



California ISO

Demand Response Registration User Guide

Version 4.7

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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.

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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>

- [Market Results Interface](#) – Settlements (MRI-S) application access is required to submit performance and load values to MRI-S by the Scheduling Coordinator (SC).
- [Master File User Interface](#) – 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
 - Resources with Approved Changes
- The [Customer Interface for Resource Adequacy \(CIRA\)](#) 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.
- [Customer Market Results Interface \(CMRI\)](#) – This Application may be used to generate the following reports. [Appendix D](#) provide screenshots of viewing binding schedules and awards for Demand Response.
 - Total Expected Energy (TEE)
 - Real-time Unit Commitment (RTUC)
 - Fifteen Minute Market (FMM).
- [Scheduling Infrastructure and Business Rules \(SIBR\)](#) – 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.

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- Automated Dispatch System (ADS) - 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.

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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.
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.
DLA Resource	The DLAP in which the Locations of the Registration resides.
DLAP	Default Load Adjustment Point

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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.
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
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.

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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.
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.

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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.

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

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

- Go to the **Access Request** tab
- Click on the pencil icon
- Click on the **New Row** button
- Type in a brief description
- Click **Update**
- 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
- 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*
- Be sure to update the applicable Action, Application, Role, Environment, and Entity
- Click **Update** to save the roles.
- Next, click the green **Preview** button, which will open a submission window
- 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)
- DR UDC (Demand Response Utility Distribution Company)

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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 <u>group email distribution list</u> 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

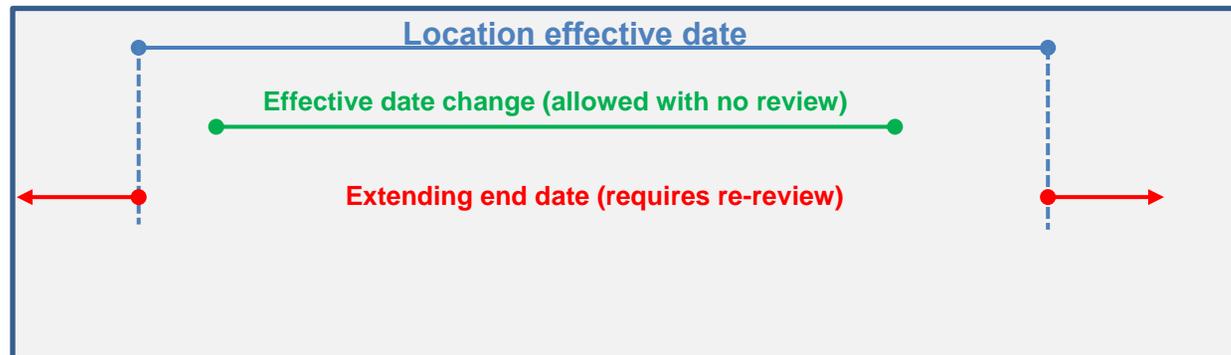
In DRRS, there are two functionality tabs: (1) Locations, (2) Registrations

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

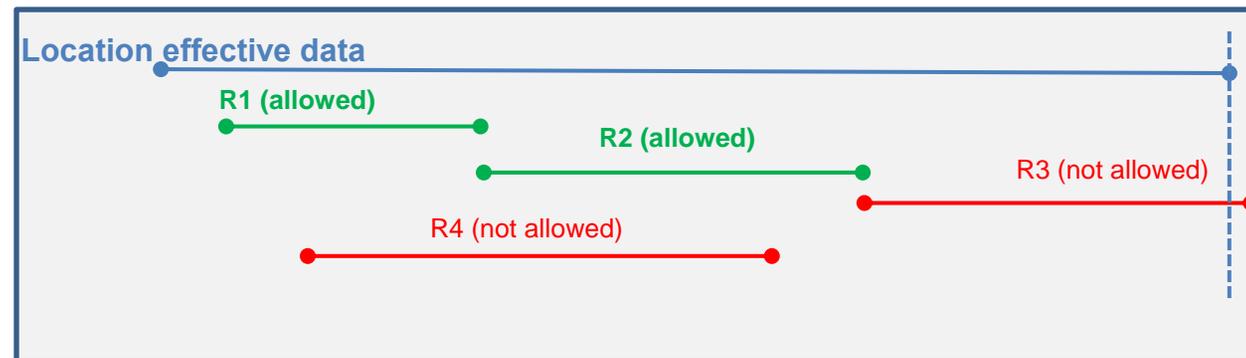


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2.2 Registrations

- 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



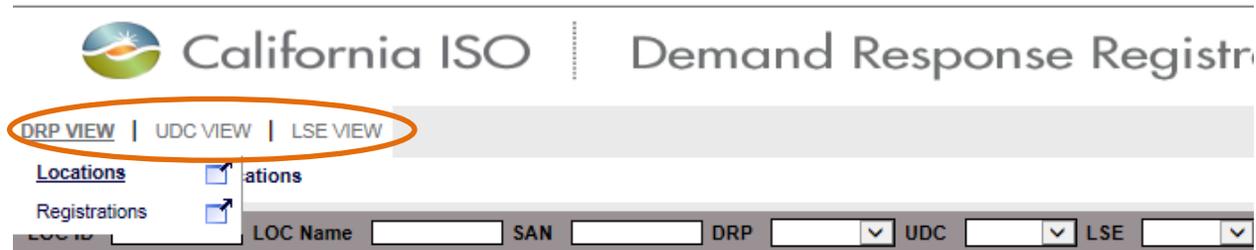
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2.3 Application Layout

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.

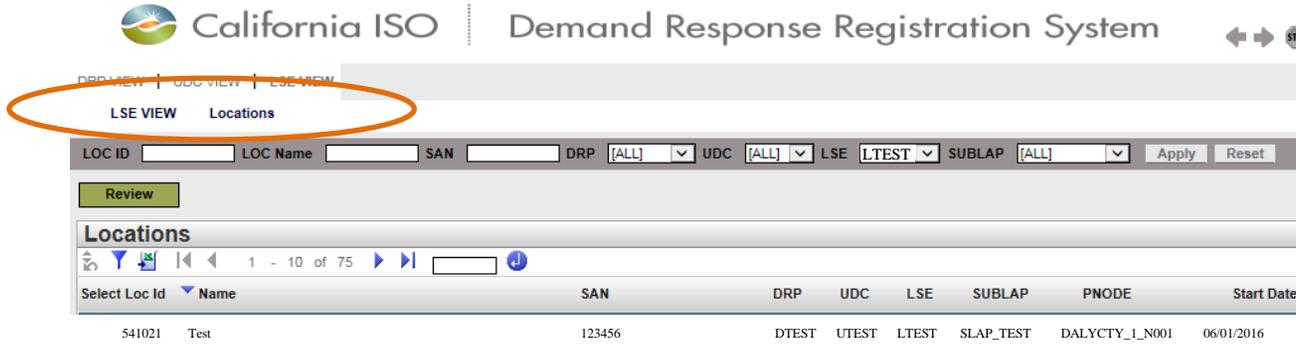


To access the Location or Registration functionality, users can place their cursor over the applicable tab(s) (DRP VIEW, UDC VIEW or LSE VIEW). The Locations and Registration screens are accessible under the corresponding views.

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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



The screenshot shows the California ISO Demand Response Registration System interface. At the top, there are navigation tabs for 'DRP VIEW', 'UDC VIEW', and 'LSE VIEW'. The 'LSE VIEW' tab is selected and circled in orange. Below the tabs, there are search filters for 'LOC ID', 'LOC Name', 'SAN', 'DRP', 'UDC', 'LSE', and 'SUBLAP'. The 'LSE' filter is set to 'LTEST'. A 'Review' button is visible below the filters. The main content area is titled 'Locations' and displays a table with the following data:

Select Loc Id	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE	Start Date
541021	Test	123456	DTEST	UTEST	LTEST	SLAP_TEST	DALYCTY_1_N001	06/01/2016

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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



California ISO | Demand Response Registrations

DRP VIEW | UDC VIEW | **LSE VIEW** | Registrations

Reg Id Reg Name DRP [ALL] UDC [ALL] LSE LTEST SUBLAP [ALL]

Registrations

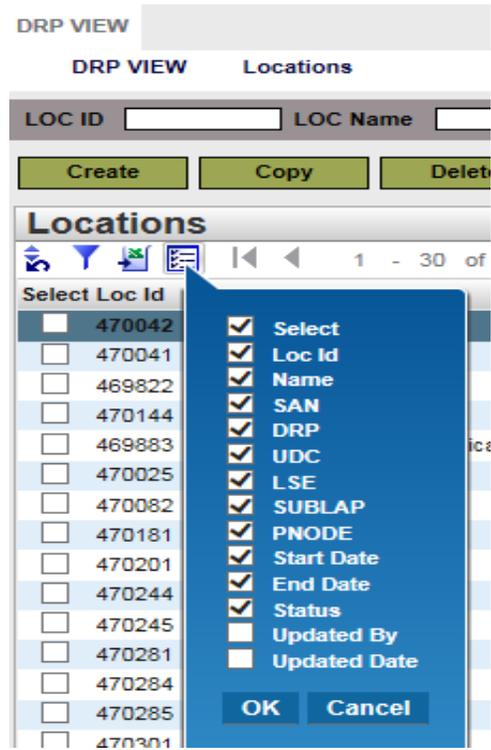
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Reg Id	Name	DRP	UDC	LSE	SUBLAP
541021	Test	DTEST	UTEST	LTEST	SLAP_TEST

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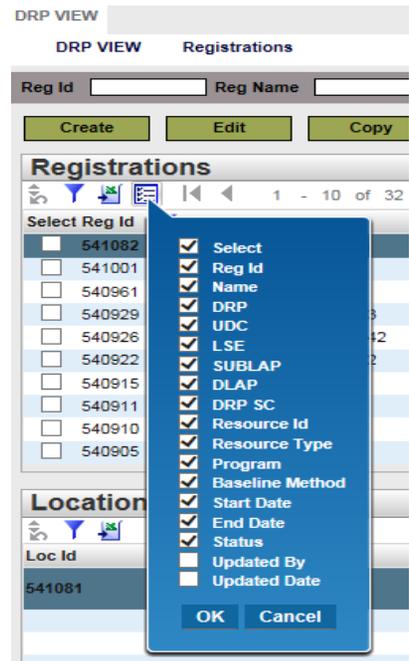
2.3.1.2 Column Headers

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.



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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: Starting ESDER 3A go-live, the LSE and DLAP columns will continue to be viewable; the system will store the old records, but new records with a start date of 11/13/2019 and forward will be null.

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2.3.1.3 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.

DRP VIEW Locations

LOC ID LOC Name SAN DRP [ALL] UDC [ALL] LSE [ALL] SUBLAP [ALL] Apply Reset

Create Copy Delete Defend Withdraw Edit End Date Register

Locations

1 - 30 of 64

Select Loc Id	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE	Start Date	End Date	Status
<input type="text"/>	[ALL]									

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.

DRP VIEW Registrations

Reg Id Reg Name DRP [ALL] UDC [ALL] LSE [ALL] SUBLAP [ALL] Apply Reset

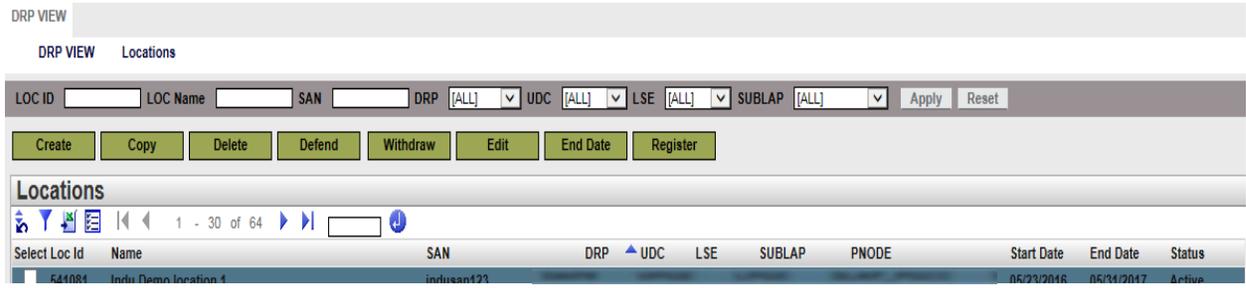
Create Edit Copy Terminate Delete

Registrations

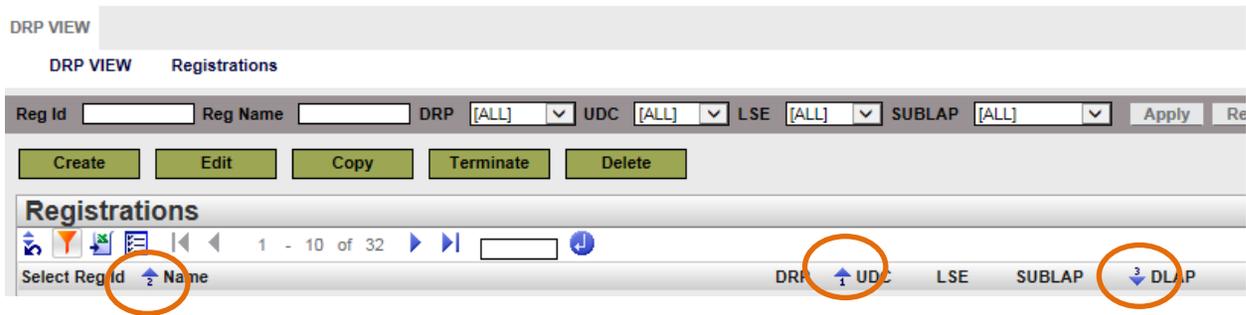
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2.3.1.4 Sorting and Filtering Locations and Registrations

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

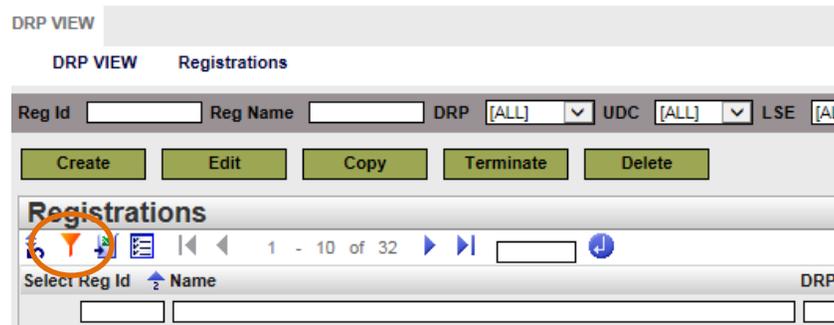


Multiple column headers can be sorted either ascending or descending.



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Users can also use the inline filtering option . 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.



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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 | UDC VIEW | LSE VIEW

DRP VIEW Locations

LOC ID LOC Name SAN
 DRP [ALL] UDC [ALL] LSE [ALL]

Registrations: Create, Edit, Copy, Terminate, Delete

DRP VIEW | UDC VIEW | LSE VIEW

DRP VIEW Registrations

Reg Id Reg Name
 DRP [ALL] UDC [ALL] LSE [ALL] SUBLAP [ALL]

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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 | UDC VIEW | LSE VIEW

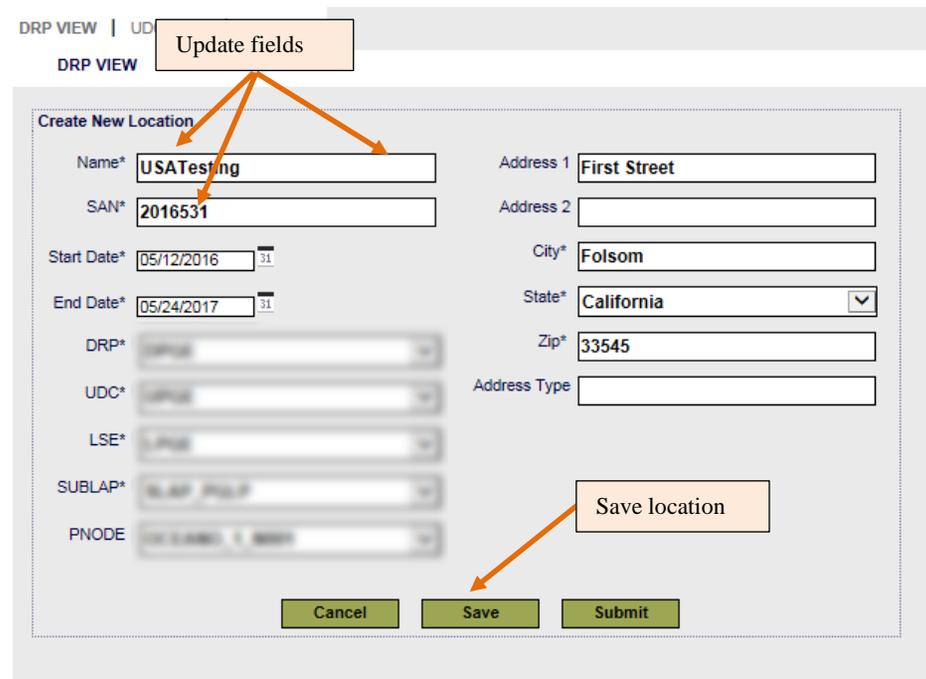
DRP VIEW Create New Locations

Create New Location

Name*	<input type="text"/>	Address 1*	<input type="text"/>
SAN*	<input type="text"/>	Address 2	<input type="text"/>
Start Date*	<input type="text" value="31"/>	City*	<input type="text"/>
End Date*	<input type="text" value="31"/>	State*	California <input type="button" value="v"/>
DRP*	<input type="button" value="v"/>	Zip*	<input type="text"/>
UDC*	<input type="button" value="v"/>	Address Type	<input type="text"/>
LSE*	<input type="button" value="v"/>		
SUBLAP*	<input type="button" value="v"/>		
PNODE	<input type="button" value="v"/>		

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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 | UD
DRP VIEW

Create New Location

Name*

SAN*

Start Date* 31

End Date* 31

Address 1

Address 2

City*

State* ▼

Zip*

Address Type

DRP*

UDC*

LSE*

SUBLAP*

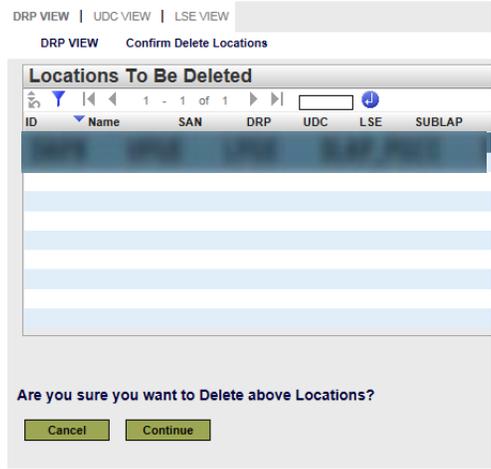
PNODE

Update fields

Save location

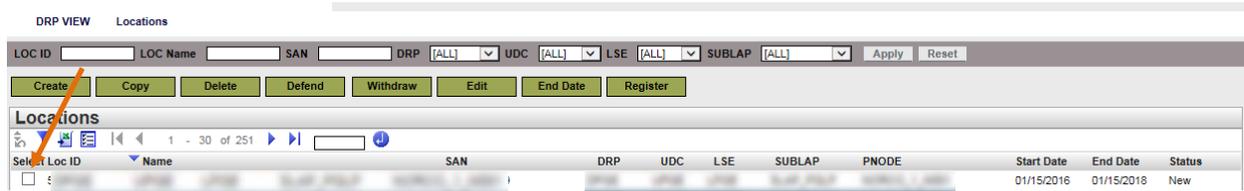
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DRP DELETE action is usable when a location has been previously created. **DELETE** is only actionable for certain location statuses.



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.



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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 VIEW | UDC VIEW | LSE VIEW | ADMINISTRATION

DRP VIEW Confirm Withdraw Locations

Locations To Be Withdrawn

1 - 1 of 1

ID	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE	Start Date	End Date	Location Status
								09/01/2016	09/01/2017	Pending

Are you sure you want to Withdraw above Locations?

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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 | UDC VIEW | LSE VIEW

DRP VIEW Locations

LOC ID LOC Name SAN DRP [ALL] UDC [ALL] LSE [ALL]

Locations

1 - 30 of 63

Select	Loc Id	Name	SAN	DRP	UDC	LSE
<input checked="" type="checkbox"/>	540941	LKTest	111111			

DRP VIEW | UDC VIEW | LSE VIEW

DRP VIEW Edit Location

Edit Location

LOC ID: 540941	PNODE: [Dropdown]
SAN*: 111111	Address 1*: test
NAME*: LKTest	Address 2: [Text]
Start Date*: 05/12/2016	City*: Folsom
End Date*: 05/24/2017	State*: California
DRP*: DPGE	Zip*: 33545
UDC*: [Dropdown]	Address Type: [Text]
LSE*: [Dropdown]	Status: Active
SUBLAP*: [Dropdown]	

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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.

DRP VIEW | UDC VIEW | LSE VIEW

DRP VIEW Confirm End Date Locations

Locations To Be End Dated

1 - 1 of 1

ID	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE Start Date	End Date	Location Status
							05/04/2016	06/03/2016	Inactive

Are you sure you want to End Date above Locations?

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2.4.1.2 UDC and LSE Actions

Locations: Review

DRP VIEW | UDC VIEW | LSE VIEW

UDC VIEW Locations

LOC ID LOC Name SAN
 DRP UDC LSE SU

Locations

Registrations: View Location

DRP VIEW | UDC VIEW | LSE VIEW

UDC VIEW Registrations

Reg Id Reg Name
 DRP UDC LSE
 SUBLAP

Registrations

1 - 10 of 44

Reg Id	Name	DRP	UDC
541082	Indu demo registration		

Locations

Loc Id	SAN	Resource Id	Start date	End date	Distribution Factor
			05/23/2016	05/31/2017	

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2.5 Location and Registration Status Lifecycle

DRRS Status	
Location	Registration
<ol style="list-style-type: none"> 1. New 2. Processing 3. Pending 4. Inactive 5. Active 6. Withdrawn 7. End-Dated 8. Duplicate 9. Disputed 	<ol style="list-style-type: none"> 1. New 2. Pending 3. Confirmed 4. Terminated

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

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	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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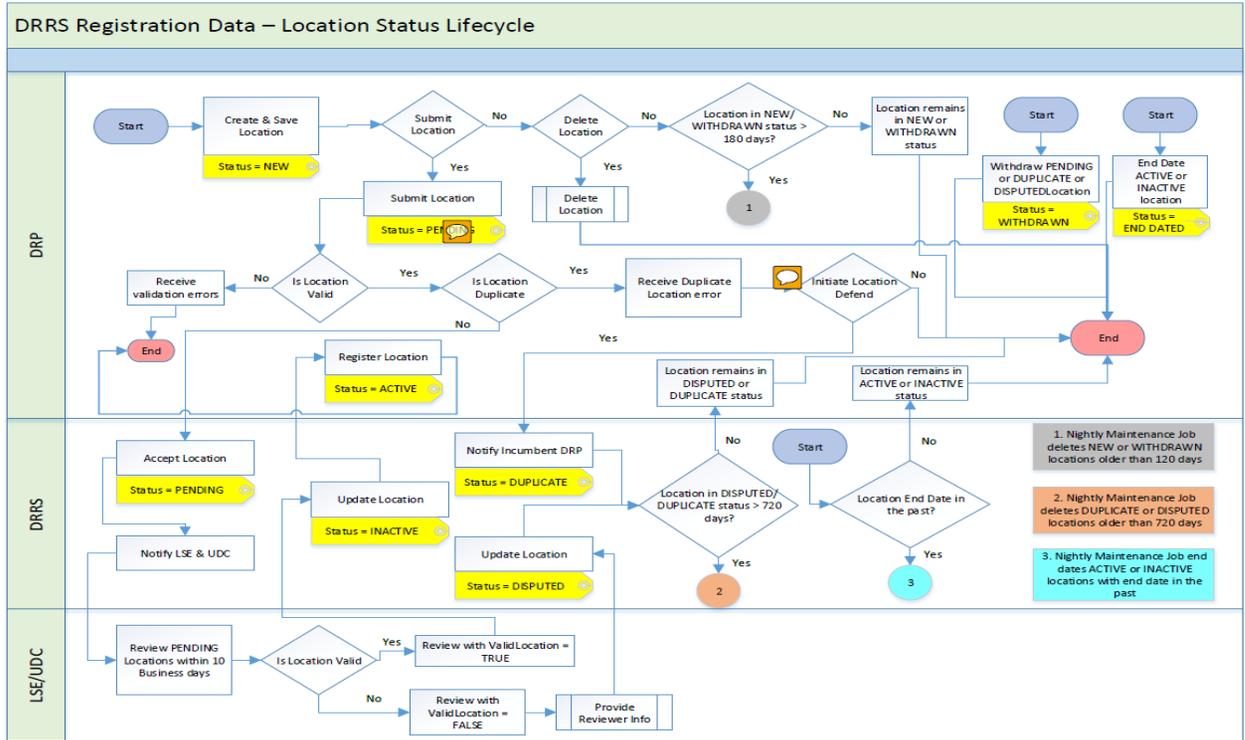
Registration	New	Registration will be set to this status when it has been created but NOT yet submitted.
	Pending	Registration will be set to this status when it has been submitted and validation is in progress.
	Confirmed	Registration will be set to this status when it has been submitted and validation 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.

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Registration		
Status	Registration 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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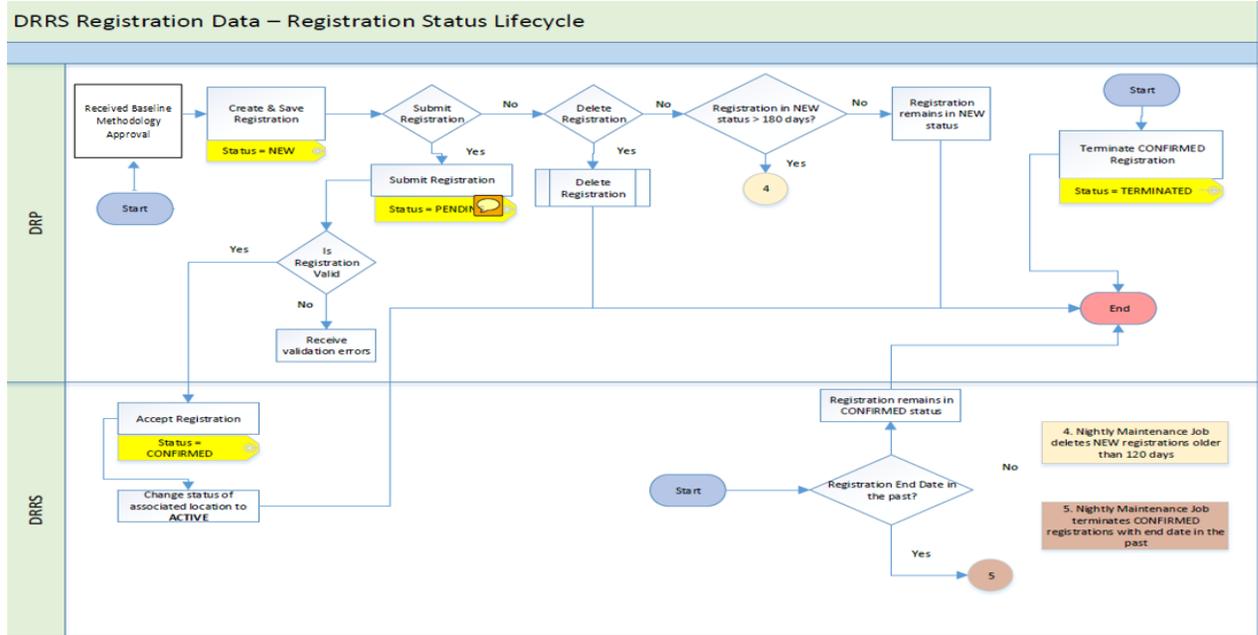
2.5.1.1 Location Status Lifecycle Process Flow¹



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

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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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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.

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DRRS User Interface (UI) Location Management

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

DRP VIEW | UDC VIEW | LSE VIEW | ADMINISTRATION

DRP VIEW Locations

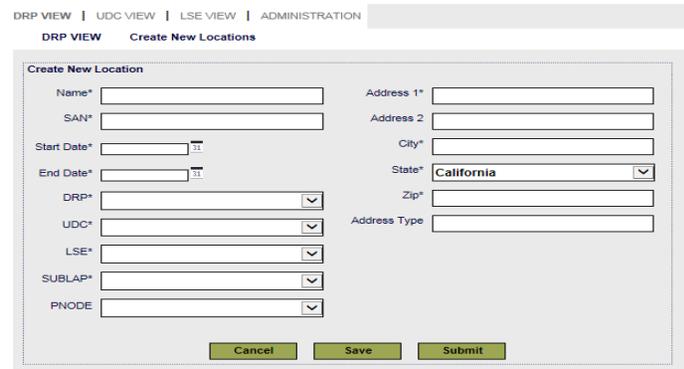
LOC ID LOC Name SAN DRP UDC [ALL] LSE [ALL] SUBLAP [ALL]

Locations

Select Loc ID Name SAN DRP UDC LSE SUBLAP PNODE Start Date End Date Status

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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.



- Name** DRP chosen name of the designated location.
- SAN** Service Account Number unique identifier of the location often assigned by the UDC.
- 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

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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

Options within Create New Location include:

Cancel - cancels the creation of a location.

Save - creates a new location and location ID for it.

Submit - 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**.

Start Date	End Date	Status
08/01/2016	12/31/2017	New

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

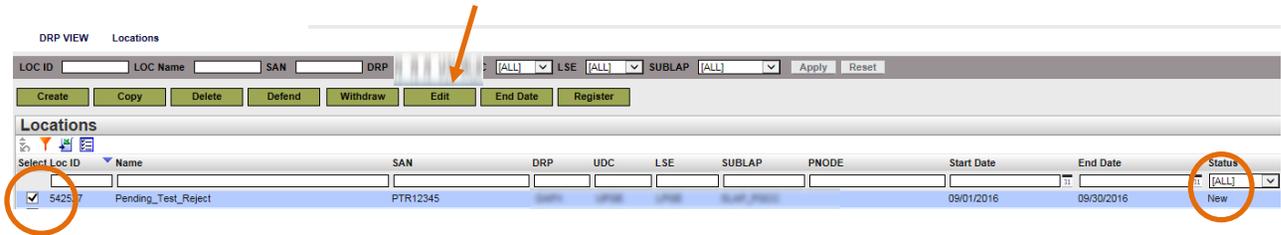
Start Date	End Date	Status
<input type="text"/>	<input type="text"/>	<input type="button" value="Pending"/>
07/15/2016	01/15/2017	Pending

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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.



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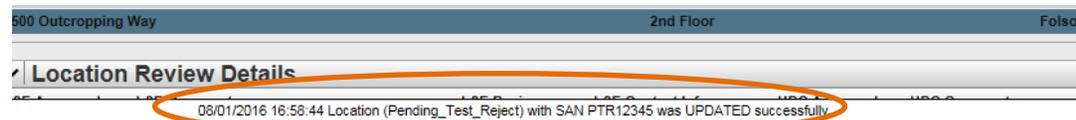
In the **Edit** location view, any changes can be made to the location without it having to be end dated. In this example, the LSEID is changed and the location is updated by selecting the **Update** option.

DRP VIEW Edit Location

Edit Location

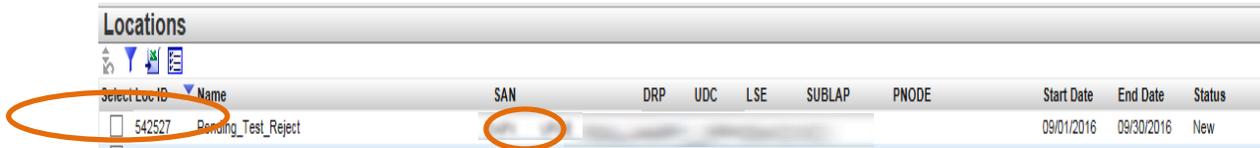
LOC ID 542527	PNODE <input type="text"/>
SAN* <input type="text" value="PTR12345"/>	Address 1* <input type="text" value="South Elm"/>
NAME* <input type="text" value="Pending_Test_Reject"/>	Address 2 <input type="text"/>
Start Date* <input type="text" value="09/01/2016"/>	City* <input type="text" value="San Jose"/>
End Date* <input type="text" value="09/30/2016"/>	State* <input type="text" value="California"/>
DRP* <input type="text"/>	Zip* <input type="text" value="95101"/>
UDC* <input type="text"/>	Address Type <input type="text"/>
LSE* <input type="text"/>	Status <input type="text" value="New"/>
SUBLAP* <input type="text"/>	

A message indicates that the **Update** was successful.



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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.



Select Loc ID	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE	Start Date	End Date	Status
542527	Pending_Test_Reject	[Redacted]						09/01/2016	09/30/2016	New

Refer to [Appendix B](#) for Editable fields by Location status.

Pending Location

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.

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Locations To Be End Dated


1 - 1 of 1

ID	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE	Start Date	End Date	Location Status
541283	USA Test FRQ196 DRPdefendcomment							08/21/2017	09/16/2017	Pending

Are you sure you want to End Date above Locations?

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 will be unavailable for modification and update.

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Edit Location

LOC ID	<input type="text" value="542121"/>	PNODE	<input type="text" value="TESTING & DEMO"/>
SAN*	<input type="text" value="TestLK"/>	Address 1*	<input type="text" value="test"/>
NAME*	<input type="text" value="TestLK"/>	Address 2	<input type="text"/>
Start Date*	<input type="text" value="07/28/2016"/> <small>31</small>	City*	<input type="text" value="test"/>
End Date*	<input type="text" value="07/31/2017"/> <small>31</small>	State*	<input type="text" value="California"/>
DRP*	<input type="text" value="NONE"/>	Zip*	<input type="text" value="95639"/>
UDC*	<input type="text" value="NONE"/>	Address Type	<input type="text"/>
LSE*	<input type="text" value="NONE"/>	Status	<input type="text" value="Inactive"/>
SUBLAP*	<input type="text" value="NONE"/>		

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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 will be unavailable for modification and update.

Edit Location

<p>LOC ID 542161</p> <p>SAN* TestLK1</p> <p>NAME* TestLK1</p> <p>Start Date* 07/27/2017</p> <p>End Date* 07/31/2019</p> <p>DRP*</p> <p>UDC*</p> <p>LSE*</p> <p>SUBLAP*</p>	<p>PNODE</p> <p>Address 1* test</p> <p>Address 2</p> <p>City* test</p> <p>State* California</p> <p>Zip* 95639</p> <p>Address Type</p> <p>Status Active</p>
---	--

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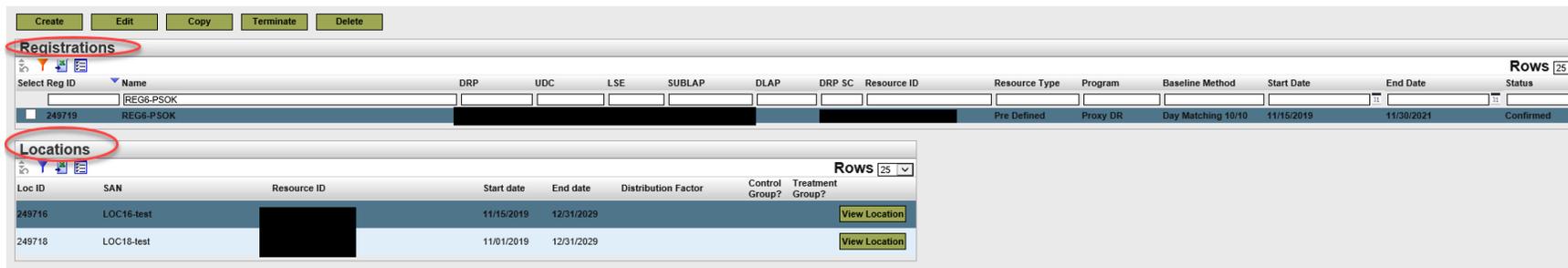
If editing the Location end date that is currently in an “Active” status, the corresponding Registration, and the rest of the Location(s) that are also part of that Registration may be affected. The Location end date can only be contracted until the end date of the registration. System will allow user to edit Location within the Registration start and end date if the Registration start date is in the future. 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.



The screenshot displays a web application interface with two main sections: "Registrations" and "Locations".

Registrations Table:

Select Reg ID	Name	DRP	UDC	LSE	SUBLAP	DLAP	DRP SC	Resource ID	Resource Type	Program	Baseline Method	Start Date	End Date	Status
249719	REG6-PSOK								Pre Defined	Proxy DR	Day Matching 10/10	11/15/2019	11/30/2021	Confirmed

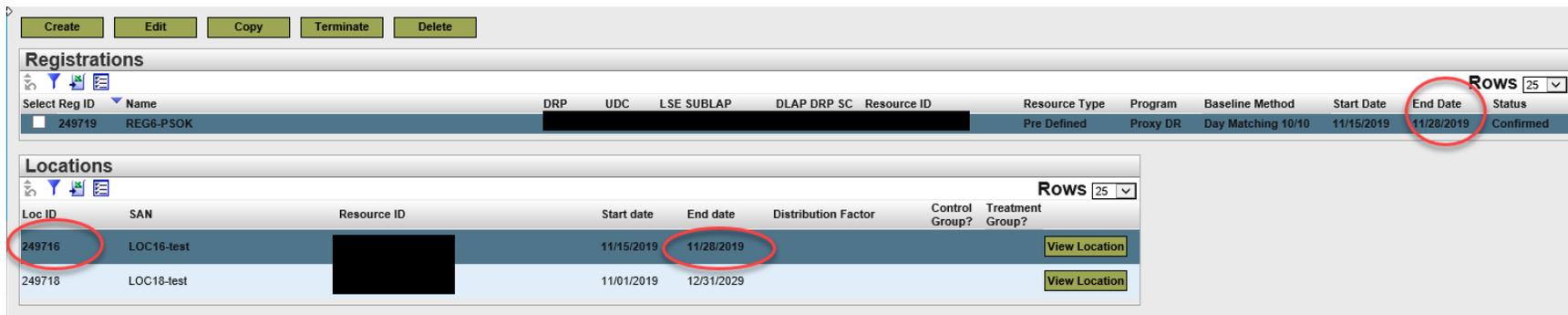
Locations Table:

Loc ID	SAN	Resource ID	Start date	End date	Distribution Factor	Control Group?	Treatment Group?
249716	LOC16-test		11/15/2019	12/31/2029			
249718	LOC16-test		11/01/2019	12/31/2029			

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- 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”.



The screenshot shows two tables: 'Registrations' and 'Locations'. In the 'Registrations' table, the row for 'REG6-PSOK' has an 'End Date' of '11/28/2019'. In the 'Locations' table, the row for 'Loc ID 249716' has an 'End date' of '11/28/2019'. Red circles highlight these specific date values.

- 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”.

Example 2.

- User end-dating a location with an “Active” status.
 - Location End-Date is in the future and earlier than the Registration period.
- REG ID#249719 Resource ID = RESA registration is for 11/15/2019 through 11/30/2021.

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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.

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

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

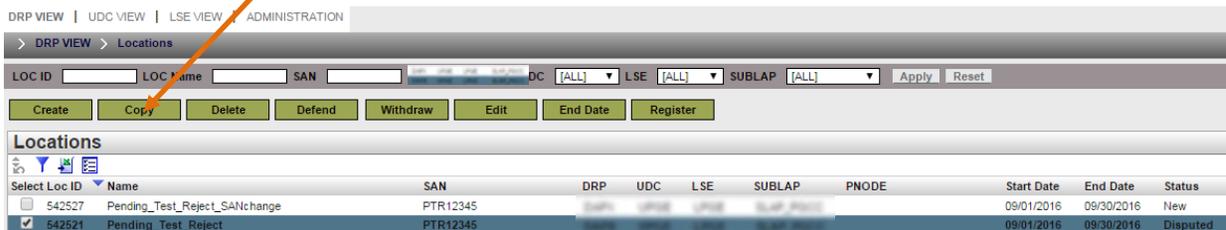
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End Dated Location

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.

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

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

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DRP VIEW | UDC VIEW | LSE VIEW | ADMINISTRATION

> **DRP VIEW** > Create New Locations

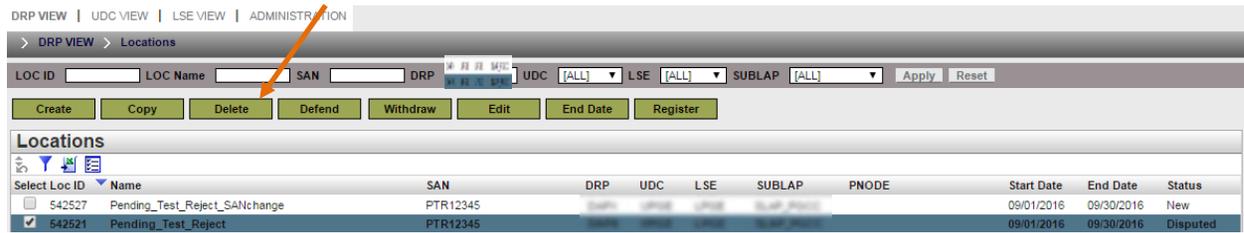
Create New Location

Name* <input type="text" value="Pending_Test_Reject_SANchange"/>	Address 1 <input type="text" value="South Elm"/>
SAN* <input type="text" value="PTR12345"/>	Address 2 <input type="text"/>
Start Date* <input type="text" value="09/01/2016"/> <small>31</small>	City* <input type="text" value="San Jose"/>
End Date* <input type="text" value="09/30/2016"/> <small>31</small>	State* <input type="text" value="California"/>
DRP* <input type="text"/>	Zip* <input type="text" value="95101"/>
UDC* <input type="text"/>	Address Type <input type="text"/>
LSE* <input type="text"/>	
SUBLAP* <input type="text"/>	
PNODE <input type="text"/>	

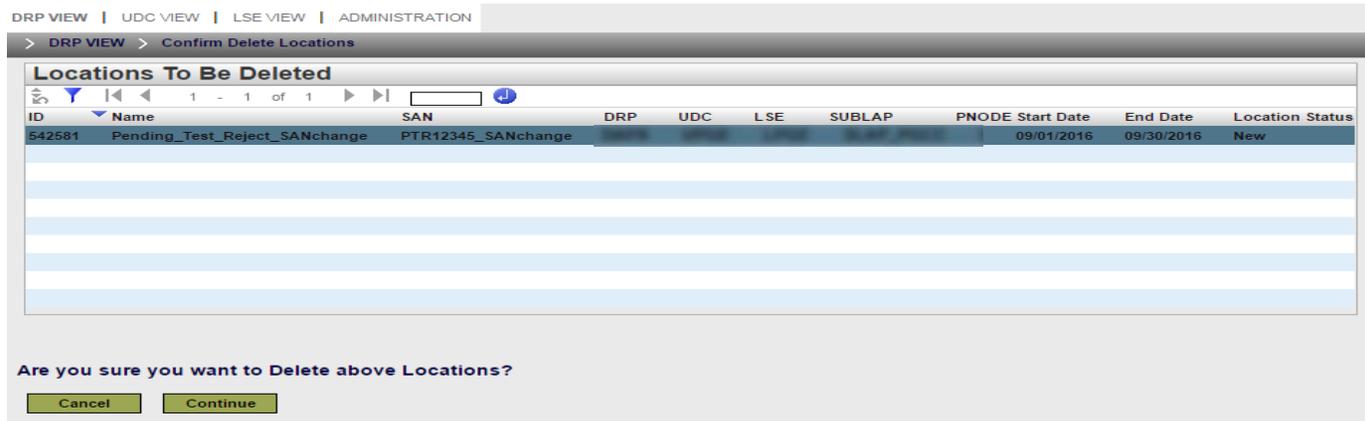
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3.1.3 Delete

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.



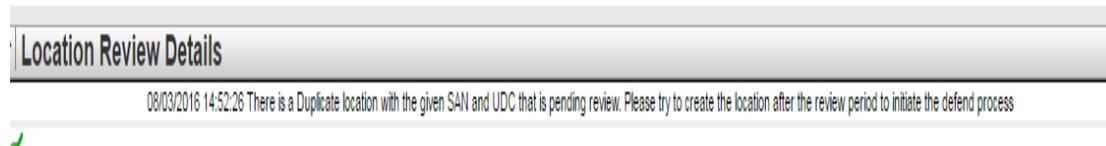
A deleted Location and its created Location ID will no longer exist in the Locations View.

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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: error message received when location is submitted and there is a duplicate location pending review. 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 inactive or active 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.



The following location(s) has triggered the location defend process

Updates for Locations							
Location Id	Location Name	DRP	UDC	LSE	Effective Start Dt	Effective End Dt	Status
[Redacted]							

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[Prospective DRP action:](#)

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 defend process will set to a duplicate status.

DRP VIEW Defend Location

Location ID: null Apply Reset

Initiate Defend

LOC ID	<input type="text"/>	Address 1	<input type="text" value="South Elm"/>
Name*	<input type="text" value="Test_duplicate_SAN"/>	Address 2	<input type="text"/>
SAN*	<input type="text" value="PTR12345"/>	City	<input type="text" value="San Jose"/>
Start Date*	<input type="text" value="08/08/2016"/>	State*	<input type="text" value="California"/>
End Date*	<input type="text" value="10/10/2016"/>	Zip*	<input type="text" value="95101"/>
DRP	<input type="text"/>	Address Type	<input type="text"/>
UDC	<input type="text"/>		
LSE	<input type="text"/>		
SUBLAP	<input type="text"/>		
PNODE	<input type="text"/>		

Requester Name*

Phone* (Format: xxx-xxx-xxxx)

Comments*

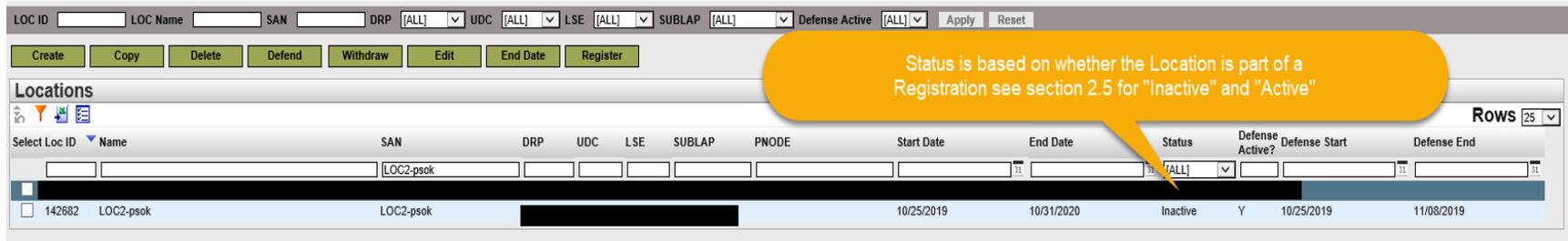
A Location with given SAN and UDC combination already exists, do you want to continue and initiate the Defend Process?

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[Incumbent DRP action:](#)

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.



LOC ID LOC Name SAN DRP [ALL] UDC [ALL] LSE [ALL] SUBLAP [ALL] Defense Active [ALL] Apply Reset

Create Copy Delete Defend Withdraw Edit End Date Register

Locations Rows 25

Select Loc ID	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE	Start Date	End Date	Status	Defense Active?	Defense Start	Defense End
<input type="checkbox"/>	142682	LOC2-psok	LOC2-psok					10/25/2019	10/31/2020	Inactive	Y	10/25/2019	11/08/2019

Status is based on whether the Location is part of a Registration see section 2.5 for "Inactive" and "Active"

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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 is in progress, the incumbent DRP must accept/reject through the defend process. Do not 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.

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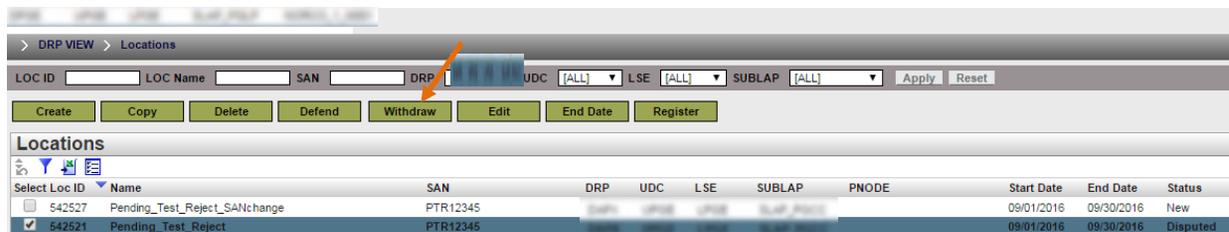
If the incumbent DRP takes no action within 10 business days, the system will automatically end date the location and its corresponding registration after the 10 business days. In addition, the system will automatically adjust the end date out by 5 business days for the location that is in defense process 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 the processing or pending 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.

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DRP VIEW | UDC VIEW | LSE VIEW | ADMINISTRATION

DRP VIEW Confirm Withdraw Locations

Locations To Be Withdrawn

ID	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE	Start Date	End Date	Location Status
542714	Test_duplicate_SAN	PTR12345						8/08/2016	10/10/2016	Duplicate

Are you sure you want to Withdraw above Locations?

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 or active statuses. To **End Date** a location, the location is first selected then the **End Date** button chosen under the Locations View.

DRP VIEW | UDC VIEW | LSE VIEW | ADMINISTRATION

> DRP VIEW > Locations

LOC ID LOC Name SAN DRP UDC [ALL] LSE [ALL] SUBLAP [ALL]

Locations

Select Loc ID	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE	Start Date	End Date	Status
<input type="checkbox"/> 542527	Pending_Test_Reject_SANchange	PTR12345						09/01/2016	09/30/2016	New
<input checked="" type="checkbox"/> 542521	Pending_Test_Reject	PTR12345						09/01/2016	09/30/2016	Disputed

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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.

DRP VIEW Confirm End Date Locations

Locations To Be End Dated

1 - 1 of 1

ID	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE	Start Date	End Date	Location Status
542527	Test_duplicate_SAN	PTR12345								Inactive

Are you sure you want to End Date above Locations?

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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 they 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 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.

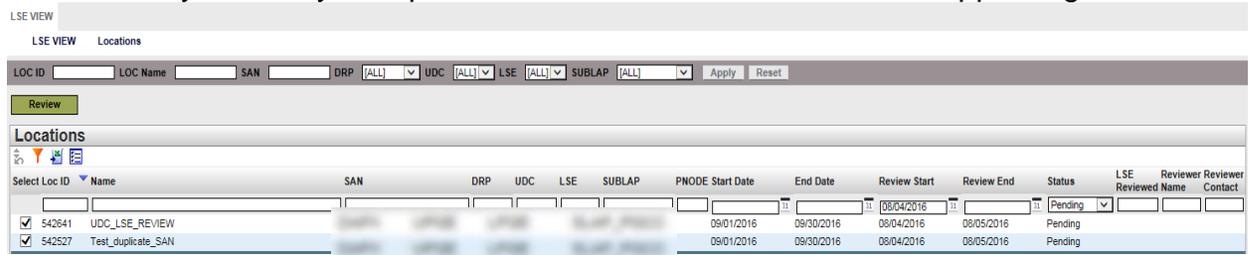
Locations requiring review will be in the **Pending** status.

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

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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.

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LSE VIEW

LSE VIEW Confirm Review Locations

Locations To Be Reviewed

ID	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE	Start Date	End Date	Location Status
542641	UDC_LSE_REVIEW	UDC_LSE_REVIEW						09/01/2016	09/30/2016	Pending
542527	Test_duplicate_SAN	PTR12345						09/01/2016	09/30/2016	Pending

Valid Location

Reviewer Name*

Phone* (Format: xxx-xxx-xxxx)

Review Comment

Are you sure you want to Submit the Review for above Locations?

Reviewer name and phone is always required

Reviewer Comment is required when the location is not valid.

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.

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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
- Location identified as participating in another program

Note: The **Comments** box is limited to **255** 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 saved or submitted.
Status	The Current status of the location.

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

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- 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 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.

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.

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UDC VIEW

UDC VIEW Locations

LOC ID LOC Name SAN
 DRP UDC
 LSE
 SUBLAP

Locations

Select	Loc ID	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE	Start Date	End Date	Review Start	Review End	Status	UDC Reviewed Name	Reviewer Contact
<input checked="" type="checkbox"/>	542641	UDC_LSE_REVIEW							09/01/2016	09/30/2016	08/04/2016	08/05/2016	Pending		
<input checked="" type="checkbox"/>	542527	Test_duplicate_SAN							09/01/2016	09/30/2016	08/04/2016	08/05/2016	Pending		

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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.

UDC VIEW Confirm Review Locations

Locations To Be Reviewed

ID	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE	Start Date	End Date	Location Status
542641	UDC_LSE_REVIEW	UDC_LSE_REVIEW_1	UDC_LSE_REVIEW_1	UDC_LSE_REVIEW_1	UDC_LSE_REVIEW_1	UDC_LSE_REVIEW_1	UDC_LSE_REVIEW_1	09/01/2016	09/30/2016	Pending
542527	Test_duplicate_SAN	PTR12345	UDC_LSE_REVIEW_1	UDC_LSE_REVIEW_1	UDC_LSE_REVIEW_1	UDC_LSE_REVIEW_1	UDC_LSE_REVIEW_1	09/01/2016	09/30/2016	Pending

Valid Location

Reviewer Name*

Phone* (Format: xxx-xxx-xxxx)

Review Comment

Are you sure you want to Submit the Review for above Locations?

Reviewer name and phone is always required

Reviewer Comment is required when the location is not valid.

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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

Note: The **Comments** box is limited to **255** 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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DRP VIEW | UDC VIEW | LSE VIEW | ADMINISTRATION

DRP VIEW Locations

LOC ID LOC Name SAN
 DRP UDC [ALL] LSE [ALL] SUBLAP [ALL]

Locations

Select Loc ID	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE	Start Date	End Date	Status
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Disputed"/>
<input type="checkbox"/>	542521 Pending_Test_Reject							09/01/2016	09/30/2016	Disputed

Location Address

Address 1	Address 2	City	State	Zip	Type
South Elm		San Jose	CA	95101	

UDC/LSE Review contact and comments.

Location Review Details

LSE Approved	LSE Comments	LSE Reviewer	LSE Contact Info	UDC Approved	UDC Comments	UDC Reviewer	UDC Contact Info
N	This location is in another LSE program, not valid.	ISOTester	916-802-9999	Y		ISOTester	916-802-9999

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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.

DRP VIEW | UDC VIEW | LSE VIEW | ADMINISTRATION

DRP VIEW Create New Locations

Create New Location

Name* Pending_Test_Reject 1 100 North Maple

SAN* PTR12345A Address 2

Start Date* 09/01/2016 31 City* San Jose

End Date* 09/30/2016 31 State* California

DRP* Zip* 95101

UDC* Address Type

LSE*

SUBLAP*

PNODE

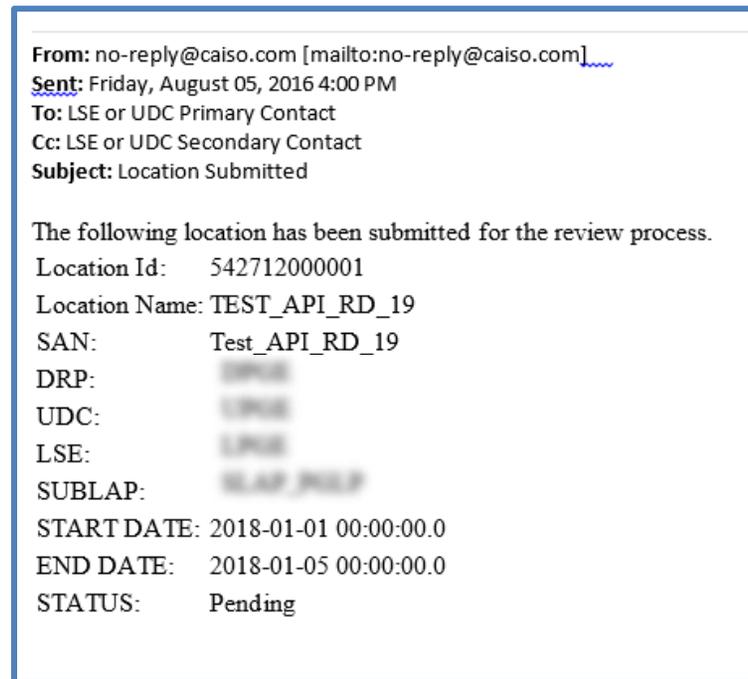
Note: A blue callout bubble points to the SAN field with the text "Copy and correct disputed location". Orange circles highlight the SAN field and the address field.

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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.

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

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.

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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.

- Click on the **Register** button

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- 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
- **End Date** The End Date cannot be a prior date or overlap with an existing Active location with same SAN and UDC assignment
- **DRP**⁶ 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.
- **SubLAP** The SubLAP in which all the locations within the registration reside

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

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

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- **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.
 - **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 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	A	PGF1	Bus 2	Reg 01		PRMNTE_6_PDRC01

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- **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
 - 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.
- When Resource Type = Custom
 - The drop-down list will be blank. Once the Registration is submitted, notify the PDR Coordinator. The PDR coordinator will the update the resource id in DRRS and provide it to the DRP. The Resource ID will not be visible until it is assigned to that Registration in the DRRS by the PDR coordinator.

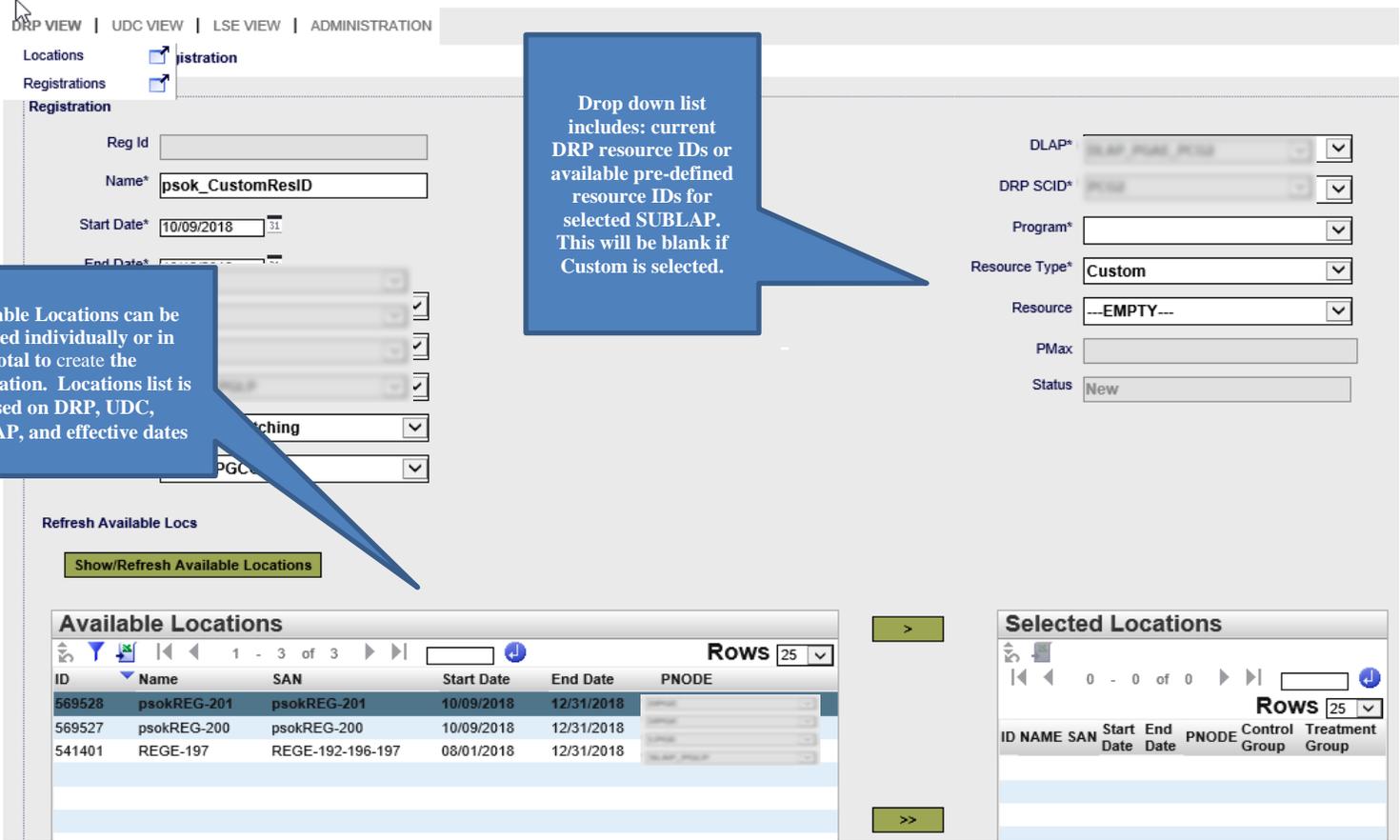
- **Show/Refresh Available Location**

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 the DRP, UDC, SUBLAP, and effective dates.

- 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.

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- Move available locations to **Selected Locations**.



The screenshot displays the 'Registration' form in the 'ADMINISTRATION' section. The form includes fields for 'Reg Id', 'Name*' (psok_CustomResID), 'Start Date*' (10/09/2018), and 'End Date*'. A 'Drop down list' for 'Resource Type*' is set to 'Custom', and the 'Resource' field is '---EMPTY---'. A 'Show/Refresh Available Locations' button is visible above the 'Available Locations' table.

Available Locations

ID	Name	SAN	Start Date	End Date	PNODE
569528	psokREG-201	psokREG-201	10/09/2018	12/31/2018	
569527	psokREG-200	psokREG-200	10/09/2018	12/31/2018	
541401	REGE-197	REGE-192-196-197	08/01/2018	12/31/2018	

Selected Locations

ID	NAME	SAN	Start Date	End Date	PNODE	Control Group	Treatment Group
0 - 0 of 0							

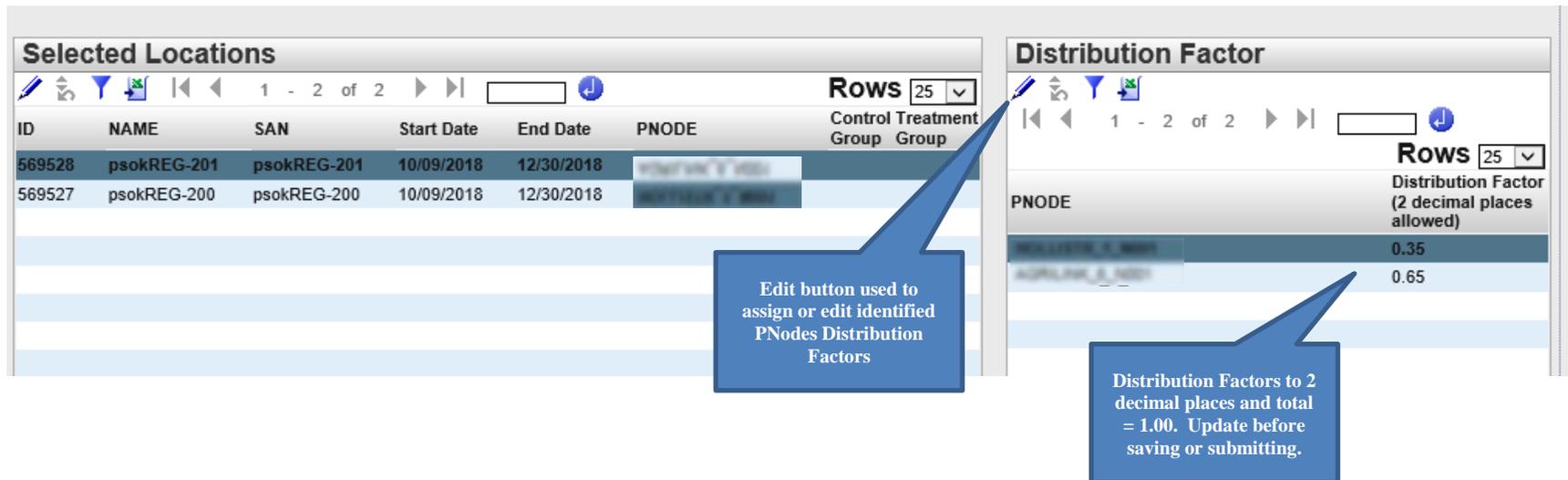
Callouts:

- Available Locations can be selected individually or in total to create the Registration. Locations list is based on DRP, UDC, SUBLAP, and effective dates** (points to the 'Available Locations' table).
- Drop down list includes: current DRP resource IDs or available pre-defined resource IDs for selected SUBLAP. This will be blank if Custom is selected.** (points to the 'Resource Type*' dropdown).

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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.



The screenshot shows two side-by-side windows. The left window, titled 'Selected Locations', contains a table with the following data:

ID	NAME	SAN	Start Date	End Date	PNODE
569528	psokREG-201	psokREG-201	10/09/2018	12/30/2018	PSOKREG_201
569527	psokREG-200	psokREG-200	10/09/2018	12/30/2018	PSOKREG_200

The right window, titled 'Distribution Factor', shows a table with the following data:

PNODE	Distribution Factor (2 decimal places allowed)
PSOKREG_201	0.35
PSOKREG_200	0.65

Two callout boxes provide additional information:

- A blue callout box points to the edit icon in the 'Selected Locations' window, stating: "Edit button used to assign or edit identified PNodes Distribution Factors".
- A blue callout box points to the distribution factor values in the 'Distribution Factor' window, stating: "Distribution Factors to 2 decimal places and total = 1.00. Update before saving or submitting."

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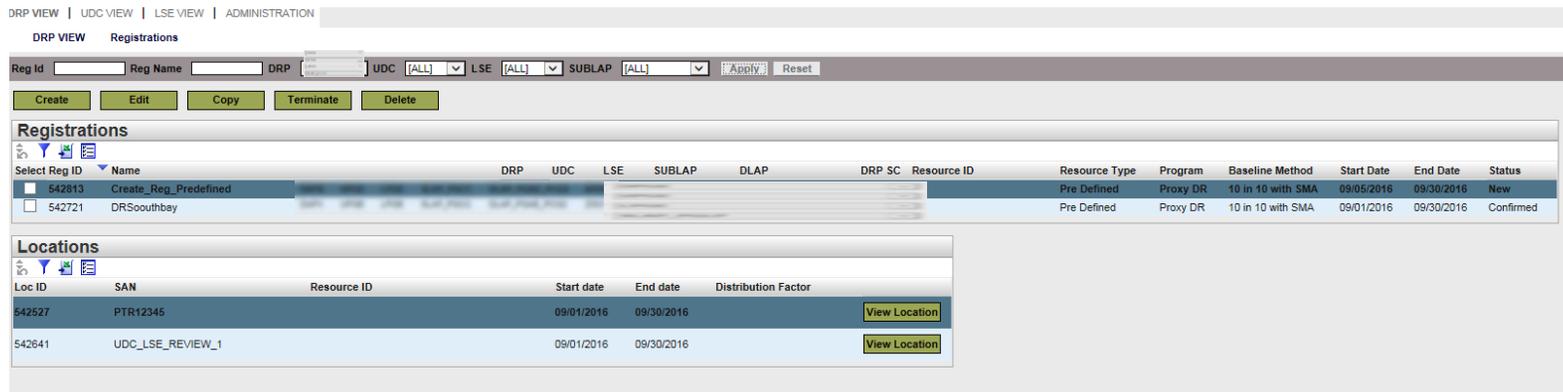
Note: DRRS limits 200 locations per registration unless this is loaded using the API.

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

- **Cancel** - cancels the creation of the Registration
- **Save** - creates a new Registration and Registration ID for it.
- **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**.



The screenshot shows the DRRS web application interface. At the top, there are navigation tabs: DRP VIEW, UDC VIEW, LSE VIEW, and ADMINISTRATION. Below these, there are search filters for Reg ID, Reg Name, DRP, UDC, LSE, and SUBLAP, along with 'Apply' and 'Reset' buttons. A toolbar contains 'Create', 'Edit', 'Copy', 'Terminate', and 'Delete' buttons.

The main content area is divided into two sections:

- Registrations:** A table with columns: Select Reg ID, Name, DRP, UDC, LSE, SUBLAP, DLAP, DRP SC, Resource ID, Resource Type, Program, Baseline Method, Start Date, End Date, and Status. Two rows are visible:

Select Reg ID	Name	DRP	UDC	LSE	SUBLAP	DLAP	DRP SC	Resource ID	Resource Type	Program	Baseline Method	Start Date	End Date	Status
<input checked="" type="checkbox"/>	542813 Create_Reg_Predefined								Pre Defined	Proxy DR	10 in 10 with SMA	09/05/2016	09/30/2016	New
<input type="checkbox"/>	542721 DRSoothbay								Pre Defined	Proxy DR	10 in 10 with SMA	09/01/2016	09/30/2016	Confirmed
- Locations:** A table with columns: Loc ID, SAN, Resource ID, Start date, End date, and Distribution Factor. Two rows are visible:

Loc ID	SAN	Resource ID	Start date	End date	Distribution Factor
542527	PTR12345		09/01/2016	09/30/2016	
542641	UDC_LSE_REVIEW_1		09/01/2016	09/30/2016	

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

DRP VIEW | UDC VIEW | LSE VIEW | ADMINISTRATION

DRP VIEW Registrations

Reg Id Reg Name
 DRP [ALL] UDC [ALL] LSE [ALL] SUBLAP [ALL]

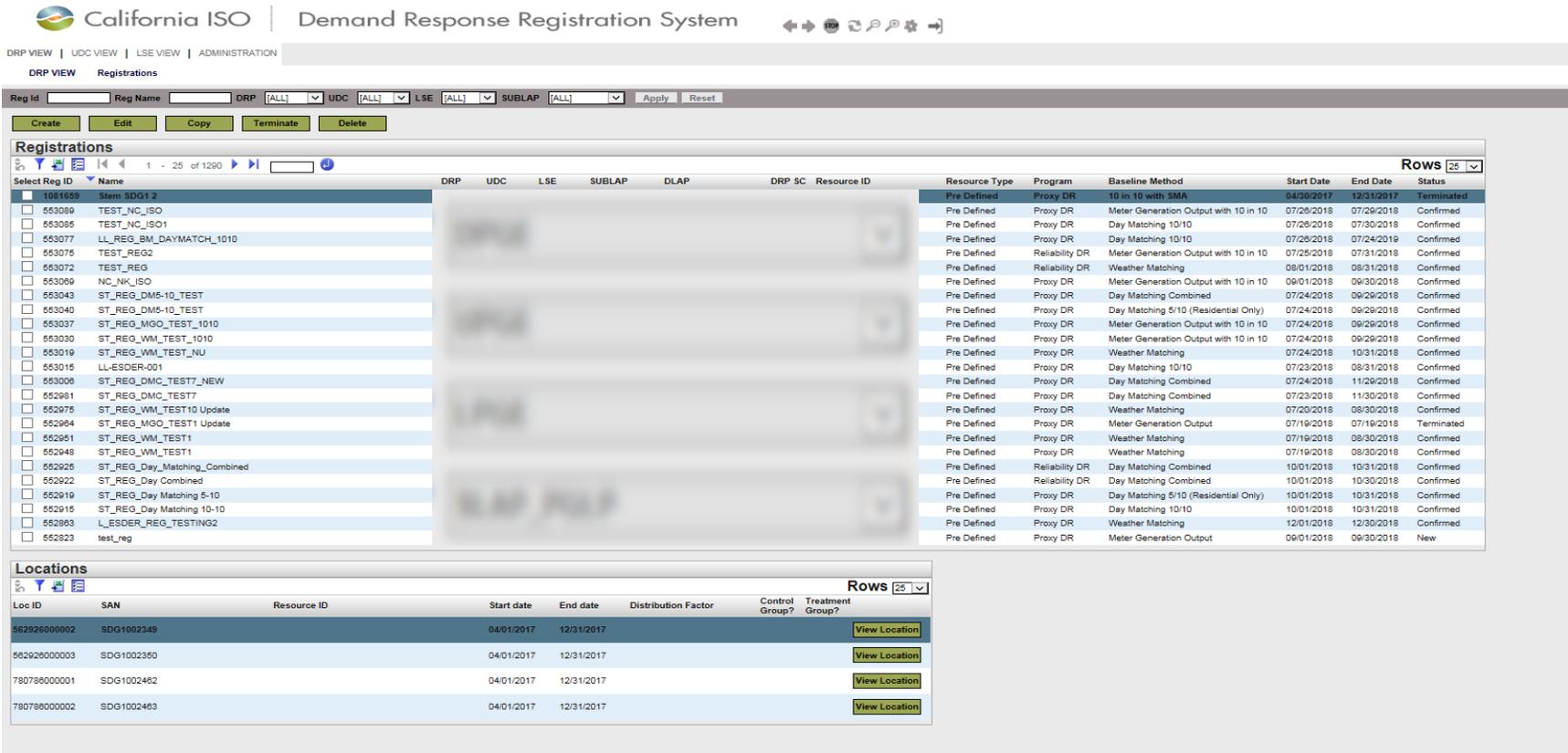
Registrations

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Select	Reg ID	Name	DRP	UDC	LSE	SUBLAP	DLAP	DRP SC	Resource ID	Resource Type	Program	Baseline Method	Start Date	End Date	Status
<input type="checkbox"/>	542813	Create_Reg_Predefined								Pre Defined	Proxy DR	A	09/05/2016	09/30/2016	Confirmed

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- **Approach 2:**
 - Under the **DRP View**, select **Registrations** then click on the **Create** button.



Registrations

Select Reg ID	Name	DRP	UDC	LSE	SUBLAP	DLAP	DRP SC	Resource ID	Resource Type	Program	Baseline Method	Start Date	End Date	Status
553099	TEST_NC_ISO								Pre Defined	Proxy DR	10 in 10 with SMA	07/26/2018	07/26/2018	Confirmed
553085	TEST_NC_ISO1								Pre Defined	Proxy DR	Meter Generation Output with 10 in 10	07/26/2018	07/30/2018	Confirmed
553077	LL_REG_BM_DAYMATCH_1010								Pre Defined	Proxy DR	Day Matching 10/10	07/26/2018	07/24/2019	Confirmed
553075	TEST_REG2								Pre Defined	Reliability DR	Meter Generation Output with 10 in 10	07/25/2018	07/31/2018	Confirmed
553072	TEST_REG								Pre Defined	Reliability DR	Weather Matching	08/01/2018	08/31/2018	Confirmed
553069	NC_NK_ISO								Pre Defined	Proxy DR	Meter Generation Output with 10 in 10	09/01/2018	09/30/2018	Confirmed
553043	ST_REG_DMS-10_TEST								Pre Defined	Proxy DR	Day Matching Combined	07/24/2018	09/29/2018	Confirmed
553040	ST_REG_DMS-10_TEST								Pre Defined	Proxy DR	Day Matching 5/10 (Residential Only)	07/24/2018	09/29/2018	Confirmed
553037	ST_REG_MGQ_TEST_1010								Pre Defined	Proxy DR	Meter Generation Output with 10 in 10	07/24/2018	09/29/2018	Confirmed
553030	ST_REG_WM_TEST_1010								Pre Defined	Proxy DR	Meter Generation Output with 10 in 10	07/24/2018	09/29/2018	Confirmed
553019	ST_REG_WM_TEST_NU								Pre Defined	Proxy DR	Weather Matching	07/24/2018	10/31/2018	Confirmed
553015	LL-ESDR-001								Pre Defined	Proxy DR	Day Matching 10/10	07/23/2018	08/31/2018	Confirmed
553006	ST_REG_DMC_TEST7_NEW								Pre Defined	Proxy DR	Day Matching Combined	07/24/2018	11/29/2018	Confirmed
552981	ST_REG_DMC_TEST7								Pre Defined	Proxy DR	Day Matching Combined	07/23/2018	11/30/2018	Confirmed
552975	ST_REG_WM_TEST10 Update								Pre Defined	Proxy DR	Weather Matching	07/20/2018	08/30/2018	Confirmed
552964	ST_REG_MGQ_TEST1 Update								Pre Defined	Proxy DR	Meter Generation Output	07/19/2018	07/19/2018	Terminated
552951	ST_REG_WM_TEST1								Pre Defined	Proxy DR	Weather Matching	07/19/2018	08/30/2018	Confirmed
552948	ST_REG_WM_TEST1								Pre Defined	Proxy DR	Weather Matching	07/19/2018	08/30/2018	Confirmed
552925	ST_REG_Day_Matching_Combined								Pre Defined	Reliability DR	Day Matching Combined	10/01/2018	10/31/2018	Confirmed
552922	ST_REG_Day Combined								Pre Defined	Reliability DR	Day Matching Combined	10/01/2018	10/30/2018	Confirmed
552919	ST_REG_Day Matching 5-10								Pre Defined	Proxy DR	Day Matching 5/10 (Residential Only)	10/01/2018	10/31/2018	Confirmed
552915	ST_REG_Day Matching 10-10								Pre Defined	Proxy DR	Day Matching 10/10	10/01/2018	10/31/2018	Confirmed
552863	L-ESDR_REG_TESTING2								Pre Defined	Proxy DR	Weather Matching	12/01/2018	12/30/2018	Confirmed
552823	test_reg								Pre Defined	Proxy DR	Meter Generation Output	09/01/2018	09/30/2018	New

Locations

Loc ID	SAN	Resource ID	Start date	End date	Distribution Factor	Control Group?	Treatment Group?
582925000002	SDG1002349		04/01/2017	12/31/2017			View Location
582925000003	SDG1002350		04/01/2017	12/31/2017			View Location
780786000001	SDG1002462		04/01/2017	12/31/2017			View Location
780786000002	SDG1002463		04/01/2017	12/31/2017			View Location

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- Input registration data.


California ISO
Demand Response Registration System



DRP VIEW | UDC VIEW | LSE VIEW | ADMINISTRATION

DRP VIEW Registration

Registration

Reg Id

Name*

Start Date*

End Date*

DRP*

UDC*

Baseline Method*

SUBLAP

Refresh Available Locs

Show/Refresh Available Locations

DRP SCID*

Program*

Resource Type*

Resource

PMax

Status

Available Locations

0 - 0 of 0

ID	Name	SAN	Start Date	End Date	PNODE

>

>>

Selected Locations

0 - 0 of 0

ID	NAME	SAN	Start Date	End Date	PNODE	Control Group	Treatment Group

Distribution Factor

0 - 0 of 0

PNODE	Distribution Factor (2 decimal places allowed)

Locations list based on
DRP, UDC, SUBLAP
only & effective dates



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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
- **Start Date**⁷ 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
- **DRP**⁸ 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

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.

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- **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.
 - **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 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
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	A	PGF1		Bus 2	Reg 01		PRMNTE_6_PDRC01

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- **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
 - 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
- When Resource Type = Custom
 - The drop-down list will be blank. Once the Registration is submitted, DRP/SC shall notify the PDR Coordinator. The PDR coordinator will then update the DRRS and provide the resource id to the DRP. The Resource ID will not be visible until it is assigned to that Registration in the DRRS by the PDR coordinator.

- **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, and effective dates.

- 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.

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- Move available locations to **Selected Locations**.

Distribution Factors for Custom Resource

See Approach 1 above.

4 Registration Management

The registration process builds from Performance/Baseline Methodology to location to 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

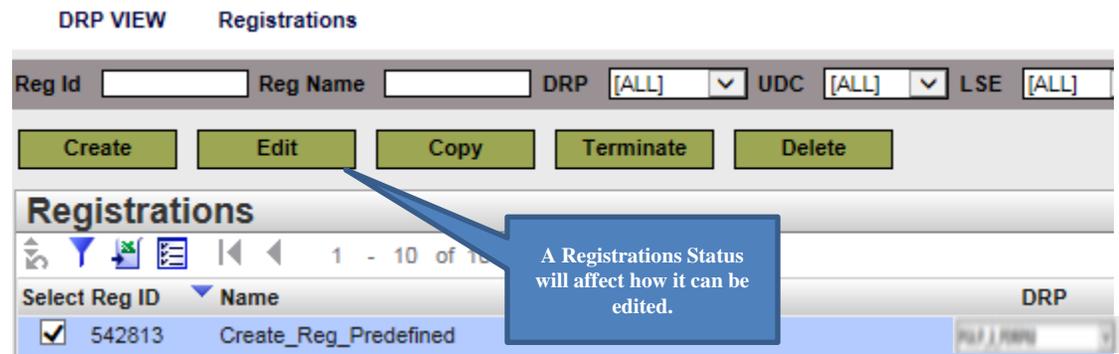
The DRP may use either the Location view or Registration view to register one or multiple locations. The Registration view provides the DRP a list of all the Registrations created and saved or submitted with their Status. When highlighted, the view will list all Locations included in that Registration.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

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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 days window is to align with the Master File submission process.



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Edit Registration

Reg Id* 542866	DLAP* <input type="text" value="DLAP Proxy Proxy"/>
Name* <input type="text" value="Test registration LK"/>	DRP SCID* <input type="text" value="Proxy"/>
Start Date* <input type="text" value="08/09/2016"/> <small>31</small>	Program* <input type="text" value="Proxy DR"/>
End Date* <input type="text" value="08/12/2016"/> <small>31</small>	Resource Type* <input type="text" value="Custom"/>
DRP* <input type="text" value="Proxy"/>	Resource <input type="text" value="Proxy & Proxy"/>
UDC* <input type="text" value="Proxy"/>	PMax <input type="text" value=""/>
LSE* <input type="text" value="Proxy"/>	<input type="text" value="Proxy & Proxy"/>
SUBLAP* <input type="text" value="DLAP Proxy"/>	<input type="text" value="Confirmed"/>

A Registration with a Confirmed status
editable fields in white.

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

Cancel - Cancels Edit of the Registration.

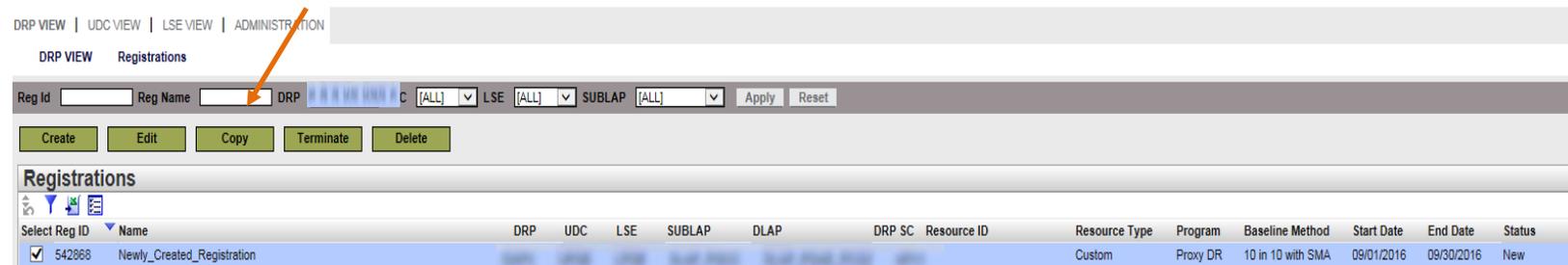
Update - Updates the Registration maintaining its Registration ID.

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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.



DRP VIEW | UDC VIEW | LSE VIEW | ADMINISTRATION

DRP VIEW Registrations

Reg Id Reg Name DRP C [ALL] LSE [ALL] SUBLAP [ALL] Apply Reset

Create Edit Copy Terminate Delete

Registrations

Select Reg ID	Name	DRP	UDC	LSE	SUBLAP	DLAP	DRP SC	Resource ID	Resource Type	Program	Baseline Method	Start Date	End Date	Status
<input checked="" type="checkbox"/> 542868	Newly_Created_Registration								Custom	Proxy DR	10 in 10 with SMA	09/01/2016	09/30/2016	New

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

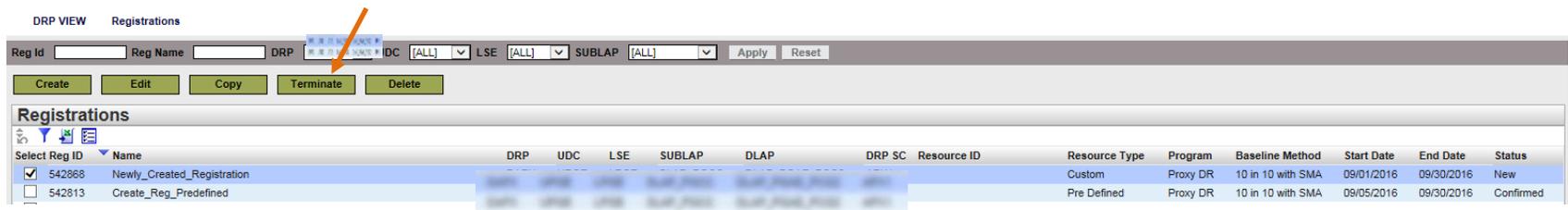
Cancel - cancels the creation of a new registration.

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

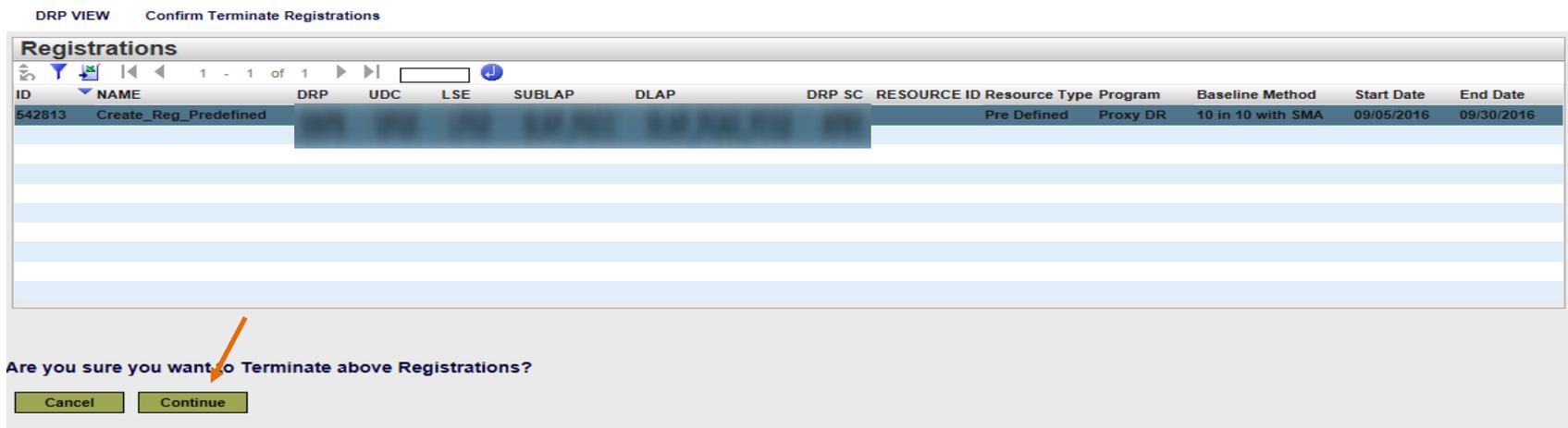
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4.1.3 Terminate

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 delete is required by selecting the **Continue** button.

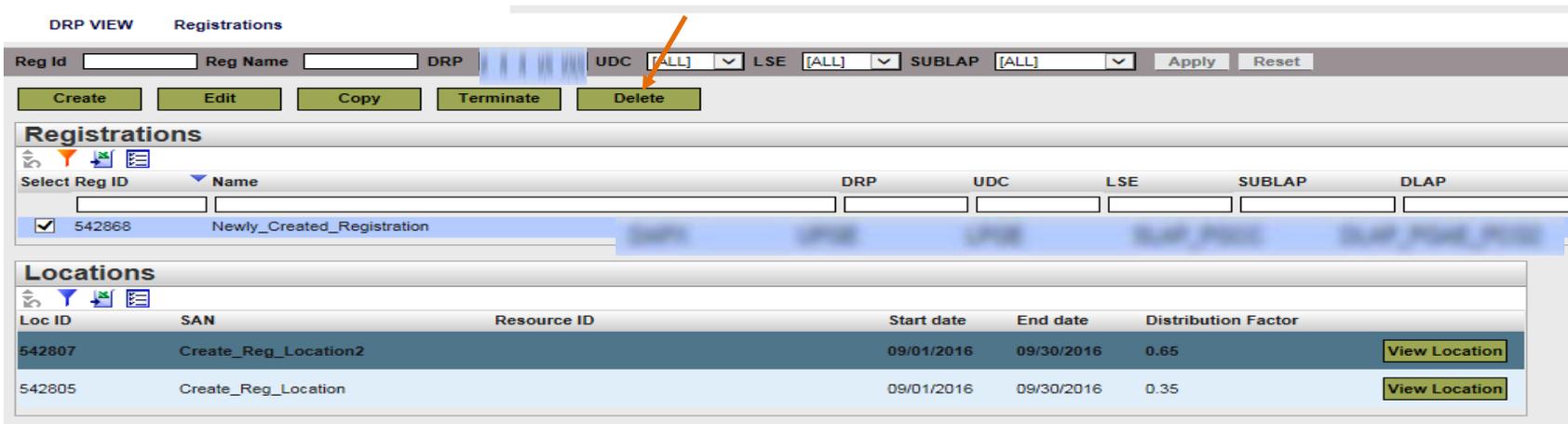


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A Registration is in a Terminate status when its effective end date is prior to the current date. Terminated Registrations are logically equivalent to deleted records. A Terminated Registration can be Copied but not Edited.

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.



The screenshot shows the 'DRP VIEW Registrations' interface. At the top, there are search filters for Reg ID, Reg Name, and various status codes (UDC, LSE, SUBLAP). Below the filters are buttons for 'Create', 'Edit', 'Copy', 'Terminate', and 'Delete'. The 'Delete' button is highlighted with a green box and an orange arrow. The main area displays a table of Registrations with columns for Select Reg ID, Name, and various status codes. One registration is selected (ID: 542868, Name: Newly_Created_Registration). Below the Registrations table is a 'Locations' table with columns for Loc ID, SAN, Resource ID, Start date, End date, and Distribution Factor. Two locations are listed: 542807 (Create_Reg_Location2) and 542805 (Create_Reg_Location), both with 'View Location' buttons.

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

DRP VIEW Confirm Delete Registrations

Registrations

1 - 1 of 1

ID	NAME	DRP	UDC	LSE	SUBLAP	DLAP	DRP SC	RESOURCE ID	Resource Type	Program	Baseline Method	Start Date	End Date
542868	Newly_Created_Registration								Custom	Proxy DR	10 in 10 with SMA	09/01/2016	09/30/2016

Are you sure you want to Delete above Registrations?

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

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DRRS User Interface (UI) Resource Management

View of confirmed Registration in DRRS with Resource ID selected:

DRP VIEW | UDC VIEW | LSE VIEW | ADMINISTRATION

DRP VIEW Edit Registration

Edit Registration

Reg Id*	<input type="text" value="543067"/>	DRP SCID*	<input type="text" value=""/>
Name*	<input type="text" value="Test for Registration"/>	Program*	<input type="text" value="Proxy DR"/>
Start Date*	<input type="text" value="01/16/2018"/> <small>31</small>	Resource Type*	<input type="text" value="Pre Defined"/>
End Date*	<input type="text" value="01/20/2018"/> <small>31</small>	Resource	<input type="text" value="P&P J. PIERRE"/>
DRP*	<input type="text" value=""/>	PMax	<input type="text" value="6.37"/>
UDC*	<input type="text" value=""/>	Baseline Method*	<input type="text" value="10 in 10 with SMA"/>
SUBLAP*	<input type="text" value=""/>	Status	<input type="text" value="Confirmed"/>

Resource ID for the Registration selected or edited in DRRS.

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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
- 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
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
External User Application Access request Form	http://www.caiso.com/Documents/UserApplicationAccessRequestForm.xls

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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_ISOMeteredEntitiesInformationRequestSheet.doc
Meter Service Agreement Scheduling Coordinators Information Request Sheet	http://www.caiso.com/Documents/MeterServiceAgreement_SchedulingCoordinatorsInformationRequestSheet.doc

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Metering BPM	http://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Metering
New Resource Implementation Checklist	http://www.caiso.com/Documents/NewResourceImplementationChecklist.xlsx http://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 Training Requirements 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
DRRS Enhancement -Demand Response Location Registration Enhancement – Technical Specifications	http://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspx http://www.caiso.com/Documents/DemandResponseLocationRegistrationEnhancement-TechnicalSpecificationsv4REDLINED.pdf

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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
GRDT and IRDT Definitions	http://www.caiso.com/Documents/GRDTandIRDTDefinitions.xls

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Generator Resource Data Template (GRDT)	http://www.caiso.com/market/Pages/NetworkandResourceModeling/Default.aspx
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	<p>Added the following info to the LSE and UDC Commenting on a Registration sections</p> <p>Note: The Comments box is limited to <u>255</u> characters. If the LSE review generates comments larger than 255 characters.</p> <p>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 "findings" with the appropriate party. During that time, additional detail may be exchanged by parties to resolve all issues determined in the review process.</p>

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			<p>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.</p> <p>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.</p>
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.	<p>Added clarifying language for Reliability Demand Response Services Term.</p> <p>Summer term runs from June through September – Winter term runs from October through May</p>

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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?GroupID=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 pdr@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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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 <u>accepts</u> the Prospective DRP claim to the customer.	
	See steps 1-4 above.
	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. <u>Do not</u> 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.

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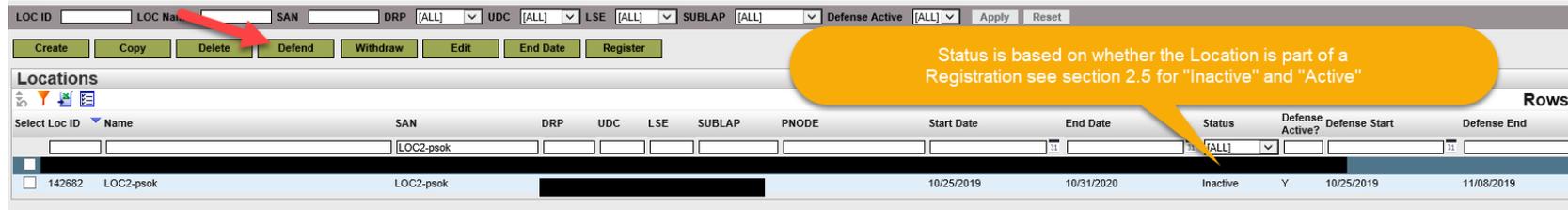
2. Incumbent DRP rejects the Prospective DRP claim to the customer.

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**".



The screenshot shows the 'Locations' interface with various filters and a table of location records. The 'Defend' button is highlighted with a red arrow. A yellow callout bubble points to the 'Status' column in the table, containing the text: "Status is based on whether the Location is part of a Registration see section 2.5 for "Inactive" and "Active"".

Select Loc ID	Name	SAN	DRP	UDC	LSE	SUBLAP	PNODE	Start Date	End Date	Status	Defense Active?	Defense Start	Defense End
142682	LOC2-psok	LOC2-psok						10/25/2019	10/31/2020	Inactive	Y	10/25/2019	11/08/2019

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.

Location Defend Details - Incumbent					
Incumbent Name	Incumbent Contact Info	Incumbent Comments	Prospective Name	Prospective Contact Info	Prospective Comments
Name	916-351-0000	Incumbent Reason for rejecting the claim here	pia	000-000-0000	test

- 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 after 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 Review Start Date may have a start date after the Location's Start Date, depending on when the LSE/UDC review process is triggered.

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Appendix B – Editable field(s) by Locations Status

Locations Status

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

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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)
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

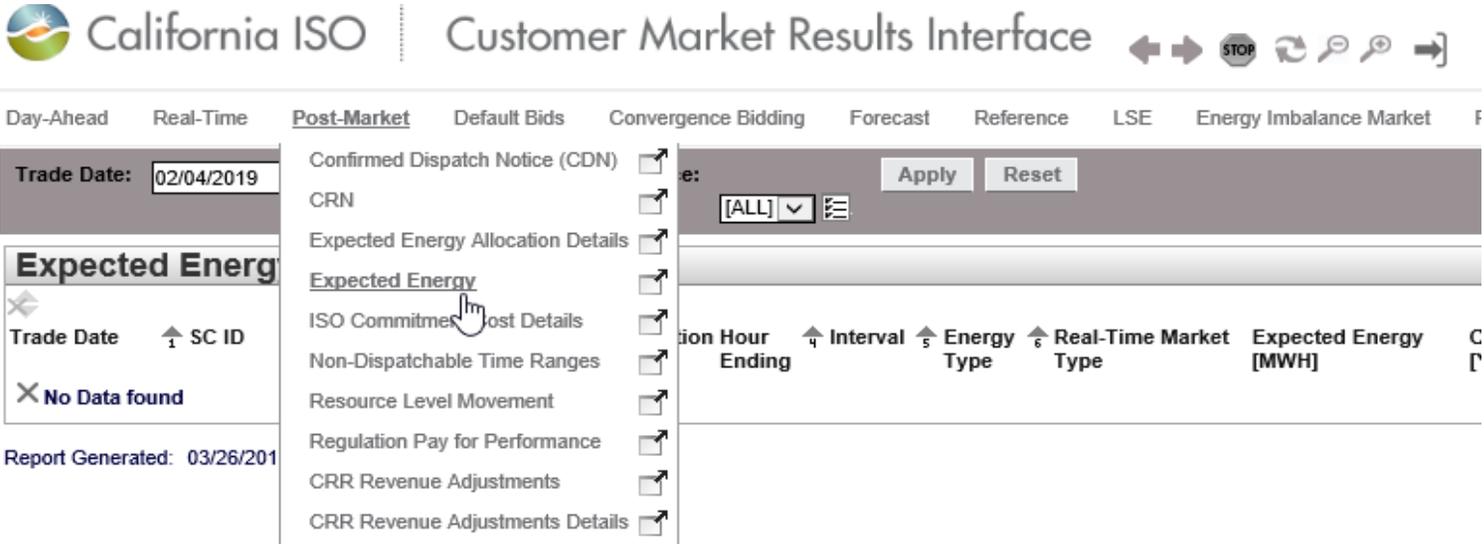
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SUBLAP		No
PNODE		No
Active		
Fields	Validation Rules	Editable (Yes/No)
Start Date		No
End Date	IF Update < Existing/Recorded	THEN Yes ELSE No
Address		Yes
City		Yes
State		Yes
Zip		Yes
LOC ID		No
SAN		No
DRP		No
UDC		No
SUBLAP		No
PNODE		No

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Appendix C - Customer Market Results Interface (CMRI)

Viewing Total Expected Energy (TEE)



The screenshot displays the California ISO Customer Market Results Interface (CMRI) with the 'Post-Market' tab selected. The 'Expected Energy' section is highlighted in the left-hand navigation menu. The main content area shows a table with columns for 'Position Hour Ending', 'Interval', 'Energy Type', 'Real-Time Market Type', and 'Expected Energy [MWH]'. A search bar with 'Apply' and 'Reset' buttons is visible at the top of the table area. The 'Trade Date' is set to 02/04/2019, and a message indicates 'No Data found'.



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Customer Market Results Interface



Day-Ahead Real-Time Post-Market Default Bids Convergence Bidding Forecast Reference LSE Energy Imbalance Market Phase Shifter Gas Burn

Trade Date: Entity: Resource: Apply Reset

Hour: Interval:



Expected Energy

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Trade Date	SC ID	Resource	Configuration	Hour Ending	Interval	Energy Type	Real-Time Market Type	Expected Energy [MWH]	OeOverlapMss [Yes/No]
05/06/2019				20	12	RAMPT		-0.000104166	NO
05/06/2019				20	12	RED	RTD	-0.000312499	NO
05/06/2019				20	12	SRE		0.000312499	NO
05/06/2019				20	12	TEE		0.000000000	NO
05/06/2019				20	12	TTEE		-0.000104166	NO
05/06/2019				21	1	DABE		0.000833333	NO
05/06/2019				21	1	DASE		0.000833333	NO
05/06/2019				21	1	RAMPT		-0.000104167	NO
05/06/2019				21	1	RED	RTD	0.000104167	NO
05/06/2019				21	1	SRE		-0.000312500	NO
05/06/2019				21	1	TEE		0.000625000	NO
05/06/2019				21	1	TTEE		0.000520833	NO
05/06/2019				21	2	DABE		0.000833333	NO
05/06/2019				21	2	DASE		0.000833333	NO
05/06/2019				21	2	RED	RTD	0.000104167	NO
05/06/2019				21	2	SRE		-0.000104167	NO
05/06/2019				21	2	TEE		0.000833333	NO
05/06/2019				21	2	TTEE		0.000833333	NO
05/06/2019				21	3	DABE		0.000833333	NO
05/06/2019				21	3	DASE		0.000833333	NO