Creating an INR for a Generation Resource Under 10 MW

Version 12.31.21
ERCOT RIOO Interconnection Services Release Notes

December 17, 2021

ERCOT has released a new version of Resource Integration and Ongoing Operations - Interconnection Services (RIOO - IS) that enables companies to propose a new electricity generation resource to interconnect to the Texas power grid that ERCOT manages.

Representing the company, an Interconnecting Entity (IE) or Resource Entity (RE) uses the RIOO - IS app to create and manage the generation interconnection request (INR) online. The ERCOT Integration Team reviews the INR and conducts studies, along with the Transmission or Distribution Service Provider who owns the power lines in the area, to understand the effect the resource may have on the grid and determine the economic feasibility of the project.

About this Guide

This guide provides information about performing the tasks in RIOO - IS to create and submit the online interconnection request (INR) that proposes that proposes a new generation resource that is smaller than 10MW to interconnect to the Texas power grid.

Updates in this Guide

This guide contains the creating an INR content formerly in the Interconnection Services IE User Guide. Since the last version of that content:

- The content for updating and adding information, attestations, and attaching additional documents to a submitted INR is now in a Managing Your INR guide available from the Resource Integration page on the ercot.com website.

- REs can create INRs as well as IEs.

- IEs and REs can submit INRs for distribution and transmission connected resources.
Delayed Features

- The online payment system for small distributed generation resource projects is postponed. You must pay your application fee by one of the following methods:

  - **Wire Transfer Instructions**
    
    | Bank Name:    | JPMorgan Chase       |
    |---------------|----------------------|
    | Bank ABA #:   | 02100021              |
    | Account Name: | Electric Reliability Council of Texas Inc. |
    | Fees Account #: | 754360246          |
    | Street Address: | 221 W 6th Street |
    | City:         | Austin               |
    | State:        | Texas                |
    | Postal Code:  | 78701                |

  - **ACH Payment Instructions**
    
    | Bank Name:    | JPMorgan Chase       |
    |---------------|----------------------|
    | Bank ABA #:   | 111000614            |
    | Account Name: | Electric Reliability Council of Texas Inc. |
    | Fees Account #: | 754360246          |
    | Street Address: | 221 W 6th Street |
    | City:         | Austin               |
    | State:        | Texas                |
    | Postal Code:  | 78701                |

- The Compliance With The Lone Star Infrastructure Protection Act Attestation regarding ownership of the resource by certain foreign governments or citizens that IEs/REs must sign is currently not available as part of the INR flow. This attestation is currently available in a request for information (RFI) as a downloadable form that must be signed and uploaded to the INR as an attachment.

Supporting Documentation

RIOO Services documentation available from the Resource Integration page of the ercot.com website:

- IE Sign Up Guide for RIOO Services
- RE Sign Up Guide for RIOO Services
- TSP/DSP Sign Up Guide for RIOO Services
- Managing Your RIOO Services User Account
- Creating an INR for a Generation Resource Under 10MW
- Creating an INR for a Generation Resource Over 10MW
- Managing Your INR as an IE/RE
- Managing INRs as a TSP/DSP
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Understanding the INR Process

The online INR application starts with setting the size of the resource as small or large and if it will be transmission or distribution connected to the grid, and then identifying the fuel and technology powering the resource, the megawatts it will be injecting into and withdrawing from the grid, and the estimated time frame when it available to the grid market operations. You must upload and attach the one-line diagram that shows the facility plan as well as other supporting documents as requested on an Attachment page.

After identifying the resource location (Texas county, latitude and longitude coordinates, and interconnection point) and some company information, you can review the information you are submitting and make edits as necessary before you electronically sign and submit the INR.

As you finish entering information on a page, clicking the Continue button saves the information entered and displays the next page to complete. If you do not finish a page before completing the application, the INR displays on your Interconnection Request List with your saved information and a button to Finish INR Later. Note that the Continue button becomes Save and Continue on the pages you finish later.

As you supply information and make selections about the resource, you can track your progress using the options at the top of each page, which is helpful if you pause and want to continue the application process later.

After you electronically submit your INR and send in your fee payment, ERCOT has 10 days to review it for technical accuracy. ERCOT may start corresponding with you about modifications to various entries before the request is considered accepted.

Each time ERCOT sends questions or concerns, an alert will display in your INR List along with the action to view it and respond. When the INR application is deemed complete, ERCOT will send you an email about the INR and the next steps to take.
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

If you are an:

- **Interconnecting Entity (IE)**, you must sign up online to create a RIOO - IS user account, that includes providing an email address as your user name and a self-created password as well as associating this login information with a multifactor authentication (MFA) app on your mobile phone that verifies your login attempts. Sign up instructions are available in the *Signing Up for a RIOO Services Account* (from the *Resource Integration* page on the ERCOT website).

- **Resource Entity (RE)**, ERCOT has started a RIOO - IS user account for you from the email address in your Market Participant Identity Management (MPIM) profile and assigned a generic password to it. Before you can access RIOO - IS, you must request that your USA add the RIOORS_M_Operator role to your MPIM profile. When you receive an email requesting that you verify the account, you can click the appropriate button and finish signing up for your RIOO - IS 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. Sign up instructions are available in the *Signing Up for a RIOO Services Account* (from the *Resource Integration* page on the ERCOT website).

⚠️ If you are not yet registered with ERCOT as an RE (that is, do not have an MPIM profile), you must sign up for a user account as an IE with an email address that is unique from any other ERCOT user email accounts you may have. For instructions, access the *RIOO-IS IE Sign Up Reference* (on the *Resource Integration* page on the ERCOT website).

Have Documents Available to Attach and Upload

While creating your INR, you are required to attach:

- Your one-line diagram schematic that shows your resource equipment and configuration
- Signed Compliance With The Lone Star Infrastructure Protection Act attestation (available in an RFI)

💡 *Managing Your INR as an IE or RE* contains instructions for attaching and uploading documents after you have submitted your INR (available from the *Resource Integration* page of the ercot.com website).

You can also attach your resource asset registration worksheets and proof you control the resource site location. Or, you can wait to attach them later as documented in *Managing Your INR as an IE or RE* that is available from the *Resource Integration* page of the ercot.com website.
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 of your INR.

If you do have an automatic debit block on your account:

1. Have your financial institution send you the form to authorize ACH transactions you will be making with ERCOT.

2. On the form, for:
   - Vendor, enter Authorize.net.
   - Vendor ID, enter 1911718107.

3. Submit the form to your financial institution.
Starting Your INR Project Request

After logging into the RIOO app and connecting to Interconnection Services, you can start your INR.

Access the RIOO - IS App


Log Into Your Account

1. Type in your email address for the user name.
2. Type in password you set this account.
3. Click LOG IN >

If you cannot log in after 10 tries, the YOUR ACCOUNT HAS BEEN BLOCKED AFTER MULTIPLE CONSECUTIVE LOGIN ATTEMPTS message displays. Open a Help Desk ticket that tells them you are blocked by your MFA and that Operations should unblock your ID.)
Verify Your Login On Your Smart Phone

Use the MFA you signed up with:

1. Open **Guardian Auth 0** on your phone to locate the **Interconnection Services** message and swipe the >)
2. Tap Allow.

1. Open **Authenticator** on your phone and locate the **ERCOT** message.
2. Type the code displayed in the MFA in the **ERCOT** page.

1. Open your phone and locate the **ERCOT** message.
2. Type the code displayed in the MFA in the **ERCOT** page.

Select Interconnection Services from the Welcome Page

- Click **Interconnection Services**.
- Click **Resource Services**.
Start the INR from Your Interconnection Request List

1. Click the **Start New INR Request** button and click the appropriate **IE** or **RE** option.

Set Your Application Type

1. **RE ONLY**: Click the name of the company from the drop down.

2. **Click 1 up to 9.99 MW**.

3. **Click Distribution Connected**

After you complete the top options, this section displays.

Your application type is: **0783641903000-DGR-SM**

- **Company**
- **Gen Type and Connection**: Distribution Generator (DGR)
- **Size**: 1 to 9.99 MW

4. **Click Let's Go**
Providing the Basic INR Information

The basic INR information includes a project name that is unique across the grid and the technology and fuel to be used by the generation resource as well as the megawatt output of the resource, the estimated date when the resource will be operational and interconnected to the grid and the one line schematic of the resource equipment.

Provide the Project Name, Fuel Type, and Technology Type Date

1. Type in a name for this INR project to display on all product documents. The name must be unique across the grid.

2. Select the type of fuel the resource uses.

3. Select the technology of the resource.

4. Click Continue.
Identify the Generator MW Information

<table>
<thead>
<tr>
<th>Application Type</th>
<th>DGR-6M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Name</td>
<td>Solar Farm 2</td>
</tr>
<tr>
<td>Fuel Type</td>
<td>Solar</td>
</tr>
<tr>
<td>Technology Type</td>
<td>Steam Turbine other than Combined-Cycl</td>
</tr>
</tbody>
</table>

Now let's work on the MWs for your site.

<table>
<thead>
<tr>
<th>Maximum Generator MW (Required)</th>
<th>Maximum Summer Generator MW</th>
<th>Maximum Winter Generator MW</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Type in the MW capacity of the resource.
2. Type in the incremental capacity change that can occur during the summer (which cannot exceed the overall MWs).
3. Type in the incremental capacity change that can occur during the winter (which cannot exceed the overall MWs).
4. Click Continue.

Back Delete INR
Estimate Your Energization, Synchronization, and Commercial Operations Date

The Energization Date estimates when the resource facility's equipment will initially connect to the grid at the POI. This date must be at least 10 days from the Synchronization Date (150 days from the COD). Reminder: This date must be coordinated with the TSP's PLD for their side of the POI to allow time to resolve issues with telemetry or other operational issues before synchronization.

The Synchronization Date estimates when the resource facility's new equipment will initially inject power to the ERCOT System. The date must be at least 130 days before commercial operations begin.

The Commercial Operations Date (COD) estimates when the construction and trial operation of the resource will be completed; when your resource is expected to complete the resource interconnection process; and when you are approved for participation in ERCOT market operations. If an exact date is not known, enter the last day of the month in the COD is expected.

For each date above, type in the estimated mm-dd-yyyy.

Or, click the calendar.

A Select the appropriate Month and Year from the drop downs.

B Click the appropriate day on the calendar.

2 Click Continue
Attach Required Documents

Attachments - what are the required attachments for your project

Please note:
All interconnection requests must complete the request for information (RFI) related to the Lone Star Infrastructure Protection Act. If you have not received this RFI please contact ERCOT.

- An update RARF with FIS related fields completed
- A one-line
- Site Control documents

For each file to attach to this INR, click the file type drop down and click the type of document.

Click the active Choose File button.

In the window the system displays, locate your file and click it and click the Save button.

Click Save & Continue.

Just uploaded the wrong file? Use the trash can icon in the list to remove it.
Identifying the Location of the Resource

To display the location precise location on the map, you can search using the northern latitude and western longitude coordinates of the resource or manually point to it on the map and drop a pin to mark the location. If you do not know the latitude/longitude coordinates, you can search for the address in a Google browser.

1. Select the county from the drop down. (The map will display.)
2. To locate the resource site on the map, type in the decimal notation of the latitude and longitude coordinates in the following format: 30.56841, -97.7831
   Note that the longitude must be a negative number to denote its western location from the prime
   - OR -
   click the location on the map to place a pin and double check that the correct coordinates display below the map.
3. Type the street address or a description that identifies where the Load/Load Transformer connects to the grid (such as, 800 Airport Rd or NE corner of Airport Dr and Hwy79).
4. Click the POI KV dropdown and select the primary kilovolt level at the point of interconnection.
5. Click Continue.
Entering Company Information

Both IEs and REs must provide information about their company. IEs must also provide a backup contact in the company who will be available to answer questions and fill in INR information if you (the primary contact) is not available. You can also add more contacts that can work on your INR as backups as well as contacts who can view the INR information.

Supply the Company Type and Your Name

1. Select LLC or Other from the drop down.
2. Type in your full name.
3. If this is an LLC, type in the name of your parent or holding company.
4. Click Continue.
Invite a Backup and Others to Join Your Project (IEs Only)

If this *Invite* page displays, you must enter the email address of a person in your company who will be available to answer questions and fill in INR information if you are not available. You can also add more people that can work on your INR as well as contacts who can view the information.

REs will not see this step. Their company backup contacts are listed in their MPIM profile.

1. Type in the email address of a person in your company who is the backup to work with your INR. This Backup will receive an email with instructions on accepting this invitation and how to create RIOO-IS account.
2. Click *Invite more people by email* to display fields to add more contacts who can view or work with the INR.
3. Type in the email address of a person to invite to serve as a contact for this INR. Each contact will receive an email with instructions on accepting this invitation and how to create RIOO-IS account.
4. Click the appropriate *Contact* or *Backup Contact* option for this person.
5. Click *Continue*. 

Enter Company Information
Reviewing Your Basic INR Information

The Review page summarizes the INR project information you have entered and identifies if you must visit a section again to add information or make edits.

1. Carefully review this information to be sure it is correct for your project.

2. If a red edit button displays, next to a section, click the button to display that page and correct your errors.

3. Click Continue.
Electronically Signing the INR Application

You must sign the Generation Entity Information Sheet to become an eligible power transmission provider customer and agree to provide ERCOT with the most current data as well as comply with all regulations. For the DoD Notification, you must select the appropriate option and then sign it.

Sign the Generation Entity Information Sheet

Lyn Maloney is, or will be upon commencement of service, an eligible customer. An eligible customer is any of the following: the transmission provider (for all uses of its transmission system) and any electric utility, federal power marketing agency, exempt wholesale generator, qualifying facility, or power marketer. An eligible customer may designate an agent to represent it in arranging for interconnection.

Accurate/appropriate information and test data about generator step-up transformers, all generator data including data for stability studies (transient, voltage, etc.) and sub-synchronous resonance data will be provided to ERCOT and interconnected TSP before the generation goes into commercial operation. I understand that all of this data will become public and added to the ERCOT databases (including power flow base cases, stability, system protection, Capacity, Demand, and Reserve Report, etc) when an interconnection agreement is signed. This data shall be reviewed and updated when the plant goes into commercial operation. In addition, any updates to this information will be provided within 60 days to ERCOT and the TSP as changes or upgrades are made during the life of the plant. This requirement also applies to all future owners of this project/plant.

The generating entity and any future owners of the plant agree to comply with these data requirements along with all applicable ERCOT and NERC requirements, including, without limitation, those contained in the ERCOT Protocols and ERCOT Operating Guides. It is understood and agreed that such requirements are subject to change from time to time, and such changes shall automatically become applicable based upon the effective date of the approved change.

By typing your full name and date below you are digitally signing and agree to the information presented in this document.

1. After carefully reading this form and verifying the information at the top, type in your full legal first, middle, and last name.

2. Click Continue.
Sign the Department of Defense Notice

[Image of the form]

1. Select the appropriate option.

2. Type in your full legal first, middle, and last name.

3. Click Continue.
Submitting the INR

Take note of the number assigned to your INR. You need it for communications with ERCOT.

Please note, your application may be subject to a fee.
Based on the information given on your application you owe a fee of $5,000. Please see payment instructions below. Your application will not be processed until payment is made. Please include your INR (23INR0464) when making your payment.

Electric Reliability Council of Texas, Inc. Banking Information

Wire Transfer Instructions
- Bank Name: JPMorgan Chase
- Bank ABA #: 02100021
- Account Name: Electric Reliability Council of Texas Inc.
- Fees Account #: 754360346
- Street Address: 221 W 6th Street
- City: Austin
- State: Texas
- Postal Code: 78701

ACH Payment Instructions
- Bank Name: JPMorgan Chase
- Bank ABA #: 111000614
- Account Name: Electric Reliability Council of Texas Inc.
- Fees Account #: 754360346
- Street Address: 221 W 6th Street
- City: Austin
- State: Texas
- Postal Code: 78701

Please note the wire Transfer and ACH Payment bank routing numbers (Bank ABA #) are different. For any questions, please contact ERCOT at (512) 225-7000, ask for Daniel Guerrero, Treasury Lead, or email treasury@ercot.com

After carefully reading this page and taking note about manually making the required payment, click Submit.
Confirming the INR Submittal

Your Interconnection Request has been successfully sent to ERCOT.
You can check your dashboard and email account for updates.

1. Click the dashboard link to close this page and display your Interconnection Request List.
Continuing On

After receiving your submitted INR, ERCOT has 10 days to review the INR to be sure all fields are complete with the required information. If any questions or issues arise, ERCOT sends you an email about required input and places the update alert (UD) in your Interconnection Request List along with the Update INR button to respond.

To modify details or add new information, you must submit change requests to the INR from your Interconnection Request List. Refer to Managing Your INR as an IE or RE (available from the Resource Integration page on the ercot.com website).

To stop ERCOT from processing your request at this point, you can click View Interconnection Request page from the View drop down and click Cancel on the Review page displayed.

If you have not submitted the INR yet, you can click Finish INR and then click Delete INR from any page.

When the INR is deemed materially complete, ERCOT sends you an email notifying you that the INR is accepted and starts your Screening Study.

Managing Your INR Information

After your INR is submitted, you can manage the INR to:

- Request the full interconnection study (FIS) suite if applicable
- Change details (like the project name or commercial operations date)
- Add an air quality permit, a greenhouse gas permit, or other attachments.
- Manage your project backup or other contacts (IE Only)
- Report a change of ownership
- Attest that your information is current
- Upload Attachments

For details about requesting these changes, refer to Managing Your INR as an IE or RE (available from the Resource Integration page on the ercot.com website).

Managing Your RIOO User Account Information, Phone Number or MFA

To change your MFA login authentication, your phone number, or name, refer to Managing Your User Account (available from the Resource Integration page on the ercot.com website).
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