

SMD Project Phase	API Category	Level of data	Response Type	HTTP Operation	PG&E Supported Query Parameters2	API URL (PGE Prefix: Prod = https://api.pge.com/GreenButtonConnect) Note: Variables in {} and highlighted blue	Access Token Required	Description	ESPI Function Blocks
SMD Ph1	OAuth Test	N/A	Synchronous	GET	N/A	Full URL: https://api.pge.com/datacustodian/test/oauth/v2/authorize (Note: OAuth URLs are not prefixed with https://api.pge.com/GreenButtonConnect)	N/A	OAuth Test: Request authorization code	[FB: N/A] TestAuthorization
SMD Ph1	OAuth Test	N/A	Synchronous	POST	N/A	Full URL: https://api.pge.com/datacustodian/test/oauth/v2/token (Note: OAuth URLs are not prefixed with https://api.pge.com/GreenButtonConnect)	client_credentials/ authorization_code	API Connectivity Test & OAuth Test: Request access token (client credentials exchange)	[FB: N/A] TestTokenEndpoint
SMD Ph1	Sample Data	N/A	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/DownloadSampleData	client_access_token	Sample data interface used for PG&E connectivity test	[FB: N/A] SampleData
SMD Ph1	Application Info	N/A	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/ApplicationInformation/{ApplicationInformationID}	registration_access_token	Request ApplicationInformation resource.	[FB_3] Core Green Button Connect My Data
SMD Ph1	Server Status	N/A	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/ReadServiceStatus	client_access_token	Check server status (returns status xml).	[FB_3] Core Green Button Connect My Data
SMD Ph1	Local Time Params	N/A	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/LocalTimeParameters	access_token	Request feed of local time (PDT always)	[FB_32] Resource Level REST
SMD Ph1	Local Time Params	N/A	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/LocalTimeParameters/{LocalTimeParametersID}	access_token	PG&E will have single LocalTimeParameter ID corresponding to PDT	[FB_32] Resource Level REST
SMD Ph1	Notification	N/A	N/A	POST	(request parameters ignored)	https://services.greenbuttondata.org/ThirdParty/espi/1_1/Notification		Posting notification to 3rd parties (3p defined URI).	[FB_3] Core Green Button Connect My Data
SMD Ph1	OAuth	N/A	Synchronous	GET	N/A	Full URL: https://api.pge.com/datacustodian/oauth/v2/Authorize (Note: OAuth URLs are not prefixed with https://api.pge.com/GreenButtonConnect)	SMSession	Request authorization code	[FB_14] Authorization
SMD Ph1	OAuth (TokenEndpoint)	N/A	Synchronous	POST	N/A	Full URL: https://api.pge.com/datacustodian/oauth/v2/token (Note: OAuth URLs are not prefixed with https://api.pge.com/GreenButtonConnect)	client_credentials/ authorization_code/ refresh_token	Request access token (client credentials exchange for client access token or authorization code exchange for initial access token/refresh token or refresh token exchange for access token/refresh token).	[FB_14] TokenEndpoint
SMD Click Thru 1.0	Authorization Revocation	N/A	Synchronous	DELETE	N/A	.../espi/1_1/resource/Authorization/{AuthorizationID}	client_access_token	API for cancelling an individual authorization	TBD? [FB_14] Authorization (revocation)
SMD Ph1	Authorization Details	N/A	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/Authorization	client_access_token	Request feed of all authorizations of 3rd party.	[FB_3] Core Green Button Connect My Data
SMD Ph1	Authorization Details	N/A	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/Authorization/{AuthorizationID}	client_access_token	Request specific customer authorization (subscription level).	[FB_3] Core Green Button Connect My Data
SMD Ph1	Usage Point IDs	Customer	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint	access_token	Request all usage points (i.e. obfuscated service IDs) for given subscription (authorization).	[FB_32] Resource Level REST
SMD Ph1	Usage Point IDs	Service Agreement	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}	access_token	Request given usage point entry only.	[FB_32] Resource Level REST
SMD Ph1 (Updated: SMD Click Thru 3.0)	Usage & Billing	Customer	Asynchronous	GET	1) published-min=(start date in Zulu time) & published-max=(end date in Zulu time) 2) updated-min = (earliest update date in Zulu time) & updated-max = (latest update date in Zulu time)	.../espi/1_1/resource/Batch/Subscription/{SubscriptionID}	access_token	Request (asynchronous) for complete usage point data feed for single subscription (authorization). A subscription (customer authorization) may comprise multiple authorized Usage Points (obfuscated service id aka PG&E Service Agreement) depending on customer authorization selections. Complete feed includes interval usage data under Interval Block (if usage point corresponds to an interval meter), and Usage Summary which contains billing period usage total and if authorized by the customer, also "Billing Information".	[FB_3] Core Green Button Connect My Data
SMD Ph1 (Updated: SMD Click Thru 3.0)	Usage & Billing	Service Agreement	Synchronous	GET	1) published-min=(start date in Zulu time) & published-max=(end date in Zulu time) 2) updated-min = (earliest update date in Zulu time) & updated-max = (latest update date in Zulu time)	.../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}	access_token	Request (synchronous) for complete data feed for single usage point (obfuscated service id aka PG&E Service Agreement) belonging to single subscription (authorization). Complete feed includes interval usage data under Interval Block (if an interval meter is authorized), and Usage Summary which contains billing period usage total and if authorized by the customer, also "Billing Information".	[FB_32] Resource Level REST
SMD Ph1	Interval Reading Attributes (ReadingType)	N/A	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/ReadingType	access_token	Request all possible reading types that we support, each reading type (combination of individual entries) is assigned an ID	[FB_32] Resource Level REST
SMD Ph1	Interval Reading Attributes (ReadingType)	N/A	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/ReadingType/{ReadingTypeID}	access_token	Request a single reading type for given readingtype ID.	[FB_32] Resource Level REST
SMD Ph1 (Updated: SMD Click Thru 3.0)	Billing (UsageSummary)	Service Agreement	Synchronous	GET	1) published-min=(start date in Zulu time) & published-max=(end date in Zulu time) 2) updated-min = (earliest update date in Zulu time) & updated-max = (latest update date in Zulu time)	.../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary	access_token	Request given usage point's specific usage summary. Usage summary contains billing period usage total and if authorized by the customer, also "Billing Information".	[FB_32] Resource Level REST
SMD Ph1 (Updated: SMD Click Thru 3.0)	Billing (UsageSummary)	Service Agreement	Synchronous	GET	1) published-min=(start date in Zulu time) & published-max=(end date in Zulu time) 2) updated-min = (earliest update date in Zulu time) & updated-max = (latest update date in Zulu time)	.../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}	access_token	Request a single usage summary for given usage summary ID only. Usage summary contains billing period usage total and if authorized by the customer, also billing details.	[FB_32] Resource Level REST
SMD Ph1	Usage (MeterReading)	Service Agreement	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading	access_token	Request given usage point's meter reading	[FB_32] Resource Level REST
SMD Ph1	Usage (MeterReading)	Service Agreement	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}	access_token	Request given usage point's single meter reading for given meter reading ID only. (single empty tag returned)	[FB_32] Resource Level REST
SMD Ph1 (Updated: SMD Click Thru 3.0)	Usage (IntervalBlock)	Service Agreement	Synchronous	GET	1) published-min=(start date in Zulu time) & published-max=(end date in Zulu time) 2) updated-min = (earliest update date in Zulu time) & updated-max = (latest update date in Zulu time)	.../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock	access_token	Request interval blocks for requested period and interval readings. PG&E defines interval block as daily so each day will be assigned an ID.	[FB_32] Resource Level REST
SMD Ph1 (Updated: SMD Click Thru 3.0)	Usage (IntervalBlock)	Service Agreement	Synchronous	GET	1) published-min=(start date in Zulu time) & published-max=(end date in Zulu time) 2) updated-min = (earliest update date in Zulu time) & updated-max = (latest update date in Zulu time)	.../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock/{IntervalBlockID}	access_token	Request single interval block for given interval block id. Corresponds to single day (i.e. interval block is a day for PG&E).	[FB_32] Resource Level REST
SMD Ph1	Usage & Billing (used for daily delta subscription)	3rd Party	Asynchronous	GET	published-min=(start date in Zulu time) & published-max=(end date in Zulu time)	.../espi/1_1/resource/Batch/Bulk/{BulkID}	client_access_token	Request (asynchronous) for complete data feed for all authorized Usage Points for all authorizations of 3rd party.	[FB_35] REST for Bulk
SMD Ph2	Customer Info	Customer	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID}	access_token	Request (synchronous) "Account Information" and/or "Basic Information" depending on customer authorization selections.	[FB_46] Resource Level REST
SMD Ph2	Customer Info (used for daily delta subscription)	3rd Party	Asynchronous	GET	(request parameters ignored)	.../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}	client_access_token	Request (asynchronous) "Account Information" and/or "Basic Information" depending on each customer's authorization selections for all authorizations of 3rd party.	[FB_47] REST for Bulk
SMD Click Thru 1.0	DR Enrollment Info	Customer	Synchronous	GET	(request parameters ignored) data comprises current values	.../espi/1_1/resource/Batch/RetailDRPrgrInfo/{RetailCustomerID}	access_token	new (synchronous) Custom API for requesting DR Enrollment info at the Customer Level where RetailCustomerID = AuthorizationID = SubscriptionID using Access Token from OAuth (for Primary and Standalone 3Ps)	[FB_N/A] (Resource Level REST)
SMD Click Thru 1.0	DR Enrollment Info (used for daily delta subscription)	3rd Party	Asynchronous	GET	(request parameters ignored) data comprises current values	.../espi/1_1/resource/Batch/BulkRetailDRPrgrInfo/{BulkID}	client_access_token	new (asynchronous) API for requesting DR Enrollment info for all authorizations of 3rd party.	[FB_N/A] REST for Bulk