

# RIOO User Guide – Creating a New Load Resource

Version 2.0 November 11, 2024

# **ERCOT RIOO Interconnection Services**

To create a new Load Resource (LR) and to get it interconnected to the ERCOT Network Model, the Resource Entity (RE) representing the LR must use the Resource Integration and Ongoing Operations – Interconnection Services (RIOO – IS) application. RIOO – IS allows the RE to create an Interconnection Request (INR) for a new LR. The ERCOT Demand Integration team will review and process the INR. And, the RE can view the current status of the INR in RIOO throughout the timeline from the initial submission to when the new LR is loaded into the production Network Model.

# About this guide

This guide provides information about performing the tasks in RIOO – IS to create and submit the INR that proposes a new LR to interconnect to the ERCOT Network Model. Any sample data used to demonstrate the application is fictitious and does not represent actual LR registration data or market activity for any Resource Entity or Transmission and/or Distribution Service Provider (TDSP) used in the samples. The samples are test data created to provide visual aids for this user guide.

Customers who can change their Load in response to a Dispatch Instruction and can meet certain performance requirements may qualify to become LRs. Qualified LRs may participate in ERCOT's real-time energy market through Security-Constrained Economic Dispatch (SCED) and/or qualify to provide any of the following Ancillary Services (AS): ERCOT Contingency Reserve Service (ECRS), Non-Spinning Reserve (Non-Spin), Regulation Down Service (Reg-Down), Regulation Up Service (Reg-Up), and Responsive Reserve (RRS).

In the ERCOT markets, the value of an LR's Load reduction is equal to that of an increase in generation by a generating plant. LRs in SCED submit bids to buy power up to their specified level and are instructed by ERCOT to reduce Load if wholesale market prices equal or exceed that level. LRs that are scheduled or selected in the ERCOT Day-Ahead AS Market are eligible to receive a capacity payment regardless of whether they are dispatched in Real-Time.

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## **Before starting your INR**

Before starting your INR, be sure that you have done the following tasks:

#### Sign up for a RIOO Services User Account for a Resource Entity

- The user must be associated with a registered RE.
- The RE's User Security Administrator (USA) must add the RIOORS\_M\_Operator role to the user's Market Participant Identity Management (MPIM) profile, commonly known as the digital certificate.
- After the role is added, an email request will be sent to complete the process of creating the user account, which involves changing the system-assigned password and associating your login information with a multifactor authentication (MFA) app on your mobile phone that verifies your login attempts.
- The **RE Sign Up Guide** provides more details for signing up for a RIOO Services User Account. This guide is available on the <u>Resource Integration webpage</u>, under **RIOO Documentation**.

#### Check for electronic payment debit blocks

If you intend to submit INR payments by electronic checks drawn on your bank account (ACH payment instead of credit card), you should check with your financial institution to be sure you do not have an automatic debit block on your account for ACH transaction amounts. It may take at least two days to remove the block, which can cause processing delays for your INR. If you do have an automatic debit block on your account:

- Have your financial institution send you the form to authorize ACH transactions you will be making with ERCOT.
- On the form:
  - For Vendor, enter Authorize.net.
  - For Vendor ID, enter **1911718107**.
- Submit the form to your financial institution.

# Coordinate a Production Load Date (PLD) and Dispatch Asset Code (DAC) for each new LR

When creating an INR for a new LR, the RE will need to request a PLD in RIOO during the registration process. The RE should coordinate the PLD via email with the ERCOT Demand Integration team

(ERCOTLRandSODG@ercot.com). This coordination is not required, but it can help ensure that the requested PLD is acceptable for modeling the LR.

- The PLD must align with a scheduled production model load as listed on the current <u>Production Load</u> <u>Schedule</u>.
- The PLD will be at least 45 days after the RIOO registration submission is accurately completed.
- The RIOO application will indicate that if the requested PLD is fewer than 90 days out, it is classified as an interim update. However, LR submissions meeting the 45-day PLD schedule <u>do not</u> require the RE to submit the **RE\_Model\_Interim\_Update\_Request** form.
- The DAC will be a unique identifier provided by ERCOT for each new LR, and it must be included in the RIOO submission.

# Logging into RIOO

• There are two ways to access the RIOO application login screen. After a successful login, any of the RIOO application panels can be bookmarked for more direct access.



• Log into your RIOO account:

ercot 🦻					
	RIOO S	ervices			
l	_og In	Sign Up			
yours@example.com					
æ	your password	ł			
I	Don't remember your password?				
	LOG IN >				

• You'll be prompted to enter a 6-digit code to complete the multi-factor authenticator (MFA). The MFA code will be sent to the app selected when setting up your account (AuthO Guardian, Google Authenticator, SMS Text Authentication, or another authentication program that you chose to use).

*		ar hojat an di 🗮
Interconnection Services >	325 829	MESSAGES     In Im     1(630) 409-4293     324175 is your verification code for
	Ercot Services	Ercot Services
Chrome (70.0.3538.77), Windows (10)	Get a verification code from the Google Authenticator (or similar) spp Different the 6-digit code Remember this browser	Get a verification code from the Google Authenticator (or similar) app.
Sandy, United States Nov 2, 2020 at 9:09:27 AM	Lost your device? Use the recovery code	Lost your device? Use the recovery code
Deny Allow		

- Select **Remember this browser** to avoid having to login multiple times:
  - Note that if this selection is not made, there may be issues saving and submitting your data

Ercot					
Get a verification code from the Google Authenticator (or similar) app:					
<ul> <li>Enter the 6-digit code</li> <li>Remember this browser</li> </ul>					
Lost your device? Use the recovery code					
$\bigcirc$					

• After successfully logging in, you'll be taken to the RIOO home screen:

ercot등	RIOO		Hello, Donald House My Account
යි Home	Update or add registration data	Resource Services Update or view your existing resource data.	
	Go to Interconnection Services - IS	SODG Generation	Load Resource

## Creating request for a new LR

- On the RIOO home screen, open Interconnection Services
  - $\circ~$  Interconnection Services is used to create a new LR
  - $\circ~$  Resource Services is used to update an existing LR
    - See RIOO User Guide Updating an Existing Load Resource for details

ercot 🕏	RIOO	Hello, Don	ald House My Account 2
යා Home	Mainterconnection Services	Resource Services	
	Constraint of the second secon	Update or view your existing resource data.	
	Go to Interconnection Services - IS	SODG Generation Load	Resource

- The Interconnection Request List displays all requests that have been created by the RE along with the status of the request
- To begin, click on Start New Request to display the drop-down list
  - o Select Start as RE

ercot by Your Interconnection Requests							Hello, Donald House	My Account 💄   Log Out 🕞
Gt Home ☐ Interconnection								
Interconnection Request L show 10 y showing 1 to 0 of 0 entries Alert & Actions No matching records found	Number	Project Name	Primary Name	Company	Status	Filter List By All Types V Sear	ch 🗍 🗘 🗘	Start New Request • Start as IE Start as RE

- Select the Company (RE) for this project
  - o Note that if the user represents multiple REs, they will all be displayed in this drop-down list
- Select **Distribution Connected** (less than or equal to 60 kV) or **Transmission Connected** (greater than 60 kV) under **How will your project be connected**?
- Select Yes under Project has Load Resource (LR)?
- Enter Project Name
  - Note that Project Name is not the Dispatch Asset Code; this is a user-defined name
- Click Let's Go! to be taken to the LR list screen

ercot - Create New Interconnection Re	equest		Hello, Donald House	My Account 💄   Log Out 🚱
	Let's set your application ty	pe		
	Company Connection	select your company for this project? (Required)  MP2 ENERGY LLC (RE)  How will your project be connected?  Transmission Connected  Distribution Connected  Distribution Connected		
	LR	Project has Load Resource (LR)? ves one Project Name (Required) User Guide Test LR Start Over Let's Col		

- On the LR List screen, all data submission panels are listed
  - Start indicates that nothing has been added to that panel
  - Edit in red indicates that the panel is either missing required information or that something needs to be corrected
  - Edit in green indicates that the panel has been completed but the user has the option to go back to the panel to make revisions
  - o Clicking on Edit or Start will open that panel for data entry
- The panels can be completed in any order, but the way they are arranged in the application provides an orderly flow through the process
  - Progress can be saved, allowing the user to return to the application later to finish the submission
  - This guide will provide details on each panel

ercot 5	Interconnection Services	Hello, Donald House	Log Out 🕪
010017	List		
G Home			
Load Resource	Load Resource		
Back	Load Resource Info	Required	Start
	Data Agg and Settlement Info	Required	Start
	Mapping Information	Required	Start
	Limits & Op Params	Required	Start
	Edign	Required	Start
		Check Application	Progress

#### Load Resource Info

- On the LR List screen, click on Start to open the Load Resource Info summary screen
- Click on + Add Load Resource and then on Not Started to open the data entry panel
  - Up to 40 LRs can be created in the same INR by completing the panels for each LR one at a time

ercot 😓	Interconnection Services			Hello, Donald House	Log Out 🕪
0,000 y	List Load Resource Info				
Co Home	Load Resource Informati	on			
				Check Application Pr	rogress
	Here's what we have so far. You can l	Edit what you have already entered			
	Common Name for LR	Physical Street Address for Point of Delivery (POD)	Name of City for Point of Delivery (POD)		
	No data to display				
	+ Add Load Resource	id, select Done.		Do	one

ercot	Interconnection Services				Hello, Donald House Log Out 🕪
CICOL Y	List Load Resource Info				
ි Home					
Load Resource	Load Resource Informa	tion			
					Check Application Progress
	Here's what we have so far. You ca	n Edit what you have already entered			
	Common Name for LR	Physical Street Address for Point of Delivery (POD)	Name of City for Point of Delivery (POD)		
				Not Started	💼 Delete
	+ Add Load Resource				Done
	If you have no other information to	add, select Done.			

ercot	Interconnection Services		Hello, Donald House Log Out 🚱
	List Load Resource Info		
I and Resource	Load Resource Information		
	Common Name for Load Resource Physical Street Address for Point of Delivery (POD) You card leave this empty Name of City for Point of Delivery (POD) You card leave this empty	Common Name for Load Resource is a user-defined name; spaces are allowed	Check Application Progress Save and Back
			Check Application Progress Save and Back

#### • Sample completed Load Resource Info panel

ercot 😓	Interconnection Services			Hello, Donald House	Log Out 🕪
ය Home	List Load Resource Info Load Resource Information				
Load Resource	Common Name for Load Resource	1	Check Applic	ation Progress Save at	nd Back
	Physical Street Address for Point of Delivery (POD) 123 Station Rd. Name of City for Point of Delivery (POD) Big Spring	]	Click <b>Save and Back</b> to return to the Load Resource Info summary screen		
			- Check Applic	cation Progress	nd Back

ercot 5	Interconnection Services			1	Hello, Donald House Log Out 🕪
다 UCU 구 다 Home	List Load Resource Info	ation	Click <b>Edit</b> to review the panel again or click <b>Done</b>		
	Here's what we have so far. You can Edit what you have already entered		to be taken back to the List screen		Check Application Progress
	Common Name for LR	Physical Street Address for Point of Delivery (POD)	Name of City for Point of Delivery (POD)		
	LR TEST NAME	123 Station Rd.	Big Spring	🖍 Edit	💼 Delete
	+ Add Load Resource If you have no other information	to add, select Done.			Done

ercot 😓	Interconnection Services	Hello, Donald House	Log Out 🕪	
নি Home	List Load Resource	A green <b>Edit</b> button means that initial data validation is passed; no further		
Back	Load Resource Info	edits are required on this panel	Required	Edit
	Data Agg and Settlement Info	euts ale required on this parter		Start
	Mapping Information		Required	Start
	Limits & Op Params		Required	Start
	E-sign		Required	Start
			Check Application	Progress

### **Data Agg and Settlement Info**

- On the LR List screen, click on Start to open the Data Agg and Settlement Info summary screen
- Click on **Not Started** to open the data entry panel

ercot 🔄	Interconnection Services			Hello, Donald House Log Out 🕪
	List Data Agg and Settlement Info			
Load Resource	Data Agg and Settlement	Info		
				Check Application Progress
	Here's what we have so far. You can Edit	t what you have already entered		
	ERCOT Load Zone	Meter Reading Entity (MRE)	TSP	
			🖉 Not	Started
				Done
	If you have no other information to add,	select Done.		

ercot	Interconnection Services	Hello, Donald House Log Out 🕪
croory	List Data Agg and Settlement Info	
යා Home	Data Agg and Settlement Info	
Load Resource	<complex-block></complex-block>	Check Application Progress Save and Back
		Check Application Progress Save and Back

• Sample completed Data Agg and Settlement Info panel

arcot	Interconnection Services		Hello, Donald House Log Out 104
CI CUL 구 쇼 Home Load Resource	List Data Agg and Settlement Info Data Agg and Settlement Info		Check Application Progres Save and Back
	ERCOT Lead Zone West West Meter Reading Entity (MRE) ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSP) MER DUNS: 109940674000 TSP ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSP) TDSP DUNS: 109940674000 ESt DL ASSIGNET S TDSP DUNS: 10994067400 EST DL AS	he <b>MRE</b> and <b>TSP</b> <b>UNS</b> #s are opulated to match he user selections	Click <b>Save and Back</b> to return to the Data Agg and Settlement Info summary screen
			Check Application Progress Save and Back

ercot 🦻	Interconnection Serv	rices		Hello, Donald House Log Out 69
Gi Home	Data Agg and Se	ettlement Info	Click <b>Edit</b> to review the panel again or click <b>Done</b>	Check Application Progress
	ERCOT Load Zone	Meter Reading Entity (MRE)	List screen	e Edit
	If you have <b>no other info</b>	mation to add, select Done.		Done

ercot	Interconnection Services	Hello, D	onald House	Log Out 🕪
다 Home	List Load Resource	A green <b>Edit</b> button means that initial data validation is passed; no further		
Back	Load Resource Info	edits are required on this panel	Required	Edit
	Data Agg and Settlement Info Mapping Information Limits & Op Params			Edit
		The TSP entered on the Data Agg panel is	Required	Edit
		populated on the Mapping Information panel. A		Start
	E-sign	red <b>Edit</b> button is displayed for Mapping	Required	Start
		information indicating that further info is needed.	opplication P	Progress

# **Mapping Information**

- On the LR List screen, click on Edit or Start to open the Mapping Information summary screen
- Click on the **pencil Edit icon** to open the data entry panel

ercot 🛱	Interconnection Services		Hello, Donald House Log Out (*
G Home	Mapping Information Here's what we have so far. You can Edit what you have already entered Transmission Service Provider ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSP) (DUNS: 1039940674000) If you have no other information to add, select Done.	The <b>Transmission Service Provider</b> is pre-populated from info provided on the Data Agg panel	Lestation Code for P00

ercot	Interconnection Services	Hells, Donald House Log Out 10
CICOL Y	List Mapping	
	Mapping Information	The Transmission Service Provider is
	All fields are required unless marked ontional Transmission Service Provider ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSP) (DUNS: 1039940674000) O Yes O No You cart leave this empty	the Data Agg panel
	Substation Information Is this Load Resource part of an Energy Storage Resource? Ves  No and two able server Bubstation Code for POD Benerits individuals Code for POD is required Bubstation Name for POD. Transmission Information Transmission Bus POD – PTI Bus #	The associated <b>Substation Name for</b> <b>POD</b> will be populated after the <b>Substation Code for POD</b> is entered; contact the Demand Integration team if the requested substation is not found
	PTI bus number can't be empty Transmission Station Voltage Transmission Station Voltage Transmission Station Load Name in Network Operations Model Fact can't be empty Dispatch Asset Code Dispatch Asset Code can't be empty	Reminder to coordinate with the Demand Integration team to get a unique <b>Dispatch Asset Code</b> for each new LR being created in the INR

• Sample completed Mapping Information panel

ercot	Interconnection Services		Hello, Donald House Log Out &
Load Resource	List Mapping Mapping Information		
	All fields are required unless marked optional Transmission Service Provider OKORC RECETRIC DELIVERY COMPANY LLC (TDSP) (DUNS: 10399406 Is this a Private Use Network (PUN)?	774000)	Check Application Progress Save and Back
	Ves  No Substation information Is this Load Resource part of an Energy Storage Resource? Ves  No Substation Code for PDD BCATWIND	Registering an LR associated with must be coordinated with the Re	h an Energy Storage Resource esource Integration team
	Substation Name for POD: BOBCAT BLUFF Transmission Information Transmission Bus POD – PTI Bus # 140401 Transmission Station Voltage Cos #		Click <b>Save and Back</b> to
	34.5 Transmission Station Load Name in Network Operations Model LOAD_3 Dispatch Asset Code BCATWIND_LD1	KV	Information summary screen
			Check Application Progress Save and Back

ercot 🔓	Interconnection Services			Hello, Donald House Log Out 🕪
값 Home	List Mapping Mapping Information		Click on the <b>pencil Edit</b> <b>icon</b> to review the	Check Application Progress
	Here's what we have so far. You can Edit what you have already entered		<b>Done</b> to be taken back	
	Transmission Service Provider	Is this a Private Use Net	to the list screen	
	ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSP) (DUNS: 1039940674000)	No	to the List scieen	🖌 Edit
	If you have no other information to add, select Done.			Done

ercot 🦻	Interconnection Services		Hello, Donald House	Log Out 🕪
G Home	Load Resource			
Back	Load Resource Info	A green Edit button means that initial	Required	Edit
	Data Agg and Settlement Info	data validation is passed: no further	Required	Edit
	Mapping Information	edits are required on this panel	Required	Edit
	Limits & Op Params	· · ·	Required	Start
	E-sign		Required	Start
			Check Application	Progress

#### Limits & Op Params

- On the LR List screen, click on **Start** to open the Limits & Ops Params summary screen
- Click on **Not Started** to open the data entry panel
- User will choose the **Load Resource Type** as either **CLR** (controllable load resource) or **UFR/Interruptible** (under-frequency relay/interruptible, commonly known as non-controllable)
  - This guide will show the associated data entry fields for each type

ercot 😓	Interconnection Services				Hello, Donald House	Log Out 🕒
A Home	List Limits & Op Params					
Load Resource	Limits & Op Params					
					Check Application Pr	ogress
	Here's what we have so far. You can E	dit what you have already entered				
	Total Load at POD	Interruptible Load	High Reasonability Limit			
				🖋 Not Started		
					Do	one
	If you have no other information to ad	d, select Done.				

ercot 💝	Interconnection Services		Hello, Donald House Log Out (#
යි Home Load Resource	List Limits & Op Params Limits & Op Params	The <b>Dispatch Asset Code</b> is pre-populated from info provided on the Mapping Information panel	Check Application Progress Save and Back
	Dispatch Asset Code:BCATWIND_LD1	Choose between <b>CLR</b> or <b>UFR/Interruptible</b> for the <b>Load Resource Type</b> . Data entry fields will appear specific to the type selected.	Check Application Progress Save and Back

#### Load Resource Type = CLR

ercot	Interconnection Services		Hello, Donald House Log Out 19
CICOLY	List Limits & Op Params		
(a) Home	Limits & Op Params		
			Check Application Progress Save and Back
	All fields are required unless marked optional		
	Dispatch Asset Code:BCATWIND_LD1		
	CLR V		
	Is this Load Resource an aggregated Resource?	Cont	act Demand Integration if registering an ALR
	Maximum Loads		
	Load at POD	MW	Load at POD (min = 0.1)
	Interruptible Load	MW	Interruptible Load <= Load at POD and <= HRL
	Reasonability Limits High Reasonability Limit	MW	HRL >= 0 and >= LRL; modeled as Max Power Consumption
	Low Reasonability Limit	MW	LRL >= 0; modeled as Low Power Consumption (LPC)
	Reasonability Ramp Rate Limits		
	High Reasonability Ramp Rate Limit	ABUGEIE	
	You can't leave this empty	MVI/IIIII	
	Low Reasonability Ramp Rate Limit	MW/min	LRRL <= HRRL
	CLR Resource Parameters		
	Max Deployment Time	Hours	
	You can't leave this empty Max Weekly Energy		
	married and gr	MWHrs	Max Weekly Energy <= Interruptible Load (MW) x 168 Hrs
	Normal Ramp Rate Curves		
	MW Rating	MW	
	You can't leave this empty		
	Upward	MW/min	
	You can't leave this empty		
		MW/min	
	You can't leave this empty Emergency Ramp Rate Curves		
	MW Rating	MW	Emergency MW Rating >= Normal MW Rating
	Upward	MW/min	ERRC Upward >= NRRC Upward, >= LRRL, and <= HRRL
	Downward	MW/min	ERRC Downward >= NRRC Downward, >= LRRL, and <= HRRL
			Check Application Progress Save and Back

• Sample completed Limits & Op Params panel (CLR)

ercot	Interconnection Services			Hello, Donald House Log Out 🕪
010017	List Limits & Op Params			
⇔ Home				
Load Resource	Limits & Op Params			
			Check Application	Progress Save and Back
	All fields are required unless marked optional			-
	Dispatch Asset Code:BCATWIND_LD1			
	Load Resource Type			
	CLR ~			
	Is this Load Resource an aggregated Resource? Ves  No			
	Maximum Loads			
	Load at POD	]		
	25	MW		
	Interruptible Load	MW		
		]		
	Reasonability Limits High Reasonability Limit			
	25	MW		
	Low Reasonability Limit			
	0	MW		
	Reasonability Ramp Rate Limits			
	High Reasonability Ramp Rate Limit	MM/min		
	23	Destant strengt		
	Low Reasonability Ramp Rate Limit 5	MW/min		
	CI P. Becauroe Personalere			
	Max Deployment Time			
	8	Hours		
	Max Weekly Energy			
	4200	MWHrs		
	Normal Ramp Rate Curves			
	MW Hating	MW		
	Unward			
	25	MW/min		
	Downward			
	25	MW/min		
	Emergency Ramp Rate Curves		r	
	MW Rating	1.00	Click Save and Back to	
	25			
	Upward 25	MW/min	return to the Limits & Op	
	Deserved	J	Params summary screen	
	25	MW/min	r aranis summary screen	
			Charle Application	Progress Save and Back
			Check Application	Save and Back

arcot 5	Interconnection Services			Hello, Donald House Log Out 🕪
다 Home	List Limits & Op Params		Click on the <b>pencil Ec</b> icon to review the	lit
	Here's what we have so far. You can f	dit what you have already entered	panel again or click <b>Done</b> to be taken bac	Check Application Progress
	25	25		Edit Done
	If you have <b>no other information</b> to a	id, select <b>Done</b> .		

#### Load Resource Type = UFR/Interruptible (non-controllable)

ercot	Interconnection Services	Hello, Denald House Log Out (#
01001 7	List Limits & Op Params	
යි Home	Limits & Op Params	
Load Resource		
	All fields are required unless marked optional Dispatch Asset Code SCATWIND_LD1 Load Resource Type	Check Application Progress Save and Back
	UFR/Interruptible	
	Maximum Loads Total Load at POD MWW	Total Load at POD (min = 0.1)
	Interruptible Load	Interruptible Load <= Total Load at POD and <= HRL
	Reasonability Limit High Reasonability Limit MW	HRL >= 0 and >= LRL; modeled as Max Power Consumption
	Low Reasonability Limit	LRL >= 0; modeled as Low Power Consumption (LPC)
	Non-CLR Resource Parameters Min Interruption Time Hours Hours	
	Min Restoration Time Hours	
	You can't leave this empty Max Weekly Deployments	
	You can't leave this empty	
	Max Interruption Time Hours	Max Interruption Time >= Min Interruption Time
	Max Daily Deployments You can't leave this empty	
	Max Weekly Energy MWHrs	Max Weekly Energy <= Interruptible Load (MW) x 168 Hrs
	Min Notice Time Minutes You cart leave this empty	
		Check Application Progress Save and Back

• Sample completed Limits & Op Params panel (UFR/Interruptible)

ercot	Interconnection Services			Hello, Donald House Log Out 🕪
CICOLY	List Limits & Op Params			
Gt Home				
Load Resource	Limits & Op Params			
			Check Application Pr	ogress Save and Back
	All fields are required unless marked optional			
	Dispatch Asset Code:BCATWIND_LD1			
	Load Resource Type			
	UFR/Interruptible V			
	Maximum Loode			
	Total Load at POD			
	25	MW		
	Interruptible Load			
	25	MW		
	Reasonability Limits			
	High Reasonability Limit	MW		
	23			
	Low Reasonability Limit	MW		
	Non-CI P Resource Parameters			
	Min Interruption Time			
	1	Hours		
	Min Restoration Time			
	3	Hours		
	Max Weekly Deployments			
	/			
	Max Interruption Time	Hours		
			Click Save and Back to	
	Max Weekly Energy			
	4200	MWHrs	return to the Limits & Op	
	Min Notice Time	_	Params summary screen	
	10	Minutes		
			Check Application Pr	ogress Save and Back

ercot	Interconnection Services			Hello, Donald House Log Out 🕪
01001-7	List Limits & Op Params		Click on the <b>pencil Ed</b>	it
ය Home	Limits & Op Params		icon to review the	
Load Resource			nanol again or disk	
			parter again of click	Check Application Progress
	Here's what we have so far. You can Edit what you have already entered		Done to be taken bac	k
	Total Load at POD	Interruptible Load	to the List screen	
	25	25	25	Edit
	If you have no other information to add	i select Done		Done
	In you have no other information to add	, select Dolle.		

ercot	Interconnection Services		Hello, Donald House	Log Out 🕪
ය Home	List Load Resource	A green <b>Edit</b> button means that initial data validation is passed: no further		
Back	Load Resource Info	edits are required on this panel	Required	Edit
	Data Agg and Settlement Info		Required	Edit
	Mapping Information	If all data passes initial validations, the <b>E-sign</b> panel will now be available to select		Edit
	Limits & Op Params			Edit
	E-sign			Edit
			Check Application	Progress

#### Esign

- ERCOT Protocol Section 3.6.1 requires each RE that represents a Load as a LR to complete the Attestation Regarding Critical Load Status for each LR represented by the RE; this attestation is built into RIOO and must be completed by the RE as part of the submission
- On the LR List screen, click on **Edit** to open the Esign summary screen
- Click on the **pencil Edit icon** to open the Esign data entry panel

ercot 😓	Interconnection Services			Hello, Donald House Log Out 🖗
(A) Home	List Esign			
Load Resource	Attestation Regarding Critical Loa	d Status		
				Check Application Progress
	Here's what we have so far. You can Edit what you h	ave already entered		
	Dispatch Asset Code	ESI ID	Signature Date	
	BCATWIND_LD1	111222333444555	10-29-2024	Z Edit
				Done
	If you have <b>no other information</b> to add, select <b>Don</b>	1.		

araat	Interconnection Services			Hello, Donald House Log Out 64
ercol	List Esign			
G Home	Attestation Regarding Critical Load Statu	s The <b>DAC, E</b> S	SI ID, Legal Name	]
	As required by Protocol Section 3.6.1, each Resource Entity the <b>Example in the Resources</b> Dispatch Asset Code BCATWINDLD1 Hor AWATER A SHOPPORT LOAD DESEURCES	of RE and D RE are pre-p on the LR re	UNS Number for populated based equest	Check Application Progress Save and Back is form and return it to ERCOT for each Load Resource represented by the Resource Entity.
	ESII U or Non-settlement ESI ID Associated with This Load 11122233444555 1. The Load Resource is not located behind an ESI U, including a non-s 2. The Load Resource is located behind an ESI U, including a non-s the site.	tifier (ESI ID), including a non-settlement ESI ID, ettlement ESI ID, that corresponds to a Critical L ettlement ESI ID, that corresponds to a Critical L	that corresponds to a Critical Load. Dad, but the Load Resource is not a Critical Load and does Dad, but electric service from the ERCOT System is not req	not include a Critical Laad. uired for the provision of the critical service due to the availability of back-up generation or other technologies at
	Legal Name of Resource Entity MP2 ENERGY LLC (RE) The above-referenced Resource Entity hereby attests that, if <u>either condi</u>	tion (2) or (3) identified above applies, then all o	DUNS Number for Resource 8330528193000 f the aforementioned Load Resource's offered demand res	e Entity ponse capacity will be available if deployed by ERCOT during an emergency.
	By inserting my name below, I affirm that I have per Signature Type jour authorized Signature You cart leave this empty Title (Required) You cart leave this empty You cart leave this empty	e user must lect an answer d provide a me and title	nd that I am authorized to submit this attestation Signature Opto 10-29-2024	The <b>Signature Date</b> is pre-populated with the current day
				Check Application Progress Save and Back

#### • Sample completed Esign form

ercot 😓	Interconnection Services	Hello, Donald House Log Out @					
01001	List Esign						
යි Home	Attestation Regarding Critical Load Status						
		Very important: condition 4 means that the site is a critical load: the LR can't be registered		Check Application Progress Save	e and Back		
	As required by Protocol Section 3.6.1, each Resource Entity that For existing Load Resources Dispatch Asset Code			form and return it to ERCOT for each Load Resource represented by the Resource Entity			
	BCATWIND_LD1 For existing and proposed Load Resources ESI ID or Non-settlement ESI ID Associated With This Load	if condition 4 is selected	ed				
	11122233444555 Please check the appropriate condition for the existing or proposed Load Resource: (a) The Load Resource is not located behind an Electric Service Identifier (ESI ID), including a non-settlement ESI ID, that corresponds to a Critical Load. (b) The Load Resource is coated behind an ESI ID, including a non-settlement ESI ID, that corresponds to a Critical Load, but the Load Resource is not a Critical Load. (c) The Load Resource is coated behind an ESI ID, including a non-settlement ESI ID, that corresponds to a Critical Load, but the Load Resource is coated behind an ESI ID, including a non-settlement ESI ID, that corresponds to a Critical Load, but the Load Resource is coated behind an ESI ID, including a non-settlement ESI ID, that corresponds to a Critical Load, but the Load Resource is coated behind an ESI ID, including a non-settlement ESI ID, that corresponds to a Critical Load, but the Load Resource is coated behind an ESI ID, including a non-settlement ESI ID, that corresponds to a Critical Load, but the Load Resource is coated behind an ESI ID, including a non-settlement ESI ID, that corresponds to a Critical Load, but electric service from the ERCOT System is not required for the provision of the critical service due to the availability of back-up generation or other technologie the site. (c) A None of the above anoty to this Load Resource is coated behind an ESI ID, including a non-settlement ESI ID, that corresponds to a Critical Load, but electric service from the ERCOT System is not required for the provision of the critical service due to the availability of back-up generation or other technologie the site. (c) A None of the above anoty to this Load Resource is coated behind an ESI ID, that corresponds to a Critical Load, but electric service from the ERCOT System is not required for the provision of the critical service due to the availability of back-up generation or other technologie the site. (c) A None of the above anoty to this Load Resource is coated behind an ESI ID, that co						
	Legal Name of Resource Entity MP2 ENERGY LLC (RE)		DUNS Number for Resource En 8330528193000	tity			
	The above-referenced Resource Entity hereby attests that, if either condition	n (2) or (3) identified above applies, then all of the aforementioned Load	Resource's offered demand respon	se conocity will be available if deployed by ERCOT during an emergency			
	By inserting my name below, I affirm that I have personal knowled	ige of the facts stated in this attestation and that I am authorize	ed to submit this attestation on	Click Save and Back to			
	Signature Donald House		Signature Date 10-29-2024	return to the Esign			
	Title (Required) Authorized Representative			summary screen			
				Check Application Progress	e and Back		

ercot	Interconnection Services			Hello, Donald House Log Out 🕪
creat	List Esign		Click on the <b>pencil Edit</b>	
යි Home	Attestation Depending Critical Le	and Statute	icen to review the	
Load Resource	Attestation Regarding Chilcal Lo	ad Status	icon to review the	
			panel again or click	Check Application Progress
	Here's what we have so far. You can Edit what you have already entered		Done to be taken back	
	Dispatch Asset Code	ESI ID	to the List screen	
	BCATWIND_LD1	111222333444555	10-29-2024	🖍 Edit
	If you have <b>no other information</b> to add, select <b>D</b> c	ine.		Done

ercot 🦻	Interconnection Services	Heli	lo, Donald House	Log Out 🕪
C Home	Load Resource	A green <b>Edit</b> button means	]	
Back	Load Resource Info	that no further edits are	Required	Edit
	Data Agg and Settlement Info	required on this panel	Required	Edit
	Mapping Information		Required	Edit
	Limits & Op Params		Required	Edit
	E-sign		Required	Edit
		Che	ck Application I	Progress

#### **Check Application Progress**

• On the LR List screen, click on **Check Application Progress** to open the Review Project Details summary screen

ercot 😓	Interconnection Services	Hello, Donald House	Log Out 🕪
() Home	List		
Load Resource	Load Resource		
Back	Load Resource Info	Required	Edit
	Data Agg and Settlement Info	Required	Edit
	Mapping Information	Required	Edit
	Limits & Op Params	Required	Edit
	E-algn	Required	Edit
		Check Application	Progress

- On the Review Project Details screen, all data submission panels are listed
  - o Click on Revisit to return to any of the data entry panels
  - Make Corrections in red indicates that the panel is either missing required information or that something needs to be corrected
    - Any needed corrections will also cause Edit to appear in a red box
  - Edit in a green box indicates that all panels have been completed but the user has the option to go back to any panel to make revisions
  - Clicking on **Download LR Data** will download an excel file with a separate tab containing the information added to each data entry panel
  - Clicking on Submit will save the request and move the user to the final items to be completed before the submission is sent to ERCOT (<u>this Submit button does not complete the process</u>)
    - Attachments (optional, such as one-line diagrams or PFR test results)
    - Payment

ercot 🛱	Interconnection Services				Hello, Donald House	Log Out 🕪
ය Home Load Resources		Review Project Details		_		
		Load Resource	_	Edit		
		Load Resource Info	Revisit			
		Data Agg and Settlement Info Mapping Information	Revisit			
		Limits & Op Params	Revisit			
		E-sign	Revisit			
				Download LR Data Submit		

- When the data entry is complete, click **Submit** on the Review Project Details screen to move on to the payment screen
  - If you are taken back to the Interconnection Request List, click on Finish to view the Finish Your Load Resource Request screen





ercot 🖇 Finish Your Load Resource Request		Hello, Donald Ho	use My Account 🚢 I Log Out 🕞
	LOAD RESOURCE REQUEST <b>24LR0750</b>		
Payment must be made before the submission can be completed; click on Ready to Pay	Lad Resource Details You've already worked on this section. You can review information or make changes Review / Edit.  Attachments You've already provided required attachments. You can review attachments or make changes.		
Dente NR	Review / Changes Payment You haven't entered any information yet. Ready to Pay Ready to Pay	Back to Dashboard	

#### **Invoice and Payment**

- Based on the current <u>ERCOT Fee Schedule</u>, REs will be charged \$500 for each new LR to be added to the ERCOT Network Model
- This fee must be paid in RIOO to complete the LR submission
  - If there are multiple LRs created in the same RIOO submission, the total amount of fees due will be charged in the same invoice
  - Refunds of fees paid will not be considered unless ERCOT directs a change in the registration process that results in additional fees being charged
- Sample invoice

ercot		The Invoice Date is the current day, and the payment is always DUE TODAY		Request No. 24LR	* The INR <b>Request</b> <b>No.</b> is listed on the invoice		
	User Guide Test LR			INVOICE DAT October 29, 20	e 024	DUE TODAY \$500.00	
	DESCRIPTION				Quantit	y F \$5	PRICE 00.00
	Back	Click <b>Continue to</b> move on to the F	<b>o Paym</b> Paymer	ent to nt screen	TOTAL DUE:	S5	00.00

• Sample payment screen using credit card

ercot S Finish Your Load Resource Request			Hello, Donald Hour	se My Account 🚢 I Log Out 🕞
G Home Interconnection Load Resource Details Attachments In	voice Payment			
The LR INR number is listed as the <b>Invoice Number</b> User selects to make payment with a <b>Credit</b> <b>Card</b>	Order Summary Decretor Under Summary Decretor Under Summar Suddes performed Under Summar Card Number • Billing Address Fist Name USA	Total         \$           Bank Account         (USA Only)           Exp. Date •         Card C           Latt Name         Zip	500.00 iode	
The user's <b>Email</b> is pre-populated	Street Address State **** dh_test@fastmail.com Pay	City Phone Number	<ul> <li>After info is entered, click Pa</li> <li>complete the transaction and view the payment confirmation</li> </ul>	<b>y</b> to d ion

• Sample payment screen using bank account

ercot & Finish Your Load Resource Request		Hello, Donald House My Account 🚨 i Log Out 😝
Home Interconnection Load Resource Details /	tachments invoice Payment	
The LR INR numl is listed as the <b>Invoice Number</b>	Order Summary Description Interconnection To Studes performed Invoice Number 24.0030 Credit Card	User selects to make payment with a <b>Bank Account</b>
	Bank Name Nar Account Number • ABA	ame On Account • BA Routing Number •
The user's <b>Ema</b> is pre-populate	Billing Address First Name Last USA Jone Checking Jone USA Jone Checking Jone USA Jone Checking Jone Jone Checking Jone	After bank and billing info is After bank and billing info is entered, click <b>Pay</b> to complete the transaction and view the payment confirmation
	Pay	Concel

• Sample payment confirmation

ercot 😌 Finish Your Load Resource Request		Hello, Donald House My Account 💄 i Log Out 🖙
Home Interconnection Load Resource Details Attachments Invoice Payment Thank you for your payment	The LR INR number is listed on the payment confirmation	
Access your interconnection Request List anytime to view your project	Click <b>Back to Interconnection</b> I to your Interconnection Reque	<b>.ist</b> to return st List

Back on the Interconnection Request List, the user can view the newly submitted LR request
 The status has changed to INR Submitted to ERCOT

ercot₽	Your Interconnection Requests						Hello, Donald House	My Account 💄 I Log Out  ᡋ
合 Home	Interconnection							
Interco	onnection Request Lis	t						Start New Request *
Show 10	✓ Showing 1 to 1 of 1 entries					Filter List By 🛛 All Types 🔷 🗸	Search 24LR0750	Q Reset All
Alert	Actions	Number	Project Name	Primary Name	Company	🚊 Status	🗘 Last U	Jpdated
	Continue	24LR0750	User Guide Test LR	Donald House	MP2 ENERGY LLC (RE)	INR submitted to ERCOT	10-29	-2024

# After submitting INR

#### **INR status**

The INR submitter will receive automated emails from ERCOT with status updates as the request moves through the modeling process as well as any requests for revisions to the INR. The user can also view status changes on the Interconnection Request List.

- Status updates for a submitted INR include:
  - INR submitted to ERCOT
    - The user can still update the submission when in this status
  - o In Review
    - ERCOT changes to this status after completing an initial review of the submission
      - User can't make updates when the INR is in this status
      - If updates are required, ERCOT will change the status to **Incomplete** to allow the user to make changes and resubmit (ERCOT will email the user to identify the needed updates)
      - INR will stay as In Review until it is approved for the model load
  - $\circ~$  Approved for Production
    - ERCOT changes to this status after the modeling request has been fully tested and approved for the requested model load snapshot (usually 2-3 weeks before the PLD)
  - $\circ$  In Production
    - INR will change to this status on the PLD

#### **Confirming new LR in production Network Model**

After the PLD for the newly created LR, the Qualified Scheduling Entity (QSE) representing the LR is encouraged to verify that the LR is visible in the Market Manager for the appropriate markets (DAM, Real-Time, Ancillary Services). And, the RE should verify that the LR is visible in RIOO Resource Services (RIOO – RS). ERCOT will verify that the LR is in the production Network Model, but it is the responsibility of the RE/QSE to notify ERCOT if they notice any issues for the new LR.

# Updating an existing LR

To update an existing LR, the RE must use the RIOO – RS application, which is accessed using the same RIOO user account. Refer to the RIOO User Guide – Updating an Existing Load Resource on the <u>Load Resource webpage</u> for details.

ercnt 🕏	RIOO	Hello, Donald House	My Account 온	
යි Home	0.00			
	Update or add registration data	Resource Services Update or view your existing resource data.		
				_
	Go to Interconnection Services - IS	SODG Generation	Load Resource	

# **Troubleshooting RIOO issues**

#### **User account**

If a RIOO user can't access the registration entry screens in RIOO – IS or can't view the existing Resources in RIOO – RS, there are some common reasons for these issues. The list below does not include all possible causes of access problems, but these are the most common issues experienced.

- Users can only make registration changes for REs for which they have a digital certificate with the RIOORS\_M\_Operator role assigned
  - ERCOT can't create the digital certificates or assign the role. This must be done by the RE's User Security Administrator (USA).
- If the user represents multiple REs, they must be sure to use the correct email address when logging into RIOO. Often, accounts are set up with different email addresses for the same user. If this is the case, the user needs to know which email address to use for each RE.
- A RIOO user can't be registered as both an RE and a TDSP on the same account. If the user needs to access RIOO as both types, then separate RIOO accounts must be created for each, and a different email address must be used for each account.

#### Problems viewing data or completing submissions

Although the user may be able to access the RIOO application, sometimes the session becomes stale and needs to be refreshed to view data correctly or to complete a submission. This often leads to the user being stuck in a loop of being sent back to the login screen or the main dashboard when navigating through the application.

- If the user experiences such an issue, and after any application outage (planned or unplanned), the user should logout of the application, clear their browser history cache, and then log back into the application.
  - $\circ$  ~ Select "Remember this browser" when logging in
- If the user starts an INR but doesn't attempt to submit it until sometime later (multiple days or more into the future), the user may not be able to submit the INR due to changes in the application from an update release or other registration data and/or network model changes that happened after the INR was started.
  - Data edits may not be validated, and the data panels won't turn "green" even if all the required fields have been populated
  - The user may not be able to access the E-sign panel or to complete the payment processing
  - $\circ$   $\;$  Any of these issues prevent the "submit" button from being activated
  - o The logout/login process above is recommended to resolve any of these issues
  - If this doesn't work, the submission may have to be canceled/withdrawn and a new submission will be needed
- If the payment process has been completed, but the user can't submit the INR, there may be an issue with the third-party payment vendor. Sometimes, the payment confirmation isn't sent correctly from the vendor to ERCOT.
  - If this occurs, the RIOO team can verify if the payment was received by the vendor. If payment was
    received, then the RIOO team will manually update the payment status in the database. This will allow
    the user to submit the INR.

#### **Reporting issues**

Any access problems, functionality issues, or suggestions for improvements to the application can be sent via email to <u>RIOO-Help@ercot.com</u> and <u>ERCOTLRandSODG@ercot.com</u>. Significant updates to the application may be communicated through market notices.