**Demand Response Data Definitions and Technical Specifications**

 **2020**

**Version 1.0**

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**Revision History**

| **Date Approved** | **Version** | **Description** | **Author(s)** | **Approved By** | **Effective Date** |
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|  | 1.0 | Adapted from “NOIE-REP Demand Response Data Collection Technical Specifications for 2019” | ERCOT Staff (Market Design & Analytics) |  |  |

**PROTOCOL DISCLAIMER**

This document describes the definitions and procedures to be followed by ERCOT and Market Participants in conducting the annual Demand response data collection process administered by ERCOT. This document is not intended to be a substitute for the ERCOT Nodal Protocols (available at <http://www.ercot.com/mktrules/nprotocols/current>), as amended from time to time. If any conflict exists between this document and the ERCOT Nodal Protocols, the ERCOT Nodal Protocols shall control in all respects.

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1. **INTRODUCTION**

Subsection (2) of ERCOT Nodal Protocol Section 3.10.7.2.1, Reporting of Demand Response, requires ERCOT to work with Market Participants to produce an annual report summarizing aggregate customer counts and MWs enrolled in Demand response in the ERCOT Region. This document provides specific definitions and technical requirements necessary to conduct the annual ERCOT Demand response data collection process. ERCOT will also annually review reporting processes and look for other methods of obtaining Demand response data, including surveys with similar confidence levels performed by ERCOT staff or educational institutions.
2. **CHANGE CONTROL PROCESS**

ERCOT is responsible for maintaining and updating the “Demand Response Data Definitions and Technical Specifications” document. Changes to this document shall be reviewed by the Retail Market Subcommittee (RMS) and Wholesale Market Subcommittee (WMS) prior to approval by the Technical Advisory Committee (TAC).

In the following cases, after review and recommendation by TAC, revisions to this document must be approved by the ERCOT Board:

* 1. The revisions require an ERCOT project for implementation; and
	2. The revisions are related to a Nodal Protocol Revision Request (NPRR), a Planning Guide Revision Request (PGRR), or a revision request requiring an ERCOT project for implementation.

Upon approval of revisions, ERCOT shall post the revised procedure to the ERCOT website within three Business Days.

1. **REP SPECIFIC INSTRUCTIONS**
	1. **ESIID Submission to ERCOT**

Retail Electric Providers (REPs) that are classified by ERCOT as having a reporting requirement and that have Electric Service Identifiers (ESI IDs) participating in Demand/price response programs are required to identify each of the ESI IDs for which they are the REP of Record on the ERCOT-defined snapshot date of September 1 of the survey year and determine which of those ESI IDs were participating in one or more programs that are consistent with the categories described in the ‘Appendix A Category Definitions’ which follows.

The REP shall compile a Comma Separated Value (.CSV) file that follows one of the formats described in the ‘Data Exchange Instructions’ section which follows. The REP shall submit the files to ERCOT via North American Energy Standards Board (NAESB) Electronic Delivery Mechanism (EDM) or using the Proofpoint Secure Share application as described in the ‘Data Exchange Instructions’ section below.

* 1. **ERCOT Validation and Response Files**

ERCOT will validate the .csv files and send response files back to the REP in two Business Days or less, with the results of the validation as described in the ‘Data Exchange Instructions’ section which follows. For REPs that submit files via NAESB, the response files will be sent via NAESB. For REPs that submit files using the Proofpoint Secure Share application, the response files will be sent back to the REP with that application.

REPs shall investigate any errors reported by ERCOT, make necessary corrections and resubmit the complete file with corrections to ERCOT. The required level of accuracy is for 95% of the reporting REP’s ESI IDs submitted to have no errors. REPs shall continue to correct and resubmit files until notified by ERCOT that the REP has achieved the required accuracy level. REPs shall complete this process on or before October 31 of the survey year. ERCOT will notify the Authorized Representative for each REP when they have achieved the required level of accuracy.

* 1. **ERCOT Provided ESI ID Extract File**

To facilitate the error correction process described above, REPs may request, by email addressed to DRSurvey@ercot.com, ERCOT to provide a ‘DRData\_ESIID\_List’ file extracted from ERCOT systems listing all ESI IDs owned by the REP on September 1 of the survey year. Details of this file are provided in the ‘Data Exchange Instructions’ section below. The ERCOT-provided file will also list the REP of Record date for that period of ownership, the Profile Group (“RES” or “BUS”) and the Meter Data Type. The file will be specific to each Data Universal Numbering System (DUNS) and will be provided to REPS using the Proofpoint Secure Share application on or before September 11 of the survey year as described in the ‘Data Exchange Instructions’ section below. Due to file size limitations applicable to the Proofpoint Secure Share application ERCOT will partition files accordingly. ERCOT will also honor size restrictions for REPs requesting these files; REPs with file size restrictions must inform ERCOT in the requesting email as to the maximum file size.

* 1. **REP Event File Submission**

In conjunction with the ‘Participation Requirements’ section above, REPs identified as having a reporting requirement and that have programs that entail specific deployment events shall complete and submit event surveys for those programs. The program categories for which deployment event details are applicable are as follows: 4CP; CPP – Critical Peak Pricing; PR – Peak Rebate; OLC – Other Direct Load Control; and OTH – Other Voluntary Demand Response Product.

Details of the DRDataREPEvents file are provided in the ‘Data Exchange Instructions’ section below. Event surveys shall be submitted to ERCOT between October 1 and October 31 of the survey year and should report on all events from October 1 of the prior year through September 30 of the survey year. If a REP has participation in one of the above listed categories and has not deployed that program, the event survey still must be submitted stating this.

* 1. **REP Reporting Considerations**
		1. If an ESI ID is participating in more than one program or is participating in a program with a definition that spans multiple categories, the REP must list the ESI ID once for each category.
		2. If an ESI ID is participating in a program and fails to reduce Load or opts-out of any or all deployments, the ESI ID still should be included in the file submitted to ERCOT. If a program has not been deployed for the reporting period, or is deployed for only some of the participants, all ESI IDs that could have been deployed should be included in the file.
		3. If an ESI ID is enrolled as a Load Resource or is participating in Emergency Response Service (ERS) and is only deployed by ERCOT instruction, the ESI ID should not be reported as participating in one of the REP’s programs.
		4. If an ESI ID is enrolled in a Transmission and/or Distribution Service Provider (TDSP) sponsored Standard Offer Load Management program and is only deployed by the TDSP, the ESI ID should not be reported as participating in one of the REP’s programs.
		5. ESI IDs that participate in an ERCOT or TDSP program and also participate in a REP Demand/price response program should be reported as participating in the applicable REP program. For such ESI IDs, deployment event reporting should be limited to deployments initiated by the REP and unrelated to ERCOT/TDSP deployments.
		6. The ‘Direct Load Control Indicator’ field documented in the ‘REP Files Sent to ERCOT’ section should be submitted with a value of either ‘Y’ or ‘N’ for an ESI ID in conjunction with one of the program categories. A value of ‘Y’ should be used to indicate that the REP, or a 3rd party on behalf of the REP, has the ability to exercise direct control of electrical equipment behind the Customer’s meter to effectuate the Demand/price response.

			1. For example, if the Customer is participating in the REP’s Peak Rebate program, and is paid the rebate based on the amount of Load reduction associated with direct control by or on behalf of the REP, the ‘Direct Load Control Indicator’ should be set to ‘Y’.
			2. If the REP, or third party, can directly initiate a deployment, and the Customer has the ability to opt-out of a deployment, the ‘Direct Load Control Indicator’ should be set to ‘Y’.
			3. If, on the other hand, the Demand/price response is under the Customer’s control, the ‘Direct Load Control Indicator’ should be set to ‘N’.
1. **NOIE SPECIFIC INSTRUCTIONS**
	1. **Demand Response Survey Submission to ERCOT**

Non-Opt-In Entities (NOIEs) that are classified by ERCOT as having a reporting requirement and that have Customers participating in Demand/price response programs are required to complete and submit the NOIE Demand Response Survey to ERCOT between October 1 and October 31 of the survey year and, if applicable, should report on all events from October 1 of the prior year through September 30 of the survey year. Details of the DRDataCollectionNOIE file are provided in the ‘Data Exchange Instructions’ section below.

The survey should be completed by indicating the number of residential and non-residential Customers participating in each of the programs as of September 1 of the survey year. The NOIE should also complete the deployment event section of the survey by providing details on specific deployment events. The program categories for which deployment event details are applicable are as follows: 4CP – Advise-Control; CPP – Critical Peak Pricing; CVR – Conservation Voltage Reduction; OLC – Other Direct Load Control; OTH – Other Voluntary Demand Response Product; and PR – Peak Rebate.

* 1. **NOIE Reporting Considerations**
		1. If a Customer is participating in more than one program or is participating in a program with a definition that spans multiple categories, the NOIE should include that Customer in the counts for all such programs.
		2. If a Customer is participating in a program and fails to reduce Load or opts-out of any or all deployments, the Customer still should be included in the counts for that program.
		3. If a program has not been deployed for the reporting period, or is deployed for only some of the participants, all Customers that could have been deployed should be included in the counts for that program.
		4. If a Customer is enrolled as a Load Resource or is participating in Emergency Response Service (ERS) and is only deployed by ERCOT instruction, the Customer should not be counted as participating in one of the NOIE’s programs.
		5. Customers that participate in one of these ERCOT programs and also participate in a NOIE Demand/price response program should be counted as participating in the applicable NOIE program. For such participation, deployment event reporting should be limited to deployments initiated by the NOIE.
1. **DATA EXCHANGE INSTRUCTIONS**
	1. **File Exchange Methods**
		1. NAESB: This method has been used previously by Retail Electric Providers (REPs) and continues to be available to them. This method provides for secure file exchange both inbound to and outbound from ERCOT. For REPS that opt to use this method, the North American Energy Standards Board (NAESB) file exchange will be used in both directions. The file naming conventions and file formats are described below.
		2. Proofpoint Secure Share: This method should be used by Non-Opt-In Entities (NOIEs) to submit their Demand response surveys securely to ERCOT. The method should be used by REPs to submit their REP event survey files and may also be used by REPs to securely send and receive ESIID participation files to and from ERCOT as an alternative to using NAESB. To establish this sharing capability ERCOT will send a sample file to the email addresses of the contact names provided by each NOIE and requesting REP. The recipient will receive an automated email with a link to register to use the application and to have access to download the file. Recipients will then be able to securely send files to and receive files from ERCOT.
	2. **File Name and Format Conventions**
		1. **NOIE Demand Response Survey**: This file is used by NOIEs to report counts of Customers in the various categories of Demand response as well as the details of any deployment events associated with those programs. NOIEs should use the file template provided below in Appendix B.

			1. **File Naming Convention**: DRDataCollectionNOIE files are required to follow the naming convention shown below:

| DUNs | Report Name | Date

0000000000000DRDataCollectionNOIE20201023.xlsx

|  |  |  |
| --- | --- | --- |
| **Data Element** | **Comments** | **Format** |
| DUNS | NOIE Data Universal Numbering Systems (DUNS) Number | Numeric (9 or 13) |
| Report Name | ‘DRDataCollectionNOIE’ | Alphanumeric (20) |
| Date | File transmission date | Date format =ccyymmdd |
| .xlsx | Value of .xlsx mandatory in file name |  |

* + - 1. **Excel Tab Naming Convention**: The submitted Excel workbook must contain tabs for each of the following categories: 4CP Incentive; 4CP Advise-Control; CPP; CVR; IRT; IDA; IOT; OLC; OTH; PR; and TOU. Note: ERCOT will follow up if participation in ‘OTH’ is reported to obtain specifics for the program.

If the NOIE does not have any Customers participating in a program in the category, code zero in the ‘Total Participation’ cells. If the NOIE does have Customers participating in a program in the category, but has not deployed any of those programs, the event information should be left blank. If the NOIE has more than one program in the same category, the tab should be copied as many times as necessary to include all those programs.

* + - 1. **Example DRDataCollectionNOIE.XLSX File**



* + 1. **REP Files Sent to ERCOT**
			1. **REP Event Survey**: This file is used by REPs to report the details of any deployment events associated with the REP’s Demand response programs. REPs should use the Microsoft Excel file format shown below, and send files to ERCOT via Proofpoint Secure Share. REPs should use the file template provided below in Appendix C.

				1. **File Naming Convention**: DRDataREPEvents files are required to follow the naming convention shown below:

| DUNs | Report Name | Date

0000000000000DRDataEventSurvey20201023.xlsx

|  |  |  |
| --- | --- | --- |
| **Data Element** | **Comments** | **Format** |
| DUNS | Competitive Retailer (CR) DUNS Number | Numeric (9 or 13) |
| Report Name | ‘DRDataREPEvents’ | Alphanumeric (15) |
| Date | File transmission date | Date format =ccyymmdd |
| .xlsx | Value of .xlsx mandatory in file name |  |

* + - * 1. **Excel Tab Naming Convention**: The submitted Excel workbook must contain tabs for each of the following categories: 4CP; CPP; OLC; OTH; and PR. Note: ERCOT will follow up if participation in ‘OTH’ is reported to obtain specifics for the program.

If the REP does not have any ESIIDs participating in a program in the category, the first cell of the first row should be coded ‘No Participation’. If the REP does have ESIIDs participating in a program in the category, but has not deployed any of those programs, the first cell of the first row should be coded ‘No Deployments’.

* + - * 1. **DRDataEventSurvey File Specifications**

|  |  |  |
| --- | --- | --- |
| **Column Heading** | **Comments** | **Format** |
| Deployment Date | The date the program was actually deployed. If advance notice was provided on a prior date, report actual date of deployment. | Date format =ccyymmdd |
| Deployment Begin Time | The time the curtailment was to begin. If advance notice was provided at a prior date/time, report time the curtailment was to begin. | Military Time format = hh:mm |
| Deployment EndTime | The time the curtailment was to end. | Military Time format = hh:mm |
| Residential ESIIDs | The total number of residential ESIIDs deployed even if cycling was used. | Numeric (8)  |
| Non-Residential ESIIDs | The total number of non-residential ESIIDs deployed even if cycling was used. | Numeric (8) |
| Cycling Strategy (if applicable) | If cycling was used, provide a brief description of the strategy. | Alphanumeric (100) |
| Comments | Any clarifying comments about the program | Alphanumeric (100) |

* + - * 1. **Example DRDataEventSurvey.XLSX File**



* + - 1. **DRDataCollection**: REPs should use files with this report name to send information to ERCOT regarding ESIID participation in the various categories of price and Demand response. The format of the file is determined by whether the REP sends the file via NAESB or via the Proofpoint Secure Share application.

				1. **File Naming Convention**: DRDataCollection files (both Proofpoint Secure Share and NAESB) are required to follow the naming convention shown below:

| DUNs | Report Name | Date/Time | Counter

0000000000000DRDataCollection20201023113001999.csv

|  |  |  |
| --- | --- | --- |
| **Data Element** | **Comments** | **Format** |
| DUNS | CR DUNS Number | Numeric (9 or 13) |
| Report Name | ‘DRDataCollection’ | Alphanumeric (16) |
| Date/Time | File transmission date/time stamp | Datetime format =ccyymmddhhmmss |
| counter | Counter (optional - may be used by REP for internal tracking) | Numeric (3) |
| .csv | Value of .csv mandatory in file name |  |

* + - * 1. **Proofpoint Secure Share**: REPs that chose to send files to ERCOT via the Proofpoint Secure Share application are required to follow the file format and content specifications shown in the table below. Note: data elements should be separated with pipes (‘|’) as the delimiter.

**Proofpoint DRDataCollection File Specifications**

|  |  |  |
| --- | --- | --- |
| **Data Element** | **Comments** | **Format** |
| ESIID Number | The ESIID is the basic identifier assigned to each Service Delivery Point (SDP). | Alpha numeric (36) |
| Category Code | Category of Demand response product in which the ESIID is participating.(The acceptable codes shown below) | Alpha numeric (3) |
| Direct Load Control Indicator | Y or N – If the Demand response can be initiated by LSE or 3rd party (other than the Customer) | Alpha numeric (3) |
| Start Date | The date the ESIID commenced participation in this category | Numeric (8) yyyymmdd |

* + - * 1. **Example Proofpoint Secure Share DRDataCollection file**

1001001001001|PR|Y|20120701|

1001001001023|PR|Y|20120715|

1001001001045|TOU|Y|20130201|

1001001001045|PR|Y|20130201|

* + - * 1. **NAESB**: REPs that chose to send files to ERCOT via NAESB are required to follow the file format and content specifications as shown in the tables below. Note: data elements should be separated with pipes (‘|’) as the delimiter. Three record types are applicable to DRDataCollection files sent via NAESB: header record; detail record; and summary record.

At a minimum the filename must contain \*.csv.\* after decryption otherwise the file will be rejected by ERCOT. Files will be sent with a NAESB input-format of “FF”. Any file extension other than .csv, such as .xml or .x12 will fail at ERCOT.

**Header Record** – One must be present and must be the first record in the file.

| **Data Element** | **Mandatory / Optional** | **Comments** | **Format** |
| --- | --- | --- | --- |
| RecordType | Mandatory | Hard Code “HDR” | Alpha numeric (3) |
| Report Name | Mandatory | Hard Code “DRDataCollection” | Alpha numeric (16) |
| Report ID | Mandatory | The unique report number designated by the sender to be used in the DRDataCollectionERCOTResponse and DRDataCollectionERCOTValidation files. | Alpha numeric |
| REP DUNS Number | Mandatory | REP of Record DUNS Number. Associated with the ESIIDs sent in the file.  | Numeric (9 or 13) |

**Detail Record** - The DET record contains the ESIID level Demand response information.

| **Data Element** | **Mandatory / Optional** | **Comments** | **Format** |
| --- | --- | --- | --- |
| Record Type | Mandatory | Hard Code “DET” | Alpha numeric (3) |
| Record Number | Mandatory | The unique sequential record number starting with “1” | Numeric (8) |
| REP DUNS Number | Mandatory | REP of Record DUNS Number associated with the ESIIDs sent in the file. | Numeric (9 or 13) |
| ESIID Number | Mandatory | The ESIID is the basic identifier assigned to each SDP. | Alpha numeric (36) |
| Category Code | Mandatory | Category of Demand response product in which the ESIID is participating.(The acceptable codes shown below) | Alpha numeric (3) |
| Direct Load Control Indicator | Mandatory | Y or N – If the Demand response can be initiated by LSE or 3rd party (other than the Customer) | Alpha numeric (1) |
| Start Date | Mandatory | The date the ESIID commenced service in this category | Numeric (8) yyyymmdd |

**Summary Record** – This record shows the number of DET records in the file.

| **Data Element** | **Mandatory / Optional** | **Comments** | **Format** |
| --- | --- | --- | --- |
| Record Type | Mandatory | Hard Code “SUM” | Alpha numeric (3) |
| Total Number of DET Records | Mandatory | Total number of DET records, should be equal to the Record Counter in the last DET record. Use zero if no records sent. | Numeric (8) |

**Category Code Descriptions
(Detailed category descriptions are provided in Appendix A)**

|  |  |
| --- | --- |
| **Category Code** | **Category Description** |
| 4CP | Four Coincident Peak |
| IRT | Indexed to Real-Time Prices |
| IDA | Indexed to Day-Ahead Prices |
| IOT | Indexed to Other Market Price |
| CPP | Critical Peak Pricing |
| PR | Peak Rebate |
| TOU | Time of Use – All Periods with Charge |
| FDH | Free Days and/or Time Periods |
| OLC | Other Direct Load Control |
| OTH | Other Voluntary Demand Response Product |

* + - * 1. **Example NAESB DRDataCollection file**

HDR|DRDataCollection|200608300001|123456789

DET|1|123456789|1001001001001|PR|Y|20120701|

DET|2|123456789|1001001001023|PR|Y|20120715|

DET|3|123456789|1001001001045|TOU|Y|20130201|

DET|4|123456789|1001001001045|PR|Y|20130201|

SUM|4|

* + 1. **Files Sent from ERCOT to REPs**
			1. **DRData\_ESIID\_List File:**

This file is available on request via email from REPs to assist with their capability to pre-validate the files they submit to ERCOT. The file includes all ESIIDs in ERCOT’s Settlement system active and owned by REP on September 1, 2020; the file excludes ESIIDs with either an NMLIGHT or NMFLAT profile code. The file contains additional information that may be used by the REP to pre-validate a DRDataCollection file before submitting it to ERCOT.

ERCOT will distribute the file using the Proofpoint Secure Share application. The file will be distributed to the requester’s email address and other email addresses copied on the requesting email. For REPs with a large number of ESIIDs this will be posted as a .zip file and/or partitioned into smaller files. REPs with file size limitations should inform ERCOT in the requesting email about those limitations.

|  |  |  |
| --- | --- | --- |
| **Data Element** | **Comments** | **Format** |
| ESIID Number | The ESIID is the basic identifier assigned to each SDP. | Alpha numeric (36) |
| REP\_Start | Date the REP first took ownership of the ESIID for the period of ownership including September 1, 2020. | Numeric (8) yyyymmdd |
| NIDR\_Start | Start date (on or after REP\_Start) for the most recent period when a Non-Interval Data Recorder (NIDR) meter was in use. | Numeric (8) yyyymmdd |
| IDR\_Start | Start date (on or after REP\_Start) for the most recent period when an Interval Data Recorder (IDR) meter was in use. | Numeric (8) yyyymmdd |
| RES\_PROF\_Start | Start date (on or after REP\_Start) for the most recent period when a Residential Profile Code was assigned. | Numeric (8) yyyymmdd |
| BUS\_PROF\_Start | Start date (on or after REP\_Start) for the most recent period when a Non-Residential Profile Code was assigned. | Numeric (8) yyyymmdd |

* + - * 1. The following validation checks should be considered by a REP prior to sending a DRDATACollection file to ERCOT:

An ESIID submitted as participating on a program should be on the list.

The program start date in the DRDATACollection file for an ESIID should not precede the REP\_START date for that ESIID.

For programs requiring the use of interval data (Indexed – Real Time; Indexed – Day Ahead; Critical Peak Pricing; Peak Rebate) the program start date should not precede the IDR\_START and the IDR\_START should not precede the NIDR\_START.

ESIIDs submitted as participating on a 4CP program should have:

A non-blank BUS\_PROF\_START;

The BUS\_PROF\_START should not precede the RES\_PROF\_START; and

The program start date should not precede BUS\_PROF\_START.

* + - * 1. **Example DRData\_ESIID\_List File:**

ESIID|REP\_START|NIDR\_START|IDT\_START|RES\_PROF\_START|BUS\_PROF\_START

1001001001001|19JAN2019|---------|19JAN2019|19JAN2019|---------

1001001001023|09APR2010|09APR2010|05NOV2010|09APR2010|---------

* + - 1. **DRDataCollectionERCOTResponse<counter> File:**

This file is the initial response from ERCOT back to a REP upon receipt of a ‘DRDataCollection’ file from that REP. The file contains information as to the status of the data submitted including any file format or mandatory data element errors. If the submitted file name has a counter appended by the REP, the response file will use the same counter. The file formats and field descriptions are as described below.

* + - * 1. **Header Record** – One must be present and must be the first record in the file.

| **Data Element** | **Mandatory / Optional** | **Comments** | **Format** |
| --- | --- | --- | --- |
| Record Type | Mandatory | Hard Code “HDR” | Alpha numeric(3) |
| Report Name | Mandatory | Hard Code “DRDataCollectionERCOTResponse” | Alpha numeric (29) |
| Original Report ID | Mandatory | Report ID as sent in the DRDataCollection file. | Alpha numeric |
| REP DUNS Number | Mandatory | REP of Record DUNS Number receiving this response report information based on the original file submission. | Numeric(9 or 13) |

* + - * 1. **ER1 Record** – Used to designate a record with an invalid value or format, with a reference to the record number in the submitted file that contained the error.

| **Data Element** | **Mandatory / Optional** | **Comments** | **Format** |
| --- | --- | --- | --- |
| Record Type | Mandatory | Hard Code “ER1” | Alpha numeric (3) |
| Record Number | Mandatory | The unique sequential record number starting with “1” | Numeric (8) |
| ESIID Number | Mandatory | The ESIID is the basic identifier assigned to each SDP. | Alpha numeric (36) |
| Original Record Type | Mandatory | The type of record in error. Valid values are DET, HDR, and SUM. | Alpha numeric (3) |
| Original Record Number | Conditional | Original DET Record Number sent from DRDataCollection file that is in error. Required if Original Record Type is DET. | Numeric (8) |
| Field Name | Mandatory | Field name in record that is in error. | Alpha numeric (80) |
| Error Description | Mandatory | Description of error. | Alpha numeric (80) |

* + - * 1. **ER2 Record** – Used to designate a record with a missing mandatory field, with a reference to the record number in the submitted file that contained the error.

| **Data Element** | **Mandatory / Optional** | **Comments** | **Format** |
| --- | --- | --- | --- |
| Record Type | Mandatory | Hard Code “ER2” | Alpha numeric (3) |
| Record Number | Mandatory | The unique sequential record number starting with “1” | Numeric (8) |
| ESIID Number | Mandatory | The ESIID is the basic identifier assigned to each SDP. | Alpha numeric (36) |
| Original Record Type | Mandatory | The type of record in error. Valid values are DET, HDR, and SUM. | Alpha numeric (3) |
| Original Record Number | Conditional | Original DET Record Number sent from DRDataCollection file that is in error.Required if Original Record Type is DET. | Numeric (8) |
| Field Name | Mandatory | Field name of record that is in error. | Alpha numeric (80) |
| Error Description | Mandatory | Description of error. | Alpha numeric (80) |

* + - * 1. **Sum Record** – Provides the sum of all records received in the original file, the number of records processed, and the number of DET records in error.

| **Data Element** | **Mandatory / Optional** | **Comments** | **Format** |
| --- | --- | --- | --- |
| Record Type | Mandatory | Hard code “SUM” | Alpha numeric (3) |
| Total Number of DET Records | Mandatory | Total number of DET records in the original DRDataCollection file. | Numeric (8) |
| Total Number of processed DET Records | Mandatory | Total number of DET records processed without error from the DRDataCollection file. | Numeric (8) |
| Total Number of Error Records | Conditional | Total number of DET records in error. | Numeric (8) |

* + - * 1. **Example DRDataCollection\_ERCOTResponse File:**

HDR|DRDataCollectionERCOTResponse|200608300001|123456789

ER2|1|1001001001001|DET|1|StartDate|InvalidValue

SUM|5|4|1|

* + - 1. **DRDataCollectionERCOTValidation<counter> File:**

This file is an additional response from ERCOT back to a REP upon receipt of a ‘DRDataCollection’ file for which the DRDataCollectionERCOTResponse file reported no errors. The file contains information as to the status of any business validation errors. If the submitted file name had a counter appended by the REP, the validation file will use the same counter. The file formats and field descriptions are as described below.

* + - * 1. **Header Record** – One must be present and must be the first record in the file.

| **Data Element** | **Mandatory / Optional** | **Comments** | **Format** |
| --- | --- | --- | --- |
| Record Type | Mandatory | Hard Code “HDR” | Alpha numeric (3) |
| Report Name | Mandatory | Hard Code “DRDataCollectionERCOTValidation” | Alpha numeric (31) |
| Original Report ID | Mandatory | Report ID as sent in the DRDataCollection file. | Alpha numeric |
| REP DUNS Number | Mandatory | REP of Record DUNS Number receiving this response report information based on the original file submission. | Numeric (9 or 13) |

* + - * 1. **ER3 Record** – Used to designate a record that failed data validation with a reference to the original record in error.

| **Data Element** | **Mandatory / Optional** | **Comments** | **Format** |
| --- | --- | --- | --- |
| Record Type | Mandatory | Hard Code “ER3” | Alpha numeric (3) |
| Record Number | Mandatory | The unique sequential record number starting with “1” | Numeric (8) |
| ESIID Number | Mandatory | The ESIID is the basic identifier assigned to each SDP. | Alpha numeric (36) |
| Original Record Type | Mandatory | The type of record in error. Valid values are DET, HDR, and SUM. | Alpha numeric (3) |
| Original Record Number | Conditional | Original DET Record Number sent from DRDataCollection file that is in error.Required if Original Record Type is DET. | Numeric (8) |
| Field Name | Mandatory | Field name of record that is in error. | Alpha numeric (80) |
| Error Description | Mandatory | Description of error. | Alpha numeric (80) |

* + - * 1. **Sum Record** – Used to provide the sum of all records received in the original file, the number of records processed, and the number of DET records in error.

| **Data Element** | **Mandatory / Optional** | **Comments** | **Format** |
| --- | --- | --- | --- |
| Record Type | Mandatory | Hard code “SUM” | Alpha numeric (3) |
| Total Number of DET Records | Mandatory | Total number of DET records in the original DRDataCollection file. | Numeric (8) |
| Total Number of processed DET Records | Mandatory | Total number of DET records processed without error from the DRDataCollection file. | Numeric (8) |
| Total Number of Error Records | Conditional | Total number of DET records in error. | Numeric (8) |

* + - * 1. **Error Descriptions (ERCOT to REP -- the ER3 Record)**

|  |  |
| --- | --- |
| **Error Description** | **Long Description** |
| Invalid-ESIID | ESIID is not in ERCOT settlement system or as of Snapshot Date has an Inactive or De-energized Status |
| Not-ROR | Reporting REP is not the REP of Record as of Snapshot Date |
| Start-Date-Before-ROR | Reporting REP was not the REP of Record as of participation start date (excluding submissions with an Invalid-Start-Date) |
| Invalid-Start-Date | A REP other than the submitting REP was the Rep of Record **for some days occurring between** the program Start Date and the Snapshot Date |
| Start-Date-After-Snap-Shot | Start date for ESIID is after the specified Snapshot Date |
| 4CP-Wrong-LP | Profile Type for ESIID not BUS |
| Invalid-LP | Profile Type for ESIID is NMLIGHT or NMFLAT |
| Invalid-Meter | Category Code is IRT, IDA, IOR, CPP, or PR for ESIID with Meter Type NIDR |
| Duplicate-Row | Input record is identical to a previous record except for sequence number |
| Matching-Consecutive-Category/DLC-Codes | Input record is identical to the previous chronological record, based on start date, except for sequence number and start date |

* + - * 1. **Example 1 – REP file to ERCOT with no errors**

ERCOT Response File - From ERCOT to REP

HDR|DRDataCollectionERCOTResponse|200608300001|123456789

SUM|4|0|

ERCOT Validation File - From ERCOT to REP

HDR|DRDataCollectionERCOTValidation|200608300001|123456789

SUM|4|0|

**Example 2 – REP file to ERCOT with format error and a duplicate row**

File 1 - From REP to ERCOT

HDR|DRDataCollection|200608300001|123456789

DET|1|123456789|1001001001001|PR|Y|0701|

DET|2|123456789|1001001001023|PR|Y|20120715|

DET|3|123456789|1001001001023|PR|Y|20120715|

DET|4|123456789|1001001001045|TOU|Y|20130201|

DET|5|123456789|1001001001045|BI|Y|20130201|

SUM|5|

File 2 - From ERCOT to REP

HDR|DRDataCollectionERCOTResponse|200608300001|123456789

ER2|1|1001001001001|DET|1|StartDate|InvalidValue

SUM|5|4|1|

File 3 - From ERCOT to REP

HDR|DRDataCollectionERCOTValidation|200608300001|123456789

ER3|1|1001001001001|DET|3|Duplicate-Row|Duplicate-Row

SUM|5|4|1|

**Example 3 – REP file to ERCOT with data validation errors**

File 1 - From REP to ERCOT

HDR|DRDataCollection|200608300001|123456789

DET|1|123456789|1001001001234|PR|Y|20120715|

DET|2|123456789|1001001005678|PR|Y|20120715|

DET|3|123456789|1001001004321|TOU|Y|20130201|

DET|4|123456789|1001001008765|BI|Y|20130201|

SUM|4|

File 2 - From ERCOT to REP

HDR|DRDataCollectionERCOTResponse|200608300001|123456789

SUM|4|0|

File 3 - From ERCOT to REP

HDR|DRDataCollectionERCOTValidation|200608300001|123456789

ER3|2|1001001004321|DET|3|ESIID|Not-ROR

SUM|5|4|1|

**Common Errors – Suggested Fixes**

|  |  |
| --- | --- |
| **Error Code** | **Common errors / suggestions for fixes** |
| Invalid-ESIID | Check that all significant digits of ESIID were reported and none inadvertently set to zero by rounding.Check that ESIID is a valid ESIID. |
| Not-ROR | Check if REP of Record for ESIID on the Snap Shot Date.If not the REP of Record, remove row. |
| Start-Date-After-Snap-Shot | Check start date of program. If ESIID started on the program after the Snapshot Date, remove record from file. Otherwise, correct the start date of the program for the ESIID. |
| **If any of the above errors apply to a row, no further validations are performed for the row.** |
| Start-Date-Before-ROR | Check if REP of Record for ESIID as of program start date reported.Correct the start date on the program for the ESIID. |
| Invalid-Start-Date | Check if REP of Record for ESIID for entire date range of program start to Snapshot date.Correct the start date of the program for the ESIID. |
| 4CP-Wrong-LP | Check ESIID profile code, must be BUS. |
| RES-LP-Inconsistent | Check ESIID profile code, must start with BUS for the category code specified. |
| Invalid-LP | Check ESIID profile code. |
| Invalid-Meter | Check ESIID meter type, must be IDR for the category code specified. |
| Duplicate-Row | Remove duplicate row. |
| Matching-Consecutive-Category/DLC-Codes | Remove matching row (with incorrect program start date). |

**APPENDIX A – Category Definitions**

**Four Coincident Peak (4CP)** – Rate incentives, predictor signals or direct Load control provided to Customers to encourage or cause them to reduce Load during actual or potential Four Coincident Peak (4CP) intervals during summer months (June through September). Reducing Load during such intervals lowers transmission charges. 4CP charges apply to large Customers (peak Demand ≥700 kW), and also to Non-Opt-In Entities (NOIEs) at the boundary meter level.

**Conservation Voltage Reduction (CVR)** – Applicable only to NOIEs. The NOIE Transmission and/or Distribution Service Provider (TDSP) reduces voltage at selected substations to reduce Load when conservation is needed.

 **Critical Peak Pricing (CPP)** – Customer prices that rise for limited duration periods of time identified by the Retail Electric Provider (REP)/NOIE. These periods usually correlate to high prices occurring in the Day-Ahead or anticipated to occur in the Real-Time wholesale market. Critical peak events usually occur a limited number of times per year and typically are communicated a day in advance.

 **Free Days and/or Time Periods (FDH)** – Customer is not charged for consumption on specified days of week, holidays, and/or time periods of the day. For example: free nights and weekends. Alternatively, Customer is allowed to designate days during a billing period for which consumption is not charged.

 **Indexed Day-Ahead (IDA)** – May or may not include fixed pricing for a defined volume of usage, but does include pricing for some or all usage, indexed to the Day-Ahead Settlement Point Prices for the premise Load Zone. Charges are based on Customer's actual interval data.

 **Indexed Other (IOT)** – May or may not include fixed pricing for a defined volume of usage, but does include pricing for some or all usage, indexed to a market price for the premise Load Zone, other than the Real-Time or Day-Ahead Settlement Point Prices. Charges are based on Customer's actual interval data.

 **Indexed Real-Time (IRT)** – May or may not include fixed pricing for a defined volume of usage, but does include pricing for some or all usage, indexed to the Real-Time Settlement Point Prices for the premise Load Zone. Charges are based on Customer's actual interval data.

 **Other Direct Load Control (OLC)** – Agreements that allow the REP/NOIE or a third party to control the Customer’s Load remotely for economic or grid reliability purposes. This category applies to Direct Load Control (DLC) not associated with the Customer’s energy price, and with different deployment criteria than described elsewhere. (Avoid double counting if DLC data was reported in other categories.) Customer incentive is predefined and does not vary based upon the response.

* OLC Example - OLC (always has DLC) REP identifies a day on which high prices have, or are about to, materialize. The REP sends a signal to the Customer’s web-enabled thermostat to increase its set point by 3 degrees. The REP agrees to pay the Customer $10 / month for each summer month, and the Customer agrees to allow the thermostat to be set higher 10 times during the summer for periods up to 2 hours long. If the Customer overrides the REP thermostat setting during a month, the Customer’s payment is reduced by $3.

 **Other Voluntary Demand Response Program (OTH)** – Any retail program not covered in the other categories that includes a Demand response incentive or signal. For NOIEs that implement voltage reduction to reduce Load, such programs should be reported under this category.

 **Peak Rebates (PR)** – A retail offering in which the Customer is eligible for a financial incentive paid for Load reductions taken during periods of time identified by the Load Serving Entity (LSE) and communicated to the Customer during the prior day or the event day or both. LSE has defined a method to identify whether a Customer has responded and to quantify the response amount. Payment (rebate) to Customer is based upon the magnitude of the Customer’s response.

Peak Rebate examples:

* No DLC: The REP sends an email one day prior if high prices are forecasted, and sends a reminder text/tweet the morning of the following day. The REP identifies responding Customers using a recent similar weather day as a baseline to estimate what the Customer’s Load would have been. If the Customer’s actual Load during the predicted intervals was lower than the baseline, the REP agrees to pay the Customer $X / kWh of reduction.
* DLC: REP sends email one day prior if high prices are forecasted, and sends a reminder text/tweet the morning of the following day. When high prices materialize, the REP sends a signal to the Customer’s web-enabled thermostat to increase its set point by 3 degrees. The REP establishes a baseline for the Customer to estimate what the Customer’s Load would have been. If the Customer’s actual Load during the predicted intervals was lower than the baseline, the REP agrees to pay the Customer $X / kWh of reduction.

**Time of Use (TOU)** — Prices that vary across defined blocks of hours, with predefined prices and schedules. (As used here, does not apply to seasonal adjustments.)

**APPENDIX B**

**NOIE Submission File Template**

**Excel file attached.**

**APPENDIX C**

**REP Event File Template**

**Excel file attached.**