

PROTOCOL DISCLAIMER

This Resource Registration Glossary describes ERCOT processes and is not intended to be a substitute for the ERCOT Nodal Protocols (available at <http://www.ercot.com/mktrules/nprotocols/>), 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.

SECTION 2: RESOURCE REGISTRATION GLOSSARY - Effective MMMM DD, YYYY														
RARF Tab	Wind	Conventional Generation (Gen)	Combined Cycle (CC)	Load Resources	Distributed Generation	Notes	Field Name	Definition / Detailed Description	Screening Study (SS) (R, C, O, A)	Full Interconnect Study (FIS) (R, C, O, A)	Planning Model (R, C, O, A)	Full Registration (R, C, O, A)	Effective Date	
GENERAL SITE ERGOS Information - General and Site Information														
General and Site	X	X	X		X	List	This submittal is for:	Select from drop down: New Site, Revision, Addition of unit(s), or Deletion of unit(s).			R	R		
General and Site	X	X	X		X	mm/dd/yyyy	Date Form Completed:	Enter date that form completed/revised in the format MM/DD/YYYY.				O		
General and Site	X	X	X		X	Text	Resource Entity Submitting Form:	Enter the name of the Resource Entity Interconnecting Entity . The RE must be the same entity name that filed on the Standard Form Agreement. The IE must be the same entity name that filed on the Generation Entity Information Sheet . The Protocols require that a Load Resource must also complete and submit an Application.			R	R		
General and Site	X	X	X		X	Number	Resource Entity DUNS #	Enter the Market Participant unique identifier as registered with ERCOT for the Resource Entity (e.g. DUNS number plus "3XXX" as assigned by ERCOT).	R	R	R	R		
General and Site	X	X	X		X	Text	Resource Site Name:	Resource site or main Facility name e.g. Cedar Bayou Plant). Determined jointly with ERCOT.				R		
General and Site	X	X	X		X	Text	Resource Site Code:	Code for Resource site (e.g. Cedar Bayou Plant is CBY). Determined jointly with ERCOT.	R	R	R	R		
General and Site	X	X	X		X	Text	Street Address:	Physical Street Address of the plant site			R	R		
General and Site	X	X	X		X	Text	City:	City of the site associated with the physical street address of the plant site.				R		
General and Site	X	X	X		X	Text	State:	State of the site associated with the physical street address of the plant site.				R		
General and Site	X	X	X		X	Text	Zipcode:	Zipcode of the site associated with the physical street address of the plant site.				R		
General and Site	X	X	X		X	List	County:	County of the site associated with the physical street address of the plant site.	R	R	R	R		
General and Site	X	X	X		X	Date	Site In-Service Date	Date is the date when site was (or is planned to be) commissioned. Entered once initially for the Screening Study. Updated once for FIS. Updated once for the Full Registration. Updated finally for the site commissioning.	R	R	R	R		
General and Site	X	X	X		X	Date	Site Stop Service Date	Date is the date when site will be decommissioned. Model Ready Date when RE retires or relinquishes ownership of all equipment. Blank if not applicable/known.					O	
General and Site	X	X	X		X	List	Congestion Management Zone for 2003:	This information can be found in the ERCOT Data Dictionary on the Planning and Operations Information website. For newer units, please contact ERCOT.				R		
General and Site	X	X	X		X	Y/N	Resource owned by NOIE? (Y/N)	Indicate Non Opt-In Entity Ownership of Resource	R	R	R	R		
General and Site	X	X	X		X	Y/N	Is Resource behind a NOIE Settlement Meter Point?(Y,N)	For Resources that are connected to the grid behind NOIE Settlement Meter Points				R		
General and Site	X	X	X		X		Number of EPS Primary meters:	Enter the total number of primary ERCOT-Polled Settlement (EPS) Meters associated with this site				R		
General and Site	X	X	X		X	Y/N	Is Resource claiming status as a Non-Modeled Generator as defined in ERCOT Protocol Section 2, Resource?	Refer to Protocol Section 2, Definitions and Acronyms, for the definition of a Non-Modeled Generator. Required if Resource is claiming Non-Modeled Generator status.				R		
General and Site	X	X	X		X	Y/N	Is Resource >10 MW?	Indicate if the Resource nameplate rating is greater than 10 MW (Gross). Required if Resource is claiming Non-Modeled Generator status.				C		
General and Site	X	X	X		X	Text	Primary Contact Printed Name:	Enter the Primary Contact person who can address ERCOT questions regarding Resource Registration submittal. Enter the contact's name, title, phone number, and email address and fax number.	R	R	R	R		
General and Site	X	X	X		X	Text	Title:	Enter the Title of the Primary Contact	R	R	R	R		
General and Site	X	X	X		X	Text	Phone Number:	Enter the Phone Number for the Primary Contact	R	R	R	R		
General and Site	X	X	X		X	Text	E-mail Address:	Enter the E-mail Address for the Primary Contact	R	R	R	R		
General and Site	X	X	X		X	Text	Fax Number:	Enter the Fax Number for the Primary Contact			R	O		
General and Site	X	X	X		X	Text	Secondary Contact Printed Name:	Enter the Secondary Contact person who can address ERCOT questions regarding Resource Registration submittal. Enter the contact's name, title, phone number, email address, and fax number.	O	O	O	O		
General and Site	X	X	X		X	Text	Title:	Enter the Title of the Secondary Contact			O	O		

General and Site	X	X	X		X		Phone Number:	Enter the Phone Number for the Secondary Contact				O	O	
General and Site	X	X	X		X		E-mail Address:	Enter the E-mail Address for the Secondary Contact				O	O	
General and Site	X	X	X		X		Fax Number:	Enter the Fax Number for the Secondary Contact				O	O	
GENERAL SITE, ESIID Information - Gen Load Split - ESIID														
Gen Load Split - ESIID	X	X	X		X	Y/N	Generation- Load Splitting? (Y-or-N)	Indicate Select "Y" if unit(s) represent Split Generation Resources behind the EPS Meter, or, if Load is split across multiple TDSPs.					R	
Gen Load Split - ESIID	X	X	X		X	Y/N	ERCOT Read Meter?(Y-or-N)	Indicate Select "Y" if the meter is an ERCOT Polled Settlement Meter.					R	
Gen Load Split - ESIID	X	X	X		X	Number	ESI ID	Enter the ESI ID associated with EACH EPS meter. Required unless behind a NOIE Settlement Point.					C	
Gen Load Split - ESIID	X	X	X		X	List	TDSP Providing Service To Resource	From the drop-down menu, select the name of the TDSP that provides transmission or distribution service to the site for the ESI ID. Required unless behind a NOIE Settlement Point.					C	
Gen Load Split - ESIID	X	X	X		X	Automatic	TDSP DUNS Number:	The TDSP DUNS number is automatically populated based on TDSP selection.					A	
Gen Load Split - ESIID	X	X	X		X	%	Fixed Load Splitting%	Enter the fixed percentage of Load associated with each ESI ID.					C	
Gen Load Split - ESIID	X	X	X		X	List	Load Serving Entity	Enter the Load Serving Entity (LSE) associated with that ESI ID.					C	
Gen Load Split - ESIID	X	X	X		X	Automatic	Load Serving Entity DUNS #	The LSE DUNS number is automatically populated based on LSE selection.					A	
GENERAL SITE, ESIID Information - Private Network - Site														
Private Network - Site	X	X	X		X	Y/N	Private Network?	Indicate if the site is a Private Use Network as defined in the Protocol Section 2.	R	R		R	R	
Private Network - Site	X	X	X		X	MW	Average Amount of Self-Serve pPrivate Load	If the site is a Private Use Network, then enter the amount of the total site SITE generation MW output used for self serve and not available for the grid.	C	C		C	C	
Private Network - Site	X	X	X		X	MVAR	Average Amount of Self-Serve pPrivate rReactive Load	If the site is a Private Use Network, then enter the amount of the total site SITE generation MVar output used for self serve and not available for the grid.	C	C		C	C	
Private Network - Site	X	X	X		X	MW	Expected Typical Private Network Net Interchange	If the site is a Private Use Network, then enter the MW Net Interchange of the SITE, with the ERCOT grid (typically Net=Gen-Load).	C	C		C	C	
Private Network - Site	X	X	X		X	MVAR	Expected Typical Private Network Net Reactive Interchange	If the site is a Private Use Network, then enter the MVA Net Interchange with of the SITE, with the ERCOT grid (typically Net=Gen-Load).	C	C		C	C	
Private Network - Site	X	X	X		X	MW	Private Network Gross Unit Capability	If the site is a Private Use Network, then enter the MW Gross Generation Capability for the Site SITE.	C	C		C	C	
Private Network - Site	X	X	X		X	MVAR	Private Network Gross Unit Reactive Capability	If the site is a Private Use Network, then enter the MVA Gross Generation Capability for the Site SITE.	C	C		C	C	
Private Network - Site	X	X	X		X	%	Large Motor, Ppercent of Ttotal MW Load	Enter % of total MW Load per Load type. The split between large and small motor should be along voltage lines - where motors connected at 2400/4160V and above should be considered large, and below 2400/4160V should be considered small.				C	C	
Private Network - Site	X	X	X		X	%	Small Motor, Ppercent of Ttotal MW Load	Enter % of total MW Load per Load type. The split between large and small motor should be along voltage lines - where motors connected at 2400/4160V and above should be considered large, and below 2400/4160V should be considered small.				C	C	
Private Network - Site	X	X	X		X	%	Resistive (Heating) Load, Ppercent of Ttotal MW Load	Enter % of total MW Load per Load type.				C	C	
Private Network - Site	X	X	X		X	%	Discharge Lighting, Ppercent of Ttotal MW Load	Enter % of total MW Load per Load type.				C	C	
Private Network - Site	X	X	X		X	%	Other, Ppercent of Ttotal MW Load	Enter % of total MW Load per Load type.				C	C	
Private Network - Site	X	X	X		X	%	Large Motor, Ppercent of Ttotal MVAR Load	Enter % of total MVar Load per Load type. The split between large and small motor should be along voltage lines - where motors connected at 2400/4160V and above should be considered large, and below 2400/4160V should be considered small.				C	C	
Private Network - Site	X	X	X		X	%	Small Motor, Ppercent of Ttotal MVAR Load	Enter % of total MVar Load per Load type. The split between large and small motor should be along voltage lines - where motors connected at 2400/4160V and above should be considered large, and below 2400/4160V should be considered small.				C	C	
Private Network - Site	X	X	X		X	%	Discharge Lighting, Ppercent of Ttotal MVAR Load	Enter % of total MVar Load per Load type.				C	C	
Private Network - Site	X	X	X		X	%	Other, Ppercent of Ttotal MVAR Load	Enter % of total MVar Load per Load type.				C	C	
Unit Information														
Unit Information	X	X	X		X	Text	Resource Site Code:	Enter the Site Code established in the General and Site Information tab of the GENERAL SITE ESIID Information workbook.	R	R		R	R	
Unit Information	X	X	X		X	Text All Caps	UNIT NAME	Enter Unit Code for the generator unit (e.g., Cedar Bayou Plant Gen 1 is "CBYG1").	R	R		R	R	
Unit Information	X	X	X		X	Automatic	Resource Name (Unit Code/Mnemonic)	Concatenated mnemonic of Resource Site Code and Unit name (e.g. CBY CBYG1).				A	A	
Unit Information	X	X	X		Y/N		Non-Modeled Generator	Refer to ERCOT Protocol Section 2 for the definition of a Non-Modeled Generator.				R	R	
Unit Information	X	X	X		Number		PUC Registration Number	Enter the PUCT registration number.				O	O	
Unit Information	X	X	X		Number		ERCOT Interconnection Project Number - Only New Units	Enter the ERCOT INR number. Required for new or upgraded units.		C		C	C	
Unit Information	X	X	X		Number		NERC Number	Enter NERC NCR number.				O	O	
Unit Information	X	X	X		Y/N		Qualifying Facility	Refer to ERCOT Protocol Section 2 for the definition of Qualifying Facility.					R	
Unit Information	X	X	X		mm/dd/yyyy Date		Transmission Only MRD	Planned Point of Interconnection (POI) substation energization (backfeed) model ready date for new Resources used to plan Resource integration schedule. Proposed model load date for RE-owned transmission equipment.					O	
Unit Information	X	X	X		mm/dd/yyyy Date		Standard Generation Interconnection Agreement (SGIA) Signature Date	Enter the date the Resource signed SGIA. For NOIEs, use MOU date.					R	

Unit Information	X	X	X		X	mm/dd/yyyy Date	Unit Start Date (Model Ready Date)	Planned initial energy production (synchronization) date for a new unit used to plan the resource integration schedule. Proposed model load date for unit. Required for new units only.					O	
Unit Information	X	X	X			mm/dd/yyyy Date	Unit Commercial Date	Enter the unit's planned commercial operations date. (used in accordance with paragraph (b) of Protocol Section 4.4.9.4.1, Mitigated Offer Cap). After commercial operations is declared, this field should be updated with the actual commercial operations date.	R	R		R	R	
Unit Information	X	X	X		X	mm/dd/yyyy Date	Unit End Retirement Date	Entry of a date in this field will result in the unit being removed from the ERCOT model. Enter the model ready date of expected or actual retirement. Leave blank if not known/applicable.					O	
Unit Information	X	X	X			All Caps	SubStation Code/SubStation Mnemonic (PGH)	Enter the interconnecting transmission station code. If you need assistance in determining the corresponding ERCOT Substation Code/Substation Mnemonic, please work with-consult your TDSP, or ERCOT. For the SS/FIS, if a substation code cannot be identified, leave field blank and enter the expected electrical connection point as text in the comment section.	R-O	R O		R	R	
Unit Information	X	X	X			kV	Voltage Level (PGH)	Enter the nominal voltage level at the Point of Interconnection (e.g. 69kV, 138kV, 345kV). If you need assistance in determining the corresponding Voltage Level, please work with consult your TDSP, or ERCOT.	R	R		R	R	
Unit Information	X	X	X			# Number	PTI Bus Number (PGH)	Enter the PTI Bus Number at the Point of Interconnection in the planning model. If you need assistance in determining the corresponding PTI Bus Number, please work with consult your TDSP, or ERCOT.	R-O	R O		R	R	
Unit Information	X	X	X		X	List	Primary Fuel Type	AB -- Agriculture Byproducts (bagasse, straw, energy crops) BFG -- Blast-Furnace Gas BIT -- Bituminous Coal	R	R		R	R	
Unit Information	X	X	X			List	Secondary Fuel Type	Same data entry elements as primary fuel type, but for secondary or start-up fuel. CV -- Conveyor PL -- Pipeline RR -- Railroad TK -- Truck NA -- Not Applicable	R	R		R	R	
Unit Information	X	X	X			List	Fuel Transportation Type						R	
Unit Information	X	X	X		X	List	Resource Category	Hydro Coal and Lignite Combined Cycle ≤ 90 MW* Combined Cycle > 90 MW* Gas Steam - Supercritical Boiler Gas Steam - Reheat Boiler Gas Steam - Non-reheat or Boiler without air-preheater Simple Cycle ≤ 90 MW Simple Cycle > 90 MW Diesel Renewable Reciprocating Engine Solar Power Storage Other				R	R	
Unit Information	X	X	X		X	Y/N	Renewable	Indicate if the unit is a Renewable Energy Credit (REC) generator, as certified with the PUCT.					R	
Unit Information	X	X	X		X	Y/N	Renewable/Offset	REC offset generators that produce generation to cover offsets they have been approved to provide, as certified with the PUCT.					R	
Unit Information	X	X	X		X	List	Physical Unit Type	CA -- Combined cycle steam turbine part (includes steam part of integrated coal gasification combined cycle) CC -- Combined cycle total unit (use only for plants/generators that are in planning stage, for which Manufacturer designed Name-Plate MVA Rating of this unit at its rated power factor (gross).	R	R		R	R	
Unit Information	X	X	X		X	MVA	Name Plate Rating	Maximum-rated Manufacturer designed MW at rated power factor (gross).	R	R		R	R	
Unit Information	X	X	X			MW	Real Power Rating	Manufacturer designed Maximum MVA at rated power factor (gross).	R	R		R	R	
Unit Information	X	X	X			MVAR	Reactive Power Rating	Maximum-gross Manufacturer designed MW of the turbine (gross).	R	R		R	R	
Unit Information	X	X	X			MW	Turbine Rating	Terminal voltage of generating unit, as modeled (typically equivalent to low side of GSIU).	R	R		R	R	
Unit Information	X	X	X			kV	Unit Generating Voltage	The percent change in nominal frequency that will cause generator output to change from no Load to full Load. (e.g. for 5% use .05)	R	R		R	R	
Unit Information	X	X	X			%	Governor Droop Settings	The maximum Hz deviation of system frequency (+/-) that produces no turbine Governor response, and therefore, no frequency (speed) regulation.					R	
Unit Information	X	X	X			Hz	Governor Dead-band	The range of deviations of system frequency (+/-) that produces no Primary Frequency Response.					O	
Unit Information	X	X	X			degree F	Design Max Ambient Temperature	This is the plant design maximum (high) air temperature.					O	
Unit Information	X	X	X			degree F	Design Min Ambient Temperature	This is the plant design minimum (low) air temperature.					O	
Unit Information	X					degree F	Maximum Operating Temperature	The highest ambient temperature at which individual turbines may cease operating due to procedural requirements or equipment limitations. (Most limiting condition)					R	Insert field upon system implementation of RRGR003

Unit Information	X					degree F	Minimum Operating Temperature	The lowest ambient temperature at which individual turbines may cease operating due to procedural requirements or equipment limitations. (Most limiting condition)					R	Insert field upon system implementation of RRGRR003
Unit Information	X					m/s	High Wind Speed Cut-Out	Sustained wind speed in meters per second at which the turbine will cease operations due to high wind speed					R	Insert field upon system implementation of RRGRR003
Unit Information						minutes	High Wind Speed Cut-Out time	The amount of time associated with the high wind speed cut-out value. (The time used to determine if it is a sustained value, instead of a gust value)					R	Insert field upon system implementation of RRGRR003
Unit Information	X					m/s	High Wind Speed Cut-Out Reset	The wind speed at which a turbine will begin operating following a cut-out event					R	Insert field upon system implementation of RRGRR003
Unit Information						minutes	High Wind Speed Cut-Out Reset Time	The amount of time associated with the high wind speed cut-out reset value. (The amount of time at or below the reset value following a high wind speed cut-out event before the turbine will begin operating)					R	Insert field upon system implementation of RRGRR003
Unit Information	X	X	X			decimal degrees (N)	Latitude Of Center Of Plant	The geographic coordinate that specifies the north-south position of the plant provided in decimal degrees	R	R		R	R	
Unit Information	X	X	X			decimal degrees (W)	Longitude Of Center Of Plant	The geographic coordinate that specifies the east-west position of the plant provided in decimal degrees	R	R		R	R	
Unit Info - DG														
Unit Info - DG					X	List	Technology Type	(FS) Fossil Fuel Steam (GT) Gas Turbine (H) Hydro (W) Wind, (S) Solar (X) Other						
Unit Info - DG					X	#	If Wind, Number of Turbines	Count total of wind turbines	R	R		R	R	
Unit Info - DG					X	Y/N	Private Network / Cogen	A cogen is a generating facility that produces electricity and another form of useful thermal energy used for industrial, commercial, heating, or cooling purposes. N/A for DRG						
Unit Info - DG					X	MW	Amount of Self Serve for Cogen	Amount of the unit output used for self serve and not available for the grid						
Unit Info - DG					X	MW	Private Network Net Interchange	For private networks, the net interchange shall be provided along with gross MW and Mvar per generating unit. (ERCOT Operating Guides)						
Unit Info - DG					X	MW	Private Network Gross Unit (MW)	For private networks, the net interchange shall be provided along with gross MW and Mvar per generating unit. (ERCOT Operating Guides)						
Unit Info - DG					X	MVAR	Private Network Gross Unit (MVAR)	For private networks, the net interchange shall be provided along with gross MW and Mvar per generating unit. (ERCOT Operating Guides)						
Unit Info - DG					X	List	Generic Fuel Category	1) Coal and Lignite 2) Combined Cycle greater than 90 MW 3) Combined Cycle less than or equal to 90 MW 4) Diesel (and all other diesel or gas-fired Resources) 5) Gas Steam Non-reheat Boiler or Boiler without air-preheater 6) Gas Steam Reheat Boiler 7) Gas Steam Supercritical Boiler 8) Hydro 9) Nuclear 10) Other Renewable (i.e. non-hydro renewable Resources) 11) Power Storage 12) Simple Cycle greater than 90 MW 13) Simple Cycle less than or equal to 90 MW						
Unit Info - DG					X	List	Generic Start-up / Operating Category	1) Base Load 2) Gas-Cyclic 3) Gas-Intermediate 4) Gas-Peaking 5) Renewable (Including Hydro)						
Unit Info - DG					X	all caps	Resource Entity Name Owner	Enter the name of the Resource Entity who owns all or a portion of this unit.					R	
Unit Info - DG					X		Resource Entity Owner Duns Number	Enter the name of the Resource Entity/ Interconnecting Entity. The RE must be the same entity name that filed on the Standard Form Agreement. The IE must be the same entity name that filed on the Generation Entity Information Sheet. The Protocols require that a Load Resource must also complete and submit an Application.					R	
Unit Information - AGR														
Unit Info - AGR		X				All Caps	Resource Name (Unit Code/Mnemonic)	Enter concatenated mnemonic of Resource Site Code and Unit name (e.g. CBY_CBYG1).		R		R	R	
Unit Info - AGR		X				All Caps	Aggregated Generation Resource(Manufacturer/Model)	From name-plate or manufacturer data sheet		R		R	R	
Unit Info - AGR		X				MW	MW Rating for this Aggregated Generation Resource	MW Rating of each generator of Manufacturer/Model in this AGR		R		R	R	
Unit Info - AGR		X				# Number	Number of this type of Aggregated Generation Resource	Count of generators of this Manufacturer/Model in this AGR		R		R	R	

Unit Information - Train												
Unit Info - TRAIN			X			Text	Resource Site Code:	Enter the Site Code established in the General and Site Information tab of the GENERAL SITE ESJD Information workbook.	R	R	R	R
Unit Info - TRAIN			X			List	Train Name	Select Train name from drop-down list, assigned by-ERCOT	R	R	R	R
Unit Info - TRAIN			X			Automatic	Train Code	A sitecode and train name code concatenation			A	A
Unit Info - TRAIN			X			Y/N	Non_Modeled Generator	Refer to ERCOT Protocol Section 2 for the definition of a Non-Modeled Generator.			R	R
Unit Info - TRAIN			X			Number	PUC Registration Number	Enter the PUCT registration number.				O
Unit Info - TRAIN			X			Number	ERCOT Interconnection Project Number - only new units	Enter the ERCOT INR number. Required for new or upgraded units.		C	C	C
Unit Info - TRAIN			X			Number	NERC Number	Enter NERC NCR number.				O
Unit Info - TRAIN			X			Y/N	Qualifying Facility	Refer to ERCOT Protocol Section 2 for the definition of Qualifying Facility.				R
Unit Info - TRAIN			X			mm/dd/yyyy Date	Transmission Only MRD	Planned Point of Interconnection (POI) substation energization (backfeed), model ready date for new Resources used to plan Resource integration schedule.				O
Unit Info - TRAIN			X			mm/dd/yyyy Date	Train Unit Commercial Date	Proposed model load date for RE-owned transmission equipment. Train Unit Commercial Operations Date The date at which the Resource Entity anticipates or declares the resource (first generator in train) released for commercial operations. It is the date on which Generator declares that the construction of the plant has been substantially completed, initial operation of the plant has been completed, and commercial operations has been declared. Format is MM/DD/YYYY	R	R	R	R
Unit Info - TRAIN			X			mm/dd/yyyy Date	Train Unit Retirement Date	Train Unit Retirement Date in MM/DD/YYYY format. Leave blank if not unknown/applicable.				O
Unit Info - TRAIN			X			Y/N	Is Train Augmented With Duct Burner(s)?	Indicate whether Duct Burner(s) augmentation is available for use for increased capacity				R
Unit Info - TRAIN			X			Y/N	Is Train Augmented with Evap Cooler(s)?	Indicate whether Evap Cooler(s) augmentation is available for use for increased capacity				R
Unit Info - TRAIN			X			Y/N	Is train augmented with Chiller(s)?	Indicate whether Chiller(s) augmentation is available for use for increased capacity				R
Unit Info - TRAIN			X			Y/N	Other augmentation?	Indicate whether other augmentation is available for use for increased capacity				R
Unit Info - TRAIN			X			decimal degrees (N)	Latitude of center of Plant	The geographic coordinate that specifies the north-south position of the plant provided in decimal degree	R	R	R	R
Unit Info - TRAIN			X			decimal degrees (W)	Longitude of center of Plant	The geographic coordinate that specifies the east-west position of the plant provided in decimal degree	R	R	R	R
Unit Information - CC												
Unit Info - CC			X			Text	Resource Site Code:	Enter the Site Code established in the General and Site Information tab of the GENERAL SITE ESJD Information workbook.	R	R	R	R
Unit Info - Wind - Additional Wind Unit Information												
Unit Info - Wind	X					meters	Average Height above ground of Turbine Hub	Used for Wind Generation Forecasting				R
Unit Info - Wind	X					decimal degrees (N)	Latitude of Meteorological Tower	Used for Wind Generation Forecasting. For multiple meteorological towers, select one location that best represents the conditions for the site.				R
Unit Info - Wind	X					decimal degrees (W)	Longitude of Meteorological Tower	Used for Wind Generation Forecasting. For multiple meteorological towers, select one location that best represents the conditions for the site.				R
Unit Info - Wind	X					meters	Height of Meteorological Instrumentation - Wind speed	Used for Wind Generation Forecasting				R
Unit Info - Wind	X					meters	Height of Meteorological Instrumentation - Wind direction	Used for Wind Generation Forecasting				R
Unit Info - Wind	X					meters	Height of Meteorological Instrumentation - Barometric pressure	Used for Wind Generation Forecasting				R
Unit Info - Wind	X					meters	Height of Meteorological Instrumentation - Temperature	Used for Wind Generation Forecasting				R
Unit Info - Turbine Details												
Turbine Details	X					Automatic List	Resource Name (Unit Code/Mnemonic)	Concatenated mnemonic of Resource Site Code and Unit name (e.g. CBY CBYG1).			A	A
Turbine Details	X					# Number	WGR Group	WGR Group # 1,2,3... only if grouping two or more WGRs. Leave blank if not grouping. Refer to definition of Wind-powered Generation Resource Group in Protocol Section 2.				O
Turbine Details	X					Automatic	Site_Group	Automatic field				A
Turbine Details	X					Number	Total Number of Turbines	Count total of wind turbines	R	R	R	R
Turbine Details	X					All Caps	Turbine Manufacturer and Model	From name-plate or manufacturer data sheet	R	R	R	R
Turbine Details	X					MW	MW Rating for this model of Turbine	From name-plate or manufacturer data sheet	R	R	R	R
Turbine Details	X					# Number	Number of Turbine Manufacturer/Model	Count of wind turbines in this group WGR of the specified Manufacturer/Model	R	R	R	R
Turbine Details	X					1,2,3,4,5 Number	Turbine Type	Indicate the type of turbine (eg. Type 1, 2, 3, 4, 5) Type 1 WTG - Fixed-speed-wind-turbine Conventional induction generator Type 2 WTG - Variable-slip-wind-turbine Variable Rotar-Resistance Induction generator Type 3 WTG - Doubly-fed-induction-turbines (DFIG) Doubly fed asynchronous generator Type 4 WTG - Variable-speed-full-converter-turbines Full-converter unit Type 5 WTG - Synchronous-Generator (hydraulic transmission)/Variable Ratio Converter Coupled Synchronous Generator			R	R
Turbine Details	X					MVA	What Is The MVA Base That The Following Data is Based On?	The MVA Base for stated impedances.		R	R	R
Turbine Details	X					KV	What Is The Kv Base That The Following Data is Based On?	The KV Base for stated impedances.		R	R	R
Turbine Details	X					p.u.	Subtransient Reactance X", (Instantaneous Fault Current Period) (unsaturated)	Enter the instantaneous subtransient reactance (unsaturated) for the fault.		R	R	R

Turbine Details	X					p.u.	Transient Reactance, X' (First 2-3 cycles of the Fault (unsaturated))	Enter the transient reactance (unsaturated) for the first 2-3 cycles of the fault.			R	R		R	
Turbine Details	X					R in p.u.	Positive Sequence Resistance (unsaturated)	Enter the positive sequence resistance (unsaturated) for system models.			R	R		R	
Turbine Details	X					X in p.u.	Synchronous Reactance X (After 4 cycles of the fault) (unsaturated)	Enter the synchronous reactance (unsaturated) after 4 cycles of the fault.			R	R		R	
Turbine Details	X					R in p.u.	Negative Sequence Z (unsaturated)	Enter the negative sequence resistance (unsaturated) for system models.			R	R		R	
Turbine Details	X					X in p.u.	Negative Sequence Z (unsaturated)	Enter the negative sequence reactance (unsaturated) for system models.			R	R		R	
Turbine Details	X					R in p.u.	Zero Sequence Z (unsaturated)	Enter the zero sequence resistance (unsaturated) for system models.			R	R		R	
Turbine Details	X					X in p.u.	Zero Sequence Z (unsaturated)	Enter the zero sequence reactance (unsaturated) for system models.			R	R		R	
Turbine Details	X					p.u.	Subtransient Reactance X'',(Instantaneous Fault Current Period) (saturated)	Enter the instantaneous subtransient reactance (saturated) for the fault.			R	R		R	
Turbine Details	X					p.u.	Transient Reactance, X' (First 2-3 cycles of the Fault (saturated))	Enter the transient reactance (saturated) for the first 2-3 cycles of the fault.			R	R		R	
Turbine Details	X					R in p.u.	Positive Sequence Resistance (saturated)	Enter the positive sequence resistance (saturated) for system models.			R	R		R	
Turbine Details	X					X in p.u.	Synchronous Reactance X (After 4 cycles of the fault) (saturated)	Enter the synchronous reactance (saturated) after 4 cycles of the fault.			R	R		R	
Turbine Details	X					R in p.u.	Negative Sequence Z (saturated)	Enter the negative sequence resistance (saturated) for system models.			R	R		R	
Turbine Details	X					X in p.u.	Negative Sequence Z (saturated)	Enter the negative sequence reactance (saturated) for system models.			R	R		R	
Turbine Details	X					R in p.u.	Zero Sequence Z (saturated)	Enter the zero sequence resistance (saturated) for system models.			R	R		R	
Turbine Details	X					X in p.u.	Zero Sequence Z (saturated)	Enter the zero sequence reactance (saturated) for system models.			R	R		R	
Turbine Details	X					p.u.	Grounding Resistance For An Impedance Grounded Generator In p.u. (100 MVA Base)	Zero sequence resistance value of the generator grounding impedance is required. The value must be specified on a 100 MVA base.			R	R		R	
Turbine Details	X					p.u.	Grounding Reactance For An Impedance Grounded Generator In p.u. (100 MVA Base)	Zero sequence reactance value of the generator grounding impedance is required. The value must be specified on a 100 MVA base.			R	R		R	
Turbine Details	X					p.u.	Instantaneous Controlled Fault Current Magnitude (Multiple of full Load current) for Turbine Types 3 & 4	Wind turbine instantaneous fault current magnitude for Type 4 and Type 3, if the controls operate (no crowbar operation) as a percent of full Load current, expressed in per unit.				C		C	
Turbine Details	X					p.u.	Controlled Fault Current Magnitude At 2 to 3 cycles after fault (Multiple of full Load current) for Turbine Types 3 & 4	Wind turbine fault current magnitude at 2 – 3 cycles after a fault for Type 4 and Type 3, if the controls operate (no crowbar operation) as a percent of full Load current, expressed in per unit.				C		C	
Turbine Details	X					p.u.	Controlled Fault Current Magnitude At 4 plus cycles after fault (Multiple of full Load current) for Turbine Types 3 & 4	Wind turbine fault current magnitude at 4+ cycles after a fault for Type 4 and Type 3, if the controls operate (no crowbar operation) as a percent of full Load current, expressed in per unit.				C		C	
Turbine Details	X					kV	High Side Voltage Level (nominal)	Enter the voltage level (in kV) on the high-voltage side of the wind generator pad-mount transformer.				R		R	
Turbine Details	X					kV	Low Side Voltage Level (nominal)	Enter the voltage level (in kV) on the low-voltage side of the wind generator pad-mount transformer.				R		R	
Turbine Details	X					List	High Side Voltage Connection	Identify the type of connection used for the windings (Wye/Delta and Neutral Grounding) on the high-voltage side of the transformer.				R		R	
Turbine Details	X					List	Low Side Voltage Connection	Identify the type of connection used for the windings (Wye/Delta and Neutral Grounding) on the low-voltage side of the transformer.				R		R	
Turbine Details	X					p.u.	Impedance Z	Enter the impedance of the transformer.				R		R	
Turbine Details	X						X/R Ratio	Enter the ratio of the reactance to the resistance of the transformer.				R		R	
Turbine Details	X					p.u.	Zero Sequence Z	Enter the zero sequence impedance of the transformer.				R		R	
Turbine Details	X						Zero Sequence X/R Ratio	Enter the ratio of the zero sequence reactance to the zero sequence resistance of the transformer				R		R	
Turbine Details	X					MVA	Base MVA For Transformer Data	Enter the base MVA upon which the per unit transformer data is provided.				R		R	
Ownership															
Ownership	X	X				List	Unit Name	Code for name of generator unit, as provided on the Unit Information Train tab.				R		R	
Ownership			X			List	Train Name	Code for name of Train, as provided on the Unit Information Train tab.						R	
Ownership			X			Automatic	Train Code	A sitecode and train name eede concatenation				A		A	
Ownership	X	X	X			Automatic?List for Gen	Resource Name (Unit Code/Mnemonic)	Concatenated mnemonic of Resource Site Code and Unit name (e.g. CBY CBYG1).						A	
Ownership	X	X				Y/N	Joint Ownership?	Does unit have multiple owners? (does not apply to CC Units, as they must have a single owner for each Train.				R		R	
Ownership	X	X	X			Text	Resource Entity Name	Enter the name of the Resource Entity who owns all or a portion of this unit.						C	
Ownership	X	X	X			Number-9-13 digits	Resource Duns Number	Enter the name of the Resource Entity DUNS # who owns all or a portion of this unit (or Train)						C	
Ownership	X	X	X			%	Fixed Ownership	Percentage of ownership for this unit that this Resource Entity owns in decimal format. (Does not apply to CC Units, as they must have a single owner for each Train.						C	
Ownership	X	X	X			Y/N	Master Owner	Is this Resource Entity the Master Owner of the unit? (does not apply to CC Units, as they must have a single owner for each Train.)				R		R	
Ownership	X	X	X			mm/dd/yyyy Date	Ownership Start Date	Date this Resource Entity ownership was started. Enter the date ownership started, or, the model ready date of expected ownership transfer to your RE . Leave blank if not applicable.						O	

Ownership	X	X	X			mm/dd/yyyy Date	Ownership Stop Date	Date this Resource Entity ownership was stopped. Enter the model ready date (minus 1 day) of expected ownership transfer from your RE. Leave blank if not applicable.					O	
Parameters														
Parameters			X			List	SITECODE	For Parameters - CFG - enter the Site Code established in the General and Site Information tab of the GENERAL_SITE_ESID_Information workbook.				R	R	
Parameters			X			List	Train Code	For Parameters - CFG - enter the Train Code as provided on the Unit Information Train tab. Select from drop-down list.				R	R	
Parameters			X			List	Configuration Code	For Parameters - CFG - enter the Concatenated code of the Train Code and the Configuration Number. Select from drop-down list.				R	R	
Parameters	X	X	X			List	UNIT NAME	Code for name of generator unit, as provided on the Unit Information tab.				R	R	
Parameters	X	X	X			Automatic	Resource Name (Unit Code/Mnemonic)	Concatenated mnemonic of Resource Site Code and Unit name (e.g. CBY_CBYG1).				A	A	
Parameters	X	X	X			MW	High Reasonability Limit	<p>enough such that actual unit output or submitted HSL would not exceed the HRL for any foreseeable conditions; yet low enough to protect the Market Participant from input errors into market bids and offers, and uUsed by ERCOT to alarm/reject data exceeding this value. Per Protocol 3.7.1, Resource Parameter Criteria, also used to validate reactive capability curves</p> <p>A theoretical value of net generation above which, the generator is not expected to operate under most conceivable conditions. This value is used by ERCOT market systems to validate COP submissions of HSL, telemetered HSL, and certain offers which may have been entered in error by the QSE. The HRL is also used in settlements to deconstruct prices at a CCT logical resource node.</p>					R	
Parameters	X	X	X			MW	Low Reasonability Limit	<p>An "Out-of-Bounds" value utilized by ERCOT to reject LSL/LEL submissions by the Market Participant, chosen by Resource Entity, and uUsed by ERCOT to alarm/reject data below this value. Per Protocol Section 3.7.1, also used to validate reactive capability curves.</p> <p>A theoretical limit of net generation below which, the generator is not expected to operate under most conceivable conditions. This value is used by ERCOT market systems to validate COP submissions of LSL, telemetered LSL, and certain offers which may have been entered in error by the QSE.</p>					R	
Parameters	X	X	X			MW/min	High Reasonability Ramp Rate Limit	An "Out-of-Bounds" value chosen by the Resource Entity that represents the maximum magnitude of the values entered for the up and down ramp rates used by SCED, and uUsed by ERCOT to alarm/reject data exceeding this value. SCED is also bounded by this value.					R	
Parameters	X	X	X			MW/min	Low Reasonability Ramp Rate Limit	An "Out-of-Bounds" value chosen by the Resource Entity that represents the minimum magnitude of the values entered for the up and down ramp rates used by SCED, and uUsed by ERCOT to alarm/reject data below this value. SCED is also bounded by this value.					R	
Parameters	X	X	X			MW	Seasonal Net Max Sustainable Rating - Spring	Spring months are March, April, and May. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.				R	R	
Parameters	X	X	X			MW	Seasonal Net Min Sustainable Rating - Spring	Spring months are March, April, and May. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.				R	R	
Parameters	X	X	X			MW	Seasonal Net Max Emergency Rating - Spring	Spring months are March, April, and May. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.					R	
Parameters	X	X	X			MW	Seasonal Net Min Emergency Rating - Spring	Spring months are March, April, and May. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.					R	
Parameters	X	X	X			MW	Seasonal Net Max Sustainable Rating - Summer	Summer months are June, July, and August. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.				R	R	
Parameters	X	X	X			MW	Seasonal Net Min Sustainable Rating - Summer	Summer months are June, July, and August. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.				R	R	
Parameters	X	X	X			MW	Seasonal Net Max Emergency Rating - Summer	Summer months are June, July, and August. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.					R	
Parameters	X	X	X			MW	Seasonal Net Min Emergency Rating - Summer	Summer months are June, July, and August. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.					R	
Parameters	X	X	X			MW	Seasonal Net Max Sustainable Rating - Fall	Fall months are September, October, and November. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.				R	R	
Parameters	X	X	X			MW	Seasonal Net Min Sustainable Rating - Fall	Fall months are September, October, and November. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.				R	R	
Parameters	X	X	X			MW	Seasonal Net Max Emergency Rating - Fall	Fall months are September, October, and November. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.					R	

Parameters	X	X	X			MW	Seasonal Net Min Emergency Rating - Fall	Fall months are September, October, and November. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.					R	
Parameters	X	X	X			MW	Seasonal Net Max Sustainable Rating - Winter	Winter months are December, January, and February. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.			R		R	
Parameters	X	X	X			MW	Seasonal Net Min Sustainable Rating - Winter	Winter months are December, January, and February. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.			R		R	
Parameters	X	X	X			MW	Seasonal Net Max Emergency Rating - Winter	Winter months are December, January, and February. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.					R	
Parameters	X	X	X			MW	Seasonal Net Min Emergency Rating - Winter	Winter months are December, January, and February. These are not the HSL/LSL or HEL/LEL values that are submitted in the COP.					R	
Parameters	X	X	X			MW	0°F--120°F	Unit De-rating Net MW capability values for different temperatures. Each temperature value is a separate field.					R	
Parameters	X	X	X			MW	0°F--120°F	Unit De-rating MW values for different temperatures. Each temperature value is a separate field.					R	Delete the field above, upon system implementation of RRGR003
Operational Parameters		X				MW	MW1	Net MW value where the steam generator typically reaches rated pressure (required value for steam turbines).					C	
Operational Parameters		X				PSI	PSI1	Rated throttle pressure (required value for steam turbines) at MW1					C	
Operational Parameters		X				MW	MW2	Net unit output (breakpoint value used to define the pressure/MW curve). If pressure is constant for the normal operating range enter the same value as is entered for MW1					C	
Operational Parameters		X				PSI	PSI2	Throttle steam pressure (psi) at MW2 value (breakpoint value used to define the pressure/MW curve). If pressure is constant for the normal operating range enter the same value as is entered for PSI1					C	
Operational Parameters		X				MW	MW3	Net unit output (breakpoint value used to define the pressure/MW curve). If pressure is constant for the normal operating range, or is not needed, enter the same value as is entered for MW2.					C	
Operational Parameters		X				PSI	PSI3	Throttle steam pressure (psi) at MW3 value (breakpoint value used to define the pressure/MW curve). If pressure is constant for the normal operating range, or is not needed, enter the same value as is entered for PSI2.					C	
Operational Parameters		X				MW	MW4	Net unit output (breakpoint value used to define the pressure/MW curve). If pressure is constant for the normal operating range, or is not needed, enter the same value as is entered for MW3.					C	
Operational Parameters		X				PSI	PSI4	Throttle steam pressure (psi) at MW4 value (breakpoint value used to define the pressure/MW curve). If pressure is constant for the normal operating range, or point is not needed, enter the same value as is entered for PSI3.					C	
Operational Parameters		X				MW	MW5	Net unit output (breakpoint value used to define the pressure/MW curve). If pressure is constant for the normal operating range, or point is not needed, enter the same value as is entered for MW4.					C	
Operational Parameters		X				PSI	PSI5	Throttle steam pressure (psi) at MW5 value (breakpoint value used to define the pressure/MW curve). If pressure is constant for the normal operating range, or point is not needed, enter the same value as is entered for PSI4.					C	
Operational Parameters		X				MW	MW6	Net unit MW output where the steam generator typically reaches minimum pressure (required value for steam turbines).					C	
Operational Parameters		X				PSI	PSI6	Throttle steam pressure (psi) at MW6 value (required value for steam turbines).					C	
Operational Parameters		X				PSIG/MW	Limiting K Factor	The K factor is used to model the stored energy available to the resource. The value ranges between 0.0 and 0.6 psig per MW change. Additional information on determining the K factor can be found in Attachment 2, Primary Frequency Response Reference Document, of NERC Reliability Standard, of BAL-001-TRE-1, Primary Frequency Response in the ERCOT Region. The default value would be zero (required for steam turbines).					C	
Operational Parameters														
Operational Parameters	X	X	X			List	Unit Name	Code for name of generator unit, as provided on the Unit Information tab.					R	
Operational Parameters	X	X	X			Automatic	Resource Name (Unit Code/Mnemonic)	Concatenated mnemonic of Resource Site Code and Unit name (e.g. CBY CBYG1).					A	
Operational Parameters			X			List	SITECODE	For Parameters - CFG - enter the Site Code established in the General and Site Information tab of the GENERAL_SITE_ESID Information workbook.			R		R	
Operational Parameters			X			List	Train Code	Train Code as provided on the Unit Information Train tab. Select from drop-down list.			R		R	
Operational Parameters			X			List	Configuration Code	Concatenated code of the Train Code and the Configuration Number. Select from drop-down list.			R		R	
Operational Parameters	X	X	X			hours	Minimum On Line Time	The minimum number of consecutive hours the Resource must be On-Line before being shut down. For Combined Cycle Generation Resources, this value applies to the configuration, and not the subcomponent (e.g. GT, steamer). Used by ERCOT for RUC and DAM.					R	

Operational Parameters	X	X	X			hours	Minimum Off Line Time	The minimum number of consecutive hours the Resource must be Off-Line before being restarted. For Combined Cycle Generation Resources, this value applies to the configuration, and not the subcomponent (e.g. GT, steamer). Used by ERCOT for RUC and DAM.					R	
Operational Parameters	X	X	X			hours	Hot Start Time	The time, in hours, from the ERCOT startup notice to LSL, for a Resource in its hot-temperature state. New-nodal-value-from-Protocol-Section 3.7.4-Criteria Hot, Cold, Intermediate start times are not additive					R	
Operational Parameters	X	X	X			hours	Intermediate Start Time	The time interval, in hours, from the ERCOT startup notice to LSL, for a Resource in its intermediate temperature state. New-nodal-value-from-Protocol-Section 3.7.4. Hot, Cold, Intermediate start times are not additive.					R	
Operational Parameters	X	X	X			hours	Cold Start Time	The time interval, in hours, from the ERCOT startup notice to LSL, for a Resource in its cold-temperature state. New-nodal-value-from-Protocol-Section 3.7.4. Hot, Cold, Intermediate start times are not additive					R	
Operational Parameters	X	X	X				Max Weekly Starts	The maximum number of times a Resource can be started in seven consecutive days under normal operating conditions. New-nodal-value-from-Protocol-Section 3.7.4. For Combined Cycle Generation Resources, this value applies to the configuration, and not the subcomponent (e.g. GT, steamer)					R	
Operational Parameters	X	X	X			hours	Max On Line Time	The maximum number of consecutive hours a Resource can run before it needs to be shut down. New-nodal-value-from-Protocol-Section 3.7.4. For Combined Cycle Generation Resources, this value applies to the configuration, and not the subcomponent (e.g. GT, steamer)					R	
Operational Parameters	X	X	X				Max Daily Starts	The maximum number of times a Resource can be started in a 24 hour period under normal operating conditions. New-nodal-value-from-Protocol-Section 3.7.4. For Combined Cycle Generation Resources, this value applies to the configuration, and not the subcomponent (e.g. GT, steamer)					R	
Operational Parameters	X	X	X			MWh	Max Weekly Energy	The maximum amount of energy, in MWh, a Resource can produce in seven consecutive days					R	
Operational Parameters	X	X	X			hours	Hot-to-Intermediate Time	The time, in hours, after from shutdown until that a hot-temperature-state Resource takes to cool-down-to-reaches its intermediate-temperature state.					R	
Operational Parameters	X	X	X			hours	Intermediate-to-cCold Time	The time, in hours, between entering after shutdown that an intermediate-temperature-state until Resource takes to cool-down to reaching its cold-temperature state.					R	
Operational Parameters - NRRC (Normal Ramp Rate)														
Operational Parameters - NRRC	X	X	X			List	Unit Name	Code for name of generator unit, as provided on the Unit Information tab.					R	
Operational Parameters - NRRC	X	X	X			Automatic	Resource Name (Unit Code/Mnemonic)	Concatenated mnemonic of Resource Site Code and Unit name (e.g. CBY CBYG1).					A	
Operational Parameters - NRRC			X			List	Train Code	Train Code as provided on the Unit Information Train tab. Select from drop-down list.			R		R	
Operational Parameters - NRRC			X			List	Configuration Code	Concatenated code of the Train Code and the Configuration Number. Select from drop-down list.			R		R	
Operational Parameters - NRRC	X	X	X			List	MW Number	Select MW1- MW10 from list					R	
Operational Parameters - NRRC	X	X	X			Automatic	NRRC Code	Concatenated code of the Unit Code, MW Number and the Ramp Rate type					A	
Operational Parameters - NRRC	X	X	X			MW	NRRC MW	Normal Ramp Rate curve, as defined by the Protocols, spans from Low Sustainable Limit (LSL) to High Sustainable Limit (HSL). As LSL/HSL are subject to change, it is recommended to establish this curve from the Low Reasonability Limit (LRL) to the High Reasonability Limit (HRL) for registration purposes. The curve is reflected in ERCOT systems as steps. The curve is not interpolated between points					R	
Operational Parameters - NRRC	X	X	X			MW/min	Normal Upward RampRate	Enter Normal Ramp Rate for each NRRC MW value. This is the rate at which the Resource can increase MW output in MW/minute for the given output level					R	
Operational Parameters - NRRC	X	X	X			MW/min	Normal Downward RampRate	Enter Normal Ramp Rate for each NRRC MW value. This is the rate at which the Resource can decrease MW output in MW/minute for the given output level					R	
Operational Parameters - ERRC (Emergency Ramp Rate)														
Operational Parameters - ERRC	X	X	X			List	Unit Name	Code for name of generator unit, as provided on the Unit Information tab.					R	
Operational Parameters - ERRC	X	X	X			Automatic	Resource Name (Unit Code/Mnemonic)	Concatenated mnemonic of Resource Site Code and Unit name (e.g. CBY CBYG1).					A	
Operational Parameters - ERRC			X			List	Train Code	Train Code as provided on the Unit Information Train tab. Select from drop-down list.			R		R	
Operational Parameters - ERRC			X			List	Configuration Code	Concatenated code of the Train Code and the Configuration Number. Select from drop-down list.			R		R	
Operational Parameters - ERRC	X	X	X			List	MW Number	Select MW1- MW10 from list.					R	
Operational Parameters - ERRC	X	X	X			Automatic	ERRC Code	Concatenated code of the Unit Code, MW Number and the Ramp Rate type					A	
Operational Parameters - ERRC	X	X	X			MW	ERRC MW	Emergency Ramp Rate curve, as defined by the Protocols, spans from Low Sustainable Limit LSL to High Sustainable Limit HSL. As LSL/HSL are subject to change, it is recommended to establish this curve from the Low Reasonability Limit LRL to the High Reasonability Limit HRL for registration purposes. The curve is reflected in ERCOT systems as steps. The curve is not interpolated between points					R	

Operational Parameters - ERRC	X	X	X			MW/min	Emergency Upward RampRate1	Enter Emergency Ramp Rate for each ERRC MW value. This is the rate at which the Resource can increase MW output in MW/minute for the given output level.					R	
Operational Parameters - ERRC	X	X	X			MW/min	Emergency Downward RampRate1	Enter Emergency Ramp Rate for each ERRC MW value. This is the rate at which the Resource can decrease MW output in MW/minute for the given output level.					R	
CC Configurations														
CC Configurations			X			List	Train Code	Train Code as provided on the Unit Information Train tab. Select from drop-down list.					R	R
CC Configurations			X			Automatic	Site CODE	Site Code as provided on the General and Site Information tab.					A	A
CC Configurations			X			List	Resource Name (Unit Code/Mnemonic)	Concatenated mnemonic of Resource Site Code and Unit name as provided on the Unit Info tab. Select from drop-down list.					R	R
CC Configurations			X			# Number	Configuration #	Number of this configuration.. The configuration numbers should increase based on increasing capability, not necessarily by increasing number of components. This is a sequential numbering of all possible operational configurations.					R	R
CC Configurations			X			Automatic	Configuration Code	Concatenated code of the Train Code and the Configuration Number					A	A
CC Configurations			X			List	Configuration Type	Register all operationally unique configurations. Additional background to assist with this step can be obtained from the Resource Registration Guide the Combined Cycle Whitepaper.					R	R
CC Transitions														
CC Transitions Configurations			X			List	Site Code	Site Code as provided on the General and Site Information tab.					R	R
CC Transitions Configurations			X			List	Train Code Mnemonic for Combined Cycle Train	A sitecode and train code concatenation					R	R
CC Transitions Configurations			X			List	Configuration Code From	Additional background to assist with this step can be obtained from the Resource Registration Guide, the Combined Cycle Whitepaper within the Procedure for Identifying Resource Nodes					C	C
CC Transitions Configurations			X			List	Configuration Code To	Additional background to assist with this step can be obtained from the Resource Registration Guide, the Combined Cycle Whitepaper.					C	C
Private Network - Unit														
Private Network - Unit	X	X	X			Automatic List	Unit Name	Unit Code as provided on the Unit Info tab.	R	R			R	R
Private Network - Unit	X	X	X			Automatic	Site CODE	Site Code as provided on the General and Site Information tab.					A	A
Private Network - Unit	X	X	X			Automatic	Resource Name (Unit Code/Mnemonic)	Resource name as provided on the General and Site Information tab.					A	A
Private Network - Unit	X	X	X			MW	Average Amount of Self-Serve Private Load	Amount of the total site generation MW output used for self serve and not available for the grid. If multiple generators are registered, proportion the total site load against each generator, not to exceed the nameplate capacity of any generator.	C	C			C	C
Private Network - Unit	X	X	X			MVARs	Average Amount of Self-Serve Private Reactive Load	Amount of the total site generation MVAR output used for self serve and not available for the grid. If multiple generators are registered, proportion the total site load against each generator, not to exceed the nameplate capacity of any generator.	C	C			C	C
Private Network - Unit	X	X	X			MW	Expected Typical Private Network Net Interchange	MW Net Interchange with ERCOT grid (typical Net=Gen-Load). If multiple generators are registered, proportion the total site load against each generator.	C	C			C	C
Private Network - Unit	X	X	X			MVARs	Expected Typical Private Network Net Reactive Interchange	MVAR Net Interchange with ERCOT grid (typical Net=Gen-Load). If multiple generators are registered, proportion the total site load against each generator.	C	C			C	C
Private Network - Unit	X	X	X			MW	Private Network Gross Unit Capability	MW Gross Generation Capability for the generator	C	C			C	C
Private Network - Unit	X	X	X			MVARs	Private Network Gross Unit Reactive Capability	MVAR Gross Generation Capability for the generator	C	C			C	C
Private Network - Unit	X	X	X			Y/N	If Unit Trips, Does Load Trip?	This is necessary to determine how much Load will appear on the ERCOT grid if the unit trips.					C	C
Private Network - Unit	X	X	X			%	If Yes, Approximate Percentage Of Load That Will Trip?	If unit trips what percentage of Load associated with this unit is tripped? Enter % (ex. 70% is entered as 70.0					C	C
Reactive Capability														
Reactive Capability	X	X	X			List	Unit Name	Unit Code as provided on the Unit Info tab.	R	R			R	R
Reactive Capability			X			Automatic	Site CODE	Site Code as provided on the General and Site Information tab.					A	A
Reactive Capability	X	X	X			Automatic	Resource Name (Unit Code/Mnemonic)	Concatenated mnemonic of Resource Site Code and Unit name (e.g. CBY CBYG1).					A	A
Reactive Capability	X	X	X			List	Reactive Capability Provided is Gross Net Values?	Select Gross	R	R			R	R
Reactive Capability	X	X	X			List	Reactive Capability Data Provided is from NDCRC Test Data	Indicate (Y/N) if the reactive capability data is from test data					R	R
Reactive Capability	X	X	X			mm/dd/yyyy Date	Reactive-Test Date If Reactive Capability Data Provided Is From NDCRC test Data Then Enter The Date On Which The Test Was Performed.	Include the Reactive Test Date, if the Reactive Capability Data Provided is from NDCRC test data					C	C
Reactive Capability	X	X	X			MW	Mw41	Reactive Capability curve - point on curve of MW output for this unit, MW41. This should equal the Resource LRL. For non-IRR generators, the gross MW value associated with the units' lowest "Seasonal Net Minimum Sustainable Rating" as registered on the RARF, (Net to Gross conversion). For IRRs, record 0.1 MW		R			R	R

Reactive Capability	X	X	X		MVAR _r	Lagging MVAR _r Limit Associated With MwW1 Output	Unit's The Lagging Reactive Power output capability associated with is the MW1-output curve point, in MVAR.		R	R	R	
Reactive Capability	X	X	X		MVAR _r	Leading MVAR _r Limit Associated With MwW1 Output	Unit's The Leading Reactive Power output capability associated with is the MW1 output curve point, in MVAR; input as negative number		R	R	R	
Reactive Capability	X	X	X		MW	MwW2	Reactive Capability curve – point on curve of MW output for this unit- MW2 Select MW 2 breakpoint which provides the best straight line fit between MW points 1 and 4.		R	R	R	
Reactive Capability	X	X	X		MVAR _r	Lagging MVAR _r limit associated with MwW2 output	Unit's The Lagging Reactive Power output capability associated with is the MW2-output curve point, in MVAR.		R	R	R	
Reactive Capability	X	X	X		MVAR _r	Leading MVAR _r limit associated with MwW2 output	Unit's The Leading Reactive Power output capability associated with is the MW2 output curve point, in MVAR; input as negative number		R	R	R	
Reactive Capability	X	X	X		MW	MwW3	Reactive Capability curve – point on curve of MW output for this unit- MW3 Select MW 3 breakpoint which provides the best straight line fit between MW points 1 and 4.		R	R	R	
Reactive Capability	X	X	X		MVAR _r	Lagging MVAR _r Limit Associated With MwW3 Output	Unit's The Lagging Reactive Power output capability associated with is the MW3-output curve point, in MVAR.		R	R	R	
Reactive Capability	X	X	X		MVAR _r	Leading MVAR _r Limit Associated With MwW3 Output	Unit's The Leading Reactive Power output capability associated with is the MW3 output curve point, in MVAR; input as negative number		R	R	R	
Reactive Capability	X	X	X		MW	MwW4	Reactive Capability curve – point on curve of MW output for this unit- MW4- This should equal the Resource High Reasonability Limit. The gross MW value which is associated with the highest "Seasonal Net Maximum Sustainable Rating" as registered on the RARF, (Net to gross conversion)		R	R	R	
Reactive Capability	X	X	X		MVAR _r	Lagging MVAR _r Limit Associated With MwW4 Output	Unit's The Lagging Reactive Power output capability associated with is the MW4-output curve point, in MVAR.		R	R	R	
Reactive Capability	X	X	X		MVAR _r	Leading MVAR _r Limit Associated With MwW4 Output	Unit's The Leading Reactive Power output capability associated with is the MW4 output curve point, in MVAR; input as negative number		R	R	R	
Reactive Capability		X	X		MW	MwW5 - Unity Power Factor	The MW output at Unity power factor (zero MVAR)		R	R	R	
Reactive Capability		X	X		PSI	If hydrogen cooled, indicate Hydrogen Pressure (PSI) Associated With Your Reactive Curve Submitted for ERCOT Studies	From manufacturer Reactive Capability Curve or data sheet.				C	
Reactive Capability	X	X	X		MVAR _r	Maximum Lagging Leading-Operating Capability (MVAR)	Enter the maximum largest magnitude value for lagging MVARs associated with MW points 1-4, that can be produced- Input as negative positive number	R	R	R	R	
Reactive Capability	X	X	X		MVAR _r	Maximum Leading Lagging Operating Capability (MVAR)	Enter the maximum largest magnitude value for leading MVARs associated with MW points 1-4, that can be produced- Input as positive negative number	R	R	R	R	
Reactive Capability	X	X	X		Y/N	Manufacturer's Capability Curve Submitted?	Has the most recent curve been submitted to ERCOT? If not, please attach.		R	R	R	
Planning												
Planning		X	X		List	Unit Name	Unit Code as provided on the Unit Info tab.		R	R	R	
Planning			X		Automatic	SITE_CODE	Site Code as provided on the General and Site Information tab.				A	
Planning	X	X	X		Automatic	Resource Name (Unit Code/Mnemonic)	Concatenated mnemonic of Resource Site Code and Unit name (e.g. CBY_CBYG1).			A	A	
Planning		X	X		MVA	What is the MVA Base That The Following Data is Based On?	The MVA Base for stated impedances. This must match the MVA Base submitted for the dynamic models.		R	R	R	
Planning		X	X		Kv	What is the Kv Base That The Following Data is Based On?	The KV Base for stated impedances.		R	R	R	
Planning		X	X		p.u.	Direct Axis Subtransient Reactance, X'di (unsaturated)	Enter the direct axis subtransient reactance (unsaturated) for the fault. This must match data submitted for in the dynamic model.		R	R	R	
Planning		X	X		p.u.	Direct Axis Transient Reactance, X'di (unsaturated)	Enter the direct axis transient reactance (unsaturated) for the first 2-3 cycles of the fault. This must match data submitted for the dynamic model.		R	R	R	
Planning		X	X		R in p.u.	Positive Sequence (Synchronous) Z (unsaturated)	Enter the positive sequence resistance (unsaturated) for system models.		R	R	R	
Planning		X	X		X in p.u.	Positive Sequence (Synchronous) Z (unsaturated)	Enter the positive sequence reactance (unsaturated) for system models. This must match data submitted for the dynamic model.		R	R	R	
Planning		X	X		R in p.u.	Negative Sequence Z (unsaturated)	Enter the negative sequence resistance (unsaturated) for system models.		R	R	R	
Planning		X	X		X in p.u.	Negative Sequence Z (unsaturated)	Enter the negative sequence reactance (unsaturated) for system models.		R	R	R	
Planning		X	X		Y/N	Does Zero Sequence Z exist?	Select whether the generator has Zero Sequence Z data- If no, then the zero sequence data fields will not be required.	R	R	R	R	
Planning		X	X		R in p.u.	Zero Sequence Z (unsaturated)	Enter the zero sequence resistance (unsaturated) for system models.		R	R	R	
Planning		X	X		X in p.u.	Zero Sequence Z (unsaturated)	Enter the zero sequence reactance (unsaturated) for system models.		R	R	R	
Planning		X	X		p.u.	Direct Axis Subtransient Reactance, X'dvi (saturated)	Enter the direct axis subtransient reactance (saturated) for the fault.		R	R	R	already Dv in RARF Form
Planning		X	X		p.u.	Direct Axis Transient Reactance, X'dvi (saturated)	Enter the direct axis transient reactance (saturated) for the first 2-3 cycles of the fault.		R	R	R	already Dv in RARF Form

Planning		X	X			R in p.u.	Positive Sequence (Synchronous) Z (saturated)	Enter the positive sequence resistance (saturated) for system models.		R	R	R	
Planning		X	X			X in p.u.	Positive Sequence (Synchronous) Z (saturated)	Enter the positive sequence reactance (saturated) for system models.		R	R	R	
Planning		X	X			R in p.u.	Negative Sequence Z (saturated)	Enter the negative sequence resistance (saturated) for system models.		R	R	R	
Planning		X	X			X in p.u.	Negative Sequence Z (saturated)	Enter the negative sequence reactance (saturated) for system models.		R	R	R	
Planning		X	X			R in p.u.	Zero Sequence Z (saturated)	Enter the zero sequence resistance (saturated) for system models.		R	R	R	
Planning		X	X			X in p.u.	Zero Sequence Z (saturated)	Enter the zero sequence reactance (saturated) for system models.		R	R	R	
Planning		X	X			p.u.	Zero Sequence Grounding Resistance For An Impedance Grounded Generator in P.p.u. (100 MVA Base)	Zero Sequence Grounding Resistance value of the Generator Grounding Impedance is required. The value must be specified on a 100 MVA base.		R	R	R	
Planning		X	X			p.u.	Zero Sequence Grounding Reactance For An Impedance Grounded Generator in P.p.u. (100 MVA Base)	Zero Sequence Grounding Reactance value of the Generator Grounding Impedance is required. The value must be specified on a 100 MVA base.		R	R	R	
Planning	X	X	X			MW	Average Amount of Auxiliary Real Power at full MW output	Enter average MW for auxiliary Load at full MW output of the unit	R	R	R	R	
Planning	X	X	X			MVARs	Average Amount of Auxiliary Reactive Power at full MW output	Enter average MVAR for auxiliary Load at full MW output of the unit	C	C	C	C	
Planning	X	X	X				Auxiliary Load Power Factor	Enter power factor for auxiliary Load, if average MVAR for auxiliary load is not provided	C	C	C	C	
Planning	X	X	X			%	Large Motor, P ercent Of Total Mw Load	Enter estimated % of total MW Load per Load type. The split between large and small motor should be along voltage lines - where motors connected at 2400/4160V and above should be considered large, and below 2400/4160V should be considered small.			C	C	
Planning	X	X	X			%	Small Motor, P ercent Of Total Mw Load	Enter estimated % of total MW Load per Load type. The split between large and small motor should be along voltage lines - where motors connected at 2400/4160V and above should be considered large, and below 2400/4160V should be considered small.			C	C	
Planning	X	X	X			%	Resistive (h Heating) Load, P ercent Of Total Mw Load	Enter estimated % of total MW Load per Load type. The split between large and small motor should be along voltage lines - where motors connected at 2400/4160V and above should be considered large, and below 2400/4160V should be considered small.			C	C	
Planning	X	X	X			%	Discharge Lighting, P ercent Of Total Mw Load	Enter estimated % of total MW Load per Load type. The split between large and small motor should be along voltage lines - where motors connected at 2400/4160V and above should be considered large, and below 2400/4160V should be considered small.			C	C	
Planning	X	X	X			%	Other, P ercent of total MW Load	Enter estimated % of total MW Load per Load type. The split between large and small motor should be along voltage lines - where motors connected at 2400/4160V and above should be considered large, and below 2400/4160V should be considered small.			C	C	
Planning	X	X	X			%	Large Motor, P ercent of total MVAR Load	Enter estimated % of total MVAR Load per Load type. The split between large and small motor should be along voltage lines - where motors connected at 2400/4160V and above should be considered large, and below 2400/4160V should be considered small.			C	C	
Planning	X	X	X			%	Small Motor, P ercent of total MVAR Load	Enter estimated % of total MVAR Load per Load type. The split between large and small motor should be along voltage lines - where motors connected at 2400/4160V and above should be considered large, and below 2400/4160V should be considered small.			C	C	
Planning	X	X	X			%	Discharge Lighting, P ercent of total MVAR Load	Enter estimated % of total MVAR Load per Load type. The split between large and small motor should be along voltage lines - where motors connected at 2400/4160V and above should be considered large, and below 2400/4160V should be considered small.			C	C	
Planning	X	X	X			%	Other, P ercent Of Total MVAR Load	Enter estimated % of total MVAR Load per Load type. The split between large and small motor should be along voltage lines - where motors connected at 2400/4160V and above should be considered large, and below 2400/4160V should be considered small. Ensure that Large Motor, percent of total MVAR load + Small Motor, percent of total MVAR load Discharge Lighting, percent of total MVAR load + Other, percent of total MVAR load = 100.			C	C	
Planning		X	X					PSSE MODEL : THE following list of models and data are required: Generator, Turbine-Governor, Excitation System, Power System Stabilizer (required If There Is A Power System Stabilizer), Compensator (required If There Is A Compensator), Over Excitation Limiter (required If There Is An Over Excitation Limiter), and Under Excitation Limiter (required If There Is An Under Excitation Limiter). PLEASE imbed the data files in the Dynamics Data Tab, if files are very large, or numerous, imbed the files in a single zip file. If user-defined models are submitted, include the .obj or .dll or .lib files, and documentation for the model used.		R		R	
Protection	X	X	X			List	Unit Name	Unit Code as provided on the Unit Info tab.		R	R	R	
Protection	X		X			Automatic	SITE_CODE	Site Code as provided on the General and Site Information tab.				A	
Protection	X	X	X			Automatic	Resource Name (Unit Code/Mnemonic)	Concatenated mnemonic of Resource Site Code and Unit name (e.g. CBY_CBYG1).			A	A	

Protection	X	X	X			cycles	Breaker Interruption Time	Time taken (in cycles) between the breaker receiving the trip signal, and the breaker contacts opening to interrupt the flow of current.		R	R	R	
Protection	X	X	X			p.u.	Instantaneous Undervoltage Trip	The per unit value (below nominal) of the undervoltage relay instantaneous set point		O	O	O	
Protection	X	X	X			p.u.	Undervoltage 1	Enter the first level undervoltage relay set point in per unit.		C	C	C	
Protection	X	X	X			sec	Time 1	Enter the first level undervoltage time delay set point.		C	C	C	
Protection	X	X	X			p.u.	Undervoltage 2	Enter the second level undervoltage relay set point in per unit.		C	C	C	
Protection	X	X	X			sec	Time 2	Enter the second level undervoltage time delay set point.		C	C	C	
Protection	X	X	X			p.u.	Undervoltage 3	Enter the third level undervoltage relay set point in per unit.		C	C	C	
Protection	X	X	X			sec	Time 3	Enter the third level undervoltage time delay set point.		C	C	C	
Protection	X	X	X			p.u.	Undervoltage 4	Enter the fourth level undervoltage relay set point in per unit.		C	C	C	
Protection	X	X	X			sec	Time 4	Enter the fourth level undervoltage time delay set point.		C	C	C	
Protection	X	X	X			p.u.	Instantaneous Overvoltage Trip	The per unit value (above nominal) of the overvoltage relay instantaneous set point.		O	O	O	
Protection	X	X	X			p.u.	Overvoltage 1	Enter the first level overvoltage relay set point in per unit.		C	C	C	
Protection	X	X	X			sec	Time 1	Enter the first level overvoltage relay time delay set point.		C	C	C	
Protection	X	X	X			p.u.	Overvoltage 2	Enter the second level overvoltage relay set point in per unit.		C	C	C	
Protection	X	X	X			sec	Time 2	Enter the second level overvoltage relay time delay set point.		C	C	C	
Protection	X	X	X			p.u.	Overvoltage 3	Enter the third level overvoltage relay set point in per unit.		C	C	C	
Protection	X	X	X			sec	Time 3	Enter the third level overvoltage relay time delay set point.		C	C	C	
Protection	X	X	X			p.u.	Overvoltage 4	Enter the fourth level overvoltage relay set point in per unit.		C	C	C	
Protection	X	X	X			sec	Time 4	Enter the fourth level overvoltage relay time delay set point.		C	C	C	
Protection	X	X	X			Hz	Instantaneous Underfrequency Trip	The per unit value (below 60Hz) of the underfrequency relay instantaneous set point		O	O	O	
Protection	X	X	X			Hz	Underfrequency 1	Enter the first level underfrequency relay set point in Hz.		C	C	C	
Protection	X	X	X			sec	Time 1	Enter the first level underfrequency relay time delay set point.		C	C	C	
Protection	X	X	X			Hz	Underfrequency 2	Enter the second level underfrequency relay set point in Hz.		C	C	C	
Protection	X	X	X			sec	Time 2	Enter the second level underfrequency relay time delay set point.		C	C	C	
Protection	X	X	X			Hz	Underfrequency 3	Enter the third level underfrequency relay set point in Hz.		C	C	C	
Protection	X	X	X			sec	Time 3	Enter the third level underfrequency relay time delay set point.		C	C	C	
Protection	X	X	X			Hz	Underfrequency 4	Enter the fourth level underfrequency relay set point in Hz.		C	C	C	
Protection	X	X	X			sec	Time 4	Enter the fourth level underfrequency relay time delay set point.		C	C	C	
Protection	X	X	X			Hz	Instantaneous Overfrequency Trip	The per unit value (above 60Hz) of the overfrequency relay instantaneous set point.		O	O	O	
Protection	X	X	X			Hz	Overfrequency 1	Enter the first level overfrequency relay set point in Hz.		C	C	C	
Protection	X	X	X			sec	Time 1	Enter the first level overfrequency relay time delay set point.		C	C	C	
Protection	X	X	X			Hz	Overfrequency 2	Enter the second level overfrequency relay set point in Hz.		C	C	C	
Protection	X	X	X			sec	Time 2	Enter the second level overfrequency relay time delay set point.		C	C	C	
Protection	X	X	X			Hz	Overfrequency 3	Enter the third level overfrequency relay set point in Hz.		C	C	C	
Protection	X	X	X			sec	Time 3	Enter the third level overfrequency relay time delay set point.		C	C	C	
Protection	X	X	X			Hz	Overfrequency 4	Enter the fourth level overfrequency relay set point in Hz.		C	C	C	
Protection	X	X	X			sec	Time 4	Enter the fourth level overfrequency relay time delay set point.		C	C	C	
Protection	X					Y/N	Does the resource have the manufacturer's technical document / Simulation Results / Test Results, etc. describing the turbine technology & VRT options purchased with turbine, if any	TURBINE VRT CAPABILITY: ENSURE that VRT capability is included as part of the normal dynamic model data submitted. If yes, provide the following: (1) the PSS/E dynamic model including the settings and (2) technical manufacturer's documents describing the VRT capabilities of the purchased packages. Models and documents are to be embedded in the RARF Dynamic Data tab or included in the zip file.		R	R	R	
Protection	X					Y/N	Do personnel (onsite operator/engineer etc.) have control to enable/disable or change the settings for voltage ride-through	TURBINE VRT CAPABILITY: If yes, provide a technical documents describing the procedure for enabling/disabling and making changes to the VRT settings describing how readily changes can be made and how frequently changes are expected to occur. Models and documents are to be embedded in the RARF Dynamic Data tab or included in the zip file. Note: When VRT setting changes are made - submit a RARF update with updated dynamic models and documents, including the settings and update the settings data on the RARF Protection - WIND tab.		R	R	R	

Protection	X				Y/N	Does the Resource use dynamic reactive devices (SVC/statcom, etc.) at the wind farm? - (note: capacitor/reactor banks used for conventional reactive support cannot be considered as dynamic reactive devices) - If yes, please provide supporting documentation. (manufacturer's technical document, PSS/E model etc.), submitted in the Dynamics Data Tab.	TURBINE VRT CAPABILITY: If yes, provide the following (1) the PSS/E dynamic model for the Dynamic Reactive Device (SVC,DVAR,STATCOM), including the settings and (2) a manufacturer's technical document describing the dynamic device and model. Models and documents are to be embedded in the RARF Dynamic Data tab or included in the zip file.		R	R	R	
Protection	X				Y/N	Does the Resource have the turbine voltage & frequency protection settings as per manufacturer – technical document and/or spec sheet.	TURBINE VRT CAPABILITY: Individual WTG VRT settings need to be reflected in the dynamic model and the settings data on the RARF Protection – Wind tab. Any updates to dynamic models and related documents are to be embedded in the RARF Dynamic Data tab or included in the zip file.		R	R	R	
Protection	X				Y/N	Does the Resource have plant voltage protection? If yes, please provide supporting documentation.	TURBINE VRT CAPABILITY: Plant voltage protection is substation main power transformer and equipment protection. If yes, provide a technical description of the protection scheme and voltage settings. The documents are to be embedded in the RARF Dynamic Data tab or included in the zip file.		R	R	R	
Protection	X				Y/N	Does The Resource Have Feeder Voltage Protection? If Yes, Please Provide Supporting Documentation.	TURBINE VRT CAPABILITY: Feeder voltage protection is protection on the feeder breakers, If yes, provide a technical description of the protection scheme and voltage settings. The documents are to be embedded in the RARF Dynamic Data tab or included in the zip file.		R	R	R	
Subsynchronous Information (if requested by ERCOT)												
Subsync		X				List	Unit Name	Unit Code as provided on the Unit Info tab.		R	R	
Subsync			X			Automatic	SITECODE	Site Code as provided on the General and Site Information tab.				A
Subsync		X	X			Automatic	Resource Name (Unit Code/Mnemonic)	Concatenated mnemonic of Resource Site Code and Unit name (e.g. CBY_CBYG1).				A
Subsync		X	X			List	Mass Number	Select a unique number for each mass.	C	C	C	
Subsync		X	X			Automatic	Mass Code	Concatenated code automatically provided of the Resource Name and Mass Number				A
Subsync		X	X			Automatic	Mass Name	Identification of the masses- HP, IP, LP1, LP2, EXC, etc.				A
Subsync		X	X				Mass Inertia	H-value. The inertia constant of each mass, either in MW's, MVA, or lbm.ft²	C	C	C	
Subsync		X	X				Inertia units	MW's, MVA, or lbm.ft²	C	C	C	
Subsync		X	X				Associated damping	The damping associated with each mass either in p.u. torque/p.u. speed deviation, or lb.ft.secl/rad	C	C	C	
Subsync		X	X				Damping units	p.u. torque/p.u. speed or lb.ft.secl/rad	C	C	C	
Subsync		X	X				Stiffness between Masses Previous And Current Mass	The stiffness (spring constant) between each two mass, either in p.u. torque/rad, or lb.ft/rad (coupling).	C	C	C	
Subsync		X	X				Stiffness units	p.u. torque/rad or lb.ft/rad	C	C	C	
Collector System - Wind												
Collector System - WIND	X					Automatic	Resource Name (Unit Code/Mnemonic)	Concatenated mnemonic of Resource Site Code and Unit name (e.g. CBY_CBYG1).			A	A
Collector System - WIND	X						Cable Type	Enter the type(s) of conductor(s) used in the collector system.	R	R	R	
Collector System - WIND	X					kV	Voltage Level kV	Enter the voltage level (in kV) of the collector system. Used when calculating Positive and Zero Sequence resistance and reactance.	R	R	R	
Collector System - WIND	X					p-+-(p.u. on 100 MVA base)	Positive Sequence R/kft (p.u. on 100 MVA base)	Enter in per unit, the positive sequence resistance per kilo-foot of the collector system calculated on a 100 MVA base.	R	R	R	
Collector System - WIND	X					p-+-(p.u. on 100 MVA base)	Positive Sequence X/kft (p.u. on 100 MVA base)	Enter in per unit, the positive sequence reactance per kilo-foot of the collector system calculated on a 100 MVA base.	R	R	R	
Collector System - WIND	X					p-+-(p.u. on 100 MVA base)	Positive Charging Bc/kft (p.u. on 100 MVA base)	Enter in per unit, the positive sequence line charging reactance per kilo-foot of the collector system calculated on a 100 MVA base.	R	R	R	
Collector System - WIND	X					p-+-(p.u. on 100 MVA base)	Zero Sequence R0/kft (p.u. on 100 MVA base)	Enter in per unit, the zero sequence resistance per kilo-foot of the collector system calculated on a 100 MVA base.	R	R	R	
Collector System - WIND	X					p-+-(p.u. on 100 MVA base)	Zero Sequence X0/kft (p.u. on 100 MVA base)	Enter in per unit, the zero sequence reactance per kilo-foot of the collector system calculated on a 100 MVA base.	R	R	R	
Collector System - WIND	X						Collection System One-Line Diagram	Collection System One-Line Diagram (Imbed a PDF one-line diagram)	R	R	R	
Collector System - WIND	X						Collection System Detailed Model. Embed a PSS/E Raw & Sequence model, or an ASPEN/Powerworld Model (to include both positive and zero sequence data)	Collection System Detailed Model. Embed a PSS/E Raw & Sequence model, or an ASPEN/Powerworld Model (to include both positive and zero sequence data)	R	R	R	
Collector System - Wind Segment Data												
Collector System - Wind Segment Data	X					Automatic	Resource Name (Unit Code/Mnemonic)	Concatenated mnemonic of Resource Site Code and Unit name (e.g. CBY_CBYG1).			A	A
Collector System - Wind Segment Data	X					List	Cable Type	Cable Type as provided on the Collector System - Wind tab	R	R	R	
Collector System - Wind Segment Data	X					Integer-alpha/numeric	From	Enter the bus identifier number-for the sending end or "from" bus of the cable segment. Consistent with a PSS/E, ASPEN, or PowerWorld model submitted.	R	R	R	
Collector System - Wind Segment Data	X					Integer-alpha/numeric	To	Enter the bus identifier number-for the receiving end or "to" bus of the cable segment. Consistent with a PSS/E, ASPEN, or PowerWorld model submitted.	R	R	R	
Collector System - Wind Segment Data	X					Integer-alpha/numeric	Circuit Number	Enter the circuit number for the cable segment, associated with the "From" and "To" fields, consistent with the PSS/E, ASPEN, or PowerWorld model submitted.	R	R	R	
Collector System - Wind Segment Data	X					kV	Voltage Level	Enter the voltage level of the cable segment in kV.	R	R	R	

Collector System - Wind Segment Data	X					in kft	Cable Segment Length	Enter the length of the cable segment in kilo-feet.			R		R		R	
Collector System - Wind Segment Data	X					Integer	Number of Turbines On Cable Segment	Enter the number of turbines connected to which have power flowing through the cable segment.			R		R		R	
General Information - Load Resource																
General Information - Load Resource				X		List	This submittal is for	Select from drop down list of reason for this submittal - New Resource Entity, Revisions, Additions, Deletion:							R	
General Information - Load Resource				X		mm/dd/yyyy	Date Form Completed	Enter date in the format MM/DD/YYYY.							O	
General Information - Load Resource				X			Resource Entity Submitting Form	Enter the name of the Resource Entity. This must be the same entity name that filed as a Resource Entity on the Standard Form Agreement. The Protocols require that a Load Acting as a Resource must also complete and submit an Application.							R	
General Information - Load Resource				X		Number	Resource Entity DUNS #	Enter the Market Participant unique identifier as registered with ERCOT for the Resource Entity (DUNS number plus 4 as assigned by ERCOT).							R	
General Information - Load Resource				X		Text	Primary Contact	Enter the Primary Contact person who can address ERCOT questions regarding Resource Registration submittal. Enter the contact's name, title, phone number, email address, and fax number.							R	
General Information - Load Resource				X		Text	Title:	Enter the Title of the Primary Contact							R	
General Information - Load Resource				X			Phone Number:	Enter the Phone Number for the Primary Contact							R	
General Information - Load Resource				X			E-mail Address:	Enter the E-mail Address for the Primary Contact							R	
General Information - Load Resource				X			Fax Number:	Enter the Fax Number for the Primary Contact							O	
General Information - Load Resource				X		Text	Secondary Contact	Enter the Secondary Contact person who can address ERCOT questions regarding Resource Registration submittal. Enter the contact's name, title, phone number, email address, and fax number.							O	
General Information - Load Resource				X		Text	Title:	Enter the Title of the Secondary Contact							O	
General Information - Load Resource				X			Phone Number:	Enter the Phone Number for the Secondary Contact							O	
General Information - Load Resource				X			E-mail Address:	Enter the E-mail Address for the Secondary Contact							O	
General Information - Load Resource				X			Fax Number:	Enter the Fax Number for the Secondary Contact							O	
Load Resource Information																
Load Resource Information				X		All Caps	Common Name for Load Resource	Enter the common name of the Load that will be acting as a resource. (e.g., South Gulf Refinery, etc.).							R	
Load Resource Information				X		All Caps	Dispatch Asset Code (provided by ERCOT)	Enter the Dispatch Asset Code (this code will be provided by ERCOT)							R	
Load Resource Information				X			Physical Street Address for Point of Delivery (POD)	Physical street address for Point of Delivery. For ALRs, this is the physical address of the station that load is assigned to as provided by ERCOT.							R	
Load Resource Information				X			Name of City for Point of Delivery (POD)	Name of city for Point of Delivery. For ALRs, this is the city of the station that load is assigned to as provided by ERCOT.							R	
Load Resource Information				X		Y/N	Is Load Netted From Generation at ERCOT Read GenSite?	Select whether Load is netted from generation							R	
Load Resource Information				X		Y/N	Is Load Behind a NOIE Settlement Meter Point?	Select whether Load is behind a NOIE Settlement Meter							R	
Load Resource Information				X		List	Load Resource Type (CLR/UFR/ interruptible)	Select from drop down list the Load Resource Type - CLR, or UFR or Interruptible							R	
Load Resource Information				X		Y/N	If CLR, will CLR be Dynamically Scheduling?	Select only if this Load Resource is a Controllable Load Resource							C	
Load Resource Information				X		Y/N	If CLR, ability to operate as a UFR type Resource?	Select only if this Load Resource is a Controllable Load Resource							C	
Load Resource Information				X		mm/dd/yyyy	Load Resource Effective Date	Enter the date the Load became a Load Resource. For new Load Resources, this date must be a future date associated with a network operations model database load.							R	
Load Resource Information				X		mm/dd/yyyy	Load Resource Expiration Date	Enter the date the Load ceased being a Load Resource. For retiring Load Resources, this date must be a future date associated with a network operations model database load.							O	
Load Resource Information				X		All Caps	Substation Name for POD	Enter the name of the substation that supplies service to the Point of Delivery of the Load Resource. For ALRs, this is the station that load is assigned to as provided by ERCOT.							R	
Load Resource Information				X		All Caps	Substation Code for POD	Enter the TDSP substation code as provided by the TDSP.							R	
Load Resource Information				X			Transmission Bus POD (PTI Bus No)	Enter the transmission bus location by PTI bus number or by specifying the transmission line - (Luling to Gonzalez +26KV, etc.) as provided by the TDSP. For ALRs, this is the station that load is assigned to as provided by ERCOT.							R	
Load Resource Information				X		KV	Transmission Station Voltage	Enter the transmission level voltage level of the TDSP station as provided by the TDSP. Normally this will be 69 KV or higher, between 2.4 and 138 KV.							R	
Load Resource Information				X		All Caps	Transmission Station Load Name in Network Operations Model	Enter the Load Name as listed in the ERCOT model as provided by the TDSP.							R	
Load Resource Information				X		List	Meter Reading Entity (TDSP)	Enter who reads the meter and provides interval data to ERCOT.							R	
Load Resource Information				X		Automatic	Meter Reading Entity Duns Number	Enter the Duns number for the entity above.							R	
Load Resource Information				X			ESIID assigned to meter	ESI ID number assigned to the meter. For NOIEs, the TDSP will create a non-settlement ESI ID.							R	
Load Resource Information				X		Y/N	Wholesale Delivery Point?	Enter Y or N, if the point of delivery is a wholesale deliver point.							R	
Load Resource Information				X		List	Load Resource Control Device	Select the type of interrupting device. (Control Technology / Interruptible Switch / Circuit Breaker)							R	
Load Resource Information				X		List	ERCOT Load Zone	Select the ERCOT Load Zone from the drop down list							R	

Load Resource Information				X		MW	Maximum POD Total Load	Maximum MW Load total							R	
Load Resource Information				X		MW	Maximum Interruptible Load MW	Maximum MW interruptible or controllable Load total							R	
Load Resource Information				X		MW	High Reasonability Limit	The High "Out-of-Bounds" value of the interruptible or controllable load chosen by the Resource Entity and used by ERCOT for validation purposes							R	
Load Resource Information				X		MW	Low Reasonability Limit	The Low "Out-of-Bounds" value of the interruptible or controllable load chosen by the Resource Entity and used by ERCOT for validation purposes							R	
Load Resource Information				X		MW/min	CLR High Reasonability Ramp Rate Limit	The High "Out-of-Bounds" ramp rate value of the controllable load chosen by the Resource Entity and used by ERCOT for validation purposes. Applies to Controllable Load Resources only							C	
Load Resource Information				X		MW/min	CLR Low Reasonability Ramp Rate Limit	The Low "Out-of-Bounds" ramp rate value of the controllable load chosen by the Resource Entity and used by ERCOT for validation purposes. Applies to Controllable Load Resources only							C	
Load Resource Information				X		Y/N	Private Use Network?	Select whether Load is part of a Private Use Network							R	
Load Resource Parameters																
Load Resource Parameters				X		List	Dispatch Asset Code	Select the Dispatch Asset Code from the drop down list as provided from the Load Resources Information tab							R	
Load Resource Parameters				X		hours	Minimum Interruption Time (Non-CLR)	The minimum number of consecutive hours the Resource can be deployed (between breaker open to breaker close).							C	
Load Resource Parameters				X		hours	Minimum Restoration Time (Non-CLR)	The minimum number of consecutive hours the Resource must remain energized (not deployed), from the time the Resource is restored from interruption and available for the next potential interruption.							C	
Load Resource Parameters				X			Max WEEKLY Deployments (Non-CLR)	The maximum number of times the Resource can be deployed in seven consecutive days under normal operating conditions.							C	
Load Resource Parameters				X		hours	Max Interruption Time (Non-CLR)	The maximum number of consecutive hours the Resource can remain deployed before it needs to be energized.							C	
Load Resource Parameters				X			Max DAILY Deployments (Non-CLR)	The maximum number of times the Resource can be deployed in a day under normal operating conditions							C	
Load Resource Parameters				X		MWh	Max Weekly Energy (Non-CLR)	The maximum amount of energy, in MWh, a for which the Resource can be deployed in seven consecutive days							C	
Load Resource Parameters				X		minutes	Minimum Notice Time (Non-CLR)	The notice time that the Resource requires before deployment (e.g., instantaneous, 30 minutes, etc.)							C	
Load Resource Parameters				X		hours	Max Deployment Time (CLR)	The maximum amount of time a Controllable Load Resource can be deployed before it must return to normal operating conditions							C	
Load Resource Parameters				X		MWh	Max Weekly Energy (CLR)	The maximum amount of energy a Controllable Load Resource can be deployed in seven consecutive days							C	
Load Resource Parameters				X		MW	MW1 (CLR NRRC)	Normal Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here							C	
Load Resource Parameters				X		MW/min	Upward RampRate1 (CLR NRRC)	Enter Normal Rate at which resource can increase MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW/min	Downward RampRate1 (CLR NRRC)	Enter Normal Rate at which resource can decrease MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW	MW2 (CLR NRRC)	Normal Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here							C	
Load Resource Parameters				X		MW/min	Upward RampRate2 (CLR NRRC)	Enter Normal Rate at which resource can increase MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW/min	Downward RampRate2 (CLR NRRC)	Enter Normal Rate at which resource can decrease MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW	MW3 (CLR NRRC)	Normal Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here							C	
Load Resource Parameters				X		MW/min	Upward RampRate3 (CLR NRRC)	Enter Normal Rate at which resource can increase MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW/min	Downward RampRate3 (CLR NRRC)	Enter Normal Rate at which resource can decrease MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW	MW4 (CLR NRRC)	Normal Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here							C	
Load Resource Parameters				X		MW/min	Upward RampRate4 (CLR NRRC)	Enter Normal Rate at which resource can increase MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW/min	Downward RampRate4 (CLR NRRC)	Enter Normal Rate at which resource can decrease MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW	MW5 (CLR NRRC)	Normal Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here							C	
Load Resource Parameters				X		MW/min	Upward RampRate5 (CLR NRRC)	Enter Normal Rate at which resource can increase MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW/min	Downward RampRate5 (CLR NRRC)	Enter Normal Rate at which resource can decrease MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW	MW6 (CLR NRRC)	Normal Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here							C	
Load Resource Parameters				X		MW/min	Upward RampRate6 (CLR NRRC)	Enter Normal Rate at which resource can increase MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW/min	Downward RampRate6 (CLR NRRC)	Enter Normal Rate at which resource can decrease MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW	MW7 (CLR NRRC)	Normal Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here							C	
Load Resource Parameters				X		MW/min	Upward RampRate7 (CLR NRRC)	Enter Normal Rate at which resource can increase MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW/min	Downward RampRate7 (CLR NRRC)	Enter Normal Rate at which resource can decrease MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW	MW8 (CLR NRRC)	Normal Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here							C	
Load Resource Parameters				X		MW/min	Upward RampRate8 (CLR NRRC)	Enter Normal Rate at which resource can increase MW output in MW/minute for the given output level							C	
Load Resource Parameters				X		MW/min	Downward RampRate8 (CLR NRRC)	Enter Normal Rate at which resource can decrease MW output in MW/minute for the given output level							C	

Load Resource Parameters				X		MW	MW9 (CLR NRRC)	Normal Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here					C	
Load Resource Parameters				X		MW/min	Upward RampRate9 (CLR NRRC)	Enter Normal Rate at which resource can increase MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW/min	Downward RampRate9 (CLR NRRC)	Enter Normal Rate at which resource can decrease MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW	MW10 (CLR NRRC)	Normal Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here					C	
Load Resource Parameters				X		MW/min	Upward RampRate10 (CLR NRRC)	Enter Normal Rate at which resource can increase MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW/min	Downward RampRate10 (CLR NRRC)	Enter Normal Rate at which resource can decrease MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW	MW1 (CLR ERRC)	Emergency Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here					C	
Load Resource Parameters				X		MW/min	Upward RampRate1 (CLR ERRC)	Enter Emergency Rate at which resource can increase MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW/min	Downward RampRate1 (CLR ERRC)	Enter Emergency Rate at which resource can decrease MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW	MW2 (CLR ERRC)	Emergency Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here					C	
Load Resource Parameters				X		MW/min	Upward RampRate2 (CLR ERRC)	Enter Emergency Rate at which resource can increase MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW/min	Downward RampRate2 (CLR ERRC)	Enter Emergency Rate at which resource can decrease MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW	MW3 (CLR ERRC)	Emergency Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here					C	
Load Resource Parameters				X		MW/min	Upward RampRate3 (CLR ERRC)	Enter Emergency Rate at which resource can increase MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW/min	Downward RampRate3 (CLR ERRC)	Enter Emergency Rate at which resource can decrease MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW	MW4 (CLR ERRC)	Emergency Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here					C	
Load Resource Parameters				X		MW/min	Upward RampRate4 (CLR ERRC)	Enter Emergency Rate at which resource can increase MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW/min	Downward RampRate4 (CLR ERRC)	Enter Emergency Rate at which resource can decrease MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW	MW5 (CLR ERRC)	Emergency Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here					C	
Load Resource Parameters				X		MW/min	Upward RampRate5 (CLR ERRC)	Enter Emergency Rate at which resource can increase MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW/min	Downward RampRate5 (CLR ERRC)	Enter Emergency Rate at which resource can decrease MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW	MW6 (CLR ERRC)	Emergency Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here					C	
Load Resource Parameters				X		MW/min	Upward RampRate6 (CLR ERRC)	Enter Emergency Rate at which resource can increase MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW/min	Downward RampRate6 (CLR ERRC)	Enter Emergency Rate at which resource can decrease MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW	MW7 (CLR ERRC)	Emergency Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here					C	
Load Resource Parameters				X		MW/min	Upward RampRate7 (CLR ERRC)	Enter Emergency Rate at which resource can increase MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW/min	Downward RampRate7 (CLR ERRC)	Enter Emergency Rate at which resource can decrease MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW	MW8 (CLR ERRC)	Emergency Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here					C	
Load Resource Parameters				X		MW/min	Upward RampRate8 (CLR ERRC)	Enter Emergency Rate at which resource can increase MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW/min	Downward RampRate8 (CLR ERRC)	Enter Emergency Rate at which resource can decrease MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW	MW9 (CLR ERRC)	Emergency Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here					C	
Load Resource Parameters				X		MW/min	Upward RampRate9 (CLR ERRC)	Enter Emergency Rate at which resource can increase MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW/min	Downward RampRate9 (CLR ERRC)	Enter Emergency Rate at which resource can decrease MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW	MW10 (CLR ERRC)	Emergency Ramp Rate curve is a pairing (MW Output vs. Ramp Rate), enter MW value here					C	
Load Resource Parameters				X		MW/min	Upward RampRate10 (CLR ERRC)	Enter Emergency Rate at which resource can increase MW output in MW/minute for the given output level					C	
Load Resource Parameters				X		MW/min	Downward RampRate10 (CLR ERRC)	Enter Emergency Rate at which resource can decrease MW output in MW/minute for the given output level					C	
Line Data tab applies														
Line Data	X	X	X		X	Text	Resource Site Code:	Enter the Site Code established in the General and Site Information tab of the GENERAL SITE ESID Information workbook.	R	R		R	R	
Line Data	X	X	X			List	Description of Change	Select: description of change from drop down list: Add, Change or Delete					C	
Line Data	X	X	X			enter all capsAll-Caps	Line Name	Line names as listed in the ERCOT model, which must meet the character limitation of the system				R	R	
Line Data	X	X	X			kV	Line Voltage Level	Line Voltage Level				R	R	
Line Data	X	X	X			p.u.	Resistance in p.u. (100 MVA Base)	Resistance in p.u. (100 MVA Base)				R	R	
Line Data	X	X	X			p.u.	Reactance in p.u. (100 MVA Base)	Reactance in p.u. (100 MVA Base)				R	R	
Line Data	X	X	X			p.u.	Charging Susceptance in Pp.yu. (100 MVA Base)	Charging Susceptance in p.u. (100 MVA Base)				R	R	
Line Data	X	X	X			p.u.	Zero Sequence Line Resistance in Pp.u. (100 MVA Base)	Zero Sequence Line Resistance in p.u. (100 MVA Base)				R	R	
Line Data	X	X	X			p.u.	Zero Sequence Line Reactance in Pp.u. (100 MVA Base)	Zero Sequence Line Reactance in p.u. (100 MVA Base)				R	R	
Line Data	X	X	X			p.u.	Zero Sequence Charging Susceptance in Pp.yu. (100 MVA Base)	Zero Sequence Charging Susceptance in p.u. (100 MVA Base)				R	R	
Line Data	X	X	X			List	Type	Select line type from drop down list: Overhead, Underground or Both				R	R	
Line Data	X	X	X			miles	Segment Length	Length of this line segment between the TO station and the FROM station (circuit miles)				R	R	
Line Data	X	X	X			enter all capsAll-Caps	ERCOT TO Station Code Mnemonic	Enter the station code mnemonic of the TO station for this Line				R	R	

Line Data	X	X	X		Y/N	Internal Line2	Is this line internal to the station (i.e. not directly connected to the TDSP, or, both ends are within the same station)?			C	C	
Line Data	X	X	X		List	TSP Name	Select TSP Name from the drop down list			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 1 thru 10	Enter device connected to this line in the TO station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			R for Device 1 C for 2 thru 10	R for Device 1 C for 2 thru 10	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 2	Enter device connected to this line in the TO station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 3	Enter device connected to this line in the TO station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 4	Enter device connected to this line in the TO station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 5	Enter device connected to this line in the TO station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 6	Enter device connected to this line in the TO station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 7	Enter device connected to this line in the TO station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 8	Enter device connected to this line in the TO station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 9	Enter device connected to this line in the TO station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 10	Enter device connected to this line in the TO station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Bus Number (PTI Bus Number)	Enter PTI Bus number connecting this line in the TO station			R	O	
Line Data	X	X	X		List	Weather Zone / Weather Station (used for Dynamic Ratings)	Select Weather zone or station from the drop down list			C	C	
Line Data	X	X	X		enter all caps All-Caps	ERCOT FROM Station Code Mnemonic	Enter the station code mnemonic of the FROM station for this Line			R	R	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 1 thru 10	Enter device connected to this line in the FROM station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			R for Device 1 C for 2 thru 10	R for Device 1 C for 2 thru 10	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 2	Enter device connected to this line in the FROM station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 3	Enter device connected to this line in the FROM station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 4	Enter device connected to this line in the FROM station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 5	Enter device connected to this line in the FROM station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 6	Enter device connected to this line in the FROM station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 7	Enter device connected to this line in the FROM station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 8	Enter device connected to this line in the FROM station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 9	Enter device connected to this line in the FROM station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Connected Device 10	Enter device connected to this line in the FROM station (can provide up to 10). Ensure device name is consistent throughout all RARF tabs and one-line diagrams.			C	C	
Line Data	X	X	X		enter all caps All-Caps	Bus Number (PTI Bus Number)	Enter PTI Bus number connecting this line in the FROM station			O	O	
Line Data	X	X	X		List	Weather Zone / Weather Station (used for Dynamic Ratings)	Select Weather zone or station from the drop down list			C	C	
Line Data	X	X	X		Automatic	Line Code	Concatenated code automatically provided				A	
Line Data	X	X	X			Comments	Enter any comments regarding this Line data				O	

Line Data	X	X	X			mm/dd/yyyy	Effective Date	Date this line was added, removed or updated in the model					R	
Line Temperature (by equipment)														
Line Temperature	X	X	X			List	Description of Change	Select: description of change from drop down list: Add, Change or Delete					C	
Line Temperature	X	X	X			Automatic	Line Name	Automatically provided based on lines listed in the Line data tab			A		A	
Line Temperature	X	X	X			Automatic	Line Code	Automatically provided based on line codes listed in the Line data tab			A		A	
Line Temperature	X	X	X			Static/Dynamic List	Line Rating	Select Static or Dynamic line rating			R		R	
Line Temperature	X	X	X			MVA	Continuous Rating	Rating that line can operate at indefinitely without damage or violation of NESC clearances.			R		R	
Line Temperature	X	X	X			MVA	2-hr Emergency Rating	Rating that line can operate at this rating for two hours without violation of NESC clearances or equipment failure.			R		R	
Line Temperature	X	X	X			MVA	15-min Rating	Rating that line can operate at this rating for fifteen minutes without violation of NESC clearances or equipment failure.			R		R	
Line Temperature	X	X	X			MVA	Planning Rate C	Represents the two-hour MVA rating of the conductor or transformer only, excluding substation terminal equipment in series with a conductor or transformer, at the applicable ambient temperature without violation of NESC clearances or equipment failure.			R		R	
Line Temperature	X	X	X			MVA	20 °F - Continuous Rating - 115 °F Continuous Rating	Per definition of "Normal Rating" in Section 2 of the ERCOT protocols, the continuous MVA rating of a Transmission Element, including substation terminal equipment in series with a conductor or transformer, at the stated ambient temperature. The Transmission Element can operate at this rating indefinitely without damage, or violation of NESC clearances.					C	
Line Temperature	X	X	X			MVA	20 °F - 2-hr Emergency Rating - 115 °F 2-hr Emergency Rating	Per definition of "Emergency Rating" in Section 2 of the ERCOT protocols, the two-hour MVA rating of a Transmission Element, including substation terminal equipment in series with a conductor or transformer, at the stated ambient temperature. The Transmission Element can operate at this rating for two hours without violation of NESC clearances or equipment failure.					C	

Line Temperature	X	X	X			MVA	20 °F - 15-min Rating - 115 °F 15-min Rating	Rating that line can operate at this rating for fifteen minutes without violation of NESC clearances or equipment failure at the stated temperature. Per definition of "15 Minute Rating" in Section 2 of the ERCOT protocols, The 15-minute MVA rating of a Transmission Element, including substation terminal equipment in series with a conductor or transformer, at the stated ambient temperature and with a step increase from a prior loading up to 90% of the Normal Rating. The Transmission Element can operate at this rating for 15 minutes, assuming its pre-contingency loading up to 90% of the Normal Rating limit at the stated ambient temperature, without violation of NESC clearances or equipment failure. This rating takes advantage of the time delay associated with heating of a conductor or transformer following a sudden increase in current.					C	
Line Temperature	X	X	X			MVA	20 °F - Planning Rate C - 115 °F - Planning Rate C	Represents the two-hour MVA rating of the conductor or transformer only, excluding substation terminal equipment in series with a conductor or transformer, at the stated ambient temperature without violation of NESC clearances or equipment failure. Per definition of "Conductor/Transformer 2-hour Rating" in Section 2 of the ERCOT protocols, The two-hour MVA rating of the conductor or transformer only, excluding substation terminal equipment in series with a conductor or transformer, at the stated ambient temperature. The conductor or transformer can operate at this rating for two hours without violation of National Electrical Safety Code (NESC) clearances or equipment failure.					C	
Breaker Switch Data (see applicable)														
Breaker Switch Data	X	X	X			List	Description of Change	Select: description of change from drop down list: Add, Change or Delete					C	
Breaker Switch Data	X	X	X			enter all caps All-Caps	Switch Name	Breaker or Switch name as provided in the ERCOT model, which must meet the character limitation of the system. Ensure device name is consistent throughout all RARF tabs and one-line diagram.			O		R	
Breaker Switch Data	X	X	X			enter all caps All-Caps	ERCOT Station Name (Station Code or Station Mnemonic)	ERCOT Station Code Mnemonic that where the breaker or switch is located as listed in the mode			O		R	
Breaker Switch Data	X	X	X			Automatic	Switch Code	Concatenated code automatically provided			A		A	
Breaker Switch Data	X	X	X			Y/N	Is This A Fault Isolating Device (e.g. Circuit Breaker)	Select Y if device is Breaker, or N if device is a Switch Select Y or N		R	R		R	
Breaker Switch Data	X	X	X			Opened/Closed List	Normal Operating Status (when in service)	Select whether Open or Closed during normal operations		R	R		R	
Breaker Switch Data	X	X	X			kV	Voltage Level	Enter voltage level of this breaker or switch Rating that device can operate at this rating for two hours without violation of NESC clearances or equipment failure.		R	R		R	
Breaker Switch Data	X	X	X			MVA	Continuous Rating	Per definition of "Normal Rating" in Section 2 of the ERCOT protocols, the continuous MVA rating of a Transmission Element, including substation terminal equipment in series with a conductor or transformer, at the applicable ambient temperature. The Transmission Element can operate at this rating indefinitely without damage, or violation of NESC clearances.		R	R		R	
Breaker Switch Data	X	X	X			MVA	2-hr Emergency Rating	Rating that device can operate at this rating for two hours without violation of NESC clearances or equipment failure. Per definition of "Emergency Rating" in Section 2 of the ERCOT protocols, the two-hour MVA rating of a Transmission Element, including substation terminal equipment in series with a conductor or transformer, at the applicable ambient temperature. The Transmission Element can operate at this rating for two hours without violation of NESC clearances or equipment failure.		R	R		R	
Breaker Switch Data	X	X	X			MVA	15-min Rating	Rating that device can operate at this rating for fifteen minutes without violation of NESC clearances or equipment failure. Per definition of "15 Minute Rating" in Section 2 of the ERCOT protocols, The 15-minute MVA rating of a Transmission Element, including substation terminal equipment in series with a conductor or transformer, at the applicable ambient temperature and with a step increase from a prior loading up to 90% of the Normal Rating. The Transmission Element can operate at this rating for 15 minutes, assuming its pre-contingency loading up to 90% of the Normal Rating limit at the applicable ambient temperature, without violation of NESC clearances or equipment failure. This rating takes advantage of the time delay associated with heating of a conductor or transformer following a sudden increase in current.		R	R		R	

Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 1 thru 10	Enter device connected to this breaker or switch on Side 1 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.				R for Device 1 C for 2 thru 10	R for Device 1 C for 2 thru 10	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 2	Enter device connected to this breaker or switch on Side 1 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 3	Enter device connected to this breaker or switch on Side 1 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 4	Enter device connected to this breaker or switch on Side 1 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 5	Enter device connected to this breaker or switch on Side 1 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 6	Enter device connected to this breaker or switch on Side 1 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 7	Enter device connected to this breaker or switch on Side 1 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 8	Enter device connected to this breaker or switch on Side 1 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 9	Enter device connected to this breaker or switch on Side 1 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 10	Enter device connected to this breaker or switch on Side 1 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 1 thru 10	Enter device connected to this breaker or switch on Side 2 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.				R for Device 1 C for 2 thru 10	R for Device 1 C for 2 thru 10	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 2	Enter device connected to this breaker or switch on Side 2 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 3	Enter device connected to this breaker or switch on Side 2 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 4	Enter device connected to this breaker or switch on Side 2 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 5	Enter device connected to this breaker or switch on Side 2 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 6	Enter device connected to this breaker or switch on Side 2 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 7	Enter device connected to this breaker or switch on Side 2 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 8	Enter device connected to this breaker or switch on Side 2 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 9	Enter device connected to this breaker or switch on Side 2 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X			enter all capsAll-Caps	Connected Device 10	Enter device connected to this breaker or switch on Side 2 (can provide up to 10) Ensure device name is consistent throughout all RARF tabs and one-line diagrams.					C	
Breaker Switch Data	X	X	X				Comments	Enter any comments regarding this breaker-switch data					O	
Breaker Switch Data	X	X	X			mm/dd/yyyy	Effective Date	Date this breaker or switch was added, removed or updated in the model					R	
Capacitor and Reactor Data (see instructions)														
Capacitor and Reactor Data	X	X	X			List	Description of Change	Select: description of change from drop down list: Add, Change or Delete					C	
Capacitor and Reactor Data	X	X	X			enter all capsAll-Caps	Device Name	Capacitor or Reactor name as provided in the ERCOT model, which must meet the character limitation of the system.				R	R	
Capacitor and Reactor Data	X	X	X			enter all capsAll-Caps	ERCOT Station Name (Station Code or Station Mnemonic)	ERCOT Station Code Mnemonic that the breaker or switch is located, as listed in				R	R	
Capacitor and Reactor Data	X	X	X			Automatic	Device Code	Concatenated code automatically provided				A	A	
Capacitor and Reactor Data	X	X	X			List	Capacitor Or Reactor	Select whether this device is a capacitor(C) or reactor (R)			R	R	R	

Capacitor and Reactor Data	X	X	X			MVARs	Nominal MvarVArs	Rated MVAR rating of a capacitor or reactor (name plate data) negative MVAR for reactors and positive MVARs for capacitors		R	R	R	
Capacitor and Reactor Data	X	X	X			kV	Voltage Level kV	Enter voltage level of this capacitor or reactor		R	R	R	
Capacitor and Reactor Data	X	X	X			# Number	Bus Number (PTI Bus Number)	Enter PTI Bus Number for this device			O	O	
Capacitor and Reactor Data	X	X	X			Y/N	Automatic Voltage Regulation	Select Y or N whether this device has automatic voltage regulation		R	R	R	
Capacitor and Reactor Data	X	X	X			kV	Voltage Level of Busbar being regulated	Enter voltage of busbar where device is located		C	C	C	
Capacitor and Reactor Data	X	X	X			kV	Desired Regulating Voltage	Desired Regulating Voltage		C	C	C	
Capacitor and Reactor Data	X	X	X			kV	Minimum Regulating Voltage	Lower limit of voltage specified in the Protocols voltage regulation scheme		C	C	C	
Capacitor and Reactor Data	X	X	X			kV	Maximum Regulating Voltage	Higher limit of voltage specified in the Protocols voltage regulation scheme		C	C	C	
Capacitor and Reactor Data	X	X	X			p.u.	Zero-Sequence Reactance Increment in p.u.	Zero-Sequence Reactance Increment in p.u.		R	R	R	
Capacitor and Reactor Data	X	X	X			enter all caps	All Caps	Enter device connected to this capacitor or reactor (can provide up to 10)			R for Device 1 C for 2 thru 10	R for Device 1 C for 2 thru 10	
Capacitor and Reactor Data	X	X	X			enter all caps	All Caps	Directly-Connected Device 2 Enter device connected to this capacitor or reactor (can provide up to 10)				C	
Capacitor and Reactor Data	X	X	X			enter all caps	All Caps	Directly-Connected Device 3 Enter device connected to this capacitor or reactor (can provide up to 10)				C	
Capacitor and Reactor Data	X	X	X			enter all caps	All Caps	Directly-Connected Device 4 Enter device connected to this capacitor or reactor (can provide up to 10)				C	
Capacitor and Reactor Data	X	X	X			enter all caps	All Caps	Directly-Connected Device 5 Enter device connected to this capacitor or reactor (can provide up to 10)				C	
Capacitor and Reactor Data	X	X	X			enter all caps	All Caps	Directly-Connected Device 6 Enter device connected to this capacitor or reactor (can provide up to 10)				C	
Capacitor and Reactor Data	X	X	X			enter all caps	All Caps	Directly-Connected Device 7 Enter device connected to this capacitor or reactor (can provide up to 10)				C	
Capacitor and Reactor Data	X	X	X			enter all caps	All Caps	Directly-Connected Device 8 Enter device connected to this capacitor or reactor (can provide up to 10)				C	
Capacitor and Reactor Data	X	X	X			enter all caps	All Caps	Directly-Connected Device 9 Enter device connected to this capacitor or reactor (can provide up to 10)				C	
Capacitor and Reactor Data	X	X	X			enter all caps	All Caps	Directly-Connected Device 10 Enter device connected to this capacitor or reactor (can provide up to 10)				C	
Capacitor and Reactor Data	X	X	X				Comments	Enter any comments regarding this breaker-switch data				C	
Capacitor and Reactor Data	X	X	X			mm/dd/yyyy	Effective Date	Date this breaker or switch capacitor or reactor was added, removed or updated in the model				R	
Transformer Data (in applicable)													
Transformer Data	X	X	X			List	Description of Change	Select: description of change from drop down list: Add, Change or Delete				C	
Transformer Data	X	X	X			enter all caps	All Caps	Transformer Name Transformer name as provided in the ERCOT model, which must be 14 characters or less and contain no special characters other than an underscore " _ " - meet the character limitation of the system			R	R	
Transformer Data	X	X	X			enter all caps	All Caps	ERCOT Station Name (Station Code or Station Mnemonic)	ERCOT Station Code/Mnemonic where the breaker or switch transformer is located - as listed in the model			R	R
Transformer Data	X	X	X			Automatic	Transformer Code	Concatenated code automatically provided			A	A	
Transformer Data	X	X	X			Y/N	Transformer Test Report Attached?	Is the Transformer test report attached to this Resource Registration? Submit the Transformer Test Report as a zip file attached to the RARF submission.			R	R	
Transformer Data	X	X	X			Y/N	Is This Transformer in a Master-follower Configuration?	Select Y or N whether this transformer is part of a master - following configuration			R	R	
Transformer Data	X	X	X			enter all caps	Master Name (can Be Same As this transformer)	The registered name of the transformer designated as the master in a parallel transformer control system scheme.				C	
Transformer Data	X	X	X			enter all caps	Follower Name (can Be Same As this transformer)	The registered name of the transformer designated as the follower in a parallel transformer control system scheme.				C	
Transformer Data	X	X	X			Y/N	Generator Step up Transformer?	Select Y or N whether this transformer is a generator step up transformer		R	R	R	
Transformer Data	X	X	X				Zero Sequence Data Winding Connect code (1-59)	Enter zero sequence data winding connect code 1 - 5 as noted below. Transformer Connection Codes: Two Winding Transformers (in order of Voltage highest first) 1 – Wye-Wye Bank Both Neutrals Grounded 2 – Wye - Delta Bank Grounded Wye 3 – Delta - Wye Bank Grounded Wye 4 – Delta - Delta Bank; Wye-Delta Bank Ungrounded Wye; Delta-Wye Bank Ungrounded Wye; Wye-Wye Bank Either Wye Grounded 5 – Three Winding only (Test Reports needed for Code 5) 6 through 9 – Unused			R	R	R
Transformer Data	X	X	X			p.u.	Zero Sequence Grounding Resistance For An Impedance Grounded Transformer in P.u. (100 MVA Base)	Zero Sequence Grounding Resistance For An Impedance Grounded Generator in p.u. (100 MVA Base) and the nominal system voltage (69, 138 or 345 kV)		R	R	R	
Transformer Data	X	X	X			p.u.	Zero Sequence Grounding Reactance For An Impedance Grounded Transformer In P.u. (100 MVA Base)	Zero Sequence Grounding Reactance For An Impedance Grounded Transformer in P.u. (100 MVA Base) and the nominal system voltage (69, 138 or 345 kV)		R	R	R	
Transformer Data	X	X	X			p.u.	Zero Sequence Resistance In p.u. (100 MVA Base)	Zero Sequence Resistance In p.u. (100 MVA Base) and the nominal system voltage (69, 138 or 345 kV)		R	R	R	
Transformer Data	X	X	X			p.u.	Zero Sequence Reactance In P.u. (100 MVA Base)	Zero Sequence Reactance In P.u. (100 MVA Base) and the nominal system voltage (69, 138 or 345 kV)		R	R	R	
Transformer Data	X	X	X			p.u.	Zero-Sequence Reactance Increment in p.u.	Zero-Sequence Reactance Increment in p.u.			R	R	
Transformer Data	X	X	X			p.u.	Positive Sequence Resistance (100 MVA Base)	Positive Sequence Resistance (100 MVA Base) and the nominal system voltage (69, 138 or 345 kV)		R	R	R	
Transformer Data	X	X	X			p.u.	Positive Sequence Reactance (100 MVA Base)	Positive Sequence Reactance (100 MVA Base) and the nominal system voltage (69, 138 or 345 kV)		R	R	R	

Transformer Data	X	X	X			MVA	Continuous Rating	Rating that transformer can operate at continuously without damage, or violation of NESC clearances Per definition of "Normal Rating" in Section 2 of the ERCOT protocols, the continuous MVA rating of a Transmission Element, including substation terminal equipment in series with a conductor or transformer, at the applicable ambient temperature. The Transmission Element can operate at this rating indefinitely without damage, or violation of NESC clearances		R		R		R	
Transformer Data	X	X	X			MVA	2-hr Emergency Rating	Rating that transformer can operate at emergency rating for two hours without violation of NESC clearances or equipment failure Per definition of "Emergency Rating" in Section 2 of the ERCOT protocols, the two-hour MVA rating of a Transmission Element, including substation terminal equipment in series with a conductor or transformer, at the applicable ambient temperature. The Transmission Element can operate at this rating for two hours without violation of NESC clearances or equipment failure		R		R		R	
Transformer Data	X	X	X			MVA	15-min Rating	Rating that transformer can operate at this rating for fifteen minutes without violation of NESC clearances or equipment failure Per definition of "15 Minute Rating" in Section 2 of the ERCOT protocols, The 15-minute MVA rating of a Transmission Element, including substation terminal equipment in series with a conductor or transformer, at the applicable ambient temperature and with a step increase from a prior loading up to 90% of the Normal Rating. The Transmission Element can operate at this rating for 15 minutes, assuming its pre-contingency loading up to 90% of the Normal Rating limit at the applicable ambient temperature, without violation of NESC clearances or equipment failure. This rating takes advantage of the time delay associated with heating of a conductor or transformer following a sudden increase in current.		R		R		R	
Transformer Data	X	X	X			enter all caps All-Caps	Unit(s) Associated With This Transformer (Must be entered as SITECODE_UNITNAME)	Enter the Unit(s) Associated With This Transformer (name must match unit names provided on the unit info tab)						C	
Transformer Data	X	X	X			All-Caps	Unit(s) Associated With This Transformer	Enter the Unit(s) Associated With This Transformer (name must match unit names provided on the unit info tab)						C	
Transformer Data	X	X	X			All-Caps	Unit(s) Associated With This Transformer	Enter the Unit(s) Associated With This Transformer (name must match unit names provided on the unit info tab)						C	
Transformer Data	X	X	X			All-Caps	Unit(s) Associated With This Transformer	Enter the Unit(s) Associated With This Transformer (name must match unit names provided on the unit info tab)						C	
Transformer Data	X	X	X			All-Caps	Unit(s) Associated With This Transformer	Enter the Unit(s) Associated With This Transformer (name must match unit names provided on the unit info tab)						C	
Transformer Data	X	X	X			All-Caps	Unit(s) Associated With This Transformer	Enter the Unit(s) Associated With This Transformer (name must match unit names provided on the unit info tab)						C	
Transformer Data	X	X	X			All-Caps	Unit(s) Associated With This Transformer	Enter the Unit(s) Associated With This Transformer (name must match unit names provided on the unit info tab)						C	
Transformer Data	X	X	X			All-Caps	Unit(s) Associated With This Transformer	Enter the Unit(s) Associated With This Transformer (name must match unit names provided on the unit info tab)						C	
Transformer Data	X	X	X			All-Caps	Unit(s) Associated With This Transformer	Enter the Unit(s) Associated With This Transformer (name must match unit names provided on the unit info tab)						C	
Transformer Data	X	X	X			All-Caps	Unit(s) Associated With This Transformer	Enter the Unit(s) Associated With This Transformer (name must match unit names provided on the unit info tab)						C	
Transformer Data	X	X	X			All-Caps	Unit(s) Associated With This Transformer	Enter the Unit(s) Associated With This Transformer (name must match unit names provided on the unit info tab)						C	
Transformer Data	X	X	X			All-Caps	Unit(s) Associated With This Transformer	Enter the Unit(s) Associated With This Transformer (name must match unit names provided on the unit info tab)						C	
Transformer Data	X	X	X			kV	High Side Voltage Level (no-Load)	Enter the voltage level of the high side for this transformer system nominal voltage (69, 138, 345 kV)				R		R	
Transformer Data	X	X	X			# Number	High Side PTI Bus Number-Voltage level (PTI)	Enter the PTI bus number for the high side of this transformer				O		O	
Transformer Data	X	X	X			List	High Side Voltage Connection - Wye or Delta	Select whether this high side connection is a Wye or Delta connection		R		R		R	
Transformer Data	X	X	X			Device 1	High Side Voltage Connected Devices	Enter a device connected to the high side of this transformer						R	
Transformer Data	X	X	X			All-Caps	High Side Voltage Connected Devices	Enter a device connected to the high side of this transformer						R	
Transformer Data	X	X	X			All-Caps	High Side Voltage Connected Devices	Enter a device connected to the high side of this transformer						R	
Transformer Data	X	X	X			All-Caps	High Side Voltage Connected Devices	Enter a device connected to the high side of this transformer						R	
Transformer Data	X	X	X			All-Caps	High Side Voltage Connected Devices	Enter a device connected to the high side of this transformer						R	

Transformer Data	X	X	X			kV	High Side Manufactured Nominal Voltage	Enter the high side manufactured system nominal voltage (400-138-345 kV) for this transformer		R	R	R	
Transformer Data	X	X	X			kV	Low Side Voltage level (no-Load)	Enter the voltage level of the low side for this transformer			R	R	
Transformer Data	X	X	X			# Number	Low Side PTI Bus Number Voltage level (PTI)	Enter the PTI bus number for the low side of this transformer			O	O	
Transformer Data	X	X	X			List	Low Side Voltage Connection - Wye or Delta	Select whether this low side connection is a Wye or Delta connection	R		R	R	
Transformer Data	X	X	X			Device 1	Low Side Voltage Connected Devices	Enter a device connected to the low side of this transformer				R	
Transformer Data	X	X	X			All-Caps	Low Side Voltage Connected Devices	Enter a device connected to the low side of this transformer				R	
Transformer Data	X	X	X			All-Caps	Low Side Voltage Connected Devices	Enter a device connected to the low side of this transformer				R	
Transformer Data	X	X	X			All-Caps	Low Side Voltage Connected Devices	Enter a device connected to the low side of this transformer				R	
Transformer Data	X	X	X			All-Caps	Low Side Voltage Connected Devices	Enter a device connected to the low side of this transformer				R	
Transformer Data	X	X	X			kV	Low Side Manufactured Nominal Voltage	Enter the low side manufactured nominal voltage for this transformer	R		R	R	
Transformer Data	X	X	X			Y/N	Automatic On-Load Voltage Regulation	Select Y or N whether this transformer has will change tap settings automatically while online to control voltage, automatic voltage regulation	R		R	R	
Transformer Data	X	X	X			Y/N	Does Transformer have a On-Load Tap Changer?	Select Y or N whether this transformer has an On-Load Tap changer	GR		G-R	GR	
Transformer Data	X	X	X			List	Location of On-Load Tap Changer - Primary (High) or Secondary (Low) side	If this transformer has an On-Load Tap changer, select whether it is on Primary (High) or Secondary (Low) side.	C		C	C	
Transformer Data	X	X	X			kV	Base kV of Regulated Side	Base kV of Regulated Side			C	C	
Transformer Data	X	X	X			kV	Target kV of Regulated Side	Target kV of Regulated Side			C	C	
Transformer Data	X	X	X			%	Acceptable Deviation of Target Voltage	Acceptable Deviation from of Target Voltage before tap change, in percent (enter 1% as 0.01).			C	C	
Transformer Data	X	X	X				Comments	Enter any comments regarding this transformer data				O	
Transformer Data	X	X	X			mm/dd/yyyy	Effective Date:	Date this transformer was added, removed or updated in the model				R	
Transformer Tap Settings (on-load tap)													
Transformer Tap Settings	X	X	X			List	Description of Change	Select: description of change from drop down list: Add, Change or Delete				C	
Transformer Tap Settings	X	X	X			List	Transformer Name	Transformer name as provided in the ERCOT model, which must meet the character limitation of the system			R	R	
Transformer Tap Settings	X	X	X			List	ERCOT Station Name (Station Code or Station Mnemonic)	ERCOT Station Code Mnemonic that the breaker or switch is located, as listed in the mode			R	R	
Transformer Tap Settings	X	X	X			Automatic	Transformer Code	Concatenated code automatically provided			A	A	
Transformer Tap Settings	X	X	X			List	Primary (High) - Secondary (Low) Flag	Select from list whether taps are on Primary (high) side of Secondary (low) side. Enter both On-Load and No-Load Tap changer data on separate rows if both exist.	GR		GR	GR	
Transformer Tap Settings	X	X	X			# Number	Tap Position At Manufactured Nominal Voltage	Tap Position At Manufactured Nominal Voltage	GR		GR	GR	
Transformer Tap Settings	X	X	X			# Number	Total Number of Tap Positions	Total Number of Tap Positions	CR		CR	CR	
Transformer Tap Settings	X	X	X			# Number	Normal Tap Position	Normal Tap Position	CR		CR	CR	
Transformer Tap Settings	X	X	X			# Number	Lowest Tap Position	Lowest Tap Position	GR		GR	GR	
Transformer Tap Settings	X	X	X			kV	Voltage at Lowest Tap Position	Voltage at Lowest Tap Position	CR		CR	CR	
Transformer Tap Settings	X	X	X			# Number	Highest Tap Position	Highest Tap Position	CR		CR	CR	
Transformer Tap Settings	X	X	X			kV	Voltage at Highest Tap Position	Voltage at Highest Tap Position	GR		GR	GR	
Transformer Tap Settings	X	X	X			kV	Size of Each Voltage Level Step	Size of Each Voltage Level Step	CR		CR	CR	
Static Var Compensator Settings													
Static Var Compensator Data	X	X	X			List	Description of Change	Select: description of change from drop down list: Add, Change or Delete				C	
Static Var Compensator Data	X	X	X			enter all caps All-Caps	SVC Name	Static Var Compensator (SVC, STATCOM, DVAR) name as provided in the ERCOT model, which must be 14 characters or less and contain no special characters other than an underscore " _ " meet the character limitation of the system			R	R	
Static Var Compensator Data	X	X	X			enter all caps All-Caps	ERCOT Station Name (Station Code or Station Mnemonic)	ERCOT Station Code Mnemonic that the breaker or switch is located, as listed in the mode			R	R	
Static Var Compensator Data	X	X	X			Automatic	SVC Code	Concatenated code automatically provided			A	A	
Static Var Compensator Data	X	X	X			kV	SVC Base Voltage Level	Enter base voltage for this SVC device (i.e. voltage that the SVC is modeled at)	R		R	R	
Static Var Compensator Data	X	X	X			MVAR±	Fixed MVAR (var injections at Nominal Voltage)	Enter fixed MVAR for this SVC device at nominal voltage	R		R	R	
Static Var Compensator Data	X	X	X			p.u.	Minimum Admittance Limits (+00-MVA-base) (on a 1MVA basis which = MVAR capability)	Minimum Admittance Limits (+00-MVA-base) (on a 1MVA basis which = MVAR capability)	R		R	R	already done in RARF
Static Var Compensator Data	X	X	X			p.u.	Maximum Admittance Limits (+00-MVA-base) (on a 1MVA basis which = MVAR capability)	Maximum Admittance Limits (+00-MVA-base) (on a 1MVA basis which = MVAR capability)	R		R	R	already done in RARF
Static Var Compensator Data	X	X	X			MVAR±	Minimum Steady State Reactive power Limits (+00-MVA-base)	Minimum Steady State Reactive power Limits (+00-MVA-base)	R		R	R	
Static Var Compensator Data	X	X	X			MVAR±	Maximum Steady State Reactive power Limits (+00-MVA-base)	Maximum Steady State Reactive power Limits (+00-MVA-base)	R		R	R	
Static Var Compensator Data	X	X	X			MVAR±	Minimum Threshold (post contingency) Reactive Power Limits	Minimum Threshold (post contingency) Reactive Power Limits	R		R	R	
Static Var Compensator Data	X	X	X			MVAR±	Maximum Threshold (post contingency) Reactive Power Limits	Maximum Threshold (post contingency) Reactive Power Limits	R		R	R	
Static Var Compensator Data	X	X	X			kV	Minimum Voltage Threshold	Minimum Voltage Threshold	R		R	R	

Static Var Compensator Data	X	X	X			kV	Maximum Voltage Threshold	Maximum Voltage Threshold		R	R	R	
Static Var Compensator Data	X	X	X			enter all caps All Caps	Directly-Connected Device-1	Enter device connected to this SVC (can provide up to 10)				R	
Static Var Compensator Data	X	X	X			enter all caps All Caps	Directly-Connected Device-2	Enter device connected to this SVC (can provide up to 10)				G	
Static Var Compensator Data	X	X	X			enter all caps All Caps	Directly-Connected Device-3	Enter device connected to this SVC (can provide up to 10)				G	
Static Var Compensator Data	X	X	X			enter all caps All Caps	Directly-Connected Device-4	Enter device connected to this SVC (can provide up to 10)				G	
Static Var Compensator Data	X	X	X			enter all caps All Caps	Directly-Connected Device-5	Enter device connected to this SVC (can provide up to 10)				G	
Static Var Compensator Data	X	X	X			enter all caps All Caps	Directly-Connected Device-6	Enter device connected to this SVC (can provide up to 10)				G	
Static Var Compensator Data	X	X	X			enter all caps All Caps	Directly-Connected Device-7	Enter device connected to this SVC (can provide up to 10)				G	
Static Var Compensator Data	X	X	X			enter all caps All Caps	Directly-Connected Device-8	Enter device connected to this SVC (can provide up to 10)				G	
Static Var Compensator Data	X	X	X			enter all caps All Caps	Directly-Connected Device-9	Enter device connected to this SVC (can provide up to 10)				G	
Static Var Compensator Data	X	X	X			enter all caps All Caps	Directly-Connected Device-10	Enter device connected to this SVC (can provide up to 10)				G	
Static Var Compensator Data	X	X	X				Comments	Enter any comments regarding this breaker-switch data				O	
Static Var Compensator Data	X	X	X			mm/dd/yyyy	Effective Date	Date this SVC breaker or switch was added, removed or updated in the model				R	
Series Device Data (see spec)													
Series Device Data	X	X	X			List	Description of Change	Select: description of change from drop down list: Add, Change or Delete				C	
Series Device Data	X	X	X			enter all caps All Caps	Series Device Name	Series Device name as provided in the ERCOT model, which must be 14 characters or less and contain no special characters other than an underscore "_". meet the character limitation of the system		R		R	
Series Device Data	X	X	X			enter all caps All Caps	ERCOT Station Name (Station Code or Station Mnemonic)	ERCOT Station Code Mnemonic that the breaker or switch is located, as listed in the mode			R	R	
Series Device Data	X	X	X			Automatic	SD Code	Concatenated code automatically provided			A	A	
Series Device Data	X	X	X			kV	Voltage Level	Enter voltage for this Series device	R		R	R	
Series Device Data	X	X	X			p.u.	Resistance	Enter resistance for this series device (100 MVA base)	R		R	R	
Series Device Data	X	X	X			p.u.	Reactance	Enter reactance for this series device (100 MVA base)	R		R	R	
Rating that device can operate at this rating for two hours without violation of NESC clearances or equipment failure													
Series Device Data	X	X	X			MVA	Continuous Rating	Per definition of "Normal Rating" in Section 2 of the ERCOT protocols, the continuous MVA rating of a Transmission Element, including substation terminal equipment in series with a conductor or transformer, at the applicable ambient temperature. The Transmission Element can operate at this rating indefinitely without damage, or violation of NESC clearances.	R		R	R	
Rating that device can operate at this rating for two hours without violation of NESC clearances or equipment failure													
Series Device Data	X	X	X			MVA	2-hr Emergency Rating	Per definition of "Emergency Rating" in Section 2 of the ERCOT protocols, the two-hour MVA rating of a Transmission Element, including substation terminal equipment in series with a conductor or transformer, at the applicable ambient temperature. The Transmission Element can operate at this rating for two hours without violation of NESC clearances or equipment failure.	R		R	R	
Rating that device can operate at this rating for fifteen minutes without violation of NESC clearances or equipment failure													
Series Device Data	X	X	X			MVA	15-min Rating	Per definition of "15 Minute Rating" in Section 2 of the ERCOT protocols, The 15-minute MVA rating of a Transmission Element, including substation terminal equipment in series with a conductor or transformer, at the applicable ambient temperature and with a step increase from a prior loading up to 90% of the Normal Rating. The Transmission Element can operate at this rating for 15 minutes, assuming its pre-contingency loading up to 90% of the Normal Rating limit at the applicable ambient temperature, without violation of NESC clearances or equipment failure. This rating takes advantage of the time delay associated with heating of a conductor or transformer following a sudden increase in current.	R		R	R	
Series Device Data	X	X	X			enter all caps All Caps	Connected Device 1 thru 10	Enter device connected to side 2 of this Series Device (can provide up to 10)			R for Device 1 C for 2 thru 10	R for Device 1 C for 2 thru 10	
Series Device Data	X	X	X			enter all caps All Caps	Connected Device-2	Enter device connected to side 1 of this Series Device (can provide up to 10)				C	
Series Device Data	X	X	X			enter all caps All Caps	Connected Device-3	Enter device connected to side 1 of this Series Device (can provide up to 10)				C	
Series Device Data	X	X	X			enter all caps All Caps	Connected Device-4	Enter device connected to side 1 of this Series Device (can provide up to 10)				C	
Series Device Data	X	X	X			enter all caps All Caps	Connected Device-5	Enter device connected to side 1 of this Series Device (can provide up to 10)				C	
Series Device Data	X	X	X			enter all caps All Caps	Connected Device-6	Enter device connected to side 1 of this Series Device (can provide up to 10)				G	

Series-Device-Data	X	X	X			enter-all-caps-All-Caps	Connected-Device-7	Enter-device-connected-to-side-1-of-this-Series-Device-(can-provide-up-to-10)					C	
Series-Device-Data	X	X	X			enter-all-caps-All-Caps	Connected-Device-8	Enter-device-connected-to-side-1-of-this-Series-Device-(can-provide-up-to-10)					C	
Series-Device-Data	X	X	X			enter-all-caps-All-Caps	Connected-Device-9	Enter-device-connected-to-side-1-of-this-Series-Device-(can-provide-up-to-10)					C	
Series-Device-Data	X	X	X			enter-all-caps-All-Caps	Connected-Device-10	Enter-device-connected-to-side-1-of-this-Series-Device-(can-provide-up-to-10)					C	
Series-Device-Data	X	X	X			# Number	Bus Number (PTI Bus Number)	Bus number for Side 1 of this Series Device			O		O	
Series-Device-Data	X	X	X			enter-all-caps-All-Caps	Connected-Device-1 thru 10	Enter device connected to side 1 of this Series Device (can provide up to 10)			R for Device 1 C for 2 thru 10		R for Device 1 C for 2 thru 10	
Series-Device-Data	X	X	X			enter-all-caps-All-Caps	Connected-Device-2	Enter-device-connected-to-side-2-of-this-Series-Device-(can-provide-up-to-10)					C	
Series-Device-Data	X	X	X			enter-all-caps-All-Caps	Connected-Device-3	Enter-device-connected-to-side-2-of-this-Series-Device-(can-provide-up-to-10)					C	
Series-Device-Data	X	X	X			enter-all-caps-All-Caps	Connected-Device-4	Enter-device-connected-to-side-2-of-this-Series-Device-(can-provide-up-to-10)					C	
Series-Device-Data	X	X	X			enter-all-caps-All-Caps	Connected-Device-5	Enter-device-connected-to-side-2-of-this-Series-Device-(can-provide-up-to-10)					C	
Series-Device-Data	X	X	X			enter-all-caps-All-Caps	Connected-Device-6	Enter-device-connected-to-side-2-of-this-Series-Device-(can-provide-up-to-10)					C	
Series-Device-Data	X	X	X			enter-all-caps-All-Caps	Connected-Device-7	Enter-device-connected-to-side-2-of-this-Series-Device-(can-provide-up-to-10)					C	
Series-Device-Data	X	X	X			enter-all-caps-All-Caps	Connected-Device-8	Enter-device-connected-to-side-2-of-this-Series-Device-(can-provide-up-to-10)					C	
Series-Device-Data	X	X	X			enter-all-caps-All-Caps	Connected-Device-9	Enter-device-connected-to-side-2-of-this-Series-Device-(can-provide-up-to-10)					C	
Series-Device-Data	X	X	X			enter-all-caps-All-Caps	Connected-Device-10	Enter-device-connected-to-side-2-of-this-Series-Device-(can-provide-up-to-10)					C	
Series-Device-Data	X	X	X			# Number	Bus Number (PTI Bus Number)	Bus number for Side 2 of this Series Device			O		O	
Series-Device-Data	X	X	X				Comments	Enter any comments regarding this breaker-switch data					O	
Series-Device-Data	X	X	X			mm/dd/yyyy	Effective Date:	Date this Series Device -breaker-or-switch was added, removed or updated in the model					R	
Load Breaker and Switch														
Load Data	X	X	X			List	Description of Change	Select: description of change from drop down list: Add, Change or Delete					C	
Load Data	X	X	X			enter-all-caps-All-Caps	ERCOT Station Name (Station Code or Station Mnemonic)	ERCOT Station Code Mnemonic that the breaker or switch is located, as listed in the mode			R		R	
Load Data	X	X	X			enter-all-caps-All-Caps	Load Name	Load name as provided in the ERCOT model, which must be 14 characters or less and contain no special characters other than an underscore "-". Meet the character limitation of the system			R		R	
Load Data	X	X	X			Automatic	Load Code	Concatenated code automatically provided			A		A	
Load Data	X	X	X			kV	Load Voltage Level	Enter voltage for this Load device			R		R	
Load Data	X	X	X			# Number	PTI Bus Number	Enter bus number for this Load device			O		O	
Load Data	X	X	X			MW	Average Load Under Normal Operations	Enter average amount of MW Load under normal operations			R		R	
Load Data	X	X	X			MVARs	Average MVAR Under Normal Operations	Enter average MVAR amount for this Load under normal operations			R		R	
Load Data	X	X	X			enter-all-caps-All-Caps	Directly Connected Device 1 thru 10	Enter device connected to this Load (can provide up to 10)			R for Device 1 C for 2 thru 10		R for Device 1 C for 2 thru 10	
Load Data	X	X	X			enter-all-caps-All-Caps	Directly-Connected-Device-2	Enter-device-connected-to-this-Load-(can-provide-up-to-10)					C	
Load Data	X	X	X			enter-all-caps-All-Caps	Directly-Connected-Device-3	Enter-device-connected-to-this-Load-(can-provide-up-to-10)					C	
Load Data	X	X	X			enter-all-caps-All-Caps	Directly-Connected-Device-4	Enter-device-connected-to-this-Load-(can-provide-up-to-10)					C	
Load Data	X	X	X			enter-all-caps-All-Caps	Directly-Connected-Device-5	Enter-device-connected-to-this-Load-(can-provide-up-to-10)					C	
Load Data	X	X	X			enter-all-caps-All-Caps	Directly-Connected-Device-6	Enter-device-connected-to-this-Load-(can-provide-up-to-10)					C	
Load Data	X	X	X			enter-all-caps-All-Caps	Directly-Connected-Device-7	Enter-device-connected-to-this-Load-(can-provide-up-to-10)					C	
Load Data	X	X	X			enter-all-caps-All-Caps	Directly-Connected-Device-8	Enter-device-connected-to-this-Load-(can-provide-up-to-10)					C	
Load Data	X	X	X			enter-all-caps-All-Caps	Directly-Connected-Device-9	Enter-device-connected-to-this-Load-(can-provide-up-to-10)					C	
Load Data	X	X	X			enter-all-caps-All-Caps	Directly-Connected-Device-10	Enter-device-connected-to-this-Load-(can-provide-up-to-10)					C	
Load Data	X	X	X				Comments	Enter any comments regarding this breaker-switch data					O	
Load Data	X	X	X			mm/dd/yyyy	Effective Date	Date this Load breaker-or-switch was added, removed or updated in the model					R	
PUN Load Data														
PUN Load Data	X	X	X			enter-all-caps-All-Caps	ERCOT Station Name (Station Code or Station Mnemonic)	Enter Station Code for this PUN Load			C		C	
PUN Load Data	X	X	X			List	Load Name	Select Load Name from drop down list (as provided from the Load Data tab)			C		C	
PUN Load Data	X	X	X			Automatic	Load Code	Concatenated code automatically provided			A		A	
PUN Load Data	X	X	X			Automatic	Hour Ending	Ending Hour of the day that the MW amount is provided			A		A	
PUN Load Data	X	X	X			Automatic	Day of the Week	Day of the week for each Ending Hour of the Day that the MW amount is provided			A		A	
PUN Load Data	X	X	X			MW	MW	MW Amount for each ending hour of each day of the week for this Load (168 hour period)			C		C	
One Line							Embed a PDF or CAD One Line Diagram	Include a PDF or CAD One Line Diagram of the site		R	R		R	
Transformer Test Data							Transformer Test Data	Include the Transformer Test Data Report attached to the service request for the submission of this RARF, stating positive and zero sequence resistance and reactance data, winding voltages, tap information, on-load tap changing capability, and ratings					R	
Stability Study Model	X	X	X				Embed Stability Study Model	Include a Stability Study Model					R	Delete this tab upon implementation and place all data into the Dynamic Data tab

PSCAD Model	X	X	X				Embed a PSCAD Model (if applicable)	PSCAD Model for SSO studies as may be required by ERCOT.		C	C	C	
Dynamic Data	X	X	X				Embed Dynamic Data	Model data (PSS/E format), with appropriate values provided for all model parameters, test reports that support the model data based on field/commissioning tests, (if available), model libraries (if using user defined models not included in the PSS/E standard model library), model documentation/user guides (if using user defined models not included in the PSS/E standard model library).		R	R	R	

Resource Registration Glossary Workbook Contents

[illegible]

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