

2020 Capacity Bidding Program (CBP)



Nicolette Sowa

Safety



**Call
911**



**Meet &
Guide**
Emergency
Personnel



CPR



Earthquake

- Drop
- Cover
- Hold



AED



Evacuation Plan



Active Shooter

- Get Out / Call Out
- Hide Out
- Take Out



PG&E Demand Response Team



Program Manager

Nicolette Sowa

nicolette.sowa@pge.com

541-337-1600



Operations

Jonathan Lew

jonathan.lew@pge.com



Operations

Mauro Scardina

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DR Manager

Jomo Thorne

jomo.thorne@pge.com

415-370-1029



Applicability

- CBP is integrated into the California Independent System Operators (CAISO) as a Proxy Demand Resource (PDR).
- CBP PDR's must comply with the current CAISO Tariff requirements on market participation.
- CBP is open to both Residential and Non-Residential Aggregators and Customers.



Eligibility

- CBP is only a Day-Ahead program.
- Customers currently enrolled in a Third Party Demand Response Provider (DRP) program, or in a Utility DR Program with a different Aggregator, are not eligible.
- Customers receiving electric power from a DA or CCA are eligible.

Non-Residential Customers:

- May qualify to self-aggregate
- Can dual participate in the OBMC program

Residential Customers:

- May only enroll through an Aggregator
- Can not participate in any other DR programs



Options and Products

All Options

- Aggregator nominates a monthly capacity amount.
- Aggregators are required to submit bids 7 days before trade day.
- Bid price can be different day to day, week to week, or month to month, but must be the same for every hour within the day.

Prescribed

- PG&E sets CAISO market bid price and dispatch strategy within specified operating hours.
- 1-4 or 2-6 hour product



Options and Products

continued

Elect Option

- Aggregator selects its own CAISO market bid price within the specified operating hours.
- Bids must meet the Net Benefit Test $\leq \text{Bid Price} \leq \text{Market Cap Price}_{\text{Elect}} + \text{Option}$
- 1-4, 2-6, or 1-8 hour product

Elect+ Option

- Aggregator can participate in the CAISO market for additional hours
- Aggregator must participate in Elect Option
- Outside hours must be contiguous with the program Operation Hours, and have the same nominated price and MW value
- 1-4, 2-6, or 1-24 hour product



Options and Products

Additional Info

- Aggregators are required at time of nomination to select a program option for each SA.
- Aggregators have the option to change program options monthly at time of nomination for each SA.
- Program Operating Hours: 1pm - 9pm
- Economic Events are capped at 30 hours per month.



Capacity Nominations

- Capacity nominations must be completed within the first 5 business days of the month prior to the operating month.
- The capacity nomination cannot be greater than the sum of max demand of the nominated SAs.
- All capacity nominations are fixed for their associated operating months.
- Resource aggregations of 10 MW and above require telemetry.
 - Aggregators are responsible for coordinating with the CAISO and any applicable fees to meet the telemetry requirements.
- Aggregators nomination options required to specify by SAs:
 - Program Option (Prescribed, Elect , or Elect +)
 - Event Duration Products (1-4 hour, 2-6 hour, 1-8 hour, or 1-24 hour)



Capacity Nominations

Continued

- Capacity Nominations are at a Sub-LAP level.
- Aggregations of SAs must meet the PDR requirements in the CAISO market, which includes 100 kW or more of load curtailment for each unique combination of:
 - Product
 - Sub-LAP
- Aggregators can combine non-residential and residential customers in their capacity nominations.



Capacity Payment

- Capacity payments will be invoiced separately from the energy payment.
- No change for the capacity pricing.
- The capacity prices by month are the same prices across all 3 program options.
- No change for the capacity payment and penalty table.



Energy Payment

- If no CBP Events are called during the operating month, the monthly energy payment is zero.
- Monthly energy payments will be invoiced separately from the capacity payments.
- The energy payment that each Aggregator may receive is based on performance for events equal to the underlying CAISO wholesale market PDR award.
- In alignment with CAISO settlement timeframes, energy payments due under the CBP will be processed 55 business days after the end of the operating month.



Metering and Communication Requirements

- In accordance with CAISO requirements, at least 45 calendar days of historic interval meter data using metering equipment must be submitted to CAISO for each SA, prior to that SA participating in CBP.
- The meter data must be Revenue Quality Meter Data (RQMD).



Program Testing

- PG&E will have the option to call up to one (1) CBP Test Event per month for resources that do not receive a market award by the 20th day of the operating month.
- The CBP Test Event will be called to demonstrate capacity with respect to the CBP Nomination. It will not exceed 2 hours.
- Aggregators will receive capacity payments and penalties for CBP Test Events, and events will count towards the monthly product dispatch limits.
- Aggregators will not receive energy payments for load reductions during CBP Test Events since energy payments are only passed through to Aggregators from CAISO market awards.



Program Trigger and Notification

Prescribed Trigger

- The CAISO DA market price > \$95/MWh
- PG&E receives a market award or dispatch instruction from the CAISO for a PDR that's part of CBP
- PG&E forecast that capacity may not be adequate
- Forecasted temperature for a Sub-LAP exceeds the temperature threshold for the Sub-LAP

Elect and Elect+ Trigger

- PG&E receives a market award from the CAISO for a PDR that's part of CBP as a result of the offer price specified by the Aggregator for a nominated portfolio

Notifications

- Affected Aggregators will be notified no later than 4pm the calendar day before a CBP Event



Access to Customer Usage Data

- CBP specific customer usage data and reports are provided via APX.
- Complete the “Authorization to Receive Customer Information or Act on a Customer’s Behalf” (Form 79-1095) and/or Notice to Add Or Delete Customers Participating in the Capacity Bidding Program (Form 79-1075) endorsed by Customer.



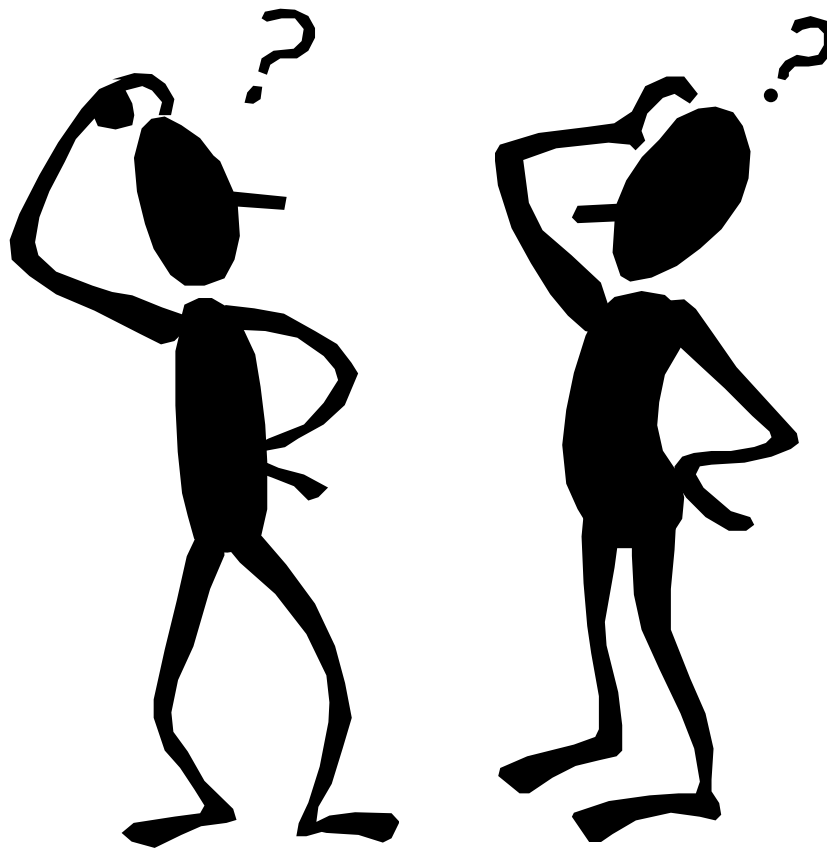
Confidentiality

Aggregator bidding strategies and prices shall be considered confidential information. PG&E shall protect this confidential information from public disclosure, and shall not disclose such confidential information to unauthorized third parties, except for PG&E's employees, agents, counsel, accountants, advisors, individual customers who authorize the release of their customer information pursuant to an approved process (such as Electric Rule 24), utility contractors, or Commission contractors who have a need to know such information and have agreed to keep such information confidential and except as provided otherwise.

PG&E will provide the Commission with confidential Aggregator information under Commission procedures for identifying and claiming confidential treatment. Release of confidential Aggregator information to utility and Commission contractors will be subject to such parties' agreement to protect the information from unauthorized use or public disclosure on terms consistent with PG&E and the Commission's rules and state law.

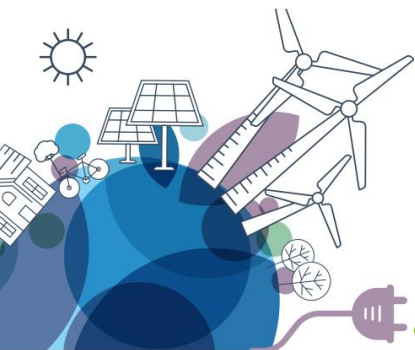


Questions???



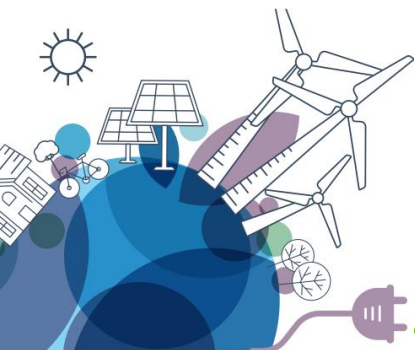
APX MarketSuite® Demand Response System Training For PG&E Programs





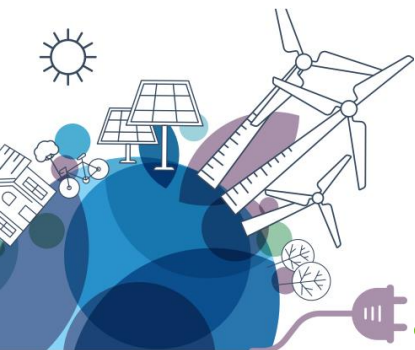
APX DR Program Contacts

Name	Role	Phone Number	Email Address
Midson Hay	APX Account Manager	408-597-4308	mhay@apx.com, DR@apx.com
Nino Mijares	APX Account Manager	408-517-2129, Option 2	nmijares@apx.com, DR@apx.com
Carl Schlemmer	APX Program Manager	408-517-2134	cschlemmer@apx.com, DR@apx.com
Jonathan Lew	PG&E Operations	N/A	jonathan.lew@pge.com
Mauro Scardina	PG&E Operations	N/A	mauro.scardina@pge.com
Nicolette Sowa	PG&E Program Manager	541-337-1600	nicolette.sowa@pge.com



System Information

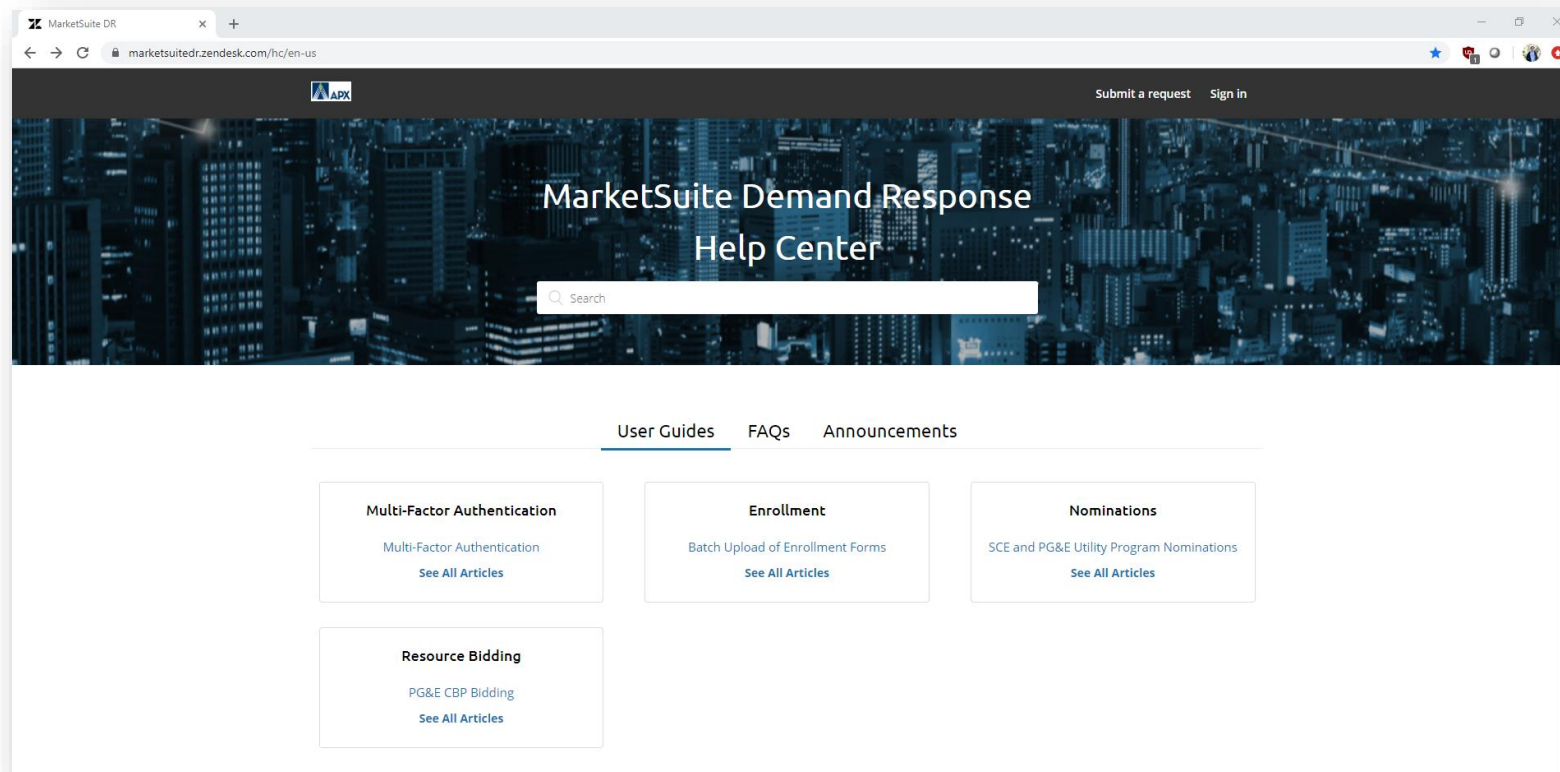
- Supported Browsers: Chrome, IE11, Edge, Firefox
 - Unsupported Browsers: IE10 and below, Safari
- Notification Information:
 - From address changes. “@apx.com” will remain the same.
 - e.g., helpdesk@apx.com <23947514_1517278394@apx.com>
 - Email server that should be whitelisted:
 - notify.apx.com
 - notify.mir3.com
 - notify2.mir3.com
 - notify20.mir3.com
 - notify200.mir3.com
 - Phone number/Caller ID: 888-896-8640
 - SMS Short Code: 24639

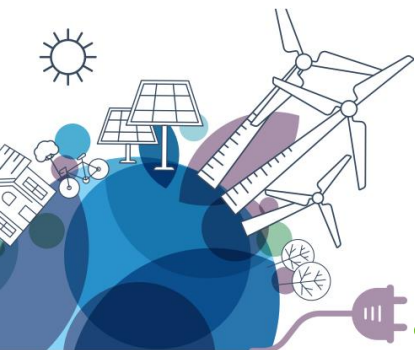


MarketSuite DR Help Center

User guides to using MarketSuite DR System

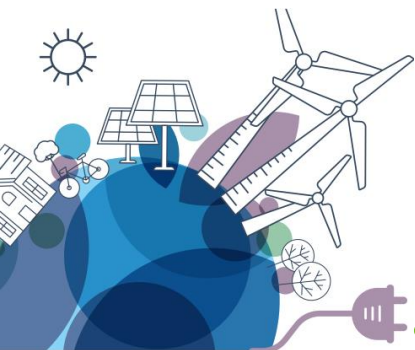
<https://marketsuitedr.zendesk.com/hc/en-us>





CBP Overview

- **New CBP Residential**
 - Enrollment process differs slightly from regular CBP
- **New CBP products**
 - All product times are now 1PM-9PM to align with CAISO's peak hours
- **Nominations**
 - Window – First 5 business days of the month prior to the operating month
 - Nomination Portfolio – Product/Location
 - No longer requires LSE to form a CAISO resource
- **Enrollment Enhancements**
 - Batch upload functionality
 - Online customer approval
 - Enrollment timing will be based on successful PG&E CAISO PDR registration
- **Settlements**
 - Capacity payments remain the same
 - Energy payments will be a pass-thru from CAISO
- **CAISO Bidding**
 - Aggregators select their own CAISO market bid price for specified operating hours
 - Aggregators required to submit 7 days before the operating date
 - PG&E submits bids to CAISO



2020 APX DR System Review

Registration

- Participant
- Roles
- Contacts

Electronic Enrollment

- Add Forms
- Remove Forms

Nomination

- SAs
- Megawatts
- Products

CAISO Bidding

- Elect Option
- Elect + Option

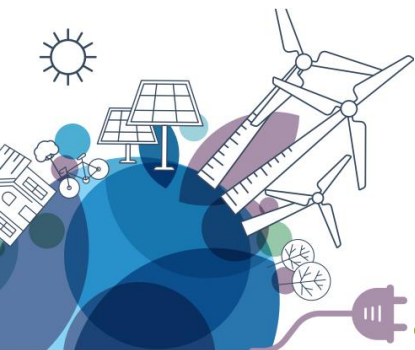
Capacity Settlement

- Meter Data
- Baseline
- Settlement

Report

- Statements
- Meter Data
- History

Aggregators are required to submit their bids 7 days before trade day.



DR Systems URL

- APX DR URL - <https://marketsuitedr.apx.com>
 - Supported browsers are Internet Explorer (IE11+) or Google Chrome

APX MARKETSUITE™

You are not logged in

APX Login

Log In

User Name:

Password:

Log In

[Forgot Password](#) | [Self-Register](#) | [Help](#)

[View Legal Agreement](#)

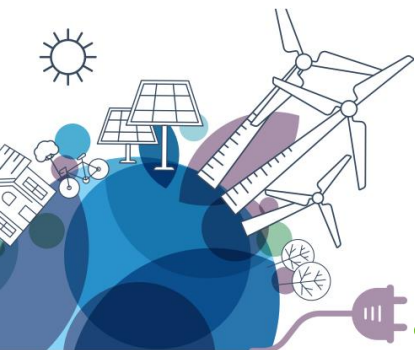
Curtailment Status for 2/22/2019

Program	Location	Product	MW	HE11	HE12	HE13	HE14	HE15	HE16	HE17	HE18	HE19	HE20	HE21
Southern California Edison CBP	SLAP_SCEC	DO 1-6 Hour	0.30											
Southern California Edison CBP	SLAP_SCEN	DO 1-6 Hour	0.10											
Southern California Edison CBP	SLAP_SCEW	DO 1-6 Hour	0.25											
Southern California Edison CBP	SLAP_SCNW	DO 1-6 Hour	0.75											

Curtailment Status for 2/25/2019

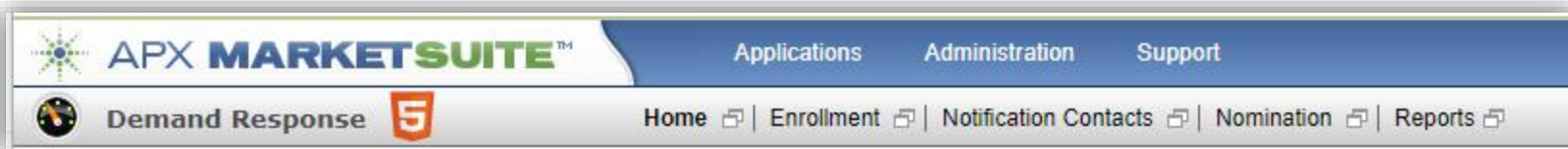
Program	Location	Product	MW	HE11	HE12	HE13	HE14	HE15	HE16	HE17	HE18	HE19	HE20	HE21
Southern California Edison CBP	SLAP_SCEC	DO 1-6 Hour	0.30											
Southern California Edison CBP	SLAP_SCEN	DO 1-6 Hour	0.10											
Southern California Edison CBP	SLAP_SCEW	DO 1-6 Hour	0.25											
Southern California Edison CBP	SLAP_SCNW	DO 1-6 Hour	0.75											

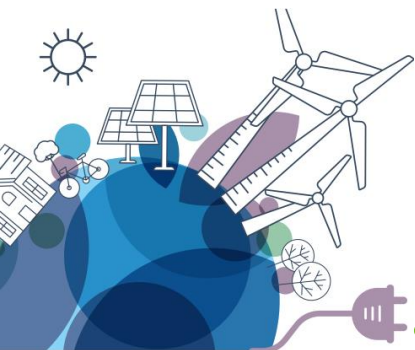
© 2019 APX Power Markets, Inc. | [Privacy Policy](#) | [General Terms of Use](#) | [DR Terms of Use](#)



DR Systems – Aggregator Functionality

- Self-Registration
- Manage Notification Contacts
- Submit Online Enrollments
- Manage Monthly Nominations
- Submit Bids
- View and Download Program Reports





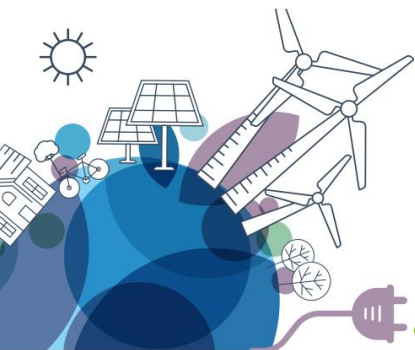
DR Systems Registration

- Self-Registration

1. Go to <https://marketsuitedr.apx.com>
2. Click “Self-Register”
3. Fill out the registration form
4. Click “Create User”
5. When you receive a confirmation email, click the link in the email to confirm the registration and for an APX account manager to review
6. After your account has been reviewed an account activation email will be sent to the user when activated.

*Users can be provided with read-only rights. E.g. viewing enrollments

**Aggregators should let APX know when personnel leave so their username can be deactivated.



Managing Notification Contacts

- In the Selection Criteria in the Contacts drop-down contains all active Notification Contacts and allows the user to Add New Contact
- At least one method of contact must be entered and at least one program must be selected. E.g. E-mail, Text Msg Number, or Phone number must be entered
- Clicking the “Test” button sends a test message to all the communication methods of contact listed for the contact

Demand Response | Home | Enrollment | Notification Contacts | Nomination | Reports

Company: APXDEMO | Contact: Midson Hay

Selection Criteria

Participant: APXDEMO

Contacts: **Select**
Add New Contact
Midson Hay

Contact Info

Form fields with * must be completed

* First Name: Midson

* Last Name: Hay

Title: DR Administrator

Email: mhay@apx.com

Phone Number: 408-597-4308

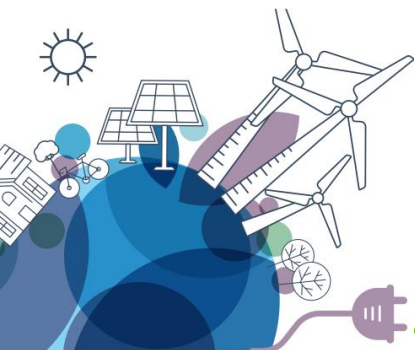
Mobile Number:

Text Msg Number:

Fax Number:

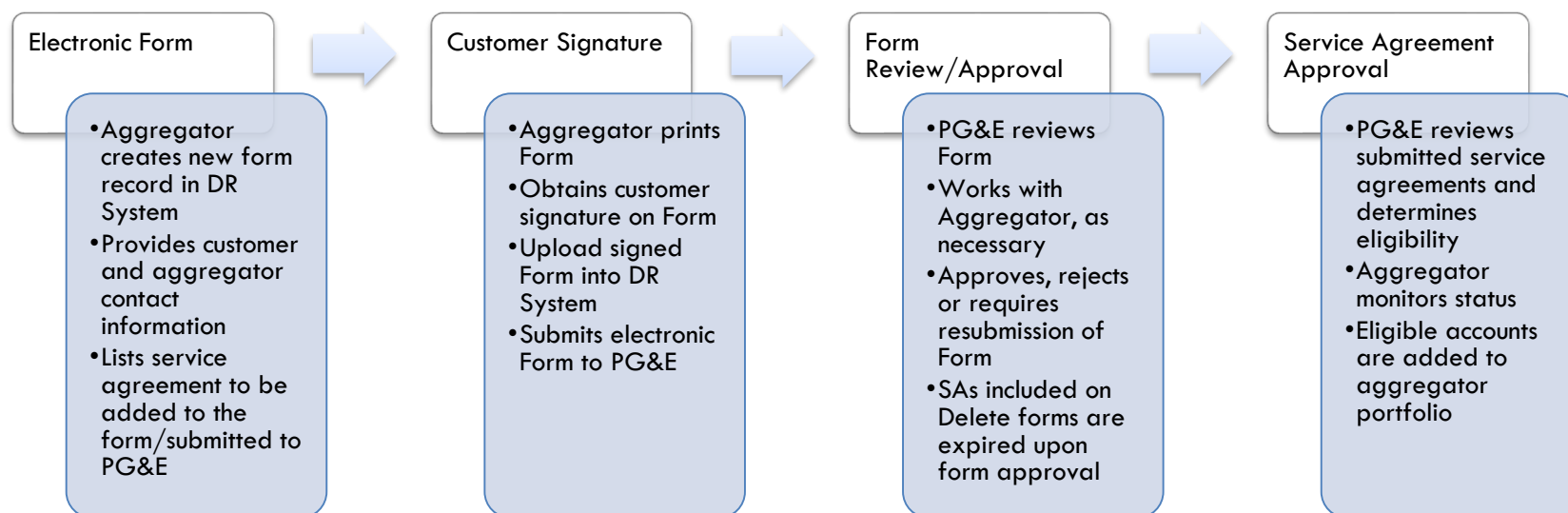
	Program Contact	Resource Contact	Associated Resources
* Notification Preferences:			
BIP-PG&E	<input type="checkbox"/>	<input type="checkbox"/>	0 +
CBP-PG&E	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 +

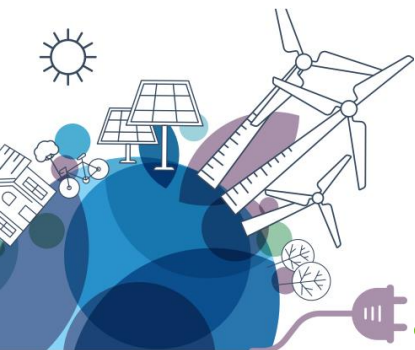
Save Delete Test



Online Enrollments

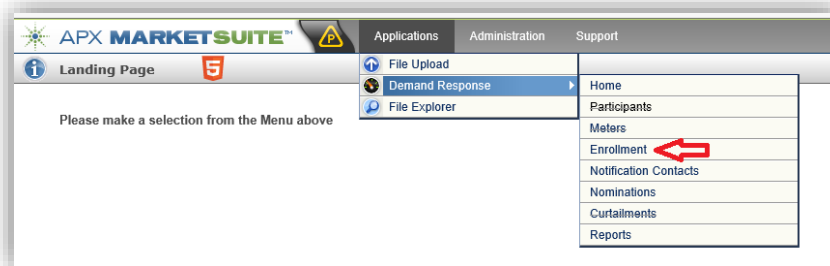
Add and Remove form creation, submission, and review process integrated into APX DR system.



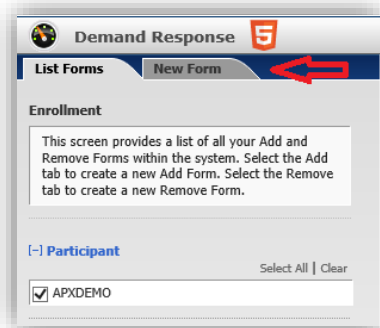


Creating a New Add/Update/Delete Form

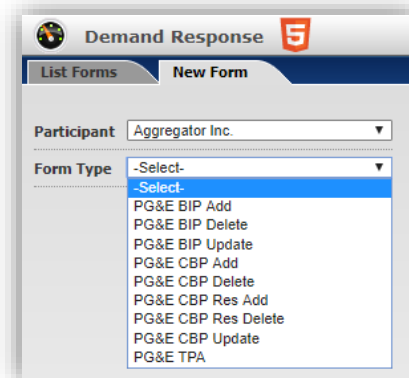
Step 1: Go to Applications > Demand Response > Enrollment



Step 2: Click on the “New Forms” tab on the left pane



Step 3: Select the form type applicable to you





Form Details

Market Participant: **Aggregator Inc.** Customer Name Of Record: **Aggregator Inc.** Status: **Draft** Days In Status: **0** Number Of Service Accounts: **0** Form Type: **PG&E CBP Add** [Print Paper Copy](#)

NOTICE TO ADD CUSTOMERS PARTICIPATING IN THE CAPACITY BIDDING PROGRAM

Add Form Alias

[\[+\] Add Form Text and Instructions](#)

Customer and Aggregator Information

Customer	Aggregator
* Name of Record: <input type="text"/>	Name of Aggregator: Aggregator Inc.
* Name of Authorized Representative: <input type="text"/>	* Name of Authorized Representative: <input type="text"/>
* Title of Authorized Representative: <input type="text"/>	* Title of Authorized Representative: <input type="text"/>
* Mailing Address: <input type="text"/>	* Mailing Address: <input type="text"/>
* Phone Number: <input type="text"/>	* Phone Number: <input type="text"/>
* Email Address: <input type="text"/>	* Email Address: <input type="text"/>

Add Form Service Agreement

Fill out the required information below to request enrollment of Service Agreements as part of your CBP Portfolio. All Service Agreements listed below are not guaranteed enrollment and will be subject to review by PG&E. Please see the printed copy of this add form for more details on the terms and conditions. Please note: you should be entering the Service Agreement number of the customers you are requesting to add to your portfolio. The number is a numeric number between 8 and 10 digits long.

Service Agreement Details [Add Details from CSV File](#) Total Service Agreements: 0

*Agreement #	*Account Name	*Address	*City	*Zip Code	*Prohibited Res.	Num Res.	Res. Cap (kW)	Tot. Cap (kW)	Meter ID	Status	Action
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	-Select-	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

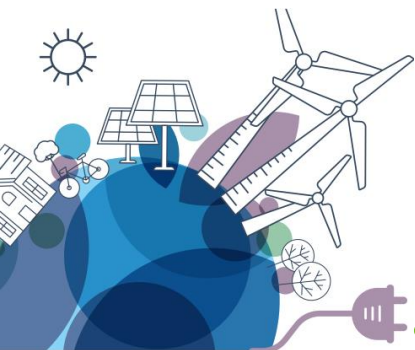
Signed Form Management

No Form Attached

Comments

Aggregator Comments **Reviewer Comments** **Private Reviewer Notes**

- Link to print form with completed data
- Alias assigned by Aggregator to organize Forms
- “ * ” indicates fields required for submission
- Link to upload data via csv (no headers)
- “ * ” indicates required fields for each Service Agreement. Note: Service Agreement number
- Displays Status of individual Service Agreement after form has been approved
- Links used to Add, Remove, or Delete service accounts from the form
- Click to select signed Form file to upload. Once selected, Click Save or Submit to attach the file. Note, you cannot remove a file after submitting the Form
- Aggregator Comments captures comments to be shared with PG&E. Reviewer Comments captures PG&E comments or instructions for the aggregator if Form has been returned to aggregator for editing and resubmission
- The Buttons listed on the bottom of the Add Form indicate available actions and next steps. The buttons only become enabled when all required data have been entered



Online Customer Approval

- Online approval module that facilitates end-use customers' review and approval of PG&E enrollment forms (i.e., Add, Delete, and Update forms) submitted by Aggregators.
- Email notifications sent to end-use customers providing instructions for accessing, reviewing and approving enrollment forms. The link will expire after 3 days and can be re-sent by the aggregator.
- Customer submits approval or rejection of the enrollment form via the online portal.
- Email notifications sent to the end-use customers providing confirmation of their approval or rejection.
- "Aggregator Enrollment Forms" report available to the Aggregators to review the status of the customer online approvals.

Market Participant: **APXDEMO**
Customer Name Of Record: **MHWalmart**
Status: **Draft**
Days In Status:
Number Of Service Accounts: **3**
Form Type: **PG&E CBP Add**
Print Paper Copy

NOTICE TO ADD CUSTOMERS PARTICIPATING IN THE CAPACITY BIDDING PROGRAM

Add Form Alias:

[\[+\] Add Form Text and Instructions](#)

Customer and Aggregator Information

Customer	
* Name of Record:	MHWalmart
* Name of Authorized Representative:	Midson Hay
* Title of Authorized Representative:	DR Admin
* Mailing Address:	2001 Gateway Place
* Phone Number:	4085974308
* Email Address:	mhay@apx.com

Aggregator	
Name of Aggregator:	APXDEMO
* Name of Authorized Representative:	Chris Pratt
* Title of Authorized Representative:	DR Admin
* Mailing Address:	123 Chris Pratt Way
* Phone Number:	555555555
* Email Address:	chrispratt@thisischrissprattsemail.com

Add Form Service Agreement

Fill out the required information below to request enrollment of Service Agreements as part of your CBP Portfolio. All Service Agreements listed below are not guaranteed enrollment and will be subject to review by PG&E. Please see the printed copy of this add form for more details of the terms and conditions. Please note: you should be entering the Service Agreement number of the customers you are requesting to add to your portfolio. The number is a numeric number between 8 and 10 digits long.

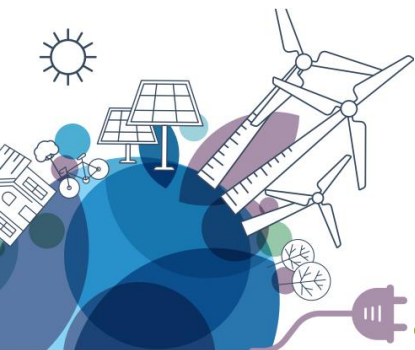
Service Agreement Details

[Add Details from CSV File](#)

*Agreement #	Account Name	*Address	*City	*Zip Code	*Prohibited Res.	Num Res.	Res. Cap (kW)	Tot. Cap (kW)	Meter ID	Status	Action
					.-Select-						Add
1234567893	Paramount Citrus	123 Orange ave	San Jose	95110	No				123456782	New	Remove
1234567892	Sunkist Farms	123 Sunkist Grove	San Jose	95110	No				123456781	New	Remove
1234567891	Archer Farms	123 Archer Street	San Jose	95110	No				123456780	New	Remove

Total Service Agreements: 3

Save
Submit
Cancel Add Request
Delete
Initiate Online Customer Approval



Customer Approval (continued)

- When the customer opens the link it will open the enrollment form and they will be able approve or reject the form. Once an action is taken, they will receive confirmation.



NOTICE TO ADD OR DELETE CUSTOMERS PARTICIPATING IN THE CAPACITY BIDDING PROGRAM

(*) Only if the prohibited resource(s) will be used for operational, health, and safety purposes during DR events. The total Default Adjustment Value (DAV) of the resource(s) will be subtracted from the Potential Load Reduction or Nominated Capacity. The DAV of all prohibited resources should equal the Total Nameplate Capacity.

Automated Document – Preliminary Statement Part A

Page 5 of 5
Form 79-1075
Advice 4661-E-C
July 2018

Customer Authorization

I, *, on 03/11/2019

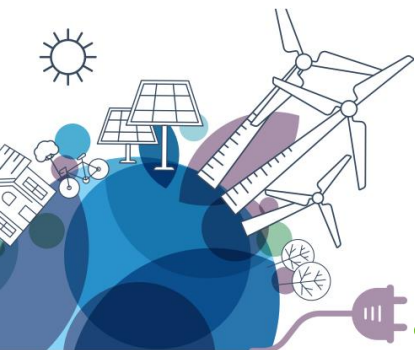
- ☒ agree to the terms described in the enrollment form above.
☐ DO NOT agree to the terms described in the enrollment form above.

Reason for Disagreement

Disagreement Details

✓ Submission successful. Please print this form for your records.





Online Customer Approval (continued)

- When initiating an online approval you will be prompted to confirm this action
- If the link expires the link can be re-sent.
- When the customer approves the form, the signed form will show on the approved enrollment. *

Service Agreement Details

*Agreement #	Account #	Cap (kW)	Tot. Cap (kW)	Meter ID	Status	Action
1234567893	Paramour Citrus			123456782	New	Add Remove
1234567892	Sunkist Farms			123456781	New	Remove
1234567891	Archer Farms			123456780	New	Remove

Message from webpage

You are initiating the Online Approval Process. An email will be sent to the customer email provided. It will provide the customer with access to the Form details and allow them to review and approve the form. Do you want to continue?

☐ Don't let this page create more messages

[OK](#) [Cancel](#)

[Save](#) [Submit](#) [Cancel Add Request](#) [Delete](#) [Initiate Online Customer Approval](#)

Signed Form Management

No Form Attached [Browse...](#)

Comments

[Aggregator Comments](#) [Reviewer Comments](#)

[Cancel Add Request](#) [Resend Online Customer Approval](#)

Signed Form Management

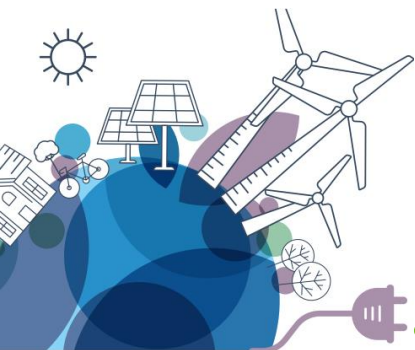
[View Signed Form](#)

Uploaded by Customer_Approver_CBPPGE on 3/10/2019 5:00:00 PM

Comments

[Aggregator Comments](#) [Reviewer Comments](#)

*An approved enrollment does not mean the SA's are eligible.



Enrollment Batch Upload

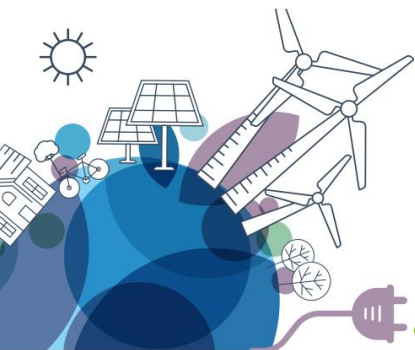
The Enrollment Form Batch Upload functionality allows aggregators to create and/or update one or more enrollment forms simultaneously using a CSV file upload. The batch upload functionality supports all actions allowed via the User Interface(UI) except for uploading a signed document. Aggregators will need to manually upload signed documents or utilize the online approval process to complete/submit enrollment forms.

* APX also supports enrollment through API. The link below has information regarding the API.

<https://pmdsmaggregatorapi.apx.com/swagger-ui.html#/>

Steps

1. Download the “Aggregator Enrollment Forms” report as a CSV template
2. Update and save the CSV template with new enrollment information
3. Upload the CSV template into MarketSuite to batch create/update enrollment forms



Enrollment Batch Upload (continued)

1. Download the “Aggregator Enrollment Forms” report as a CSV template

Demand Response

Home | Enrollment | Notification Contacts | Nomination | Reports

Find Reports

Report: Aggregator Enrollment Forms

Provides customer approval status details for PG&E aggregator submitted enrollment forms and serves as the template for batch uploading enrollment forms

Participant

Select All | Clear

☒ APXDEMO

Form Type

Find: Select All | Clear

☒ PG&E BIP Add
☒ PG&E BIP Delete
☒ PG&E BIP Update
☒ PG&E CBP Add
☒ PG&E CBP Delete

Form Status

Find: Select All | Clear

☒ Draft
☒ Pending Review
☒ Pending Customer Review
☒ Resubmission Required
☒ Approved

Updated After: 02/26/2019

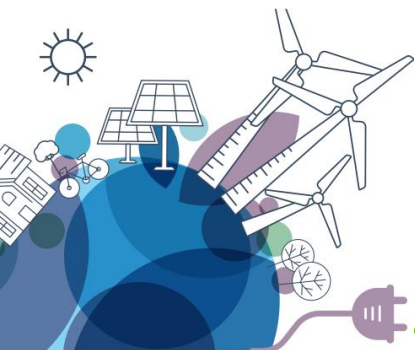
Run Report

1 of 1

Find | Next

Export to Excel

Form_Name	Form_Alias	Customer_Name	Form_Status	Last_Update	Notifications_Generated_At	Customer_Notification_Status
PG&E CBP Add	APXDEMO	MHTarget	Approved	19 10:18:00 PM	3/11/2019 9:59:51 PM	Success



Enrollment Batch Upload (continued)

2. Update and save the CSV template with new enrollment information

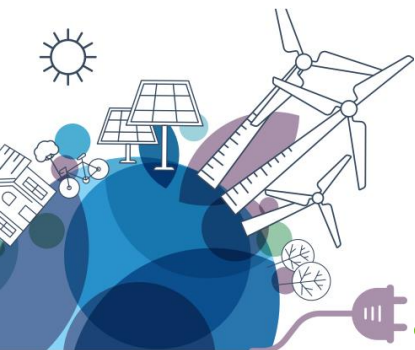
AutoSave ☐ Off | Aggregator Enrollment Forms - APX DEMO - Excel | Midson Hay

File Home Insert Page Layout Formulas Data Review View Help Search | Share | Comments

C5 | MHWalmart

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	form_name	form_alias	customer_form_status	Last_Status	notification	customer	customer	customer	customer	form_id	Form_Acti	customer	customer	customer	customer	customer	ag
2	PG&E CBP Add	APXDEMO	MHTarget	Draft	#####					5188	Save	Midson H	DR Admin	2001 Gate	4.1E+09	mhay@ap	AP
3	PG&E CBP Add	Batch Demo	MHWalmart								Save	Midson H	DR Admin	2001 Gate	4.1E+09	mhay@ap	AP
4	PG&E CBP Add	Batch Demo	MHWalmart								Save	Midson H	DR Admin	2001 Gate	4.1E+09	mhay@ap	AP
5	PG&E CBP Add	Batch Demo	MHWalmart								Save	Midson H	DR Admin	2001 Gate	4.1E+09	mhay@ap	AP
6																	

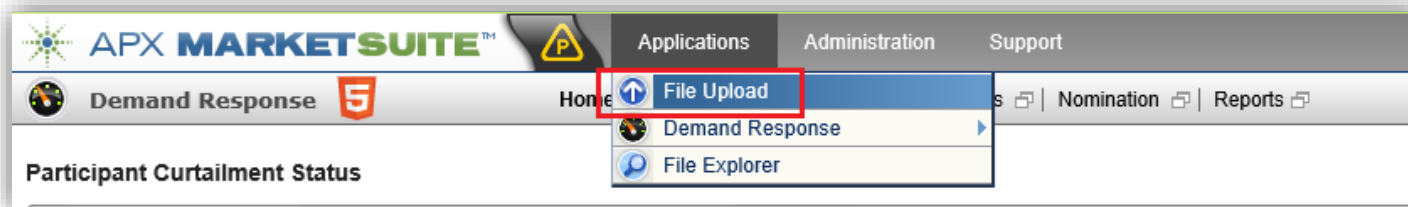
- Details regarding business rules and required columns are in the MarketSuite Help Center <https://marketsuitedr.zendesk.com/hc/en-us/articles/360043749994-Batch-Upload-of-Enrollment-Forms>



Enrollment Batch Upload (continued)

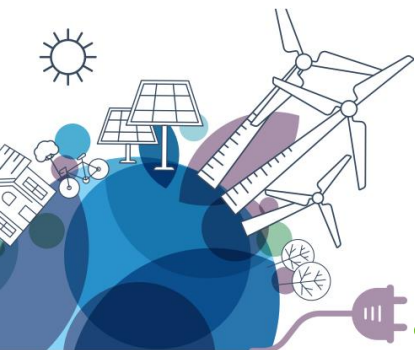
3. Upload the CSV template into MarketSuite to batch upload/update enrollment forms

- Select **File Upload** from the **Applications** menu to access the File Upload UI. If you do not see the **File Upload** selection in the menu, please contact your APX program administration to add the appropriate rights to your login profile.



- The **File Upload** UI will be displayed with the upload parameters displayed across the top of the UI. Select **CBP-PG&E** as the **Region** for all PG&E form types. Select **Demand Response** as the **Category** and **PGE Enrollment Forms** as the **File Type**. The Begin Date is assigned to the file to allow you to find/view it again when pressing the Find Uploaded Files button. Otherwise the date selected is insignificant.

Region:	<input type="text" value="CBP-PG&E"/>	Category:	<input type="text" value="Demand Response"/>	Begin Date:	<input type="text" value="11/13/2018"/>
Account:	<input type="text" value="Aggregator Inc."/>	File Type:	<input type="text" value="PGE Enrollment Forms"/>	File Path:	<input type="text" value="C:\Users\cschlemmer\Desktop\Te"/> <input data-bbox="1483 1135 1590 1159" type="button" value="Browse..."/>
<input type="button" value="Find Uploaded Files"/>		<input type="button" value="Upload File"/>			



Managing Forms

APX MARKET SUITE™

Applications Administration Support | Test Tester - Energy Connect (QA) | Logout

Home | Enrollment | Notification Contacts | Nomination | Reports

List Forms New Form

Enrollment

This screen provides a list of all your Enrollment Forms within the system. Begin filling out new forms by selecting the New Form tab and following prompts.

[-] Participant Select All | Clear

☒ Acme Aggregator

[-] Form Type Select All | Clear

☒ PG&E AMP Add
☒ PG&E AMP Delete
☒ PG&E CBP Add
☒ PG&E CBP Delete
☒ PG&E TPA

[-] Status Select All | Clear

☒ Approved
☒ Cancelled
☒ Draft
☒ Pending Review
☒ Rejected
☒ Resubmission Required

Search

Type	Participant	Customer Name	Form Alias	Status	Days in Status	Last Status Change	SAs	Signed Form	Submitted Date
PG&E AMP Delete	Acme Aggregator	Bryant Manufacturing	Bryant	PendingReview	2	3/14/2015	1		3/14/2015
PG&E AMP Delete	Acme Aggregator	Cold Storage Inc.	Building 2 Delete	Approved	5	3/11/2015	1		3/6/2015
PG&E CBP Add	Acme Aggregator	Writesville Inc	CBP ADD	Approved	5	3/11/2015	124		3/11/2015
PG&E AMP Add	Acme Aggregator	Bogut Township	TEst	Draft	5	3/11/2015	124		
PG&E CBP Add	Acme Aggregator	Smith and Company Inc.	Custom 123Abc	Approved	6	3/10/2015	124		3/10/2015
PG&E CBP Add	Acme Aggregator	Curtis Industries		Approved	10	3/6/2015	2		3/6/2015
PG&E TPA	Acme Aggregator	Box Store 24	Box Store 24 TPA	Cancelled	10	3/6/2015	1		3/6/2015

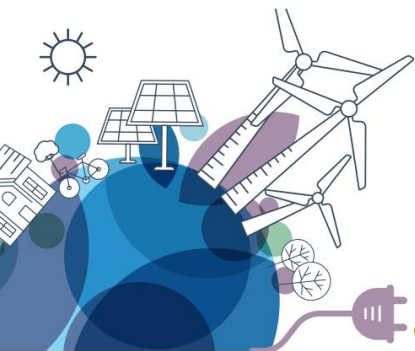
Link opens the Add Form record

Icon indicates uploaded Form. Click to view.

Filter by form type

Filter by form status

Search Forms by customer name, authorized representative, service account, etc.



Managing Forms (continued)

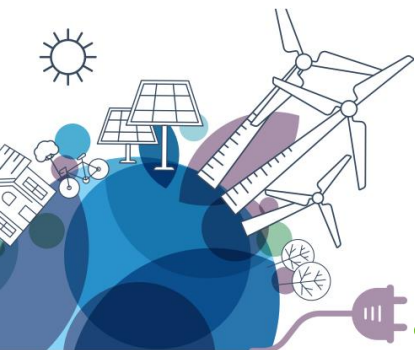
Form Statuses

- **Draft** – Aggregator must complete and submit to PG&E for approval. (Editable)
- **Pending Review** – PG&E to review submitted form. (Cannot Edit)
- **Resubmission Required** – Indicates PG&E found an issue with the form that requires the aggregator to update the form and resubmit. (Editable)
- **Rejected** – Indicates the form has been rejected and will not be review any further. (Cannot Edit)
- **Cancelled** – Indicates the form submission was cancelled by the aggregator. (Cannot Edit)
- **Approved*** - Indicates the form has been approved. (Cannot Edit)
 - Approval of an Add Form does not indicate SA eligibility. The next step is an eligibility review of each SA.
 - When an Add approved, SAs will appear in the **Aggregator Enrollment Requests** report.
 - When a Delete form is approved, all SAs on the form will be marked for expiration with the later of today's date or the last day for which the SAs were nominated.

**For CBP-Res once the form is submitted it the form status will be automatically "Approved" and the service agreement will go through eligibility determination.*



-
- The screenshot shows the "Demand Response" application interface. At the top, there are navigation tabs: Home, Enrollment, Notification Contacts, Nomination, and Reports. The "Reports" tab is active.
- Find Reports**
- Report: Aggregator Enrollment Requests
Provides a list of aggregator enrollment requests and displays the initial Service Agreement eligibility statuses and reasons.
- [+] Request Type
☒ PG&E AMP Add
☒ PG&E AMP Delete
☒ PG&E CBP Add
☒ PG&E CBP Delete
☒ PG&E TPA
- [+] Service Agreement Status
☒ Complete
☒ Eligible
☒ Ineligible
☒ New
☒ Pending
- Submitted After: 03/09/2015 [Calendar Icon]
- Run Report**
- Aggregator Enrollment Requests**
 Report: 3/16/2015 8:43:31 AM (GMT)
 Timestamp:
- | Eligibility Status : | Form Type : | Form Alias : | Submit Date : | Program : | Participant : | Customer Name : |
|----------------------|--------------|---------------|-----------------------|-----------|---------------|-----------------|
| Eligible | PG&E CBP Add | CBP ADD | 3/11/2015 12:28:20 PM | CBP-PG&E | | CBP ADD |
| Eligible | PG&E CBP Add | Custom 123Abc | 3/10/2015 4:15:51 PM | CBP-PG&E | | Test |
| Eligible | PG&E CBP Add | Custom 123Abc | 3/10/2015 4:15:51 PM | | | |
| Eligible | PG&E CBP Add | Custom 123Abc | 3/10/2015 4:15:51 PM | | | |
| Eligible | PG&E CBP Add | Custom 123Abc | 3/10/2015 4:15:51 PM | | | |
| Eligible | P | M | | | | |
| Eligible | P | M | | | | |
| Pending | P | M | | | | |
| Ineligible | P | M | | | | |
| Pending | PG&E CBP Add | Custom 123Abc | 3/10/2015 4:15:51 PM | | | |
| Pending | PG&E CBP Add | Custom 123Abc | 3/10/2015 4:15:51 PM | CBP-PG&E | | Test |
| Pending | PG&E CBP Add | Custom 123Abc | 3/10/2015 4:15:51 PM | CBP-PG&E | | Test |
| P | | | | | | Test |
| P | | | | | | Test |
| P | | | | | | Test |
| P | | | | | | Test |
| P | | | | | | Test |
- Annotations:
- "Click on column headers to sort" points to the "Form Alias" header.
 - "Export to Excel for additional data manipulation" points to the "Export to Excel" button.
 - "Filter list of SAs by Request type, Eligibility Status, and Submitted After date" points to the filter controls on the left.

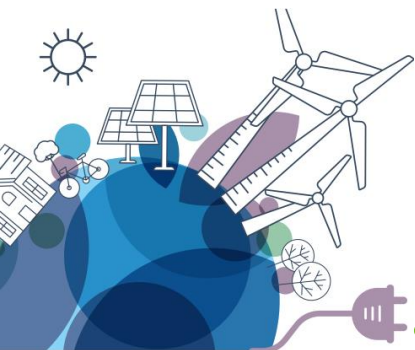


Portfolio Management

Service Agreement data will be available to Aggregators through the Registered Meters report. Data includes

- LSE
- Location
- Max kW
- Alternate Name
- Store Number
- Account ID
- Old SA/Reference ID
- Channel
- Meter Site Service Address
- Meter Site City
- Meter Site Zip
- Rate Schedule
- Comments
- Etc.

*Note “Registered Meters” report will be re-named to “Aggregator Portfolio Report”

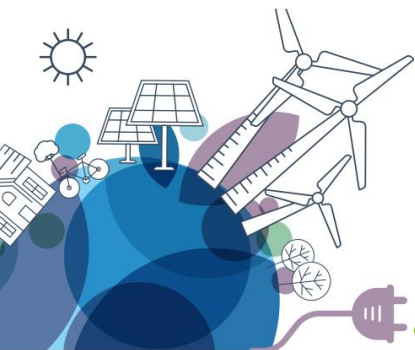


DR Batch Nomination

Nomination Verification Report

This report service two purposes: (1) verifying the current month's nominations and (2) serving as a template for the batch upload process. To download the report:

1. Go to Reports and select **Nomination Verification**
2. Once the selection criteria fields are selected, click the Run Report Button to populate the data pane
3. Download the Nomination Verification Report in **CSV (comma delimited)** format.



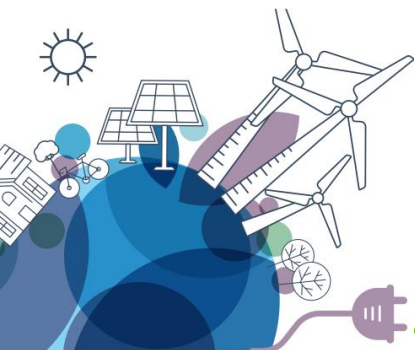
DR Batch Nomination (continued)

Batch Nomination Upload

1. Service account data are pre-populated and do not need to be updated
2. Users must fill out the last 5 columns of the report: **Product, Baseline Option, Nominate, Monthly Portfolio Nomination MW, Tech Potential kW** (Tracks expected reductions by SA)
 - Baseline Options: “10/10 Baseline: No Adjustment”, “10/10 Baseline: Day Of Adjustment (40% Cap)”
 - Columns are pre-populated if service account was nominated in the previous month
 - Must enter “Yes” for Nominate column
 - Monthly Portfolio Nomination must be the same for all portfolios, SUM of the portfolio.
3. Save the file as type CSV (comma delimited)

S	T	U	V	W
product	baseline_option	nominate	monthly_portfolio_nomination_mw	tech_potential_kw
Elect DA 1-8 (11AM-7PM)	10/10 Baseline: No Adjustment	yes	3	3
Elect DA 1-8 (1PM-9PM)	10/10 Baseline: Day Of Adjustment (40% Cap)	yes	4	4

<https://marketsuitedr.zendesk.com/hc/en-us/articles/360044249153-SCE-and-PG-E-Utility-Program-Nominations>

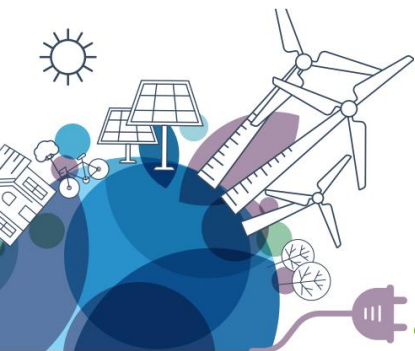


DR Batch Nomination (continued)

Portfolio Nominations by Product and Location

Program	Location	Product	Load Type	LSE	SA ID	Nominated MW	Tech Potential kW	max_events_per_month	max_event_hours_per_month	max_event_days_in_sequence	External_id
CBP-PGE	SLAP_PGCC-APND	Prescribed DA 1-4 (1PM-9PM)	Direct Access Load	Company A	123	.5	400				GroupA
CBP-PGE	SLAP_PGCC-APND	Prescribed DA 1-4 (1PM-9PM)	Bundled	Company C	XY Z	.5	150				GroupA
CBP-PGE	SLAP_PGCC-APND	Prescribed DA 1-4 (1PM-9PM)	Direct Access Load	Company A	789	1.0	120				GroupB
CBP-PGE	SLAP_PGCC-APND	Prescribed DA 1-4 (1PM-9PM)	Direct Access Load	Company B	EF G	1.0	800				GroupB
CBP-PGE	SLAP_PGSI-APND	Elect Plus DA 1-24 (1AM-9PM)	Bundled	Company C	MN O	2.9	2800	15	60	5	
CBP-PGE	SLAP_PGSI-APND	Elect Plus DA 1-24 (1AM-9PM)	Bundled	Company C	456	2.9	250	15	60	5	

*Three new columns to allow aggregators to set the maximum events and hours per month and maximum consecutive events at a resource/nomination level (not less than program defaults).



DR Batch Nomination Upload

1. Review the Nomination Verification report
2. Identify service agreements to nominate to specific products
3. Identify nominated MW value for each portfolio
4. Upload the report to the Import tab on the Nominations Application

APX MARKET SUITE™

Demand Response

Selection Criteria **Import**

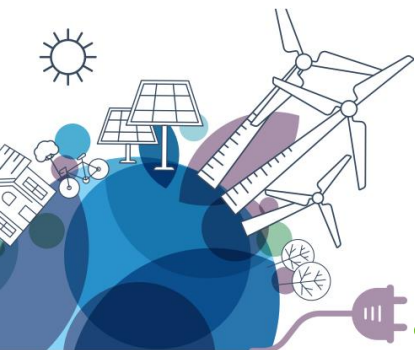
Program APX-TESTPROGRAM

Trade Month Aug, 2011

Select Meter File

C:\fakepath\Nomination Verification for Suit

Once the required fields are entered in the spreadsheet exported from the **Nomination Verification Report** and is saved to a location on your computer, go to the **Nomination** application, click the **Import** to upload nominations.

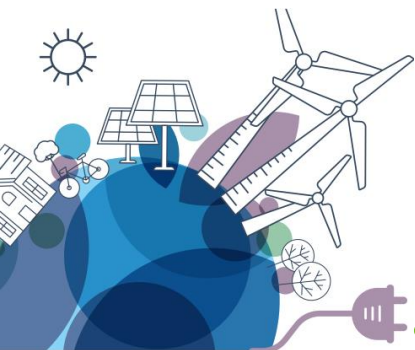


Batch Nomination Upload (continued)

After nominations are uploaded successfully, the **Nomination Import Summary** summarizes results of the upload. If there are issues with the upload, an error message is displayed and user is required to update the file and re-upload.

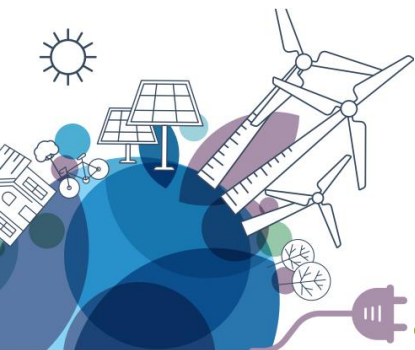
Program:	Participant:	Trade Month:	File:
CBP-PG&E	PG&E	Mar, 2020	C:\fakepath\Nomination Verification_20200317_MH_SANDBOX.csv
Import Summary			
Product	Meters	MW	
Elect DA 1-4 (1PM-9PM) -UKN -No MPP	1	0.10000000	
Elect DA 2-6 (1PM-9PM) -UKN -No MPP	1	0.20000000	
Elect DA 2-6 (1PM-9PM) -UKN -No MPP	1	0.30000000	

Note: Batch Nomination upload overwrites all previous nominations entered in for that nomination month



CAISO Bidding

- APX to capture aggregator bids for Elect and Elect +.
- Bidding Requirements
 - Bids for resource must be the same for entire day
 - Must bid for all program hours.
 - Additional Elect + bid hours must be contiguous
 - Bidding must be for the same MW as nominated
 - Bid price must be between the net benefit test (NBT) minimum and CAISO price ceiling (\$1000)
 - NBT: <http://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=17B7B402-09C4-47B7-9EB3-ADA77F7C2085>
- Steps to bid
 1. Download the “PGE Monthly Portfolio Bidding Template” report as a csv
 2. Enter in desired price and date ranges (daily if desired)
 3. Upload the template into MarketSuite
 4. Verify bids using the “PGE Portfolio Bidding”.
 - a) DRMI is submitting based on what is in APX. Status is updated by DRMI after submission to CAISO.



CAISO Bidding (continued)

1. Download the “PGE Monthly Portfolio Bidding Template” report as a CSV.

Demand Response | Home | Enrollment | Notification Contacts | Nomination | **Reports**

Find Reports

Report: PGE Monthly Portfolio Bidding Template
Provides a listing resources available for bidding and serves as the bidding file upload template.

Program: CBP-PG&E

[+] Participant: APXDEMO

Month: Aug, 2018

Run Report

Monthly Portfolio Bidding Template

Month	Program	Participant_ID	Participant	Location	Product	Load_Type
2018-08	CBP-PG&E	12213	APXDEMO	SLAP_PGEB-APND	Elect DA 2-6 (1PM-9PM)	Bundled Load
2018-08	CBP-PG&E	12213	APXDEMO	SLAP_PGFI-APND	Elect DA 2-6 (1PM-9PM)	Bundled Load
2018-08	CBP-PG&E	12213	APXDEMO	SLAP_PGKN-APND	Elect DA 2-6 (1PM-9PM)	Bundled Load
2018-08	CBP-PG&E	12213	APXDEMO	SLAP_PGNP-APND	Elect DA 2-6 (1PM-9PM)	Bundled Load
2018-08	CBP-PG&E	12213	APXDEMO	SLAP_PGSB-APND	Elect DA 2-6 (1PM-9PM)	Direct Access Load
2018-08	CBP-PG&E	12213	APXDEMO	SLAP_PGSF-APND	Elect DA 2-6 (1PM-9PM)	Direct Access Load
2018-08	CBP-PG&E	12213	APXDEMO	SLAP_PGSI-APND	Elect DA 2-6 (1PM-9PM)	Direct Access Load

Export to Excel

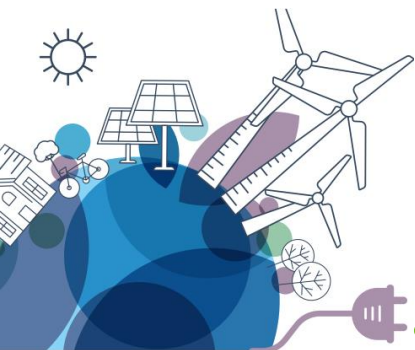
2. Update bids via the CSV template

AutoSave Off | PGE Monthly Portfolio Bidding Template - Excel | Midson Hay

File Home Insert Page Layout Formulas Data Review View Help Search

I24

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Month	Program	Participant_ID	Participant	Location	Product	Load_Type	LSE	Dispatch_ID	MW	Begin_Date	End_Date	HE_Start	HE_End	Price
1	2018-08	CBP-PG&E	12345	APXDEMO	SLAP_PGCC-APND	Elect DA 1-4 (11AM-7PM)	Direct Access Load	LSE1	PGCC_1_PDRP09	0.1	8/1/2018 00:00	8/15/2018 00:00	12	19	100
2	2018-08	CBP-PG&E	12345	APXDEMO	SLAP_PGCC-APND	Elect DA 1-4 (11AM-7PM)	Direct Access Load	LSE1	PGCC_1_PDRP09	0.1	8/16/2018 00:00	8/31/2018 00:00	12	19	150
3	2018-08	CBP-PG&E	12345	APXDEMO	SLAP_PGEB-APND	Elect DA 1-4 (11AM-7PM)	Customer Choice Aggreg	LSE3	PGCC_1_PDRP11	0.29	8/1/2018 00:00	8/31/2018 00:00	12	19	100
4	2018-08	CBP-PG&E	12345	APXDEMO	SLAP_PGEB-APND	Elect DA 1-4 (11AM-7PM)	Direct Access Load	LSE5	PGCC_1_PDRP07	0.1	8/1/2018 00:00	8/31/2018 00:00	12	19	150



Pre-Event Notification

- PG&E can send out pre-event notifications. PG&E is not obligated to send out these notifications, which will be sent out per their discretion.

PG&E CBP Pre-Event Notification



helpdesk@apx.com

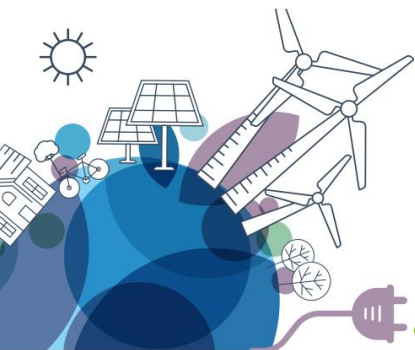
To



7/22/2019

Greetings,

This is an important message from PG&E. Please be aware that Event Trigger thresholds may be met in the PG&E territory this week. There is a potential chance that Demand Response Events will be initiated starting today, 07/22/2019. For more details please contact PG&E's Demand Response Program Manager.



Event Dispatch

From: helpdesk@apx.com <helpdesk@apx.com>

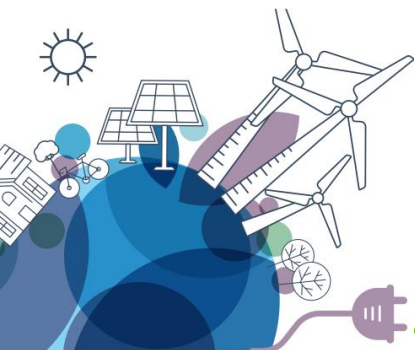
Sent: Wednesday, August 14, 2019 14:37

Subject: Pacific Gas & Electric CBP Event Called for 08/15/2019

Urgent Instruction: Pacific Gas & Electric CBP Day Ahead Load Reduction event for 08/15/2019 has been initiated.

Program	Curtailement Type	Location	Product	Dispatch ID	Total MW	Curtailed Hrs.	Total Hrs.
Pacific Gas & Electric CBP	Event	SLAP_PGP2-APND	Prescribed DA 1-4 Hour	PGP2_32_PDRP1	1.2000	From 1600-1900	3

For additional dispatch information please contact APX at 408-517-2135 or visit <https://marketsuitedr.apx.com/>



Reports

- Aggregator Enrollment Forms
- Aggregator Enrollment Requests
- Meter Readings
 - Can elect to see data for all SAs or just nominated SAs (see image)
 - Should include estimated meter data within 2-3 days for most SAs
- Monthly Meter Nomination
- Monthly Portfolio Nomination
 - Verify nominations are correct
- MPP Events
 - New Report Identifying MPP events for SAs in your portfolio
- Nomination Verification
 - Used as the template for batch uploading nominations
- Notification Contacts
- Participant Curtailment History
- Program Curtailment History
- Settlement Statement Detail
- Settlement Statement Summary
- Service Account Performance
- ISO Prices

Demand Response

Find Reports

Program: CBP-PG&E

Participant: APXDEMO

Location: AutoDR_DLAP, DLAP_PGAE, Greater Bay Area, Greater Fresno, Humboldt

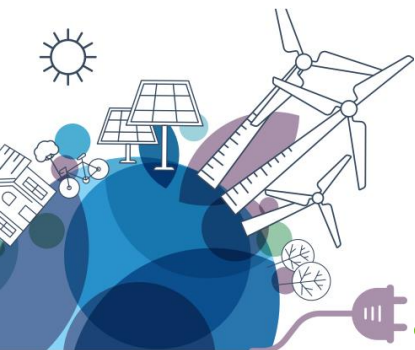
Product: Prescribed DA 1-4 (11AM-7PM), Prescribed DA 2-6 (11AM-7PM), DA 4-8 Hour, Elect DA 1-4 (11AM-7PM), Elect DA 1-4 (1PM-9PM)

Load Type: Bundled Load, Customer Choice Aggregation, Direct Access Load

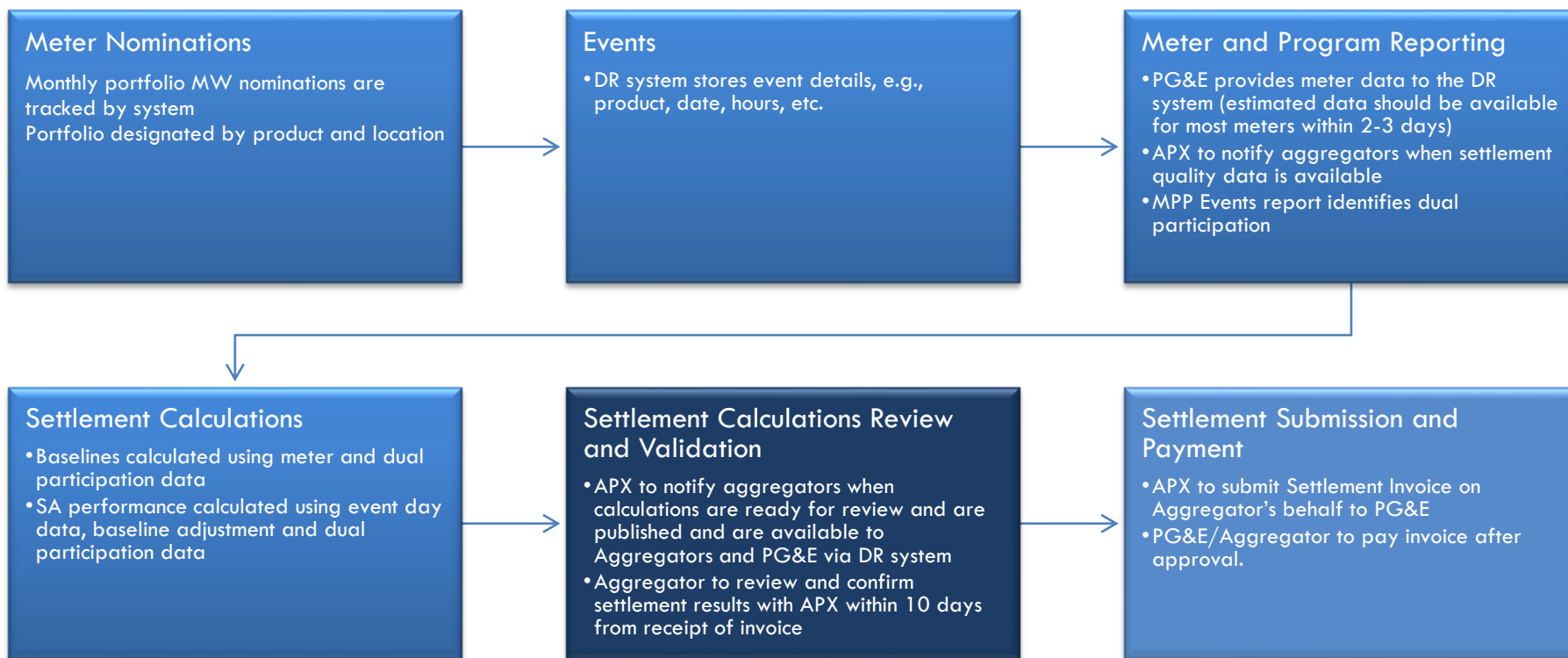
Month: Aug, 2018, Sep, 2018, Oct, 2018, Apr, 2019, May, 2019

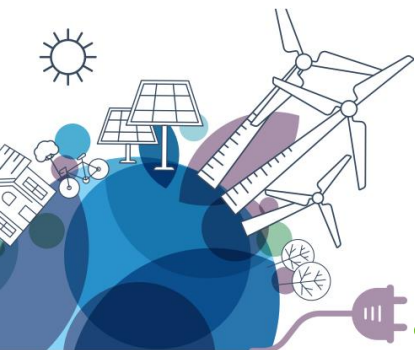
Show Meters: -Select-, All, Nominated

Run Report



Monthly Settlement Process





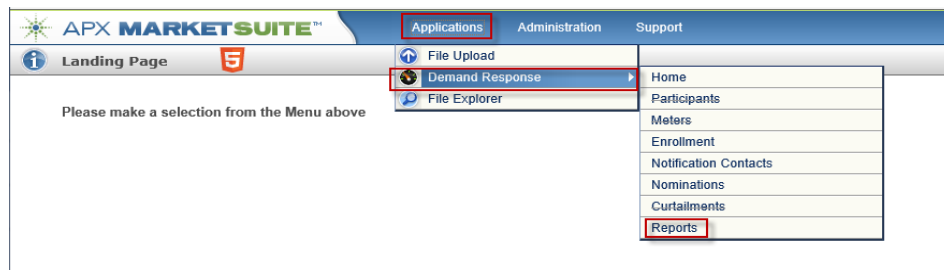
CBP Settlement Invoices

1. Applications > Demand Response > Reports

2. Select the “Settlement Statement Summary” report from the drop down and select the following criteria

- a. Program – CBP-PG&E
- b. Participant – Defaulted your own
- c. Location – Select All
- d. Product – Select All
- e. Load Type – Select All
- f. Month - Select invoice month
- g. Hit “Run Report”

3. The reports can be downloaded using the “Export to Excel” button or the Save icon.

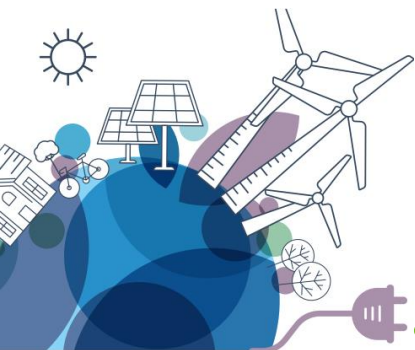


Pacific Gas and Electric Company
Demand Response Operations
CBP-PG&E
Contact: 925-459-8095

Invoice Month: May, 2019
Aggregator: [redacted]
Vendor ID: [redacted]
Invoice Date: June 7, 2019

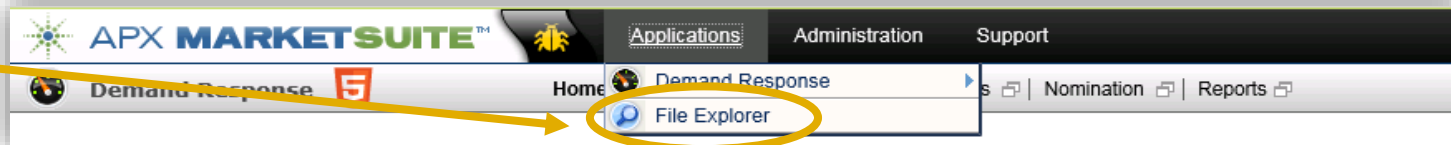
Elect DA 1-4 (11AM-7PM)

Location	LSE	Event Hours	Nominated Capacity (kW)	Total Capacity Payment (\$)
SLAP_PG&E-APND	Constellation NewEnergy, Inc		100000	100000
SLAP_PG&E-APND	Silicon Valley Clean Energy		100000	100000
Total			200000	200000
Total Amount Due to				200000

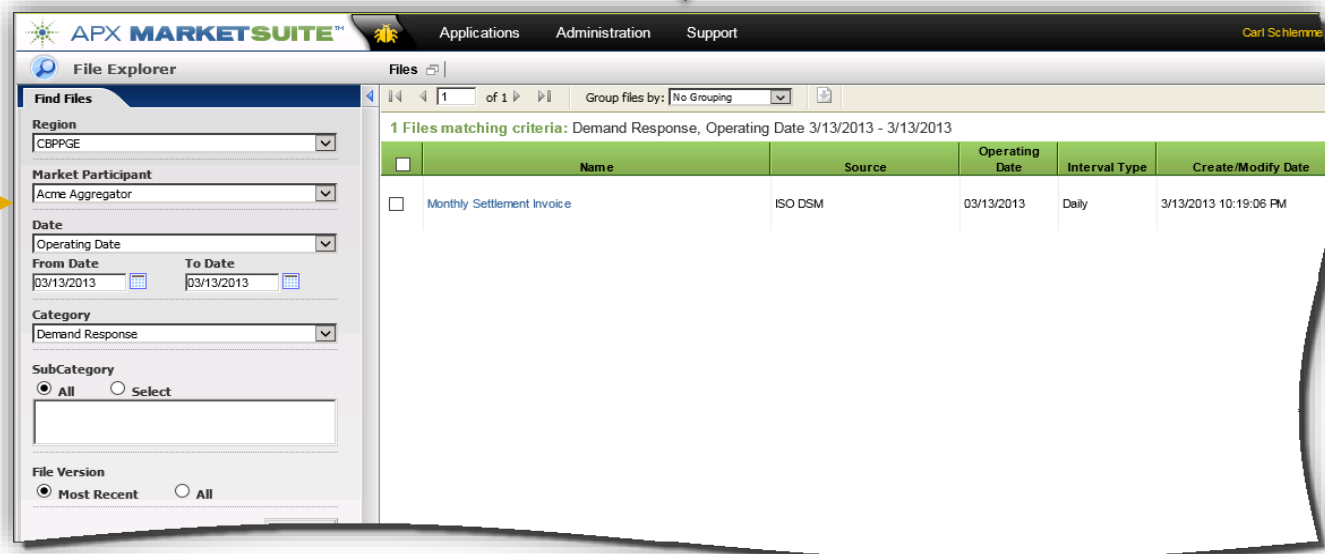


BIP Settlement Invoices

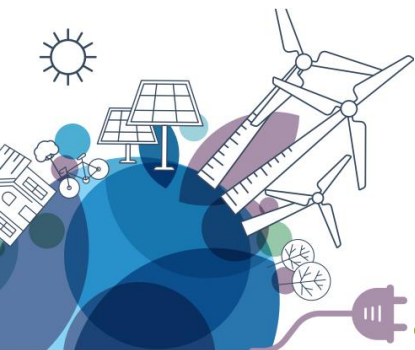
Step 1 - Click
Applications and File
Explorer



Step 2 – Complete
selection criteria



*2020 Enhancement: BIP invoicing will be a report within MarketSuite like CBP



Next Steps

1. Have New Users Self-Register in APX Demand Response System
2. Review and update notification contacts
3. Run notification tests
4. Enroll resources in programs
5. Make Monthly Nominations
 - Nomination window opens for the first 5 Business days of the month.



Questions?

