



RIOO User Guide – Creating a New Load Resource

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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 [Resource Integration webpage](#), 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 [Production Load Schedule](#).
- 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 do not 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.

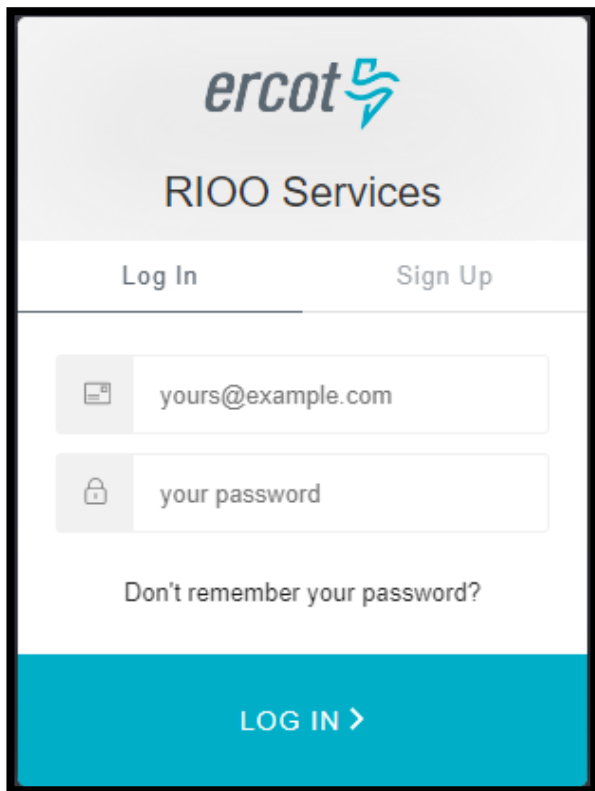
1. On the top panel of any webpage on ercot.com, hover over the **Market Participants tab to display this list; select **RIOO Log In****

2. Scroll to the bottom of any page on ercot.com; click **Resource Integration & Ongoing Operations – Resource Services**

The first screenshot shows the ERCOT website's top navigation bar. The 'Market Participants' tab is highlighted with a red box, and a dropdown menu is visible with the following options: EMIL, MIS Log In, **RIOO Log In**, and Renewable Energy Credit. The 'RIOO Log In' option is highlighted with a red box.

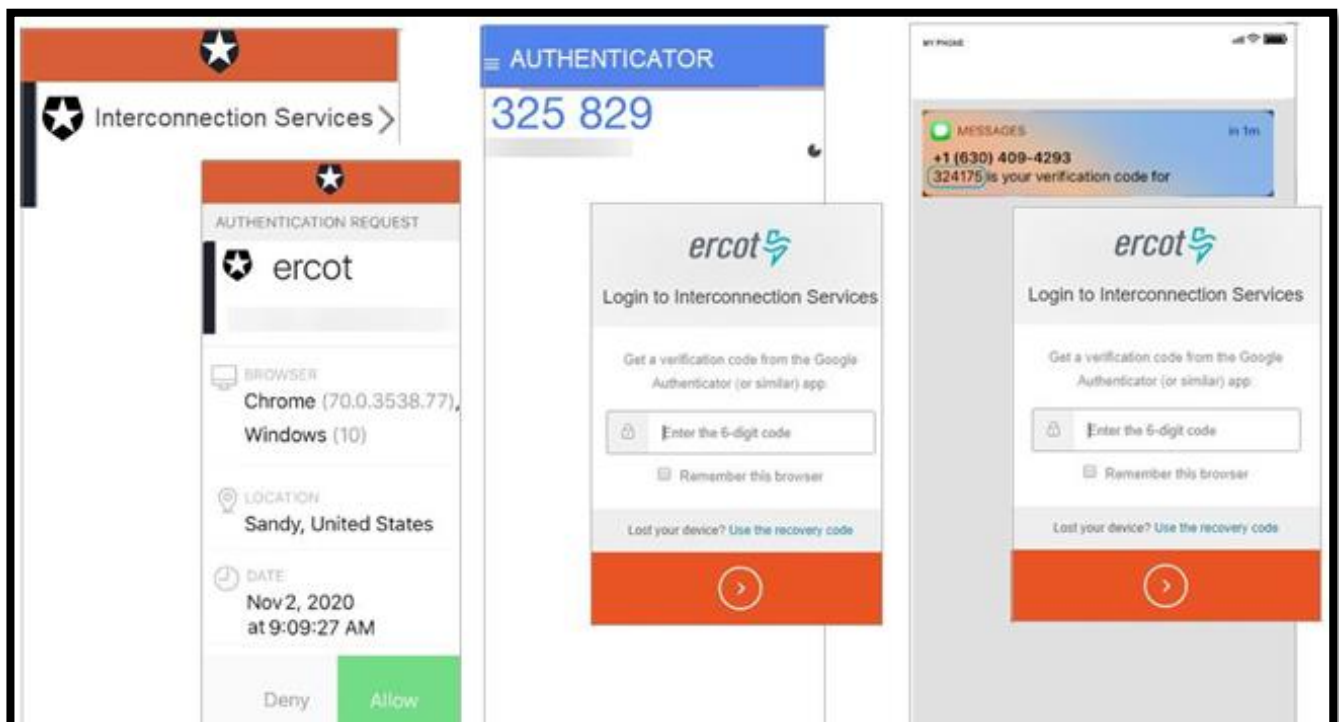
The second screenshot shows the bottom of the ERCOT website. The 'Resource Integration & Ongoing Operations – Resource Services' link is highlighted with a red box. The footer also includes links for 'About ERCOT', 'Contact Us', 'Quick Links', 'STAY CONNECTED', 'SOCIAL', 'News & Press', 'Mailing Lists', 'News & Publications', 'ERCOT Market Information List', 'Texas Advisory and Notification System', 'Sitemap', 'Terms of Use', 'Privacy', and the ERCOT logo.

- Log into your RIOO account:



The screenshot shows the ERCOT RIOO Services login interface. At the top is the ERCOT logo and the text "RIOO Services". Below this are two tabs: "Log In" (selected) and "Sign Up". The login form contains two input fields: an email field with the placeholder "yours@example.com" and a password field with the placeholder "your password". Below the password field is a link that says "Don't remember your password?". At the bottom of the form is a large blue button labeled "LOG IN >".

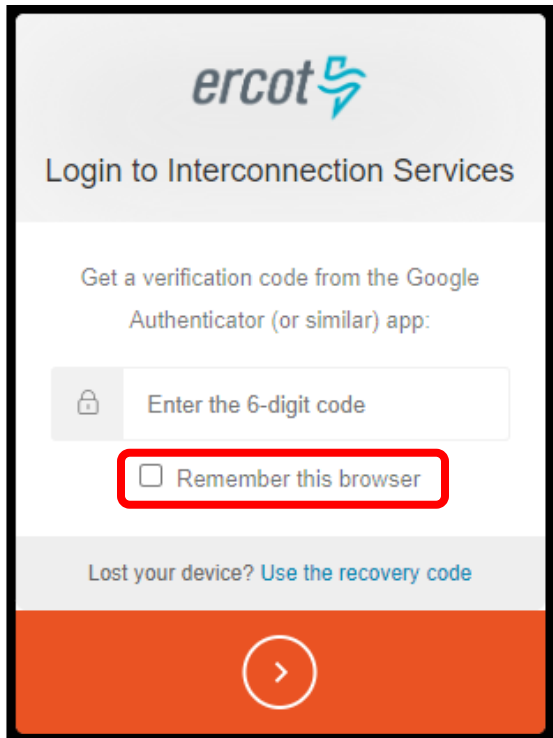
- You'll be prompted to enter a 6-digit code to complete the multi-factor authenticator (MFA). The MFA code will be sent to the app selected when setting up your account (Auth0 Guardian, Google Authenticator, SMS Text Authentication, or another authentication program that you chose to use).



This composite image illustrates the multi-factor authentication (MFA) process. It consists of three panels:

- Left Panel:** A mobile device screen showing an "AUTHENTICATION REQUEST" from "ercot". It displays browser information (Chrome 70.0.3538.77 on Windows 10) and location (Sandy, United States). At the bottom are "Deny" and "Allow" buttons.
- Middle Panel:** A screen titled "AUTHENTICATOR" displaying a large 6-digit code "325 829". Below the code is a form titled "Login to Interconnection Services" with instructions to "Get a verification code from the Google Authenticator (or similar) app:". It includes an input field for the 6-digit code, a "Remember this browser" checkbox, and a link for "Lost your device? Use the recovery code". A large orange button with a right arrow is at the bottom.
- Right Panel:** A mobile device screen showing an incoming SMS message from "+1 (630) 409-4293" with the text "324175 is your verification code for". Below the message is the same "Login to Interconnection Services" form as in the middle panel, with a large orange button at the bottom.

- 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*



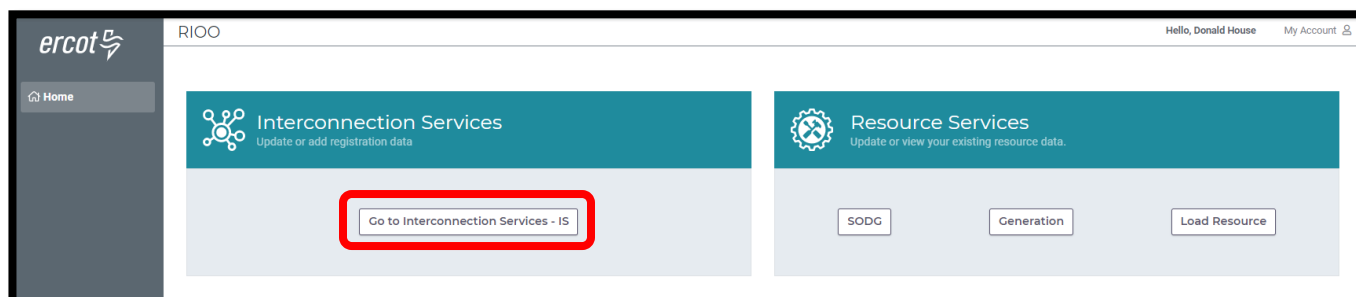
The screenshot shows the ERCOT login interface. At the top is the ERCOT logo. Below it, the text "Login to Interconnection Services" is displayed. A message instructs the user to "Get a verification code from the Google Authenticator (or similar) app:". Below this is a text input field with a lock icon and the placeholder text "Enter the 6-digit code". A checkbox labeled "Remember this browser" is highlighted with a red rectangle. Below the checkbox, there is a link that says "Lost your device? Use the recovery code". At the bottom of the form is a large orange button with a white right-pointing arrow.

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

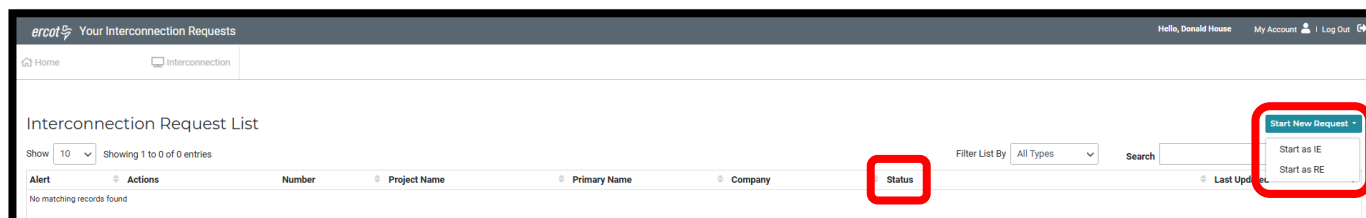


Creating request for a new LR

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



- 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
 - Select **Start as RE**



- Select the Company (RE) for this project
 - 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 Request

Hello, Donald House My Account Log Out

Let's set your application type

Company Select your company for this project? (Required)
MP2 ENERGY LLC (RE)

Connection How will your project be connected?
☐ Transmission Connected
☒ Distribution Connected

Project has Load Resource (LR)?
 LR ☒ Yes ☐ No

Project Name (Required)
User Guide Test LR

Start Over Let's Go!

- 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
 - 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 Interconnection Services

Hello, Donald House Log Out

Home Load Resource Back

List

Load Resource

Panel Name	Status	Action
Load Resource Info	Required	Start
Data Agg and Settlement Info	Required	Start
Mapping Information	Required	Start
Limits & Op Params	Required	Start
E-sign	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

Common Name for Load Resource is a user-defined name; spaces are allowed

Load Resource Load Type is a required field (select from list); if selected type is "Chemical Plant" or includes "other", additional details are required in the "Load Type Comments" box

- Sample completed Load Resource Info panel

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Interconnection Services

Hello, Donald House Log Out

Home

Load Resource

List Load Resource Info

Load Resource Information

Check Application Progress Save and Back

Common Name for Load Resource
LT TEST NAME

Physical Street Address for Point of Delivery (POD)
123 Station Rd.

Name of City for Point of Delivery (POD)
Big Spring

Load Resource Load Type
Chemical Plant

Load Type Comments
Ammonia processing for fertilizer production
Characters Remaining: 456

Click **Save and Back** to return to the Load Resource Info summary screen

Check Application Progress **Save and Back**

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Interconnection Services

Hello, Donald House Log Out

Home

Load Resource

List Load Resource Info

Load Resource Information

Check Application Progress

Here's what we have so far. You can 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)
LR TEST NAME	123 Station Rd.	Big Spring

+ Add Load Resource

If you have no other information to add, select Done.

Click **Edit** to review the panel again or click **Done** to be taken back to the List screen

Edit Delete

Done

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Interconnection Services

Hello, Donald House Log Out

Home

Load Resource

Back

List

Load Resource

Load Resource Info

Data Agg and Settlement Info

Mapping Information

Limits & Op Params

E-sign

Required **Edit**

Required Start

Required Start

Required Start

Required Start

Required Start

Check Application Progress

A green **Edit** button means that initial data validation is passed; no further edits are required on this panel

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

Interconnection Services

Hello, Donald House Log Out

List Data Agg and Settlement Info

Data Agg and Settlement Info

Check Application Progress

Here's what we have so far. You can Edit 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.

Interconnection Services

Hello, Donald House Log Out

List Data Agg and Settlement Info

Data Agg and Settlement Info

Check Application Progress Save and Back

ERCOT Load Zone
Select
You can't leave this empty

Meter Reading Entity (MRE)
Search MRE
You can't leave this empty

TSP
Search TSP
You can't leave this empty

ESI ID Assigned to Meter
You can't leave both ESI ID and RID empty and / or

Resource ID (RID)
You can't leave this empty

Load Information

Effective Date
X

Is load behind a NOIE settlement meter point?
Yes No
You can't leave this empty

Is load netted from generation at ERCOT read gensite?
Yes No
You can't leave this empty

Is this a wholesale delivery point?
Yes No
You can't leave this empty

Load Resource Controlling Device
Select
You can't leave this empty

Check Application Progress Save and Back

If the LR is behind a NOIE meter, the ESI ID is not needed

Use the calendar to select the requested **Effective Date** (this is the PLD); align with a scheduled model load date at least 45 days from the submission date

- Sample completed Data Agg and Settlement Info panel

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Interconnection Services

Hello, Donald House Log Out

Home Load Resource

List Data Agg and Settlement Info

Data Agg and Settlement Info

ERCOT Load Zone
West

Meter Reading Entity (MRE)
ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSP)
MRE DUNS: 1039940674000

TSP
ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSP)
TSP DUNS: 1039940674000

ES ID Assigned to Meter
111222333444555

and / or

Resource ID (RID)
1112223334445550001

Load Information

Effective Date
12-04-2024 X

Is load behind a NOIE settlement meter point?
☐ Yes ☒ No

Is load netted from generation at ERCOT read gensite?
☐ Yes ☒ No

Is this a wholesale delivery point?
☐ Yes ☒ No

Load Resource Controlling Device
Control Technology / Interruptible Switch

Check Application Progress Save and Back

The MRE and TSP DUNS #s are populated to match the user selections

Click Save and Back to return to the Data Agg and Settlement Info summary screen

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Interconnection Services

Hello, Donald House Log Out

Home Load Resource

List Data Agg and Settlement Info

Data Agg and Settlement Info

Here's what we have so far. You can Edit what you have already entered

ERCOT Load Zone	Meter Reading Entity (MRE)	TSP
West	ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSP) (DUNS: 1039940674000)	ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSP) (DUNS: 1039940674000)

If you have no other information to add, select Done.

Check Application Progress Edit Done

Click Edit to review the panel again or click Done to be taken back to the List screen

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Interconnection Services

Hello, Donald House Log Out

Home Load Resource Back

List

Load Resource

Load Resource Info

Data Agg and Settlement Info

Mapping Information

Limits & Op Params

E-sign

Required Edit

Required Edit

Required Edit

Required Start

Required Start

Application Progress

A green Edit button means that initial data validation is passed; no further edits are required on this panel

The TSP entered on the Data Agg panel is populated on the Mapping Information panel. A red Edit button is displayed for Mapping Information indicating that further info is needed.

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

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Interconnection Services

Hello, Donald House Log Out

List Mapping

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)

Check Application Progress

Substation Code for POD

Edit

Done

If you have no other information to add, select Done.

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Interconnection Services

Hello, Donald House Log Out

List Mapping

Mapping Information

All fields are required unless marked optional

Transmission Service Provider

ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSP) (DUNS: 1039940674000)

Yes No

You can't leave this empty

Substation Information

Is this Load Resource part of an Energy Storage Resource?

Yes No

You can't leave this empty

Substation Code for POD

Search substation

Substation Code for POD is required

Substation Name for POD:

Transmission Information

Transmission Bus POD ~ PTI Bus #

PTI bus number can't be empty

Transmission Station Voltage

kV

Transmission Voltage can't be empty

Transmission Station Load Name in Network Operations Model

Field can't be empty

Dispatch Asset Code

Dispatch Asset Code can't be empty

Check Application Progress

Save and Back

Save and Back

The Transmission Service Provider is pre-populated from info provided on the Data Agg panel

The associated Substation Name for POD will be populated after the Substation Code for POD is entered; contact the Demand Integration team if the requested substation is not found

Reminder to coordinate with the Demand Integration team to get a unique Dispatch Asset Code for each new LR being created in the INR

- Sample completed Mapping Information panel

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Interconnection Services

Hello, Donald House Log Out

List **Mapping**

Mapping Information

Check Application Progress Save and Back

All fields are required unless marked optional

Transmission Service Provider
ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSF) (DUNS: 1039940674000)

Is this a Private Use Network (PUN)?
☐ Yes ☒ No

Substation Information

Is this Load Resource part of an Energy Storage Resource?
☐ Yes ☒ No

Substation Code for POD
BCATWIND

Substation Name for POD: BOBCAT BLUFF

Transmission Information

Transmission Bus POD – PTI Bus #
140401

Transmission Station Voltage
34.5 kV

Transmission Station Load Name in Network Operations Model
LOAD_3

Dispatch Asset Code
BCATWIND_LD1

Check Application Progress Save and Back

Registering an LR associated with an Energy Storage Resource must be coordinated with the Resource Integration team

Click **Save and Back** to return to the Mapping Information summary screen

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Interconnection Services

Hello, Donald House Log Out

List **Mapping**

Mapping Information

Check Application Progress

Here's what we have so far. You can Edit what you have already entered

Transmission Service Provider	Is this a Private Use Network
ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSF) (DUNS: 1039940674000)	No

If you have no other information to add, select Done.

Click on the **pencil Edit icon** to review the panel again or click **Done** to be taken back to the List screen

Edit Done

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Interconnection Services

Hello, Donald House Log Out

List

Load Resource

Back

Load Resource Info

Data Agg and Settlement Info

Mapping Information

Limits & Op Params

E-sign

Required Edit

Required Edit

Required Edit

Required Start

Required Start

Check Application Progress

A green **Edit** button means that initial data validation is passed; no further edits are required on this panel

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

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Interconnection Services

Home Load Resource

List Limits & Op Params

Limits & Op Params

Check Application Progress

Here's what we have so far. You can Edit what you have already entered

Total Load at POD	Interruptible Load	High Reasonability Limit

Not Started

Done

If you have no other information to add, select Done.

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Interconnection Services

Home Load Resource

List Limits & Op Params

Limits & Op Params

Check Application Progress

Save and Back

Dispatch Asset Code:BCATWIND_LD1

Load Resource Type

Select

The Dispatch Asset Code is pre-populated from info provided on the Mapping Information panel

Choose between CLR or UFR/Interruptible for the Load Resource Type. Data entry fields will appear specific to the type selected.

Check Application Progress

Save and Back

Load Resource Type = CLR

[Home](#)

Load Resource

Interconnection Services

[List](#)
[Limits & Op Params](#)

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?
☐ Yes ☐ No

Contact 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 MW/min
You can't leave this empty

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 MWh/hrs
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

Downward 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)

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Interconnection Services

Home Load Resource

Limit Limits & Op Params

Limits & Op Params

Check Application Progress Save and Back

All fields are required unless marked optional
Dispatch Asset Code: SCATWIND_LD1

Load Resource Type
CLR

Is this Load Resource an aggregated Resource?
☐ Yes ☒ No

Maximum Loads

Load at POD
25 MW

Interruptible Load
25 MW

Reasonability Limits

High Reasonability Limit
25 MW

Low Reasonability Limit
0 MW

Reasonability Ramp Rate Limits

High Reasonability Ramp Rate Limit
25 MW/min

Low Reasonability Ramp Rate Limit
5 MW/min

CLR Resource Parameters

Max Deployment Time
8 Hours

Max Weekly Energy
4200 MWhrs

Normal Ramp Rate Curves

MW Rating
25 MW

Upward
25 MW/min

Downward
25 MW/min

Emergency Ramp Rate Curves

MW Rating
25 MW

Upward
25 MW/min

Downward
25 MW/min

Click **Save and Back** to return to the Limits & Op Params summary screen

Check Application Progress Save and Back

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Interconnection Services

Home Load Resource

Limit Limits & Op Params

Limits & Op Params

Check Application Progress

Here's what we have so far. You can Edit what you have already entered

Total Load at POD	Interruptible Load	High Reasonability Limit
25	25	25

If you have no other information to add, select Done.

Click on the pencil **Edit** icon to review the panel again or click **Done** to be taken back to the List screen

Edit Done

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

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Interconnection Services

Home Load Resource

Limits & Op Params

Dispatch Asset Code: SCATWIND_LD1

Load Resource Type: UFR/Interruptible

Check Application Progress Save and Back

All fields are required unless marked optional

Maximum Loads

Total Load at POD MW

Interruptible Load MW

Reasonability Limits

High Reasonability Limit MW

Low Reasonability Limit MW

Non-CLR Resource Parameters

Min Interruption Time Hours

You can't leave this empty

Min Restoration Time Hours

You can't leave this empty

Max Weekly Deployments

You can't leave this empty

Max Interruption Time Hours

Max Daily Deployments

You can't leave this empty

Max Weekly Energy MWhrs

Min Notice Time Minutes

You can't leave this empty

Check Application Progress Save and Back

Total Load at POD (min = 0.1)

Interruptible Load \leq Total Load at POD and \leq HRL

HRL \geq 0 and \geq LRL; modeled as Max Power Consumption

LRL \geq 0; modeled as Low Power Consumption (LPC)

Max Interruption Time \geq Min Interruption Time

Max Weekly Energy \leq Interruptible Load (MW) x 168 Hrs

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

ercot

Interconnection Services

Home Load Resource

Limit Limits & Op Params

Limits & Op Params

All fields are required unless marked optional
Dispatch Asset Code: SCATWIND_LD1

Load Resource Type
UFR/Interruptible

Maximum Loads
Total Load at POD
25 MW
Interruptible Load
25 MW

Reasonability Limits
High Reasonability Limit
25 MW
Low Reasonability Limit
0 MW

Non-CLR Resource Parameters
Min Interruption Time
1 Hours
Min Restoration Time
3 Hours
Max Weekly Deployments
7
Max Interruption Time
24 Hours
Max Daily Deployments
1
Max Weekly Energy
4200 MWhrs
Min Notice Time
10 Minutes

Click **Save and Back** to return to the Limits & Op Params summary screen

Check Application Progress Save and Back

ercot

Interconnection Services

Home Load Resource

Limit Limits & Op Params

Limits & Op Params

Here's what we have so far. You can Edit what you have already entered

Total Load at POD	Interruptible Load	High
25	25	25

If you have no other information to add, select Done.

Click on the **pencil Edit icon** to review the panel again or click **Done** to be taken back to the List screen

Check Application Progress Edit Done

ercot

Interconnection Services

Home Load Resource

Back

Load Resource

Load Resource Info

Data Agg and Settlement Info

Mapping Information

Limits & Op Params

E-sign

A green **Edit** button means that initial data validation is passed; no further edits are required on this panel

If all data passes initial validations, the **E-sign** panel will now be available to select

Required Edit

Required Edit

Required Edit

Required Edit

Required 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

List Esign

Attestation Regarding Critical Load Status

Check Application Progress

Here's what we have so far. You can Edit what you have already entered

Dispatch Asset Code	ESI ID	Signature Date
BCATWIND_LD1	111222333444555	10-29-2024

Edit

Done

If you have no other information to add, select Done.

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Interconnection Services

Hello, Donald House Log Out

List Esign

Attestation Regarding Critical Load Status

As required by Protocol Section 3.6.1, the Load Resource must select one of the following conditions:

The DAC, ESI ID, Legal Name of RE and DUNS Number for RE are pre-populated based on the LR request

Very important: condition 4 means that the site is a critical Load; the LR can't be registered if condition 4 is selected

☐ 1. 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.

☐ 2. The Load Resource is located 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 and does not include a Critical Load.

☐ 3. The Load Resource is located 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 technologies at the site.

☐ 4. None of the above apply to this Load Resource.

Dispatch Asset Code
BCATWIND_LD1

ESI ID or Non-settlement ESI ID Associated With This Load
111222333444555

Legal Name of Resource Entity
MP2 ENERGY LLC (RE)

DUNS Number for Resource Entity
8330528193000

The above-referenced Resource Entity hereby attests that, if either condition (2) or (3) identified above applies, then all of the aforementioned Load Resource's offered demand response capacity will be available if deployed by ERCOT during an emergency.

By inserting my name below, I affirm that I have permission to submit this attestation on behalf of the Load Resource and that I am authorized to submit this attestation on behalf of the Load Resource.

Signature
Type your authorized Signature
You can't leave this empty

Title (Required)
Type your authorized title
You can't leave this empty

Signature Date
10-29-2024

The user must select an answer and provide a name and title

The Signature Date is pre-populated with the current day

Check Application Progress Save and Back

- Sample completed Esign form

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Interconnection Services

Hello, Donald House Log Out

Home Load Resource

List Esign

Attestation Regarding Critical Load Status

As required by Protocol Section 3.6.1, each Resource Entity that

For existing Load Resources

Dispatch Asset Code
BCATWIND_LD1

For existing and proposed Load Resources

ESI ID or Non-settlement ESI ID Associated With This Load
111222333444555

Please check the appropriate condition for the existing or proposed Load Resource:

☒ 1. 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.

☐ 2. The Load Resource is located 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 and does not include a Critical Load.

☐ 3. The Load Resource is located 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 technologies at the site.

☐ 4. None of the above apply to this Load Resource.

Legal Name of Resource Entity
MP2 ENERGY LLC (RE)

DUNS Number for Resource Entity
8330528193000

The above-referenced Resource Entity hereby attests that, if either condition (2) or (3) identified above applies, then all of the aforementioned Load Resource's offered demand response capacity will be available if dispatched by ERCOT during an emergency.

By inserting my name below, I affirm that I have personal knowledge of the facts stated in this attestation and that I am authorized to submit this attestation on

Signature
Donald House

Signature Date
10-29-2024

Title (Required)
Authorized Representative

Check Application Progress Save and Back

Check Application Progress Save and Back

ercot

Interconnection Services

Hello, Donald House Log Out

Home Load Resource

List Esign

Attestation Regarding Critical Load Status

Here's what we have so far. You can Edit what you have already entered

Dispatch Asset Code	ESI ID	Signature Date
BCATWIND_LD1	111222333444555	10-29-2024

If you have no other information to add, select Done.

Check Application Progress Edit Done

Click on the pencil Edit icon to review the panel again or click Done to be taken back to the List screen

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Interconnection Services

Hello, Donald House Log Out

Home Load Resource

List

Load Resource

Load Resource Info

Data Agg and Settlement Info

Mapping Information

Limits & Op Params

E-sign

Required Edit

Required Edit

Required Edit

Required Edit

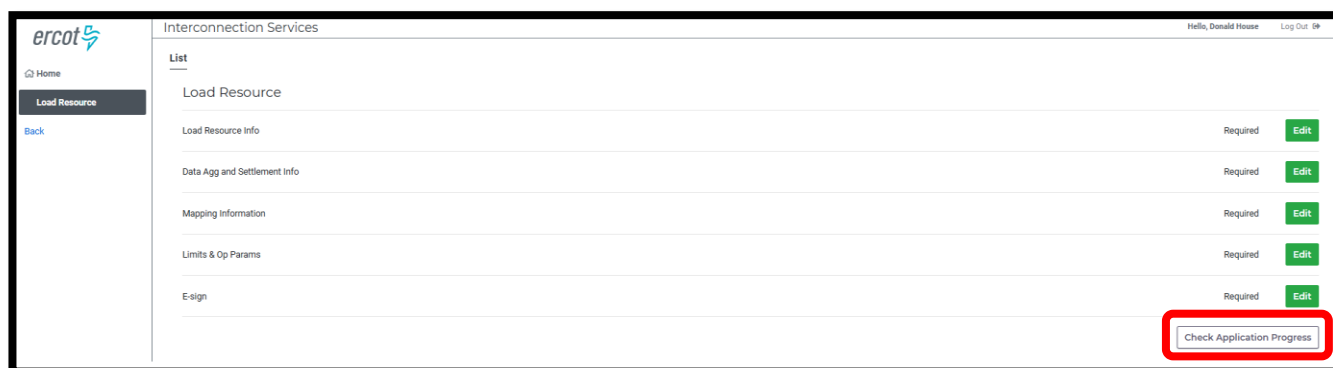
Required Edit

Check Application Progress

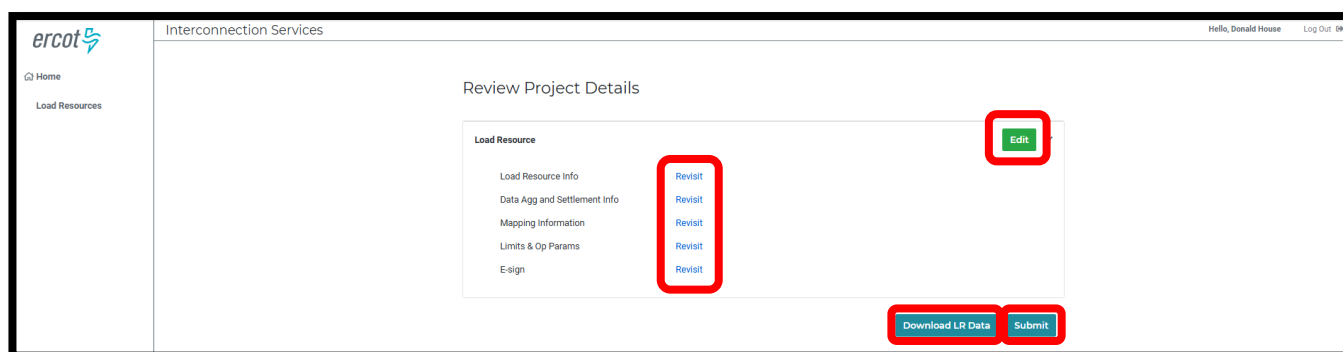
A green Edit button means that no further edits are required on this panel

Check Application Progress

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



- On the Review Project Details screen, all data submission panels are listed
 - 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 (**this Submit button does not complete the process**)
 - Attachments (optional, such as one-line diagrams or PFR test results)
 - Payment



- 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

The screenshot shows the 'Interconnection Request List' page. Annotations include:

- A red box around the 'Finish' button in the 'Actions' column.
- A red box around the 'Number' column header and the value '24LR0750'.
- A red box around the 'Status' column header and the value 'Saved'.
- A red box around the 'Project Name' column header and the value 'User Guide Test LR'.
- A red box around the 'Primary Name' column header and the value 'Donald House'.
- A red box around the 'Company' column header and the value 'MP2 ENERGY LLC (RE)'.
- A red box around the 'Last Updated' column header and the value '10-28-2024'.

Other visible elements include the 'ercot' logo, 'Your Interconnection Requests' title, 'Hello, Donald House', 'My Account', 'Log Out', 'Home', 'Interconnection', 'Show 10', 'Showing 1 to 1 of 1 entries', 'Filter List By All Types', 'Search 24LR0750', 'Start New Request', and 'Reset All'.

The screenshot shows the ERCOT Load Resource Request interface. At the top, the header reads "ercot Finish Your Load Resource Request" and "Hello, Donald House My Account Log Out". The main content area is divided into three sections: "Load Resource Request", "Load Resource Details", and "Attachments".

Annotations include:

- A red box around the "Delete INR" button at the bottom left.
- A red box around the "Load Resource Request" header, with a callout stating "The INR # is displayed here" pointing to the ID "24LR0750".
- A red box around the "Review / Edit" button in the "Load Resource Details" section.
- A red box around the "Review / Changes" button in the "Attachments" section.
- A red box around the "Ready to Pay" button in the "Payment" section.
- A red box around the "Back to Dashboard" button at the bottom right.
- A red box around the "Are you sure?" confirmation dialog, which states "You won't be able to revert this!" and offers "Yes, delete this INR" and "No, do not Delete" options.
- A red box around the "LR submissions do not require any attachments" text.
- A red box around the "Click on Back to Dashboard to return to the Interconnection Request List" text.

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Finish Your Load Resource Request

Hello, Donald House

My Account

Log Out

Payment must be made before the submission can be completed; click on Ready to Pay

LOAD RESOURCE REQUEST

24LR0750

Load 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

Review / Changes

Payment

You haven't entered any information yet. Ready to Pay

Ready to Pay

Delete INR

Back to Dashboard

Invoice and Payment

- Based on the current [ERCOT Fee Schedule](#), 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

The LR project name is listed on the invoice

The Invoice Date is the current day, and the payment is always **DUE TODAY**

The INR Request No. is listed on the invoice

Request No. 24LR0750

INVOICE DATE: October 29, 2024

DUE TODAY: \$500.00

DESCRIPTION	Quantity	PRICE
Load Resource	1	\$500.00
TOTAL DUE:		\$500.00

Click **Continue to Payment** to move on to the Payment screen

Continue to Payment

- Sample payment screen using credit card

The LR INR number is listed as the **Invoice Number**

User selects to make payment with a **Credit Card**

The user's **Email** is pre-populated

Order Summary

Description	Interconnection Studies performed	Total
Invoice Number 24LR0750		\$ 500.00

☒ Credit Card ☐ Bank Account (USA Only)

Card Number * Exp. Date * Card Code

Billing Address

First Name Last Name

Street Address City

State Phone Number

Pay Cancel

After info is entered, click **Pay** to complete the transaction and view the payment confirmation

- Sample payment screen using bank account

The LR INR number is listed as the Invoice Number

User selects to make payment with a Bank Account

The user's Email is pre-populated

After bank and billing info is entered, click **Pay to complete the transaction and view the payment confirmation**

- Sample payment confirmation

The LR INR number is listed on the payment confirmation

Click **Back to Interconnection List to return to your Interconnection Request 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**

Interconnection Request List

Alert	Actions	Number	Project Name	Primary Name	Company	Status	Last Updated
	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
 - **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
 - **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)
 - **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 [Load Resource webpage](#) for details.



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.
 - 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
 - Any of these issues prevent the “submit” button from being activated
 - 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 RIOO-Help@ercot.com and ERCOTLRandSODG@ercot.com. Significant updates to the application may be communicated through market notices.