



EMERGENCY INTERRUPTIBLE LOAD SERVICE

Technical Requirements & Scope of Work

February through May 2009 Contract Period

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**ERCOT EMERGENCY INTERRUPTIBLE LOAD SERVICE (EILS)
 TECHNICAL REQUIREMENTS AND SCOPE OF WORK**

For EILS Contract Period of February 1, 2009, through May 31, 2009

Electric Reliability Council of Texas, Inc. (ERCOT) administers and operates EILS in accordance with Public Utility Commission of Texas (PUCT) Substantive Rule §25.507¹ and the ERCOT Protocols.

Qualified Scheduling Entities (QSEs) representing EILS Resources are responsible for submitting materials and EILS bids to ERCOT based on the following timeline (all deadlines are 5 p.m. unless otherwise noted; times are U.S. Central Prevailing Time):

EILS PROCUREMENT SCHEDULE February through May 2009 Contract Period	
Date	Action
ASAP	QSEs submit proposals and supporting data to ERCOT for any prospective Non-IDR EILS aggregations. <i>(ERCOT will initiate dialogue and provide feedback and assistance.)</i>
December 1, 2008	ERCOT issues EILS Request for Proposal (RFP).
December 12, 2008	QSEs submit Resource Identification forms including ESI IDs or meter data for all prospective EILS Resources (for baseline assignment and capacity pre-screening).
December 19, 2008	ERCOT communicates to QSEs completed baseline assignment and capacity pre-screening information for prospective EILS Resources.
January 6, 2009	QSEs opting for EILS Self-Provision submit the EILS Notification of Self-Provision Form to ERCOT.
January 9, 2009 (Noon)	QSEs submit completed EILS Registration/Proposal Forms (bids and Self-Provision offers).
January 13, 2009 (Noon)	ERCOT notifies Self-Providing QSEs of options for adjusted commitment levels.
January 15, 2009 (Noon)	Self-Providing QSEs provide ERCOT with final Self-Provision commitment (this must occur within two Business Days of the communication to the QSE from ERCOT).
January 16, 2009	ERCOT notifies awarded QSEs of EILS awards.
January 19, 2009	ERCOT issues Market Notice with summary of EILS awards.
January 19, 2009	Standard Form Supplements to QSE Agreements distributed to awarded QSEs.
January 29, 2009	Deadline for signed contracts to be returned to ERCOT.
February 1, 2009	First day of operation in the Contract Period.

¹ Available at <http://www.puc.state.tx.us/rules/subrules/electric/index.cfm>.

Submission of an EILS Registration/Proposal Form obligates the submitting QSE and its EILS Resource(s) to provide EILS if selected and to meet the requirements contained herein. This Technical Requirements and Scope of Work document is based on the language in the ERCOT Protocols. To the extent any part of this document differs from the requirements set forth in PUCT Subst. Rule §25.507 or the ERCOT Protocols, the PUCT Substantive Rule or ERCOT Protocols control.

A. Definitions

- (1) “EILS web page” refers to the material located at this web address: www.ercot.com/services/programs/load/eils/index.html.
- (2) “Electric Service Identifier (ESI ID)” is defined as either:
 - a. The basic identifier assigned to each Service Delivery Point used in the registration and settlement systems managed by ERCOT. (This is the standard definition from the ERCOT Protocols and applies to premises located in competitive choice areas of the ERCOT Region); or
 - b. A unique identifier assigned to a Service Delivery Point within the service territory of a Non-Opt In Entity (NOIE) or within a Private Use Network.
- (3) “IDR Meter” refers to Interval Data Recorder meters measuring energy consumption in 15-minute intervals. Other types of metering capable of measuring energy consumption in 15-minute intervals and meeting the accuracy standards described in the *Metering & Meter Data* section of this document may be substituted for IDR Meters upon ERCOT’s approval.

B. Overview and Description of Service

- (1) ERCOT procures EILS by contracting with Qualified Scheduling Entities after selecting bids submitted in response to a Request for Proposal. If a QSE’s bid is selected, ERCOT will pay the QSE a capacity payment in exchange for making qualified Loads available for interruption upon ERCOT’s instruction. EILS is an emergency Load reduction service designed to decrease the likelihood of the need for firm Load shedding (a.k.a, “rolling blackouts”) which is the final step ERCOT takes in the Emergency Electric Curtailment Plan (EECP).² ERCOT will also deploy EILS Resources immediately following firm Load shedding if ERCOT System conditions do not allow time for ERCOT to deploy EILS prior to firm Load shedding.
- (2) ERCOT procures EILS for EILS Contract Periods. The standing EILS Contract Periods consist of four months, as follows:
 - a. June 1 through September 30;

² See ERCOT Protocols Section 5.6.6.1.

- b. October 1 through January 31; and
- c. February 1 through May 31.

ERCOT may restructure EILS Contract Periods in order to facilitate additional Load participation in EILS. ERCOT will provide Notice of any changes to the standing EILS Contract Periods no less than ninety (90) days prior to the start date of that EILS Contract Period. The standing Contract Periods are in effect as of the date ERCOT issued the RFP for the upcoming EILS Contract Period.

- (3) The start time for each EILS Contract Period will be the beginning of Hour Ending 01:00. The stop time for each EILS Contract Period will be the end of Hour Ending 24:00.
- (4) ERCOT will issue an RFP to solicit bids for up to 1,000 megawatts (MWs) of EILS capacity for each Time Period within each EILS Contract Period.
- (5) QSEs on behalf of EILS Resources may submit bids for one or more EILS Time Periods as defined by ERCOT in the RFP for the EILS Contract Period. Time Periods are specific to a Contract Period, and a bid is specific to a Time Period.

For this EILS Contract Period, covering the period of February 1, 2009 through May 31, 2009, EILS is procured for the following Time Periods (all times are Central Prevailing Time):

EILS CONTRACT PERIOD: FEBRUARY 1 THROUGH MAY 31, 2009	
Time Period Name	Time Period Hours
Business Hours 1	Hours Ending 0900 through 1300 (8:00:00 a.m. to 1:00:00 p.m.), Monday through Friday except ERCOT Holidays. ³ (420 total hours)
Business Hours 2	Hours Ending 1400 through 1600 (1:00:00 p.m. to 4:00:00 p.m.), Monday through Friday except ERCOT Holidays. (252 total hours)
Business Hours 3	Hours Ending 1700 through 2000 (4:00:00 p.m. to 8:00:00 p.m.), Monday through Friday except ERCOT Holidays. (336 total hours)
Non-Business Hours	All other hours (1,873 total hours ⁴)

³ The only ERCOT Holiday in this Contract Period is May 25, 2009 (Memorial Day).

⁴ Includes additional hour for transition to Daylight Savings Time.

- (6) ERCOT will select EILS Resources for each Time Period based upon least cost per MW of capacity bid.
- (7) ERCOT will consider geographic location and its potential effect on Zonal Congestion or Local Congestion in selecting EILS Resources. ERCOT may reject a bid if, in ERCOT's estimation, the location of the prospective EILS Resource may cause significant Congestion.
- (8) EILS is subject to an annual EILS Cost Cap of \$50 million covering the months of February through January.⁵
- (9) ERCOT may determine cost limits for each EILS Contract Period or each Time Period within each EILS Contract Period in order to ensure that the EILS Cost Cap is not exceeded.
- (10) Pursuant to PUCT Subst. R. §25.507, in order to minimize the cost of EILS, ERCOT may reject any bid it determines it unreasonable or outside the parameters of an acceptable bid. ERCOT has posted a document⁶ to the EILS web page describing the criteria it will use in determining EILS Contract Period cost limits and reasonableness of EILS bids.
- (11) ERCOT will award contracts to be paid as bid for selected EILS Resources.
- (12) ERCOT may prorate awards for tied bids at the top of the stack when there are more MWs available at a given price than ERCOT can procure under the 1,000 MW limit. Bidding QSEs may indicate, in a designated space on the Registration & Proposal Form, a minimum number of MWs they are willing to have selected for an EILS Resource.
- (13) Deployment of EILS Resources will not result in energy payments other than any Load or Resource Imbalance payments that would normally be due to the QSE representing the Load.

C. Procurement

The requirements in this section apply to EILS Resources with IDR meters. A separate submission process for non-IDR alternatives is detailed in the *Non-IDR Metering Alternatives* section and in a separate document.⁷

ERCOT solicits information relating to prospective EILS Resources and EILS bids in a two-step process.

⁵ See PUC Subst. Rule §25.507 (b)(3).

⁶ "ERCOT Process for Determining Contract Period Cost Limits and Reasonableness of Bids for Emergency Interruptible Load Service (EILS)"

⁷ "EILS Non-IDR Guidelines," located under the Forms & Supporting Documents tab at the EILS web page.

Step 1: Resource Identification for Baseline Assignment and Capacity Evaluation

- (1) QSEs first shall submit data relating to prospective EILS Resources to ERCOT using the appropriate Resource Identification form posted at the EILS web page, and adhering to the published schedule. This step applies to EILS Resources to be offered as competitive bids or as EILS Self Provision. Resource identification data includes the following:
 - a. Identification of all prospective EILS Resources the QSE will represent in the upcoming Contract Period, including:
 - i. For prospective EILS Resources situated in competitive choice areas of the ERCOT Region, the Load's ESI ID number.
 - a. In cases where the Load providing EILS is one of multiple Loads behind a single ESI ID and the measurement of the Load providing EILS is necessary for measurement and verification, as determined by ERCOT, meter data specific to the Load serving as the EILS Resource must also be provided to ERCOT according to the specifications detailed in the *Metering & Meter Data* section of this document.
 - ii. For prospective EILS Resources not metered by a dedicated ESI ID in a competitive choice area of the ERCOT Region, including those situated in territories served by Non-Opt-In Entities (NOIEs) or within private use networks, meter data must be provided to ERCOT according to the specifications detailed in the *Metering & Meter Data* section of this document.
 - iii. If the prospective EILS Resource is non-IDR metered but is intended to be equipped with IDR metering (or equivalent) by the start of the applicable Contract Period, the QSE is nonetheless required to submit the ESI ID or meter identification for the Load by the Resource Identification deadline date. Such submission should be accompanied by a note indicating that IDR metering or equivalent shall be installed at the facility prior to the start of the Contract Period.
 - b. Indication of Time Period(s) for which each EILS Resource is intending to bid.
 - c. A non-binding declared Minimum Base Load for each prospective EILS Resource, defined as Load that will not be curtailed in an EILS deployment event, expressed in MW. ERCOT will evaluate the declared Minimum Base Load in conjunction with the interval meter data of the prospective EILS Resource. The declared Minimum Base Load may be revised by the QSE prior to bid submission. (Note: for EILS Resources assigned to the alternate baseline [see *Baselines* section], the declared

Minimum Base Load represents the Load level at or below which the EILS Resource must curtail in a deployment event.)

- d. For a registered Load Acting as a Resource (LaaR) considering bidding into EILS, QSEs must include the following with the Resource Identification:
 - i. Indicate whether the EILS capacity will consist of additional Load behind the same meter as the LaaR, and whether the QSE intends to bid a portion of the LaaR's overall Load into other Ancillary Services during the same hours it will be bidding to provide EILS.
 - a. A registered LaaR is eligible to provide EILS so long as it abides by the requirements in the *Prohibition on Other Market Activity* section of this document.
 - b. EILS may be provided by a LaaR ESI ID that is simultaneously providing an Ancillary Service only if ERCOT can accurately isolate the incremental EILS Load using the LaaR's IDR meter data and telemetry data. ERCOT may reject an EILS bid from a LaaR if ERCOT determines it cannot isolate this data with reasonable confidence.
 - e. A list of hours from the previous 12 months that the prospective EILS Resource was unavailable, or for which the meter data may not provide an accurate indication of its true Load shape, due to factors such as scheduled maintenance, backup generation testing, or Force Majeure events. For LaaRs, this list should include hours that it was deployed via ERCOT Dispatch Instruction or Under Frequency Relay trip. ERCOT will exclude these hours in its baseline assignment analysis for the prospective EILS Resource.
 - f. Identification of prospective EILS Resource aggregation groupings.
 - i. For EILS Resources expecting to be assigned to the EILS default baseline, a more accurate default baseline model can usually be created from an aggregation than from an individual Load. Similarly, large aggregations are typically more capable of accurate modeling than small aggregations.
 - ii. Aggregation groupings are non-binding as they apply to the alternate baseline. QSEs may reconstitute alternate baseline aggregations prior to bid submission.
 - iii. Aggregation groupings are binding as they apply to the default baseline. If a QSE submits a bid for a reconstituted default baseline aggregation, the aggregation at ERCOT's discretion may be reassigned to the alternate baseline.

- a. Exceptions: QSEs may combine two or more aggregations which received default baseline assignments into a single default baseline aggregation provided that all ESI IDs in the original aggregations are included in the combined aggregation. QSEs may also add an individual ESI ID that has received a default baseline assignment into an aggregation that has received a default baseline assignment.
 - g. If the prospective EILS Resource has had a material change in its energy consumption patterns within the preceding 12 months, QSEs should provide a detailed description of such change as an attachment to the Resource Identification form.
 - h. No price information should be included with this data.
- (2) Submission of the EILS Resource Identification form does not bind the QSE or the EILS Resource to provide EILS or submit a bid.
 - (3) ERCOT will evaluate historic meter data of the prospective EILS Resource, covering at least the most recent 12 months, with an emphasis on the months corresponding to the upcoming Contract Period, to determine which baseline (the default baseline or the alternate baseline, as detailed in the *Baselines* section of this document) to which the EILS Resource will be assigned.
 - a. Prospective EILS Resources with less than 12 months of IDR meter data are not precluded from participation in EILS; however, the MW capacity of such offers will not receive the full benefit of ERCOT's capacity pre-screening. Additionally, because ERCOT will not have sufficient data from which to build a default baseline model, prospective EILS Resources with less than 12 months of IDR data will be assigned to the alternate baseline.
 - (4) ERCOT will also analyze the data in conjunction with the EILS Resource's declared Minimum Base Load to pre-screen the MW capacity of the EILS Resource's bid. ERCOT will perform such analysis to help determine whether sufficient Load is available to provide EILS and as a service to QSEs to help prevent unintentional over- or under-bidding of EILS capacity.
 - (5) Following its analysis of this data, ERCOT will notify each QSE of the baseline assignments and pre-screened capacity (based on historical data) for each of the QSE's prospective EILS Resources. ERCOT will advise each submitting QSE of these results prior to the due date for bid submission, as noted in the procurement schedule. QSEs may then use the results of this analysis in preparing their final EILS bids.
 - (6) QSEs may submit ESI IDs and/or Load data to ERCOT at any time prior to the published Resource Identification deadline for purposes of obtaining preliminary and unofficial baseline assignment information. This process, which is offered as a service by ERCOT Staff, is described in detail in a

separate document entitled “Preliminary Baseline Review Process,” posted to the EILS web page. The preliminary review process is not a substitute for the Resource Identification process, and information on any prospective EILS Resources must be submitted as part of the Resource Identification process even if they have previously been submitted to ERCOT for preliminary baseline review.

Step 2: Bid Submission

- (1) QSEs representing prospective EILS Resources shall submit bids to provide EILS using the EILS Registration/Proposal Form and adhering to the published schedule. The form is posted to the EILS web page. Each form must be completed in its entirety.
 - a. QSEs may also self-provide EILS. Processes are detailed in the *EILS Self-Provision* section of this document. Other than issues relating to price, the requirements for offering self-provided EILS are identical to those for bidding EILS competitively.
- (2) The QSE must affirm that the EILS Resource capacity being offered into EILS is not capacity that is separately obligated to respond during an EECF event and receiving a separate reservation payment for such obligation, occurring in the contracted EILS Time Period, as described in the *Prohibition on Other Market Activity* section of this document. This affirmation is included in the EILS Registration/Proposal form.
- (3) QSEs may aggregate multiple Loads to constitute an EILS Resource provided that each Load in an EILS Resource aggregation meets all technical requirements described herein. Aggregated EILS Resource bids must be submitted using the appropriate version of the Registration/Proposal Form.
 - a. QSEs may include non-IDR metered Loads in their aggregations only if they have submitted the ESI ID as part of the Resource Identification process and adhering to the schedule, and are committing to having IDR metering or equivalent (see *Metering & Meter Data* section) installed prior to the beginning of the Contract Period. Aggregations that include such Loads will automatically be assigned to the alternate baseline (see *Baselines* section).
 - b. Aggregated EILS Resources that consist entirely or predominately of Loads without IDR meters must meet all requirements detailed in the *Non-IDR Metering Alternatives* section of this document.
- (4) The minimum amount of EILS interruptible Load capacity that may be offered in a bid is one (1) MW. Fractional MW bids above the 1 MW minimum are permitted to tenths of a MW (a single digit to the right of the decimal point).

- (5) EILS bids are specific to a Time Period within a Contract Period. ERCOT will evaluate bids for each Time Period independently.
- (6) QSEs may submit EILS bids for one or more Time Periods. Bids must be for a single price and MW capacity for any specific Time Period, although prices and MW capacities may vary for different Time Period.
- (7) A bid constitutes a binding commitment to provide EILS for all hours within a Time Period within a Contract Period. QSEs should not submit bids if there is any uncertainty regarding a Load's ability to provide EILS within a Time Period within a Contract Period.
- (8) Bids must include a final declaration of the EILS Resource's Minimum Base Load, expressed in MW. This number may be fractional, may be less than a MW, and may be zero. Minimum Base Load is a key determinant in ERCOT's evaluation of the availability factor of an EILS Resource following an EILS Contract Period. In addition, for EILS Resources assigned to the alternate baseline (see *Baselines* section), the declared Minimum Base Load represents the Load level at or below which the EILS Resource must curtail in a deployment event.
- (9) The MW capacity of an EILS bid is not required to equal that of the pre-screened capacity (based on historical data) provided as a service to the QSE by ERCOT. The final MW capacity bid is the sole responsibility of the QSE and EILS Resource.
- (10) ERCOT may reduce the MW capacity of an EILS bid based on its evaluation of meter data for the EILS Resource⁸.
- (11) QSEs may not change the price, the MW capacity, the makeup of an aggregated EILS Resource, or the declared Minimum Base Load of an EILS Resource after the bid is submitted.

D. Metering & Meter Data

This section applies to EILS Resources with IDR meters, including aggregated EILS Resources consisting entirely of IDR-metered Loads. Prospective aggregated EILS Resources consisting of non-IDR metered Loads must meet all requirements detailed in the *Non-IDR Metering Alternatives* section of this document.

- (1) EILS Resources, including all Loads comprising an aggregated EILS Resource, must be metered with a dedicated IDR meter unless "a statistically valid alternative to universal IDR metering for measurement and verification consistent with industry best practices can be developed and approved by ERCOT."⁹

⁸ See Protocols Sec. 6.5.12 (11).

⁹ PUC Subst. R. §25.507 (c)(2)(B).

- (2) For ESI IDs of EILS Resources, including aggregated EILS Resources, situated in competitive choice areas of the ERCOT Region, ERCOT will analyze at least 12 months of historic meter data. This data is stored in the ERCOT computers and will be accessed by ERCOT using the ESI ID number provided in the EILS Registration/Proposal Form.
 - a. If less than 12 months of data is available, ERCOT may request additional or alternative data from the QSE or EILS Resource, or may analyze meter data for a shorter period.¹⁰

Meter Data for EILS Resources in NOIE Territories

- (3) QSEs representing EILS Resources located in a territory served by a NOIE are responsible for arranging with the NOIE Transmission & Distribution Service Provider (TDSP) to provide ERCOT with the most recently available twelve (12) months of 15-minute IDR meter data. The data must be provided in a format that complies with the “Interval Data Submission Criteria” described below.
 - a. ERCOT may request additional meter data (i.e., more than 12 months of data) if it determines that the initially provided data is insufficient to allow the ESI ID to be accurately assigned to one of the EILS baselines or to permit accurate pre-screening of the MW capacity.
 - b. If at least 12 months of 15-minute IDR meter data are not available, the submitting QSE must arrange to provide ERCOT with as much detailed meter data from the preceding period of up to 24 months as is available. The EILS Resource and the NOIE TDSP must consult with ERCOT using the EILS@ercot.com email inbox to determine the proper format for any meter data submitted that is not 15-minute IDR meter data. Data from prospective EILS Resources located within NOIE service territories will be used only for EILS bid analysis and performance measurement purposes and will not be used for market settlement.
 - c. QSEs representing EILS Resources in NOIE service territories are responsible for arranging for the NOIE TDSP to provide ERCOT with 15-minute IDR meter data for the EILS Resource, covering an entire EILS Contract Period, no later than 35 calendar days after the final day of the EILS Contract Period, in the prescribed format.
 - d. Meter data for an EILS Resource in a NOIE service territory that is not submitted by the NOIE TDSP is subject to the requirements for meter data from sources other than a registered TDSP as described below.

¹⁰ See PUC Subst. R. §25.507 (c)(3)(A).

Meter Data from sources other than a registered TDSP¹¹

- (4) QSEs representing EILS Resources providing meter data from a source other than a registered TDSP shall submit such data to ERCOT validated and accompanied by an affidavit¹² signed by a licensed Professional Engineer. Such data must be specific to the Load serving as the EILS Resource, must cover the most recently available twelve (12) months of service, must meet the accuracy standards described below, and must be provided in a format that complies with the “Interval Data Submission Criteria” described below.
- a. ERCOT may request additional meter data (i.e., more than 12 months of data) at its own discretion.
 - b. If at least 12 months of 15-minute IDR meter data is not available, the submitting QSE must provide ERCOT with as much detailed non-IDR meter data from the preceding period of up to 24 months as is available.
 - c. A QSE must consult with ERCOT using the EILS@ercot.com email inbox to determine the proper format for any meter data submitted that is not 15-minute IDR meter data.
 - d. QSEs are responsible for ensuring that EILS Resource meter data covering an entire EILS Contract Period is submitted to ERCOT no later than 35 calendar days after the final day in an EILS Contract Period, in the prescribed format.
- (5) If an entity other than a registered TDSP submits meter data to ERCOT for use in administering EILS, the metering used to produce the data must adhere to accuracy standards consistent with those required by PUC Substantive Rules and the ERCOT Protocols, as follows:
- a. Metering equipment shall conform to the requirements described in PUC Subst. Rule §25.142, Submetering,¹³ specifically the following subsections:
 - (e)(8) Submeter testing facilities and equipment;
 - (e)(9) Accuracy requirements for submeters;
 - (e)(10) Submeter tests prior to installation; and
 - (e)(11) Testing of electric submeters in service.
 - b. Time stamps shall conform to the requirements in the ERCOT Protocols, Section 10.9.2, TDSP Metered Entities.¹⁴

¹¹ This may apply to but is not limited to an EILS Resource located within a Private Use Network, or any Load independently metered or submetered.

¹² Affidavit is posted to the EILS web page.

¹³ See <http://www.puc.state.tx.us/rules/subrules/electric/index.cfm>.

¹⁴ See http://www.ercot.com/mktrules/protocols/current/10-030107.doc#_Toc160326898.

- (6) If an entity other than a registered TDSP submits meter data to ERCOT for use in administering EILS, the data should be subjected to Validation, Editing and Estimation (VEE) consistent with the requirements in the ERCOT Protocols, Section 10.11.3, TDSP Settlement Meters.

Interval Data Submission Criteria

- (7) Fifteen minute interval data must be provided to ERCOT in a comma separated value (“csv”) file format as shown in the file entitled “IDR_dataformat.csv,” available at the EILS web page.
- (8) The assigned ESI ID or unique service identifier must appear in the first field of each data record. If multiple IDR meters are aggregated for that ESI ID, the data from those meters must be aggregated and provided to ERCOT in aggregated form.
- (9) Data from multiple ESI IDs or unique service identifiers may be included in a single file or multiple files; data must be sorted by identifier and date.
- (10) Unit of measure for the interval data should be kWh.
- (11) Interval data must be provided as one row per day. All days except the spring and fall daylight saving time days must have 96 intervals per day. Any missing intervals must be specified with a blank. The spring daylight saving time day must have 92 intervals, with the last 4 intervals of the day coded as blanks. The fall daylight saving time day must have 100 intervals.

E. Non-IDR Metering Alternatives

- (1) An aggregation of non-IDR metered Loads may bid to provide EILS only if “a statistically valid alternative to universal IDR metering for measurement and verification consistent with industry best practices can be developed and approved by ERCOT.”¹⁵ Any non-IDR alternatives must be approved by ERCOT. To be considered for such approval, and therefore to become eligible to submit bids or self-provision offers to provide EILS, QSEs representing prospective EILS Resources must complete the steps described in the Non-IDR Guidelines document and must submit the Non-IDR Proposal and Data Submission Form to ERCOT according to the published schedule. All of these documents are posted at the EILS web page.

F. Communications Systems

- (1) Any QSE representing an EILS Resource must be capable of communicating with its EILS Resources within the prescribed time constraints for deployment of EILS.

¹⁵ See PUC Subst. R. §25.507 (c)(2)(B).

- (2) Any QSE representing EILS Resources must be capable of receiving an ERCOT Verbal Dispatch Instruction (VDI) via the “QSE Hot Line” over the ERCOT Wide Area Network (WAN) during any hours in which it has committed EILS Resources. Such QSEs must establish a WAN connection and execute a WAN agreement with ERCOT.¹⁶ Installation and enablement of the WAN connection at the QSE’s site is the full responsibility of the QSE. Any QSE currently certified as a Level 4 QSE, or with an existing agreement and connection within the ERCOT Wide Area Network (WAN), meets this requirement.
- (3) When ERCOT issues Dispatch Instructions regarding EILS, QSEs shall instruct their committed EILS Resources to deploy 100% of their contracted capacity. QSEs are fully responsible during all contracted hours for communicating Dispatch Instructions to the contracted EILS Resources they represent.
- (4) EILS Resources are not subject to the modeling, telemetry and Resource Plan requirements of other ERCOT Resources.

G. Availability

- (1) Within forty-five (45) days after the end of an EILS Contract Period, ERCOT will conduct an availability review for each EILS Resource. In its availability review, ERCOT will determine an “availability factor” for each EILS Resource in each of its committed Time Periods.
- (2) For an EILS Resource assigned to the default baseline (as described in the *Baselines* section of this document), ERCOT will determine the availability factor by calculating the number of hours an EILS Resource was available in each committed Time Period, divided by the total number of hours in the Time Period. ERCOT will consider the EILS Resource to have been available for any hour in which the EILS Resource’s IDR-metered Load¹⁷ was greater than 95% of its contracted EILS MW capacity plus its declared Minimum Base Load; otherwise, the EILS Resource will be considered unavailable for that hour. The following hours will be considered available:
 - a. Any hours in which an EECF was in effect, starting with initiation of Step 1 and including the 10-hour EILS recovery period, if applicable;
 - b. Any hours in which an EILS Load shedding test (see *Testing and Compliance* section of this document) was conducted and the 10-hour recovery period following the test; and

¹⁶ WAN requirements are detailed in Sec. 8.3.1 of the ERCOT Operating Guides.

¹⁷ For approved non-IDR Aggregations, the estimated Load.

- c. Any hours following the second EILS deployment in an EILS Contract Period or following the 10th hour of an EILS deployment in an EILS Contract Period.
- (3) For an EILS Resource assigned to the alternate baseline (as described in the *Baselines* section of this document), ERCOT will determine the EILS Resource's availability factor by evaluating the EILS Resource's IDR-metered Load¹⁸ for all hours in each committed Time Period. The availability factor will be the ratio of the EILS Resource's hourly average Load minus its declared Minimum Base Load to its contracted EILS MW capacity, provided that the availability factor shall not be greater than one (1). The following hours will be excluded from the total number of committed hours in ERCOT's calculations of an EILS Resource's availability factor:
 - a. Any hours in which an EECF was in effect, starting with initiation of Step 1 and including the 10-hour EILS recovery period, if applicable;
 - b. Any hours in which an EILS Load shedding test (see *Testing and Compliance* section of this document) was conducted and the 10-hour recovery period following the test; and
 - c. Any hours following the second EILS deployment in an EILS Contract Period or following the 10th hour of an EILS deployment in an EILS Contract Period.
- (4) The availability factor for an EILS Resource in a Time Period shall be used to determine, in part, the capacity payment for the EILS Resource for that Time Period. An availability factor of 95% or greater for an EILS Resource shall result in no reduction in capacity payment for the EILS Resource (*i.e.*, ERCOT shall set the availability factor at one (1)).
- (5) An availability factor of less than 95% constitutes a failure of the EILS Resource to meet its availability obligations. In such cases ERCOT shall adjust the capacity payment due to the EILS Resource for that Time Period to the full capacity payment multiplied by the availability factor. Additional penalties are described in the *Penalties for Non-Compliance* section of this document.
- (6) The calculations to determine the availability factor to be used for settlement purposes are described in detail in Sec. 6.10.13.3 (3) of the Protocols.
- (7) In any EILS Contract Period in which ERCOT has issued one (1) or more EILS Dispatch Instructions, if an EILS Resource meets its performance obligations as described in the "Deployments" section of this document, its availability factor shall be set at its actual availability factor or 0.50, whichever is greater.

¹⁸ For approved non-IDR Aggregations, the estimated Load.

- (8) EILS bids are binding commitments upon the QSE and the EILS Resource if selected by ERCOT.¹⁹

H. Scheduled Periods of Unavailability

- (1) An EILS Resource may schedule in advance with ERCOT periods of unavailability for up to two percent (2%) of its total committed hours in an EILS Contract Period. These scheduled periods of unavailability must be communicated to ERCOT by an authorized representative of the QSE representing the EILS Resource at least five (5) Business Days²⁰ prior to the first day of the period of unavailability, via email using the Scheduled Period of Unavailability Form posted at the EILS web page. The completed form should be emailed to: EILS@ercot.com. ERCOT will send a confirmation of receipt via return email.
- (2) Any hours of unavailability properly noticed to ERCOT, up to the 2% maximum, will reduce the EILS Resource's risk of failing to meet its availability requirements. How the scheduled hours of unavailability are applied to the availability factor calculation depends on the EILS Resource's baseline assignment:
 - a. EILS Resources on the default baseline will be considered "available" during properly scheduled unavailable hours²¹;
 - b. For EILS Resources on the alternate baseline, properly scheduled hours of unavailability will be excluded from the hours used to calculate the EILS Resource's availability factor.²²
- (3) Hours of properly scheduled unavailability will be applied consecutively starting with the first notified hour and ending with the hour containing either the declared time of return to availability or the point where the total number of scheduled unavailable hours equals 2% of the EILS Resource's total committed hours in the Contract Period. Scheduled unavailable hours will not be applied proportionally across Time Periods.
- (4) QSEs should submit a notice of a Scheduled Period of Unavailability for any committed hours that the EILS Resource will be subjected to a load-shedding test initiated by any entity other than ERCOT. This includes any hours that a backup generator is being tested.
- (5) Submission of a notice of a Scheduled Period of Unavailability is an indication by the EILS Resource that its Load will be off, or materially

¹⁹ See EILS Request for Proposal, Section 2.4 (h).

²⁰ The day that the form is received by ERCOT is considered "Day 1" of the five Business Days.

²¹ Protocols §6.10.13.3 (2)(c)(ii).

²² Protocols §6.10.13.3 (2)(d)(ii)(A).

reduced, during the scheduled period. This provision is not intended to allow the EILS Resource to stay on-line during an EILS Dispatch Instruction.

- (6) A QSE representing an EILS Resource must continuously be aware of and capable of reporting to ERCOT the status of any contracted EILS Resource in its portfolio. If there is any material change in the availability status of an EILS Resource at any time, the QSE must communicate this change in status to ERCOT, via the EILS@ercot.com email inbox, irrespective of whether the notification is submitted via the Scheduled Period of Unavailability form at least five Business Days in advance or whether the EILS Resource has already exceeded its allowed 2% of hours of scheduled unavailability for that EILS Contract Period.
- (7) Unless ERCOT has received a notice of a Scheduled Period of Unavailability, or has otherwise received notice from the EILS Resource or its QSE that the Load is off-line or materially reduced, ERCOT will assume that the contracted EILS Resource is on-line and fully available for curtailment.

I. Deployment

- (1) ERCOT will issue a VDI for EILS no earlier than Step 3 of an EECF event (as defined in Sec. 5.6.7 of the Protocols). If events do not permit ERCOT to issue the VDI for EILS prior to the implementation of EECF Step 4 (firm Load shedding), ERCOT will issue a VDI for EILS immediately after the firm Load shedding instruction. ERCOT may issue an EILS VDI at any time during a settlement interval.
- (2) Within 10 minutes of the ERCOT VDI:
 - a. An EILS Resource assigned to the default baseline must reduce its Load by at least 95% of its contracted MW capacity compared to its baseline capacity.
 - b. An EILS Resource assigned to the alternate baseline must reduce its Load to a MW level less than or equal to its declared Minimum Base Load divided by 0.95.²³
- (3) EILS Resources are expected to comply with this provision by reducing their net Load requirement from the ERCOT grid consistent with their awarded capacity. The use of backup generation is not prohibited. However, shifting Load from one ESI ID or Service Delivery Point to another, without an overall Load reduction consistent with the awarded capacity, is considered a violation of the intent of EILS and of the ERCOT Protocols.
- (4) The 10-minute deployment period begins at the point during the VDI call over the All-QSE Hot Line at which the ERCOT System Operator states the EILS

²³ See equation for EILS Interval Performance Factors (EIPF) in Protocols Sec. 6.10.13.3 (4)(d).

Dispatch Instruction. This point will be determined by ERCOT Staff upon review of the time-stamped recording of the VDI.

- (5) EILS Resources must maintain their full contracted Load reduction for the entire period of the ERCOT EILS deployment. The deployment period shall end when ERCOT issues a Dispatch Instruction recalling EILS Resources.
- (6) Within 10 hours following the ERCOT recall VDI, EILS Resources shall restore their Load to a level that will allow them to meet their contracted obligation.

J. Performance Validation

- (1) ERCOT will validate the performance of the EILS Resource in a deployment event by calculating an event performance factor. The event performance factor is the arithmetic average of the EILS Resource's interval performance factors for the event,²⁴ as calculated by ERCOT using 15-minute IDR metered Load.²⁵ The event performance factor calculation will begin with the interval in which the 10-minute EILS deployment period expires and will end with the interval in which ERCOT issues the release instruction.
- (2) Performance will be evaluated specific to the baseline to which the EILS Resource has been assigned. Interval performance factors will be calculated as follows:
 - a. For EILS Resources assigned to the default baseline, ERCOT will calculate interval performance factors by subtracting the EILS Resource's actual Load for each interval from its baseline for that interval, and dividing that number by its contracted bid amount in MWh. The result will be an interval performance factor for each interval of the event, capped at 1.0 and expressed as a number between 0 and 1.0.
 - b. For EILS Resources assigned to the alternate baseline, ERCOT will calculate the EILS Resource's interval performance factors by dividing the declared Minimum Base Load by the actual Load for each interval. The result will be an interval performance factor for each interval of the event, capped at 1.0 and expressed as a number between 0 and 1.0.
 - i. If the actual Load is measured at zero for an interval, ERCOT will automatically assign an interval performance factor of 1.0 for that interval.
- (3) For purposes of evaluating performance in an EILS deployment, access by ERCOT to meter data being provided by an entity other than a registered

²⁴ Methodology is detailed in Section 6.10.13.3 (4) of the Protocols.

²⁵ For approved non-IDR Aggregations, the estimated Load.

TDSP is subject to the requirements detailed in the *Metering & Meter Data* section of this document.

- (4) For aggregated EILS Resources, performance will be based on the summed total of the IDR metered Load²⁶ for all ESI IDs within the aggregation relative to the established baseline for the aggregated EILS Resource.
- (5) The performance of an EILS Resource within a Private Use Network will be evaluated based on two factors:
 - a. The Load reduction achieved by the EILS Resource itself, based on the 15-minute IDR meter data collected at the Load site ESI ID.
 - b. The net injection of energy into the ERCOT System at the Private Use Network's tie point. This net energy injection should equal or exceed the EILS Resource's contracted EILS MW capacity.
- (6) The EILS deployment period will end at the time ERCOT issues a release instruction to QSEs representing EILS Resources, via a VDI over the All-QSE Hot Line. The ERCOT System Operator will confirm issuance of the release instruction to all parties on the Hot Line call. Upon receipt of this release instruction, EILS Resources will have 10 hours to return to a Load level that will allow them to meet their contracted obligation.
- (7) An EILS Resource will be subject to a maximum of two (2) deployments per EILS Contract Period and a maximum of eight (8) hours of deployment per EILS Contract Period.
 - a. The eight-hour limit does not apply if an EILS deployment is still in effect when the eighth hour lapses. In these cases, the EILS Resource must remain reduced until ERCOT issues the release VDI via the All-QSE Hot Line or otherwise releases the EILS Resources.²⁷
- (8) If an EILS VDI remains in effect during a transition from one Time Period to another, deployed EILS Resources shall remain off-line until released by ERCOT via a new VDI. QSEs representing EILS Resources obligated in the new Time Period shall not deploy those EILS Resources unless instructed to do so by ERCOT via a new, separate VDI. ERCOT operators will make reasonable efforts to release EILS Resources no longer obligated due to the expiration of a Time Period, but will retain flexibility during these events to ensure ERCOT System reliability.
- (9) Following a deployment event, ERCOT will evaluate IDR-metered Load²⁸ for all EILS Resources to determine whether they complied with their curtailment obligations under this program. To determine compliance, ERCOT will calculate an event performance factor using the formulas defined in Sec.

²⁶ For approved non-IDR Aggregations, the estimated Load.

²⁷ See PUC Subst. R. §25.507(c)(4)(C).

²⁸ For approved non-IDR Aggregations, the estimated Load.

6.10.13.3 (4) of the Protocols. The capacity payment due to the EILS Resource will be adjusted, using the event performance factor calculation, according to the formula described in Section 6.8.6 of the Protocols.

- (10) An EILS Resource receiving an event performance factor of less than 0.95 will be deemed to have failed to meet its deployment obligation for that EILS deployment event. The event performance factor is intended to reflect the severity of the EILS Resource's failure to meet its deployment obligation. However, in recognition of the possibility that the true severity of the failure may not be captured in the mathematical calculation of the event performance factor, ERCOT may, in its sole discretion, adjust the EILS Resource's event performance factor to reflect the severity of the failure.²⁹
- (11) An EILS Resource meeting its performance obligations in an EILS deployment event shall not be subject to a full Load-shedding test, as described in the *Testing and Compliance* section of this document, for at least the following 365 days.

K. Penalties for Non-Compliance

- (1) ERCOT will impose penalties for the failure of EILS Resources to meet their EILS obligations. Such penalties may be based on either a failure by the EILS Resource to meet its performance obligations during an EILS deployment event or on a failure by the EILS Resource to meet its obligations for availability during its committed Time Periods. ERCOT may impose penalties on an EILS Resource or on a QSE representing an EILS Resource.
- (2) Following a determination that an EILS Resource failed to meet its performance or availability obligations, ERCOT will take the following actions:³⁰
 - a. ERCOT shall withhold all or part of the capacity payment otherwise due to the EILS Resource for the EILS Contract Period. This penalty provision is irrespective of and may be applied in addition to any capacity payment reduction(s) related to the EILS Resource's availability factor and/or event performance factor, as described in Sec. 6.8.6 of the Protocols.
 - b. ERCOT shall suspend the qualification of an EILS Resource and/or its QSE from participation in the EILS for six (6) months, as follows:
 - i. If ERCOT determines that an EILS Resource failed to meet its EILS performance or availability obligations, and is solely responsible for such failure, ERCOT shall suspend the EILS Resource's qualification to participate in EILS for six (6) months.

²⁹ See Protocols Sec. 6.10.13.3(4)(e).

³⁰ See PUC Subst. R. §25.507(e).

- ii. If ERCOT determines that a QSE representing an EILS Resource was solely responsible for the EILS Resource's failure to meet its EILS performance or availability obligations, ERCOT shall suspend the QSE's ability to represent EILS Resources for six (6) months.
 - iii. If ERCOT determines that an EILS Resource and its QSE were jointly responsible for the EILS Resource's failure to meet its EILS performance or availability obligations, ERCOT may suspend both entities from participation in EILS for six (6) months.
 - c. If the EILS Resource or QSE is actively providing EILS at the time ERCOT determines that it failed to meet its obligations, the six-month suspension period shall commence at the end of the current EILS Contract Period. If the EILS Resource or QSE is not providing EILS at the time ERCOT determines that it failed to meet its obligations, the six-month suspension period shall begin immediately upon ERCOT's notification to the QSE and/or the EILS Resource of the finding.
- (3) The above penalties apply to individual EILS Resources and aggregated EILS Resources. If an aggregated EILS Resource is penalized, the penalty will apply to all Loads within the aggregation.
- (4) ERCOT may consider mitigating factors such as equipment failures and Force Majeure Events in determining whether to assess the penalties described in this section. QSEs and their EILS Resources are responsible for reporting any such events to ERCOT, using the EILS@ercot.com email address.
- (5) In addition to the above-referenced penalties, a failure by a QSE or EILS Resource to meet performance obligations in an EILS deployment event constitutes a violation of the ERCOT Protocols and may therefore be subject to administrative penalties by the PUCT.
- (6) A suspended EILS Resource may regain its eligibility to provide EILS after six months but only after submitting a corrective action plan to ERCOT, successfully completing an ERCOT-conducted Load-shedding test as described in the *Testing & Compliance* section of this document, and receiving notification of reinstatement from ERCOT.

L. Testing and Compliance

- (1) ERCOT may conduct an unannounced and unscheduled Load-shedding test of an EILS Resource during any of its committed hours in an EILS Contract Period.
- (2) Any such test will not be counted as one of the EILS Resource's two maximum deployments in a Contract Period.

- (3) A Load-shedding test shall be deemed successful if the EILS Resource meets its event performance criteria as defined in the Protocols and in the *Deployment and Performance Validation* sections of this document.
- (4) The ERCOT operator will issue a VDI to the QSE to deploy the EILS Resource. The QSE and the EILS Resource will have 10 minutes to comply with the Load shedding test instruction by actually shedding the EILS Resource's committed MW capacity relative to its assigned baseline.
- (5) ERCOT will make reasonable efforts to limit the duration of an EILS Load shedding test to a single 15-minute interval, exclusive of the 10-minute deployment period.
- (6) EILS Resources will have 10 hours following the completion of a Load shedding test to return to availability. Those 10 hours will be excluded from the calculation of the EILS Resource's availability factor.
- (7) An EILS Resource successfully completing an ERCOT-conducted Load-shedding test shall not be subject to an additional full Load-shedding test for at least three-hundred and sixty-five (365) days.
- (8) ERCOT will validate the results of the test using 15-minute IDR metered Load.³¹ Access to the EILS Resource's meter data by ERCOT or submission of the meter data to ERCOT are subject to the same requirements detailed in the *Metering & Meter Data* section of this document.
- (9) A Load-shedding test will not be counted as one of the EILS Resource's two maximum deployments in an EILS Contract Period.
- (10) An EILS Resource failing to curtail its contractually committed Load in a Load-shedding test will be subject to a second similar test, unannounced and unscheduled. If the EILS Resource fails to deliver its contractually committed Load in the subsequent test, ERCOT may subject the EILS Resource to the penalties as described in the *Penalties for Non-Compliance* section of this document.
- (11) An EILS Resource successfully meeting its performance obligations in an EILS deployment event shall not be subject to a Load-shedding test for at least three-hundred and sixty-five (365) days.
- (12) As a condition for reinstatement for a suspended EILS Resource, ERCOT will conduct an unscheduled Load-shedding test. ERCOT will conduct such a test only after the QSE representing the EILS Resource has communicated to ERCOT a request for reinstatement.
 - a. QSEs shall request reinstatement for a suspended EILS Resource by notifying ERCOT via an email to the EILS@ercot.com email inbox. Such notification should include any adjustments that the QSE intends to make

³¹ For approved non-IDR Aggregations, the estimated Load.

in the MW bid capacity it intends to offer on behalf of the suspended EILS Resource in the next eligible Contract Period, a non-binding declared Minimum Base Load, and the Time Period(s) for which it intends to submit an offer.

M. Baselines

- (1) Each EILS Resource, including each ESI ID within an aggregated IDR-metered EILS Resource, will be assigned to its own unique baseline. The baseline will be used to verify the EILS Resource's performance as compared to its contracted capacity during an EILS deployment event and is a key determinant in ERCOT's analysis of the EILS Resource's availability.
- (2) ERCOT will assign EILS Resources to one of two baseline methodologies: default or alternate. As described in the *Procurement* section of this document, ERCOT will evaluate IDR-metered Load from prospective EILS Resources to determine their baseline assignments.
- (3) All ESI IDs within an aggregated IDR-metered EILS Resource must be assigned to the same baseline methodology (default baseline or alternate baseline), as determined by ERCOT. An aggregated IDR-metered EILS Resource may not consist of Loads assigned to a combination of the two baselines.
- (4) Model spreadsheets representing ERCOT's baseline calculations for specific EILS Resources will be available upon request to the QSEs representing the EILS Resources. This applies to calculations for assigning EILS Resources to the default or alternate baseline methodology and to baseline analysis following an EILS deployment event.
- (5) *Default Baseline*
 - a. The primary goal of the default baseline is to accurately estimate an EILS Resource's level of electric energy consumption under "business as usual" conditions at any given moment in time. This estimate can then be compared to the EILS Resource's metered Load in an EILS deployment event to determine its performance throughout the deployment period.
 - b. The default baseline applies the methodology and software used for the development and support of ERCOT's Load profiles to develop EILS Resource-specific models. In addition to using the EILS Resource's 15-minute IDR metered Load³² (including historic data plus data for the time periods preceding and following the deployment event), the model inputs for the default baseline fall into three general categories: weather-related variables (*e.g.*, temperature, dew point, wind speed, cloud cover); calendar-related variables (*e.g.*, day of week, holiday, season); and

³² For approved non-IDR Aggregations, the estimated Load.

daylight/darkness variables (sunrise and sunset time). ERCOT, at its sole discretion, may use other data variables in the baseline formula if ERCOT determines the additional data will enhance the accuracy of the baseline. This combination of inputs will yield interval-by-interval Load estimates for each ESI ID comprising an EILS Resource and provide the most accurate possible benchmark for evaluating the performance of an EILS Resource in a deployment event. As a general rule, 12 months of historic IDR meter data are necessary for ERCOT to build an accurate model for an EILS Resource under the default baseline methodology.

- c. The methodology for developing a default baseline model is documented and published at the EILS web page. Prospective EILS Resources may use this methodology for estimating their own specific baseline for a particular day or event. EILS Resource-specific baseline models will remain confidential. Upon request, ERCOT shall provide the historical data used to develop a specific baseline for an EILS Resource to the EILS Resource or its QSE.
- d. For aggregated IDR-metered EILS Resources assigned to the default baseline, ERCOT will establish a baseline for each ESI ID in the aggregation. ERCOT will then develop an aggregated EILS Resource baseline by summing the baselines of the individual ESI IDs in the aggregation. ERCOT shall verify the performance of an aggregated IDR-metered EIL Resource at the EILS Resource level.

(6) *Alternate Baseline*

- a. If, in ERCOT's sole discretion, a sufficiently accurate baseline cannot be established due to the characteristics of the Load or Loads within an EILS Resource, ERCOT will assign the EILS Resource to the alternate baseline formula.
 - i. ERCOT may also assign an EILS Resource to the alternate baseline if it determines the EILS Resource's availability and performance can be more accurately evaluated or more simply administered if assigned to the alternate baseline, if such assignment would not affect the EILS Resource's MW bid capacity, and if such assignment is agreed to by the QSE and EILS Resource.
 - ii. EILS Resources assigned to the default baseline may choose to be assigned to the alternate baseline, but not vice versa.
- b. The availability factor for an EILS Resource assigned to the alternate baseline is calculated based on its average Load during the committed Time Period minus its declared Minimum Base Load. MW capacity offers for such EILS Resources should be based on this calculation.

- c. When deployed by ERCOT, an EILS Resource assigned to the alternate baseline shall reduce Load to a level at or below the MW level represented by its declared Minimum Base Load divided by 0.95. The EILS Resource must deploy to this level regardless of how much actual Load the EILS Resource has on-line at the time of deployment. EILS Resources that declare a Minimum Base Load of zero should be aware that they must interrupt *all* Load behind the IDR meter for the entire event.

N. Prohibition on Other Market Activity

- (1) The contracted capacity of an EILS Resource for any hours the EILS Resource is committed may not be used to provide any other Ancillary Service including Balancing Energy Service. Additionally, a Load may not participate in EILS if it is receiving one or more separate reservation payments obligating the same capacity to respond during an ERCOT EECF event during the same Time Period within an EILS Contract Period. This provision applies to Load behind the EILS Resource's dedicated IDR meter, but does not prohibit the entity owning or controlling the EILS Resource from providing another service if the Load providing the other service is separately metered and not under EILS contract.

O. Settlement

Payments

- (1) ERCOT will issue payment for EILS to QSEs representing EILS Resources on the Initial Statement for a selected Operating Day that occurs no later than seventy (70) days after the last Operating Day of the EILS Contract Period. The payment will be applied in the "Miscellaneous Debit/Credit" section of the Settlement Statement.
- (2) The total payment for each EILS Resource will be the sum of the calculations for all committed Time Periods. Calculation for a single Time Period is as follows:
$$\text{Awarded bid amount} \times \text{Contracted MW} \times \text{Hours} \times \text{Availability factor} \times \text{Event performance factor (if applicable)}$$
 - a. Formulas detailing the payment methodology for EILS appear in Sec. 6.8.6 of the ERCOT Protocols.
 - b. Notwithstanding the above, payments for EILS may also be subject to adjustments as described in the *Penalties for Non-Compliance* section of this document.
- (3) ERCOT will provide Settlement payment calculation details to each QSE representing EILS Resources.

- (4) If a QSE representing an EILS Resource defaults or is suspended from providing EILS prior to settlement for an EILS Contract Period, ERCOT may make the appropriate EILS payment through the alternative mechanisms set forth in the ERCOT Protocols.

Cost Allocation (Uplift)

- (5) EILS costs will be allocated based on the Load Ratio Share of each QSE during each EILS Time Period in an EILS Contract Period. A QSE's Load Ratio Share for a Time Period will be the QSE's total Load for the Time Period divided by the total ERCOT Load in the Time Period.³³
- (6) ERCOT will make reasonable efforts to notify QSEs of the approximate Settlement date for each EILS Contract Period via a Market Notice at least one week in advance of the Settlement date. The date may be provided as a range of possible Settlement dates.

Disputes and Resettlements

- (7) For dispute purposes, ERCOT and QSEs shall use the Operating Day of the Settlement Statement on which the EILS payment appears. The timeliness of a dispute concerning EILS shall be determined by the Operating Day of the Settlement Statement on which the EILS payment appears.
- (8) ERCOT shall issue a Resettlement Statement for the EILS Contract Period for any approved EILS dispute no later than 120 calendar days after the initial EILS Settlement date. Disputes for an EILS Contract Period will be due 60 calendar days after the initial EILS Settlement date.³⁴

P. EILS Self-Provision

- (1) All provisions in this section apply to each Time Period within an EILS Contract Period.
- (2) Self-provision of EILS is open to all QSEs representing Load that are qualified to represent EILS Resources.
- (3) QSEs opting for EILS Self-Provision must submit the EILS Notification of Self-Provision Form³⁵ so ERCOT receives it by the prescribed deadline. The Form may be submitted by email (*preferred*), using the EILS@ercot.com email address. In addition, ERCOT will accept the Forms via courier, U.S. Postal Service, hand-delivery or facsimile (fax number 512-225-7079).
- (4) A QSE self-providing EILS shall follow the same procedures outlined in the *Procurement* section of this document and shall adhere to the published schedule.

³³ See Protocols Sec. 6.9.4.4.

³⁴ See Protocols Sec. 9.5.5.

³⁵ The form may be accessed at <http://www.ercot.com/services/programs/load/eils/index.html>.

- (5) ERCOT will evaluate meter data for self-provided EILS Resources by following the same procedures described in the *Baseline Assignment and Capacity Pre-Screening* section of this document
 - a. If ERCOT exercises its authority to reduce the amount of a capacity offer from a self-provided EILS Resource, there is no penalty to the QSE.
- (6) In addition to the aforementioned, a QSE electing to self-provide part or all of its EILS obligation shall provide ERCOT the following, adhering to the prescribed deadline:
 - a. The maximum MW of Capacity it is willing to offer through EILS Self-Provision, per Time Period;
 - b. A Proxy Load Ratio Share specific to the Time Period.
 - i. “Proxy Load Ratio Share” is defined as a number between zero (0) and one (1) and determined by the self-providing QSE to represent its estimate of its final Load Ratio Share (LRS) to be used in EILS Settlement.
- (7) QSEs should prepare and submit EILS Self Provision offers in generally the same manner as competitive EILS bids, with the following exceptions:
 - a. Self-provided EILS offers will not be priced. The word “Self” should be substituted for a monetary price in the appropriate cells on the EILS Registration and Proposal Form.
 - b. QSEs may submit both Self Provision offers and competitive bids. In such cases, both the Self Provision offers and the competitive bids should be submitted simultaneously on separate sheets within the EILS Registration and Proposal Form.
 - i. An aggregated EILS Resource may not consist of a combination of self-provided offers and competitive bids; all Load within an aggregated EILS Resource must be either competitively bid or self-provided.
- (8) QSEs may self-provide EILS as one or more individual EILS Resources, as one or more aggregated EILS Resources, or as a combination of individual EILS Resources and aggregated EILS Resources. Individual Loads within an aggregated IDR-metered EILS Resource, whether competitively bid or part of a Self-Provision offer, must all be capable of being assigned to the same baseline methodology (default baseline or alternate baseline), as determined by ERCOT.
- (9) ERCOT will evaluate and treat self-provided EILS offers the same as competitive EILS bids with respect to *Procurement, Metering and Meter Data, Availability, Scheduled Periods of Unavailability, Deployments, Testing & Compliance, Baselines, and Prohibition on Other Market Activity*, as described in this document.

- (10) After receiving and reviewing competitive bids and Self Provision offers, ERCOT will determine EILS awards to QSEs making competitive bids.
- (11) If the total amount of EILS capacity procured through bids and EILS Self-Provision equals 1000 MW, a QSE's original Self-Provision capacity offer will not change.
- (12) If the total amount of EILS capacity procured through bids and offered through EILS Self-Provision totals less than 1000 MW, ERCOT will calculate options for each self-providing QSE's adjusted commitment level (in MW), based on the QSE's Proxy Load Ratio Share. The QSE's adjusted Self Provision commitment will be no lower than the lowest of three numbers, which shall be calculated by ERCOT as follows:
 - a. *OPTION 1*

The capacity of MW procured by ERCOT through bids divided by one (1) minus the sum of EILS Self-Provision Proxy Load Ratio Shares multiplied by the QSE's Proxy Load Ratio Share.³⁶
 - b. *OPTION 2*

The sum of the capacity procured by ERCOT through competitive bids and the capacity self-provided multiplied by the QSE's Proxy Load Ratio Share.
 - c. *OPTION 3*

The QSE's offer of self-provided MW capacity.
- (13) ERCOT will notify each self-providing QSE's authorized representative, via email, of the QSE's options for adjusting its Self Provision commitment.
- (14) Within two Business Days of receiving the above communication from ERCOT, QSEs choosing to reduce their Self Provision commitment must communicate to ERCOT, using the EILS@ercot.com email inbox, their final EILS Self Provision commitment within the parameters described in Options 1, 2 and 3 above, and specific information about which, if any, EILS Resources' commitment will be reduced.
- (15) The QSE may reduce its self-provided EILS MW to meet its final EILS Self-Provision commitment by removing one or more EILS Resources from its Self Provision offer or by reducing the MW commitment of one or more EILS Resources.

³⁶ Option 1 and Option 2 calculations are detailed in formulas contained in Section 6.5.12 (3)(d) of the ERCOT Protocols. This section is subject to amendment by PRR 781, EILS Self-Provision Formula Correction and Clarification, which is on schedule to be considered by the ERCOT Board of Directors at its January 2009 meeting. If approved, PRR 781 would be effective for the February through May 2009 Contract Period.

- (16) Self-provided EILS Resources not metered by a dedicated ESI ID in an area open to competitive choice are subject to the same metering standards and requirements as described in the *Metering & Meter Data* section of this document.
- (17) During an EILS deployment event, NOIEs that are dynamically scheduled and also self-providing EILS must maintain or increase the amount of Generation they have on-line. The ERCOT EILS Dispatch Instruction to a dynamically scheduled NOIE also self-providing EILS Resources shall be considered an instructed deviation so the NOIE is not penalized for maintaining or increasing the energy provided by its Generation Resources during the EILS deployment period.
- (18) A self-providing QSE will not be obligated to pay EILS charges so long as it meets both of the following tests:
 - a. The QSE's self-provided EILS capacity remains equal to or greater than its final Load Ratio Share of the total EILS capacity procured through bids and EILS Self-Provision;³⁷ and
 - b. All of the QSE's self-provided EILS Resources meet their availability and performance obligations as described in the Protocols³⁸ and in the *Testing and Compliance* section of this document.
- (19) A self-providing QSE's Load Ratio Share for a Time Period will be the QSE's total Load for the Time Period, divided by the total ERCOT Load in the Time Period. ERCOT will then compare the QSE's Load Ratio Share for the Time Period to the amount of EILS Self-Provision by the QSE, as may be adjusted for availability and/or performance as described below, for the Time Period.
 - a. If the EILS Self-Provision amount is equal to the QSE's Load Ratio Share for a Time Period, the QSE's obligation is zero (0).
 - b. If the EILS Self Provision amount is greater than the QSE's Load Ratio Share for a Time Period, the QSE's obligation is zero (0).
 - c. If the EILS Self-Provision amount is less than the QSE's Load Ratio Share for a Time Period, the QSE's obligation is the difference between the EILS Self-Provision amount and the QSE's Load Ratio Share.
- (20) ERCOT will calculate each self-providing QSE's Settlement obligation as follows:
 - a. If a self-provided EILS Resource fails to meet its availability requirement for a Time Period, ERCOT will adjust the EILS Resource's QSE's

³⁷ See paragraph (1) of Section 6.9.4.4, Settlement Obligation for Emergency Interruptible Load Service, in PRR 716.

³⁸ Protocols Section 6.10.13.3, Performance Criteria for EILS Resources.

Settlement obligation to reflect the actual availability factor.³⁹ A self-provided EILS Resource achieving an availability factor of 0.95 or greater shall be considered to have met its availability requirement.

- b. If a self-provided EILS Resource fails to meet its performance requirement for an EILS deployment event, ERCOT will adjust the EILS Resource's Settlement obligation to reflect the actual performance factor.⁴⁰ A self-provided EILS Resource achieving an event performance factor of 0.95 or greater shall be considered to have met its performance requirement for that event.
- (21) ERCOT may apply all penalties described in the *Penalties for Non-Compliance* section of this document to self-providing QSEs and/or their EILS Resources if ERCOT determines that either the QSE and/or its self-provided EILS Resources failed to meet performance or availability obligations.
 - (22) ERCOT will reduce the EILS Cost Cap,⁴¹ as it applies to future procurement of EILS, by the value of the amount of EILS Self-Provision. ERCOT will calculate the value of EILS Self-Provision by multiplying the weighted average cost per MW of the EILS bids competitively procured by the total MW of EILS Self-Provision.

Q. Substitution of EILS Resources during Unplanned Outages

- (1) If an EILS Resource experiences an unplanned and unanticipated period of unavailability (Load is taken off-line), its QSE may provide the service temporarily with a substitute EILS Resource under the conditions detailed in this section.
- (2) The QSE must notify ERCOT (via email to EILS@ercot.com) within 24 hours of the beginning of the period of unavailability. The email notification must include the following information:
 - a. Identification of the EILS Resource that is unavailable.
 - b. Exact time of the beginning of the period of unavailability and substitution.
 - c. A completed EILS Registration & Proposal Form for the appropriate Contract Period for the substituting EILS Resource. The form should be filled out in its entirety except for price.
 - d. Estimated date and time of the unavailable EILS Resource's return to service.

³⁹ This adjustment will be accomplished by modifying the term "SP" in the Settlement equation in Protocols Section 6.9.4.4 (3), Settlement Obligation for Emergency Interruptible Load Service.

⁴⁰ Ibid.

⁴¹ See Subst. Rule §25.507(b)(3).

- (3) Within three Business Days of the beginning of the period of unavailability, the QSE must provide to ERCOT:
 - a. Submission of any historical meter data, if appropriate, as described in the Technical Requirements and Scope of Work document.
 - b. An executed Appendix A of the EILS Supplement to Standard Form QSE Agreement, binding the substituting EILS Resource to the EILS commitment.
- (4) For purposes of performance and availability, the substituting EILS Resource's interruptible MW capacity will be evaluated based on the committed MW of the unavailable EILS Resource. Thus, a substituting EILS Resource should have interruptible MW capacity equal to or greater than the committed MW of the unavailable EILS Resource.
- (5) The substituting EILS Resource is subject to all EILS Protocol requirements for all committed hours until the unavailable EILS Resource returns to service.
- (6) The QSE must notify ERCOT within 24 hours of the unavailable EILS Resource's return to service, and must note the exact time of its return to availability.
- (7) QSEs may not substitute Loads within an aggregated EILS Resource. However, an individual EILS Resource may substitute for an aggregated EILS Resource, and vice versa, so long as the above conditions are met.
- (8) Bid prices will not be affected by a substitution. Payments are subject to reduction based on availability and performance, but will not be increased.
- (9) This provision is intended to accommodate unanticipated periods of unavailability, such as may be caused by equipment failures or unplanned outages. It is not intended to allow ongoing or continuous substitutions.
- (10) ERCOT at its own discretion may disallow a substitution for any reason.