

RIOO Interconnection Services IE Sign Up Reference

Version 07.01.19

ERCOT RIOO IS Release Information

July 01, 2019

ERCOT recently refreshed Resource Integration and Ongoing Operations Interconnection Services (RIOO IS) as a minor maintenance release to fix some detected issues.

Through the RIOO IS website, companies interested in proposing a new generation resource at a new or existing generation site authorize their Interconnecting Entity (IE) to submit an online generation interconnection request (INR) for the generation resource to be interconnected to the Texas power grid. The Transmission Service Provider/Transmission Distribution Service Provider (TSP/TDSP) who owns the power lines in the area of the proposed resource studies analyzes and studies the INR to determine the economic feasibility of the project and the effect the resource may have on the grid.

For the best user experience, ERCOT recommends using Google Chrome as the web browser for Interconnection Services. Using Microsoft Internet Explorer may cause some issues to occur, including page loading issues requiring multiple page refreshes; getting stuck on the login page unless the ERCOT Interconnection Services site and the authentication apps used are listed as trusted sites; and slow page loading.

Accessing the RIOO IS Website

You can access the RIOO Interconnection Services website from the Resource Entities page on the ERCOT website (ercot.com > Services > Registration and Qualification > Resource entities) using the blue Launch button (*refer to page 1 of this guide*).

The <u>ERCOT RIOO Interconnection Services IE User Guide</u> provides information and instructions for using the Interconnection Requests List and its features for creating and maintaining the online INRs is also available from the Resource Entities page.

About this Guide

This guide describes the steps involved to assist Interconnecting Entities (IEs) with signing up for an ERCOT Resource Integration and Ongoing Operations (RIOO) – Interconnection Services account that enables the IEs to create and submit online generation interconnection requests (INRs) for new generation resources to be connected to the Texas power grid.

Your account login requires an email address, which must be unique to ERCOT Interconnection Services; that is, you cannot use the same email address if you have multiple roles within the system.

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About the Interconnection Services Account Sign Up Process

Before you can create an online INR, you must first sign up for an account on the ERCOT on the Interconnection Services website. To access this site, you can go the Resources Entities page on the ERCOT website (ercot.com > Services > Registration and Qualification > Resource entities) and click the blue Launch button.

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About ERCOT	Services	Committees and Groups	Market Rules	Market Information	Grid Information
Home > Services > Registration	on and Qualification	n > Resource Entities			
Client Services	An Entity th	urce Entities	source, Load Resource, and/or a	a Non-Modeled	Launch RIOO Interconnection
Market Participant Communications	Generator	is registered with ERCOT as a Resource	Entity.		services →
Programs			ntity RE)		Related Content
Projects		Generation	Load		RIOO-IS Sign Up Reference
Registration and Qualification		Resource	Resource		RIOO-IS IE Guide RIOO-TSP Sign Up Reference
	Registr	ation			RIOO-IS TSP Guide
Congestion Revenue Rights Account Holder	The Resou Each RE m	urce Entity (RE) Application for Registr nust complete the application and identify	ation can be found in Section 23 a Qualified Scheduling Entity (Q	3 of the Protocols. SE) to complete the	Load Participation Program
Credit	ERCOT reg	gistration requirements. I review the following important informatic	T participation:	PUCT Power Generation Companies and Self- Generator Registration	
Independent Market Information System	• Regi	ster New Distributed Generation	RSS Feeds		
Registered Entity	Esta Regi	biish New QSE Relationship for establish ster as Controllable Load Resources (CL	ed Generation Resources Rs) in the Load Participation Pro	gram	RE Registration
Load Serving Entities	Asset F	Registration	- ·	-	RSS Content Help
Qualified Scheduling Entities	An RE's as	sets must also be registered. Most RE As	set registration activities include	the following:	

Web Browser Considerations

For the best user experience, ERCOT recommends using Google Chrome as your web browser for ERCOT Interconnection Services. If you use Microsoft Internet Explorer, some issues may occur, including page loading issues that will require you to refresh your page from time to time and being stuck on the login page if you do not add Auth0 Guardian or Google Authenticator as a trusted site. If the "Whoops something went wrong" error message displays, check to be sure the site is listed as a trusted site.

Understanding the Required Login Authentication

The ERCOT Interconnection Services application uses multifactor authentication for account login. This means that ERCOT asks you to enter your email account and create a password for the account as the first means of authentication. And then, you must use another means of authentication to verify your access attempt.

ERCOT suggests three different options for this second authentication factor:

- Auth0 Guardian, a free app that you can download to your smartphone (from the App Store or Google Play). During sign up, you hold your phone up to your computer and scan a bar code that the ERCOT system will use to identify you. Each time you attempt to log in with your ERCOT login credentials (your email address as your user name and your password that you created), Guardian pushes a new message to your smartphone where you are prompted to click an Allow button to verify that you have made the login request.
- Or, **Google Authenticator**, a different free app that you can download to your smartphone (from the App Store or Google Play). During sign up, you hold your phone up to your computer and scan a bar code that the ERCOT system will use to identify you. Each time you attempt to log in with your ERCOT login credentials (your email address as your user name and your password that you created), Authenticator pushes a new authentication code to your smartphone that you must enter into an ERCOT page to verify that you have made the login request.
- Or, SMS Text Authentication, which uses your text message-enabled mobile phone not necessarily a smartphone – and is not as secure. During sign up, you are asked to submit your phone number. Each time you attempt to log in with your ERCOT login credentials (your email address as your user name and your password that you created), the SMS security system sends a 6-digit verification code that you must enter into the code verification page to authenticate your login request.

If you have an authentication program already on your smartphone, you most likely can use that app to register and log in to Interconnection Services.

Working through the Signup Process

The sign up process involves working through a series of pages on the ERCOT Interconnection Services website and several authentication screens on your mobile phone plus one verification email sent to your email account.

To accomplish the tasks involved with sign up, you must have:

• Access to the Internet to get to the ERCOT Interconnection Services website.

- An email address at which you can receive email during this sign-up process. This email address also serves as your user name for the account login.
- A mobile telephone number at which you can receive text messages during this sign up process from the authentication app you select to use.

After your account is created successfully, you will be prompted to log in to your new account to be sure you can view the Interconnection Requests List page. Note that you will need to enter an authentication code sent to your phone as well as your login information.

Before you begin, you should:

- Have your email account open to your Inbox so you can open the email messages sent to your account during this process
- Have a text editor (such as Notepad or Word) file open that you named something like ERCOT Auth Information so you can easily copy in your AuthO recovery code, which you may need if you have long intervals between logins.
- Download either the **AUTH0 Guardian** or **Google Authenticator** authentication app from either the Apple Store or Google Play to your smartphone. (If you do not use a smartphone, you can use the SMS authentication methods described in this guide.)

Option 1: Signing Up and Using Auth0 Guardian as the Authentication App

This section contains the steps for signing up for an Interconnection Services account, setting up Auth0 Guardian as your authentication app, and then logging in to verify your access.

Auth0 Guardian is in the process of updating certain product screens. Some of the screens pictured here may be replaced by those updated screens.

Signing Up for Your Account

After launching RIOO Interconnection Services from the Resource Entities page on the ERCOT website by clicking the large blue Launch RIOO Interconnection Service button, the *Log In/Sign Up* page displays for you to sign up. Next, you choose your authentication method and go through the registration process screens, web pages, and emails to associate your method with Interconnection Services. After your account is successfully created, you will log in and display your Interconnection Requests List page.

The list will display with your existing INRs that have been migrated to this new system. If you are new to the process, your list will be blank.

Resource Entities Page



Display the *Resource Entities* page on the ERCOT website (**ercot.com > Services > Registration and Qualification > Resource entities**) and click the blue **Launch** button.

Log In/Sign Up Page

ercot 😓	
Interconnection Services	
Log In Sign Up	Click this Sign Up tab.
yours@example.com	
your password	
Don't remember your password?	
LOG IN >	

Sign Up Page

ercot >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	
Log In Sign Up	On this page:
yours@example.com	A Type in, as your user name, the email address where you can receive email about this account.
your password	B Type in a password for logging into this account using the rules displayed as you type.
i your first name	C Type in your first name and last name to associate with this account
i your last name	
(i) your phone number	Type in the telephone number to associate with this account. Type in only the numbers (no spaces). And, optionally enter an extension if one exists.
(i) your phone extension (optional)	
Click here to indicate that you accept the terms and conditions found at: User Agreement 2.	Click the User Agreement link, read the information and close the window, and then click the checkbox.
SIGN UP >	Click the SIGN UP > button.

Authentication Method Page



Bar Code Page

Click the l've already downloaded it link.

If you have not already downloaded the Auth0 Guardian app, you can download it now using one of the App Store or Google Play buttons on this page.

However, if you download the app now, Interconnection Services may time out and display the login page for you to start your sign up over again.



When this page displays, open your
 smartphone and click the Guardian app to open the app to the scanner.

Scan Bar Code Page (On Phone)



Recovery Code Page

Position your phone over the bar code until the bar code border turns green to indicate it was scanned.



Congratulations, You are all Set Page



Sent Push and Remember This Browser Page



9 Before you go to your phone to get the Authenticator message, click the Remember this browser checkbox to avoid having to go to your phone to get the authentication message for the next 30 days.

Guardian Auth0 Notification (On Phone)



On your phone, locate the Interconnection
 Services message and click >.

Guardian Auth0 Push Message (On Phone)



Almost Done Page – Go to Your Email



When this page displays, open your email Inbox and open the **Verify your email** message (from ercot.com).

Verify Account Email (in Your Inbox)



¹³ Click the VERIFY MY ACCOUNT button.

Congratulations Page



Verifying Your Account Log In

Now you will log in using the user name (email address) and password created at sign up and your authentication app to be sure you can access your Interconnection Requests List.

Log In Page



Authentication Request Process (On Phone)



- ¹⁶ If you did not click the **Remember this browser** checkbox in an earlier step, you will need to go to your phone to authenticate again.
 - A Locate the Guardian message on your phone and swipe to open it.

B Tap the Allow button.

Your Interconnection Requests List Page

<i>ercot</i>	nection Requests		Hello, Lynie Test27 Account →
Interconnection Requ	uest List		Start New INR Request
Show 10 v entries Showing 1 to 0 of 0 entries			Search: Enter term to find Reset All
Alert Actions	INR Project Name Number 💵	Primary Name Company	% in Status Last
No matching records found			
			First Previous 1 Next Last

This list is not populated if you are new to this process (above) or with your current INRs listed (below) if you have already submitted at least one INR.

ercot [⊕] Your Interconne	ction Req	uests								Hello, Ly Accou i	nie Tes nt -	127
Interconnection Reque	st List									Sta	rt New I	NR Request
Show 10 v entries								Search:	Enter term to	o find		Reset All
Showing 1 to 0 of 0 entries												
Alert Actions	INR Number 🎵	Project Name	11	Primary Name	11	Company	J1	% in Process 🌡	Status		tt i	Last Updated
Finish INR		TS Solar Farm 1		Lynie Test		Pat Smith			Saved		11	-19-2018
View - Add Change Request	21INR0211	Lyn Bastrop Solar		Lynie Testgoog		Lyn Maloney	ľ		In progress		12	2-18-2018
								Fir	st Previous	5 1	Nex	kt Last

Option 2: Signing Up and Using Google Authenticator as the Authentication App

This section contains the steps for signing up for an Interconnection Services account, setting Google Authenticator as your authentication app, and then logging in to verify your access.

Signing Up for Your Account

After launching RIOO Interconnection Services from the Resource Entities page on ercot.com, the Log In/Sign Up page displays for you to enter your account information. Next, you choose your authentication method and go through the registration process screens, web pages, and emails to associate your method with the Interconnection Services application.

Resource Entities Page

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About ERCOT	Services	Committees and Groups	Market Rules	Market Information	Grid Information
Home > Services > Registra	ation and Qualification	n > Resource Entities			
Client Services	An Entity th	urce Entities	source, Load Resource, and/or	a Non-Modeled	Launch RIOO Interconnection
Market Participant Communications	Generator	is registered with ERCOT as a Resource	Entity.	l	Services +
Programs		E	ntity RE)		Related Content
Projects		Generation	Load		On this site RIOO Interconnection Services - IE Guide
Registration and		Resource	Resource		RIOO Interconnection Services - IE Sign Up Reference
Quanneation	Registr	ation			RIOO Interconnection Service - TSP Guide
Resource Entities	the Resou	rce Entity (RE) Application for Registr	ation can be found in Section 2	3 of the Protocols.	Load Participation Program
Resource Integration	ERCOT re	gistration requirements.	a quanneu schedding Entity (G	25E) to complete the	On the web

Display the <u>Resource Enties page</u> on the ERCOT website (**ercot.com > Services > Registration and Qualification > Resource entities**) and click the blue **Launch** button.

Log In Page



Sign Up Page

ercot 🦻	
Interconnection Services	3 On this page:
Log In Sign Up	
yours@example.com	A Type in, as your user name, the email address where you can receive email about this account.
🗄 your password	B Type in a password for logging into this account using the rules displayed as you type.
 your first name 	C Type in your first name and last name to associate with this account.
 your last name 	
your phone number	Type in the telephone number to associate with this account. Type in only the numbers (no spaces). And optionally enter an
() your phone extension (optional)	extension if one exists.
□ Click here to indicate that you accept the terms and conditions found at: User Agreement [□] .	Click the User Agreement link, read the information and close the window, and then click the checkbox .
SIGN UP >	Click the SIGN UP > button.

Authentication Method Page



Olick the Google Authenticator link.

If you have not downloaded the Google Authenticator app, you can download it now using one of the App Store or Google Play buttons on this page.

However, if you download the app now, Interconnection Services may time out and display the login page for you to start your sign up over again.

Bar Code Page



When this page displays, open your smartphone and click the Google Authenticator app to open it..

Scan Bar Code Page (On Phone)



Position your phone over the bar code until the bar code border turns green to indicate it was scanned.

Recover Code Page



IMPORTANT: Performing this step may help you save time in the future if you attempt to log in on a different phone than the one you are registering with now or, in some cases, if you have a long interval without logging in.

On this page:

Copy this code and paste it into the file you opened earlier for this purpose (refer to page 2).





Congratulations, You are all Set Page



Authenticator App Code Page (On Phone)



Enter Code from Authenticator Page



Almost Done Page – Go to Your Email



Open your email Inbox and open the Verify your email message (from ercot.com).

Verify Account Email (in Your Inbox)





Click the VERIFY MY ACCOUNT button.

Congratulations Page



Verifying Your Account Log In

Now you will log in using the user name (email address) and password created at sign up to be sure you can access the Interconnection Request List.

Log In Page

ercot 😓	
Interconnection Services	14 On this page:
yours@example.com	A Type the email address you used to sign up.
your password	B Type the password you created at sign up. Note: If you do not remember your password.
Don't remember your password?	click the Don't remember your password? link. Refer to Resetting Your Forgotten Password in the User Guide.
LOG IN >	Click the LOG IN > button.

** If you did not click the **Remember this browser** checkbox or 7 days have gone by since your last login, the *Get Verification Code* page displays after you finish this page.



Your Interconnection Requests List Page

<i>ercot</i>	nection Requests		Hello, Lynie Test27 Account →
Interconnection Requ	uest List		Start New INR Request
Show 10 v entries Showing 1 to 0 of 0 entries			Search: Enter term to find Reset All
Alert Actions	INR Project Name Number 💵	Primary Name Company	% in Status Last
No matching records found			
			First Previous 1 Next Last

This list is not populated if you are new to this process (above) or with your current INRs listed (below) if you have already submitted at least one INR.

ercot [⊕] Your Interconne	ction Req	uests								Hello, Ly Accou i	nie Tes nt -	127
Interconnection Reque	st List									Sta	rt New I	NR Request
Show 10 v entries								Search:	Enter term to	o find		Reset All
Showing 1 to 0 of 0 entries												
Alert Actions	INR Number 🎵	Project Name	11	Primary Name	11	Company	J1	% in Process 🌡	Status		tt i	Last Updated
Finish INR		TS Solar Farm 1		Lynie Test		Pat Smith			Saved		11	-19-2018
View - Add Change Request	21INR0211	Lyn Bastrop Solar		Lynie Testgoog		Lyn Maloney	ľ		In progress		12	2-18-2018
								Fir	st Previous	5 1	Nex	kt Last

Option 3: Signing Up and Using the SMS Text Message Authentication Method

This section contains the steps for signing up for an Interconnection Services account, setting your authentication, and then logging in to verify your access.

Signing Up for Your Account

After launching RIOO Interconnection Services from the Resource Entities page on ercot.com, the Log In/Sign Up page displays for you to enter your account information. Next, you choose your authentication method and go through the registration process screens, web pages, and emails to associate your method with the Interconnection Services application.

Resource Entities Page

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About ERCOT	Services	Committees and Groups	Market Rules	Market Information	Grid In	formation
Home > Services > Registrati	on and Qualificatio	n > Resource Entities				
Client Services	An Entity t	hat owns and/or controls a Generation Re	source, Load Resource, and/or a	Non-Modeled	Launch RIOO Intercon	nnection
Market Participant Communications	Generator	is registered with ERCOT as a Resource	Entity.	l	Services	-
Programs		E	ntity RE)		Related Content	
Projects		Generation	Load		On this site RIOO Interconn Services - IE Gu	lection uide
Registration and		Resource	Resource		RIOO Interconn Services - IE Sig Reference	ection gn Up
Quanication	Regist	ration			RIOO Interconn Service - TSP G	ection Guide
Resource Entities	The Reso	urce Entity (RE) Application for Registra	ation can be found in Section 23 of	of the Protocols.	Load Participati	on Program
Resource Integration	Each RE r	gistration requirements.	a Quaimed Scheduling Entity (QS	E) to complete the	On the web	

Display the <u>Resource Enties page</u> on the ERCOT website (**ercot.com > Services > Registration and Qualification > Resource entities**) and click the blue **Launch** button.

Log In Page



Sign Up Page

ercot 😓	
Interconnection Services	
Log In Sign Up	On this page:
Juit yours@example.com	A Type in, as your user name, the email address where you can receive email about this account.
your password	B Type in a password for logging into this account using the rules displayed as you type.
 your first name 	C Type in your first name and last name to
 your last name 	associate with this account.
your phone number	• Type in the telephone number to associate with
i your phone extension (optional)	And, optionally enter an extension if one exists.
□ Click here to indicate that you accept the terms and conditions found at: User Agreement ☑.	Click the User Agreement link, read the information and close the window, and then click the checkbox.
SIGN UP >	Click the SIGN UP > button.

Authentication Method Page



Open your phone and look for the verification

code message.

SMS Message on Phone

MESSAGES +1 (630) 409-4293	in 1m
324175 is your verification code for	

Enter the Authentication Code Page



Recovery Code Page



IMPORTANT: Performing this step may help you save time in the future if you attempt to log in on a different phone than the one you are registering with now or, in some cases, if you have a long interval without logging in.



B Click the checkbox.



Continue Page



Olick the Continue link.

Almost Done Page – Go to Your Email



Verify Account Email (in Your Inbox)



Click the VERIFY MY ACCOUNT button.

Congratulations Page



Verifying Your Account Log In

Now you will log in using the user name (email address) and password created at sign up to be sure you can access the Interconnection Request List.

Log In Page



** If you did not click the **Remember this browser** checkbox or 7 days have gone by since your last login, the *Get Verification Code* page displays after you finish this page.

MESSAGES in 1m +1 (630) 409-4293 (324175) is your verification code for	1 Go to your phone and open the message.
Contraction Services	
WE'VE SENT AN SMS TO: 1 5126997764	On this page:
In order to confirm enrollment we need to confirm your phone. Please enter the received code.	
Enter the 6-digit code	A Type in the 6 numbers of the verification message displayed onyour phone.
Remember this browser	Click the Remember this browser checkbox to avoid having to do this for the pext 7 days
\bigcirc	Click the button to continue to the next page.

Your Interconnection Requests List Page

<i>ercot</i>	nection Requests		Hello, Lynie Test27 Account +
Interconnection Requ	uest List		Start New INR Request
Show 10 v entries Showing 1 to 0 of 0 entries			Search: Enter term to find Reset All
Alert Actions	INR Project Name Number 💵	Primary Name Company	% in Status Last If Process If If Updated
No matching records found			
			First Previous 1 Next Last

This list is not populated if you are new to this process (above) or with your current INRs listed (below) if you have already submitted at least one INR.

<i>ercot</i>							Hello, Lynie Test27 Account ~					
Interconnection Reque	st List									Sta	rt New I	NR Request
Show 10 v entries								Search:	Enter term to	o find		Reset All
Showing 1 to 0 of 0 entries												
Alert Actions	INR Number 🎵	Project Name	11	Primary Name	11	Company	J1	% in Process 🌡	Status		tt i	Last Updated
Finish INR		TS Solar Farm 1		Lynie Test		Pat Smith			Saved		11	-19-2018
View - Add Change Request	21INR0211	Lyn Bastrop Solar		Lynie Testgoog		Lyn Maloney	Ċ		In progress		12	2-18-2018
								Fin	st Previous	5 1	Nex	kt Last