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| --- | --- | --- | --- |
| LPGRR Number | DRAFT | LPGRR Title | Profile Decision Tree Excel-to-Word Conversion |
| Date Posted | TBD, 2024 |
|  |  |
| Requested Resolution  | Normal |
| Load Profiling Guide Sections Requiring Revision  | 19.1, Definitions19.2, Acronyms19.3, Variables (new)20, Profile Decision Tree (new)20.1, Getting Started (new)20.1.1, Determine the Profile Type Code (new)20.1.2, Select the Weather Zone Code (new)20.1.3, Select the Meter Data Type Code (new)20.1.4, Select the Weather Sensitivity Code (new)20.1.5, Select the Time-Of-Use Schedule Code (new)20.1.6, Concatenate the Five Appropriate Components (Separated by Underscores) to Produce a Profile ID (new)20.2, Frequently Asked Questions (new)20.3, Use of Components (new)20.3.1, ERCOT Use of the Profile ID Components (new)20.3.1.1, Profile Type (new)20.3.1.2, Weather Zone (new)20.3.1.3, Meter Data Type (new)20.3.1.4, Weather Sensitivity (new)20.3.1.5, Time-Of-Use Schedule (new)20.4, Steps for Assigning a Profile Segment (new)20.4.1, Non-Metered (NM) (new)20.4.2, Residential (RES) (new)20.4.2.1, Default Residential ESI ID Profile Segment (new)20.4.2.2, Residential Annual Validation for NIDR ESI IDs (new)20.4.2.3, Residential Annual Validation for IDR ESI IDs (new)20.4.2.4, Assign and Report the DG Profile Segment (new)20.4.3, Business (BUS) (new)20.5, Business Profile Group Usage Month Methodology (new)20.5.1, Calculating Usage Month Values (new)20.6, Weather Zones (new)20.7, Distributed Generation Request Template Instructions (new)20.8, Oil & Gas Flat Profile Segment Assignment (new)20.9, Derivation of kW Values for TDSPs that Measure kVA at the ESI ID Level (new)20.10, Profile ID Assignment for Non-Opt-In Entities (new)20.11, Profile Validation Schedule (new)Appendix D, Profile Decision Tree – Start -- 2014 v1.8 (delete)Appendix D, Profile Decision Tree – FAQ (delete)Appendix D, Profile Decision Tree – Use of Components (delete)Appendix D, Profile Decision Tree – Definitions (delete)Appendix D, Profile Decision Tree – Segment Assignment (delete)Appendix D, Profile Decision Tree – Usage Month Methodology (delete)Appendix D, Profile Decision Tree – Weather Zones (delete)Appendix D, Profile Decision Tree – DG (delete)Appendix D, Profile Decision Tree – DG Template (delete)Appendix D, Profile Decision Tree – Oil & Gas (delete)Appendix D, Profile Decision Tree – kVA to kW (delete)Appendix D, Profile Decision Tree – NOIEs (delete)Appendix D, Profile Decision Tree – Profile Validation Schedule (delete) |
| Related Documents Requiring Revision/Related Revision Requests | None |
| Revision Description | This Load Profiling Guide Revision Request (LPGRR) relocates the majority of the Profile Decision Tree from its current Excel format into the Load Profiling Guide, itself, with the exception of the Profile Decision Tree’s ZipToZone and Valid Profile IDs worksheets.  |
| Reason for Revision |  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 1 – Be an industry leader for grid reliability and resilience [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 2 - Enhance the ERCOT region’s economic competitiveness with respect to trends in wholesale power rates and retail electricity prices to consumers [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 3 - Advance ERCOT, Inc. as an independent leading industry expert and an employer of choice by fostering innovation, investing in our people, and emphasizing the importance of our mission General system and/or process improvement(s) Regulatory requirements ERCOT Board and/or PUCT Directive*(please select ONLY ONE – if more than one apply, please select the ONE that is most relevant)* |
| Justification of Reason for Revision and Market Impacts | This LPGRR standardizes Load Profiling Guide language and provides an easier path for revising most Profile Decision Tree language by eliminating cumbersome Excel-to-Word formatting as is currently required. |

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| Proposed Guide Language Revision |

**19.1 Definitions**

**Assignment Year**

A specific set of 12 Usage Months that is used to determine Business Profile ID assignments. An Assignment Year normally runs from May through the following April. However, to determine Profile ID assignments it may be necessary to obtain data from outside the May through April period. (For example, to calculate complete Usage Months for May 2005 and April 2006, meter read data from April 2005 and May 2006 will most likely be required.)

 **Daily Demand**

A representation of the kW that is applied to each day in the Max Metered Demand period. For more information regarding instances in which demand is measured in kVA, see Section 20.9, Derivation of kW Values for TDSPs that Measure kVA at the ESI ID Level.

**Daily Usage**

A representation of the kWh that is used for each day of the ADUsep period. For more information, see Section 20.5, Business Profile Group Usage Month Methodology.

**Electric Service Identifier (ESI ID) Year Use**

Denotes the sum of the kWhp for each year value of an ESI ID.

**High Load Factor (HILF) Profile Segment**

A Business (BUS) Profile Segment designation where an ESI ID’s Average Load Factor (AvgLF) is greater than 0.60 Load Factor.

**High Distributed Generation (HIDG) Profile Segment**

A BUS Profile Segment designation for HILF with Distributed Generation other than photovoltaic or wind, applicable to ESI IDs that meet the criteria on Section 20.7, Distributed Generation Request Template Instructions. For more information, see Section 20.4, Steps for Assigning a Profile Segment.

**High Photovoltaic Generation (HIPV) Profile Segment**

A BUS Profile Segment designation for HILF with photovoltaic generation, applicable to ESI IDs that meet the criteria in Section 20.7. For more information, see Section 20.4.

**High Wind Generation (HIWD) Profile Segment**

A BUS Profile Segment designation for HIWD with wind generation, applicable to ESI IDs that meet the criteria in Section 20.7. For more information, see Section 20.4.

**Interval Data Recorder Required (IDRRQ) Profile Segment**

A BUS Profile Segment designation for Premises that are billed on a 4-Coincident Peak (4-CP) tariff where the TDSP cannot support a 4-CP billing rate with an Advanced Metering System (AMS) profile (e.g., IDR Metered Premises), or if 4-CP is not applicable to utility tariffs, a peak Demand greater than 700 kW or kVA.

**Large (LRG) Profile Segment**

A BUS Profile Segment designation for Premises that are billed on a 4-CP tariff where the TDSP can support a 4-CP billing rate with an AMS profile and does not have Distributed Generation, or if 4-CP is not applicable to utility tariffs, a peak Demand greater than 700 kW or kVA.

**Large Distributed Generation (LRGDG) Profile Segment**

A BUS Profile Segment designation for Premises that are billed on a 4-CP tariff where the TDSP can support a 4-CP billing rate with an AMS profile and has Distributed Generation, or if 4-CP is not applicable to utility tariffs, a peak Demand greater than 700 kW or kVA.

**Load Profile Group**

A high-level classification of a set of Customers who have similar characteristics. The Load Profile Groups are: Business (BUS), Non-Metered (NM), and Residential (RES). Together, the Load Profile Group and the Load Profile Segment form the Load Profile Type.

**Business (BUS)**

A Load Profile Group designation for non-residential ESI IDs whose service is metered. This encompasses rate classes for business ESI IDs, in addition to other classes.

**Non-Metered (NM)**

A Load Profile Group designation for ESI IDs that are served within a rate class specifically for non-metered loads, (e.g., Street Lights and Traffic Signals). Assignment of NM is not valid for any load that is metered.

**Residential (RES)**

A Load Profile Group designation for ESI IDs that are served within a residential rate class.

Load Profile ID

*See Protocol Section 2.1, Definitions.*

**Load Profile Segment**

*See Protocol Section 2.1, Definitions.*

**FLAT Profile Segment**

A Profile Segment designation for any Non-Metered (NM) load that is not identified as lighting (e.g., traffic signals).

**LIGHT Profile Segment**

A Profile Segment designation for all Non-Metered (NM) lighting load (e.g., street lights).

Load Profile Type

*See Protocol Section 2.1, Definitions* Load Profile Type is also the concatenation of the Load Profile Group and Load Profile Segment.

**Low Distributed Generation (LODG) Profile Segment**

A Profile Segment designation for Low Winter Ratio (LOWR) and Low Load Factor (LOLF) premises with Distributed Generation other than PV or wind. For more information, see Section 20.7, Distributed Generation Request Template Instructions.

**Low Load Factor (LOLF) Profile Segment**

A Business (BUS) Profile Segment designation where an ESI ID’s Average Load Factor (AvgLF) is less than 0.40kW or cannot be calculated due to the unavailability of required data. For more information, see Section 20.4, Steps for Assigning a Profile Segment.

 **Low Photovoltaic Generation (LOPV) Profile Segment**

A Profile Segment designation for Low Winter Ratio (LOWR) and Low Load Factor (LOLF) premises with photovoltaic generation, applicable to ESI IDs that meet the criteria in Section 20.7, Distributed Generation Request Template Instructions.

**Low Wind Generation (LOWD) Profile Segment**

A Profile Segment designation for Low Winter Ratio (LOWR) and Low Load Factor (LOLF) premises with wind generation, applicable to ESI IDs that meet the criteria in Section 20.7, Distributed Generation Request Template Instructions.

**Max Metered Demand**

The highest measured 15-minute demand (in kW) during a Usage Period, rounded to two decimal places. For more information regarding instances in which demand is measured in kVA, see Section 20.9, Derivation of kW Values for TDSPs that Measure kVA at the ESI ID Level.

**Medium Load Factor (MEDLF) Profile Segment**

A Business (BUS) Profile Segment designation where an ESI ID’s Average Load Factor (AvgLF) is greater than or equal to 0.40kW and less than or equal to 0.60kW. MEDLF is occasionally assigned as the default if, either, data is not available or if the denominator equals zero (0).

 **Medium Distributed Generation (MEDDG) Profile Segment**

A BUS Profile Segment designation for MEDLF premises with Distributed Generation other than PV or wind. For more information, see Section 20.7, Distributed Generation Request Template Instructions.

**Medium Photovoltaic Generation (MEDPV) Profile Segment**

A BUS Profile Segment designation for MEDLF Premises with photovoltaic generation, applicable to ESI IDs that meet the criteria in Section 20.7. For more information, see Section 20.4, Steps for Assigning a Profile Segment.

**Medium Wind Generation (MEDWD) Profile Segment**

A BUS Profile Segment designation for MEDLF Premises with wind generation, applicable to ESI IDs that meet the criteria in Section 20.7. For more information, see Section 20.4.

**Meter Read Start Date**

The start date in which the meter was read. For any given Usage Period, the Meter Read Start Date is the prior meter read date, regardless of the time in which the meter was read. If no prior meter read date exists, the date the account was energized or activated shall be considered the Meter Read Start Date.

**Meter Read Stop Date**

The stop date in which the meter was read. For any given Usage Period, the Meter Read Stop Date is the date in which the meter read that ends that period, regardless of time, is read.

**Metered Usage**

The total electricity consumption (in kWh) measured during a Usage Period in a Usage Month. This includes estimated usage if the values were submitted to ERCOT and the actual measured usage for the same period was never submitted to ERCOT.

**Non-Demand (NODEM) Profile Segment**

A Business (BUS) Profile Segment designation that TDSPs may assign for non-residential ESI IDs which are not billed demand.

 **Non-Demand Distributed Generation (NODDG) Profile Segment**

A BUS Profile Segment designation for NODEM premises with Distributed Generation other than PV or wind, applicable to ESI IDs that meet the criteria in Section 20.7, Distributed Generation Request Template Instructions. For more information, see Section 20.7.

**Non-Demand Photovoltaic Generation (NODPV) Profile Segment**

A BUS Profile Segment designation for NODEM Premises with photovoltaic generation, applicable to ESI IDS that meet the criteria in Section 20.7. For more information, see Section 20.4, Steps for Assigning a Profile Segment.

**Non-Demand Wind Generation (NODWD) Profile Segment**

A BUS Profile Segment designation for NODEM Premises with wind generation, applicable to ESI IDs that meet the criteria in Section 20.7. For more information, see Section 20.4.

**Non-Interval Data Recorder (NIDR)**

An electricity meter that is not an Interval Data Recorder. NIDR designation shall include IDRs installed for Load Research purposes and Time-Of-Use meters. For more information, see Section 20.4, Steps for Assigning a Profile Segment.

**Non-Weather Sensitive (NWS)**

The default Weather Sensitivity Code assigned to ESI IDs that have a meter type code of Non-Interval Data Recorder (NIDR) or a profile type code of BUSIDRRQ.

**Number of Days in the Meter Read Period**

The Meter Read Stop Date minus the Meter Read Start Date. For example, if a meter was read on June 12th and the next read occurred on July 13th, the Number of Days in the Meter Read Period is 31 days.

**Oil & Gas Flat (OGFLT) Profile Segment**

A Business (BUS) Profile Segment designation, that TDSPs may assign for non-residential ESI IDs which meet the criteria in Section 20.8, Oil & Gas Flat Profile Segment Assignment.

 **Oil & Gas Flat Distributed Generation (OGFDG) Profile Segment**

A BUS Profile Segment designation for OGFLT Premises with Distributed Generation other than PV or wind, applicable to ESI IDs that meet the criteria on Section 20.8. For more information, see Section 20.7, Distributed Generation Request Template Instructions.

**Oil & Gas Flat Photovoltaic Generation (OGFPV) Profile Segment**

A BUS Profile Segment designation for OGFLT Premises with photovoltaic generation, applicable to ESI IDs that meet the criteria in Section 20.7. For more information, see Section 20.4, Steps for Assigning a Profile Segment.

**Oil & Gas Flat Wind Generation (OGFWD) Profile Segment**

A BUS Profile Segment designation for OGFLT Premises with wind generation, applicable to ESI IDs that meet the criteria in Section 20.7. For more information, see Section 20.4.

**Rounding**

The process of rounding applicable numbers to two decimal places. If the digit in the thousandth's place of a number is four or less, all digits to the right of the hundredth's place are dropped and the digit in the hundredth's place does not change. For example, rounding 1.574 to the nearest hundredth's place would yield 1.57.

**Season**

The classification of Shoulder or Winter for each meter reading within the Usage Time Period of each ESI ID. This is not in association with the definition of ‘Season’ or ‘Seasonal’ as featured in Protocol Section 2.1, Definitions.

**Shoulder**

A meter read which falls between September 21 and November 15 inclusive or between March 15 and May 10 inclusive.

**Usage Month**

A calendar month that combines one or more Usage Periods for the purpose of applying usage and demand values in a consistent manner.

**Usage Period**

The time period that data from a meter read encompasses. The Usage Period covers the Usage Period Start Time through the Usage Period Stop Time.

**Usage Period Start Time**

The time (00:00:00; midnight) in which the transfer of ESI ID ownership occurs between CRs. A Usage Period begins at 00:00:00 of the Meter Read Start Date.

**Usage Period Stop Time**

The Usage Period’s end point, occurring at 23:59:59 on the day before the Meter Read Stop Date.

**Usage Time Period**

A specific set of Meter Read Periods that are used to determine Residential Profile ID assignments.

**Weather Sensitive (WS)**

The default Weather Sensitivity Code assigned to NOIE areas and IDR ESI IDs that have a profile type code other than BUSIDRRQ.

**Winter**

A meter read which falls between November 16 and March 14 inclusive.

**Winter Ratio**

The proportion of usage in winter months to usage in the fall base and spring base months and is used to differentiate residential Electric Service Identifiers (ESI IDs).

 **High Winter Ratio (HIWR) Profile Segment**

A Residential (RES) Profile Segment applicable to ESI IDs that meet the criteria in Section 20.7, Distributed Generation Request Template Instructions. For more information, see Section 20.4, Steps for Assigning a Profile Segment.

**Low Winter Ration (LOWR) Profile Segment**

A Residential (RES) Profile Segment applicable to ESI IDs that meet the criteria in Section 20.7.

19.2 Acronyms

**ADU** Average Daily Usage

**AHU** Average Hourly Usage

**AvgLF** Average Load Factor

**BUS** Business

**HIDG** High Distributed Generation

**HILF** High Load Factor

**HIPV** High Photovoltaic Generation

**HIWD** High Wind Generation

**HIWR** High Winter Ratio

**IDRRQ** Interval Data Recorder Required

**LODG** Low Distributed Generation

**LOLF** Low Load Factor

**LOPV** Low Photovoltaic Generation

**LOWD** Low Wind Generation

**LRG** Large

**LRGDG** Large Distributed Generation

**MEDDG** Medium Distributed Generation

**MEDLF** Medium Load Factor

**MEDPV** Medium Photovoltaic Generation

**MEDWD** Medium Wind Generation

**NM** Non-Metered

**NODEM** Non-Demand

**NODDG** Non-Demand Distributed Generation

**NODPV** Non-Demand Photovoltaic Generation

**NODWD** Non-Demand Wind Generation

**NWS** Non-Weather Sensitive

**OGFDG** Oil & Gas Flat Distributed Generation

**OGFLT** Oil & Gas Flat

**OGFPV** Oil & Gas Flat Photovoltaic Generation

**OGFWD** Oil & Gas Flat Wind Generation

**RES** Residential

**RESLOWR** Residential Low Winter Ratio

**TOUS** Time of Use Schedule

**WS** Weather-Sensitive

19.3 VARIABLES

|  |  |
| --- | --- |
| **Variable** | **Description/Definition** |
| ActiveDaysm | Denotes the number of days in a particular Usage Month in which the ESI ID received service (please see ESI ID Status for further clarification). For more information, see the ESI ID Status definition. |
| ADUsem | Denotes the Average Daily Usage (in kWh) for a specific Usage Month. This is derived by dividing the Total kWh (kWhm) in the Usage Month by the Number of Active Days (ActiveDaysm) in the same Usage Month, and rounding to two decimal places, as shown below.Diagram  Description automatically generatedwhere kWhm = Total energy consumed in kilowatthours in Usage Month m, and ActiveDaysm = Number of Active Days in Usage Month m.\* Round to two decimal places, per the Rounding instructions in Section 19.1, Definitions. |
| ADUsep | Denotes the Average Daily Usage (in kWh) for a specific Meter Read Period. This is derived by dividing the Metered Usage (in kWh) for the Meter Read Period by the Number of Days in the Meter Read Period, and rounding to two decimal places per the Rounding instructions in Section 19.1, Definitions. For additional information, see Section 20.5, Business Profile Group Usage Month Methodology. |
| AHUsem | Denotes the Average Hourly Usage (in kWh) for Usage Month m. For more information, see Section 20.4, Steps for Assigning a Profile Segment. |
| Daysp | The Meter Read Stop Date minus the Meter Read Start Date for a specific meter read. |
| kWDaysm | Denotes the number of days in a particular Usage Month for which there are Daily Demand values. |
| kWhm | Denotes the total energy consumed (in kilowatthours) in Usage Month m. This is calculated by summing the values for Daily Usage over the entire Usage Month.  |
| kWhp | Denotes the total energy consumed (in kilowatthours) in Meter Read Period. This is calculated by summing the values for Daily Usage over the entire Meter Read Period. For more additional information, see Section 20.4, Steps for Assigning a Profile Segment. |
| MaxkWm | Denotes the straight average of the kW demand values assigned to the days in the Usage Month, rounded in two decimal places. The values used for Daily Demand should be the maximum demand (kW) that occurred during that Usage Period, rounded to two decimal places. For more information regarding instances in which demand is measured in kVA, see Section 20.9, Derivation of kW Values for TDSPs that Measure kVA at the ESI ID Level. |
| NADUsep | Denotes the normalized Average Daily Usage (in kWh) for a specific Meter Read Period. This is derived by subtracting the mean Average Daily Usage over the Usage Period from the Average Daily Usage for a specific Meter Read Period and dividing by the standard deviation of the Average Daily Usage for the Usage Period, and rounding to two decimal places per the Rounding instructions in Section 19.1, Definitions. For more information, see Section 20.4, Steps for Assigning a Profile Segment. |
| RESHIWR kWhp | Denotes the sum of the kWh interval values for the RESHIWR backcasted profiles of a specific weather zone for the specific days in the Meter Reading Period p. For more information, see Section 20.4, Steps for Assigning a Profile Segment. |
| RESHIWR Year Use | Denotes the sum of the RESHIWR kWhp for a specific weather zone for each year value of an ESI ID. For more information, see Section 20.4, Steps for Assigning a Profile Segment. |
| RESLOWR kWhp | Denotes the sum of the kWh interval values for the RESLOWR backcasted profiles for a specific weather zone for the specific days in the Meter Reading Period p. For more information, see Section 20.4, Steps for Assigning a Profile Segment. |
| RESLOWR Year Use | Denotes the sum of the RESLOWR kWhp for a specific weather zone for each year value of an ESI ID. For more information, see Section 20.4, Steps for Assigning a Profile Segment. |
| S RESHIWR kWhp | Scaled RESHIWR kWhp calculated by multiplying RESHIWR kWhp by the ESI ID Year Use and dividing by the RESHIWR Year Use. For more information, see Section 20.4, Steps for Assigning a Profile Segment. |
| S RESLOWR kWhp | Scaled RESLOWR kWhp calculated by multiplying RESLOWR kWhp by the ESI ID Year Use and dividing by the RESLOWR Year Use. For more information, see Section 20.4, Steps for Assigning a Profile Segment. |
| Winter Max ADUsep | For the ESI ID's entire Usage Time Period, identify the highest ADUsep of all meter readings classified as a Winter season. |

# 20 Profile decision tree

20.1 Getting Started

(1) This sheet serves as an overview of the process to assign a Profile ID to an ESI ID. Profile ID assignments are to be based on the historical data of the ESI ID, without regard to the specific customer(s) of the premises. Regarding Annual Validation Load Profile ID assignments, ERCOT is responsible for the determination of the Profile Segment as directed by this Section. TDSPs are responsible for verifying that ERCOT's Profile Segment determination is consistent with the tariff under which the ESI ID is currently served, and for submitting the necessary Profile ID change transactions reflecting the ERCOT determined Load Profile Segment.

(2) Additionally, TDSPs must assign a valid code for each of the five Profile ID components. These components are: Profile Type, Weather Zone, Meter Data Type, Weather Sensitivity and Time-Of-Use Schedule. Please note that the Profile Type is comprised of the Profile Group and the Profile Segment.

(3) For new ESI IDs TDSPs are responsible for assigning a complete Profile ID, using default components as directed by this Section. Reference the various paragraphs within this Section to complete the assignments.

(4) Non-Opt In Entities should proceed directly to Section 20.10, Profile ID Assignment for Non-Opt-In Entities.

(5) Profile ID assignments must adhere to the Protocols--even if all details are not listed within this Section.

(6) Example of a completed Profile ID: RESLOWR\_EAST\_NIDR\_NWS\_NOTOU

20.1.1 Determine the Profile Type Code

(1) Select the Profile Group. Select the appropriate Profile Group from the following: NM (for Non-Metered), RES (for Residential), or BUS (for Business).

(2) Select the Profile Segment. Valid Profile Segments are dependent upon the Profile Group and other factors. Please see Section 20.4, Steps for Assigning a Profile Segment.

(a) Valid Segments for NM are: LIGHT and FLAT.

(b) Valid Segments for RES are: LOWR, HIWR, LOPV, HIPV, LOWD, HIWD, LODG, and HIDG.

(c) Valid Segments for BUS are: NODEM, LOLF, MEDLF, HILF, IDRRQ, OGFLT, NODPV, LOPV, MEDPV, HIPV, OGFPV, NODWD, LOWD, MEDWD, HIWD, OGFWD, NODDG, LODG, MEDDG, HIDG, OGFDG, LRG, and LRGDG.

(3) Concatenate the Profile Group and Profile Segment to form the Profile Type Code. Convert the Profile Group and Profile Segment to one field, e.g., BUSLOLF.

20.1.2 Select the Weather Zone Code

(1) Locate the ESI ID's service address ZIP Code on the “ZipToZone” worksheet in Appendix D, Profile Decision Tree.

(2) Cross reference the ZIP Code to the Weather Zone.

(3) Assign the valid Weather Zone Code: COAST, EAST, FWEST, NORTH, NCENT, SOUTH, SCENT, or WEST.

20.1.3 Select the Meter Data Type Code

(1) Assign IDR for ESI IDs that have an IDR used for Settlement.

(2) Assign NIDR to all other ESI IDs.

20.1.4 Select the Weather Sensitivity Code

(1) Assign the Weather Sensitivity Code as follows:

(a) The default assignment for customer choice areas will be as follows:

(i) Non-Weather Sensitive (NWS) shall be used for ESI IDs with a meter type code of NIDR;

(ii) NWS shall be used for ESI IDs with a profile type code of BUSIDRRQ; and

(iii) Weather Sensitive (WS) shall be used for IDR ESI IDs with profile type codes other than BUSIDRRQ.

(b) The default assignment for NOIE areas shall be WS.

20.1.5 Select the Time-Of-Use Schedule Code

(1) Assign NOTOU for ESI IDs not served under a Time-Of-Use schedule (for kWh), or if Profile Type is BUSIDRRQ.

(2) For ESI IDs served under a TOU schedule (for kWh), assign the appropriate Time-Of-Use Schedule Code from the TOU Schedules tab.

20.1.6 Concatenate the Five Appropriate Components (Separated by Underscores) to Produce a Profile ID

(1) Example of a completed Profile ID: BUSHILF\_FWEST\_NIDR\_NWS\_NOTOU

20.2 Frequently Asked Questions

(1) Question: In calculating Usage Month values, should a zero (0) be treated the same as a missing or null value?

Answer: No. For any variable such as kWh, kW, or kVA, a zero (0) is a number and should be treated as such. A missing value should not be treated as a zero.

(2) Question: If an ESI ID has an Advanced Meter, should the Meter Data Type 'IDR' be assigned?

 Answer: Yes--if the ESI ID is to be settled on its interval data.

(3) Question: What if an ESI ID's service address is in a ZIP Code that is not in the “ZipToZone” worksheet in Appendix D, Profile Decision Tree?

Answer: Verify that the ZIP Code is currently recognized by the U.S. Postal Service (http://www.usps.com) and that the ZIP Code corresponds to the city of the service address. If the ZIP Code is recognized by the U.S. Postal Service and it is for a service address within ERCOT, ask your ERCOT Account Manager to have the ZIP Code added to the Profile Decision Tree.

(4) Question: If an ESI ID has less than 16 days of data for a specific month, should I go ahead and calculate the Load Factor for a BUS ESI ID?

Answer: After applying the Usage Month methodology, you either will or will not have a value for each usage month (see Section 20.5, Business Profile Group Usage Month Methodology). For BUS ESI IDs Usage Month values are needed for all 12 months of the applicable Assignment Year. ESI IDs that do not have the required usage month values shall be assigned the corresponding default Profile Segment.

(5) Question: How should I treat negative meter read values in the Usage Month calculations?

Answer: Treat negative kWh or demand values as null or missing. The values used in the Usage Month calculations should be the ones that were submitted to ERCOT as meter reads--none of which should be negative kWh or demand values.

(6) Question: During the Profile ID assignment process, the Segment Assignment of Section states that if a BUS ESI ID has a computed AvgLF (Average Load Factor) of less than 40%, then BUSLOLF should be assigned. Given this, why are the load factors of the daily BUSLOLF load profiles virtually always greater than 40%?

Answer: The biggest reasons are the length of time over which the load factors are calculated and the diversity of the load reflected by the profile. For a given ESI ID (or group of ESI IDs), its daily Load Factor will almost always be greater than its monthly load factor. Also, the BUSLOLF load profiles represent a group of ESI IDs and because of the diversity of the individuals' loads (e.g., varying usage patterns), the load factor will be higher than it is for most or all of the individual ESI IDs to which the load profile is applied.

(7) Question: What was the number of valid Profile IDs in the previous version of the Profile Decision Tree, and how does that number change in this version?

Answer: The version of the Profile Decision Tree immediately prior to this one had 1656 valid Profile IDs. This version contains no changes to the list of valid Profile IDs.

20.3 Use of Components

20.3.1 ERCOT Use of the Profile ID Components

(1) This Section is intended to provide Market Participants with a better understanding of how each Load Profile ID component is used by ERCOT in the settlement process.

20.3.1.1 Profile Type

(1) The Profile Group and Segment (which together comprise the Profile Type), in addition to the Weather Zone are used to determine which profile the monthly energy will be applied to in the settlement process. During Profile ID validation, the Profile Group is compared to the Registration database to verify whether the premise has been reported to be Residential or Non-Residential (either small or large, per P.U.C. SUBST. R. 25.43, Provider of Last Resort (POLR)).

 Example: RESLOWR

20.3.1.2 Weather Zone

(1) The weather data for each Weather Zone are used in generating profiles for each Profile Type, specific to the Weather Zone. During validation of the Weather Zone component, the service address ZIP Code that was submitted to ERCOT for each ESI ID is compared to the “ZipToZone” worksheet in Appendix D, Profile Decision Tree, to verify that the correct Weather Zone was assigned.

 Example: NORTH

20.3.1.3 Meter Data Type

(1) Meter Data Type is used to determine whether the ESI ID is settled using interval data or a Load Profile. ESI IDs that have 'IDR' as the Meter Data Type will normally be settled on their interval data, and not a load profile. The exception to this is when no (ESI ID-specific) applicable data are available for a proxy-day routine to be used for settlement. In this case, the default profile shall be applied. ESI IDs that have 'NIDR' as the Meter Data Type will be settled with their cumulative usage applied to the assigned profile. The Meter Data Type is also referenced to determine what type of meter information is expected (cumulative or interval), each time meter data are submitted to ERCOT. If the meter data are not the correct type, a rejection notice will be sent.

 Example: NIDR

20.3.1.4 Weather Sensitivity

(1) This component is utilized only if the Meter Data Type is 'IDR' and the ESI ID's interval data have not been received by ERCOT for a specific settlement period. In this case, the weather sensitivity component of the Profile ID dictates whether a Weather Sensitive (WS) or Non-Weather Sensitive (NWS) proxy day routine will be used to estimate the interval data.

 Example: NWS

20.3.1.5 Time-Of-Use Schedule

(1) The Time-Of-Use Schedule (TOU) is used to determine how cumulative metered usage will be applied to Load Profiles for NIDRs. (A TOU Schedule other than 'NOTOU' for ESI IDs with a Meter Data Type of 'IDR' is used for the TDSP to pass TOU data to the REP, and will not be used in settlement.) The cumulative metered usage of NIDR ESI IDs that have a TOU Schedule of 'NOTOU' will be applied to the entire profile. NIDR ESI IDs that have a TOU Schedule other than 'NOTOU' will have the usage for each TOU period applied to the corresponding intervals of the Load Profile. Each time meter usage is submitted to ERCOT, the number of usage readings will be verified against the respective TOU Schedule. If the usage data do not match the expected time periods from the TOU schedule, a rejection notice will be sent.

Example: NOTOU

20.4 Steps for Assigning a Profile Segment

(1) After determining the appropriate Profile Group (NM, RES, or BUS), determine the correct Profile Segment, per the instructions below. For any value that is to be rounded, follow the Rounding instructions in Section 19.1, Definitions. Information on the terms below can be found in Section 19.1 and Section 20.5, Business Profile Group Usage Month Methodology.

20.4.1 Non-Metered (NM)

(1) Assign the LIGHT Profile Segment for all Non-Metered lighting load, e.g., street lights.

(2) Assign the FLAT Profile Segment for all Non-Metered load that is not identified as lighting, e.g., traffic signals.

20.4.2 Residential (RES)

(1) For each ESI ID, proceed to Section 20.4.2.1, Default Residential ESI ID Profile Segment, Section 20.4.2.2, Residential Annual Validation for NIDR ESI IDs, or Section 20.4.2.3, Residential Annual Validation for IDR ESI IDs, as appropriate to determine the applicable Profile Segment. Then follow the instructions in Section 20.4.2.4, Assign a DG Profile Segment per Section 20.7 and Report the Assignment to ERCOT, below for ESI IDs that have Distributed Generation (per Section 20.7, Distributed Generation Request Template Instructions).

20.4.2.1 Default Residential ESI ID Profile Segment

(1) Assign the default Profile Segment for the initial assignment of all new Residential ESI IDs as directed below. Please refer to the Load Profiling Guide for Opt-In and transition assignments.

|  |
| --- |
| If Weather Zone = COAST or if Weather Zone = FWEST then assign LOWR |
| else assign HIWR. |
| COAST default = LOWR | NORTH default = HIWR |
| EAST default = HIWR | SCENT default = HIWR |
| FWEST default = LOWR | SOUTH default = HIWR |
| NCENT default = HIWR | WEST default = HIWR |

20.4.2.2 Residential Annual Validation for NIDR ESI IDs

(1) For Annual Validation, assign the applicable Profile Segment for each ESI ID based on the paragraphs below. Because the steps below are not mutually exclusive, it is necessary to step through each of the following in the order listed, for each ESI ID, until an applicable case is found. Once an applicable case has been found follow the instructions below in Section C. Distributed Generation Profile Segment determination.

1. Usage Time Period: The four-year period inclusive of the applicable calendar year.
2. For each RES ESI ID, identify all usage data for which the entire meter read period falls between September 20 and May 10 (inclusive) for the various years of the Usage Time Period and spans no longer than 44 days. (Note: This process allows for only the Winter and Shoulder meter reads to be included in the subsequent steps to determine the Segment assignment. Meter reads are to be classified as Winter or Shoulder reads in paragraph (c) below.) Apply this resulting data toward subsequent paragraphs.

(c) For each meter read usage value determine if the read is a Winter or a Shoulder season for each RES ESI ID.

If start date ≥ December 01 or stop date ≤ March 01 then season = Winter;

else if start date ≥ September 20 and stop date ≤ December 01 then season = Shoulder;

else if start date ≥ March 01 and stop date ≤ May 11 then season = Shoulder;

Otherwise calculate shoulder percent as follows:

if the read spans December 01 then shoulder\_percent = (December 01 - start date) / (stop date - start date).

if the read spans March 01 then shoulder\_percent = (March 01 - start date) / (stop date - start date).

If shoulder\_percent >= 0.6 then season = Shoulder.

If shoulder\_percent <= 0.4 then season = Winter.

If a meter read has not been classified by season above then disregard the read.

(d) Calculate Average Daily Use for the meter read period (ADUsep) and assign a year value for each reading for each ESI ID.



Let:

yy = July 1 of current year;

yy-1 = July 1 of last year;

yy-2 = July 1 of two years ago;

yy-3 = July 1 of three years ago.

If stop date < yy-3 then year value = 1;

Else if stop date < yy-2 then year value = 2;

Else if stop date < yy-1 then year value = 3;

Else year value = 4.

(e) Calculate the mean and standard deviation (stdev) of the Average Daily Use (ADUsep) for each ESI ID. If stdev > 0 then create a normalized ADUsep (NADUsep), use the NADUsep to identify outliers and set their reading usage values and ADUsep to null.



Where:





and *n* = number of meter readings for the ESI ID

If NADUsep > 3.5; or

If NADUsep > 3 and ADUsep > 100; or

If NADUsep < -2; or

If NADUsep < 5; then

kWhp = null; and

ADUsep = null;

Else kWhp = kWhp; and

ADUsep = ADUsep.

(f) Count the number of readings that have a usage value (not null) for each Season and continue with Step 6 for those ESI IDs that have more than two Winter readings and more than two Shoulder readings. For those ESI IDs that do not have sufficient number of readings do not change the current Load Profile Type assignment.

(g) For each meter reading time period compute the RESHIWR kWhp and the RESLOWR kWhp by summing the kWh interval values separately for the RESHIWR and RESLOWR backcasted profiles (available on the Load Profiling page at www.ercot.com) corresponding to the specific days in meter reading period "p".

(h) Compute the ESI ID year use, RESHIWR year use, and RESLOWR year use by summing the kWhp, RESHIWR kWhp, and RESLOWR kWhp respectively for each year value as determined in paragraph (c) above.

(i) For each year value compute a scaled RESHIWR kWh use and a scaled RESLOWR kWh use for each meter reading.





(j) Determine the correlation (R2) to the RESHIWR and RESLOWR profiles for each ESI ID. The correlations are determined with a weighted linear regression analysis.

Each reading is weighted as follows:

If season = Winter; and

RESLOWR kWhp > 0; and

RESHIWR kWhp > RESLOWR kWhp; then

weightp = 2(RESHIWR kWhp / RESLOWR kWhp).

Else weightp = 1.



Where:







*wi* = weightp

yi = kWhp

*xi* = S RESHIWR kWhp or S RESLOWR kWhp

(k) Identify the Winter Max ADUsep for each ESI ID for the entire usage time period.

(l) For each ESI ID, assign either HIWR (High Winter Ratio) or LOWR (Low Winter Ratio) based on the results of the previous paragraphs, as follows. Because A thru D below are not mutually exclusive, it is necessary to step through each of the following in the order listed, for each ESI ID, until an applicable case is found. (Please note that the breakpoint values below are subject to change periodically.)

 If the ESI ID's Winter Max ADUsep < 20 kWh/day then assign LOWR.

Else if the ESI ID's correlation to the RESHIWR profile > 0.60; and

the correlation to the RESHIWR profile > correlation to the
RESLOWR profile; then

assign HIWR.

Else if the number of readings available > 9; and

the correlation to the RESHIWR profile > 0.90; and

(the correlation to the RESHIWR profile + 0.009) > the correlation to the

RESLOWR profile; and

Winter Max ADUsep > 53 kWh/day; then

assign HIWR.

Else assign LOWR.

20.4.2.3 Residential Annual Validation for IDR ESI IDs

(1) For each ESI ID with a meter data type of IDR, perform the following:

(a) Determine a list of ESI IDs that were active on January 1 of the year two years prior to the current year.

(b) Calculate two variables for each day on which the ESI ID is active and for which the actual interval data is available for the following months: January of the current year; January of the previous year; January from two years ago; February of the current year; February of the previous year; and February from two years ago.

1. The two variables are:

(A) Daily kWh; and

(B) Average Weather Zone daily dry bulb temperature.

(ii) ESI IDs must have at least 90% of the total monthly intervals for all six months to proceed to paragraph (c) below.

(c) Calculate R-square (Pearson Product Moment Coefficient of Determination) values between these two variables, for each of the six months listed above.

(d) For each ESI ID, assign the appropriate Profile Segment based on A thru B below:

(i) If the existing assignment is LOWR (or a DG variation such as LOPV); then:

if the required data were not available to calculate R-square values for any of the six months then do not change assignment.

else if any three of the six R-square values is ≥ 0.6 then assign HIWR;

else do not change assignment.

(ii) If the existing assignment is HIWR (or a DG variation); then:

if the required data were not available to calculate R-square values for each of the six months then do not change assignment;

 else if all of the six R-square values are ≤ 0.4 then assign LOWR;

else do not change assignment.

20.4.2.4 Assign a DG Profile Segment per Section 20.7 and Report the Assignment to ERCOT

(1) If the ESI ID has any PV generation; then:

if segment is determined to be HIWR then assign HIPV;

else if segment is determined to be LOWR then assign LOPV;

(2) Else if the ESI ID has wind generation; then:

if segment is determined to be HIWR then assign HIWD;

else if segment is determined to be LOWR then assign LOWD;

(3) Else if the ESI ID has other DG; then:

 if segment is determined to be HIWR then assign HIDG;

 else if segment is determined to be LOWR then assign LODG.

20.4.3 Business (BUS)

(1) Assignment Year for Average Load Factor calculations: The previous calendar year (January through December) will be used to calculate the Average Load Factor.

(2) For each ESI ID, assign the applicable Profile Segment based on the paragraphs below. Because the paragraphs below are not mutually exclusive, it is necessary to step through each of the following in the order listed, for each ESI ID, until an applicable case is found. Once an applicable case has been found follow the instructions in paragraph (d)(v) below for ESI IDs that have Distributed Generation (per Section 20.7, Distributed Generation Request Template Instructions).

(a) Assign LRG, LRGDG, or IDRRQ Profile Segment to all BUS ESI IDs billed on a 4-CP tariff, or if 4-CP is not applicable to utility tariffs, a peak Demand greater than 700 kW or kVA. NOTE: Do not use LRGDG for SOG Premises. SOG Premises are assigned a RID to be used for submission of generation data.

(b) Assign the OGFLT (Oil & Gas Flat) Profile Segment to ESI IDs for which ERCOT has informed the TDSP that OGFLT should be assigned per Section 20.8, Oil & Gas Flat Profile Segment Assignment.

(c) Assign the NODEM Profile Segment for non-residential ESI IDs which are not billed demand.

(d) Determine the Average Load Factor (AvgLF) for ESI IDs that were not assigned a Profile Segment in Steps 1, 2, or 3 above.

(i) Determine Usage Month values (ActiveDaysm, kWDaysm, kWhm, MaxkWm, and ADUsem) for each ESI ID for the 12 months of the Assignment Year, which is listed in paragraph (x) above.

(ii) Compute the Average Hourly Usage (AHUsem) for the Usage Months of the Assignment Year.



where kWhm = consumption in kilowatt hours in Usage Month m; and

ActiveDaysm = Number of Active Days in Usage Month m.
\*Round to two decimal places, per the Rounding instructions in Section 19.1, Definitions.

(iii) Compute the Average Load Factor (AvgLF) as shown below for the Usage
Months of the current Assignment Year. TDSPs that measure kVA at the
ESI ID level should reference Section 20.9, Derivation of kW Values for TDSPs that Measure kVA at the ESI ID Level, before proceeding. The
Average Load Factor is a weighted average of the individual monthly load
factors, where demand levels are used to define the weights (presented in a
mathematically equivalent calculation below). AHUsem and MaxkWm
values are required for each of the 12 months of the current Assignment
Year in order to calculate AvgLF.



where AHUsem = Average Hourly Use in Usage Month m as previously defined; and

MaxkWm = Maximum metered kW Demand in Usage Month m, as defined on Section 20.5, Business Profile Group Usage Month Methodology.

 \*Round to two decimal places, per the Rounding instructions in Section 19.1.

(iv) For each ESI ID, assign the appropriate Profile Segment based on paragraphs (A) through (G) below. Because paragraphs (A) through (G) below are not mutually exclusive, it is necessary to step through each of the following in the order listed, for each ESI ID, until an applicable case is found. (Please note that the breakpoint values below are subject to change periodically.)

1. If there is no existing assignment and if the required data were
 not available to calculate the AvgLF (or if the mathematical
 calculation of the AvgLF is undefined due to a zero (0) in the
 denominator) then assign LOLF;

else if data were available (e.g., for Opt-in entities) to calculate the AvgLF then if the AvgLF < 0.40 then assign LOLF;

else if 0.40 ≤ AvgLF ≤ 0.60 then assign MEDLF;

else assign HILF.

1. If the existing assignment is LOLF (or a DG variation, such as
 LOWD) and if the required data were not available to calculate
 the AvgLF (or if the mathematical calculation of the AvgLF is
 undefined due to a zero (0) in the denominator) then do not change
 assignment from LOLF;

 else if the AvgLF < 0.40 then do not change assignment
 from LOLF;

 else if 0.40 ≤ AvgLF ≤ 0.60 then assign MEDLF;

 else assign HILF.

(C) If the existing assignment is MEDLF (or a DG variation) and
 if the required data were not available to calculate the AvgLF (or if
 the mathematical calculation of the AvgLF is undefined due to a
 zero (0) in the denominator) then do not change assignment from
 MEDLF;

 else if the AvgLF < 0.40 then assign LOLF;

 else if 0.40 ≤ AvgLF ≤ 0.60 then do not change assignment
 from MEDLF;

 else assign HILF.

(D) If the existing assignment is HILF (or a DG variation) and if
 the required data were not available to calculate the AvgLF (or if
 the mathematical calculation of the AvgLF is undefined due to a
 zero (0) in the denominator) then do not change assignment from
 HILF;

 else if the AvgLF < 0.40 then assign LOLF;

 else if 0.40 ≤ AvgLF ≤ 0.60 then assign MEDLF;

 else do not change assignment from HILF.

(E) If the existing assignment is IDRRQ and if the required data
 were not available to calculate the AvgLF (or if the mathematical
 calculation of the AvgLF is undefined due to a zero (0) in the
 denominator) then assign LOLF;

 else if the AvgLF < 0.40 then assign LOLF;

 else if 0.40 ≤ AvgLF ≤ 0.60 then assign MEDLF;

 else assign HILF.

(F) If the existing assignment is NODEM (or a DG variation) and
 if the required data were not available to calculate the AvgLF (or if
 the mathematical calculation of the AvgLF is undefined due to a
 zero (0) in the denominator) then assign LOLF;

 else if the AvgLF < 0.40 then assign LOLF;

 else if 0.40 ≤ AvgLF ≤ 0.60 then assign MEDLF;

 else assign HILF.

 (G) If the existing assignment is neither LOLF, MEDLF, HILF,
 IDRRQ, nor NODEM and if the required data were not available to
 calculate the AvgLF (or if the mathematical calculation of the
 AvgLF is undefined due to a zero (0) in the denominator) then
 assign LOLF;

else if the AvgLF < 0.40 then assign LOLF;

 else if 0.40 ≤ AvgLF ≤ 0.60 then assign MEDLF;

 else assign HILF.

(v) Assign a DG Profile Segment per Section 20.7, Distributed Generation Request Template Instructions and report the assignment to
ERCOT. Note: Do not assign a DG Profile Segment for SOG Premises.
SOG Premises are assigned an RID to be used for submission of
generation data.

 (A) If the ESI ID would otherwise be assigned IDRRQ then assign
 IDRRQ;

 (B) Else if the ESI ID has any PV generation then:

if segment is determined to be HILF then assign HIPV;

else if segment is determined to be MEDLF then assign MEDPV;

else if segment is determined to be LOLF then assign LOPV;

else if segment is determined to be NODEM then assign NODPV;

else if segment is determined to be OGFLT then assign OGFPV;

 (C) Else if the ESI ID has wind generation then:

 if segment is determined to be HILF then assign HIWD;

 else if segment is determined to be MEDLF then assign
 MEDWD;

else if segment is determined to be LOLF then assign LOWD;

else if segment is determined to be NODEM then assign NODWD;

else if segment is determined to be OGFLT then assign OGFWD;

(D) Else if the ESI ID has other DG then:

 if segment is determined to be HILF then assign HIDG;

 else if segment is determined to be MEDLF then assign
 MEDDG;

else if segment is determined to be LOLF then assign LODG;

else if segment is determined to be NODEM then assign NODDG;

 else if segment is determined to be OGFLT then assign
 OGFDG.

**20.5 BUSINESS PROFILE GROUP USAGE MONTH METHODOLOGY**

**20.5.1 Calculating Usage Month Values**

(1) Apply a usage value and if applicable, a demand value, to each day for which the ESI ID was Active. All of the kWh and demand values used in determining Usage Month values should be the values that have already been submitted to ERCOT via 867\_03 transactions.

(a) Apply a usage value to each day for which the ESI ID was not De-Energized or Inactive. (Note: Inactive is only listed here to help address programming issues.)

(i) For the periods when an ESI ID is Active, calculate the usage value for each day by dividing the usage (kWh) reported for the meter reading period by the number of days in the period, and round to two decimal places. The result is the Average Daily Use for the period (ADUsep). Assign the ADUsep to each day in the corresponding Usage Period.

(ii) If an ESI ID was De-Energized, then the ADUsep values (and demand values, if applicable) for the De-Energized days should be null. A zero (0) value is to be used only for the ADUsep (and demand values, if applicable) if the ESI ID is Active but the rounded calculated value (or recorded value for demand ESI IDs) is less than 0.005.

(iii) If an ESI ID is inactive, do not proceed further with Usage Month calculations.

(b) For ESI IDs that have an actual demand value for a specific Usage Period, apply the recorded demand value (kW) to each day in that Usage Period.

(c) Usage Month values (kWhm, MaxkWm, and ADUsem) shall not be calculated and shall be considered missing for any Usage Month that does not have at least 16 ActiveDays or at least 16 kWDays (where applicable).

(2) Determine the Total kWh in the Usage Month (kWhm) by summing the Daily Usage values in that Usage Month.

(3) Determine the Maximum kW value for the Usage Month (MaxkWm) by summing the demand values for each day in that Usage Month and then dividing by the number of days for which there are calculated kW values, and then round to two decimal places.

(4) Determine the Average Daily Use (ADUsem) for the Usage Month by dividing kWhm by ActiveDaysm, and then round to two decimal places.

(5) Proceed to Section 20.4, Steps for Assigning a Profile Segment.

(6) If you have any questions about the Usage Month Methodology, contact your ERCOT Account Manager.

**20.6 WEATHER ZONES**

****

**20.7 Distributed Generation Request Template Instructions**

(1) For ESI IDs that have a Distributed Generation (DG) capacity less than or equal to the DG registration threshold, have signed an interconnection agreement with the TDSP, and are not otherwise required to be assigned the IDRRQ Profile Segment, the TDSP is required to provide ERCOT (ERCOTLoadProfilingDepartment@ercot.com) with documentation of the following for each applicable ESI ID:

 (a) ESI ID;

 (b) Generation type (e.g., PV, Wind, Other: Renewable, Other: Non-Renewable);

 (c) Interconnection Agreement effective date;

 (d) Total inverter capacity (if applicable and available);

 (e) The inverter’s published peak efficiency rating (if applicable and available);

 (f) If PV generation is present: Total PV generation capacity in kW (DC);

 (g) If Wind generation is present: Total Wind generation capacity in kW (DC); and

 (h) If generation other than PV or Wind is present: Total generation capacity in kW
 (DC).

(2) Submitter/Requestor shall use the template available on the “DG Request” tab.

 (a) Do not add, delete or modify any rows above the column headings.

 (b) Do not change the column heading names.

 (c) Only one row per ESI ID - populate all applicable fields for that ESI ID.

(i) If multiple generation types exist for an ESI ID, enter the capacity information for each Generation Type in the appropriate column.

(ii) If any information is unknown or a field is not applicable, leave the cell blank (do not use N/A).

(iii) Example: If a premise has 10 kW of PV capacity installed, then later installs an additional 5 kW of Battery storage capacity, then the submitter shall input "10" for Total PV Capacity, and "5" for Total Other: Non-Renewable Capacity. Do not submit an additional row for any incremental capacity added.

DG Request Example:



(3) Per Public Utility Regulatory Act (PURA) 39.904(d), “Renewable Energy Technology” is defined as, “any technology that exclusively relies on an energy source that is naturally regenerated over a short time and derived directly from the sun, indirectly from the sun, or from moving water or other natural movements and mechanisms of the environment. Renewable energy technologies include those that rely on energy derived directly from the sun, on wind, geothermal, hydroelectric, wave, or tidal energy, or on biomass or biomass-based waste products, including landfill gas. A renewable energy technology does not rely on energy resources derived from fossil fuels, waste products from fossil fuels, or waste products from inorganic sources.”

(4) For questions or comments, please contact the Load Profiling Department at ERCOTLoadProfilingDepartment@ercot.com

**20.8 Oil & Gas Flat Profile Segment Assignment**

(1) Only the current CR of Record may seek to have the Oil & Gas Flat (OGFLT) Profile Segment assigned to one of their ESI IDs and are required to provide ERCOT (ERCOT LoadProfilingDepartment@ercot.com) with documentation, either electronic (preferred) or hard copy, of the following:

 (a) Sales Tax Exemption Certificate (on file with the CR for the ESI ID); and

(b) Customer Certification to the CR that the Customer holds an official Railroad Commission of Texas Operator Number and uses electricity at the premises identified by the ESI ID for the purpose of exploring, producing or transporting oil and/or natural gas extracted from the earth. This Customer Certification must be signed by an official company representative and shall list the Railroad Commission of Texas Operator Number, the name of the entity holding the Operator Number, the ESI ID and the service address of the ESI ID.

(2) In addition, for NIDR ESI IDs to be assigned the OGFLT profile, ERCOT shall validate that they are not weather sensitive.

(3) The Oil & Gas Flat segment assignment shall not change simply due to a switch in CRs.

(4) Should a previously approved ESI ID become ineligible to be served under an Oil & Gas Flat segment, then ERCOT shall notify the appropriate TDSP to change the Profile Type to the current appropriate default Profile Type as if the ESI ID represented a new premise. TDSPs shall make reasonable effort to effect the change using the appropriate Texas SET process as soon as possible after notification. ERCOT shall notify the CR of Record of any such changes to the Profile Type.

**20.9 Derivation of kW Values for TDSPs that Measure kVA at the ESI ID Level**

(1) The majority of TDSPs within ERCOT meter kW for Business ESI IDs above a specific demand level, typically from 10-20 kW. However, one or more TDSPs within ERCOT measure and record kVA demand at the ESI ID level, instead of kW demand. As kW values are needed to determine the Profile Segment for the BUS Profile Group, these TDSPs will have to derive kW values for the Load Factor calculations, per the conversion(s) listed below. However, when actual kW information is readily available for specific ESI IDs, then the actual kW values shall be used in determining the Profile Segment. TDSPs that measure and record kVA demand instead of kW demand at the ESI ID level and are not listed below should contact ERCOT to determine an appropriate conversion formula.

|  |  |
| --- | --- |
| TDSP | Conversion |
| CenterPoint Energy | kVA x 0.900 = kW1 |
| 1Round to two decimal places, per the Rounding instructions in Section 19.1, Definitions. |

**20.10 Profile ID Assignment for Non-Opt-In Entities**

(1) The Weather Zone Code is the only component for which a NOIE will have to make a determination in assigning the Profile ID. All other components of the Profile ID for NOIEs are default components.

(2) For each NOIE ESI ID:

(a) Step 1. Determine the ZIP Code of the official metering point and find it on the “ZipToZone” worksheet in Appendix D, Profile Decision Tree;

(b) Step 2. Cross-reference the ZIP Code to the corresponding Weather Zone;

(c) Step 3. Determine the valid Profile ID from those listed below; and

(d) Step 4. Assign the valid Profile ID on the NOIE Meter Point Registration Form.

|  |
| --- |
| **Valid Profile IDs for NOIEs** |
| Valid Profile ID for a NOIE metering point in the Coast Weather Zone: | BUSIDRRQ\_COAST\_IDR\_NWS\_NOTOU |
| Valid Profile ID for a NOIE metering point in the East Weather Zone: | BUSIDRRQ\_EAST\_IDR\_NWS\_NOTOU |
| Valid Profile ID for a NOIE metering point in the Far West Weather Zone: | BUSIDRRQ\_FWEST\_IDR\_NWS\_NOTOU |
| Valid Profile ID for a NOIE metering point in the North Central Weather Zone: | BUSIDRRQ\_NCENT\_IDR\_NWS\_NOTOU |
| Valid Profile ID for a NOIE metering point in the North Weather Zone: | BUSIDRRQ\_NORTH\_IDR\_NWS\_NOTOU |
| Valid Profile ID for a NOIE metering point in the South Central Weather Zone: | BUSIDRRQ\_SCENT\_IDR\_NWS\_NOTOU |
| Valid Profile ID for a NOIE metering point in the South Weather Zone: | BUSIDRRQ\_SOUTH\_IDR\_NWS\_NOTOU |
| Valid Profile ID for a NOIE metering point in the West Weather Zone: | BUSIDRRQ\_WEST\_IDR\_NWS\_NOTOU |

**20.11 PROFILE VALIDATION SCHEDULE**

**Profile Validation Schedule
*Effective TBD***

|  |
| --- |
| **Profile Validation Schedule** |
| **Year** | **Residential** | **Business** |
| 2018 | x | x |
| 2019 |  | x |
| 2020 |  | x |
| 2021 | x | x |
| 2022 |  | x |
| 2023 |  | x |
| 2024 | x | x |
| 2025 |  | x |
| 2026 |  | x |
| 2027 | x | x |
| 2028 |  | x |
| 2029 |  | x |
| 2030 | x | x |
| 2031 |  | x |
| 2032 |  | x |
| 2033 | x | x |
| 2034 |  | x |
| 2035 |  | x |
| 2036 | x | x |
| 2037 |  | x |
| 2038 |  | x |
| 2039 | x | x |
| 2040 |  | x |

\*\*\*NOTE TO SELF: INSERT PDT WORKSHEETS THAT ARE TO BE DELETED AS LAST STEP AS IT WILL SIGNIFICANTLY SLOW DOWN THE ABILITY TO NAVIGATE THIS DRAFT\*\*\*