

RIOO User Guide – Updating an Existing Load Resource

Version 1.0 January 17, 2023

ERCOT RIOO Resource Services

To update an existing Load Resource (LR) site and to get the change into the ERCOT Network Model, the Resource Entity (RE) representing the site must use the Resource Integration and Ongoing Operations – Resource Services (RIOO – RS) application. RIOO – RS allows the RE to submit a Change Request (CR) online to update the registration information for an existing Load Resource. The ERCOT Demand Integration team will review and process the CR and provide status updates to the RE throughout the timeline from the initial review of the request to getting the update loaded into the production Network Model.

About this guide

This guide provides information about performing the tasks in RIOO – RS to create and submit the online CR that proposes updates to an existing LR in 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 an instruction and can meet certain performance requirements may qualify to become LRs. Qualified LRs may participate in ERCOT's real-time energy market (Security-Constrained Economic Dispatch, or SCED) and/or qualify to provide any of the following Ancillary Services: 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 a Load Resource'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 actually curtailed.

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Before starting your Change Request

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

Coordinate a Production Load Date (PLD)

When creating a CR to update an existing 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 (<u>ERCOTLRandSODG@ercot.com</u>). This coordination is not required, but it can help ensure that the requested PLD is acceptable for modeling the LR update.

- The PLD must align with a scheduled production model load as listed on the current <u>Production Load</u> <u>Schedule.</u>
- The PLD will be at least 45 days after the RIOO registration submission is accurately completed.
- The RIOO application will indicate that if the requested PLD is fewer than 90 days out, it is classified as an interim update. However, LR submissions meeting the 45-day PLD schedule <u>do not</u> require the RE to submit the **RE_Model_Interim_Update_Request** form.

Important notes on Change Requests

- Once a CR is submitted for an LR, no other CRs can be submitted for that same LR until the in-progress CR is effective in the production Network Model. This restriction is to prevent conflicting changes that couldn't be properly validated against an unknown model state.
- When a CR is submitted to stop an LR, no other CRs can be submitted for that same LR. See further details on <u>Stopping an existing LR</u> in this guide.
- Based on the current **ERCOT Fee Schedule**, there is no charge for submitting a CR for an LR.
- An RE can't stop one LR and start another LR on the same RIOO submission. RIOO Interconnection Services (RIOO – IS) must be used to start a new LR, and RIOO – Resource Services (RIOO – RS) must be used to stop an existing LR.

Logging into RIOO

• There are two ways to access the RIOO application login screen:



• Log into your RIOO account:



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

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Chrome (70.0.3538.77), Windows (10)	Get a verification code from the Google Authenticator (or similar) app Difference in the 6-digit code	Get a verification code from the Google Authenticator (or similar) app
© LOCATION Sandy, United States	Lost your device? Use the recovery code	Lost your device? Use the recovery code
Deny Allow		

• Select **Remember this browser** to avoid having to login multiple times:



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

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	Go to Interconnection Services - IS	SODG	Load Resource	

Overview of RIOO Resource Services

- On the RIOO home screen, open Resource Services by clicking on the Load Resource button
 - Resource Services is used to update an existing LR
 - o Interconnection Services is used to create a new LR
 - See RIOO User Guide Creating a New Load Resource on the <u>Distributed Generation</u> webpage for details

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• The change request dashboard is displayed

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				View Company
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Load Resources				
			You do not have any incomplete change requests yet.	

- The dashboard allows the user to view their existing LRs and their current CRs
 - View all existing LRs associated with each Resource Entity represented by the user in the dropdown list under Company Name
 - Users are highly encouraged to verify their existing LR data periodically, especially after a CR is processed and updated in the Network Model

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	Modeled	RSCR	3726	Requested Production Load 01-25-2023	
	Submitted: Dec 19, 2022 Recent News Your change re	Last Updated: Dec 22, 2022	Company: MARLIN SOLAR LLC (RE)	View Change Request	
	Your change re	equest has been modeled in NMM	15.		

• If the user selects one of the listed REs, and then clicks on **View Company**, the user can view all existing registration data for the LRs represented by that RE

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		Download Load Resource	ce Data

 The user can view CRs that have been submitted but not yet added to the Network Model; the associated status is displayed in the **Recent News** text (more details on the status changes will be provided later in this guide)

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- $\circ\;$ The user can also view CRs that have been started but not yet submitted to ERCOT
 - The user can click on Finish Change Request to open and continue the CR

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Change request for an existing LR

• On the RIOO home screen, open Resource Services by clicking on the Load Resource button

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Go to Interconnection Services - IS	SODG Generation	Load Resource
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• On the change request dashboard, click on Create a New LR Change



- Select which RE the update is for from the What Company is this change for today? drop-down list
 - \circ Note that the user will see a list of all REs represented by the user in their RIOO account
- Enter the contact information and a brief description of the requested changes

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	What Company is this change for today?	~			
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	Phone Number				
	Change Description Placeholder text	Characters Remaining 1000	Enter a brief description of the requested changes		
					Let's Get Started

• Sample completed Start Your Change Request panel

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යි Home	All fields are required unless marked optional			
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	Requested Production Load 12-15-2022 X Image: Contact ERCOT for Interim Updates. Otherwise choose a date at least 90 days in the future. Who can we contact about this change request? Contact Name			
	Email			
	fake@email.com			
	Phone Number			
	555-867-5309			
	Change Description LR Update Test Characters Remaining 986	Click Let's Ge move to the	t Started to LR List screer	n
			Let's Get Started	

- On the LR List screen, all data submission panels are listed along with a View panel to see all data at once
 - Start indicates that nothing has been updated on that panel
 - Edit in red indicates that the panel is either missing required information or that something needs to be corrected
 - Edit in green indicates that the panel has been completed but the user has the option to go back to the panel to make revisions
 - o Clicking on Edit or Start will open that panel for data entry
- The user only needs to open the panels for which updates will be submitted
 - This guide will provide one example of an update; there are too many possible scenarios to capture all of them or to determine which examples would be the most helpful
 - The same data validation rules will be applied as they are when a new LR is created
 - Any questions or issues with specific updates can be directed to the ERCOT Demand Integration team (<u>ERCOTLRandSODG@ercot.com</u>) for assistance
 - Progress can be saved, allowing the user to return to the application later to finish the submission

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Load Resource	View Load Resource Info	current details from all panels for each LR
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	Limits & Op Params	Start
		Continue Done or Check Progress

• Sample of View details for the selected RE

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Physical Street Address for Point of D	123 Power Place
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Stop Date	
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Go To Section	RAYBURN_LD1
ERCOT Load Zone	Rayburn
Meter Reading Entity (MRE)	ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSP)
TSP	ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSP)
ESI ID Assigned to Meter	123CONTROL321
Resource ID (RID)	NEW_RIDE_FOR_UPDATE_TEST
Effective Date	12-08-2022
Is load behind a NOIE settlement met	No
Is load netted from generation at ERC	No
Is this a wholesale delivery point?	No
Load Resource Controlling Device	Control Technology / Interruptible Switch / Circuit Breaker
Hide Details Mapping Inf	fo
Go To Section	RAYBURN_LD1
Transmission Service Provider	ONCOR ELECTRIC DELIVERY COMPANY LLC (TDSP)
Is this a Private Use Network (PUN)?	No
Substation Information	
Substation Code for POD	RAYBURN
Transmission Information	
Transmission Bus POD ~ PTI Bus #	730011
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Change Request example

• This example will update both the Mapping Information and the Limits & Ops Params

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	Select ~	Save and Continue	Done or Check Progress

- When selecting the LR, multiple LRs can be selected on the panel and updated at the same time
 Different data can be updated for each LR
 - For example, the user can update the PTI Bus # for one LR and update the Voltage for another LR on the Mapping Information panel at the same time



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	Transmission Station Voltage	13.8	are entered	
	Transmission Station Load Name in Network Operations Model	AUX_B		
	Dispatch Asset Code RAYBURN_LD1	RAYBURN_LD1		

• Clicking **Save and Continue** on the Mapping Information panel will take the user to the Limits & Ops Params panel; or the user can select this panel from the LR List screen

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- The user can select different LRs to update on each panel
 - For example, the user may update LR_1 on the Mapping Information panel and update LR_2 on the Limits & Ops Params panel in the same CR

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	75 MW	40		
	Low Resconability Limit			
	1	• N	lultiple updates are entered	ЬУ
	Reasonability Ramp Rate Limits	tł Ir	ne user (Total Load at POD, I terruptible Load, HRL, HRR	:L,
	nigh-Reasonability Ramp-Rate Limit		RRC MW Rating, ERRC MW	
		R	ating)	
	Low Resonability Ramp Rate Limit	5		
	CLB Resource Parameters			
	Max Deployment Time			
	12 Hours	12		
	Max Weekly Energy			
	1200 Million	1300		
	Normal Ramp Rate Curves			
	MW Ruting 75 MW	50		
	10 Million	50		
	Restaurd			
	20 Majoria	50		
	Emergency Ramp Rate Curves			
	Mit Rating			
	19 100	50		
	Upward Address	50		
	Downward Mitching	50		
				Done or Check Progress

ercot 🖙	Resource Services		Hello, Donald House My Account 😫 Log Out 🕪	Help ③
යා Home My Change Info	List View Load Resource Info Data Agg and Settlement Info Load Resource	Mapping Limits	A green Edit button means that initial	
Load Resource	View	Click Continue or Start	data validation is	View
	Load Resource Info	for another panel to	passed; no further	Start
	Data Agg and Settlement Info	make more updates;	edits are required	Start
	Mapping Information	Progress to view the		Edit
	Limits & Op Params	update dashboard		Edit
			Continue Done or Check Pro	rogress

- On the update dashboard, all data submission panels that have been updated will be displayed
 - $\circ\quad$ 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 updated panels pass initial validations, but the user has the option to go back to any panel to make revisions

ercot <i>≌</i> ;	Resource Services			Hello, Donald House	My Account &	Log Out 🕒	Help 🕐
යි Home	Ev	verything looks good!					
My Change Info	l pad l			Edit			
Load Resource	Loudin	Mapping Informatio Revisit					
		Cimits & Op Paramser Revisit	Click Continue to view				
			the update summary	Continue			
		L					

- The user has an option to click **Download Load Resource Data** to download an excel file containing the existing information on each panel
 - Note that this download does <u>not</u> show before and after data; it is intended to be a record of all existing data for this LR before the CR is submitted



ercot 🕏	Resource Services				Hello, Donald House	My Account 🛔 Log Out 🕪 Help 🕲
2 Home	Your change requ Click here to retu	est has be rn to your o	en submit dashboard	ted to ERCOT.		×
	RSCR 3660 Reques	ted Load Date	Load Resource LR Update Test			
	Withdraw Change R	equest nfo	Th	e CR can still be canceled by clicking on ithdraw Change Request : the user must		Download Load Resource Data
Click Hom to return the RIOO	to Production Lo. Jame to miber on of your Chang	e Request	co ca EP	nfirm this selection to continue with the ncellation (can't be canceled after COT changes status to In Review)		
nome sch	ts & Op F	arams				
	Go Back to Section	RAYBURN_LD	After			
	Total Load at POD	55	75			
	Interruptible Load	40	65			
	High Reasonability Limit	40	75			
	High Reasonability Ramp Rate Limit	50	50			
	Normal MW Rating	50	75			
	Emergency MW Rating	50	75			
	Mapping Info	rmation				
	Go Back to Section	RAYBURN_LD1				
		Before	After			
	Transmission Bus POD ~ PTI Bus #	110037	730011			
	Transmission Station Voltage	13.8	138			
	Is there anything else we nee	d to know about	this change?			
						Characters Remaining 1000
	Withdraw Change R	equest				Download Load Resource Data

• Back on the RIOO home screen, open Resource Services again by clicking on the Load Resource button

RIOO		Hello, Donald House	My Account 음
Update or add registration data	Resource Services Update or view your existing resource data.		
Go to Interconnection Services - IS	SODG Generation	Load Pesource	
			J
	RICO Interconnection Services Update or add registration data Co to Interconnection Services - IS	RECO Resource Services Update or add registration data Update or view your existing resource data. Co to Interconnection Services - IS SODC Ceneration	RIOO Helio, Denaid House Resource Services Update or view your existing resource data. Co to Interconnection Services - IS SODC Ceneration

- The change request dashboard is displayed, and the submitted CR is listed (note that under **Recent News**, the status of the CR is **waiting for review at ERCOT**)
- As the CR is processed by ERCOT, the Recent News display is updated to let the user know the status

ercnt 🕏	Resource Services				Hello, Donald House	My Account 😫 Log Out 🕪 Help 🕲
01001-7	Submitted Cha	ange Reque	sts	View Load Resources		
ය Home		· ·		Create a New LR Change	Company Name	
SODG	Pending Review at ERCOT		RSCR 3660	Requested Production Load 12-15-2022	Select Company Name	~
Generation	Pending Review of Erroot			Requested Floradition Found 12-10-2022		View Company
Load Resources	Submitted: Dec 14, 2022	Last Updated: Dec 14, 2022	Company: MARLIN SOLAR LLC (RE)	View Change Request	Incomplete Change Requests	
	Recent News	at in mailting for remining	A EDGOT		You do not have any incomplete change requests yet.	
	Your Change reque	st is waiting for review a	al ERCOT			

- Examples of other status updates for this CR
 - The final status of **modeled in NMMS** (network model management system) signifies that ECOT has verified the change took effect as requested on the PLD
 - The CR will no longer appear on this display after it has been modeled
 - \circ $\;$ The changes can be verified by viewing the LR data again

ercot 🛱	Resource Services		Hello, Donald House My Account 🚊 Log Out 🕪 Help 🔞			
010017	Submitted Change	e Requests	View Load Resources			
ଲ Home			Create a New LR Change	Company Name		
SODG	In Review at ERCOT	RSCR 3660	Requested Production Load 12-15-2022	Select Company Name	*	
Generation					View Company	
Load Resources	Submitted: Last Dec 14, 2022 Dec 1	Updated: Company: 14, 2022 MARLIN SOLAR LLC (RE)	View Change Request	Incomplete Change Requests		
	Recent News ERCOT is in the process of If you need to make a chan contact ERCOT @ RIOO-RS	reviewing your change request. ge to this change request _Change_Requests@ercot.com		You do not have any incomplete change requests yet.		

ercot 🕏	Resource Services				Hello, Donald House My Account & Log Out 🕪 Help 😨		
0,000	Submitted Ch	ange Reque	sts		View Load Resources		
ය Home				Create a New LR Change	Company Name		
SODG	Reviewed Ready to Model		RSCR 3660	Requested Production Load 12-15-2022	Select Company Name	~	
Generation	Colorestinad	a construction of the	0		In complete Changes Descuste	View Company	
Load Resources	Dec 14, 2022	Dec 14, 2022	MARLIN SOLAR LLC (RE)	View Change Request	Incomplete Change Requests		
	Your Change reque	est was reviewed at ERC	OT and is now ready to be modeled in	n MMS.	You do not have any incomplete change requests yet.		

ercnt 🖧	Resource Services				Hello, Donald House	My Account 🖉 Log Out 🕪 Help 🕐	
010017	Submitted Cl	hange Request	ts	View Load Resources			
යි Home				Create a New LR Change	Company Name		
SODG	Madalad		00.0440	Documented Deschuttion Load 10, 15, 0000	Select Company Name	~	
.	Modeled	кэ	SCR 3000	Requested Production Load 12-15-2022		View Company	
Generation	Submitted:	Last Updated:	Company:	View Change Request	Incomplete Change Requests		
Load Resources	Dec 14, 2022	Dec 14, 2022	MARLIN SOLAR LLC (RE)				
	Recent News	west has been modeled in NN	MMS Your CAMP Number 94378	1 in NMMS	You do not have any incomplete change requests yet.		
	rour enunge req	acor nuo ocen modelea m no	and, four oxinit Humber 94676_				

Stopping an existing LR

- To stop an existing LR, only the Stop Service Date on the Load Resource Info panel needs to be updated
 - The Stop Service Date needs to be a PLD coordinated with the ERCOT Demand Integration team (ERCOTLRandSODG@ercot.com)
 - Note that the Stop Date entered should be one day before the PLD to align with the timing of the database load
 - \circ ~ The rest of the CR process is the same as the example above
 - NOTE: Once the Stop Service Date is populated in the CR, the user cannot edit any other information in the data panels
 - After the CR is submitted, no other CRs can be created for this LR
 - If a mistake is noticed before the PLD, the RE can contact ERCOT Demand Integration to request for the CR to be canceled

ercot 🕏	Resource Services	Hello, Donald House	My Account ≗ Log Out ☞ Help ⑦
ය Home	List View Load Resource Info Data Agg and Settlement Info Mapping Limits		
My Change Info	Load Resource Info		
Load Resource	Back	Save and Continue	Done or Check Progress
	1 Selected V		
	RAYBURN_LD1 ×		
	Prod Load 03-08-2023 RIOORS		
	Common Name for LR CONTROL CONTROL		
	Physical Street Address for Point of Delivery (POD) 123 Power Place 123 Power Place		
	Name of City for Point of Delw Netw Town Stop Date 03:07-2023 X I Use the calendar to select the requested Stop Service Date (1 day before the PLD); reminder to coordinate the PLD to align with a production model load		
	Back	Save and Continue	Done or Check Progress

After submitting Change Request

Change Request status

In addition to the Recent News updates on the CR dashboard, the CR 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 CR.

- Status updates for a submitted CR include:
 - Pending Review
 - o In Review
 - Ready for Modeling
 - o Modeled

Confirming updated LR in production Network Model

After the PLD for the CR, the submitter is encouraged to verify that the updates are visible in the View Load Resources data in RIOO-RS. ERCOT will verify that the LR changes are in the production Network Model, but it is the responsibility of the RE/QSE to notify ERCOT if they notice any market dispatch or settlements issues related to the CR.

Creating a new LR

To create a new LR, the RE must use the RIOO Interconnection Services application (RIOO – IS), which is accessed using the same RIOO user account. Refer to the **RIOO User Guide – Creating a New Load Resource** on the <u>Distributed Generation webpage</u> for details.

ercot₽	RICO		Hello, Donald House	My Account &
යි Home	Update or add registration data	Resource Services Update or view your existing resource data.		
	Go to Interconnection Services - IS	SODC Generation	Load Resource	

Reporting issues

As ERCOT continues to develop the RIOO application, any functionality issues or suggestions for improvements can be sent via email to <u>RIOO-Help@ercot.com</u>. Any significant updates to the application will be communicated through market notices.