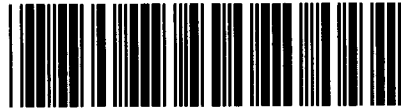


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Addendum StartPage: 0

PROJECT NO. 27706

REPORTS OF THE ELECTRIC § PUBLIC UTILITY COMMISSION
RELIABILITY COUNCIL OF TEXAS § OF TEXAS

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**ERCOT'S 2011 ANNUAL REPORT
ON EMERGENCY INTERRUPTIBLE LOAD SERVICE (EILS)**

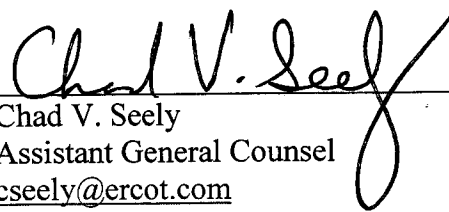
Electric Reliability Council of Texas, Inc. (ERCOT) hereby submits this Annual Report on Emergency Interruptible Load Service (EILS) pursuant to P.U.C. Substantive Rule 25.507(g). The Commission recently repealed and replaced Rule 25.507, introducing a number of substantive changes and renaming the program "Emergency Response Service" (ERS).¹ However, both the former rule (in § 25.507(f)) and the current rule require the filing of an Annual Report reviewing "the effectiveness and benefits" of the service. This report is to include, "at a minimum, the number of MW procured in each period, the total dollar amount spent, the number and level of EEA events, and the number and duration of deployments." P.U.C. SUBST. R. 25.507(g). Consistent with previous EILS Annual Reports, this report will provide an assessment of the EILS Program for the twelve-month period beginning in February of the previous year and ending with January of the current year, coincident with the EILS procurement schedule.

| Document | Attachments |
|---|-------------|
| ERCOT EILS Annual Report for February 1, 2011, through January 31, 2012 | A |
| Procurement, Availability, and Settlement Summary (PowerPoint slides) | B |

¹ See Rulemaking to Amend Subst. R. § 25.507 Relating to Electric Reliability Council of Texas (ERCOT) Emergency Interruptible Load Service, Docket No. 39948 (Mar. 23, 2012) (Order Adopting Repeal of § 25.507 and New § 25.507 as Approved at the March 22, 2012, Open Meeting).

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Respectfully submitted,

A handwritten signature in black ink, reading "Chad V. Seely", is written over a horizontal line.

Chad V. Seely
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ATTORNEY FOR ELECTRIC RELIABILITY
COUNCIL OF TEXAS, INC.

**ERCOT Annual Report Pursuant to P.U.C. SUBST. R. § 25.507(f)
Regarding Emergency Interruptible Load Service (EILS) for the
Program Year of February 1, 2011, through January 31, 2012**

EILS Program History

On March 20, 2007, the Commission approved P.U.C. SUBST. R. § 25.507, *Electric Reliability Council of Texas (ERCOT) Emergency Interruptible Load Service (EILS)*,² requiring ERCOT to develop and administer EILS. The Commission later approved amendments to P.U.C. SUBST. R. § 25.507 on November 1, 2007.³ In March 2012 (after the end of the Program Year reviewed in this report), the Commission repealed the EILS Program and adopted a replacement Rule 25.507, which renamed the program “Emergency Response Service” (ERS).⁴

Through the end of the program year covered by this report, ERCOT stakeholders had recommended, and the ERCOT Board had approved, the following Protocol Revision Requests (PRRs) or Nodal Protocol Revision Requests (NPRRs) related to EILS:

- PRR705 EILS (approved 4/18/07)
- PRR716 Self-Provision of EILS (approved 5/16/07)
- PRR717 EILS Disputes and Resettlements (approved 12/11/07)
- PRR723 Conform 5.6.6.1 EECF (approved 06/19/07)
- PRR725 EILS Formula & Standard Form Correction (approved 09/18/07)
- PRR746 Revisions to EILS Provisions to Conform to Amended P.U.C. SUBST. R. 25.507 (approved 12/11/07)
- PRR757 EILS Formula Correction (approved 7/15/08)
- PRR760 EILS Availability Factor Clarification (approved 7/15/08)
- NPRR 107 Nodal EILS (approved 7/15/08)
- PRR 781 EILS Self-Provision Formula Correction and Clarifications (approved 1/20/09)
- PRR 786 Modifications to EILS Settlement (approved 3/17/09)

² ² PUC Rulemaking Concerning a Demand-Response Program for ERCOT Emergency Conditions, Project No. 33457 (Mar. 21, 2007) (Order Adopting New § 25.507).

³ PUC Rulemaking to Amend ERCOT Emergency Interruptible Load Service, Project No. 34706 (Nov. 28, 2007) (Order Adopting Amendment to § 25.507 as Approved at the November 1, 2007 Open Meeting) (adopting amendments eliminating the 500 MW procurement floor and increasing the annual EILS cost cap from \$20 million to \$50 million).

⁴ Rulemaking to Amend Subst. R. § 25.507 Relating to Electric Reliability Council of Texas (ERCOT) Emergency Interruptible Load Service, Docket No. 39948 (Mar. 23, 2012) (Order Adopting Repeal of § 25.507 and New § 25.507 as Approved at the March 22, 2012, Open Meeting). Among other changes, the new rule expands the program to allow participation by generators.

- NPRR 278 EILS Modifications to Correct Self-Provision Settlement Equations, to Accommodate Advanced Metering Infrastructure, and other Clarifications (approved 11/16/10; effective date 2/1/11)
- NPRR 379 EILS Dispatch Sequence and Performance Criteria Upgrades (approved 9/20/11; effective date 10/1/11)

Procurement History

ERCOT procures EILS three times annually, for four-month Contract Periods. Through the end of the 2011 program year, ERCOT had solicited offers to provide EILS for 16 Contract Periods, as follows:

1. April 19, 2007 - May 31, 2007
2. June 1, 2007 - September 30, 2007
3. October 1, 2007 - January 31, 2008
4. February 1, 2008 - May 31, 2008.
5. June 1, 2008 – September 30, 2008.
6. October 1, 2008 – January 31, 2009
7. February 1, 2009 – May 31, 2009
8. June 1, 2009 – September 30, 2009
9. October 1, 2009 – January 31, 2010
10. February 1, 2010 – May 31, 2010
11. June 1, 2010 – September 30, 2010
12. October 1, 2010 – January 31, 2011
13. February 1, 2011 – May 31, 2011
14. April 1, 2011 – May 31, 2011⁵
15. June 1, 2011 – September 30, 2011
16. October 1, 2011 – January 31, 2012

Attachment B to this report provides detailed results of ERCOT's procurements of EILS for program year 2011, including:

- Descriptions of Contract Periods and Time Periods
- Capacity procurements by Time Period and by Contract Period, including the number of Megawatts (MW) procured and the total number of MW offered
- Number of procured EILS Loads
- Average size of procured EILS Loads
- Number of individual Sites submitted to ERCOT for load identification
- Cumulative number of Loads offered into EILS
- Summary of final settlement costs of EILS, adjusted to account for EILS Loads that achieved availability factors of less than 95%,⁶ and settlement costs as a percentage of the originally contracted commitments

⁵ Authorized by PUCT Project Number 39191, Emergency Rulemaking to Remove Ninety (90) Day Notice Requirement and Modify EILS Contract Periods under P.U.C. SUBST. R. § 25.507.

- Detailed tables with capacity procurements by Time Period and by Contract Period, including average prices paid (in dollars per MW per hour)

Review of Effectiveness & Benefits

ERCOT Protocols call for EILS to be deployed in Level 2 of an Energy Emergency Alert (EEA).⁷ EILS was deployed twice by ERCOT Operations during the 2011 program year: on February 2-3, 2011, and on August 4, 2011. This section of the report provides an analysis of the two events and, pursuant to the Rule requirement, offers ERCOT's assessment of the service's effectiveness and benefits.

Largely due to extreme weather and prolonged drought conditions across the region, an unusually high number of EEA events were declared by ERCOT Operations in 2011.⁸ ERCOT declared EEA events nine times during the EILS 2011 program year.

- February 2, 2011–EEA Level 3 (EILS deployed)
- March 23, 2011–EEA Level 1
- June 27, 2011–EEA Level 1
- August 2, 2011–EEA Level 1
- August 3, 2011–EEA Level 1
- August 4, 2011–EEA Level 2B (EILS deployed)
- August 5, 2011–EEA Level 1
- August 23, 2011–EEA Level 1
- August 24, 2011–EEA Level 2A

February 2-3 EILS Deployment

In addition to the EILS deployment, the February 2-3 event also included deployment of Load Resources providing Responsive Reserve Service as well as instructions to Transmission & Distribution Service Providers (TDSPs) to initiate firm-load shedding pursuant to ERCOT Protocol requirements for EEA Level 3. A detailed timeline of the event and graphical depictions of the EILS fleet-level deployment are presented in Attachment B, slides 12-17.

EILS fleet obligations by Time Period for the February-May 2011 Contract Period were as follows:

- Non-Business Hours: 384.2 MW
- Business Hours 1: 467.7 MW
- Business Hours 2: 470.7 MW
- Business Hours 3: 472.6 MW

⁶ See ERCOT Protocol § 6.10.13.3.

⁷ See ERCOT Protocol § 5.6.7.

⁸ By comparison, no EEA events were declared in 2009 or 2010.

The 28-hour event on February 2-3 crossed all four EILS Time Periods and affected Non-Business Hours and Business Hours 1 twice. After initially dispatching EILS during Non-Business Hours the morning of February 2, ERCOT re-dispatched EILS during Business Hours 1 with the goal of deploying the incremental capacity committed in that Time Period.⁹

Following is a summary of the deployment at the fleet level:

- The fleet provided demand response at or above its obligated capacity for 113 of the 114 fifteen-minute intervals comprising the event. The only under-performing interval was the first full interval of the event. During this interval ERCOT computed a combined Load reduction of 263 MW, against an obligation of 424 MW.
- The average Load reduction across the event was 577.7 MW against an average fleet obligation of 426.8 MW — reflecting a fleet-wide over-performance of 35.7%.
- The maximum demand response achieved in a single interval was 692.2 MW.
- At 114 intervals, or 28 hours, in duration, the February 2-3 EILS event was the longest known demand response event in recent history, based on research conducted by Tim Carter, chairman of the ERCOT Demand Side Working Group, and reported to the DSWG later in 2011.

EILS is an operational tool designed to reduce the likelihood of the need for firm-load shedding. On February 2, the amount of EILS procured capacity was insufficient to prevent firm-load shedding, due to the extreme number of generation outages during that cold weather event. Nevertheless, in light of the over-performance by EILS Loads across the vast majority of intervals, and the extraordinary duration of the event, ERCOT's assessment of this EILS event at the fleet level is that EILS performed effectively and in accordance with the mission and purpose of the service. At its 692 MW peak, the capacity value of the EILS load reduction was roughly equivalent to that of 266,000 residential customers.

August 4 EEA Event

On August 4, the EILS deployment, combined with the deployment of Load Resources providing Responsive Reserve Service and other actions taken by ERCOT operators, proved sufficient to avoid the need to instruct TDSPs to initiate firm load shedding. A detailed timeline of the event and graphical depictions of the EILS fleet-level deployment are presented in Attachment B, slides 18-20.

The August 4 event affected Loads obligated in two EILS Time Periods. The EILS fleet obligations by relevant Time Period for the June-September 2011 Contract Period were as follows:¹⁰

⁹ One EILS Load's sole obligation was in Business Hours 3, beginning at 4 PM. Because ERCOT did not redispatch during Business Hours 3 this EILS Load was never deployed.

¹⁰ These numbers vary from the amount procured for the Contract Period because some EILS Loads were not obligated during the event due to having been tested earlier in the day. EILS tests and events both have a 10-hour recovery period.

- Business Hours 2: 420.8 MW
- Business Hours 3: 407.9 MW

After initially dispatching EILS during Business Hours 2, ERCOT re-dispatched EILS during Business Hours 3 with the goal of deploying the incremental capacity committed in that Time Period.¹¹

Following is a summary of the deployment at the fleet level:

- The event duration of 2:15:11 was more typical for a demand response event than the February 28-hour event.
- At the fleet level, the EILS Load reduction exceeded the combined obligation for all intervals in the event.
- Based on ERCOT's analysis of the first partial interval of the event, approximately 380 MW of load reduction occurred during the first 5-1/2 minutes following the Verbal Dispatch Instruction – well in advance of the required 10 minutes.
- The fleet provided 489.9 MW of demand response (120.1% of its obligation) during the first full 15-minute interval of the event.
- The following analysis applies to the entire event (excluding the first and last partial intervals):
 - Average Obligation: 407.9 MW
 - Average Load Reduction: 497.4 MW
 - Maximum Load Reduction 547.2 MW
 - Average Over-Provision: 22.0%

Based on the avoidance of firm-load shedding (EEA Level 3) and the positive performance evaluation as cited above and in the accompanying charts, ERCOT's assessment of the August 4, 2011, EILS event at the fleet level is that EILS performed effectively and in accordance with the mission and purpose of the service.

Availability

Consistent with the intent of subsection (e) of Rule 25.507, the ERCOT Protocols¹² require each EILS Load to achieve an availability factor of at least 95% in each committed Time Period. Availability factors are calculated by ERCOT Staff after the end of the Contract Period through detailed reviews of Load-level interval meter data for each EILS Load. EILS Loads that achieve availability factors of less than 95% are subject to a six-month suspension from their ability to provide EILS, in addition to reduced payment. EILS Loads are able to regain their eligibility to provide EILS only after submitting a corrective action plan to ERCOT and successfully completing a reinstatement test administered by ERCOT.

¹¹ An additional 6.1 MW became obligated at the beginning of Business Hours 3, at 4 PM.

¹² See Protocols § 6.10.13.3(c), (d).

Also consistent with the Rule,¹³ EILS Loads are subject to annual unannounced Load-shed tests, and are subject to suspension for failing two consecutive Load-shed tests.¹⁴ ERCOT Staff conducts this testing from the ERCOT Control Center by issuing an instruction to each individual Qualified Scheduling Entity (QSE) that simulates a Verbal Dispatch Instruction the QSE would receive in an EEA event.

ERCOT maintains that combining these performance metrics—which are among the most stringent for any demand response program in North America—with financial penalties for non-compliance provides substantial integrity to the EILS product.

Market Benefits

In approving the 2007 amendments to P.U.C. SUBST. R. § 25.507, the Commission asserted that a secondary purpose of EILS is to enable additional demand response participation in the ERCOT market:

The commission agrees . . . that one of the important values of this program is to establish the role of demand-response in providing reliability services in ERCOT by enlisting numerous customers as providers of demand-response, particularly customers in classes that have not participated in the LR program. The commission also finds value in having resources that have not participated in demand response programs being enabled to do so by this program. The commission encourages ERCOT to make an effort to attract such customers to the program.¹⁵

A number of facts and trends provide evidence that EILS is successfully meeting this Commission goal.

- Growth. The number of EILS Loads and individual Sites participating in EILS, as illustrated in Slides 4 through 9 in Attachment B, continues to increase with each EILS Contract Period. The average size of each EILS Load remains at between 4 and 5 MW.
- Suspensions. A total of 66 EILS Loads were suspended in 2011 for achieving availability factors of less than 95% or for an event failure. This sidelined a total of approximately 140 MW of EILS capacity¹⁶ that could potentially have contributed to a more robust growth rate in the 2011 program year.
- Bidding behavior. ERCOT management, for economic reasons, declined to accept at least some EILS offers in three of the four EILS Contract Periods in 2011. These decisions are illustrated in Slides 22 through 25 in Attachment B. While ample room

¹³ See P.U.C. SUBST. Rule 25.507(c)(4)(D).

¹⁴ See Protocols § 6.10.13.2.

¹⁵ PUC Rulemaking to Amend ERCOT Emergency Interruptible Load Service, Project No. 34706, at. 4-5 (November 8, 2007).

¹⁶ Suspensions were not all concurrent.

remained under the annual \$50 million EILS cost cap,¹⁷ ERCOT management made these procurement decisions consistent with the guidelines published in the document entitled “ERCOT Process for Determining Contract Period Cost Limits and Reasonableness of Offers for Emergency Interruptible Load Service.”¹⁸ This provides additional evidence that EILS could have grown at an even faster rate had all offers received been determined reasonable.

¹⁷ See P.U.C. SUBST. R. § 25.507 (b)(3).

¹⁸ See

http://www.ercot.com/content/services/programs/load/eils/keydocs/ERCOT_EILS_Procurement_Process_Revised021309.pdf



ERCOT Emergency Preparedness Load Service (ELLS)

Report to the Public Utility Commission of
Texas for the 2011 ELLS Program Year

Project No. 27706

Attachment B

Procurement Summary

- Capacity (MW) offered and procured
- Number of procured EILS Loads and average EILS Load size
- Number of participating individual Sites

Suspensions due to availability factors below 95%

Settlement Summary

Detailed results by Contract Period

EILS is procured 3 times annually for 4-month Contract Periods

- February thru May
- June thru September
- October thru January

Participants may offer to provide the service for one or more Time

Periods:

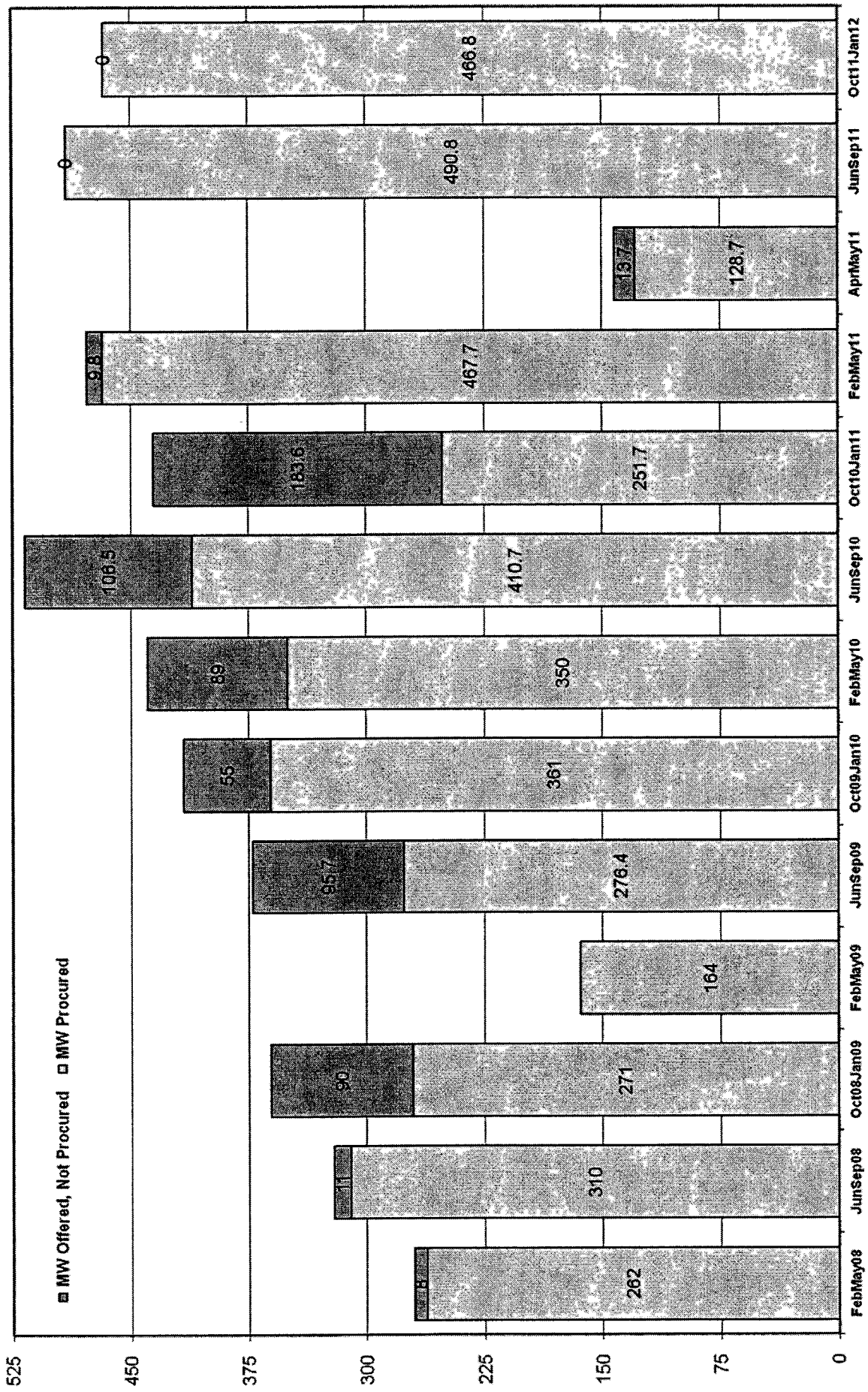
- Business Hours 1: 8AM to 1PM Monday-Friday*
- Business Hours 2: 1PM to 4PM Monday-Friday*
- Business Hours 3: 4PM to 8PM Monday-Friday*
- Non-Business Hours: All other hours

*Except ERCOT Holidays

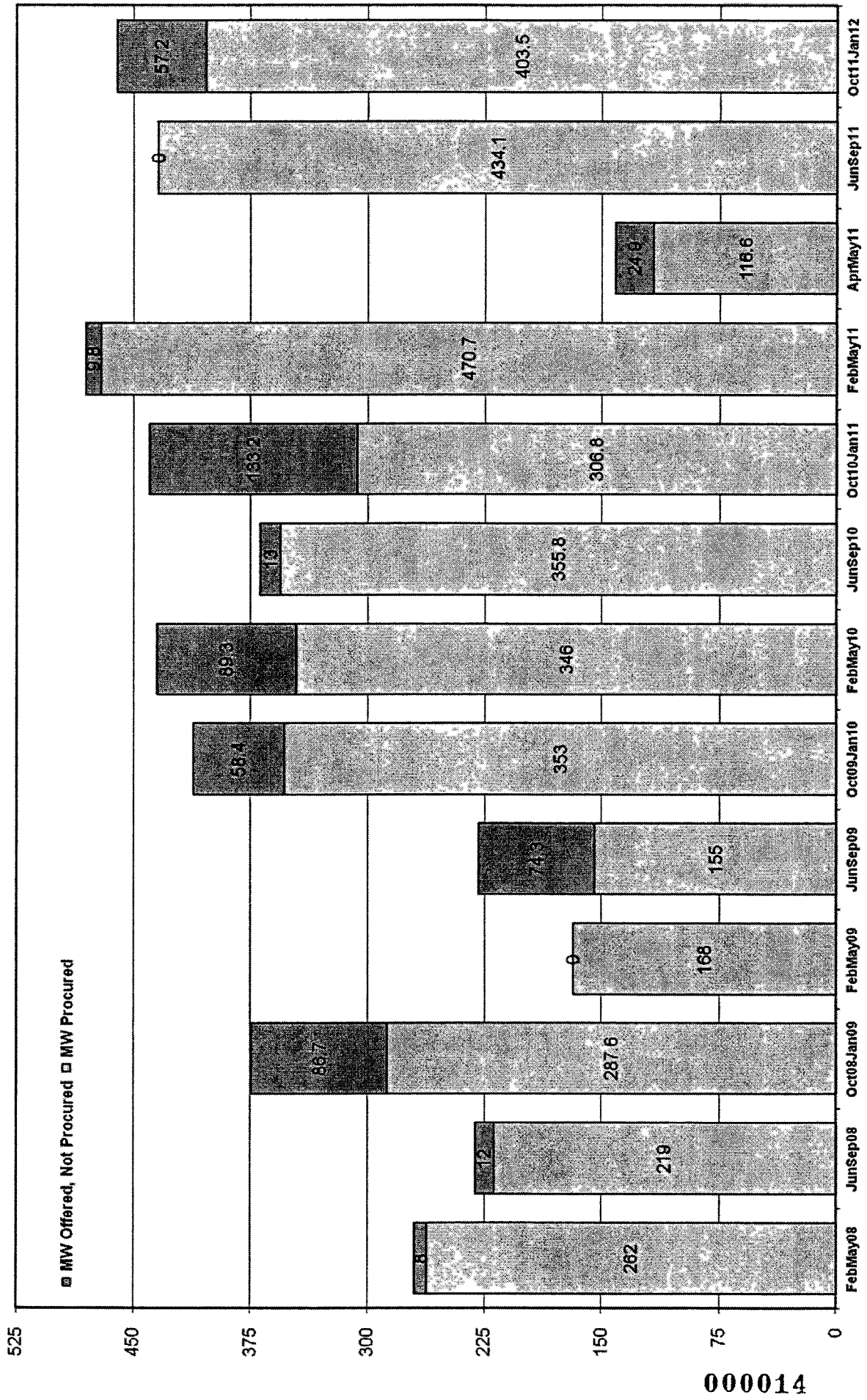
Time Periods are designed to allow flexibility for customers during traditional business hours

Time Periods have been in effect in current form since the June-September 2008 EILS Contract Period

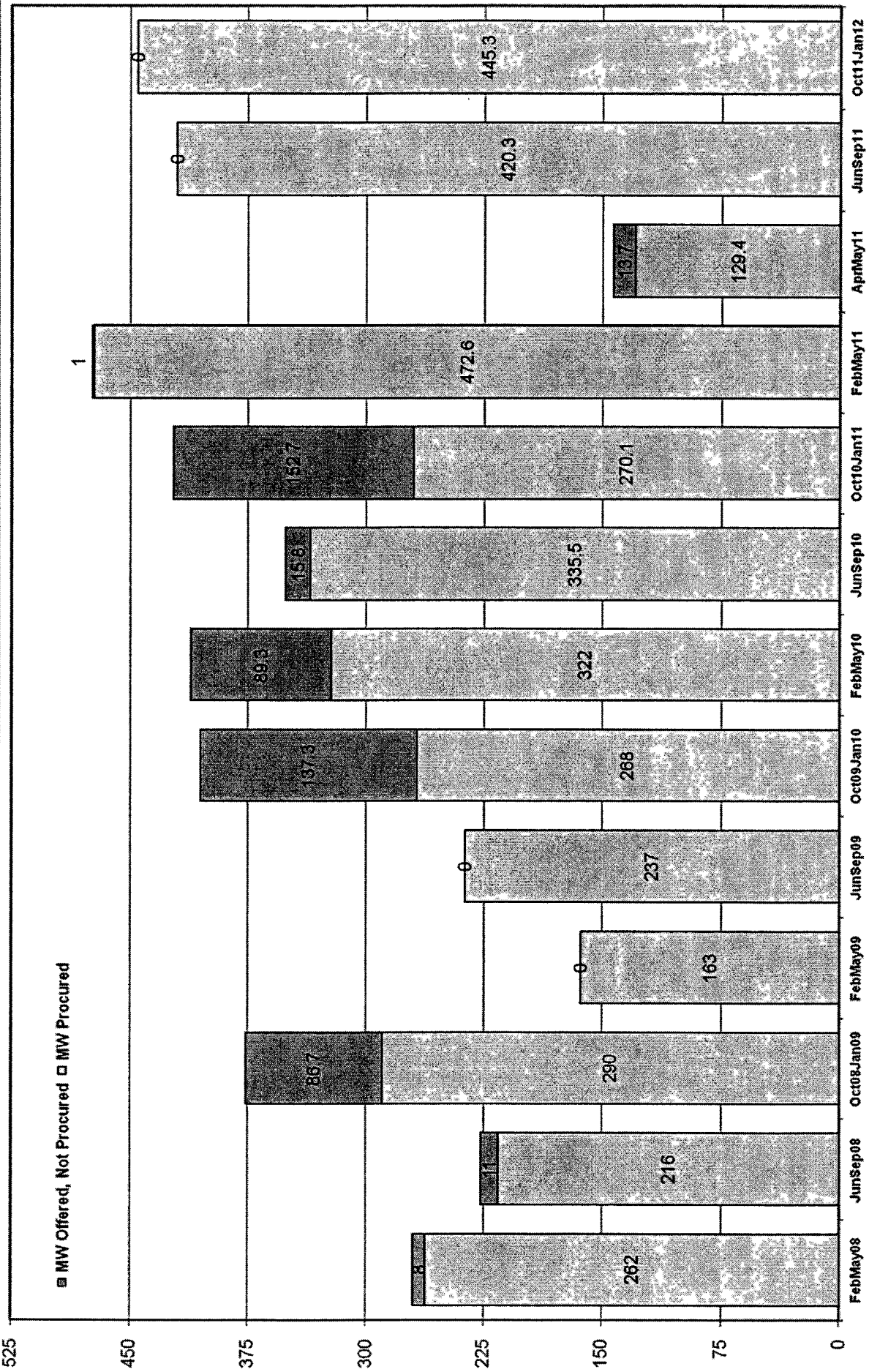
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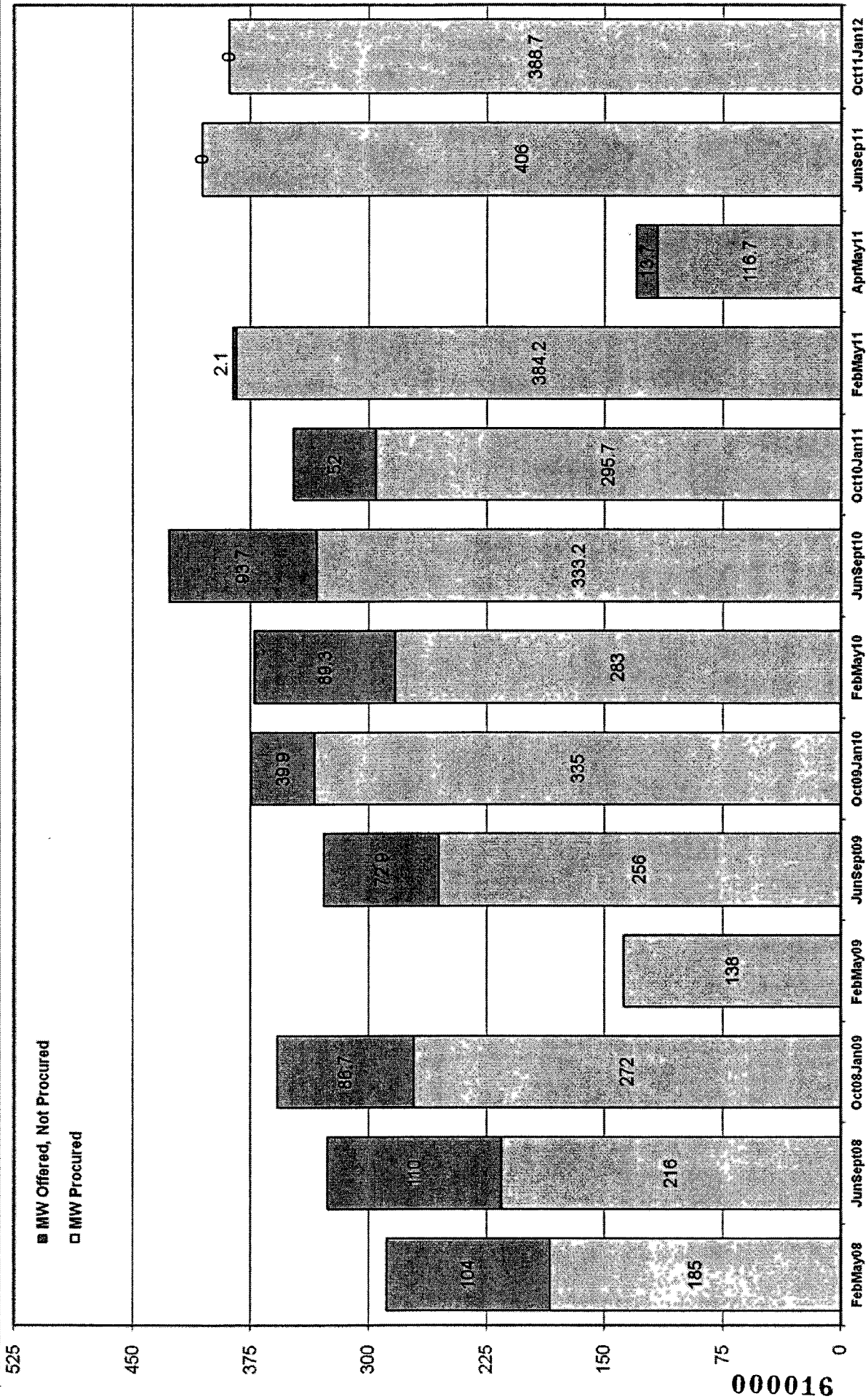
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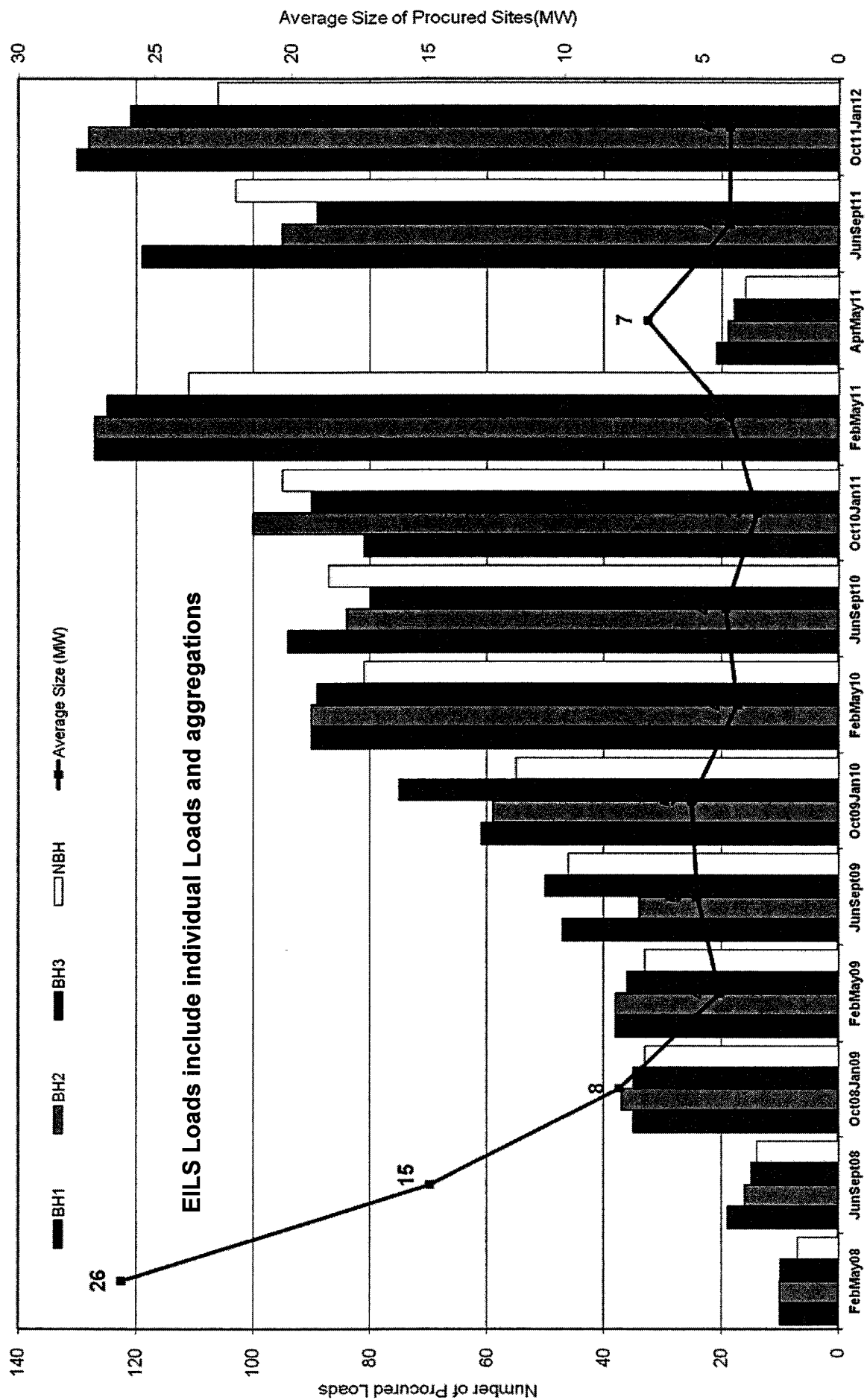


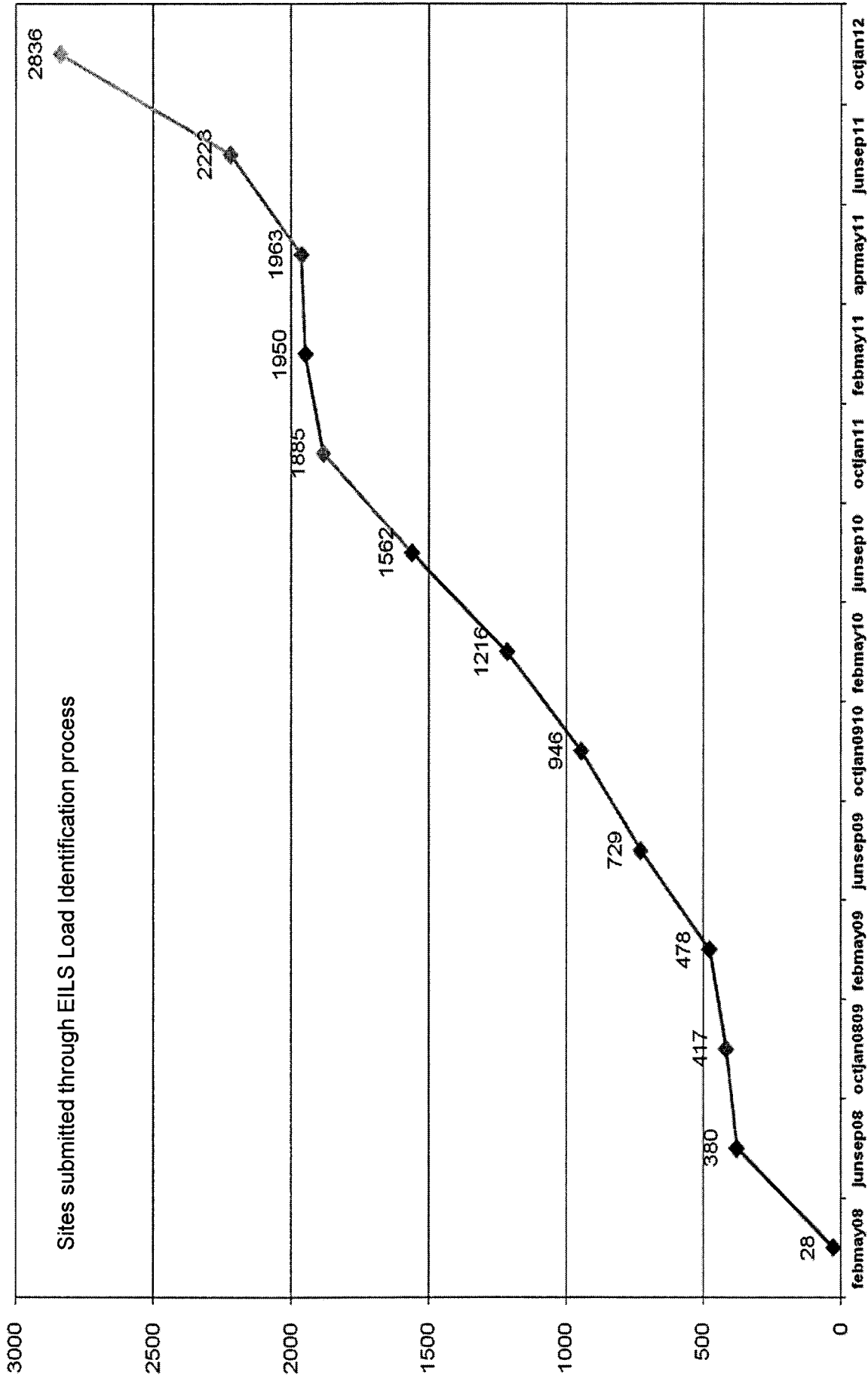
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EILS Loads suspended during the 2011 program year due to availability factors or event performance factors of less than 95%

| Contract Period | Reason for suspension | No. of Loads | Approx. curtailable MW |
|-----------------------|-----------------------|--------------|------------------------|
| February-May 11 | Availability | 9 | 14 |
| | Event | 23 | 47 |
| April-May 11 | Availability | 1 | 1.5 |
| June-September 11 | Availability | 8 | 21 |
| | Event | 16 | 34 |
| October 11-January 12 | Availability | 9 | 22 |

- Six-month suspensions pursuant to Subst. R. §25.507(e) and Protocols §6.10.13.4
- EILS Loads with availability factors of <95% also have their payments reduced by the corresponding amount
- Suspended Loads may regain eligibility only after submitting a corrective action plan and successfully completing a load-shed test administered by ERCOT
- An EILS Load may be an individual Load site or an aggregations of Load sites

000019

| EILS CONTRACT PERIOD | Projected cost based on procurement | Cost after adjustments** | Final % of original |
|----------------------|-------------------------------------|--------------------------|---------------------|
| Feb-May 08 | \$ 5,340,790.32 | \$ 5,298,600.17 | 99.2% |
| June-Sept 08 | \$ 6,584,675.82 | \$ 6,399,048.95 | 97.2% |
| Oct 08-Jan 09 | \$ 8,225,943.52 | \$ 4,940,075.38 | 60.1% |
| TOTAL 2008 | \$ 20,151,409.66 | \$ 16,637,724.50 | 82.6% |
| Feb-May 09 | \$ 4,508,954.75 | \$ 4,198,560.86 | 93.1% |
| June-Sept 09 | \$ 6,361,774.13 | \$ 6,142,071.95 | 96.5% |
| Oct 09-Jan 10 | \$ 7,789,961.33 | \$ 7,400,219.57 | 95.0% |
| TOTAL 2009 | \$ 18,660,690.21 | \$ 17,740,852.38 | 95.1% |
| Feb-May 10 | \$ 6,672,120.74 | \$ 6,379,578.38 | 95.6% |
| June-Sept 10 | \$ 7,387,689.04 | \$ 7,261,000.48 | 98.3% |
| Oct 10-Jan 11 | \$ 5,956,301.01 | \$ 5,541,315.78 | 93.0% |
| TOTAL 2010 | \$ 20,016,110.79 | \$ 19,181,894.64 | 95.8% |
| Feb-May 11 | \$ 7,703,107.30 | \$ 6,643,557.73 | 86.2% |
| Apr-May 11 | \$ 1,110,406.64 | \$ 1,091,783.88 | 98.3% |
| June-Sept 11 | \$ 7,748,302.46 | \$ 6,780,901.29 | 87.5% |
| Oct 11-Jan 12 | \$ 8,731,702.58 | \$ 8,364,694.14 | 95.8% |
| TOTAL 2011 | \$ 25,293,518.97 | \$ 22,880,937.04 | 90.5% |
| TOTAL TO DATE | | \$ 85,345,135.46 | |

**Adjustments may be made for the following reasons: availability, event performance, disputes, data corrections.

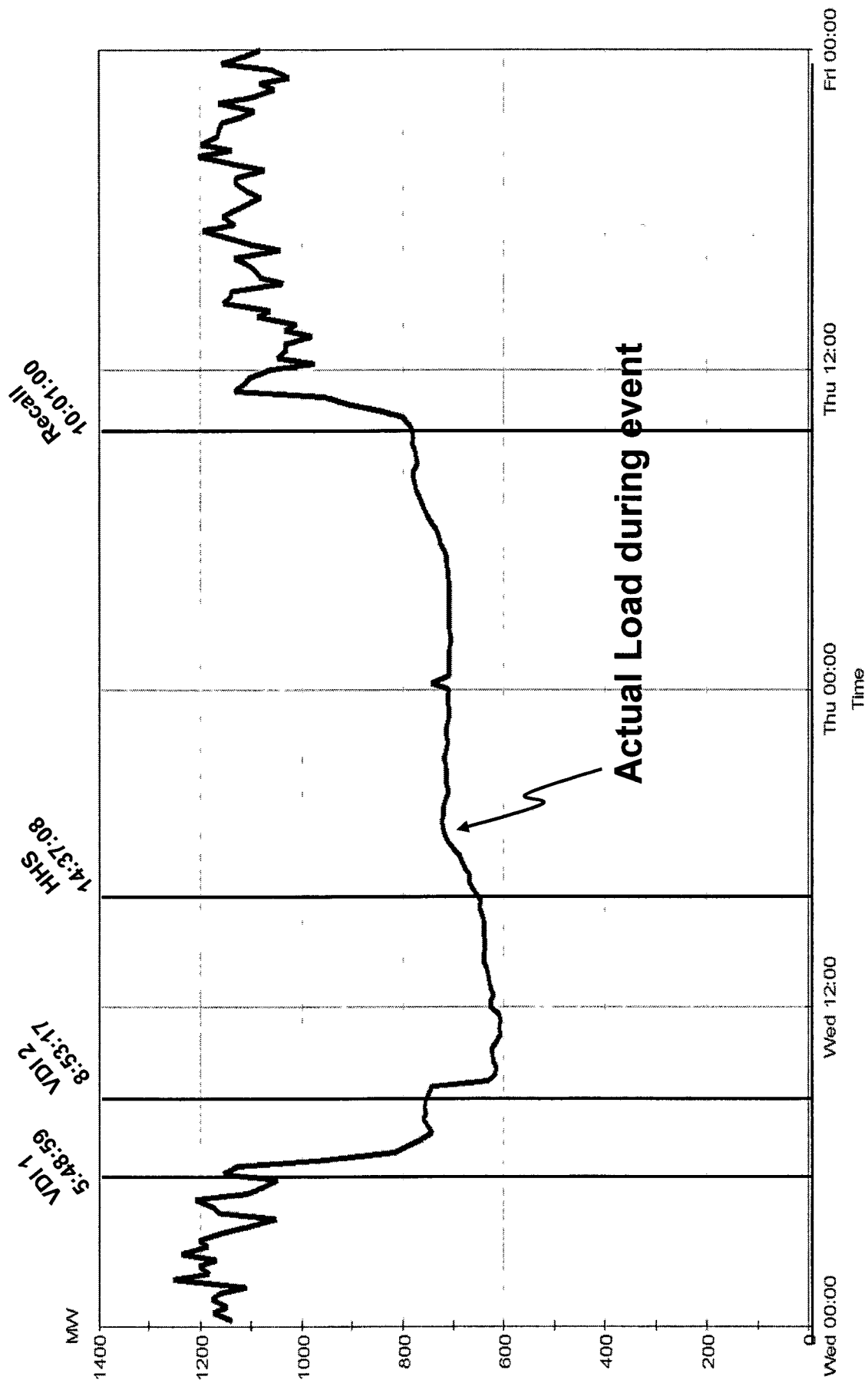


Electricity Supply and Demand

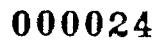
| Time | Date | Description |
|-------|-------|---|
| 05:48 | Feb 2 | ERCOT deployed EILS Loads as part of EEA Level 3. (NBH) 384 MW obligated; 111 EILS Loads; 867 sites |
| 08:53 | Feb 2 | ERCOT deployed newly obligated EILS Loads. (BH1) Additional 83 MW obligated; 16 EILS Loads; 55 sites |
| 14:37 | Feb 2 | QSEs advised that EILS Loads could do a limited return to service to avoid risk to human health and safety or long-term damage to industrial equipment. |
| 10:01 | Feb 3 | EILS recalled. 28-hour total deployment |

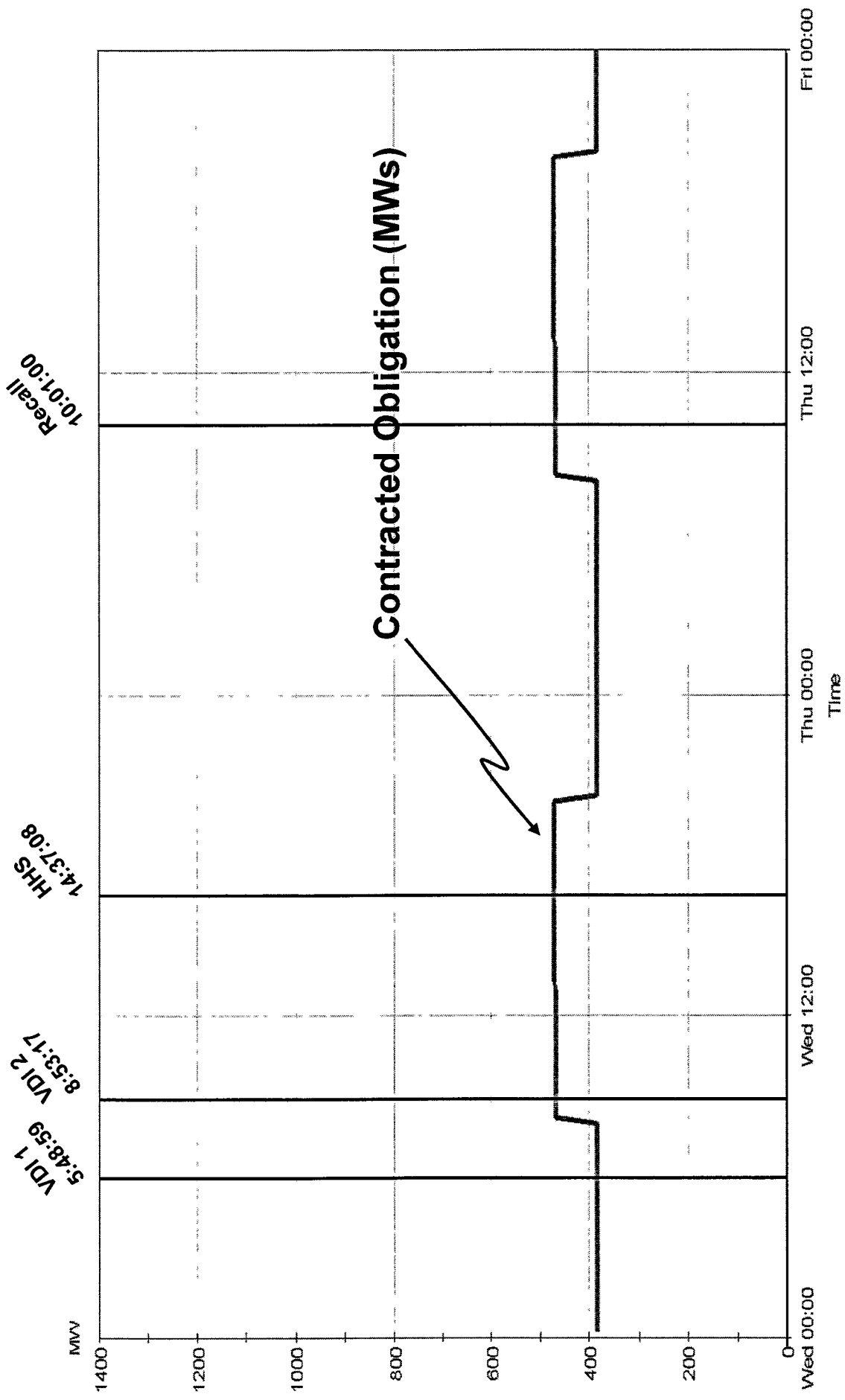
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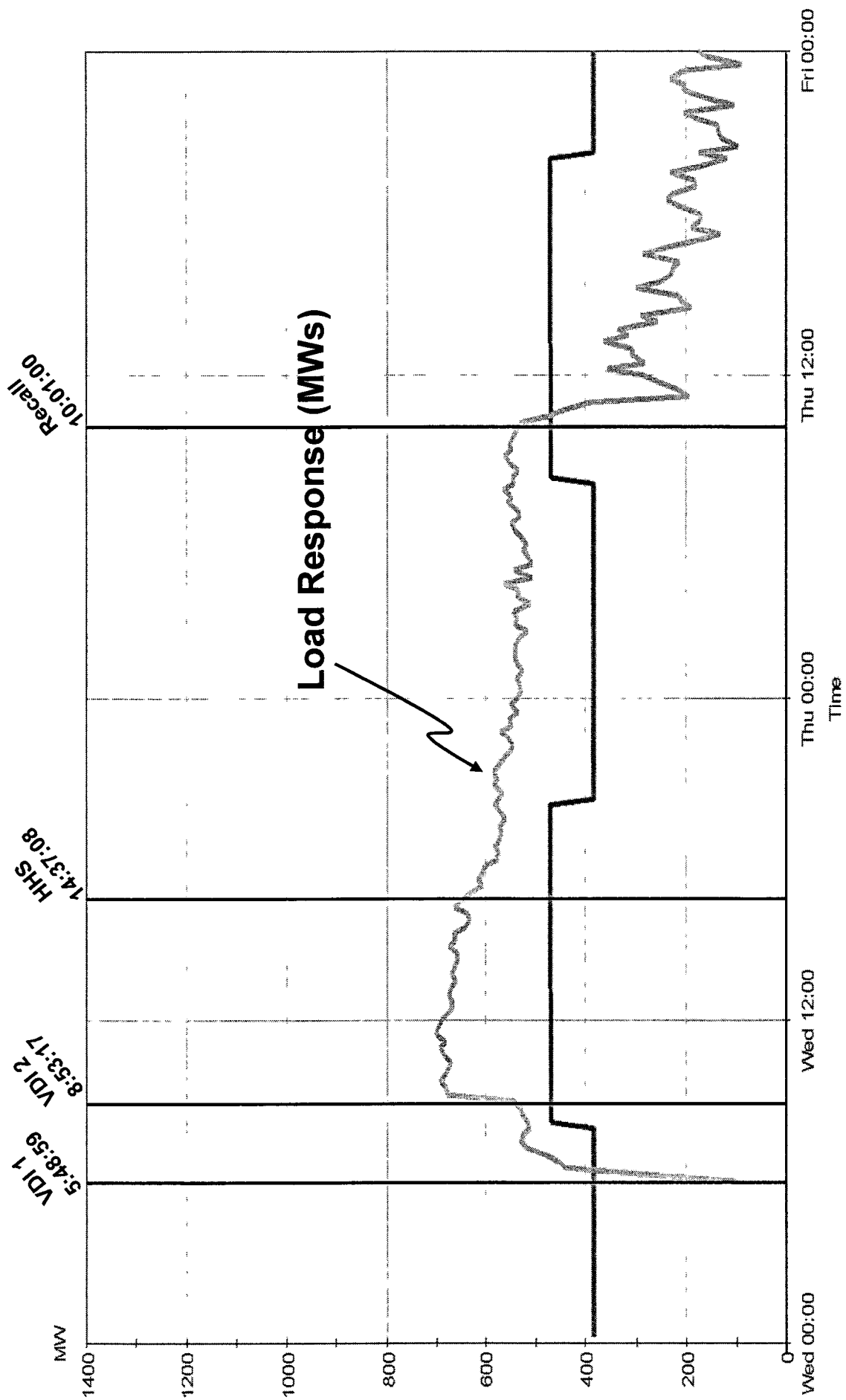
Total EILS dispatched: 467.7 MW, 127 EILS Loads, 922 sites, 8 QSEs



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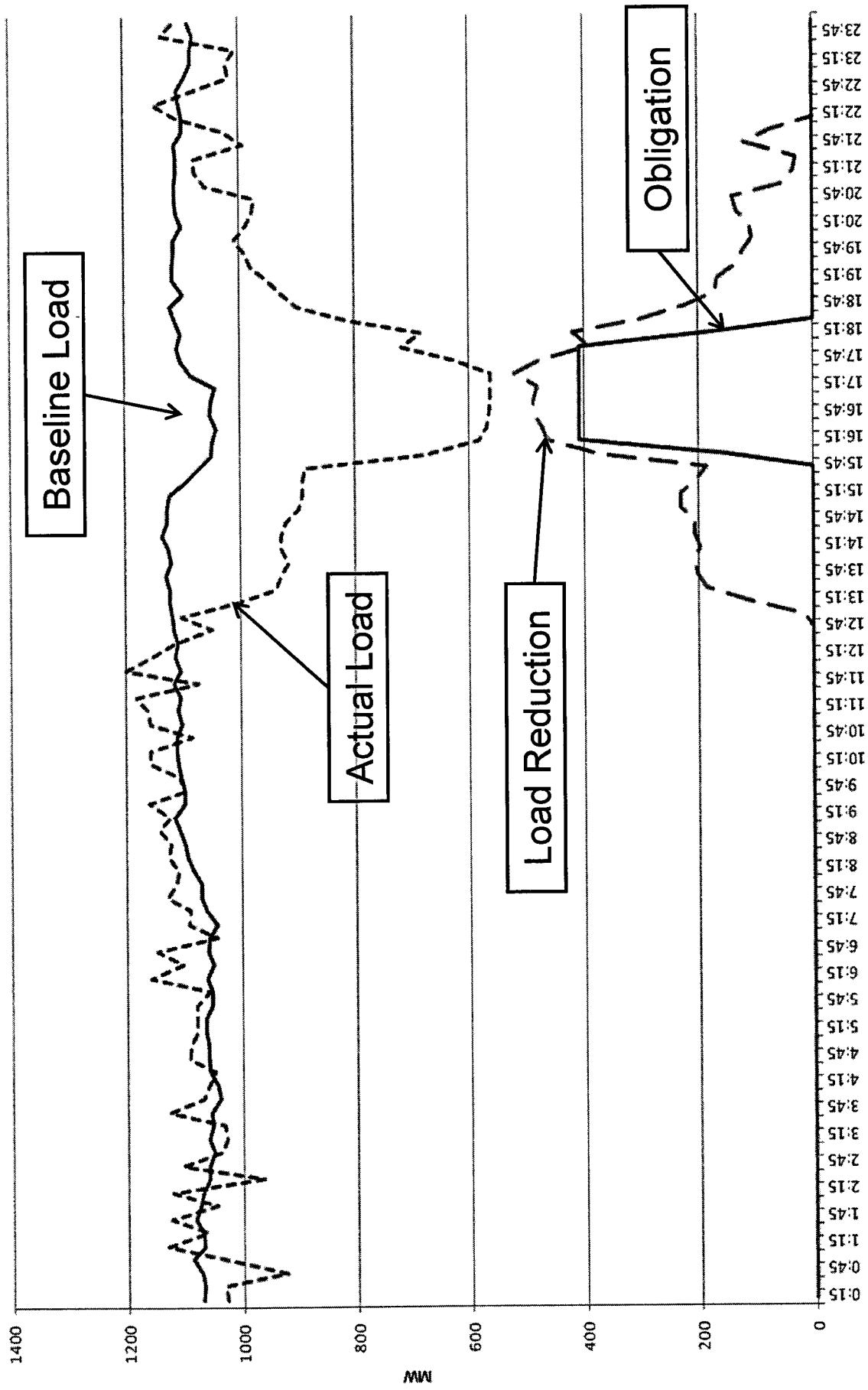


AUGUST 14, 2001

| Time | Description |
|----------|---|
| 15:44:31 | ERCOT declared EEA Level 2B and deploys the EILS Loads in BH2 434.1 MW obligated; 95 EILS Loads; 442 sites |
| 16:05:27 | ERCOT deploys BH3 EILS Loads and reaffirms BH2 EILS should stay deployed. Additional 6.1 MW obligated; 89 EILS Loads; 410 sites |
| 18:09:42 | ERCOT issues a VDI to recall the EILS deployment |

Total EILS dispatched: 440.2 MW, 184 EILS Loads, 852 sites, 9 QSEs

August 4th 10:45 AM - 11:15 AM



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2011 Results by Commercial Period

| Time Period | Bus. Hrs. 1 HE 0900 – 1300, M-F except Holidays | Bus. Hrs. 2 HE 1400 – 1600, M-F except Holidays | Bus. Hrs. 3 HE 1700 – 2000, M-F except Holidays | Non-Bus. Hrs. All Other Hours |
|--|---|---|---|----------------------------------|
| Capacity Procured | 128.7 MW | 116.6 MW | 129.4 MW | 116.7 MW |
| Capacity Offered | 142.4 MW | 141.5 MW | 143.1 MW | 130.4 MW |
| Number of Loads Procured (number of aggregations) | 21 (5) | 19 (5) | 18 (4) | 16 (5) |
| Avg. Cost MW / Hour | \$6.41 | \$6.48 | \$6.80 | \$6.20 |

•Total Adjusted Cost for this Contract Period: \$1,091,783.88

000032

| Time Period | Bus. Hrs. 1 HE 0900 – 1300, M-F except Holidays | Bus. Hrs. 2 HE 1400 – 1600, M-F except Holidays | Bus. Hrs. 3 HE 1700 – 2000, M-F except Holidays | Non-Bus. Hrs. All Other Hours |
|--|---|---|---|----------------------------------|
| Capacity Procured | 490.8 MW | 434.1 MW | 420.3 MW | 406.0 MW |
| Capacity Offered | 490.8 MW | 434.1 MW | 420.3 MW | 406.0 MW |
| Number of Loads Procured (number of aggregations) | 119 (80) | 95 (62) | 89 (57) | 103 (72) |
| Avg. Cost MW / Hour | \$6.30 | \$6.47 | \$6.72 | \$6.14 |

- **Total Adjusted Cost for this Contract Period: \$ 6,780,901.29**

| Time Period | Bus. Hrs. 1 HE 0900 – 1300, M-F except Holidays | Bus. Hrs. 2 HE 1400 – 1600, M-F except Holidays | Bus. Hrs. 3 HE 1700 – 2000, M-F except Holidays | Non-Bus. Hrs. All Other Hours |
|--|--|--|--|---|
| Capacity Procured | 466.8 MW | 403.5 MW | 445.3 MW | 388.7 MW |
| Capacity Offered | 466.8 MW | 460.7 MW | 445.3 MW | 388.7 MW |
| Number of Loads Procured (number of aggregations) | 130 (88) | 128 (87) | 121 (82) | 106 (75) |
| Avg. Cost MW / Hour | \$7.31 | \$6.87 | \$7.93 | \$7.18 |

- **Total Adjusted Cost for this Contract Period: \$ 8,364,694.14**
- **Total Cost for 2011 Program Year: \$ 22,880,937.04**

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