30,609	-	30,609	0.0%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	4,106,556	11,092	4,117,647	6.6%
10	Subtotal - Indirect Costs	4,137,164	11,092	4,148,256	6.7%
11					
12	Total - Asset Costs	\$ 61,588,842	\$ 419,983	\$ 62,008,825	100%

Energy Management Systems (EMS) is a mission critical system designed to operate the power grid in real-time – the functionality includes communicating to the market through Inter-Control Center Communications Protocol (ICCP)/ Remote Terminal Unit (RTU), Supervisory Control and Data Acquisition, Load Forecast, Renewable Power Production forecast, Frequency Control, and a suite of Network Applications containing the State Estimator, Contingency Analysis, real time stability analysis tool, as well as power flow and stability tools used in study applications such as outage coordination studies.

Electric Reliability Council of Texas, Inc. (ERCOT)

Nodal Program Costs

Schedule 5: External Web Services (EWS)

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 6,923,122	\$ 161,406	\$ 7,084,528	13.6%
2	External Resource	33,623,462	-	33,623,462	64.3%
3	Administrative & Employee Expenses	51,103	-	51,103	0.1%
4	Software & Software Maintenance	2,046,557	-	2,046,557	3.9%
5	Hardware & Hardware Maintenance	4,905,773	2,672	4,908,445	9.4%
6	Subtotal - Direct Costs	47,550,017	164,077	47,714,095	91.3%
7	Backfill	7,828	-	7,828	0.0%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	4,556,101	5,653	4,561,754	8.7%
10	Subtotal - Indirect Costs	4,563,929	5,653	4,569,582	8.7%
11					
12	Total - Asset Costs	\$ 52,113,946	\$ 169,730	\$ 52,283,676	100%

External Web Services (EWS) provides machine to machine Application Programming Interface (APIs) to external Market Participants and the Market Information System (MIS) Portal.

**Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs**

Schedule 6: Market Information System (MIS)

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 4,819,708	\$ 228,075	\$ 5,047,783	14.8%
2	External Resource	19,340,965	18,289	19,359,254	56.7%
3	Administrative & Employee Expenses	115,641	-	115,641	0.3%
4	Software & Software Maintenance	1,943,113	-	1,943,113	5.7%
5	Hardware & Hardware Maintenance	4,744,643	3,228	4,747,871	13.9%
6	Subtotal - Direct Costs	30,964,070	249,591	31,213,661	91.4%
7	Backfill	4,482	-	4,482	0.0%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	318	-	318	0.0%
9	Interest Expense	2,925,058	6,157	2,931,216	8.6%
10	Subtotal - Indirect Costs	2,929,858	6,157	2,936,016	8.6%
11					
12	Total - Asset Costs	\$ 33,893,928	\$ 255,749	\$ 34,149,677	100%

The Market Information System (MIS) Portal is the primary Nodal Market Participant interface providing both Graphical User Interface (GUI) and web service interfaces. The MIS is the means by which Market Participants access reports generated by Current-Day Reports (CDR) or Enterprise Data Warehouse (EDW).

**Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 7: Settlements & Billing (S&B)**

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 8,279,279	\$ 186,275	\$ 8,465,554	29.5%
2	External Resource	13,597,360	38,635	13,635,994	47.5%
3	Administrative & Employee Expenses	24,842	-	24,842	0.1%
4	Software & Software Maintenance	1,889,607	-	1,889,607	6.6%
5	Hardware & Hardware Maintenance	2,114,758	1,462	2,116,220	7.4%
6	Subtotal - Direct Costs	25,905,845	226,371	26,132,217	91.1%
7	Backfill	177,978	-	177,978	0.6%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	2,377,433	4,005	2,381,438	8.3%
10	Subtotal - Indirect Costs	2,555,411	4,005	2,559,417	8.9%
11					
12	Total - Asset Costs	\$ 28,461,257	\$ 230,377	\$ 28,691,633	100%

The main function of the Settlements & Billing (S&B) component is to generate the settlement statements and invoices as prescribed by the protocols for both the Day Ahead Market (DAM) and Real-Time Market (RTM).

**Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 8: Network Model Management System (NMMS)**

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 5,546,409	\$ 69,664	\$ 5,616,073	20.5%
2	External Resource	15,783,515	215,458	15,998,973	58.4%
3	Administrative & Employee Expenses	36,091	-	36,091	0.1%
4	Software & Software Maintenance	2,609,914	-	2,609,914	9.5%
5	Hardware & Hardware Maintenance	1,980,457	1,145	1,981,602	7.2%
6	Subtotal - Direct Costs	25,956,387	286,266	26,242,653	95.9%
7	Backfill	4,465	-	4,465	0.0%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	1,124,835	4,348	1,129,183	4.1%
10	Subtotal - Indirect Costs	1,129,300	4,348	1,133,648	4.1%
11					
12	Total - Asset Costs	\$ 27,085,687	\$ 290,614	\$ 27,376,301	100%

The purpose of the Network Model Management System (NMMS) is to: (a) provide capabilities to input, edit network model data and validate the data for use in numerous applications; and (b) create network model cases to be used for annual planning, Congestion Revenue Rights auctions, Dynamic Simulation and Network Operations models; deploying these network cases to the production system so the model data can be used in the respective applications when the corresponding equipment is operational in the field.

Electric Reliability Council of Texas, Inc. (ERCOT)

Nodal Program Costs

Schedule 9: Enterprise Data Warehouse (EDW)

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 5,979,132	\$ 123,718	\$ 6,102,850	22.5%
2	External Resource	8,964,741	11,279	8,976,020	33.1%
3	Administrative & Employee Expenses	67,749	-	67,749	0.2%
4	Software & Software Maintenance	2,977,226	-	2,977,226	11.0%
5	Hardware & Hardware Maintenance	7,619,696	3,791	7,623,487	28.1%
6	Subtotal - Direct Costs	25,608,544	138,788	25,747,332	94.8%
7	Backfill	3,831	-	3,831	0.0%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	1,399,485	2,649	1,402,135	5.2%
10	Subtotal - Indirect Costs	1,403,316	2,649	1,405,965	5.2%
11					
12	Total - Asset Costs	\$ 27,011,860	\$ 141,437	\$ 27,153,297	100%

The Enterprise Data Warehouse (EDW)/ Enterprise Information Services (EIS) is the repository of all the archived data and provides extracts/reports for Market Participants, compliance reporting as well as market monitoring and market analysis.

**Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 10: Congestion Revenue Rights (CRR)**

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 3,063,355	\$ 36,447	\$ 3,099,802	16.4%
2	External Resource	9,143,635	39,665	9,183,300	48.6%
3	Administrative & Employee Expenses	32,817	-	32,817	0.2%
4	Software & Software Maintenance	1,908,059	-	1,908,059	10.1%
5	Hardware & Hardware Maintenance	3,016,120	1,555	3,017,674	16.0%
6	Subtotal - Direct Costs	17,163,986	77,667	17,241,653	91.3%
7	Backfill	24,224	-	24,224	0.1%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	1,610,841	1,264	1,612,105	8.5%
10	Subtotal - Indirect Costs	1,635,065	1,264	1,636,329	8.7%
11					
12	Total - Asset Costs	\$ 18,799,051	\$ 78,931	\$ 18,877,982	100%

The Congestion Revenue Rights (CRR) component is to auction the available network capacity of the ERCOT Transmission System that is not allocated to Non Opt-In Entities (NOIEs), Wind Generation Resources (WGR) or sold in previous auctions and to facilitate bilateral trading on the Market Information System (MIS).

**Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 11: Current-Day Reports (CDR)**

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 2,185,682	\$ 28,683	\$ 2,214,365	14.4%
2	External Resource	8,770,903	-	8,770,903	57.0%
3	Administrative & Employee Expenses	52,442	-	52,442	0.3%
4	Software & Software Maintenance	881,179	-	881,179	5.7%
5	Hardware & Hardware Maintenance	2,151,640	368	2,152,009	14.0%
6	Subtotal - Direct Costs	14,041,846	29,052	14,070,897	91.4%
7	Backfill	2,032	-	2,032	0.0%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	144	-	144	0.0%
9	Interest Expense	1,326,480	123	1,326,603	8.6%
10	Subtotal - Indirect Costs	1,328,657	123	1,328,780	8.6%
11					
12	Total - Asset Costs	\$ 15,370,502	\$ 29,175	\$ 15,399,677	100%

The Current-Day Reports (CDR) system provides access to reports, policies, guidelines, procedures, forms and applications, as required by the Nodal protocols. Reports delivered by CDR include data with a latency of less than eight hours, and will be either in the form of predefined, scheduled reports, or reports that are generated on demand and as data end points to External Web Services (EWS).

**Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 12: Commercial Systems Integration (CSI)**

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 3,255,101	\$ 28,690	\$ 3,283,792	29.3%
2	External Resource	5,345,970	-	5,345,970	47.6%
3	Administrative & Employee Expenses	9,767	-	9,767	0.1%
4	Software & Software Maintenance	742,922	-	742,922	6.6%
5	Hardware & Hardware Maintenance	831,443	189	831,632	7.4%
6	Subtotal - Direct Costs	10,185,204	28,879	10,214,083	91.0%
7	Backfill	69,974	-	69,974	0.6%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	934,717	915	935,633	8.3%
10	Subtotal - Indirect Costs	1,004,692	915	1,005,607	9.0%
11					
12	Total - Asset Costs	\$ 11,189,896	\$ 29,795	\$ 11,219,691	100%

Commercial Systems Integration (CSI) integrates upstream operational systems with downstream billing and financial and risk management systems (collectively known as commercial systems).

**Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 13: Credit Management Module (CMM)**

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 2,152,093	\$ 186,250	\$ 2,338,343	28.1%
2	External Resource	3,476,573	41,209	3,517,782	42.2%
3	Administrative & Employee Expenses	10,179	-	10,179	0.1%
4	Software & Software Maintenance	689,013	-	689,013	8.3%
5	Hardware & Hardware Maintenance	1,120,355	583	1,120,939	13.5%
6	Subtotal - Direct Costs	7,448,213	228,043	7,676,256	92.2%
7	Backfill	42,593	-	42,593	0.5%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	599,591	7,771	607,363	7.3%
10	Subtotal - Indirect Costs	642,185	7,771	649,956	7.8%
11					
12	Total - Asset Costs	\$ 8,090,398	\$ 235,814	\$ 8,326,211	100%

The purpose of the Credit Monitoring and Management (CMM) application is to provide a software tool for the ERCOT credit staff to ensure financial credit risks to the Market Participants are monitored and mitigated, if needed. Essentially, the CMM application serves two high level purposes, to: (a) determine the credit exposure of the participants in the ERCOT markets; and (b) ascertain whether Market Participants meet credit standards and acquire necessary collateral instruments from them, if needed.

Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 14: Registration (REG)

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 1,083,374	\$ 152,008	\$ 1,235,382	21.7%
2	External Resource	1,627,841	3,896	1,631,737	28.7%
3	Administrative & Employee Expenses	12,763	-	12,763	0.2%
4	Software & Software Maintenance	764,695	-	764,695	13.4%
5	Hardware & Hardware Maintenance	1,769,253	875	1,770,128	31.1%
6	Subtotal - Direct Costs	5,257,926	156,779	5,414,704	95.1%
7	Backfill	13,691	-	13,691	0.2%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	262,982	3,485	266,467	4.7%
10	Subtotal - Indirect Costs	276,673	3,485	280,157	4.9%
11					
12	Total - Asset Costs	\$ 5,534,598	\$ 160,264	\$ 5,694,862	100%

The Registrations system (REG) is where Market Participant entity relationships are defined and propagated to the rest of the ERCOT systems.

Electric Reliability Council of Texas, Inc. (ERCOT)

Nodal Program Costs

Schedule 15: Market Participant Identity Management (MPIM)

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 924,467	\$ 9,257	\$ 933,724	18.2%
2	External Resource	2,284,737	-	2,284,737	44.6%
3	Administrative & Employee Expenses	8,986	-	8,986	0.2%
4	Software & Software Maintenance	456,374	-	456,374	8.9%
5	Hardware & Hardware Maintenance	1,158,809	583	1,159,392	22.6%
6	Subtotal - Direct Costs	4,833,373	9,840	4,843,213	94.5%
7	Backfill	505	-	505	0.0%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	280,765	349	281,115	5.5%
10	Subtotal - Indirect Costs	281,270	349	281,619	5.5%
11					
12	Total - Asset Costs	\$ 5,114,643	\$ 10,189	\$ 5,124,832	100%

Market Participant Identity Management (MPIM) is a single application that manages Market Participant access to ERCOT Systems.

**Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 16: Outage Scheduler (OS)**

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 936,417	\$ 160,455	\$ 1,096,872	33.5%
2	External Resource	1,484,809	210,795	1,695,604	51.8%
3	Administrative & Employee Expenses	2,247	-	2,247	0.1%
4	Software & Software Maintenance	75,267	-	75,267	2.3%
5	Hardware & Hardware Maintenance	171,766	2,010	173,776	5.3%
6	Subtotal - Direct Costs	2,670,505	373,260	3,043,765	92.9%
7	Backfill	473	-	473	0.0%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	220,501	11,114	231,615	7.1%
10	Subtotal - Indirect Costs	220,974	11,114	232,088	7.1%
11					
12	Total - Asset Costs	\$ 2,891,479	\$ 384,375	\$ 3,275,854	100%

The Outage Scheduler (OS) supports the ability to submit transmission equipment and generation resource outage requests and to manage those requests throughout their life cycles. The Outage Scheduler makes outage data available to other ERCOT systems and provides the capability for managing outage life cycles including enforcing outage scheduling rules.

**Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 17: ERCOT Visibility (Openview)**

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 468,679	\$ 45,814	\$ 514,492	16.6%
2	External Resource	913,924	309,575	1,223,499	39.5%
3	Administrative & Employee Expenses	5,260	-	5,260	0.2%
4	Software & Software Maintenance	1,127,606	-	1,127,606	36.4%
5	Hardware & Hardware Maintenance	(17,538)	-	(17,538)	-0.6%
6	Subtotal - Direct Costs	2,497,930	355,389	2,853,319	92.0%
7	Backfill	184	-	184	0.0%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	245,590	1,488	247,078	8.0%
10	Subtotal - Indirect Costs	245,775	1,488	247,263	8.0%
11					
12	Total - Asset Costs	\$ 2,743,704	\$ 356,877	\$ 3,100,581	100%

ERCOT Visibility (Openview)/ Business Service Management (BSM) provides the framework in which ERCOT can bring the various, deployed departmental monitoring tools into one event stream to provide a holistic view of systems at ERCOT. BSM allows the management of IT infrastructure components in an ordered, standardized manner, defining rules, actions and alerting characteristics on faults or potential issues in the environment. It is primarily used for monitoring servers, devices, networks, databases & applications to ensure faults are detected and alerted upon in a timely manner.

The sales tax refund, from obtaining 501(c)(4) status in 2009, was allocated across the Nodal Assets. For the ERCOT Visibility (Openview) asset, this credit allocation exceeds the expenses for hardware leaving a credit total balance in that cost category. The hardware actual expense is \$0.00 with the sales tax credit being (\$17,538.44).

Electric Reliability Council of Texas, Inc. (ERCOT)

Nodal Program Costs

Schedule 18: Planning Model On Demand (MOD)

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 298,068	\$ 5,203	\$ 303,271	20.8%
2	External Resource	848,218	-	848,218	58.1%
3	Administrative & Employee Expenses	1,940	-	1,940	0.1%
4	Software & Software Maintenance	140,259	-	140,259	9.6%
5	Hardware & Hardware Maintenance	106,431	22	106,453	7.3%
6	Subtotal - Direct Costs	1,394,916	5,224	1,400,141	95.8%
7	Backfill	240	-	240	0.0%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	60,450	253	60,702	4.2%
10	Subtotal - Indirect Costs	60,689	253	60,942	4.2%
11					
12	Total - Asset Costs	\$ 1,455,606	\$ 5,477	\$ 1,461,083	100%

Planning Model On Demand (MOD) is a temporal based model staging tool used to build time-targeted branch models for use in steady-state power flow cases. MOD is an integral part of the consolidation of network modeling databases used by ERCOT.

**Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 19: ERCOT.com Website Enhancements**

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 30,535	-	\$ 30,535	27.2%
2	External Resource	65,216	-	65,216	58.1%
3	Administrative & Employee Expenses	39	-	39	0.0%
4	Software & Software Maintenance	(194)	-	(194)	-0.2%
5	Hardware & Hardware Maintenance	(1,574)	-	(1,574)	-1.4%
6	Subtotal - Direct Costs	94,022	-	94,022	83.8%
7	Backfill	22	-	22	0.0%
8	Indirect Support Allocation	-	-	-	0.0%
8	Facilities Allocation	-	-	-	0.0%
9	Interest Expense	18,154	-	18,154	16.2%
10	Subtotal - Indirect Costs	18,176	-	18,176	16.2%
11					
12	Total - Asset Costs	\$ 112,198	\$ -	\$ 112,198	100%

The sales tax refund, from obtaining 501(c)(4) status in 2009, was allocated across the Nodal Assets. For the ERCOT.com asset, this credit allocation exceeds the expenses for software and hardware leaving a credit total balance in those cost categories. The software actual expense is \$296.95 with the sales tax credit being (\$491.22). The hardware actual expense is \$0.00 with the sales tax credit being (\$1,573.87).

Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 20: Program Operating Expense

Line	Cost Category	Cost at Nodal Go-Live (December 1st, 2010)	Cost during Nodal Stabilization Period (December 31st, 2011)	Total	% Total
1	Internal Labor	\$ 11,220,074	\$ 4,015,648	\$ 15,235,722	13.2%
2	External Resource	26,870,776	10,138,707	37,009,484	32.1%
3	Administrative & Employee Expenses	1,395,249	39,365	1,434,614	1.2%
4	Software & Software Maintenance	9,471,239	4,043,928	13,515,167	11.7%
5	Hardware & Hardware Maintenance	5,501,881	2,432,383	7,934,264	6.9%
6	Subtotal - Direct Costs	54,459,219	20,670,032	75,129,251	65.1%
7	Backfill	5,933,411	-	5,933,411	5.1%
8	Indirect Support Allocation	15,664,674	-	15,664,674	13.6%
8	Facilities Allocation	7,316,690	-	7,316,690	6.3%
9	Interest Expense	3,129,470	8,258,800	11,388,270	9.9%
10	Subtotal - Indirect Costs	32,044,244	8,258,800	40,303,044	34.9%
11					
12	Total - Asset Costs	\$ 86,503,463	\$ 28,928,832	\$ 115,432,295	100%

Electric Reliability Council of Texas, Inc. (ERCOT)
Nodal Program Costs
Schedule 21: Projected Recovery of Nodal Program Costs

	Beginning		Plus Post	Less Nodal	Ending
Date	balance to be	Plus interest	Go-Live	Surcharge	balance to be
	recovered	expense	expenditures	revenue	recovered
Dec-10	\$ 222,687,389	\$ 776,229	2,085,624	9,111,585	\$ 216,437,657
Jan-11	216,437,657	738,017	1,710,249	9,845,438	209,040,485
Feb-11	209,040,485	684,826	1,740,796	8,771,033	202,695,073
Mar-11	202,695,073	747,105	2,061,294	8,492,640	197,010,832
Apr-11	197,010,832	738,504	2,054,351	9,230,014	190,573,673
May-11	190,573,673	696,642	1,926,982	10,344,582	182,852,714
Jun-11	182,852,714	660,668	1,981,484	12,681,198	172,813,668
Jul-11	172,813,668	654,901	1,460,068	13,634,182	161,294,454
Aug-11	161,294,454	626,277	1,805,128	14,360,179	149,365,680
Sep-11	149,365,680	590,179	1,602,984	11,239,524	140,319,320
Oct-11	140,319,320	544,675	1,774,343	9,259,520	133,378,817
Nov-11	133,378,817	452,180	1,927,172	8,271,182	127,486,988
Dec-11	127,486,988	420,326	1,692,268	9,540,002	120,059,580
Jan-12	120,059,580	437,624	7,691	9,041,185	111,463,709
Feb-12	111,463,709	389,718	-	8,370,276	103,483,151
Mar-12	103,483,151	391,468	-	8,749,187	95,125,432
Apr-12	95,125,432	348,162	-	9,163,566	86,310,027
May-12	86,310,027	352,886	-	10,938,497	75,724,416
Jun-12	75,724,416	315,152	-	12,200,900	63,838,669
Jul-12	63,838,669	271,446	-	13,688,633	50,421,481
Aug-12	50,421,481	222,232	-	13,409,427	37,234,286
Sep-12	37,234,286	170,488	-	11,377,256	26,027,518
Oct-12	26,027,518	123,042	-	9,538,870	16,611,690
Nov-12	16,611,690	82,932	-	8,621,835	8,072,786
Dec-12	8,072,786	48,010	-	8,120,797	0
Jan-13	0	-	-	-	0
Feb-13	0	-	-	-	0
Total	n/a	\$ 11,483,687	\$ 23,830,430	\$ 258,001,506	n/a

----- Actual -----
----- Estimated -----

Notes:

1. Beginning balance to be recovered is computed as \$509.4 million less \$247.0 million nodal surcharge revenue during implementation and \$39.7 million collected through the system administration fee for "interdependent projects".
2. Total Nodal Program implementation cost is assumed as \$544.7 million (\$509.4 million incurred by the go-live date+ \$11.5 million interest after the go-live date + \$23.8 million in post-go-live project costs).
3. Full recovery of Nodal Program implementation costs (including post go-live expenditures and finance charges) is expected on December 26, 2012.

Exhibit C

DIRECT TESTIMONY OF

MANDY BAULD

DIRECTOR OF COMMERCIAL MARKET OPERATIONS

ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.

IN SUPPORT OF

ERCOT ACCOUNTING OF COSTS AND REVENUES OF

IMPLEMENTING THE TEXAS NODAL MARKET

1 **DIRECT TESTIMONY OF MS. MANDY BAULD**

2

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

4 A. My name is Mandy Bauld. My business address is 2705 West Lake Drive,
5 Taylor, Texas 76574.

6

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

8 A. I am employed by Electric Reliability Council of Texas, Inc. (“ERCOT”) as
9 Director of Commercial Market Operations. I began serving in this role effective
10 February 2012.

11

12 **Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS DIRECTOR OF**
13 **COMMERCIAL MARKET OPERATIONS.**

14 A. I am responsible for developing and directing the strategy, processes and
15 procedures for all commercial operations related to Settlements & Billing and
16 Metering such as Data Acquisition, Data Aggregation and Data Integrity, and
17 directing the Renewable Energy Credit (REC) program.

18

19 **Q. PLEASE OUTLINE YOUR EDUCATIONAL AND PROFESSIONAL**
20 **QUALIFICATIONS.**

21 A. I graduated from the University of Texas at Austin with a Bachelor’s of Business
22 Administration in Management Information Systems in May of 1999. I have
23 eleven years of experience in various roles pertaining to wholesale settlement of

1 the ERCOT market. I joined ERCOT as an analyst in the Settlements & Billing
2 department in May of 2005 and was appointed Manger of Settlements & Billing
3 in April of 2008. Prior to joining ERCOT in 2005, I worked as a consultant in
4 various roles supporting shadow settlement system implementations and
5 procedure development.

6

7 **Q. HAVE YOU EVER FILED TESTIMONY BEFORE THE PUBLIC**
8 **UTILITY COMMISSION OF TEXAS?**

9 A. No.

10

11 **Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY.**

12 A. My testimony details the estimated cost and time required by ERCOT to make the
13 market rules and system changes necessary to implement an exemption from the
14 nodal surcharge for distributed renewable generation.

15

16 **Q. IS ERCOT ADVOCATING AN EXEMPTION FOR DISTRIBUTED**
17 **RENEWABLE GENERATION?**

18 A. No. ERCOT agreed to provide this testimony in the settlement agreement
19 adopted by the Commission in PUC Docket No. 36851, to provide a factual basis
20 for the Commission’s consideration of such an exemption.

21

22 **Q. AS USED IN YOUR TESTIMONY, WHAT IS “DISTRIBUTED**
23 **RENEWABLE GENERATION”?**

1 A. For purposes of my testimony “Distributed Renewable Generation” (DRG) is
2 defined consistently with its definition in the Texas Public Utility Regulatory Act
3 (PURA) § 39.916: “electric generation with a capacity of not more than 2,000
4 kilowatts provided by a renewable energy technology, as defined by Section
5 39.904, that is installed on a retail electric customer's side of the meter.” Section
6 39.904 of PURA defines "renewable energy technology" as “any technology that
7 exclusively relies on an energy source that is naturally regenerated over a short
8 time and derived directly from the sun, indirectly from the sun, or from moving
9 water or other natural movements and mechanisms of the environment.”

10

11 **Q. HOW DOES ERCOT CALCULATE THE NODAL SURCHARGE?**

12 A. The Commission ordered that ERCOT “charge the nodal surcharge to QSEs
13 [Qualified Scheduling Entities] representing generation resources, multiplying the
14 surcharge factor of \$0.375 per MWh by the total net metered generation
15 aggregated to the QSE level.”¹ The operational rules implementing the
16 Commission’s decision are detailed in ERCOT Protocol 9.16.4, *ERCOT Nodal*
17 *Implementation Surcharge*. In relevant part Protocol 9.16.4 provides:

18 ERCOT shall calculate the Nodal Implementation Surcharge
19 (“NIS”) by multiplying total net metered generation by a nodal
20 surcharge factor. The nodal surcharge factor will be a rate
21 approved by the PUCT. The NIS will appear as a separate market
22 service on the Settlement Statement. ERCOT shall charge the NIS
23 on a daily basis to QSEs representing all-inclusive Generation
24 Resources, broken down by the appropriate quantity per Settlement

¹ Docket No. 36851, *Application of the Electric Reliability Council of Texas for Approval of a Revised Nodal Market Implementation Surcharge*, Order, at 16 (FOF 17) (October 14, 2009).

1 Interval. QSE total net metered generation will be the total of the
2 net metered generation aggregated to the QSE level. ERCOT will
3 charge the NIS until it has recovered the full cost of implementing
4 the nodal market redesign, at which time, ERCOT will cease
5 collecting the NIS. The NIS is not a neutral fee, as it is the amount
6 ERCOT collects to fund implementation of the nodal market
7 redesign.

8 Protocol 9.16.4 also includes a formula and definitions that ERCOT uses to
9 calculate the nodal surcharge.

10 **Q. WOULD THE CREATION OF A NODAL SURCHARGE EXEMPTION**
11 **FOR DRG REQUIRE A PROTOCOL CHANGE?**

12 A. Yes. Protocol 9.16.4 would need to be revised to specify that QSE total net
13 metered generation, which is currently defined as being the total of all-inclusive
14 generation, Direct Current tie (DC tie) imports, and block load transfer to an
15 ERCOT Load, aggregated to the QSE level, would be re-defined to exclude any
16 generation associated with Distributed Renewable Generators with generation not
17 greater than 2,000 kW. In addition, the exemption would also require a change to
18 the formula for calculating the nodal surcharge. I have included with my
19 testimony a draft of the revisions to Protocol 9.16.4 that I recommend be made if
20 the Commission requires an exemption for DRG from the nodal surcharge. (The
21 draft language is labeled at Attachment MB-1 to my testimony).

22
23 **Q. PLEASE DESCRIBE THE PROCESS NECESSARY TO MAKE SUCH A**
24 **REVISION TO PROTOCOL 9.16.4.**

25 A. Since the current calculation of the nodal surcharge is mandated by Commission
26 orders, a superceding order would have to be issued by the Commission before

1 ERCOT would be authorized to revise the calculation methodology. If the
2 Commission approved such a change in this proceeding, ERCOT would then file
3 a Nodal Protocol Revision Request (NPRR) to effectuate the change. The NPRR
4 would be reviewed first by the ERCOT Protocol Revisions Subcommittee (PRS).
5 After PRS review, the NPRR would have to be approved by the Technical
6 Advisory Committee (TAC), and by the ERCOT Board of Directors (Board).

7
8 **Q. PLEASE DESCRIBE THE SCHEDULE FOR COMPLETION OF THIS**
9 **APPROVAL PROCESS.**

10 A. The timing can vary depending on whether an NPRR is declared “Urgent” under
11 Protocol Section 21, Revision Request Process, and, more importantly, on the
12 timing of the Commission order in this proceeding authorizing such a Protocol
13 change. Based on the circumstances in this case, the earliest the NPRR could get
14 before the ERCOT Board on a regular timeline would be the November or
15 December 2012 Board meetings.

16
17 For example, if the NPRR was submitted for consideration at the July or August
18 2012 PRS meeting (and was declared Urgent), it could potentially move through
19 the TAC process for a vote at the September 2012 Board meeting. That seems
20 unlikely, since this proceeding will not be completed in time for submission of an
21 NPRR for July PRS consideration and may not be completed in time for
22 submission of an NPRR for August PRS consideration. That moves consideration
23 of the NPRR back to, at the earliest, the November Board meeting (the Board is

1 not scheduled to meet in October 2012). The exemption could not be made
2 effective until after the Board vote.

3 **Q. PLEASE DESCRIBE ANY CHANGES IN ERCOT PROCESSES OR**
4 **SYSTEMS THAT WOULD BE NECESSARY TO IMPLEMENT A NODAL**
5 **SURCHARGE EXEMPTION FOR DRG.**

6 A. If the Commission directs ERCOT to exempt DRG from the nodal surcharge,
7 ERCOT would need to work on the system changes in parallel with the Protocol
8 revision process I described above, such that the system changes are available for
9 use upon ERCOT Board approval of the Protocol changes. This approach would
10 require extremely clear instruction from the Commission, so that there would be
11 no open issues that could be subject to further consideration in the TAC process.
12 Otherwise, ERCOT might develop system changes that are ultimately inconsistent
13 with the approved NPRR (and thus have to re-start the system change process).

14
15 Upon implementation of a systematic solution, DRG would be excluded from the
16 nodal surcharge on Initial Settlement of an Operating Day (assuming meter data is
17 submitted and available for use on Initial Settlement). The systematic approach
18 allows for correction on an Operating Day basis.

19
20 The settlement system changes that I anticipate would be required include:

- 21 • Data Aggregation: the system needs to create a new data element that
22 represents the energy produced from DRG.
- 23
24 • Settlements & Billing: the calculation of the nodal surcharge needs to be
25 revised to use the new data element in order to reduce the nodal surcharge
26 obligation to QSEs with DRG.

1 **Q. WHAT DO YOU ESTIMATE THE COSTS TO ERCOT TO MAKE THESE**
2 **SYSTEM CHANGES WOULD BE?**

3 A. The costs of such changes are estimated to range from \$20,000 to \$30,000. This
4 estimate includes the costs for development, testing, implementation, and project
5 oversight.

6
7 The dollar amounts involved are likely less of a constraint on completion of the
8 system changes than is the need to pull ERCOT personnel off other priority
9 projects in order to complete these changes in a timely fashion. Based on Mr.
10 Petterson's testimony, my understanding is that collection of the nodal surcharge
11 is likely to be complete by late 2012 or early 2013. If the DRG exemption is not
12 implemented prior to that time, the system changes will have been made for no
13 purpose.

14
15 **Q. HAVE YOU ESTIMATED THE IMPACT OF A RETROACTIVE**
16 **APPLICATION OF A NODAL SURCHARGE EXEMPTION FOR DRG?**

17 A. Yes. I would strongly urge the Commission not to direct ERCOT to provide a
18 retroactive exemption for DRG, which would require ERCOT to resettle nodal
19 surcharge payments going back to 2006. A retroactive order would create
20 uncertainty for the QSEs who have been paying the nodal surcharge very close to
21 the time when the surcharge repayment period is nearly complete. In addition,
22 ERCOT makes it a practice to avoid retroactive application of any Protocol

1 change such as the one that would be required to execute a DRG exemption from
2 the nodal surcharge.

3

4 If the Commission ordered a retroactive exemption for DRG, it would require a
5 reconciliation going back to the beginning of the collection of the nodal
6 surcharge. This process would include:

7

8 • Performance of a manual invoice process, by which ERCOT determines
9 the amount to credit back to the impacted QSE(s) and “cuts a check” to the
10 impacted QSE(s).

11

12 • The credit would be inclusive of all qualified DRG volumes since the start
13 of the nodal surcharge on October 1, 2006 through a defined point in time,
14 and would be priced using the applicable nodal surcharge rate in effect
15 during that period.

16

17 • The manual reconciliation is estimated at 25 – 35 hours of effort.

18

19 As noted above in my discussion of a prospective exemption process, the dollar
20 impact of the retroactive exemption process is not prohibitive, but it would
21 require ERCOT resources to be diverted from other high priority tasks in order to
22 complete the reconciliation process.

23

24 **Q. WHAT DO YOU ESTIMATE WOULD BE THE OVERALL IMPACT OF**
25 **A RETROACTIVE EXEMPTION FOR DRG?**

26 A. ERCOT staff reviewed data on the total megawatt-hours (MWh) attributable to
27 DRG since the beginning of the nodal surcharge collection in October 2006

1 through June 14, 2012. We then multiplied those MWh by the nodal surcharge
2 factors in effect for various periods under the Commission's nodal surcharge
3 orders. Based on our calculations, the total estimated nodal surcharge payments
4 made for the entire period by DRG is \$11,313.76. We would expect this to be the
5 entire amount subject to refund if the Commission ordered a retroactive
6 exemption for DRG.

7 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

8 A. My testimony provides ERCOT's estimates of the cost and time required to make
9 the changes necessary to implement a DRG exemption from the nodal surcharge.
10 As my testimony makes clear, given the expected completion of nodal surcharge
11 collection later this year or in early 2013, it may not be possible to implement a
12 DRG exemption in time for it to be effective before surcharge collection ends. In
13 addition, any costs incurred by ERCOT to change its systems to implement the
14 exemption will only impact, at best, the last three to four months of the surcharge
15 collection period. My testimony also provides information on the costs of a
16 retroactive application of a DRG exemption, but urges that the Commission not
17 require ERCOT to retroactively apply such an exemption.

18

19 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

20 A. Yes, it does.

21

1
2
3
4
5
6

Recommended changes to ERCOT Protocol Section 9.16.4, to be proposed if the Commission directs ERCOT to implement an exemption from the nodal surcharge for Distributed Renewable Generation. Recommended changes shown as underlined changes to the currently effective Section 9.16.4.

7 **9.16.4 ERCOT Nodal Implementation Surcharge**

8 ERCOT shall calculate the Nodal Implementation Surcharge (“NIS”) by multiplying total
9 net metered generation by a nodal surcharge factor. The nodal surcharge factor will be a
10 rate approved by the PUCT. The NIS will appear as a separate market service on the
11 Settlement Statement. ERCOT shall charge the NIS on a daily basis to QSEs
12 representing all-inclusive Generation Resources, broken down by the appropriate quantity
13 per Settlement Interval. QSE total net metered generation will be the total of the net
14 metered generation aggregated to the QSE level, excluding any generation associated
15 with registered Distributed Renewable Generation that is not greater than 2000 kW.
16 ERCOT will charge the NIS until it has recovered the full cost of implementing the nodal
17 market redesign, at which time, ERCOT will cease collecting the NIS. The NIS is not a
18 neutral fee, as it is the amount ERCOT collects to fund implementation of the nodal
19 market redesign.

20
$$\text{QNSAMT } q = \text{NODSF} * \left(\sum_p \sum_r \text{RTMG } q, p, r + \sum_p \text{RTMGNM } q, p - \sum_p \text{RTMGNMDRG} \right.$$

21
$$\left. q, p + \sum_p \sum_{bltp} \text{BLTR } q, p, bltp + \left(\sum_p \text{RTDCIMP } q, p * 1/4 \right) + \left(\sum_p \text{RTEDCIMP} \right. \right.$$

22
$$\left. q, p * 1/4 \right)$$

23 The above variables are defined as follows:

Variable	Unit	Definition
QNSAMT q	\$	<i>Nodal Implementation Surcharge</i> —The nodal implementation surcharge for each QSE per 15-minute Settlement Interval.
RTMG q, p, r	MWh	<i>Real-Time Metered Generation per QSE per Settlement Point per Resource</i> —The Real-Time energy produced by the Generation Resource r represented by QSE q at Resource Node p, for the 15-minute Settlement Interval.
RTMGNM q, p	MWh	<i>Real-Time Metered Generation from Non-Modeled generators per QSE per Settlement Point</i> —The total Real-Time energy produced by Non-Modeled Generators represented by QSE q in Load Zone Settlement Point p, for the 15-minute Settlement Interval.
<u>RTMGNMDRG</u>	<u>MWh</u>	<u><i>Real-Time Metered Generation from Non-Modeled Distributed Renewable generators per QSE per Settlement</i></u>

q, p			<i>Point</i> —The total Real-Time energy produced by <i>Non-Modeled Distributed Renewable Generators</i> that is not greater than 2000 kW represented by QSE <i>q</i> in Load Zone Settlement Point <i>p</i> , for the 15-minute Settlement Interval.
BLTR _{q, p, bltp}	MWh		<i>Block Load Transfer Resource per QSE</i> —The energy delivered to an ERCOT Load through the Block Load Transfer (BLT) Point represented by the QSE, for the 15-minute Settlement Interval.
RTDCIMP _{q, p}	MW		<i>Real-Time DC Import per QSE</i> —The aggregated DC Tie schedule submitted by QSE <i>q</i> as an importer into the ERCOT System through DC Tie for the 15-minute Settlement Interval.
RTEDCIMP _{q, p}	MW		<i>Real-Time Emergency DC Import per QSE per Settlement Point</i> —The aggregated Direct Current Tie (DC Tie) Schedule for emergency energy imported by QSE <i>q</i> into the ERCOT System during Emergency Conditions through DC Tie <i>p</i> , for the 15-minute Settlement Interval.
NODSF	\$/MWh		<i>Nodal Surcharge Factor</i> —The nodal surcharge factor in dollars per MWh.
q	none		A QSE.
r	none		A Generation Resource.
bltp	none		A BLT Point.
p	none		A Settlement Point.

1

DOCKET NO. _____

ERCOT ACCOUNTING OF THE COSTS AND REVENUES OF IMPLEMENTING THE NODAL MARKET	§ § §	PUBLIC UTILITY COMMISSION OF TEXAS
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NOTICE

On July 2, 2012, Electric Reliability Council of Texas, Inc. (ERCOT) filed with the Public Utility Commission of Texas (Commission), *ERCOT Accounting of the Costs and Revenues of Implementing the Nodal Market*, pursuant to Commission’s Orders in Docket Nos. 32686,¹ 36851,² 38840,³ and 39865⁴. In this filing, ERCOT also includes information required by settlement agreements and Commission Orders in the above-referenced nodal program funding proceedings. ERCOT’s filing includes detailed schedules identifying its expenditures on the Texas Nodal Market Implementation Program, and an accounting of the repayment of nodal program expenses and debt service to date. The filing is the first of two nodal program accounting filings required by the Commission’s prior Orders; ERCOT will make the second filing within twelve (12) months of the date it completes collection of the nodal surcharge. In this proceeding, ERCOT requests that the Commission affirm that it has complied with the filing requirements established in its prior Orders.

Pursuant to P.U.C. Proc. R. §22.252 (f), persons who wish to intervene in or comment in this proceeding should notify the Public Utility Commission of Texas within 30 days of this notice. A request to intervene or for further information should be mailed to the Public Utility

¹ Docket No. 32686, *Application of the Electric Reliability Council of Texas for Approval of a Nodal Market Implementation Surcharge and Request for Interim Relief*, Final Order, (May 23, 2007) and *Order Nunc Pro Tunc* (June 13, 2007).

² Docket No. 36851, *Application of the Electric Reliability Council of Texas for Approval of a Revised Nodal Market Implementation Surcharge*, Final Order, (October 14, 2009).

³ Docket No. 38840, *Application of ERCOT For Approval of Post-Go-Live Utilization of the Texas Nodal Market Implementation Surcharge*, Order (December 20, 2010).

⁴ Docket No. 39865, *Petition of Electric Reliability Council of Texas, Inc. For Approval of Revision To The Final Order in Docket No. 32686*, Order (December 19, 2011).

Commission of Texas, P.O. Box 13326, Austin, Texas 78711-3326. A request to intervene shall include a statement of position containing a concise statement of the requestor's position on the petition, a concise statement of each question of fact, law, or policy that the requestor considers at issue and a concise statement of the requestor's position on each issue identified.

ERCOT has posted this Notice and a copy of its Petition on its web site at:

http://www.ercot.com/about/governance/legal_notices.html.

Interested parties may also access ERCOT's Petition through the Public Utility Commission's web site at <http://www.puc.state.tx.us> under Docket No. _____.

Date of this Notice: July 2, 2012.