

Demand Response Registration User Guide

Version 4.<u>98</u>

October <u>28</u>1, 2020



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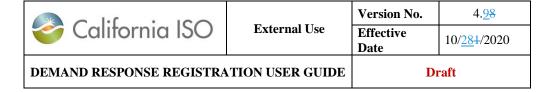
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APPENDIX F-EXAMPLE OF CREATING A REGISTRATION USING CONTROL GROUP BASELINE METHOD.

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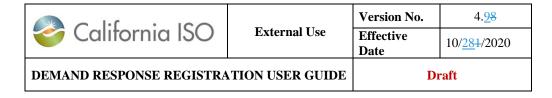
1 Introduction

1.1 Purpose

The Demand Response Registration System (DRRS) is the application developed to enable wholesale market participation by end-use customers, referred to as locations, under the PDR and RDRR participation models. The DRRS application facilitates the registration process which identifies the end-use customers providing load curtailment in response to a CAISO PDR/RDRR dispatch instruction. The system also performs a series of process controls including data validation, duplication check and review process by LSEs and UDCs, to ensure the uniquely identified end-use customer is being registered appropriately and not participating in overlapping registrations or retail programs.

The DRRS application provides a robust User Interface (UI) and Application Program Interface (API) to facilitate a streamlined registration process for all DRRS user roles. This includes an API for uploading bulk location data to accommodate the input of volumes of locations participating, in aggregate, as PDR/RDRRs. Additional DRRS APIs are provided for the creation, modification, review and termination of locations and their registrations.

Business process will not be covered in this User Guide, please refer to Business Practice Manual (BPM) for Demand Response.



1.2 Content and Organization

The purpose of the guide is to instruct users how to use the features of the Demand Response Registration System (DRRS) User Interface. This guide describes the DRRS application layout, as well as the steps for creating Locations and Registration.

Other applications that may be applicable, and utilized by Scheduling Coordinator who participates in Demand Response will **not** be discussed in this User Guide, please refer to its respective manuals/documentations. All Technical documentations are located on the CAISO website at:

http://www.caiso.com/participate/Pages/ApplicationAccess/Default.aspx

- <u>Market Results Interface</u> Settlements (MRI-S) application access is required to submit performance and load values to MRI-S by the Scheduling Coordinator (SC).
- <u>Master File User Interface</u> This application is used to submit RDT updates, and maybe be used to generate reports such as:
 - Generator RDT Report
 - Use Limit Plan (ULPDT) Report
 - o Resources with Approved Changes
- The <u>Customer Interface for Resource Adequacy (CIRA)</u> application is used to manage ISO's resource adequacy needs by the Scheduling Coordinator. This application allows the SC to submit their Net Qualifying Capacity (NQC), annual and monthly Supply and Resource Adequacy (RA) Plans. This application also provides the capability for a SC and a LSE to provide generic and flexible RA capacity information to the ISO using their Supply and RA Plans.
- <u>Customer Market Results Interface (CMRI)</u> This Application may be used to generate the following reports.
 <u>Appendix D</u> provide screenshots of viewing binding schedules and awards for Demand Response.
 - Total Expected Energy (TEE)

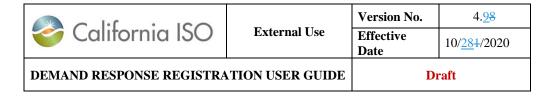
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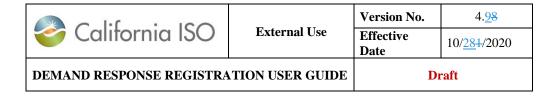
- o Real-time Unit Commitment (RTUC)
- o Fifteen Minute Market (FMM).
- <u>Scheduling Infrastructure and Business Rules (SIBR)</u> SIBR provides a SC interface to submit Bids and Inter-SC Trades (IST). For Demand Response, SIBR will utilize the bid dispatchable options registered in the Master File.
- <u>Automated Dispatch System (ADS)</u> ADS user interface displays commitment instructions, energy instructions, and ancillary services awards from the real-time market application. The energy instructions displays 5 minute dispatch operating target (DOT) for Demand Response.



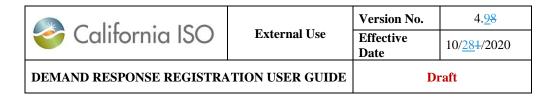
Definitions

The following defined terms and acronyms are used throughout this document:

Terms	Definition
AARF	Application Access Request Form – method used to provision access to users of the DRS
Address information	The physical address of the location.
ADS	Automated Dispatch System
AIM	Access Identity Management (AIM) application. The application provides registered UAAs with the ability to view application-level access for all of their organization's users as well as any users from other organizations who have access to their resources (endorsed users).
AIMS	Access and Identity Management System – application used to provision access to users of the DRRS
API	Application User Interface. Allows users to upload bulk location data to accommodate the input of the volume of locations participating in the Demand Response Program.
ВТМ	Behind-the-meter (BTM) refers to a connected device that is 'behind' the user's utility service meter from the perspective of the utility. Therefore, the BTM connected device is considered a retail consumer of electricity.
Custom Resource ID	A unique resource ID requested by the DRP, modeled with their specified nodal locations and associated generation distribution factors (GDF).
Customer	The name of the customer that user assigned during the registration process.

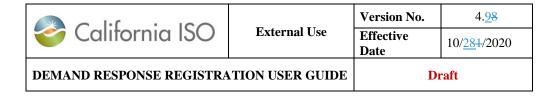


Device Type	The physical device that is installed at the service account location. This can either be Energy Storage, Electric Vehicle Supply Equipment or both.	
DLA Resource	The DLAP in which the Locations of the Registration resides.	
DLAP	Default Load Adjustment Point	
DRP	Demand Response Provider	
DRP SC	Demand Response Provider Scheduling Coordinator who are responsible for submitting bids into the market and meter data to the MRI-S.	
DRRS	Demand Response Registration System. Allows users to create large volumes of locations and aggregate locations for participation in the ISO's demand response program.	
DRRS UI	Demand Response Registration System User Interface	
End Date	End date of registration. The end date when the Registration will become inactive.	
Endorsed User	Individual(s) outside of the company that is requesting for application access.	
ES	Energy Storage. The ES is used for identifying location that has a behind-the-meter generator or energy storage device. Energy storage Technologies capable of charging energy from an external source and discharging this energy at a later time, after some amount of the initial energy is lost.	
EVSE	Electric Vehicle Supply Equipment	
Load Reduction	The total Load Reduction capacity per location.	
Location name	Identifies the location/site for the user.	

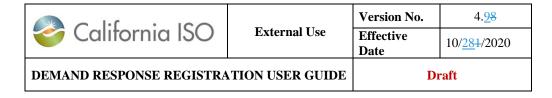


Locations	Physical location of the demand response entity. This includes the customer data such as the service account number, physical service location, and curtailable load amounts.
LSE	Load Serving Entity
New Custom PDR	CAISO will develop a new resource ID for this registration (custom).
PDR	Proxy Demand Resource
PDR-LSR	Proxy Demand Resource – Load Shift Resource. An enhancement of the PDR participation model that facilitates participation of both curtailment and consumption of load.
Pnode	Pricing Node - A single network Node or subset of network Nodes where a physical injection or withdrawal is modeled and for which a Locational Marginal Price is calculated and used for financial settlements.
POC	Point of Contact now referred to as UAA.
Pre-Defined Resource ID	A pre-established resource ID pre-modeled in each SubLAP based on CAISO specifications and available in the MasterFile for DRP to request assignment to a registration.
RDRR	Reliability Demand Response Resource
RegID	The registration ID number assigned to the registration by the Demand Response System; this ID is assigned by the DRRS in sequential order.
Registration	Comprised of a single location or an aggregation of many locations. Submitted by the DRP to the LSE and UDC for review and CAISO for approval. Meter data is also submitted at the registration level for the baseline calculation prior to the market participation.

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Resource ID	A unique ID used for participation in the ISO wholesale markets (scheduling/bidding and settlements). Assigned by the CAISO during the registration process in the Demand Response Registration System. Resource specific information for the ID resides in the ISO Master File.	
SAN	Service Account Number. Unique number assigned to a location by the UDC. Dashes or any other special characters are not allowed for the location SAN.	
Start Date	Start date of the registration (cannot overlap with existing registration for the same location).	
SubLAP	One of the 23 SubLAP locations of CAISO. The SubLAP in which all the locations within the registration reside.	
UAA	User Access Administrator formerly known as the POC.	
UDC	Utility Distribution Company. The UDC in which the Locations in the Registration reside and is part of the approval process.	
UDC Account #	This is the account number a DRP receives from a UDC for billing.	



1.3 Application Access

This user guide will address the Demand Response Registration System (DRRS) application.

DRRS access is required for a DRP to submit locations, registration, and resource management processes in order to establish a PDR/RDRR resource ID for market participation.

DRRS access is required for LSEs and UDCs to manage the review process of locations submitted by the DRP.

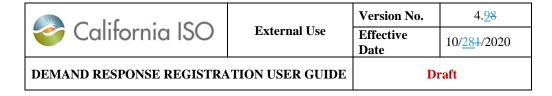
Access to **DRRS** can be obtained through the organization's **User Access Administrator (UAA)** via the **Access Identity Management (AIM)** application.

The **UAA** is the designated User Access Administrator for the organization that is managing their user's application access. More information on how to become a UAA can be found at http://www.caiso.com/participate/Pages/UserAccessAdministratorGuide/Default.aspx

The **AIM** User Interface (UI) is an application that provides registered UAA with the ability to view application-level access for all of their organization's users as well as any users from other organizations who have access to their resources (Endorsed users). More information can be found at http://www.caiso.com/Documents/AccessandIdentityManagement_AIM_UserGuide.pdf

The **AARF (Application Access Request Form)** is no longer used by the UAAs to submit application access. All access request shall be performed through the AIM UI application.

To request **DRRS** application access, the following shall occur:



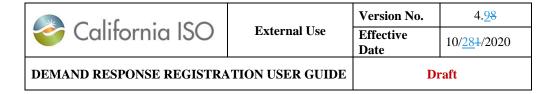
In AIM, for existing using user within the organization, the UAA shall:

- o Go to the Access Request tab
- o Click on the pencil icon
- Click on the New Row button
- Type in a brief description
- Click Update
- o Go to the Select Users tab
- Select the user from the Available Users column and click Add to move them over to the Selected Users column on the right side
- o Go to the Select Application and Roles tab
- Select the appropriate roles from the **Available Applications/Roles** column.
 - For the **DRP role**, select *EXTERNAL DRP*
 - For the **LSE role**, select *EXTERNAL LSE*
 - For the **UDC role**, select *EXTERNAL UDC*
- o Be sure to update the applicable Action, Application, Role, Environment, and Entity
- o Click **Update** to save the roles.
- o Next, click the green Preview button, which will open a submission window
- o Click Submit to finalize the request.

In the order to provision user for the "EXTERNAL LSE" or EXTERNAL UDC" role for DRRS in AIM, the UAA must have the following contract types in the AIM profile.

- DR LSE (Demand Response Load Serving Entity)
- o DR UDC (Demand Response Utility Distribution Company)

If the UAA does not have this contract type, they will need to submit a new UAA Agreement form to add these contract type into their UAA profile.



Below is a screenshot of the contract type from the UAA Agreement form. Please check the Demand response box and list the LSE and or UDC ID in the corresponding field.

Basic UAA (Market Participant Portal only)
Scheduling Coordinator Agreement (for SCs in the physical market)
Convergence Bidding Agreement (for SCs in the financial market only)
Congestion Revenue Rights Entity Agreement
CIRA only (for Load Serving Entities to submit RA plans)
CIRA only (for Local Regulatory Authorities)
Demand Response
☐ EIM Entity Scheduling Coordinator
☐ EIM Participating Resource Scheduling Coordinator
Adjacent Reliability Coordinator
Reliability Coordinator (RC) Customer Transmission Operator
Reliability Coordinator (RC) Customer Balancing Authority
☐ Transmission Owner
RIMS for Interconnection Customers
(Enter only project codes. Do not enter resource IDs. Please attach project code confirmation email for new project if available. This will help to expedite the validation process.)

Submit a request for both the production and market simulation/map stage environments is recommended.

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1.4 DRRS Automated Email Notification

The DRP shall send contact information to PDR@caiso.com. A common email distribution list is **required**. The Contact(s) will receive automated email notifications from DRRS of Location and/or Registration status change and when the **defense** process has been initiated for an existing location, in an active or inactive status, that need the incumbent DRP's attention.

First Name	Last Name	Common Email Address (this is a group email distribution list will be used for DRRS email notifications)	USER_IDs (from AIM)	Email Address	Org. Name	DRP ID

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1.5 DRRS User Roles

There are three types of user roles for this application.

User Role	Entity	Read Access Only	Read Write Access	Brief Description of the entity (DRP, LSE, UDC, ISO)
APP_DRRS_DRP_EXT	DRP		X	DRP can create, modify and end-date locations and create, modify and terminate registrations.
APP_DRRS_UDC_EXT	UDC	X		UDC can review and submit comment(s) on location info and view registrations containing those locations
APP_DRRS_LSE_EXT	LSE	X		LSE can review and submit comment(s) on location info and view registrations containing those locations.

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2 DRRS Functionality Overview

In DRRS, there are two functionality tabs: (1) Locations, (2) Registrations

- 1. **Location** tab Allows the DRP to Create, Copy, Delete, Defend, Withdraw, Edit, End Date and Register locations. The UDC and LSE can **review** locations and registrations in which associated locations are assigned.
- 2. **Registration** tab Allows the DRP to Create, Edit, Copy, Terminate, and Delete registrations. The UDC and LSE can view registrations and location(s) associated to the registration.

2.1 Locations

- Require effective dates (Start Date and End Date) which provides flexibility in creating and processing registrations.
 (see example in figure 1 below)
- Start Date and End Dates cannot be prior dates.
- Can be created individually via UI or in bulk using web service API.
- Cannot be added or removed from a Confirmed registration.
- Once submitted, can be end-dated or edited, but not deleted.
- Provides DRP control in their use in creating registrations
- The green line allows for locations to move in and out of registrations without additional UDC or LSE review. The red arrows for locations indicate that locations requires re-review by the UDC and LSE.

Figure 1

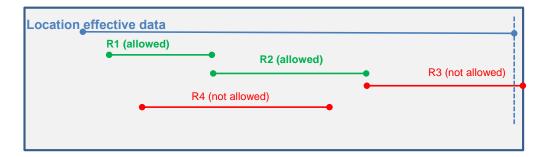


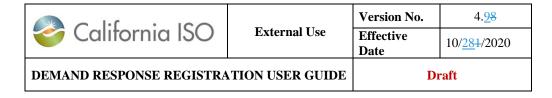
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2.2 Registrations

- Effective dates are validated against location effective dates.
- Multiple registrations can be created within location effective dates (see example in figure 2 below)
- · Can be created using web service API or UI.
- Can be created when reviewed locations are available.
 - Includes location validations that may result in processing errors (i.e. location being used in another registration during effective dates)
- May be affected by edits made to location attributes.
- Once confirmed, can be terminated but not deleted.
- Effective dates determine associated Resource effective dates.
- One Registration to one Resource relationship (1:1) maintained

Figure 2





2.3 Application Layout

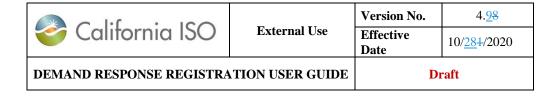
2.3.1.1 Role-based tab views

In DRRS, there are three (3) different role-based tab views. The views that are accessible to the users will be determined by the number of roles provisioned on the digital CMA certificate.

- 1. **DRP View** This tab will be visible to users that log in with the DRP role. Users can have multiple views if the users have multiple roles.
- 2. **UDC View** This tab will be visible to users that log in with the UDC role.
- 3. **LSE View** This tab will be visible to users that log in with the LSE role.



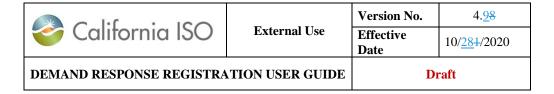
To access the Location or Registration functionality, users can place their cursor over the applicable tab(s) (DRP VIEW, UDC VIEW or LSE VIEW). The Locations and Registration screens are accessible under the corresponding views.



DRP VIEW, UDC VIEW or LSE VIEW selection shows all the locations/ assigned to that entities ID or filtered view showing a subset of that entities locations.

Example: LSE VIEW Locations

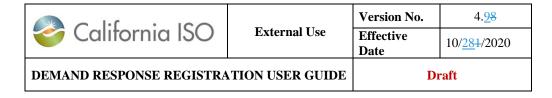




Additionally, DRP VIEW, UDC VIEW or LSE VIEW will show all registrations comprised of locations assigned to that entities ID or filtered view showing a subset of locations

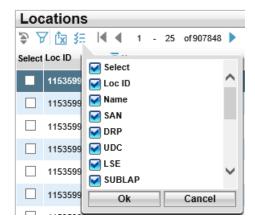
Example: LSE VIEW Registrations



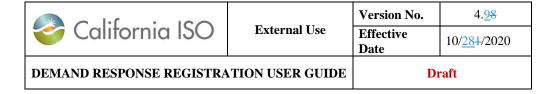


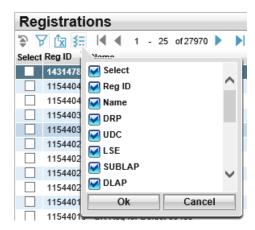
2.3.1.2 Column Headers

In the *Locations* tab, users can choose what columns they would like visible at any time. These options include: Loc Id, Loc Name, SAN, DRP ID, UDC ID, LSE ID, SUBLAP, PNODE, Start Date, End Date, Status, Updated By and Updated Date.



In the *Registrations* tab, users can choose what columns they would like visible at any time. These options include: Reg Id, Reg Name, DRP ID, UDC ID, LSE ID, SUBLAP, DLAP, DRP SC, Resource Id, Resource Type, Program, Baseline Method, Start Date, End Date, Status, Updated By and Updated Date.



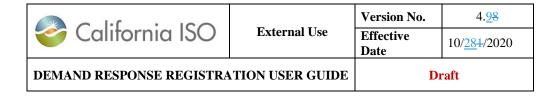


Note: The system will display blank under the LSE and DLAP columns for registration with a start date of 11/13/2019 and forward.

Search Parameters

Locations: Allows users to search using any of the available following criteria: (1) LOC ID, (2) LOC Name (3) SAN, (4) DRP (5) UDC, (6) LSE, (7) SUBLAP.





Registrations: Allows users to search using the following criteria: (1) Reg ID, (2) Reg Name (3) DRP ID (4) UDC ID, (5) LSE ID, (6) SUBLAP.



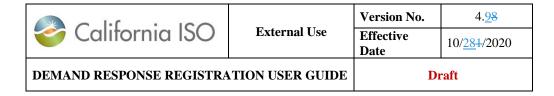
2.3.1.3 Sorting and Filtering Locations and Registrations

Sorting from ascending to descending by clicking on any of the column headers.



Multiple column headers can be sorted either ascending or descending.





Users can also use the inline filtering option γ . The inline filter works as a toggle. Click the icon to filter data based on the content of a particular column. Press Enter after inputting the filter criteria. Please note that wildcard symbols can be used in this column, but are not necessary.



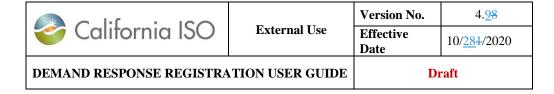
2.4 Actions

In DRRS, the action buttons are role-based. Actions provided are determined by the role provisioned for the user. **2.4.1.1 DRP Actions**

Locations: Create, Copy, Delete, Defend, Withdraw, Edit, End Date, Register

DRP VIEW

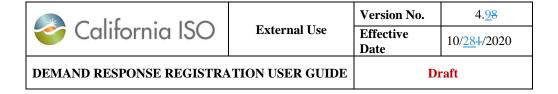




Registrations: Create. Edit, Copy, Terminate, Delete

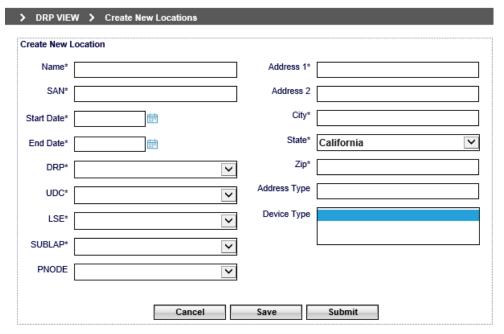
DRP VIEW

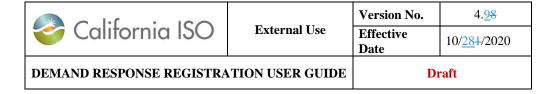




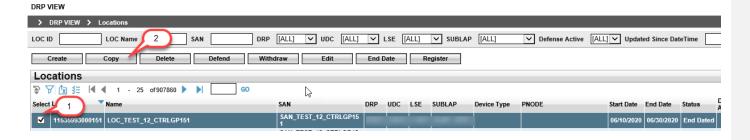
Under the **DRP** action, the **Create** button is used when a location is being created for the first time. When DRP selects the **Create** button, the "Create New Location" view will appear as shown in the figure below. All required fields will be designated with an asterisk.

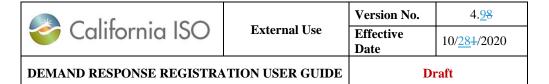
DRP VIEW



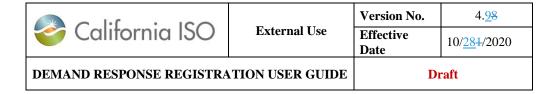


DRP Copy provides the user the ability to copy a previously created location. The user must first select the location to be copied then the **Copy** button. The copied location information will be presented and all fields will be editable. This action is provided for cases where the user is creating multiple locations with the same key fields, reducing the effort in having to create each independently.

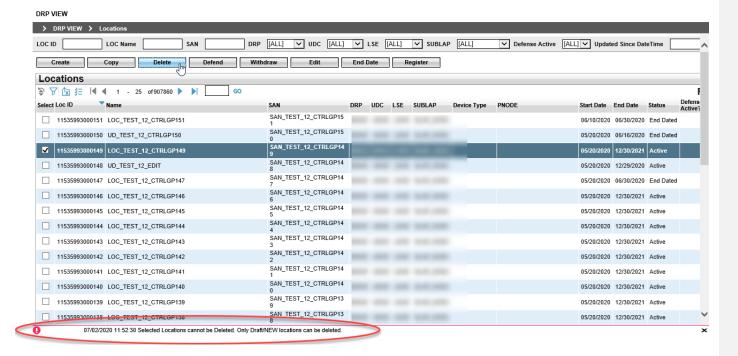




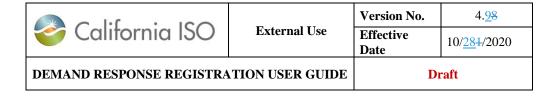
> DRP VIEW > Create New Locations Create New Location Update Fields Name* LOC_TEST_12_CTRLGP151 Address 2 Suite 15G SAN_TEST_12_CTRLGP151 Folsom Start Date* 06/10/2020 State* California ~ End Date* 06/30/2020 Zip* 95687 DRP* Address Type Business UDC* ~ Device Type **~** LSE* SUBLAP* ~ Save as Draft PNODE **>** Cancel Save Submit



DRP DELETE action is usable when a location has been previously created. **DELETE** is only actionable for certain location statuses.

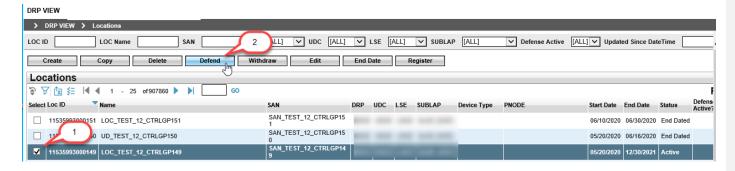


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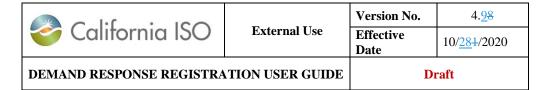
DRP Defend is actionable by a DRP that has been notified by another DRP, referred to as the prospective DRP, that the defense process has been initiated for an existing location, in an active or inactive status, of theirs.

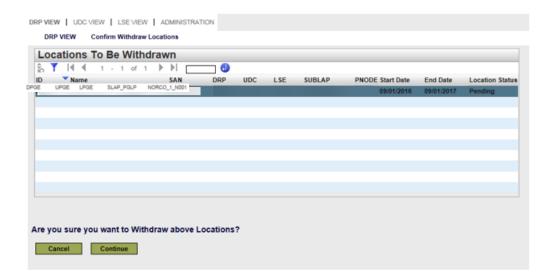
To defend a location, the DRP for the existing location, referred to as the incumbent DRP, must first select the location then the **Defend** button.

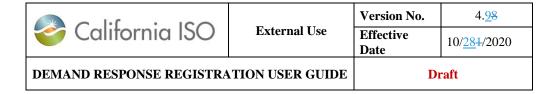


The incumbent DRP will then have an opportunity to respond to the comments submitted by the prospective DRP. In the defend locations screen, the incumbent DRP has the ability to either accept or reject the Defend request.

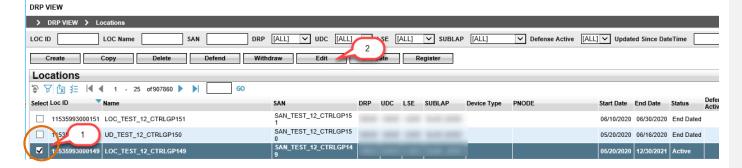
DRP Withdraw action is usable when a location has been previously created and submitted for review but not completed the review process. To withdraw a location, the user must first select the location then the **Withdraw** button. The DRP will be required to provide contact information prior to submitting the location to the defend process.

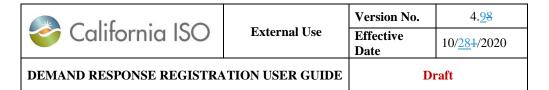




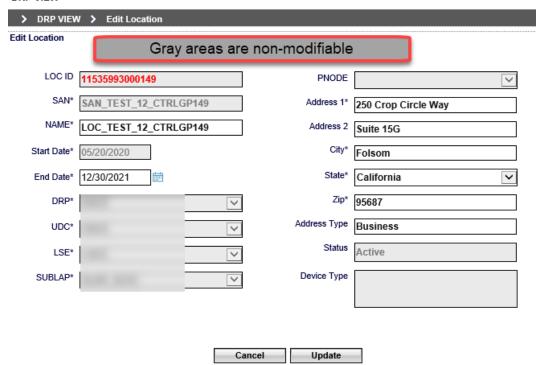


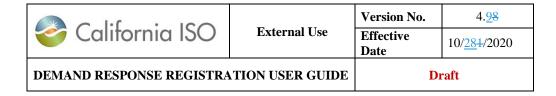
DRP Edit action is usable when a location has been previously created. To edit a location, the user must first select the location then the **Edit** button. The location information will be presented to the user with available fields that are editable. Editable fields will be dependent on the locations status.



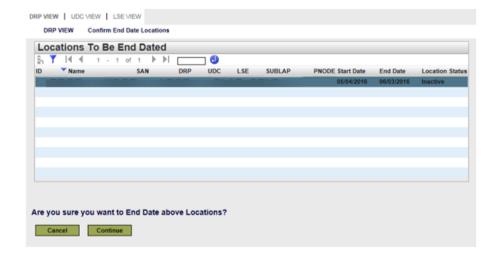


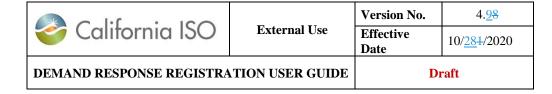
DRP VIEW





DRP End Date action is actionable only under certain location statuses. NOTE: ending a location may impact the effective dates of a registration. To End Date a location, the user must first select the location then the **End Date** button. The DRP will be required to confirm that they want to End Date the location prior to it being processed. Using the **End Date** action does not allow the DRP to select an end date but the end date will correspond with the date that the action was taken. The DRP must use the **Edit** action to End Date a location for a different date.



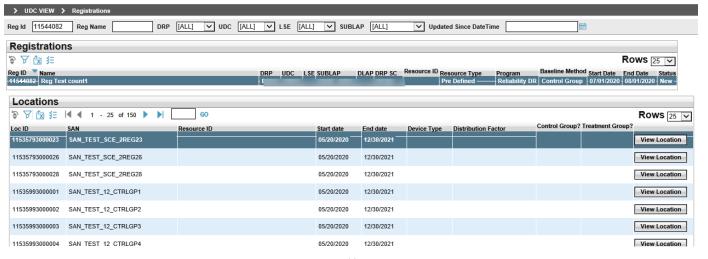


2.4.1.2 UDC and LSE Actions

Locations: Review



Registrations: View Location



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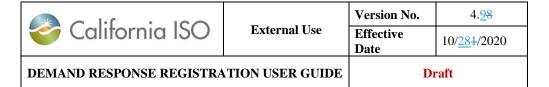
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2.5 Location and Registration Status Lifecycle

DRRS Status			
Location	Registration		
 New Processing Pending Inactive Active Withdrawn End-Dated Duplicate Disputed 	 New Pending Confirmed Terminated 		

DRRS	Statuses	Description	
	New	Location will be set to this status when it is created and saved but not yet submitted for review.	
Location	Processing	Location will be set to this status while being validated when it is submitted for review.	

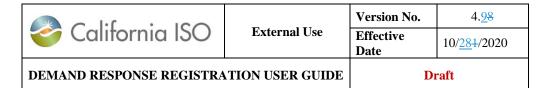


	Pending	Location will be set to this status when it is submitted for review and validation has successfully completed. This status indicated that the review process has been initiated for the location.
Inactive		Location will be set to this status when it has successfully completed the review process but is not part of a registration that is in a 'pending" or "confirmed" status.
	Active	Location will be set to this status when it is part of a registration that is in a "pending" or "confirmed" status.
	Withdrawn	Location will be set to this status when it is Withdrawn while in the pending, duplicate or disputed statuses.
	Duplicate	Location will be set to this status when, during the submittal validation, the location SAN for the same UDC is found to be used by another DRP.
Disputed		Location will be set to this status when it has NOT successfully completed the LSE/UDC review process. Review process has resulted in invalidation findings.
	End Dated	Location will be set to this status when the effective end date of the location is prior to the current date. End dated locations are logically equivalent to deleted records.

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		Effective Date	10/ <u>28</u> 1/2020
DEMAND RESPONSE REGISTRATION USER GUIDE		Dı	raft

Registration	New	Registration will be set to this status when it has been created but NOT yet submitted.
	Pending	Registration will be set to this status when it has been submitted and validation is in progress.
	Confirmed	Registration will be set to this status when it has been submitted and validation has successfully completed.
	Terminated	Registration will be set to this status when the effective end date of the registration is prior to the current date. End dated registrations are logically equivalent to deleted records.



Registration			
Registration Status Status Description		Fields that can be edited	
New	Created but NOT yet submitted.	All fields	
Pending	Submitted and validation is in progress	Edit option not available, can only Terminate	
Confirmed	Submitted and validation has successfully completed	Name, Start Date, End Date and Resource (if applicable)	
Terminated	Effective end date of the registration is prior to the current date. End dated registrations are logically equivalent to deleted records.	Cannot be Edited, will receive an error message if attempted through UI or rejected if submitted with API	

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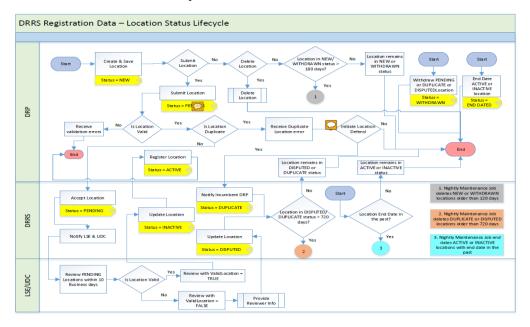
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California ISO	External Use	Version No.	4. <u>9</u> 8
		Effective Date	10/ <u>28</u> 1/2020
DEMAND RESPONSE REGISTRATION USER GUIDE		Di	raft

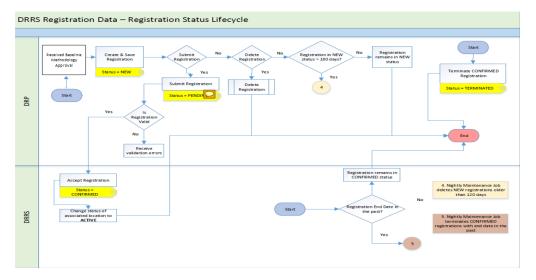
2.5.1.1 Location Status Lifecycle Process Flow¹



¹ Draft as of 8/1/2016, updates in process.

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		Effective Date	10/ <u>28</u> 1/2020
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2.5.1.2 Registration Status Lifecycle Process Flow²



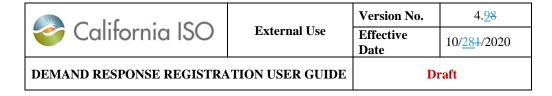
² Draft as of 9/24/2018, updates in process.

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		Effective Date	10/ <u>28</u> 4/2020
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3 Creating and Registering Locations and Resource:

For the DRP/SC, the DRRS facilitates three registration process components: manage locations, manage registrations, and manage resources. After the DRP receives approvals for Baseline methodologies, the process begins with creating the location(s) information into the DRRS, the LSE/UDC reviews and approves the location(s), DRP/SC creates registrations from one or many reviewed locations, registration is in "Confirmed" status, and the DRP/SC submits Generator Resource Data Template (GRDT) to be added to Master File.

For the UDC and the LSE, the DRRS facilitates a review process as part of the DRP's management of locations. Once the DRP submits a location for review, the DRRS will perform data validation including a duplication check for that location. If the data is valid then the UDC and LSE is notified that there is a location ready for review. The UDC and LSE have ten (10) business days to complete their review and either submit with or without findings. If the ten (10) business day elapses without a UDC or LSE acting on the review notification, the DRRS will auto approve the location.



3.1 Create a Location

The registration process builds from location to registration to resource management.

The DRRS provides Location management which includes the creation of locations by the DRP, a duplication check by the DRRS and an LSE and UDC review of the location to validate its use by the DRP for the established effective dates. The DRRS provides a robust UI and API's for the DRP(s), LSE(s) and UDC(s) use in performing their location management tasks. System generated email notifications are also generated as alerts to activities occurring that may require their attention.

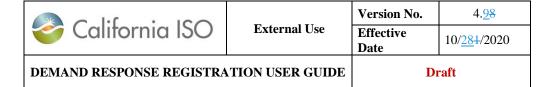
DRRS User Interface (UI) Location Management

To **Create** a new location, DRP(s) will click on the **Create** button under their Locations View.



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Next, enter the location information. The required fields are indicated by the asterisk (*) signs. Fill out all required fields and any optional fields as needed.



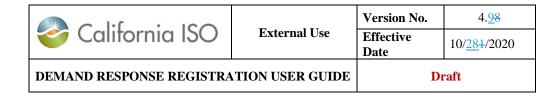
DRP VIEW

> DRP VIE	W > Create New Locations		
Create New L	ocation		
Name*		Address 1*	
SAN*		Address 2	
Start Date*		City*	
End Date*		State*	California
DRP*	V	Zip*	
UDC*	V	Address Type	
LSE*	<u> </u>	Device Type	
SUBLAP*	<u> </u>		
PNODE	V		
	Cancel	Save	Submit

Name DRP chosen name of the designated location.

SAN Service Account Number unique identifier of the location often assigned by the UDC.

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Start Date The Start Date cannot be a prior date or overlap with an existing Active location with same SAN and UDC assignment.

End Date The End Date cannot be a prior date or overlap with an existing Active location with same SAN and UDC assignment.

DRP Designated Demand Response Provider.

UDC Designated Utility Distribution Company

LSE Designated Load Serving Entity

SubLAP The SubLAP in which all the locations within the registration reside SubLAP are determined by the Start/End Dates.

PNODE The Pnode at which the location load is modeled at. Required field if planning to use the location in a Registration selecting a Custom Resource ID.

Address, City State, Zip, Type

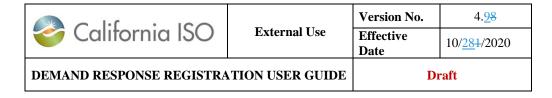
The address of the location and type of location (e.g. commercial, residential) for DRP identification purposes

Device Type

Specifies which device type is installed at the service account location. This field is optional. Please refer to <u>Appendix</u> <u>E for Business Rules</u> in DRRS by Baseline Method.

Valid inputs are:

- Null/blank = Indicates the service account <u>does not</u> have any behind-the-meter device type installed (ie. ES, EVSE).
- Energy Storage (ES) = Indicates that the location has a behind-the-meter <u>generator or</u> energy storage device installed.
- Electric Vehicle Supply Equipment (EVSE) = Indicates that the service account has behind-the-meter EVSE installed
- **ES and EVSE** combination = Indicates that both ES and EVSE are installed at that location. To select ES and EVSE, use the mouse and click the left mouse button to select ES, hold down the mouse, move the cursor to EVSE and release the mouse.



Options within Create New Location include:

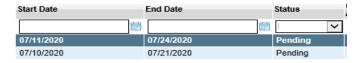
- Cancel cancels the creation of a location.
- Save creates a new location and location ID for it.
- creates a new location and location ID for it and submits it to the UDC/LSE review process. Submits a
 previously Saved and Edited location to the UDC/LSE review process

Once the new location information has been saved or submitted, a new Location ID (LOC ID) will be generated.

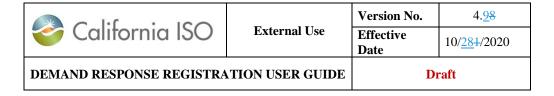
When saved, the locations **Status** will be displayed as **New**.



When submitted, the locations **Status** will be displayed as *pending*.

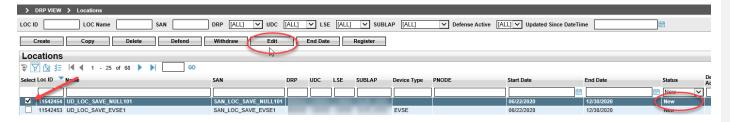


3.1.1 Edit

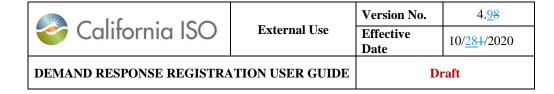


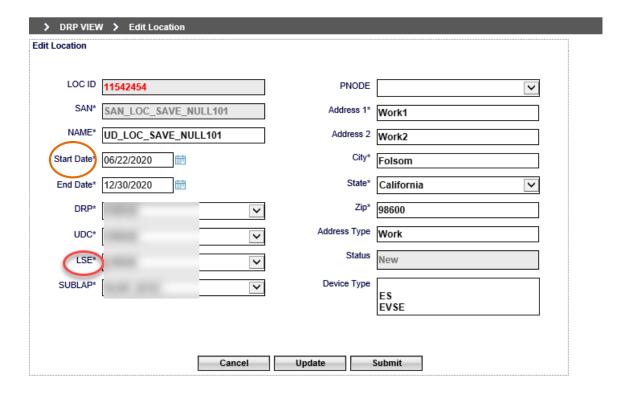
New Location

To **Edit** a **New** location, DRP(s) must first select a location with a **Status** of **New** then click on the **Edit** button under their Locations View.

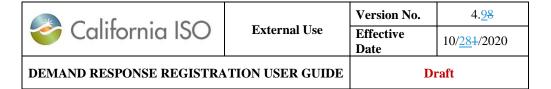


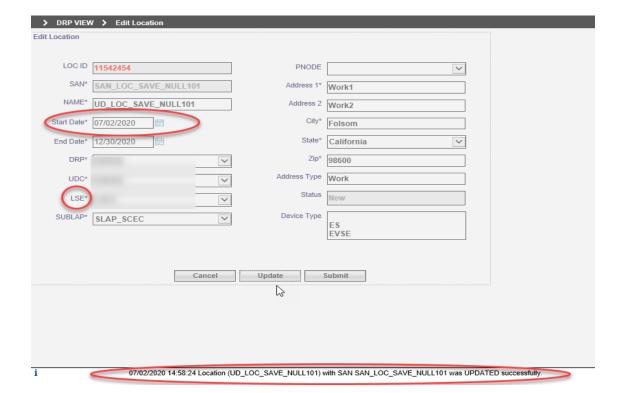
In the **Edit** location view, any changes can be made to the location without it having to be end dated. In this example, the LSEID and start date is changed and the location is updated by selecting the **Update** option.





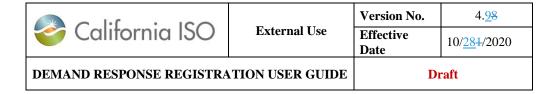
A message indicates that the $\mbox{\bf Update}$ was successful.

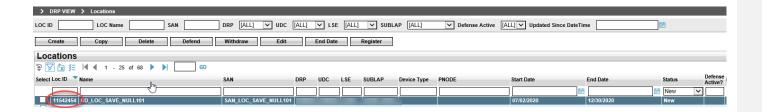




The Update is reflected for that Location without a Loc ID change. This type of modification is not available once a location has been submitted for review.

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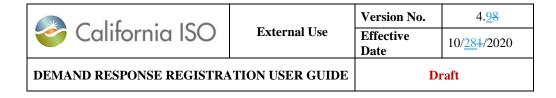


Refer to Appendix B for Editable fields by Location status.

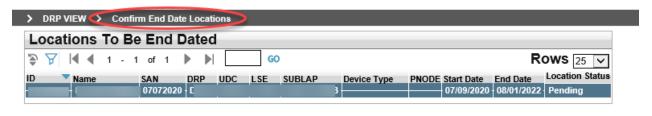
Pending Location

60

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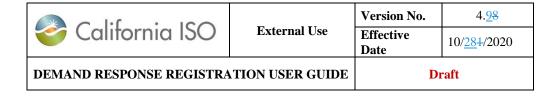
A Pending Location has successfully completed the submittal validation and is in the LSE and UDC review. A location in the **Pending** status cannot be edited and if an attempt is made to Edit a Pending location an error message will be received. The Pending locations only allows for end dating of the location. The DRP must select the End Date and confirm that the selected location is to be End Dated.



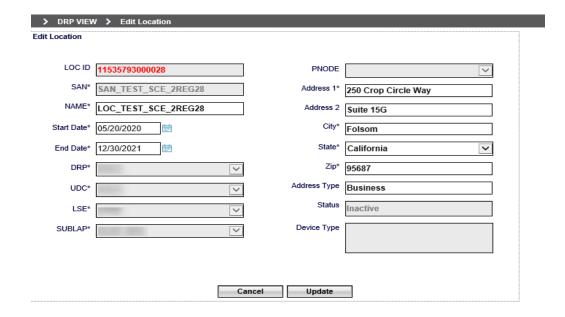
Are you sure you want to End Date above Locations?

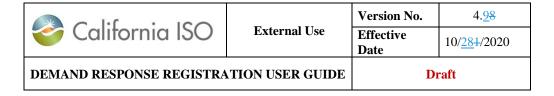
Cancel	Continue
--------	----------

Inactive Location



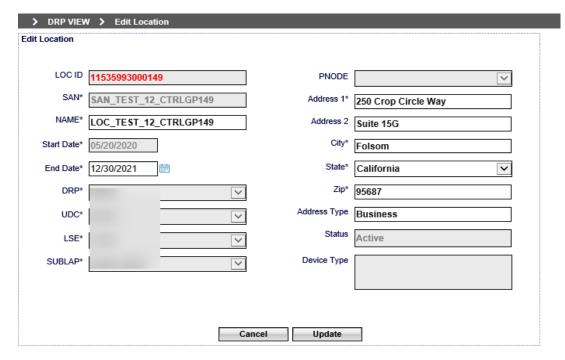
An **Inactive** Location has successfully completed the LSE and UDC review process, but is not part of a registration that is in Pending or Confirmed status. Editing to **Inactive** locations is limited to the location name, start date, end date and address fields. All other fields (fields in gray) will be unavailable for modification and update.



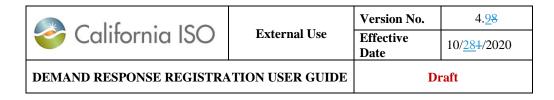


Active Location

An **Active** Location is part of a registration that is in Pending or Confirmed status. Editing of **Active** locations is limited to the location name and address fields. All other fields (in gray) will be unavailable for modification and update.



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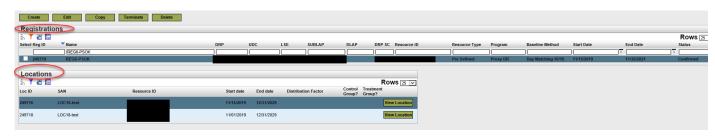
If editing the Location end date that is currently in an "Active" status, the corresponding Registration, and the rest of the Location(s) that are also part of that Registration may be affected. The Location end date can only be contracted until the end date of the registration. System will allow user to edit Location within the Registration start and end date <u>if</u> the Registration <u>start date</u> is in the <u>future</u>. If the Location that are being ended is part of a Registration that contains more than one (1) Locations, the rest of the Locations will no longer be linked to that Registration once the Registration expired, and the Locations' status will be changed from "Active" to "Inactive".

Example 1.

- User end-date a location with an "Active" status.
- Location End-Date is in the future and within the Registration period.

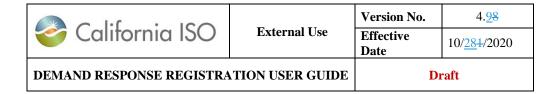
REG ID#249719, Resource ID = RESA.

1. On 10/28/2019: USER1 created REG ID#249719, Resource ID = RESA for 11/15/2019 through 11/30/2021. REG ID#249719 contains more than 1 locations.



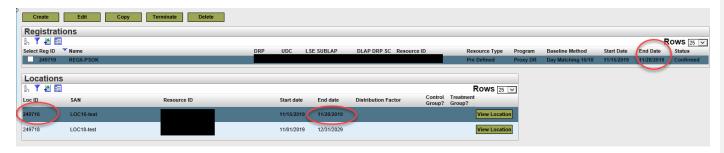
64

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2. On 10/29/2019: USER1 "Edit" the Location ID #249716 End date from 12/31/2029 to 11/28/2019; which caused the Registration End date to change.

The system update the Registration End Date from 11/30/2021 to 11/28/2019 status is still in "Confirmed".



- 3. On 11/29/2019, after the Registration expired. Registration status will change from "Confirmed" to "Terminated", Location ID #249716 status will change from "Active" to "End Dated", and Location ID #249718 status will change
 - from "Active" to "Inactive".

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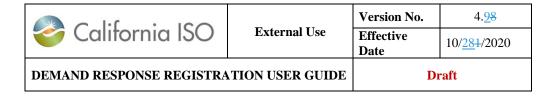
C 1.(· 100	_	Version No.	4. <u>9</u> 8
California ISO	External Use	Effective Date	10/ <u>28</u> 1/2020
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Example 2.

- User end-dating a location with an "Active" status.
- Location End-Date is in the future and earlier than the Registration period.
- 1. REG ID#249719 Resource ID = RESA registration is for 11/15/2019 through 11/30/2021.
- 2. The user end the LOCATION_ID = 123 to 11/14/2019, since the location end date is earlier than the corresponding Registration; this will cause the Registration effective (in the future) to be deleted.

					UPD		Notes-
					ATE		
LOCATION		SUBL			D_B	UPDT_DT_T	
_ID	SAN	AP	START_DATE	END_DATE	Υ	M	
		SLAP					Original record.
		_PGS				8/23/2019	
123	SAN1	1	11/17/2017	12/30/2029		10:29 AM	
							User "User1" made a location record to
							the end-date from 12/30/2029 to
							11/14/2019;
		SLAP					which caused the Registration effective (in
		_PGS			User	11/14/2019	the future)
123	SAN1	1	11/17/2017	11/14/2019	1	11:19 AM	11/15/2019 to be deleted.

REGISTRATION_ID	SUBLAP	RESOURCE_ID	START_DATE	END_DATE	UPDT_DT_TM	Notes-
						System deleted this
					11/14/2019	Registration per Location end-
249719	SLAP_PGSI	RESA	<mark>11/15/2019</mark>	12/31/2019	11:19 AM	date update above



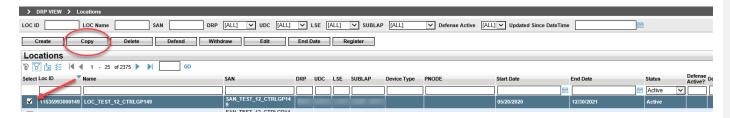
For Location that is under a defense process, user must not alter the registration record outside of the defense process. If so, undesirable results will occur such as overlapping registration records. Please see sections 3.1.5, and Appendix A for more information on how to handle the different cases.

End Dated Location

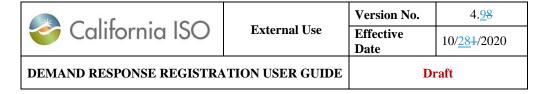
No changes are permitted for an End-Dated Location. Submissions to Edit an End-Date Location will be rejected. End-dated locations are logically equivalent to deleted records

3.1.2 Copy

The **Copy** feature allows the DRP to create a new location by copying an existing location and making changes to the copied field information. Locations in any status may be copied. To **Copy** a location, the location is first selected then the **Copy** button chosen under the Locations View.



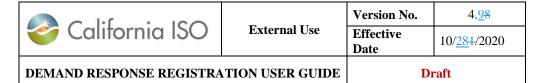
The Copy option takes the user to the Create New Locations window and provides the same Options:



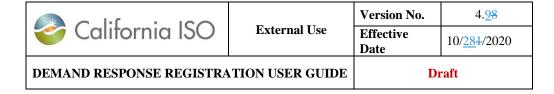
Cancel - Cancels the creation of a new location.

- Creates a new location with changes and location ID for it. Save

Submit - Creates a new location with changes and location ID for it and submits it to the LSE and UDC review process.

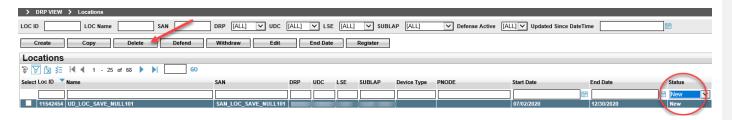


> DRP VIEW > Create New Locations Create New Location Address 1 250 Crop Circle Way LOC_TEST_12_CTRLGP149 Address 2 Suite 15G SAN_TEST_12_CTRLGP149 Folsom Start Date* 05/20/2020 California ~ End Date* 12/30/2021 95687 DRP* ~ Address Type Business UDC* ~ Device Type ~ LSE* SUBLAP* ~ PNODE **>** Submit Cancel Save

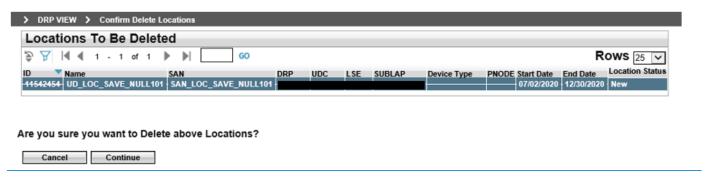


3.1.3 Delete

The **Delete** feature allows the DRP to delete a new location. Locations can only be deleted when they are in the New status. To **Delete** a location, the new location is first selected then the **Delete** button chosen under the Locations View.

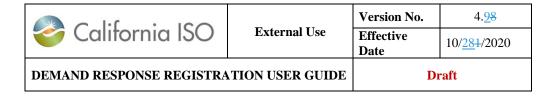


Once **Delete** is selected, the Location to be deleted will be identified and a confirmation to delete is required by selecting the **Continue** button.



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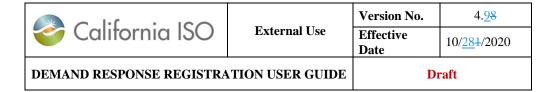
A deleted Location and its created Location ID will no longer exist in the Locations View.

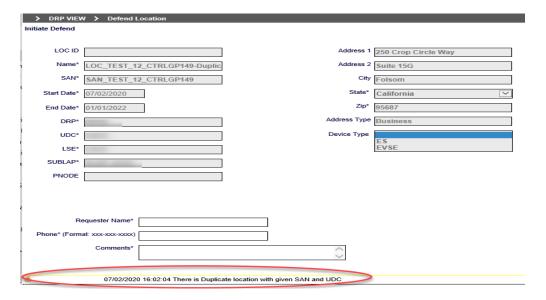
3.1.4 Duplication Check

When a location is submitted for review, a duplication check is performed against other locations in the system. If the DRPID is the same as the submitting DRP, the system will reject the location and provide an error message. If the DRPID is different, the location will be created with a Duplicate status.

Note: Location cannot be submitted and cannot enter the defend process until the duplicate location is in the active or inactive status.

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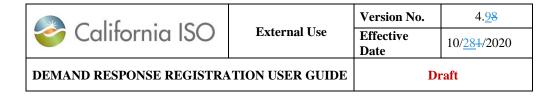




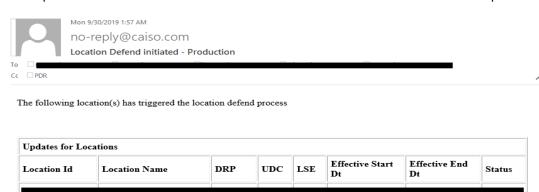
3.1.5 Defend

The **Defend** feature allows the DRP to defend a location that has been found to be a duplicate of another location in the <u>inactive</u> or <u>active</u> status having the same SAN, UDC and overlapping effective dates with another DRP (Incumbent). The location will be identified as a duplicate once it is submitted for approval.

The system may also send a courtesy notification to the Incumbent DRP that their location needs to be defended for use by request of another DRP.



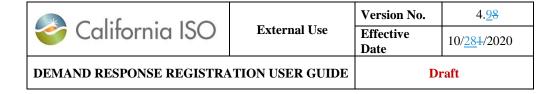
Example of email notification sent to the Incumbent DRP to defend location ownership.



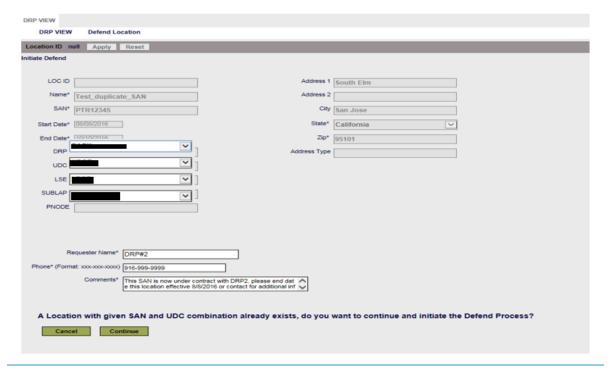
Prospective DRP action:

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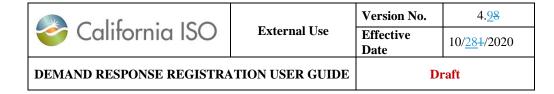
The prospective DRP must include a contact name, number and comment if they chose to enter the defend process by selecting the Continue button. Locations submitted into the defense process will set to a duplicate status.



Incumbent DRP action:

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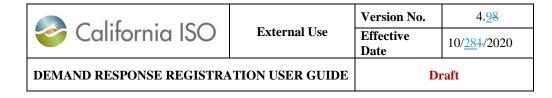
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The incumbent DRP must accept or reject the prospective's location claim request via the Defend process on the UI.

To view the location record under defense, the incumbent DRP can log into the Locations screen. The Location(s) that is under defense will show a status of Defense Active = 'Y', and the Defense Start, and Defense End. See the figure below.



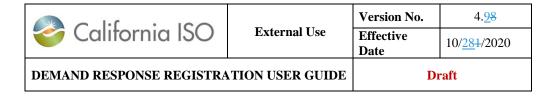


The status of Defense Active = 'Y', and the Defense Start, and Defense End will disappear after the incumbent DRP respond to the prospective DRP.

While the defend process in is in progress, the incumbent DRP must accept/reject through the defend process. <u>Do not</u> alter the registration and location outside of the defend process; doing so will result in overlapping record. To defend, incumbent DRP must select the Location, click **Defend**, provide comment on their defense of the location, contact name, and phone number.

- If "Valid Location" is checked, the incumbent DRP is indicating that the location is valid and will not release that location based on comments received from prospective DRP.
- If the "Valid Location" is not checked, the incumbent DRP is stating that the request received is accepted and action will be taken by them to release the location to the prospective DRP.





If the incumbent DRP takes no action within 10 business days, the system will automatically end date the location and its corresponding registration after the 10 business days. In addition, the system will automatically adjust the end date out by 5 business days for the location that is in defense process and its corresponding registration. Note that the status for the location that are under the defend process will remain "Active" until the registration expired, and the rest of the locations will be in "Inactive" status.

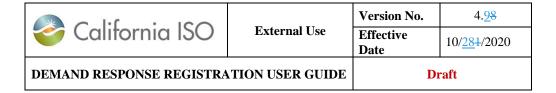
A list of the possible Cases of the Defend Process is in Appendix A in this document.

If the incumbent DRP defends the location during the defense period, the prospective DRP must contact them to resolve the duplicate use conflict outside of the ISO registration process.

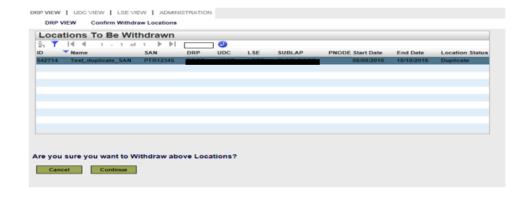
3.1.6 Withdraw

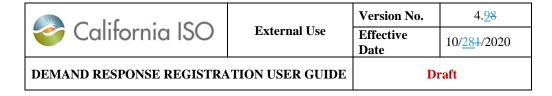
The **Withdraw** feature allows the DRP to withdraw a location from the validation and UDC or LSE review processes. Locations can only be withdrawn when they are in "Pending", "Duplicate" or "Disputed" statuses. To **Withdraw** a location, the location is first selected then the Withdraw button chosen under the Locations View.





Once **Withdraw** is selected, the Location to be withdrawn will be identified and a confirmation to withdraw is required by selecting the **Continue** button.

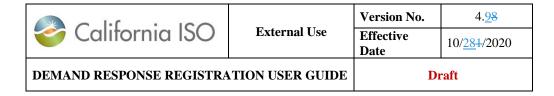




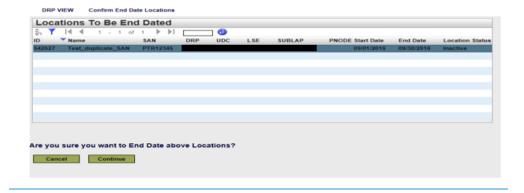
3.1.7 End Date

The **End Date** feature allows the DRP to end date a location. Locations can only be end dated when they are in the "Inactive", "Active", "Duplicate", or "Disputed" statuses. To **End Date** a location, the location is first selected then the **End Date** button chosen under the Locations View.





Once **End Date** is selected, the Location to be end dated will be identified and a confirmation to end date is required by selecting the **Continue** button.



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3.2 Location Review

3.2.1 LSE Review

After logging into the DRRS, the LSE is provided a view option for Locations and Registrations. Selecting the Location view will provide a list of locations that they have been assigned as the LSE. The Location view includes all the locational information provided by the DRP to create the location. ³ In addition the following is provided in this view:

Location ID	A unique ID assigned by	the DRRS for all new locations when the	v are saved or submitted.

Status The Current status of the location.

Review Start The date on which the location was submitted for review. This date begins the ten business

day (10) review period for the LSE to review and respond before the DRRS auto approves the

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location.

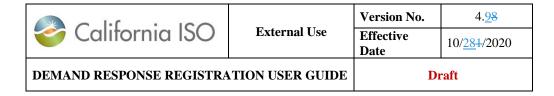
Review End The date on which the review period end or date on which the review was completed.

LSE Review A "Y" indicates that a valid location review has been completed.

Reviewer Name The name of the reviewer provided as part of validation **Reviewer Contact** Phone number of the reviewer provided as part of validation.

Locations requiring review will be in the **Pending** status.

³ See Location Management > Create section for all location information provided by the DRP.

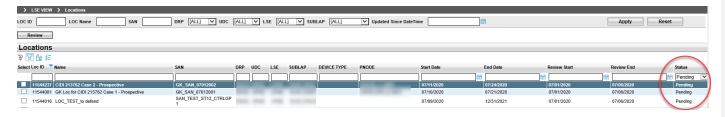


Locations reviewed without findings will be in the **Active** or **Inactive** status.

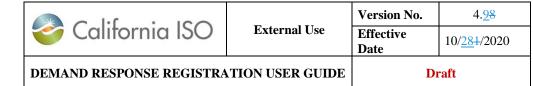
Locations reviewed with findings from either the LSE or UDC will be in the **Disputed** status

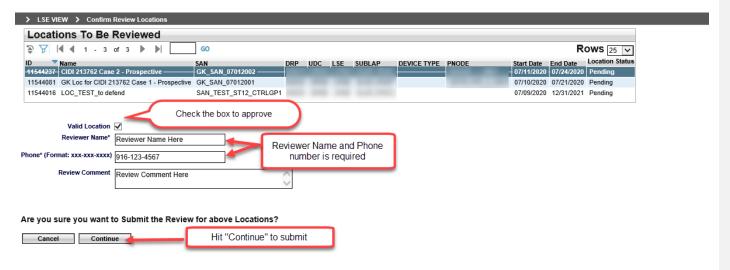
The LSE selects the Locations (one or multiple) to be reviewed and chooses the Review button to enter the review confirmation process screen.

Note: The system only accepts 25 Locations/rows at a time when approving.



When selecting more than one location, all locations listed are reviewed by the LSE together. Response by the LSE will affect all locations listed, selection of individual locations is not available in the "locations to be reviewed" view.





The location(s) is confirmed as being valid by **selecting** the **Valid Location** box. The location confirmation is disputed by leaving the box un-selected indicating that the location(s) have not passed the review.

The LSE must include a Reviewer Name and Phone # and, if the location is not valid, a Review Comment when choosing to Continue. Comment should include the reason as to why the LSE has determined this to be an invalid location. Examples include, but are not limited to the following:

- · Incorrect location information (e.g. incorrect SubLAP)
- Wrong LSE or UDC designation
- No commercial agreement
- Regulatory non-conformance

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- Location identified as participating in another program
- Location device type

Note: The **Comments** box is limited to <u>255</u> characters.

The LSE may end their validation of the location(s) by choosing to Cancel

3.2.2 UDC Review

After logging into the DRRS, the UDC is provided a view option for Locations and Registrations.

Selecting the Location view will provide a list of locations that they have been assigned as the UDC. The Location view includes all the locational information provided by the DRP to create the location. ⁴ In addition the following is provided in this view:

Location ID A unique ID assigned by the DRRS for all new locations when they are	e saved or submitted.
---	-----------------------

Status The Current status of the location.

Review Start The date on which the location was submitted for review. This date begins the ten business

day (10) review period for the UDC to review and respond before the DRRS auto approves the

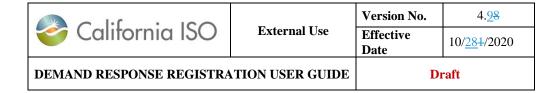
location.

Review EndThe date on which the review period end or date on which the review was completed.

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⁴ See Location Management > Create section for all location information provided by the DRP.



LSE Review A "Y" indicates that a valid location review has been completed.

Reviewer Name The name of the reviewer provided as part of validation.

Reviewer Contact Phone number of the reviewer provided as part of validation.

Locations requiring review will be in the **Pending** status.

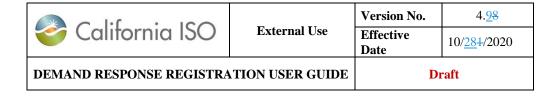
Locations reviewed without findings will be in the **Active** or **Inactive** status.

Locations reviewed with findings from either the LSE or UDC will be in the **Disputed** status

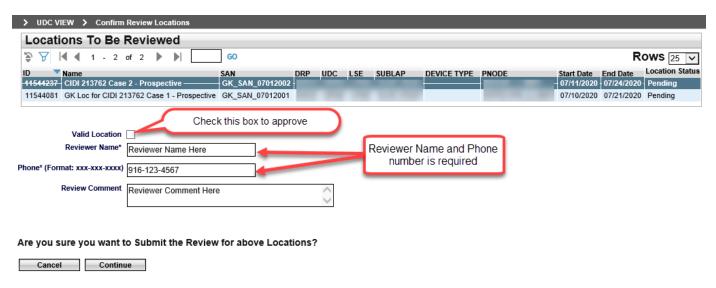
The UDC selects the Locations (one or multiple) to be reviewed and chooses the Review button to enter the review confirmation process screen.

Note: The system only accepts 25 Locations/rows at a time when approving.

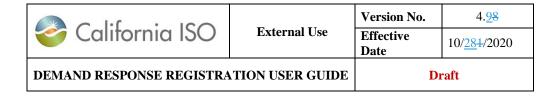




When selecting more than one location, all locations listed are reviewed by the UDC together. Response by the UDC will affect all locations listed, selection of individual locations is not available in the "locations to be reviewed" view.



The location(s) is confirmed as being valid by **selecting** the **Valid Location** box. The location confirmation is disputed by leaving the box un-selected indicating that the location(s) have not passed the review.

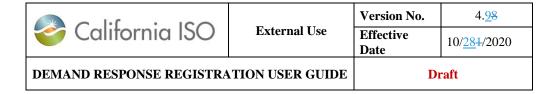


The UDC must include a Reviewer Name and Phone # and, if the location is not valid, a Review Comment when choosing to Continue. Comment should include the reason as to why the UDC has determined this to be an invalid location. Examples include, but are not limited to the following:

- Incorrect location information (e.g. incorrect SubLAP)
- Wrong LSE or UDC designation
- No commercial agreement
- Regulatory non-conformance
- Location identified as participating in another program
- Location device type

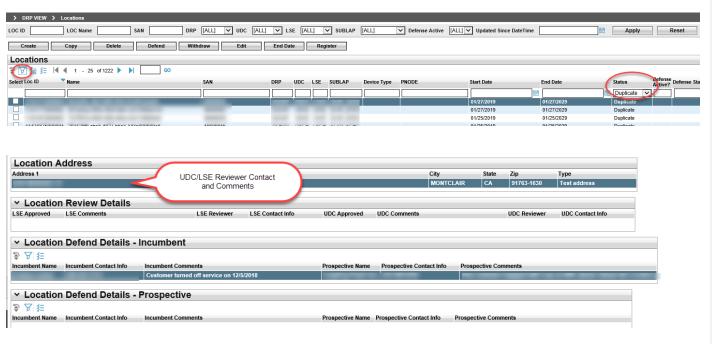
Note: The **Comments** box is limited to <u>255</u> characters.

The UDC may end their validation of the location(s) by choosing to Cancel

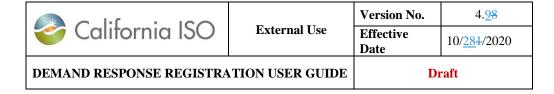


3.2.3 Invalid Review Disputed Location

A **Disputed** Location was unsuccessful in obtaining a valid review by one of the reviewing entities (LSE/UDC). The DRP must now determine from provided comments why they were unable to pass validation of the location submitted for review. When a location has not passed the LSE/UDC review it will be set to the status of **Disputed** and the reviewer contact information and comments can be viewed by the DRP in their Locations view when the location is highlighted.

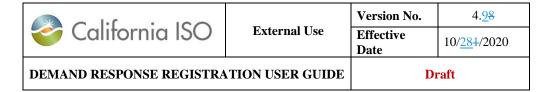


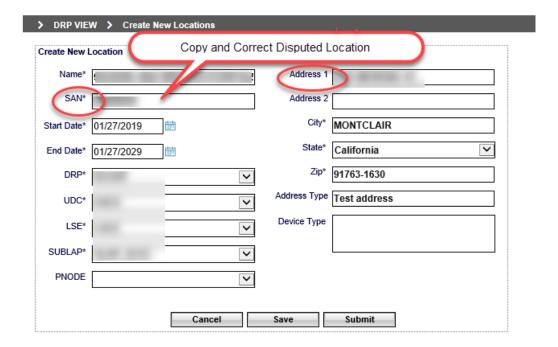
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To correct errors identified, the DRP must create a new location. The disputed Location is not editable but may be copied and updated with the corrected information. When saved or submitted, a new location with new Location ID will be created. The new location created must then be submitted for review and will be in **Pending** status until the review is complete.





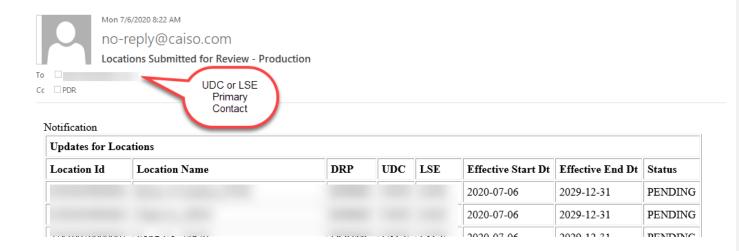


If the DRP believe the location is valid with information provided and does not agree with the LSE or UDC findings, they must work with the entity that provided the comments to resolve the reason it was not found to be a valid location. The process for resolving the disputed location issues is managed outside of the ISO. The DRP is provided information through the review process needed to make direct contact with LSE or UDC to initiate resolution.

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3.2.4 LSE/UDC Review notification

Example of email notification to the LSE and UDC when a location has been submitted for review.



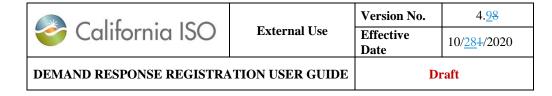
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3.2.5 Application Programming Interface (API) Location Management

The DRRS provides APIs for the performance of all location management processing. Market Participants can perform the following using the DRRS web services:

- Retrieve DRRS Locations
- Save request for creating draft/new DRRS Locations
- Delete request for deleting the draft/new DRRS Locations
- Submit request for creating/end-dating DRRS Locations
- Review request for reviewing DRRS Locations (for LSE/UDC/LSE&UDC review)
- Modify request for modifying DRRS Locations
- Initiate Defend request for defending for a DRRS Location
- Review Defend request for reviewing the DRRS Location that is under defend process (for DRP review)
- Retrieve status for the creation or modification requests
- Retrieve locations attributes that is currently displayed on the UI.
- Retrieve locations that are currently involved in a defense process. This is equivalent to the existing function on the UI to retrieve locations with "Defense Active" = 'Y'

Technical ISO Interface Specifications with more detailed information are available on the ISO Developer website at https://developer.caiso.com.



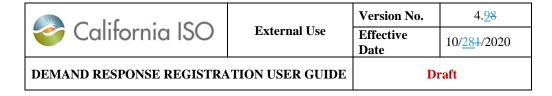
3.3 Creating a Registration

After the LSE and UDC have reviewed and approved the Location(s), the DRP can then create a registration. The Register feature allows the DRP to register a location or multiple locations. Locations can only be registered when they are in the inactive, and active statuses. Registration can be in multiple LSEs, but must be within the same SubLAP.

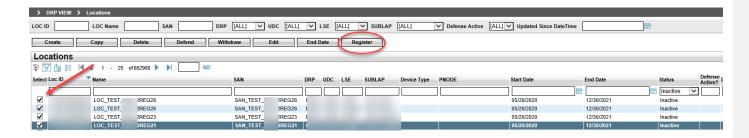
There are 2 approaches to register a location or multiple locations.

- Approach 1:
 - Under the DRP View > Locations
 - Select the required locations

Locations belonging to the same or various LSEs are permitted, but with the same DRP, UDC, and SUBLAP for the registration. The "Device Type" will determine corresponding baseline methodologies available for registrations inclusive of these devices, please refer to Appendix E-DRRS Location Type - Baseline Method Reference Matrix.



o Click on the Register button

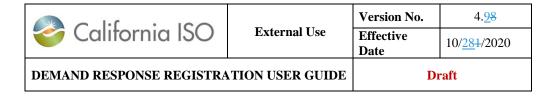


o On the **Registration** screen, input the data and save/submit.

The following is a description of the fields requested for input to **create** a Registration:

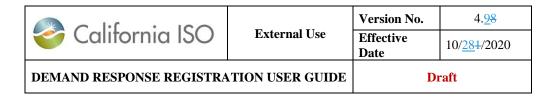
- Name DRP chosen name of the Registration. May contain alphanumeric and special characters, up to a max of 255
- **Start Date**⁵ The Start Date cannot be a prior date. Only Locations with start dates before and end dates after will be generated as Available Locations for selection

⁵ The system validates effective dates input for the Registration against Location effective dates to determine available Locations that can be registered.



- End Date The End Date cannot be a prior date or overlap with an existing Active location with same SAN and UDC assignment
- DRP⁶ Demand Response Provider ID
- UDC Utility Distribution Company ID
- **Baseline Method** The Baseline Method that will be used to determine the performance of the Resource. This requires approval by the CAISO. Only the approved Performance Evaluation Method (baseline) will be available from the drop down. Please see Business Practice Manual (BPM) for Demand Response for instruction on how to submit a Performance Evaluation Methodology request section 5, and Appendix E DRRS Location Device Type Business Rules and Baseline Method Reference Matrix
- SubLAP The SubLAP in which all the locations within the registration reside
- DRP SCID The ID of the acting Scheduling Coordinator for the Registrations market Resource.
- **Program** Proxy DR or Reliability DR
- Resource Type Predefined or Custom.
 - Available Locations will be filtered based on the Resource Type selection. When selecting Custom, only Locations with PNODE information can be selected for the Registration.
 - o Custom Resource ID
 - If the DRP believes that the pre-defined Resource ID is not sufficient for its needs, the DRP selects or requests a custom Resource ID be assigned when the Registration is created. The information

⁶ The system uses DRP, UDC, LSE and SubLAP information provided to ensure Locations presented as available have the same designations.



provided in the DRRS during the Registrations creation, including PNodes and their applicable Distribution Factors, is to develop the Custom Resource ID.

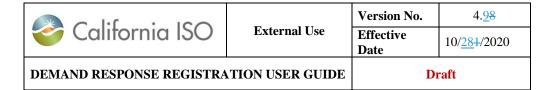
For an example (applicable for a PDR or RDRR): A DRP requests a custom Resource ID for 4 end
use Loads that have the same LSE and are located in the same Sub-LAP. Based on historic Load of
these 4 end use customers, 80% of the Load is connected to Bus 1 and 20% of the Load is
connected to Bus 2.

Here is how it will look:

Customer	LSE	Sub- LAP	Location	Registration	GDF	Custom DR Resource ID
1	A	PGF1	Bus 1	Reg 01	0.8	PRMNTE_6_PDRC01
2	A	PGF1	Bus 1	Reg 01		PRMNTE_6_PDRC01
3	A	PGF1	Bus 2	Reg 01	0.2	PRMNTE_6_PDRC01
4	Α	PGF1	Bus 2	Reg 01		PRMNTE_6_PDRC01

o Requesting a Custom Resource ID with Dynamic GDF

➤ If approved by the CAISO, a DRP may submit GDFs as part of its Bid for a given PDR or RDRR. In order to be eligible to submit GDFs as part of a Bid, the DRP must request and receive approval from the CAISO to dynamically Bid GDFs. To request a custom GDF, please contact the PDR coordinator at pdr@caiso.com with the following information: Location of bus, and total MW. The custom GDF can be deployed based on the Master File deployment.



• Resource (Resource ID)

- When Resource Type = Pre Defined or Custom
 - The drop-down list will show available resources that can be selected based on Registration information provided including Resource IDs previously assigned to the DRP and unassigned Pre Defined resource IDs for the identified SubLAP.

The resource ID naming convention has the letter "C" after the letter "PDR" and Pre defined has the letter "P" after the letter "PDR" for Proxy Demand Resource.

This field is not required (not used) upon the "Save" action or when the registration is in "New" status. A "New" registration status record exists without a resource ID.

This field is optional upon the "Submit" action or when the status is in "Confirmed". If a resource ID is provided, the system will:

- Validate against the baseline method. All PDR-LSR baseline methods must have the naming convention with a substring, 'CUR' (curtailment ID).
- Validate the resource ID against the Resource Type. Resource Type = 'Pre Defined' must have a 'P' after the string, 'PDR', and Resource Type = 'Custom' must have a 'C' after the string 'PDR'.

A resource ID cannot be modify after the registration is submitted. You must end-date the registration and create a new one. If the resource ID is not provided upon the "Submit" action, system will accept the record. After the registration is submitted upon the "Submit" action with *no* resource ID, the user can add the resource ID by using the 'edit' on the UI. A "Confirmed" registration status record can exist with or without a resource ID.

Please see Appendix D for business rules and tips.

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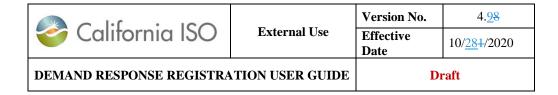
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Note: If no available resource appear in the drop-down list, submit a request to PDR@caiso.com with the following information:

- Is the request for PDR-LSR?
- What Resource Type (i.e. Pre-Defined or Custom)?
- What Program Type (i.e. Proxy DR or Reliability DR)? For PDR-LSR, this is Proxy DR.
- How many Resource IDs do you need?

What effective date are you requesting? Effective date cannot be back dated.

- Show/Refresh Available Location
 - The selected locations will appear in the Selected Locations grid.

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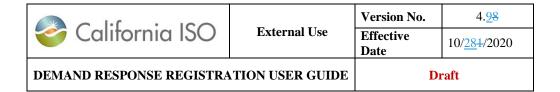
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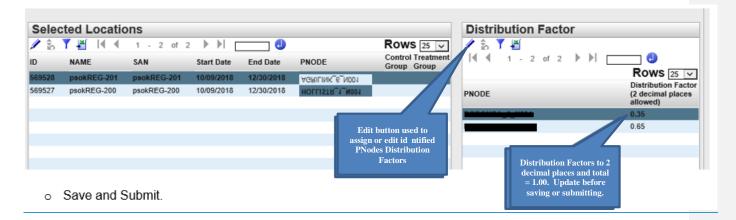
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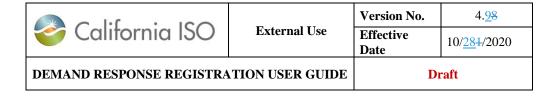
Distribution Factors for Custom Resource

If the Resource Type selected is Custom, the system generated list of available Locations, to select from, will only include locations that have been assigned a PNode. When creating this Registration, the DRP must assign distribution factors for PNodes identified. PNodes will be populated in the Distribution Factor window based on the Locations selected to be registered. The Edit button in this window provides the DRP with the opportunity to assign a Distribution Factor to each of the PNodes. The Distribution Factor must indicate the percent of load reduction that will be occur at each PNode represented as a two decimal precision level. Distribution Factors across all PNodes provided must total 1.00. The SC shall provide the Pnode and Distribution Factors used to create the custom Resource ID and the Registration in the DRRS to RDT@caiso.com when submitting the GRDT form.

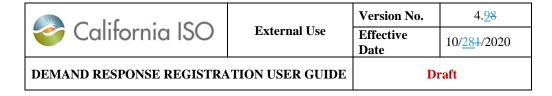


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Creating Registration using the Control Group baseline method, please see Appendix F.

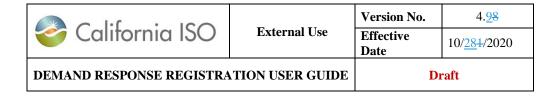


• Approach 2:

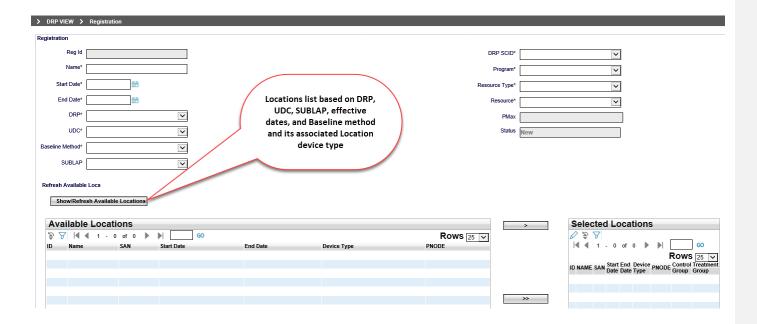
o Under the **DRP View**, select **Registrations** then click on the **Create** button.







o Input registration data.



The following is a description of the fields requested to for input to **create** a Registration:

• Name DRP chosen name of the Registration. May contain alphanumeric and special characters, up to a max of 255

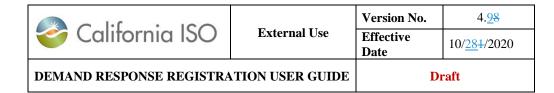
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- Start Date⁷ The Start Date cannot be a prior date. Only Locations with start dates before and end dates after will be generated as Available Locations for selection
- End Date The End Date cannot be a prior date or overlap with an existing Active location with same SAN and UDC assignment
- DRP8 Demand Response Provider ID
- UDC Utility Distribution Company ID
- Baseline Method The Baseline Method that will be used to determine the performance of the Resource. This
 require approval by CAISO. Only the approved Performance Evaluation or Baseline Method will be available from
 the drop down.
- SubLAP The SubLAP in which all the locations within the registration reside
- DRP SCID The ID of the acting scheduling coordinator for the Registrations market Resource.
- Program Proxy DR or Reliability DR
- **Resource Type** Predefined or Custom.
 - Available Locations will be filtered based on the Resource Type selection. When selecting Custom, only Locations with PNODE information can be selected for the Registration.

⁷ The system validates effective dates input for the Registration against Location effective dates to determine available Locations that can be registered.

⁸ The system uses DRP, UDC, LSE and SubLAP information provided to ensure Locations presented as available have the same designations.

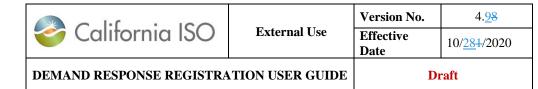


o Custom Resource ID

- o If the DRP believes that the pre-defined Resource ID is not sufficient for its needs, the DRP selects or requests a custom Resource ID be assigned when the Registration is created. The information provided in the DRRS during the Registrations creation, including PNodes and their applicable Distribution Factors, is to develop the Custom Resource ID. This information is automatically provided from the DRRS to the applicable business unit that will then match this Registration information with the submitted Generator Resource Data Template.
- For an example (applicable for a PDR or RDRR): A DRP requests a custom Resource ID for 4 end
 use Loads that have the same LSE and are located in the same Sub-LAP. Based on historic Load of
 these 4 end use customers, 80% of the Load is connected to Bus 1 and 20% of the Load is
 connected to Bus 2.

Here is how it will look:

Customer	LSE	Sub- LAP	Location	Registration	GDF	Custom DR Resource ID
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2	A	PGF1	Bus 1	Reg 01		PRMNTE_6_PDRC01
3	A	PGF1	Bus 2	Reg 01	0.2	PRMNTE_6_PDRC01
4	A	PGF1	Bus 2	Reg 01		PRMNTE_6_PDRC01



o Requesting a Custom Resource ID with Dynamic GDF

If approved by the CAISO, a DRP may submit GDFs as part of its Bid for a given PDR or RDRR. In order to be eligible to submit GDFs as part of a Bid, the DRP must request and receive approval from the CAISO to dynamically Bid GDFs. To request a custom GDF, please contact the PDR coordinator at pdr@caiso.com with the following information: Location of bus, and total MW. The custom GDF can be deployed based on the Master File deployment.



Resource

- When Resource Type = Pre Defined or Custom
 - ___The drop-down list will show available resources that can be selected based on Registration information provided including Resource IDs previously assigned to the DRP and unassigned Pre Defined resource IDs or Custom Resource IDs for the identified SubLAP.

The resource ID naming convention has the letter "C" after the letter "PDR" and Pre defined has the letter "P" after the letter "PDR" for Proxy Demand Resource.

This field is not required (not used) upon the "**Save**" action or when the registration is in "New" status. A "New" registration status record exists without a resource ID.

This field is optional upon the "Submit" action or when the status is in "Confirmed". If a resource ID is provided, the system will:

- Validate against the baseline method. All PDR-LSR baseline methods must have the naming convention with a substring, 'CUR' (curtailment ID).
- Validate the resource ID against the Resource Type. Resource Type = 'Pre Defined' must have a 'P' after the string, 'PDR', and Resource Type = 'Custom' must have a 'C' after the string 'PDR'.

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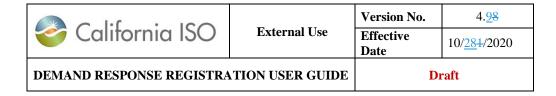
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A resource ID cannot be modify after the registration is submitted. You must end-date the registration and create a new one. If the resource ID is not provided upon the "Submit" action, system will accept the record. After the registration is submitted upon the "Submit" action with *no* resource ID, the user can add the resource ID by using the 'edit' on the UI. A "Confirmed" registration status record can exist with or without a resource ID.

→ Please see Appendix D for business rules and tips.

Note: If no available resource appear in the drop-down list, submit a request to PDR@caiso.com with the following information:

- Is the request for PDR-LSR?
- What Resource Type (i.e. Pre-Defined or Custom)?
- What Program Type (i.e. Proxy DR or Reliability DR)? For PDR-LSR, this is Proxy DR.
- How many Resource IDs do you need?
- What effective date are you requesting?

Show/Refresh Available Location

The system will generate a list of available Locations to select from based on the information provided when creating a Registration. The Locations list is based on DRP, UDC, SubLAP, effective dates, and Baseline method and its associated Location device type (please refer to the- Appendices \underline{D} and $\underline{\underline{E}}$).

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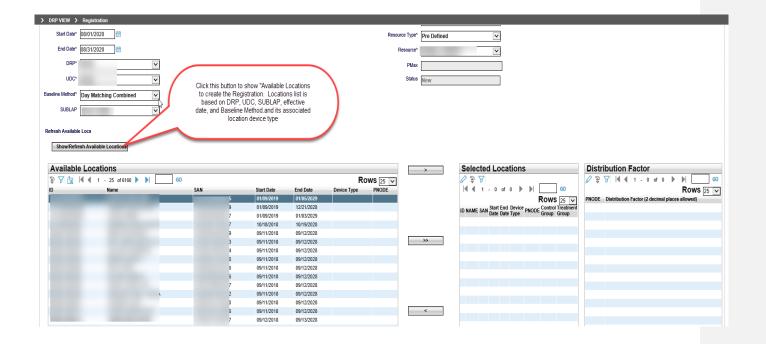


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Date	

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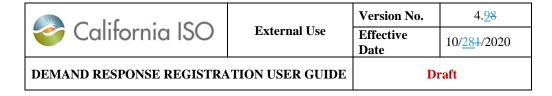
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- To select more than 25 location, in the **Available Locations**, change the number of **Rows** from 25 to 200.
 This will allow you to move more than 25 rows to the available locations.
- Move available locations to Selected Locations.

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Distribution Factors for Custom Resource

See Approach 1 above.

4 Registration Management

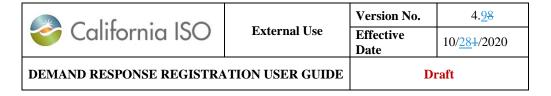
The registration process builds <u>from</u> Performance/Baseline Methodology <u>to</u> location <u>to</u> registration to resource management.

Registration management includes the development of registration(s) by the DRP that identify the locations participating, in aggregate, as a PDR or RDRR for an effective period of time. Location information established, including its effective dates, control availability for their use by the DRP in creating registrations.

The DRRS provides a robust UI and API's for the DRP(s) use in performing their Registration development and management tasks. System generated email notifications are also generated as alerts to activities occurring that may require their attention.

4.1 DRRS User Interface (UI) Registration Management

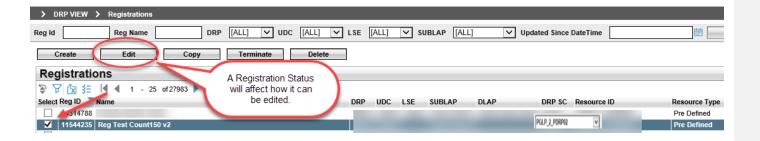
The DRP may use either the Location view or Registration view to register one or multiple locations. The Registration view provides the DRP a list of all the Registrations created and saved or submitted with their Status. When highlighted, the view will list all Locations included in that Registration. When using the UI, DRRS limits to 200 locations per registration unless this is loaded using the API.

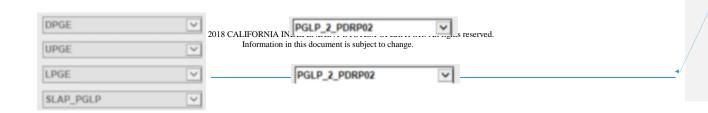


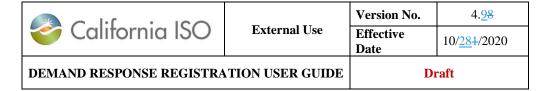
4.1.1 Edit

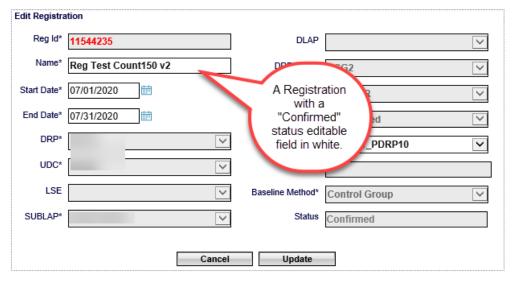
To **Edit** a registration from the registration view, the DRP must first select the Registration to be edited then click on the **Edit** button under their Registrations View.

Note: If modifying the End Date, utilize the "**Terminate**" function instead; the system will determine the proper end-date of the registration based on 5 business days. The 5 business day window is to align with the Master File submission process.





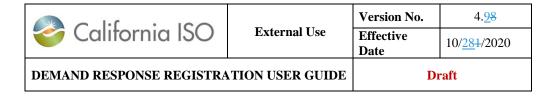




Once the Registration is edited, the options to proceed include:

Cancel - Cancels Edit of the Registration.

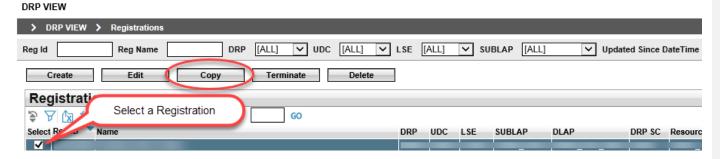
Update - Updates the Registration maintaining its Registration ID.



4.1.2 Copy

The **Copy** feature allows the DRP to create a new registration by copying an existing registration and making changes to the copied field information. Registrations in any status may be copied. To **Copy** a registration, the registration is first selected then the **Copy** button chosen under the Registrations View.

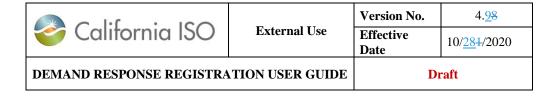
Note: If using this functionality for extending out a registration on a registration that is approaching end-date, verify the information including the Resource ID is the same and locations are not used in another registration prior to submitting.



The Copy option takes the user to the Registration window and provides the same Options as Create registration:

Cancel - cancels the creation of a new registration.

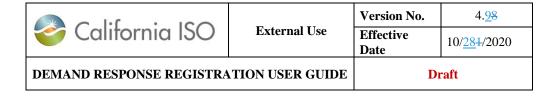
Save - creates a new registration with changes and registration ID for it.



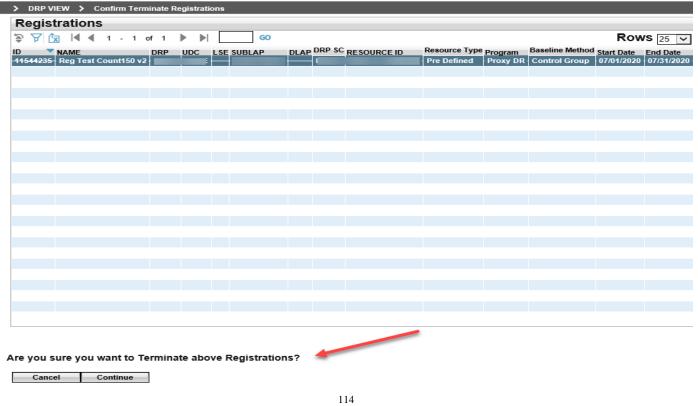
4.1.3 Terminate

The **Terminate** feature allows the DRP to end-date a Registration. Registrations can only be end-dated when they are in the Confirmed status. The system will determine the proper end date of the registration based on the 5 business days from the current date. To **Terminate**, the Registration is first selected then the **Terminate** button chosen under the Registration View.

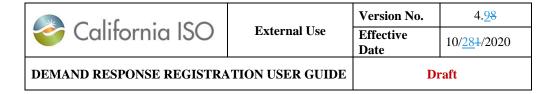




Once **Terminate** is selected, the Registration to be end-dated will be identified and a confirmation to terminate is required by selecting the **Continue** button.



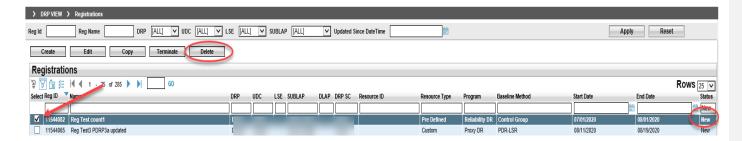
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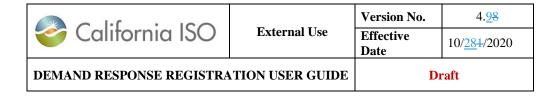


A Registration is in a Terminate status when its effective end date is prior to the current date. Terminated Registrations are logically equivalent to deleted records. A Terminated Registration can be Copied but not Edited.

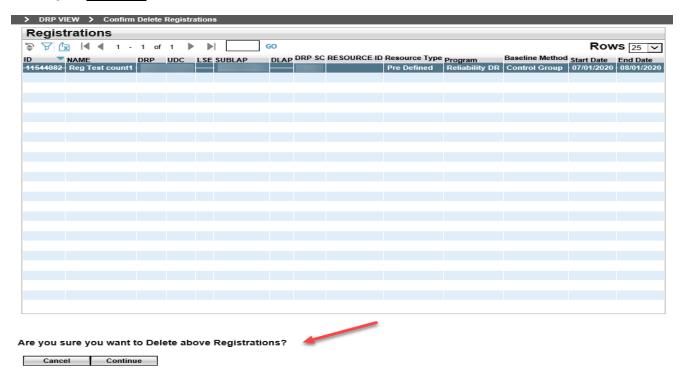
4.1.4 Delete

The **Delete** feature allows the DRP to delete a new Registration that are in draft (NEW) status. To **Delete** a Registration, the new Registration is first selected then the **Delete** button chosen under the Registrations View.





Once **Delete** is selected, the Registration to be deleted will be identified and a confirmation to delete is required by selecting the Continue button.



A deleted Registration and its created Registration ID will no longer exist in the Registrations View.

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4.2 Application Programming Interface (API) Registration and Resource Management

The DRRS provides APIs for the performance of all Registration management processing. Market Participants can retrieve or submit the following Registration data via the DRRS web services:

- Retrieve status for the creation or modification requests
- Retrieve DRRS Registrations
- Retrieve Locations
- Save request for creating new DRRS Registrations
- Delete request for deleting the /new DRRS Registrations
- Submit request for creating/terminating (end-date) DRRS Registrations
- Modify request for modifying (edit) DRRS Registrations

Technical ISO Interface Specifications with more detailed information are available on the ISO Developer website at https://developer.caiso.com. Login permission is required, and users can sign up on the website provided.

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5 Helpful Links

Document	Link	
Application Access Request Form reference Guide	http://www.caiso.com/Documents/ApplicationAccessRequestFormReferenceGuide.pdf	
Access and Identity Management (AIM) User Guide	http://www.caiso.com/Documents/AccessandIdentityManagement_AIM_UserGuide.pdf	
Energy Storage and Distributed Energy Resources 3B External Training Presentation	http://www.caiso.com/Documents/EnergyStorage_DistributedEnergyResources_Phase3B.pdf	
Demand Response and Proxy Demand Resources FAQ	http://www.caiso.com/Documents/DemandResponseandProxyDemandResponseFAQversion5.xls	
Demand Response Provider Agreement Information Request Sheet	http://www.caiso.com/Documents/DemandResponseProviderAgreementInformationRequestSheet.doc	
Direct Telemetry BPM	http://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Direct Telemetry	

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External User Application Access request Form	http://www.caiso.com/Documents/UserApplicationAccessRequestForm.xls	
ISO Connected Entity Service Guide	http://www.caiso.com/Documents/ISOConnectedEntityServiceGuide.pdf	
List of certified SC's	http://www.caiso.com/Documents/List- SchedulingCoordinators_CRRHoldersandConvergenceBiddingEntities.pdf	
List of Demand Response Participants	http://www.caiso.com/Documents/ListofDemandResponseParticipants.pdf	
Load and Demand Response Page	http://www.caiso.com/participate/Pages/Load/Default.aspx	
Load Serving Entity Request (LSE ID) Form	http://www.caiso.com/Documents/LoadServingEntityIDRequestForm.doc	
Meter Service Agreement ISO Metered Entities Information Request Sheet	http://www.caiso.com/Documents/MeterServiceAgreement_ISOMeteredEntitiesInformationRequertSheet.doc	

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Meter Service Agreement Scheduling Coordinators Information Request Sheet	http://www.caiso.com/Documents/MeterServiceAgreement_SchedulingCoordinatorsInformationRequestSheet.doc	
Metering BPM	http://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Metering	
New Resource Implementation Checklist	http://www.caiso.com/Documents/NewResourceImplementationChecklist.xlsxhttp://www.caiso.com/Documents/NewResourceImplementationChecklist.xls	
Requirements for becoming and Scheduling Coordinator	http://www.caiso.com/participate/Pages/SchedulingCoordinator/Default.aspx	
Reliability Demand Response Resource TrainingRequirements for becoming and Scheduling Coordinator	http://www.caiso.com/Documents/ReliabilityDemandResponseResourceOverview.pdf	
Energy Storage Distributed Energy Resources customer partnership group meeting artifacts including presentation	http://www.caiso.com/Documents/Presentation-EnergyStorage- DistributedEnergyResourcesPhases2-3-ImplementationCustomerPartnershipGroup-May6-2019.pdf	
Energy Storage Distributed Energy Resources – Phase 3 -Business Requirements	http://www.caiso.com/Documents/BusinessRequirementsSpecificationClean- EnergyStorageandDistributedEnergyResourcesPhase3.pdf	

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DRRS Enhancement -Demand Response Location Registration Enhancement – Technical Specifications	http://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspxhttp://www.caiso.com/Documents/Deman dResponseLocationRegistrationEnhancement-TechnicalSpecificationsv4REDLINED.pdf	
DRRS Enhancement -Summary of Use Case for Demand Response Solutions Registrations	http://www.caiso.com/Documents/SummaryofUseCaseforDemandResponseSolutions-Registrations.pdf	
DRRS Enhancement -Location and Registration Life Cycle	http://www.caiso.com/Documents/LocationandRegistrationLifecycle.pdf	
DRRS Enhancement -Summary of Use Case for Demand Response Solutions Locations	http://www.caiso.com/Documents/SummaryofUseCaseforDemandResponseSolutions-Locations.pdf	
Example – Day Match Workbook	http://www.caiso.com/Documents/Example-DayMatchWorkbook.xlsx	
Example – Day Randomization Validation	http://www.caiso.com/Documents/Example-RandomizationValidationTemplate.xlsx	
Example – Weather Match Workbook	http://www.caiso.com/Documents/Example-WeatherMatchWorkbook.xlsx	

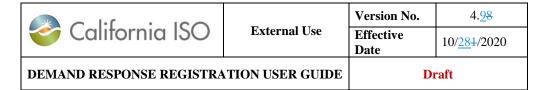
		Version No.	4. <u>9</u> 8
California ISO	External Use	Effective Date	10/ <u>28</u> 1/2020
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GRDT and IRDT Definitions	http://www.caiso.com/Documents/GRDTandIRDTDefinitions.xls
Generator Resource Data Template (GRDT)	http://www.caiso.com/Documents/GeneratorResourceDataTemplate ForNewDemandResponse.xls x
Full Network Model Pricing Node	http://www.caiso.com/Documents/FullNetworkModel_PricingNodeMapping_Based_FullNetworkModel_ReleaseDB2019Q2.xls

6 Revision History

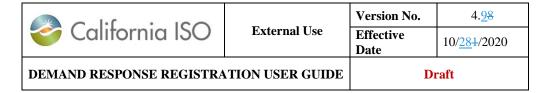
Date	Version	Updated By	Description
03/24/15	3.7	Monica	Added info on BUS Pnode
03/25/15	3.7	Monica	Added the following info to the LSE and UDC Commenting on a Registration sections Note: The Comments box is limited to 255 characters. If the LSE review generates comments larger than 255 characters. When a comment is provided by the LSE indicating that
			there is a "review with findings" within the registration information, the CAISO will deny the registration. The DRP is required to resolve any issues related to the

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			"findings" with the appropriate party. During that time, additional detail may be exchanged by parties to resolve all issues determined in the review process. CAISO's responsibility is to look for general comments as to why there is an issue with the registration and therefore does not require listing of multiple SANs that may be in conflict with availability to participate. The 255 character limitation should be sufficient to provide the CAISO with enough information to deny the registration and request issue resolution be made between the parties outside of the registration process. If the CAISO determines that there is error in the registration detail that needs to be corrected by the DRP, the registration will be denied as a means to alert the DRP of corrective actions that are being requested by the CAISO.
06/04/15	3.8	Monica M.	Updated the sections pertaining to requesting for a DRP/LSE/UDC ID and OMS.
06/05/15	3.9	Monica M.	Added clarifying language for terminating location(s)/ALOC(s).
11/05/15	3.9	Monica M.	Incorporated the Jill's Demand Response Resource Participation Guide into the current Demand Response User Guide document and removed the original document off the external site.
04/12/16	3.10	Monica M.	Added clarifying language for Reliability Demand Response Services Term. Summer term runs from June through September – Winter term runs from October through May

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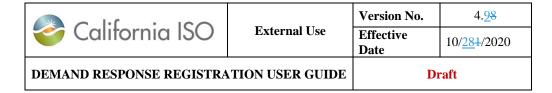
4/19/16	3.11	Monica M.	Updated link on page 129 regarding the XML test materials. http://www.caiso.com/Pages/documentsbygroup.aspx?Group ID=6A0B3CBD-4EE0-4BCD-B44F-CBB9E711D31F
10/01/16	4.0	Jill Powers	Updated User Guide to include information related to the Enabling Demand Response Phase II for the PDR/RDRR Registration functionality transfer from DRS to DRRS. Updates to include new baseline and statistical sampling methodologies approved as part of Energy Storage and Distributed Energy Resource Initiative.
12/06/16	4.1	Monica M.	Updated the section on "Generation Resource Data Template Submission and Processing". Going forward, all GRDTs shall be submitted to RDT@caiso.com and no longer to pdf@caiso.com .
12/13/16	4.2	Monica M.	Updated the Market Participation chart under Customer Baseline Methodology.
5/5/2017	4.3	Tim B.	Completed unfinished sentence on last bullet of page 170 and changed page 84 to remove RDRR from statement regarding necessity of telemetry.

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10/26/2018	4.4	Pia S.	Updated User Guide to include information related to the Energy Storage and Distributed Energy Phase II for the PDR/RDRR process and application.	
10/31/2018	4.5	Pia S.	Updated sections: Purpose, Performance Evaluation/Baseline Methodology, "Generator Data Submission and Processing" for Custom Resource ID, and Telemetry.	
8/16/2019	4.6	Pia S.	Updated: Removed sections related to business process to BPM for Demand Response, ESDER3a, DRRS Automated Email Notification, Application Access, helpful links Added: Appendix C, and Notes in Appendix A.	
8/22/19	4.6a	Pia S.	Removed notes in section 3.3	
11/7/19	4.7	Pia	Updated sections: - Title of the User Guide from Demand Response to Demand Response Registration User Guide 1.3 Application Access - 1.4 DRRS Automated Email Notification - 2.1 Locations - 2.3.1.2 Column Headers - 3.1.1 Edit - 3.1.5 Defend - Appendix A – Three (3) Cases of Defend Process.	

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7/22/20	4.8	Pia	Updated for ESDER 3B initiative – sections 3, 4.2, Appendix B, Helpful Links, Definitions, and UI screenshots due to WebSD changes. Added for ESDER 3B initiative – Appendices D through F.
10/27/2020	<u>4.9</u>	<u>Pia</u>	Updated Appendix E, Definitions for "ES", section 3.3 Creating Registration for Resource ID validation rules, and resource ID request.

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Appendix A – Three (3) Possible Cases of Defend Process

All three (3) possible cases of defend process below starts with:

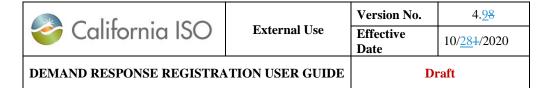
- 1) Prospective DRP submit Location for approval through the UI.
- 2) The Prospective DRP receives a message, "A Location with given SAN and UDC combination already exists, do you want to continue and initiate the Defend Process?" Prospective DRP complete all the required fields... name, phone number, and comments. The Location for the SAN will be in "Duplicate" status after initiating the defense process.
- 3) The Incumbent DRP Locations screen will show a status of Defense Active = Y, and the Defense Start, and Defense End.
- 4) The Incumbent DRP may receive an email notification that "their location(s) has triggered the location defense process".

1. If Incumbent DRP accepts the Prospective DRP claim to the customer.

See steps 1-4 above.

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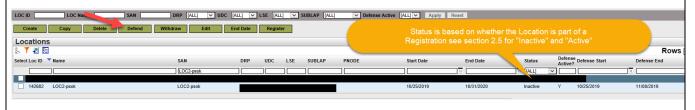


- 5) The Incumbent DRP accepts the prospective DRP claim by releasing the Location for the SAN.
- 1. On the Locations screen, select the Location under the defense process, click "Defend". A "Selected Locations" screen will appear. Do not check the "Valid Location" box. Enter your name, Phone number, and Comment, and click "Continue"
- 6) The system will automatically update the "End Date" of the incumbent's DRP location and change the status of the Prospective DRP's Location from "Duplicate" to "Pending" for LSE and UDC approval.
- 7) The Prospective DRP's Location status changes to "Inactive" after approved by the LSE and UDC.
- 8) The Prospective DRP creates Registration for the Location.

2. Incumbent DRP rejects the Prospective DRP claim to the customer.

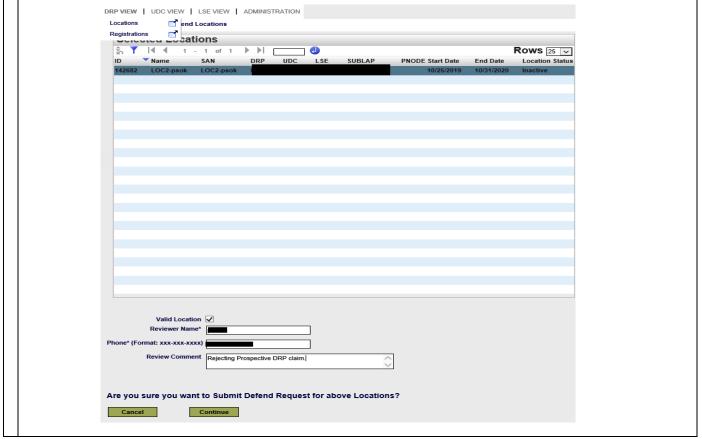
See steps 1-4 above.

- 5) The Prospective DRP's Location for the SAN will remain in the "Duplicate" status as the Incumbent DRP still owns the Location in an "Active" or "Inactive" status.
- 6) The Incumbent DRP rejects the Prospective's claim through the UI.
 - a. On the Locations screen, select the location in defense process and click "Defend".



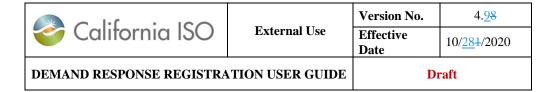
b. Check the "Valid Location" box, Review Name, Phone number, and Comments.





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- 7) After the Incumbent DRP rejects the Prospective DRP claim, the Defense Active flag, Defense Start, and End Date will be blank.
- 8) The Prospective DRP will see the comments on the Locations screen > Location Defend Details Incumbent.



9) If the Prospective DRP agrees with the Incumbent, the Prospective DRP can end date or delete the Location.

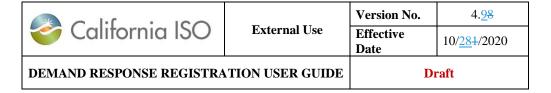
If the Prospective DRP disagrees during the defense process, they must contact the Incumbent DRP to resolve the duplicate use conflict outside of the ISO registration process.

3. Incumbent DRP takes **no action** within the 10 business day window.

See steps 1-4 above.

- 5) If the Incumbent DRP takes **no action**, the system will automatically end-date the Incumbent DRP's Locations, and its corresponding Registration <u>after</u> the 10 business days. The Incumbent DRP loses the Location, and the Prospective DRPs Location status will change from "Duplicate" to "Pending". In addition, the system will update the end date to 5 business days out for the location in the defend process and its corresponding registration.
- * The email notification from DRRS will be sent out the following day, and to only to those that are currently registered in the database. See DRRS Automated Email Notification section 1.4.

Note: As a result of the Defend process, the Location's <u>Review Start Date</u> may have a start date after the <u>Location's Start Date</u>, depending on when the LSE/UDC review process is triggered.



Appendix B – Editable field(s) by Locations Status

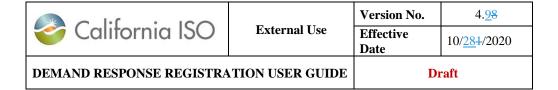
Locations Status

New			
Fields	Validation Rules	Editable (Yes/No)	
Name		Yes	
Start Date		Yes	
End Date		Yes	
Address (1 and/or 2)		Yes	
City		Yes	
State		Yes	
Zip		Yes	
LOC ID		Yes	
SAN		No	
DRP		Yes	

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ſ	UDC	Yes
	SUBLAP	Yes
	PNODE	Yes
l	Device Type	Yes
ı		

Pending

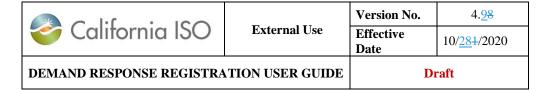
Cannot be edited. The Pending Location(s) only allows for end dating.

Duplicate

Cannot be edited. The Duplicate Location(s) only allows for end dating.

Inactive

Fields	Validation Rules	Editable (Yes/No)
Name		Yes
Start Date	IF Update > Existing/Recorded	THEN Yes ELSE No
End Date	IF Update < Existing/Recorded	THEN Yes ELSE No
Address		Yes
City		Yes



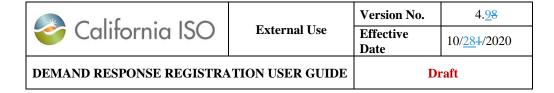
State	Yes
Zip	Yes
LOC ID	No
SAN	No
DRP	No
UDC	No
SUBLAP	No
PNODE	No
Device Type	No

Active

Fields	Validation Rules	Editable (Yes/No)
Name		Yes
Start Date		No
End Date	IF Update < Existing/Recorded	THEN Yes ELSE No
Address		Yes
City		Yes

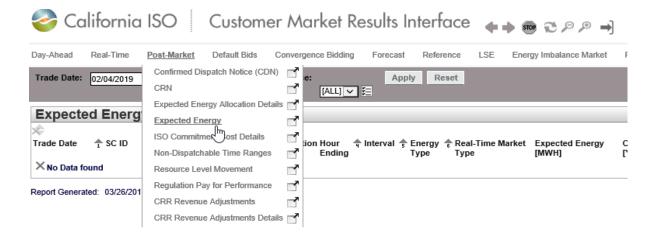
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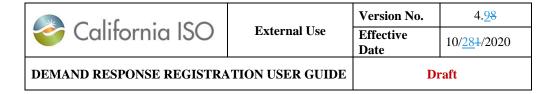
State	Yes
Zip	Yes
LOC ID	No
SAN	No
DRP	No
UDC	No
SUBLAP	No
PNODE	No
Device Type	No

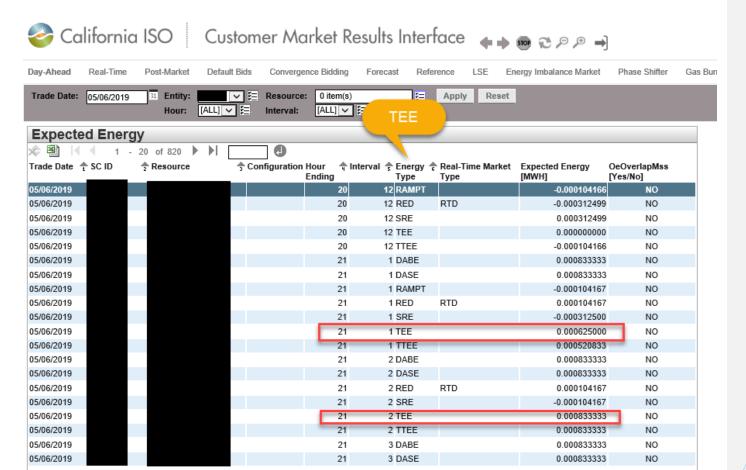


Appendix C - Customer Market Results Interface (CMRI)

Viewing Total Expected Energy (TEE)







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Appendix D – Tips for Creating Registrations by Baseline Method table

Program	Resource Type	Baseline Method	Notes
Proxy DR	Predefined or Custom	All Baseline Methods	 For all PDR-LSR Baseline Methods: PDR-LSR PDR-LSR+Day Matching 5/10 PDR-LSR+Day Matching 10/10 PDR-LSR+Weather Matching PDR-LSR+Day Matching Combined
			DRRS store only the <i>Curtailment</i> Resource ID. The Resource ID contain a substring, 'CUR'. Examples of the naming convention is in the table below:
			Curtailment ID Pre- ABCD_x_PDRPCURxxx defined Resource
			Custom ABCD_x_PDRCCURxxx Resource
			For Master File, the GRDT must include 2 resource IDs, Curtailment and Consumption resource IDs.
		An example of the a pre-defined resource ID for Master File subm ABCD_1_PDRPCUR001 ABCD 1_PDRPCON001	

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			The business rules for location's device type applies to all Baseline Methods, please refer to BPM for DR, Appendix E – DRRS Location Device Type Business Rules and Baseline Met. Control Group must have at least 150 control group locations and 1 treatment group location.
Reliability DR	Predefined or Custom	 MGO+Day Matching 5/10 MGO+Day Matching 10/10 MGO+Day Matching Combined MGO+Weather Matching Meter Generation Output Matching Combined Day Matching Combined Day Matching 10/10 Day Matching 5/10 (Residential Only) Weather Matching Control Group 	The business rules for location's device type applies to all Baseline Methods, please refer to BPM for DR, Appendix E – DRRS Location Device Type Business Rules and Baseline Met. Control Group must have at least 150 control group locations and 1 treatment group location.

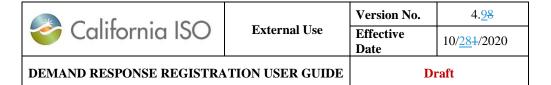
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Appendix E- DRRS Location Device Type Business Rules and Baseline Method Reference Matrix

Business Rules for Location Device Type:

A summary of the baseline method criteria in relation to its associated location business rule:

	Need at least one location with a device type equal to		
Baseline Method	Energy Storage (ES)	Electric Vehicle Supply Equipment (EVSE)	
1. PDR-LSR			
PDR-LSR+Day Matching 5/10			
3. PDR-LSR+Day Matching 10/10			
4. PDR-LSR+Weather Matching			
PDR-LSR+Day Matching Combined	Yes		
6. MGO+Day Matching 5/10	163		
7. MGO+Day Matching 10/10			
8. MGO+Day Matching Combined			
9. MGO+Weather Matching			
10. Meter Generation Output			
1. EVSE res			
2. EVSE res+Day Matching 5/10			
3. EVSE res+Day Matching 10/10			
4. EVSE res+Day Matching Combined			
5. EVSE res+Weather Matching		Yes	
6. EVSE non-res			
7. EVSE non-res+Day Matching 10/10			
8. EVSE non-res+Weather Matching			
EVSE non-res+Day Matching Combined			



	Need at least one location with a device type equal to		
Baseline Method	Energy Storage (ES)	Electric Vehicle Supply Equipment (EVSE)	
 Day Matching Combined Day Matching 10/10 Day Matching 5/10 (Residential Only) Weather Matching Control Group 			

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DRRS Location Device Type Baseline Method Reference Matrix:

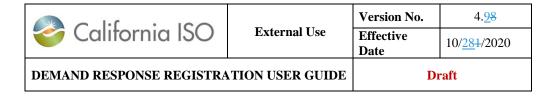
Location Device Type	Baseline Methods for Registration	
Energy Storage (ES)	PDR-LSR*	
	PDR-LSR+Day Matching 5/10*	
	PDR-LSR+Day Matching 10/10*	
	PDR-LSR+Weather Matching*	
	PDR-LSR+Day Matching Combined*	
	MGO+Day Matching 5/10*	
	MGO+Day Matching 10/10*	
	MGO+Day Matching Combined*	
	MGO+Weather Matching*	
	Weather Matching	
	Meter Generation Output	
	Day Matching Combined	
	Day Matching 10/10	
	Day Matching 5/10 (Residential Only)	
	Control Group	
El 4' Will C 1	EVOE *	
Electric Vehicle Supply	EVSE res*	
Equipment (EVSE)	EVSE res+Day Matching 5/10*	
	EVSE res+Day Matching 10/10*	
	EVSE res+Day Matching Combined*	
	EVSE res+Weather Matching*	
	EVSE non-res*	
	EVSE non-res+Day Matching 10/10*	
	EVSE non-res+Weather Matching*	
	EVSE non-res+Day Matching Combined*	
	Weather Matching	

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	Day Matching Combined Day Matching 10/10 Day Matching 5/10 (Residential Only) Control Group
Neither ES Nor EVSE	Day Matching Combined Day Matching 10/10 Day Matching 5/10 (Residential Only) Weather Matching Control Group
Both ES and EVSE	PDR-LSR* PDR-LSR+Day Matching 5/10* PDR-LSR+Day Matching 10/10* PDR-LSR+Weather Matching* PDR-LSR+Day Matching Combined* MGO+Day Matching 5/10* MGO+Day Matching 10/10* MGO+Day Matching Combined* MGO+Weather Matching* Weather Matching EVSE res* EVSE res+Day Matching 5/10* EVSE res+Day Matching 10/10* EVSE res+Day Matching Combined* EVSE res+Day Matching 10/10* EVSE res+Day Matching 10/10* EVSE non-res+Weather Matching*

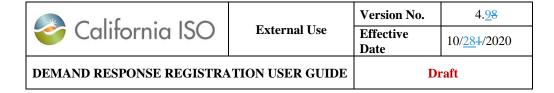
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EVSE non-res+Day Matching Combined* Meter Generation Output Day Matching Combined Day Matching 10/10 Day Matching 5/10 (Residential Only) Control Group

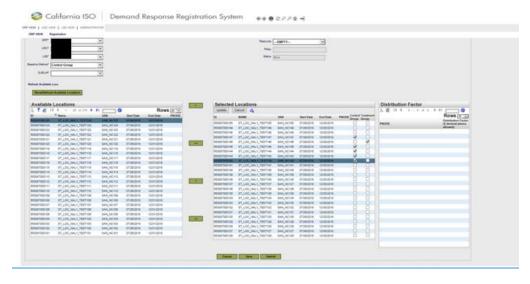
Note: Baseline methods in asterisk (*) are new with ESDER 3B and those not in asterisk (*) are existing methods.

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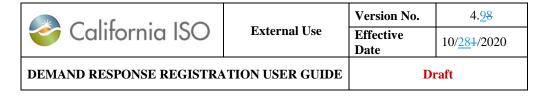


Appendix F– Example of Creating a Registration using Control Group Baseline Method

A minimum of 150 Control Group Locations and at least 1 Treatment Group must be selected. See the BPM for Demand Response for more details on the requirements for Baselines.



Note: DRRS limits 200 locations per registration unless this is loaded using the API.



Once the Registration information is complete, Locations have been selected and Distribution Factors updated (for custom resource id), the options to proceed include:

- o Cancel cancels the creation of the Registration
- o Save creates a new Registration and Registration ID for it.
- O Submit creates a new Registration and Registration ID for it and submits for registration.

Once the new Registration information has been created and saved or submitted, a new *Registration ID* (*Reg ID*) will be generated.

When saved, the locations **Status** will be displayed as *New*.



When submitted, the locations **Status** will be displayed as *Confirmed*.