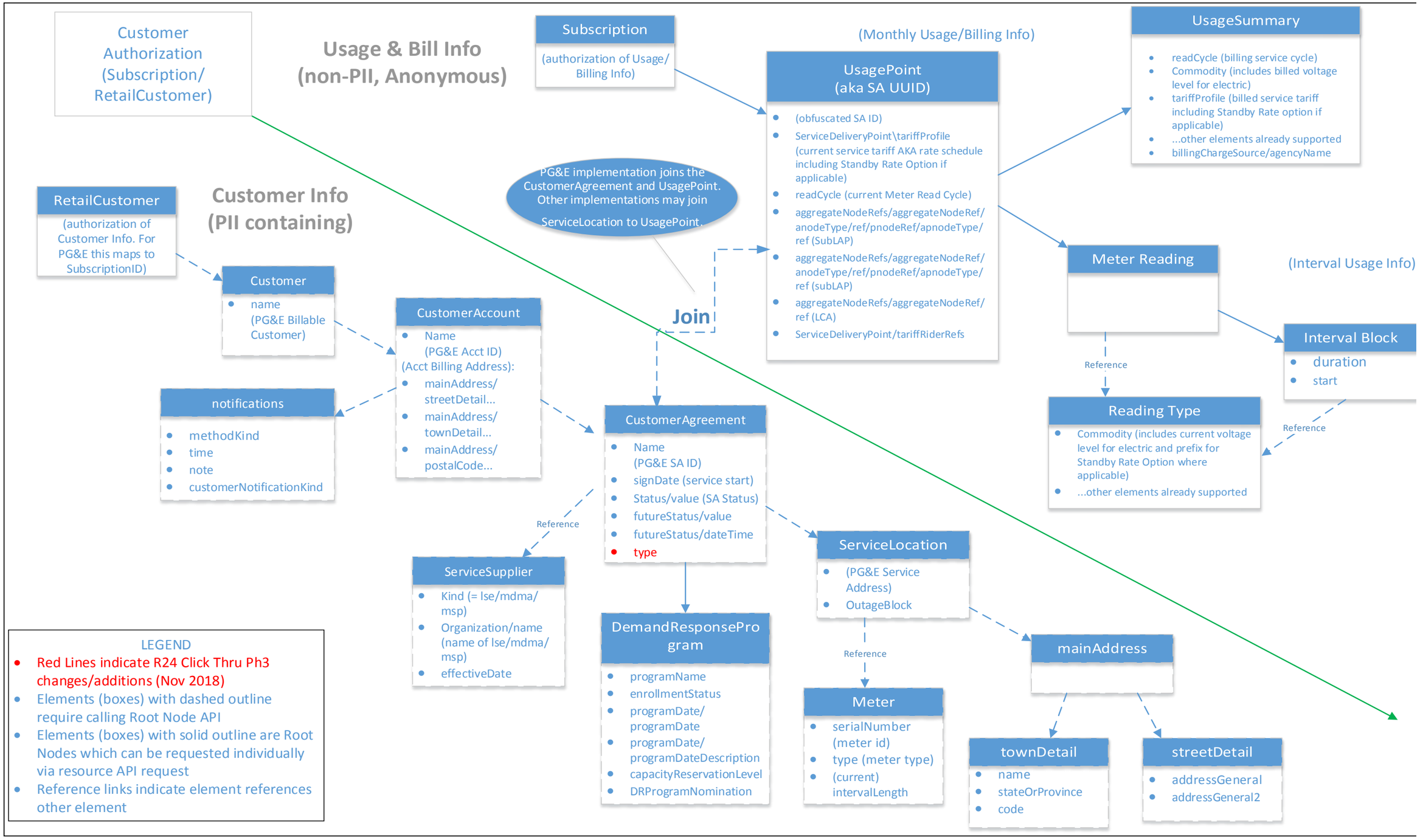
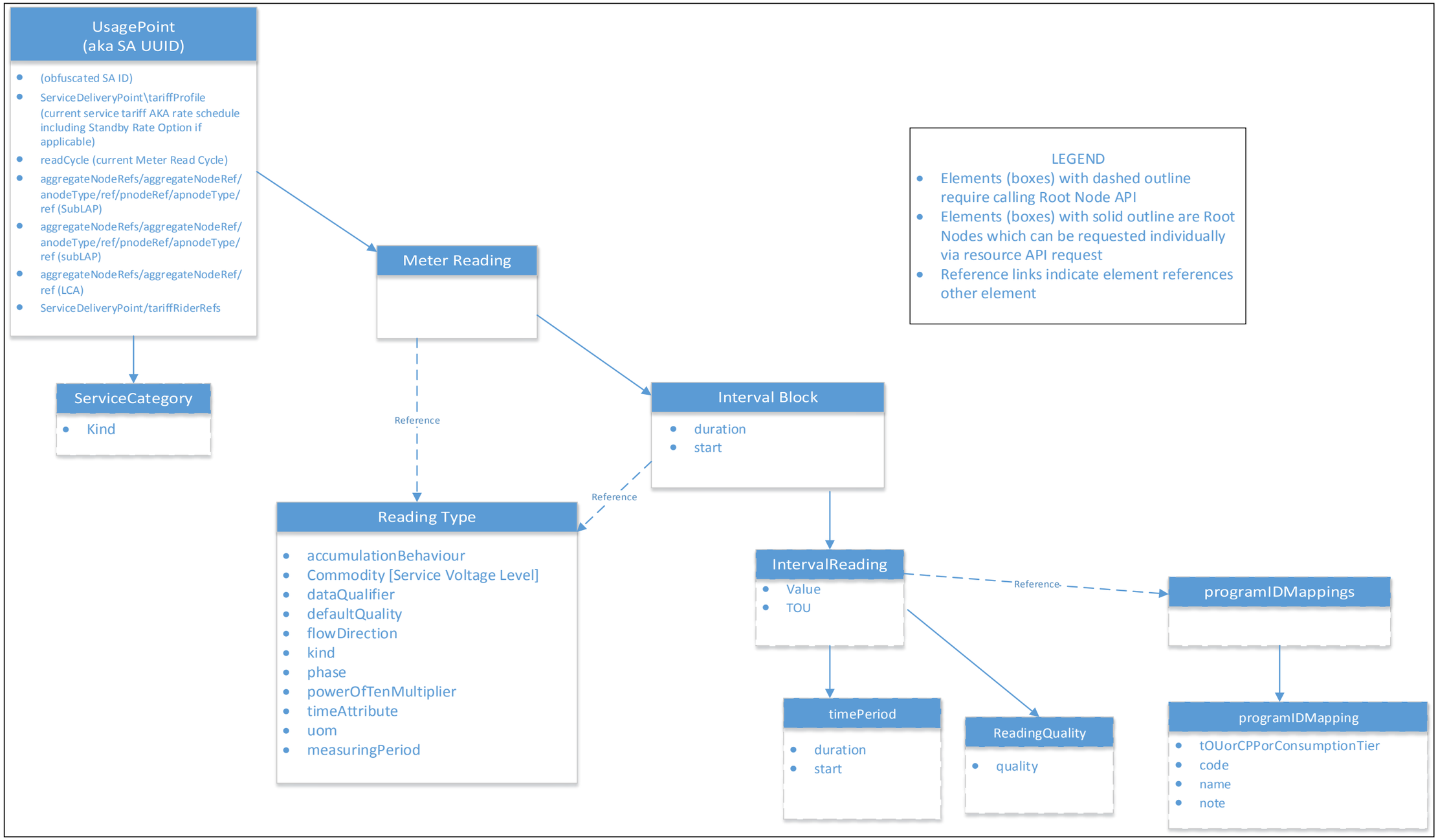
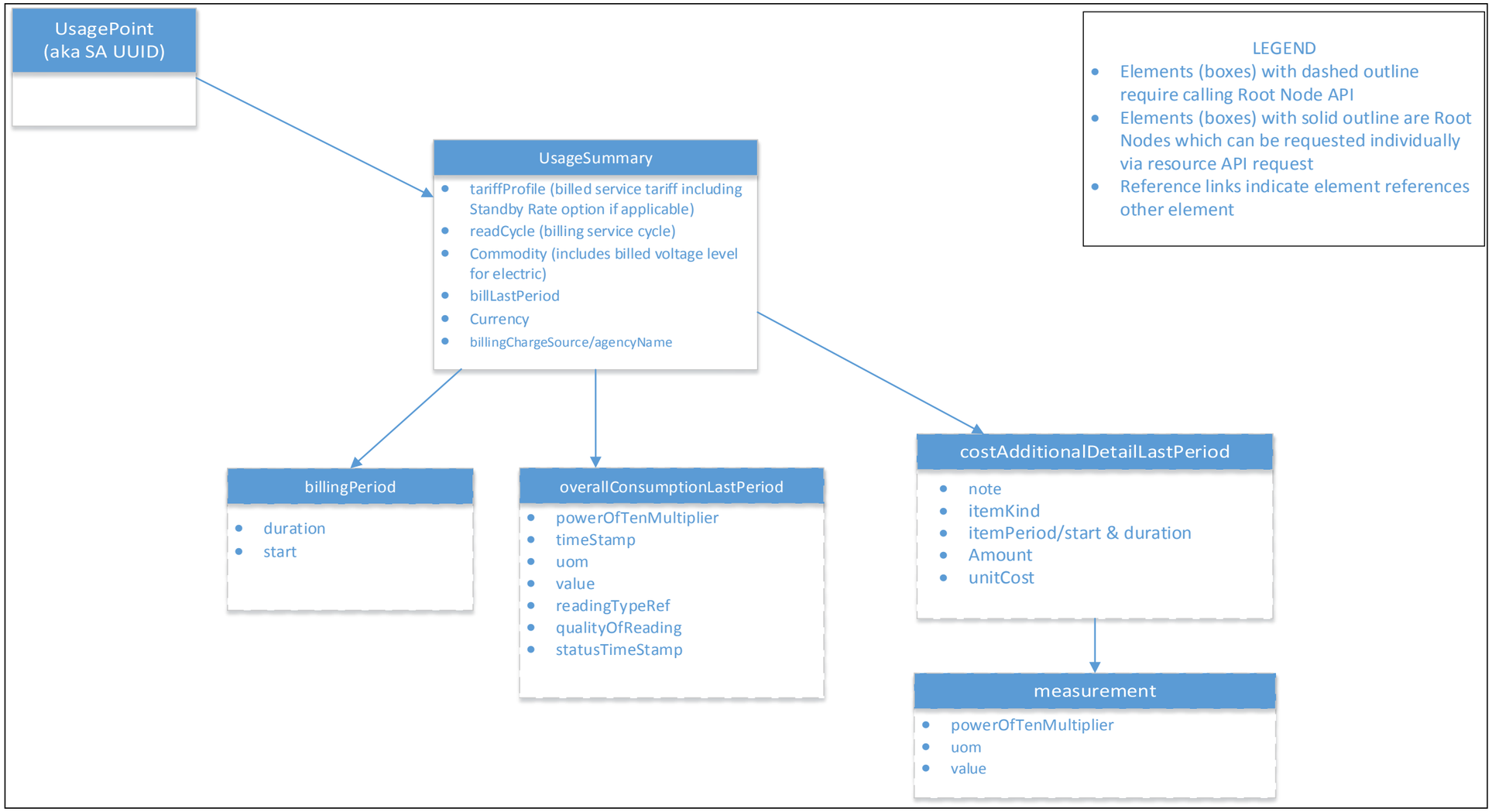
RetailCustomer Model (customer info) join with Subscription/UsagePoint. RetailCustomer.xsd + EspiDerived.xsd



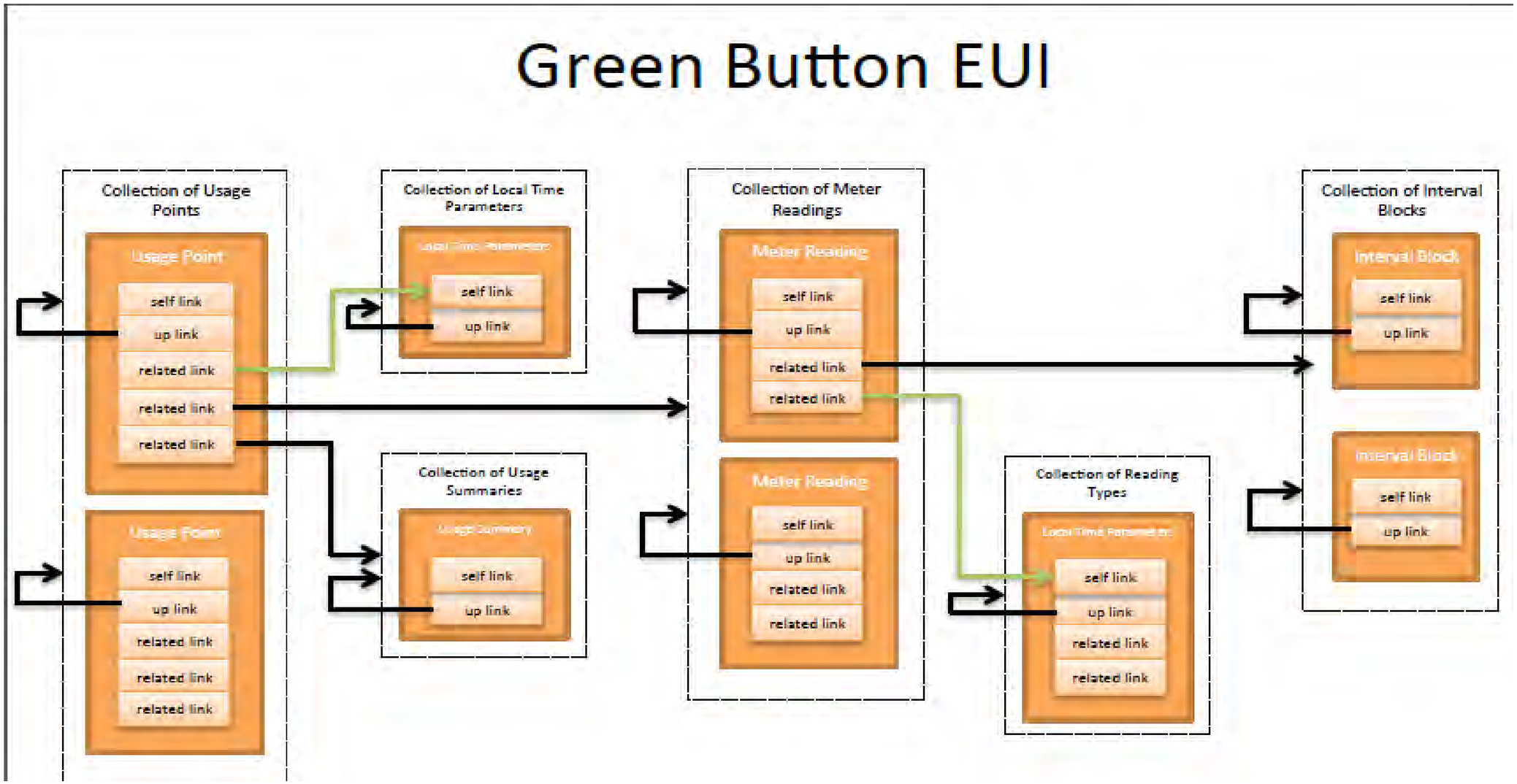
Usage Point (Interval Usage & Attributes). EspiDerived.xsd



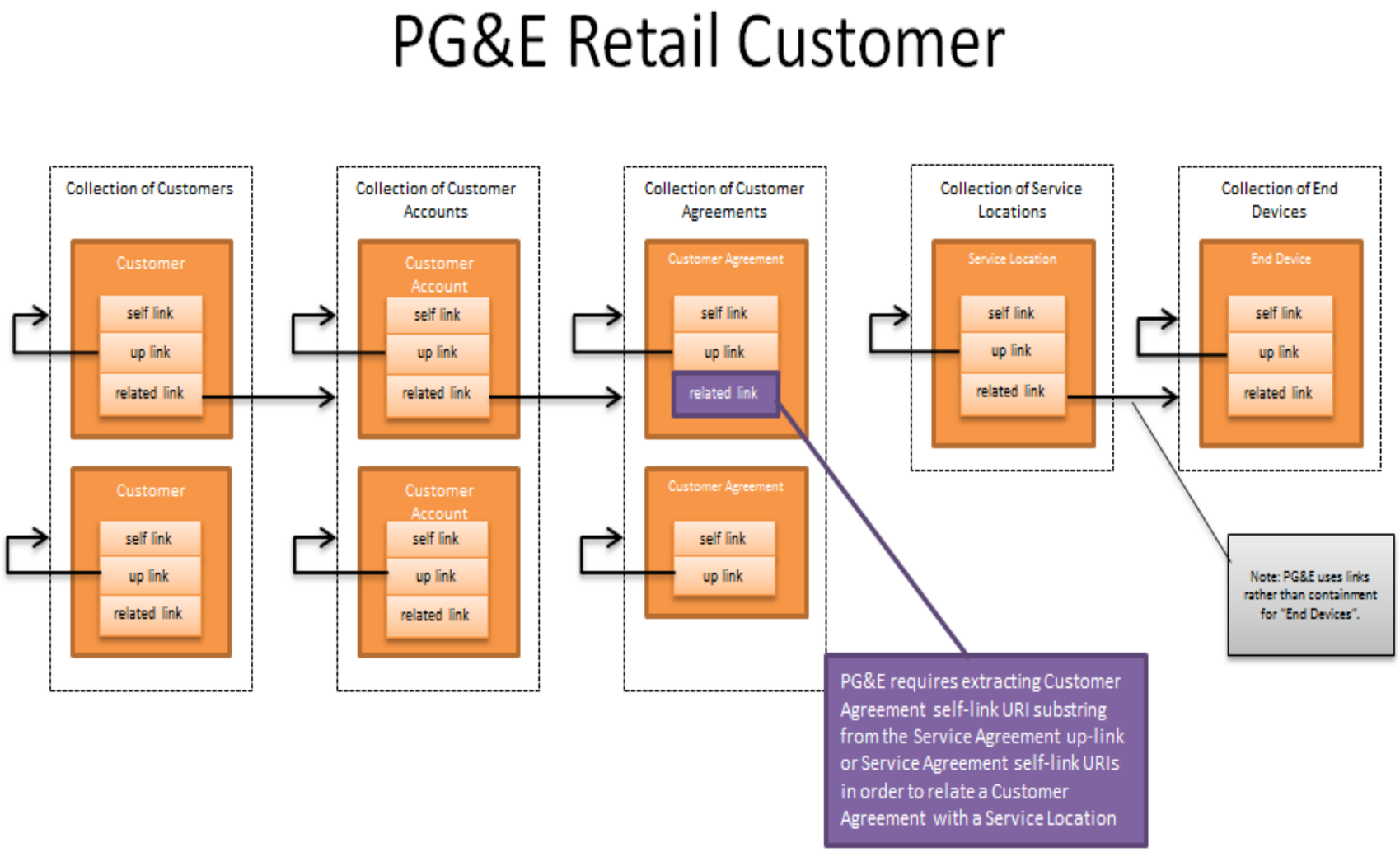
Usage Summary (Monthly Usage / Billing Info). EspiDerived.xsd



Atom XML relational Links:
ESPI Derived XSD (captures EUI = Energy Usage Information, including billing info aka 'Usage Summary')



Atom XML relational Links:
Retail Customer XSD (captures Personally Identifiable Customer Information like name, Service Agreement ID etc.)



Entity Level 1
Entity Level 2
Entity Level 3
Entity Level 4
Lowest level granularity

ESPI Derived (non-PII) Data Model

Release	ESPI Element Name	Electric / Gas	PII / non-PII	ESPI Element Description	PG&E Details	Data Element	Required Registration & Authorization	Accessible APIs
SMD Existing	Usage Point (self-link)	Both	non-PII	Logical point on a network at which consumption or production is either physically measured (e.g., metered) or estimated (e.g., unmetered street lights).	Root Node: Usage Point ID (SA UUID) is the obfuscated Service Agreement ID	(IOU) Unique Identifier	Any	1).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint 2).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID} + all other APIs
R24 Click Thru Ph1	readCycle	Both	non-PII	[extension] Cycle day on which the meter for this usage point will normally be read. Usually correlated with the billing cycle.	Service Cycle Indicator Service Agreement is currently set up on. More info here: http://www.pge.com/en/myhome/saveenergymoney/smartmeter/analogmeters/schedule/index.page Examples: B, C, D,F, G, H, J, J, K, L, M, N, P, Q, R, S ,T V, W, X, Y, Z	(Current) Meter Read Cycle	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId}
R24 Click Thru Ph1	aggregateNodeRefs	E	non-PII	(container) A sequence of references to AggregateNodes.	Contains associated LAPs and SubLAPs	SubLAP	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId}
R24 Click Thru Ph1	aggregateNodeRef	E	non-PII	(container)	LAP representation			
R24 Click Thru Ph1	anodeType	E	non-PII	Type of aggregateNode	"ALR" (static) = Aggregated Load Resource			
R24 Click Thru Ph1	ref	E	non-PII	reference to an AggregateNode	"DLAP_PGAE" (static) = PG&E default LAP			
R24 Click Thru Ph1	pNodeRef	E	non-PII	(container)	SubLAP representation			
R24 Click Thru Ph1	apnodeType	E	non-PII	type of pnode	"LAP" (static) = Load Aggregation Point			
R24 Click Thru Ph1	ref	E	non-PII	reference to a Pnode	name of subLAP			
R24 EDS	aggregateNodeRefs	E	non-PII	(container) A sequence of references to AggregateNodes.	Contains associated Local Capacity Area (LCA)	Local Capacity Area	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId}
R24 EDS	aggregateNodeRef	E	non-PII	(container)	Local Capacity Area (LCA Representation)			
R24 EDS	anodeType	E	non-PII	Type of aggregateNode	"SYS" (static) = System Zone/Region (as per ESPI modeling of ISO/RTO network points)			
R24 EDS	ref	E	non-PII	reference to an AggregateNode	name of Local Capacity Area (LCA)			
R24 Click Thru Ph1	pnodeRefs	E	non-PII	(container) [extension] A single electrical system Node or subset of Nodes where a physical injection or withdrawal of electricity is modeled and for which a Location Marginal Price is calculated by the RTO/ISO and used for financial settlements.	Contains associated Pricing Nodes (Pnodes)	Pricing Node (Pnode)	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId}
R24 Click Thru Ph1	pNodeRef	E	non-PII	(container) pnodeRef structure	Pricing Node (Pnode) representation.			
R24 Click Thru Ph1	apnodeType	E	non-PII	type of pnode	"BUS" (static)			
R24 Click Thru Ph1	ref	E	non-PII	reference to a Pnode	name of pnode			
SMD Existing	ServiceCategory	Both	non-PII	(container) Category of service provided to the customer.	Container	Commodity	Any of the following: Billing Info Usage Info	<u>Both (Billing or Usage Info Authorization):</u> 1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} <u>Usage Information (Authorization):</u> 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock/{IntervalBlockID} Billing Information: 8).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 9).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
SMD Existing	Kind	Both	non-PII	Service classification	Commodity of Usage Point. Example Values: 0 = electricity, 1 = gas			
R24 Click Thru Ph1	ServiceDeliveryPoint	Both	non-PII	(container) Category of service provided to the customer.	Container	(Current) Service tariff (D--TOU) & (Current) Standby Rate Option if On-Site Generation Indicator	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId}
R24 Click Thru Ph1	tariffProfile	Both	non-PII	A schedule of charges; structure associated with Tariff that allows the definition of complex tariff structures such as step and time of use.	Currently enrolled tariff (rate schedule). Where applicable, tariff profile may include prefixes/suffixes indicating other rate modifiers such as Standby Rate Option for On-Site Generation (e.g. "S" prefix). Example Values: E1 (Residential Service E-1), HE1* (Interval Billed Residential Service E-1), HE1N** (Interval Billed NEM Residential Service E-1), SE1*** (Standby Mixed-use E1), E6 (Residential TOU Service E-6), H2E6N**** (Interval Billed NEM2 Residential TOU Service E-6), HE6 (Interval Billed Residential TOU service E-6), HE6N (Interval Billed NEM Residential TOU Service E-6), SE6 (Standby Mixed Use E6), EM (EM), HEM (Interval Billed EM), EML (Master-Meter Multifamily CARE), HEML (Interval Billed Master-Meter Multifamily CARE), EMTOU (EM_TOU), HEMTOU (Interval Billed EM_TOU), ETOUA (E-TOU Option A), HETOUA (Interval Billed E-TOU Option A), ETOUB (E-TOU Option B), HETOUB (Interval Billed E-TOU Option B), EVA (EV-Rate A), HEVA (Interval Billed EV-Rate A), HEVAN (Interval Billed EVA NEMs version), EVB (EV-Rate B), HEVA (Interval Billed EV-Rate B), HEVAN (Interval Billed EV-Rate B NEMs version)...HE19 (Interval Billed E-19), HE19P, HE19S, HE19T, HE20 (Interval Billed E-20), HE20P, HE20S, HE20T...etc *An H prefix is just the Interval Billed version of the Rate Schedule. ** Not all NEMs customers are explicitly identified in the rate schedule code by the 'N'. This is because we have some customers for which their NEMs indicator is captured elsewhere by our billing systems. ***Standby as either indicated in the rate schedule itself (as with E6) or by the Standby schedule: http://www.pge.com/tariffs/tm2/pdf/ELEC_SCHEDS_S.pdf ****NEM2 refers to: http://www.pge.com/tariffs/tm2/pdf/ELEC_SCHEDS_NEM2.pdf			
R24 EDS	tariffRiderRefs	E	non-PII	(container) List of rate options applied to the base tariff profile		Service tariff options (CARE, FERA, etc.).	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId}
R24 EDS	riderType	E	non-PII	Rate options applied to the base tariff profile	Service Tariff Options, including: a) Medical Baseline, b) CARE, c) FERA, d) TBS ((Transitional bundled customer), e) CCA-TBS (CCA Transition Bundled Customer) f) Solar Choice			
R24 EDS	enrollmentStatus	E	non-PII	Retail Customer's Tariff Rider enrollment Status	Current status of enrollment for given tariff option with possible values of: enrolled/unenrolled/enrolledPending			
R24 EDS	effectiveDate	E	non-PII	Effective date of Retail Customer's Tariff Rider enrollment status	As of date current enrollment status is effective			
SMD Existing	LocalTimeParameters	Both	non-PII		Daylight savings offset info	Local Time Parameters (DST details)	Any of the following: Billing Info Usage Info	1).../espi/1_1/resource/LocalTimeParameters 2).../espi/1_1/resource/LocalTimeParameters/{LocalTimeParametersID}
SMD Existing	dstEndRule	Both	non-PII	Rule to calculate end of daylight savings time in the current year.	(e.g. B40E2000)			
SMD Existing	dstOffset	Both	non-PII	Daylight savings time offset from local standard time.	(e.g. 3600 - 1 hour)			
SMD Existing	dstStartRule	Both	non-PII	Rule to calculate start of daylight savings time in the current year.	(e.g. 360E2000)			
SMD Existing	tzOffset	Both	non-PII	Local time zone offset from UTCTime. Does not include any daylight savings time offsets.	(e.g. -28800 = -8 hours)			

SMD Existing	**Reading Type**	Both	non-PII	Characteristics associated with all Readings included in a MeterReading.	Container (Root node)	[container] Attributes of Interval Usage Readings	Any of the following: Usage Info	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for offline auths & 2ndary 3Ps 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID} ReadingType will have an uplink associating it to a specific UsagePoint's MeterReading and IntervalBlock
SMD Existing	**accumulationBehaviour**	Both	non-PII	Code indicating how value is accumulated over time for Readings of ReadingType.	(e.g. 4 - deltaData)	ESPI defined attribute of Usage Reading (largely N/A to PG&E		
SMD Existing	**dataQualifier**	Both	non-PII	Code describing a salient attribute of Readings of ReadingType.	(e.g. 12 - normal)	ESPI defined attribute of Usage Reading (largely N/A to PG&E implementation)		
SMD Existing	**defaultQuality**	Both	non-PII	Default value to be used if no value of ReadingQuality.quality is provided. Specific format and valid values per the standard are specified in QualityOfReading.	(e.g. 17 - validated)	Default Data Quality (if not specified in IntervalReading/ReadingQuality)		
SMD Existing	**flowDirection**	Both	non-PII	Direction associated with current related Readings.	(e.g. 1: Delivered, 19: reverse, 4: net) Electric Service Agreements with on-site generation (e.g. solar) will have both channels of data (delivered and reverse), other customers will have net only.	Energy Direction		
SMD Existing	**intervalLength**	Both	non-PII	Default interval length specified in seconds for Readings of ReadingType.	(e.g. 3600, 900, 300)	Interval Length (of Usage Reading)		
SMD Existing	**kind**	Both	non-PII	Kind of service represented by the UsagePoint	(e.g. 12 - energy)	Kind of Service related to Usage Reading		
SMD Existing	**phase**	Both	non-PII	Enumeration of phase identifiers. Allows designation of phases for both transmission and distribution equipment, circuits and loads. Residential and small commercial loads are often served from single-phase, or split-phase, secondary circuits. Phases 1 and 2 refer to hot wires that are 180 degrees out of phase, while N refers to the neutral wire. Through single-phase transformer connections, these secondary circuits may be served from one or two of the primary phases A, B, and C. For three-phase loads, use the A, B, C phase codes instead of s12N.	(e.g. Electric Service Agreements: 224 - Involving all phases, 769 - S1: Phase S1; Gas Service Agreement: 0 - Not Applicable)	ESPI defined attribute of Usage Reading		
SMD Existing	**powerOfTenMultiplier**	Both	non-PII	The power of ten unit multipliers.	(e.g. -3) Please note UOM along with powerOfTenMultiplier when converting to desired UOM (e.g. from Wh to kWh etc.)	Power of Ten Multiplier (for interval usage values)		
SMD Existing	**timeAttribute**	Both	non-PII	Code used to specify a particular type of time interval method for Readings of ReadingType.	(e.g.0 - none)	ESPI defined attribute of Usage Reading (largely N/A to PG&E implementation)		
SMD Existing	**uom**	Both	non-PII	The units of the reading, e.g. "Wh"	(e.g. 72 - Wh, 169 - therm) Please note UOM (along with powerOfTenMultiplier) when converting to desired UOM (e.g. from Wh to kWh etc.)	Unit (kWh / Therm)		
SMD Existing	**measuringPeriod**	Both	non-PII	[extension] Time attribute inherent or fundamental to the reading value (as opposed to 'macroPeriod' that supplies an "adjective" to describe aspects of a time period with regard to the measurement). It refers to the way the value was originally measured and not to the frequency at which it is reported or presented. For example, an hourly interval of consumption data would have value 'hourly' as an attribute. However in the case of an hourly sampled voltage value, the meterReadings schema would carry the 'hourly' interval size information. It is common for meters to report demand in a form that is measured over the course of a portion of an hour, while enterprise applications however commonly assume the demand (in kW or kVAr) normalized to 1 hour. The system that receives readings directly from the meter therefore must perform this transformation before publishing readings for use by the other enterprise systems. The scalar used is chosen based on the block size (not any sub-interval size).	Interval length of interval usage data. Interval granularity depends on configuration of meter. Example values: 2 = 15 min, 7 = 60 min.	Interval Length (of Usage Reading)		
R24 Click Thru Ph1	**commodity**	Both	non-PII	Code for commodity classification of Readings of ReadingType.	Commodity and (electric) Service Voltage: 1 = electricity Secondary Metered, 2 = electricity Primary Metered, 26 = electricity Transmission Metered, 7 = natural Gas	(Current) Service voltage (electric only) and Commodity	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for offline auths & 2ndary 3Ps 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID} ReadingType will have an uplink associating it to a specific UsagePoint's MeterReading and IntervalBlock
SMD Existing	**Meter Reading**	Both	non-PII	Set of values obtained from the meter.	Root Node	Historical (Usage) Intervals (Interval Usage) Start (default Interval) Duration (length in seconds) (Interval Usage) Volume Unit (kWh / Therm) Also includes: Electric Interval TOU Indicators (in combination w/ ProgramIDMappings)	Any of the following: Usage Info (must authorize an interval metered Service Agreement to receive)	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock/{IntervalBlockID}
SMD Existing	**Interval Block**	Both	non-PII	Time sequence of Readings of the same ReadingType	Root Node			
SMD Existing	**interval**	Both	non-PII	Specifies the time period during which the contained readings were				
SMD Existing	**duration**	Both	non-PII	Duration of the interval, in seconds.	In seconds (86400 = 1 day)			
SMD Existing	**start**	Both	non-PII	Date and time that this interval started.	Epoch time in seconds			
SMD Existing	**IntervalReading**	Both	non-PII	Specific value measured by a meter or other asset. Each Reading is associated with a specific ReadingType.				
SMD Existing	**value**	Both	non-PII	Value in units specified by ReadingType	Interval usage amount. Please note UOM along with powerOfTenMultiplier when converting to desired UOM (e.g. from Wh to kWh etc.)			
SMD Existing	**TOU**	E	non-PII	Code for the TOU type of Readings of ReadingType.	Enumeration of Interval TOU identifiers. Identifies the applicable time of use period at the interval level -- only for customers (Service Agreements) on TOU rates or on rates with a TOU version available. Example Values: 1, 2, 3, 4, 5, 6, 7, 8, 9 See ProgramIDMappings for mapping to PG&E defined TOU periods: 1 = SPK (Summer Peak), 2 = SOP (Summer Off Peak), 3 = SPP (Summer Partial Peak), 4= WPK (Winter Peak), 5 = WPP (Winter Partial Peak), 6 = WOP (Winter Off Peak), 7 = MPK (Spring Peak), 8 = MOP (Spring Off Peak), 9 = MXO (Spring Super Off Peak)			
SMD Existing	**ReadingQuality**	Both	non-PII	Quality of a specific reading value or interval reading value. Note that more than one Quality may be applicable to a given Reading. Typically not used unless problems or unusual conditions occur (i.e., quality for each Reading is assumed to be 'Good' (valid) unless stated otherwise in associated ReadingQuality).				
SMD Existing	**quality**	Both	non-PII	Quality of a specific reading value or interval reading value. Note that more than one Quality may be applicable to a given Reading. Typically not used unless problems or unusual conditions occur (i.e., quality for each Reading is assumed to be 'Good' (valid) unless stated otherwise in associated ReadingQuality).	(e.g. 14: raw, 17: validated, 19: Revenue Quality)			
SMD Existing	**timePeriod**	Both	non-PII	The date time and duration of a reading. If not specified, readings for each "intervalLength" in ReadingType are present.				
SMD Existing	**duration**	Both	non-PII	Duration of the interval, in seconds.	In seconds (e.g. gas: 86400 electric: 3600 / 900 / 300)			
SMD Existing	**start**	Both	non-PII	Date and time that this interval started.	Epoch time in seconds			

SMD Existing	**UsageSummary**	Both	non-PII	(Container) Summary of usage for a billing period	Root Node	[Container] Historical Billing Info	Any of the following: Billing Info Usage Info	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
SMD Existing	**tariffProfile**	Both	non-PII	A schedule of charges; structure associated with Tariff that allows the definition of complex tariff structures such as step and time of use.	Billed tariff (rate schedule). Where applicable, tariff profile may include prefixes/suffixes indicating other rate modifiers such as Standby Rate Option for On-Site Generation (e.g. "S" prefix) and/or voltage service indicator (Primary, Secondary, Transmission) etc. Example Values: E1 (Residential Service E-1), HE1* (Interval Billed Residential Service E-1), HE1N** (Interval Billed NEM Residential Service E-1), SE1*** (Standby Mixed-use E1), E6 (Residential TOU Service E-6), H2E6N**** (Interval Billed NEM2 Residential TOU Service E-6), HE6 (Interval Billed Residential TOU service E-6), HE6N (Interval Billed NEM Residential TOU Service E-6), SE6 (Standby Mixed Use E6), EM (EM), HEM (Interval Billed EM), EML (Master-Meter Multifamily CARE), HEML (Interval Billed Master-Meter Multifamily CARE), EMTOU (EM_TOU), HEMTOU (Interval Billed EM_TOU), ETOUA (E-TOU Option A), HETOUA (Interval Billed E-TOU Option A), ETOUB (E-TOU Option B), HETOUB (Interval Billed E-TOU Option B), EVA (EV-Rate A), HEVA (Interval Billed EV-Rate A), HEVAN (Interval Billed EVA NEMs version), EVB (EV-Rate B), HEVA (Interval Billed EV-Rate B), HEVAN (Interval Billed EV-Rate B NEMs version)...HE19 (Interval Billed E-19), HE19P, HE19S, HE19T, HE20 (Interval Billed E-20), HE20P, HE20S, HE20T...etc *An H prefix is just the Interval Billed version of the Rate Schedule. ** Not all NEMs customers are explicitly identified in the rate schedule code by the 'N'. This is because we have some customers for which their NEMs indicator is captured elsewhere by our billing systems. ***Standby as either indicated in the rate schedule itself (as with E6) or by the Standby schedule: http://www.pge.com/tariffs/tm2/pdf/ELEC_SCHEDS_S.pdf ****NEM2 refers to: http://www.pge.com/tariffs/tm2/pdf/ELEC_SCHEDS_NEM2.pdf	(Historical Billed) Service tariff (D--TOU) & (Historical Billed) Standby Rate Option if On-Site Generation Indicator		
SMD Existing	**billLastPeriod**	Both	non-PII	The amount of the bill for the referenced billingPeriod in hundred-thousandths of the currency specified in the ReadingType for this reading (e.g., 840 = USD, US dollar).	Note, as defined by ESPI this is expressed in hundred-thousands of USD; hence 7,550,000 means $75.50 = (7,550,000 / 100,000).	Bill total charges ($)		
SMD Existing	**currency**	Both	non-PII	The ISO 4217 code indicating the currency applicable to the bill amounts in the summary.	(i.e. 840 = USD)	Currency of bill total costs		
SMD Existing	**readCycle**	Both	non-PII	[extension] Cycle day on which the meter for this usage point will normally be read. Usually correlated with the billing cycle.	Service Cycle Indicator for the billing period. More info here: http://www.pge.com/en/myhome/saveenergymoney/smartmeter/analogmeters/schedule/index.page Examples: B, C, D,F, G, H, J, J, K, L, M, N, P, Q, R, S ,T V, W, X, Y, Z	(Historical Billed) Meter Read Cycle		
SMD Existing	**commodity**	Both	non-PII	Code for commodity classification of Readings of ReadingType.	Commodity 1 = electricity Secondary Metered, 2 = electricity Primary Metered, 26 = electricity Transmission Metered, 7 = natural Gas	(Historical Billed) Service voltage (if relevant)		
R24 EDS	**billingChargeSource**	Both	non-PII	Source of Billing Charge	Bill charges originating Service Provider	Name of bill charges originating Service Provider (PG&E or name of CCA/DA)	Any of the following: Billing Info	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS	**agencyName**	Both	non-PII	Name of billing source	Name of bill charges originating Service Provider (PG&E or name of CCA/DA)			
SMD Existing	**billingPeriod**	Both	non-PII	The billing period to which the included measurements apply	bill dates	Bill start date Bill end date (derived)	Any of the following: Billing Info Usage Info	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
SMD Existing	**duration**	Both	non-PII	Duration of the interval, in seconds.	In seconds			
SMD Existing	**start**	Both	non-PII	Date and time that this interval started.	Epoch time in seconds			
SMD Existing	**overallConsumptionLastPeriod**	Both	non-PII	[extension] The amount of energy consumed in the last billing period.		Bill total kWh (+ other attributes)	Any of the following: Billing Info Usage Info	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
SMD Existing	**powerOfTenMultiplier**	Both	non-PII	The power of ten unit multipliers.	(e.g. -3)			
SMD Existing	**timeStamp**	Both	non-PII	The date and time (if needed) of the summary measurement.	Epoch time in seconds			
SMD Existing	**uom**	Both	non-PII	The units of the reading, e.g. "Wh"	(e.g. 72 - Wh, 169 - therm)			
SMD Existing	**value**	Both	non-PII	The value of the summary measurement.	total usage for billing period			
SMD Existing	**readingTypeRef**	Both	non-PII	[extension] Reference to a full ReadingType.	readingTypeRef.DefaultQuality = Quality of overallConsumptionLastPeriod.value Example: 19: Revenue Quality			
SMD Existing	**qualityOfReading**	Both	non-PII	Indication of the quality of the summary readings	Indicates the quality at the time of request of latest provided interval usage values plus corrections corresponding to the UsageSummary.billingPeriod dates. e.g. 14, 17, 19 See Attachment 2: https://www.pge.com/nots/rates/tariffs/tm2/pdf/ELEC_4378-E-A.pdf			
SMD Existing	**statusTimeStamp**	Both	non-PII	Date/Time status of this UsageSummary	Epoch time in seconds			
R24 EDS	**costAdditionalDetailLastPeriod**	E	non-PII	[extension] Additional charges from the for the referenced billingPeriod which in total add up to costAdditionalLastPeriod.	Container for billing details: Additional charges from the for the referenced billingPeriod, in hundred-thousandths of the currency specified in the ReadingType for this reading. (e.g., 840 = USD, US dollar).			
R24 EDS	**note**	E	non-PII	Comment or description of line item	Bill Line Items: As applicable, will include following billing details: - Billed TOU Usage - Billed Tiered Usage - Billed Demand Usage - Taxes - Fees Example Values: TOU Usage Peak Energy Charge Off Peak Energy Charge Part Peak Energy Charge TBCC TOU Usage (Transitional Bundled Commodity Cost) TBCC Peak TBCC Off Peak TBCC Part Peak Tiered Usage: Tier 1/2/3/4/5 Usage Peak Tier 1/2/3/4/5 Usage Off Peak Tier 1/2/3/4/5 Usage Part Peak Tier 1/2/3/4/5 Usage	Bill Line Items: As applicable, will include following billing details: - Billed TOU Usage - Billed Tiered Usage - Billed Demand Usage - Taxes - Fees Category: (Historical) Bill tier breakdown (if any): Name (Over Baseline 1%--30%) Volume (1234.2) Category: (Historical) Bill TOU kwh breakdown (if any): Name (Peak/Off Peak/Part Peak) Volume (1234.2) (Historical) Bill demand breakdown (if any): Name Volume (1234.2)	Any of the following: Billing Info	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS								
R24 EDS								
R24 EDS	**itemKind**	E	non-PII	[extension] Classification of a line item -- i.e. usage charge, taxes, etc...	Enumerated classification depending on the kind of bill line item: 1: Energy Generation Fee. A charge for generation of energy. 2: Energy Delivery Fee. A charge for delivery of energy. 3: Energy Usage Fee. A charge for electricy, natrual gas, water consumption. 4: Administrative Fee. A fee for administrative services. 5: Tax. A local, state, or fereal energy tax. 6: Energy Generation Credit. A credit, discount or rebate for generation of energy. 7: Energy Delivery Credit. A credit, discount or rebate for delivery of energy. 8: Administrative Credit. A credit, discount or rebate for administratve services. 9: Payment. A payment for a previous billing 10: Information. An informational line item. (Informational only item that isn't necessarily used when adding up to the bill total $ amount)			
R24 EDS	**amount**	E	non-PII	Cost of line item	Cost (of Billed Line Item Charge)			
R24 EDS	**unitCost**	E	non-PII	Per Unit cost	Per Unit cost (e.g. $/KWH) aka Rate			
R24 EDS	**itemPeriod**	E	non-PII	Time period covered by the LineItem, to support pricing changes in the middle of a billing period				
R24 EDS	**start**	E	non-PII	Date and time that this interval started.	Bill Line item start date			
R24 EDS	**duration**	E	non-PII	Duration of the interval, in seconds.	Duration for bill line item (start + duration = end date)			
R24 EDS	**measurement**	E	non-PII	[extension] relevant measurment for line item.				
R24 EDS	**powerOfTenMultiplier**	E	non-PII	The multiplier part of the unit of measure, e.g. "kilo" (k)	(e.g -3)			
R24 EDS	**uom**	E	non-PII	The units of the reading, e.g. "Wh"	(e.g. 72 - Wh, 38 W)			
R24 EDS	**value**	E	non-PII	The value of the summary measurement.	(numeric value of measurement)			
SMD Existing	**programIDMappings**	E	non-PII	[extension] list of programIDmappings				
SMD Existing	**programIDMapping**	E	non-PII	single program id mapping	As of Jan 2016, only supporting mapping for Time Of Use (TOU) Interval identifiers (i.e. referenced by IntervalBlock.IntervalReading.TOU)			
SMD Existing	**tOUorCPPorConsumptionTier**	E	non-PII	kind of code	As of Jan 2016, only supporting tou. Example value(s): tou Enumeration of Interval TOU identifiers. Identifies the applicable time of use period at the interval level -- only for customers (Service Agreements) on TOU rates or on rates with a TOU version available.	Mapping for enumerated Interval Time of Use Indicators as found within IntervalBlock/ IntervalReading/ TOU entries.	Any of the following: Usage Info (for tou values -- must authorize an interval metered SA on a TOU rate or a rate with a TOU version available)	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock/{IntervalBlockID}
SMD Existing	**code**	E	non-PII	code numeric value	ESPI enforced enumeration of TOU periods Example values: 1, 2, 3, 4, 5, 6, 7, 8, 9			
SMD Existing	**name**	E	non-PII	name associated with code	Example values: SPK, SOP, SPP, WPK, WPP, WOP Mapping: 1 = SPK, 2 = SOP, 3 = SPP, 4= WPK, 5 = WPP, 6 = WOP, 7 = MPK, 8 = MOP, 9 = MXO			
SMD Existing	**note**	E	non-PII	optional description of code	Example Values: Summer Peak, Summer Off Peak, Summer Partial Peak, Winter Peak, Winter Partial Peak, Winter Off Peak, Spring Peak, Spring Off Peak, Spring Partial Peak, Spring Super Off Peak Mapping: SPK = Summer Peak, SOP = Summer Off Peak, SPP = Summer Partial Peak, WPK = Winter Peak, WPP = Winter Partial Peak, WOP = Winter Off Peak, MPK = Spring Peak, MOP = Spring Off Peak, MXO = Spring Super Off Peak			

Entity Level 1
Entity Level 2
Entity Level 3
Entity Level 4
Lowest level granularity

Customer Resource Model (PII/Customer Info)

Release	ESPI Element Name	Electric / Gas	ESPI Element Description	PG&E Details	Data Element	Required Registration & Authorization	APIs
SMD Existing	RetailCustomer	Both	(container)	Root Node (for representing customer identifying information)	[Container] Authorization of PII info	Any of the following: Basic Info Account Info	See Below
SMD Existing	Customer	Both	(container)		[Container] Customer details	Any of the following: Basic Info	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} [i.e. daily subscriptrions] 2).../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3)..../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4)..../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID}
SMD Existing	name	Both	identifier of object instance.		Account name (ACME INC. or JOE SMITH)		
SMD Existing	CustomerAccount	Both	(container) Assignment of a group of products and services purchased by the customer through a customer agreement, used as a mechanism for customer billing and payment. It contains common information from the various types of customer agreements to create billings (invoices) for a customer and receive payment.	Captures PG&E Account ID	[Container] Account Details	Any of the following: Account Info	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscriptrion job 2)..../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3)..../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4)..../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID}
SMD Existing	name	Both	identifier of object instance.	Account ID (e.g. 1234567890)	Account ID		
R24 Click Thru ph1	mainAddress	Both	captures primary billing address of customer	corresponds to account billable address (where bill is sent)	Account address (123 OFFICE ST...)	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)
R24 Click Thru ph1	streetDetail	Both	Street detail.				
R24 Click Thru ph1	addressGeneral	Both	Additional address information, for example a mailstop.	Address Line 1 (e.g. 245 Market St., Suite 200)			
R24 Click Thru ph1	addressGeneral2	Both	(if applicable) Second line of a free form address.	Only populated as applicable (often blank)			
R24 Click Thru ph1	townDetail	Both	Town detail.				
R24 Click Thru ph1	name	Both	Town name.	Town/City (e.g. San Francisco)			
R24 Click Thru ph1	stateOrProvince	Both	Name of the state or province.	State (i.e. CA)			
R24 Click Thru ph1	country	Both	country	USA			
R24 Click Thru ph1	postalCode	Both	Town code	Zip code (e.g. 94105)			
SMD Existing	CustomerAgreement	Both		Corresponds to PG&E Service Agreement ID	[Container] Service Agreement Details	Any of the following: Account Info	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscriptrion job 2)..../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3)..../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4)..../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID}
SMD Existing	name	Both	identifier of object instance.	Service Agreement ID (9876543210)	Service ID (3--xxx...)		
SMD Existing	signDate	Both	Date this agreement was consummated among associated persons and/or organisations	Service Start Date (e.g. 978336000 i.e. 1/1/2001 in epoch seconds)	Service Start Date		
R24 Click Thru ph3	type	E	Utility-specific classification of this document, according to its corporate standards, practices, and existing IT systems (e.g., for management of assets, maintenance, work, outage, customers, etc.	Customer Class Indicator for electric Service Agreements. Customer Class Indicator shall have one of the following 3 possible values: Residential, Small Commercial and Other.	Customer Class Indicator (for electric Service Agreements)	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscriptrion job 2)..../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3)..../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4)..../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID}
R24 Click Thru ph1	status	Both			SA Status	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscriptrion job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)
R24 Click Thru ph1	value	Both	Status value at 'dateTime'; prior status changes may have been kept in instances of activity records associated with the object to which this status applies.	Status of Service Agreement (e.g. Active, Pending Close etc.)			
R24 EDS	futureStatus	Both			Known future changes to Status of Service	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscriptrion job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)
R24 EDS	value	E	Status value at 'dateTime'; prior status changes may have been kept in instances of activity records associated with the object to which this status applies.	Future status of Service Agreement when known in advanced (i.e. future Closed scenario for Pending Close SAs)			
R24 EDS	dateTime	E	Date and time for which status 'value' applies.	Date future status becomes effective			
R24 Click Thru ph1	DemandResponseProgram	E	(container) Demand Response program characteristics covered by CustomerAgreement		[Container] DR Program Details	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID 2) .../espi/1_1/resource/Batch/Custom/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID --> for 2ndary 3Ps and offline auths (using client access token) 3. .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}/{CorrelationID} --> (daily subscription job) 4) .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}
R24 Click Thru ph1	programName	E	Name of Demand Response program	Name of PG&E Demand Respond Program Service Agreement is enrolled in.	(DR) Program Name		
R24 Click Thru ph1	enrollmentStatus	E	Retail Customer's current Demand Response program enrollment status	Possible values for enrollment status: enrolled / unenrolled / enrolledPending	DR Program Status		
R24 Click Thru ph1	programDate	E	(container) All Demand Response program enrollment and termination dates		DR Program Enrollment Date DR Program De-Enrollment Date Earliest Termination Date from UDC DR Program without Financial Obligation Earliest Termination Date from UDC DR Program regardless of Financial Obligation		
R24 Click Thru ph1	programDate	E	Demand Response Program enrollment or termination date	Date of enrollment description			
R24 Click Thru ph1	programDateDescription	E	Description of programDate (i.e., Enrollment Termination etc.)	Captures possible enrollment dates associated to enrollment in PG&E DR program including: (i) Earliest Termination Date from UDC DR Program without Financial Obligation (ii) Earliest Termination Date from UDC DR Program regardless of Financial Obligation (iii) DR Program Enrollment Date (iv) DR Program De-Enrollment Date			
R24 EDS	DRProgramNomination	E	(container) Summary measurement of Demand Response		DR Program Nomination if fixed	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID 2) .../espi/1_1/resource/Batch/Custom/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID --> for 2ndary 3Ps and offline auths (using client access token) 3. .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}/{CorrelationID} --> (daily subscription job) 4) .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}
R24 EDS	value	E	The value of the summary measurement	The value of the DR Program Nomination if fixed			
R24 EDS	uom	E	The units of the reading, e.g. "Wh"	The units of the DR Program Nomination			
R24 EDS	powerOfTenMultiplier	E	The multiplier part of the unit of measure, e.g. "kilo" (k)	The multiplier part of the unit of measure			
R24 EDS	capacityReservationLevel	E	(container) Summary measurement of Capacity Reservation		Capacity Reservation Level (CRL) for CPP (Critical Peak Pricing) / PDP (Peak Day Pricing) customers	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID 2) .../espi/1_1/resource/Batch/Custom/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID --> for 2ndary 3Ps and offline auths (using client access token) 3. .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}/{CorrelationID} --> (daily subscription job) 4) .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}
R24 EDS	value	E	The value of the Capacity Reservation Level (CRL)	The value of the Capacity Reservation Level (CRL)			
R24 EDS	uom	E	The units of the reading, e.g. "Wh"	The units of the CRL reading			
R24 EDS	powerOfTenMultiplier	E	The multiplier part of the unit of measure, e.g. "kilo" (k)	The multiplier part of the unit of measure			
R24 Click Thru ph1	ServiceSupplier	Both	(container) Organization that provides services to customers.		LSE, MDMA, MSP, and known future changes to LSE	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)
R24 Click Thru ph1	Kind	Both	kind of supplier	kind of supplier: lse (Load Serving Entity), mdma (Meter Data Management Agent), msp (Meter Service Provider)			
R24 EDS	effectiveDate	Both	Effective Date of Service Activation	(future LSE only): date that future LSE becomes effective			
R24 Click Thru ph1	Organization	Both	(container) Organization having this role				
R24 Click Thru ph1	name	Both	identifier of object instance.	name of Service Supplier / name of future Service Supplier (when effectiveDate populated for future value)			
SMD Existing	ServiceLocation	Both	(Container)	Root Node: Corresponds to address of service location	Service address (123 MAIN ST #100...)	Any of the following: Basic Info	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscriptrion job 2)..../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3)..../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4)..../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID}
R24 EDS	outageBlock	E	Outage Block Identifier	Rotating Outage Block: 50, 1A, 1B, 1C, 1D, 1E, 1F, 1G, 1H, 1I, 1J, 1K, 1L, 1M, 1N, 1O, 1P, 1Q, 1R, 1S, 2A, 2B, 2C, 2D, 2E, 2F, 2G, 2H, 2I, 2J, 2K, 2L, 2M, 2N, 2O, 2P, 2Q, 2R, 2S, 3A, 3B, 3C, 3D, 3E, 3F, 3G, 3H, 3I, 3J, 3K, 3L, 3M, 3N, 3O, 3P, 3Q, 3R, 3S, 4A, 4B, 4C, 4D, 4E, 4F, 4G, 4H, 4I, 4J, 4K, 4L, 4M, 4N, 4O, 4P, 4Q, 4R, 4S, 5A, 5B, 5C, 5D, 5E, 5F, 5G, 5H, 5I, 5J, 5K, 5L, 5M, 5N, 5O, 5P, 5Q, 5R, 5S, 6A, 6B, 6C, 6D, 6E, 6F, 6G, 6H, 6I, 6J, 6K, 6L, 6M, 6N, 6O, 6P, 6Q, 6R, 6S, 7A, 7B, 7C, 7D, 7E, 7F, 7G, 7H, 7I, 7J, 7K, 7L, 7M, 7N, 7O, 7P, 7Q, 7R, 7S, 8A, 8B, 8C, 8D, 8E, 8F, 8G, 8H, 8I, 8J, 8K, 8L, 8M, 8N, 8O, 8P, 8Q, 8R, 8S, 9A, 9B, 9C, 9D, 9E, 9F, 9G, 9H, 9I, 9J, 9K, 9L, 9M, 9N, 9O, 9P, 9Q, 9R, 9S, 10A, 10B, 10C, 10D, 10E, 10F, 10G, 10H, 10I, 10J, 10K, 10L, 10M, 10N, 10O, 10P, 10Q, 10R, 10S, 11A, 11B, 11C, 11D, 11E, 11F, 11G, 11H, 11I, 11J, 11K, 11L, 11M, 11N, 11O, 11P, 11Q, 11R, 11S, 12A, 12B, 12C, 12D, 12E, 12F, 12G, 12H, 12I, 12J, 12K, 12L, 12M, 12N, 12O, 12P, 12Q, 12R, 12S, 13A, 13B, 13C, 13D, 13E, 13F, 13G, 13H, 13I, 13J, 13K, 13L, 13M, 13N, 13O, 13P, 13Q, 13R, 13S, 14A, 14B, 14C, 14D, 14E, 14F, 14G, 14H, 14I, 14J, 14K, 14L, 14M, 14N, 14O, 14P, 14Q, 14R, 14S	Outage Block	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscriptrion job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)
SMD Existing	mainAddress	Both	captures premise address of meter		Service address (123 MAIN ST #100...)	Any of the following: Basic Info	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscriptrion job 2)..../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3)..../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4)..../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID}
SMD Existing	streetDetail	Both	Street detail.				
SMD Existing	addressGeneral	Both	Additional address information, for example a mailstop.	Address Line 1 (e.g. 77 Beale St., Suite 100)			
SMD Existing	addressGeneral2	Both	(if applicable) Second line of a free form address.	Only populated as applicable (often blank)			
SMD Existing	townDetail	Both	Town detail.				
SMD Existing	name	Both	Town name.	Town/City (e.g. San Francisco)			
SMD Existing	stateOrProvince	Both	Name of the state or province.	State (i.e. CA)			
SMD Existing	code	Both	Town code	Zip code (e.g. 94105)			
R24 Click Thru ph1	Meter	Both	Physical asset that performs the metering role of the usage point. Used for measuring consumption and detection of events.		[Container] Meter Details	Any of the following: Program Enrollment Info	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscriptrion job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)
R24 Click Thru ph1	serialNumber	Both	Serial number of this asset.	Meter ID (1234567890)	Service meter number (if any)		
R24 Click Thru ph1	type	Both	Utility-specific classification of Asset and its subtypes, according to their corporate standards, practices, and existing IT systems (e.g., for management of assets, maintenance, work, outage, customers, etc.).	Type of meter installed (if applicable).	Meter Type		
R24 Click Thru ph1	intervalLength	Both	Current interval length specified in seconds.	Type of meter configuration indicating current interval length for meter readings.	(Default Interval) Duration (length in seconds)		

R24 Click Thru Rqmt	SMD Online Auth Selection	Elec / Gas	Data Element	ESPI: PII / Non-PII	ESPI Mapping [xsd/xml mapping] (UsagePoint --> see espiDerived.xsd -- non-PII) (Customer --> see retailCustomer.xsd -- PII)	Request APIs
			Category: Account Elements			
R24 Click Thru Ph1	Basic	Both	Account name (ACME INC. or JOE SMITH)	PII	Customer/name	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} [i.e. daily subscriptrions] 2).../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3).../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4).../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID}
R24 Click Thru Ph1	Program Enrollment	Both	Account address (123 OFFICE ST...)	PII	1-for-1 mapping: Customer/CustomerAccount/mainAddress/streetDetail/addressGeneral Customer/CustomerAccount/mainAddress/streetDetail/addressGeneral2 Customer/CustomerAccount/mainAddress/townDetail/name Customer/CustomerAccount/mainAddress/townDetail/stateOrProvince Customer/CustomerAccount/mainAddress/postalCode Customer/CustomerAccount/mainAddress/townDetail/country	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)
R24 Click Thru Ph1	Account	Both	Account ID (2--xxx...)	PII	Customer/CustomerAccount/name	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscriptrion job 2).../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3).../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4).../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID}
R24 EDS	Program Enrollment	E	Outage block (A000)	PII	Customer/CustomerAccount/CustomerAgreement/serviceLocation/outageBlock (String 32)	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)
			Category: Service Elements			
R24 Click Thru Ph1	Any	Both	PG&E Unique Identifier	Non-PII	UsagePoint (self link)	N/A (UsagePoint is returned in all APIs) To retrieve list of authorized UUIDs and no other data, call following API: .../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint
R24 Click Thru Ph1	Account	Both	Service ID (3--xxx...)	PII	Customer/CustomerAccount/CustomerAgreement/name	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscriptrion job 2).../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3).../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4).../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID}
R24 EDS	Program Enrollment	E	Known future changes to Status of Service	PII	Customer /CustomerAccount /CustomerAgreement/futureStatus/value Customer /CustomerAccount /CustomerAgreement/futureStatus/dateTime value = new SA Status (String256). For Example "Closed". dateTime = effective date for SA Status change (future date) (TimeType: signed 64-bit value representing the number of seconds since 0 hours, 0 minutes, 0 seconds, on the 1st of January, 1970)	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)"
R24 Click Thru Ph1	Program Enrollment	Both	SA Status (A	PII	Customer /CustomerAccount /CustomerAgreement/status/value	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)
R24 Click Thru Ph1	Account	Both	Service Start Date	PII	Customer/CustomerAccount/CustomerAgreement/signDate	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscriptrion job 2).../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3).../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4).../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID}
R24 Click Thru Ph1	Basic	Both	Service address (123 MAIN ST #100...)	PII	Customer/CustomerAccount/CustomerAgreement/ServiceLocation/mainAddress/streetDetail/addressGeneral Customer/CustomerAccount/CustomerAgreement/ServiceLocation/mainAddress/streetDetail/addressGeneral2 Customer/CustomerAccount/CustomerAgreement/ServiceLocation/mainAddress/townDetail/name Customer/CustomerAccount/CustomerAgreement/ServiceLocation/mainAddress/townDetail/stateOrProvince Customer/CustomerAccount/CustomerAgreement/ServiceLocation/mainAddress/townDetail/code Note: stateOrProvince = 'CA' (static)	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscriptrion job 2).../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3).../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4).../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID}
R24 Click Thru Ph1	Program Enrollment	Both	(Current) Service tariff (D--TOU)	Non-PII	Current Rate Sched: (new addition) usagePoint/ServiceDeliveryPoint/tariffProfile	**Current rate Sched:** 1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId}
R24 Click Thru Ph1	Billing	Both	(Historical Billed) Service tariff (D--TOU)	Non-PII	Billed Rate Sched (already supported, no changes) usagePoint/usageSummary/tariffProfile	**Billed Rate Sched:** 1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5)../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS	Program Enrollment	E	(Current) Service tariff options (CARE, FERA, etc.). Associated Effective Date & Enrollment status to also be returned. These are the Service Tariff Options : a) Medical Baseline, b) CARE, c) FERA, d) TBS ((Transitional bundled customer), e) CCA-TBS (CCA Transition Bundled Customer) f) Solar Choice	Non-PII	Note: this is a 1-to-many relationship, meaning a single authorized Service Agreement (i.e. UsagePoint) may have multiple tariff options returned here: usagePoint/ServiceDeliveryPoint/tariffRiderRefs/riderType + usagePoint/ServiceDeliveryPoint/tariffRiderRefs/enrollmentStatus + usagePoint/ServiceDeliveryPoint/tariffRiderRefs/effectiveDate Where: riderType = name of tariff option (String256) enrollmentStatus = current status of enrollment for given tariff option with possible values of: enrolled/unenrolled/enrolledPending effectiveDate = as of date current enrollment status is effective (TimeType: signed 64-bit value representing the number of seconds since 0 hours, 0 minutes, 0 seconds, on the 1st of January, 1970)	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId}

R24 Click Thru Ph1	Program Enrollment	E	(Current) Service voltage (electric only) and Commodity	Non-PII	Possible Voltage Levels (Electric SAs only) of Primary/Secondary/Transmission: ESPI Mapping: 1 = Secondary Metered, 2 = Primary Metered, 26 = Transmission Metered, 7 = natural Gas (for gas SAs) Current Voltage: usagePoint/MeterReading/IntervalBlock/ReadingType/commodity ReadingType will have an uplink associating it to a specific UsagePoint's MeterReading and IntervalBlock	**Current Voltage: (affects electric SAs only)** 1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for offline auths & 2ndary 3Ps 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID} ReadingType will have an uplink associating it to a specific UsagePoint's MeterReading and IntervalBlock
R24 Click Thru Ph1	Billing	E	(Historical Billed) Service voltage (if relevant)	Non-PII	Possible Voltage Levels (Electric SAs only) of Primary/Secondary/Transmission: ESPI Mapping: 1= Secondary Metered, 2 = Primary Metered, 26 = Transmission Metered, 7 = natural Gas (for gas SAs) Billed Voltage: usagePoint/usageSummary/commodity	**Billed Voltage:(affects electric SAs only)** 1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6) .../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 Click Thru Ph1	Program Enrollment	Both	Service meter number (if any)	PII	Customer /CustomerAccount /CustomerAgreement/ServiceLocation/Meter/serialNumber	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)
R24 Click Thru Ph1	Program Enrollment	Both	# of Service meters	N/A	N/A: this is derived by counting total service meters numbers.	N/A
R24 Click Thru Ph1	Program Enrollment	Both	Meter Type	PII	Customer /CustomerAccount /CustomerAgreement/ServiceLocation/Meter/type	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)
Category: Expanded Service Elements						
R24 Click Thru Ph1	Program Enrollment	Both	(Current) Meter Read Cycle	Non-PII	UsagePoint/readCycle	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId}
R24 Click Thru Ph1	Billing	Both	(Historical Billed) Meter Read Cycle	Non-PII	usagePoint/usageSummary/readCycle	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6) .../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7) .../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 Click Thru Ph1	Program Enrollment	E	Sublap	Non-PII	UsagePoint/aggregateNodeRefs/aggregateNodeRef/pnodeRef/ref + UsagePoint/aggregateNodeRefs/aggregateNodeRef/pnodeRef/startEffectiveDate Where: • UsagePoint/aggregateNodeRefs/aggregateNodeRef/anodeType = 'ALR' (static) • UsagePoint/aggregateNodeRefs/aggregateNodeRef/ref = 'DLAP_PGAE' (static) • UsagePoint/aggregateNodeRefs/aggregateNodeRef/pnodeRef/apnodeType = 'LAP' (static) • UsagePoint/aggregateNodeRefs/aggregateNodeRef/pnodeRef/ref = name of sublap Default lap is always 'DLAP_PGAE' (ref anodeType/ref)	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId}
R24 Click Thru Ph1	Program Enrollment	E	Pricing Node (Pnode)	Non-PII	UsagePoint/pnodeRefs/pnodeRef/ref Where: • UsagePoint/pnodeRefs/pnodeRef/apnodeType = 'BUS' (static) • UsagePoint/pnodeRefs/pnodeRef/ref = name of pNode	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId}
R24 EDS	Program Enrollment	E	Local Capacity Area	Non-PII	UsagePoint/aggregateNodeRefs/aggregateNodeRef/ref Where: • UsagePoint/aggregateNodeRefs/aggregateNodeRef/ref = name of LCA (String 256, not nullable) AND • UsagePoint/aggregateNodeRefs/aggregateNodeRef/anodeType = 'SYS' (static value, not nullable) Note: 'SYS' = System Zone/Region (as per ESPI modeling of ISO/RTO network points)	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId}
R24 Click Thru Ph1	Program Enrollment	E	(Current) Standby Rate Option if On-Site Generation Indicator	Non-PII	Standby service includes an "S" prefix on rate schedule so already covered by Service tariff (D--TOU) aka rate schedule. (Current Rate Sched) as already covered by Service tariff: usagePoint/ServiceDeliveryPoint/tariffProfile	Current rate Sched: 1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId}
R24 Click Thru Ph1	Billing	E	(Historical Billed) Standby Rate Option if On-Site Generation Indicator	Non-PII	Standby service includes an "S" prefix on rate schedule so already covered by Service tariff (D--TOU) aka rate schedule. SMD: (Historical billed Rate Sched) as already provided by SMD today: usagePoint/usageSummary/tariffProfile	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 Click Thru Ph3	Program Enrollment	E	Customer Class Indicator	PII	Customer/CustomerAccount/CustomerAgreement/Type	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscriptrion job 2).../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3).../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4).../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID}
Category: (Historical) Billing Elements						
R24 Click Thru Ph1	Billing	Both	Bill start date	Non-PII	UsagePoint/UsageSummary/billingPeriod/start	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 Click Thru Ph1	Billing	Both	Bill end date	Non-PII	must derive end date as bill start date + bill duration where bill duration = UsagePoint/UsageSummary/billingPeriod/duration	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}

R24 Click Thru Ph1	Billing	Both	Bill total charges ($)	Non-PII	UsagePoint/UsageSummary/billLastPeriod	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 Click Thru Ph1	Usage or Billing (either)	E	Bill total kWh	Non-PII	UsagePoint/UsageSummary/overallConsumptionLastPeriod/value	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS	Billing	E	Name of Service Provider (associated to given bill aka usageSummary)	Non-PII	UsagePoint/UsageSummary/billingChargeSource/agencyName (String 256) Where: For PG&E Charges, agencyName = 'PGE' For CCA/DA charges, agencyName = name of CCA/DA (same value as LSE as found in Customer/CustomerAccount/CustomerAgreement/ServiceSupplier/Organization/name)	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
Category: (Historical) Bill tier breakdown (if any)						
R24 EDS	Billing	E	Line Item Bill Period (for Tier breakdown)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/itemPeriod/start + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/itemPeriod/duration start = start date for Line Item Period (datatype = TimeType: signed 64-bit value representing the number of seconds since 0 hours, 0 minutes, 0 seconds, on the 1st of January, 1970) duration = duration of Line Item Period. start+duration = end date. (datatype = UInt32: Unsigned 32-bit integer value representing duration in seconds)	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 Click Thru Ph1 + EDS	Billing	E	Name (Over Baseline 1%--30%)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/note (String 256) <u>Examples:</u> Tier 1/2/3/4/5 Usage Peak Tier 1/2/3/4/5 Usage Off Peak Tier 1/2/3/4/5 Usage Part Peak Tier 1/2/3/4/5 Usage	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 Click Thru Ph1 + EDS	Billing	E	Volume (1234.2)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/measurement/value (numeric value) + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/measurement/uom (static value of "72" which maps to "Wh" for Watt Hour) + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/measurement/powerOfTenMultiplier	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS	Billing	E	Rate ($0.032/kWh)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/unitCost (Int48) (populated only when available).	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS	Billing	E	Cost ($100.23)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/amount (Int48, nullable) Int48 datatype = "Signed integer, max inclusive -140737488355327 to +140737488355327 (2^47-1), restriction of xs:long) + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/itemKind = 3 (static value, not nullable. 3 = "Energy Usage Fee")	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
Category: (Historical) Bill TOU kwh breakdown (if any)						
R24 EDS	Billing	E	Line Item Bill Period (for TOU breakdown)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/itemPeriod/start + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/itemPeriod/duration start = start date for Line Item Period (datatype = TimeType: signed 64-bit value representing the number of seconds since 0 hours, 0 minutes, 0 seconds, on the 1st of January, 1970) duration = duration of Line Item Period. start+duration = end date. (datatype = UInt32: Unsigned 32-bit integer value representing duration in seconds)	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 Click Thru Ph1 + EDS	Billing	E	Name (of TOU charge)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/note (String 256) <u>TOU Usage</u> Peak Energy Charge Off Peak Energy Charge Part Peak Energy Charge <u>TBCC TOU Usage (Transitional Bundled Commodity Cost)</u> TBCC Peak TBCC Off Peak TBCC Part Peak	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 Click Thru Ph1 + EDS	Billing	E	Volume (1234.2)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/measurement/value (Int48, nullable) + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/measurement/uom (static value of "72" which maps to "Wh" for Watt Hour) + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/measurement/powerOfTenMultiplier	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS	Billing	E	Rate ($0.032/kWh)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/unitCost (populated only when available).	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS	Billing	E	Cost ($100.23)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/amount (Int48, nullable) Int48 datatype = "Signed integer, max inclusive -140737488355327 to +140737488355327 (2^47-1), restriction of xs:long) + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/itemKind = 3 (static value, not nullable. 3 = "Energy Usage Fee")	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
Category: (Historical) Bill demand breakdown (if any)						
R24 EDS	Billing	E	Line Item Bill Period (for Demand breakdown)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/itemPeriod/start + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/itemPeriod/duration start = start date for Line Item Period (datatype = TimeType: signed 64-bit value representing the number of seconds since 0 hours, 0 minutes, 0 seconds, on the 1st of January, 1970) duration = duration of Line Item Period. start+duration = end date. (datatype = UInt32: Unsigned 32-bit integer value representing duration in seconds)	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 Click Thru Ph1 + EDS	Billing	E	Name (See Comments for the complete list of Demand Breakdown fields)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/note (String 256)	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}

R24 Click Thru Ph1 + EDS	Billing	E	Volume (1234.2)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/measurement/value (Int48, nullable) + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/measurement/uom (static value of "38" which maps to "W" for Watt) + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/measurement/powerOfTenMultiplier	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS	Billing	E	Rate ($0.032/kWh)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/unitCost (Int48, nullable) (populated only when available).	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS	Billing	E	Cost ($100.23)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/amount (Int48, nullable) Int48 datatype = "Signed integer, max inclusive -140737488355327 to +140737488355327 (2^47-1), restriction of xs:long). + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/itemKind = 3 (static value, not nullable. 3 = "Energy Usage Fee")	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
			Category: (Historical) Bill line items			
R24 EDS	Billing	E	Line Item Bill Period	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/itemPeriod/start + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/itemPeriod/duration start = start date for Line Item Period (datatype = TimeType: signed 64-bit value representing the number of seconds since 0 hours, 0 minutes, 0 seconds, on the 1st of January, 1970) duration = duration of Line Item Period. start+duration = end date. (datatype = UInt32: Unsigned 32-bit integer value representing duration in seconds)	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS	Billing	E	Charge name (DWR Bond Charge)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/note (String 256)	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS	Billing	E	Volume (1234.2)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/measurement/value (Int48, nullable) + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/measurement/powerOfTenMultiplier (static value of -3?)	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS	Billing	E	Unit (kWh)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/measurement/uom (value depends on line item). Relevant possible values include: 38 = W (Watts) 72 = Wh (Watt hours) 169 = therms 63 = Var (reactive power measured in Volt Ampere reactive) 71 = VAh (Volt Ampere hours) 73 = VArh (Reactive energy. Volt Ampere reactive hours) 29 = V (Volts) 30 = Ohms 5 = Amps 31 = Energy joule 132 = BTU (British Thermal Units) 119 = Cubic feet 153 = Power Factor, PF, W/VA	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS	Billing	E	Rate ($0.032/kWh)	Non-PII	etc... UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/unitCost (Int 48) (populated only when available).	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
R24 EDS	Billing	E	Cost ($100.23)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/amount + UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/itemKind = one of the following (i.e. 1-10): 1: Energy Generation Fee. A charge for generation of energy. 2: Energy Delivery Fee. A charge for delivery of energy. 3: Energy Usage Fee. A charge for electricy, natrual gas, water consumption. 4: Administrative Fee. A fee for administrative services. 5: Tax. A local, state, or fereal energy tax. 6: Energy Generation Credit. A credit, discount or rebate for generation of energy. 7: Energy Delivery Credit. A credit, discount or rebate for delivery of energy. 8: Administrative Credit. A credit, discount or rebate for administratve services. 9: Payment. A payment for a previous billing 10: Information. An informational line item. (Informational only item that isn't necessarily used when adding up to the bill total $ amount)	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for requesting data with Client Access Token for 2ndary 3Ps and offline auths. 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
			Category: Historical (Usage) Intervals			
R24 Click Thru Ph1	Usage	Both	(Interval Usgl) Start	Non-PII	UsagePoint/MeterReading/IntervalBlock/IntervalReading/timePeriod/start	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock/{IntervalBlockID}
R24 Click Thru Ph1	Program Enrollment	Both	(default Interval) Duration (length in seconds)	PII	Customer /CustomerAccount /CustomerAgreement/ServiceLocation/Meter/intervalLength	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)

R24 Click Thru Ph1	Usage	Both	(Interval Usg) Volume (1234.2)	Non-PII	UsagePoint/MeterReading/IntervalBlock/IntervalReading/value	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock/{IntervalBlockID}
R24 Click Thru Ph1	Usage	Both	Unit (kWh / Therm)	Non-PII	UsagePoint/MeterReading/ReadingType/uom	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for offline auths & 2ndary 3Ps 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID} ReadingType will have an uplink associating it to a specific UsagePoint's MeterReading and IntervalBlock
Category: Utility Demand Response Programs						
R24 Click Thru Ph1	Program Enrollment	E	(DR) Program Name	PII	Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/programName	1) .../espi/1_1/resource/Batch/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID 2) .../espi/1_1/resource/Batch/Custom/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID --> for 2ndary 3Ps and offline auths (using client access token) 3. .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}/{CorrelationID} --> (daily subscription job) 4) .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}
R24 EDS	Program Enrollment	E	Capacity Reservation Level (CRL) for CPP/PDP customers	PII	Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/capacityReservationLevel/value (Int48, nullable) + Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/capacityReservationLevel/powerOfTenMultiplier (Int16; betweeen -12 to 12) + Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/capacityReservationLevel/uom (integer mapping)	1) .../espi/1_1/resource/Batch/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID 2) .../espi/1_1/resource/Batch/Custom/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID --> for 2ndary 3Ps and offline auths (using client access token) 3. .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}/{CorrelationID} --> (daily subscription job) 4) .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}
R24 EDS	Program Enrollment	E	DR Program Nomination if fixed	PII	Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/DRProgramNomination/value (Int48, nullable) + Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/DRProgramNomination/powerOfTenMultiplier (Int16; betweeen -12 to 12) + Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/DRProgramNomination/uom (integer mapping)	1) .../espi/1_1/resource/Batch/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID 2) .../espi/1_1/resource/Batch/Custom/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID --> for 2ndary 3Ps and offline auths (using client access token) 3. .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}/{CorrelationID} --> (daily subscription job) 4) .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}
R24 Click Thru Ph1	Program Enrollment	E	Earliest Termination Date from UDC DR Program without Financial Obligation	PII	Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/programDate/programDate + Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/programDate/programDateDescription	1) .../espi/1_1/resource/Batch/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID 2) .../espi/1_1/resource/Batch/Custom/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID --> for 2ndary 3Ps and offline auths (using client access token) 3. .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}/{CorrelationID} --> (daily subscription job) 4) .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}
R24 Click Thru Ph1	Program Enrollment	E	Earliest Termination Date from UDC DR Program regardless of Financial Obligation	PII	Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/programDate/programDate + Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/programDate/programDateDescription	1) .../espi/1_1/resource/Batch/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID 2) .../espi/1_1/resource/Batch/Custom/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID --> for 2ndary 3Ps and offline auths (using client access token) 3. .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}/{CorrelationID} --> (daily subscription job) 4) .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}
R24 Click Thru Ph1	Program Enrollment	E	DR Program Status	PII	Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/enrollmentStatus possible values for status: enrolled/unenrolled/enrolledPending	1) .../espi/1_1/resource/Batch/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID 2) .../espi/1_1/resource/Batch/Custom/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID --> for 2ndary 3Ps and offline auths (using client access token) 3. .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}/{CorrelationID} --> (daily subscription job) 4) .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}
R24 Click Thru Ph1	Program Enrollment	E	DR Program Enrollment Date	PII	Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/programDate/programDate + Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/programDate/programDateDescription	1) .../espi/1_1/resource/Batch/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID 2) .../espi/1_1/resource/Batch/Custom/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID --> for 2ndary 3Ps and offline auths (using client access token) 3. .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}/{CorrelationID} --> (daily subscription job) 4) .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}
R24 Click Thru Ph1	Program Enrollment	E	DR Program De-Enrollment Date	PII	Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/programDate/programDate + Customer/CustomerAccount/CustomerAgreement/DemandResponseProgram/programDate/programDateDescription	1) .../espi/1_1/resource/Batch/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID 2) .../espi/1_1/resource/Batch/Custom/RetailDRPrgInfo/{RetailCustomerID} where RetailCustomerID = AuthorizationID = SubscriptionID --> for 2ndary 3Ps and offline auths (using client access token) 3. .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}/{CorrelationID} --> (daily subscription job) 4) .../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}
Category: Service Providers						
R24 Click Thru Ph1 + EDS	Program Enrollment	Both	LSE	PII	Customer/CustomerAccount/CustomerAgreement/ServiceSupplier/kind Where supplierKind = 'lse' (static - lowercase) + Customer/CustomerAccount/CustomerAgreement/ServiceSupplier/Organization/name Where name = name of lse (string 256; nullable)	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)
R24 EDS	Program Enrollment	E	Known future changes to LSE	PII	This would be a 2nd separate entry from current LSE --> 1 customerAgreement w/ 2 ServiceSuppliers (relational links): Customer/CustomerAccount/CustomerAgreement/ServiceSupplier/kind Where supplierKind = 'lse' (static - lowercase) + Customer/CustomerAccount/CustomerAgreement/ServiceSupplier/Organization/name Where name = name of LSE (string 256, nullable) + Customer/CustomerAccount /CustomerAgreement/ServiceSupplier/effectiveDate = date future LSE becomes effective (Int64 which is a signed 64-bit value representing the number of seconds since 0 hours, 0 minutes, 0 seconds, on the 1st of January, 1970, nullable)	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)
R24 Click Thru Ph1	Program Enrollment	Both	MDMA	PII	Customer/CustomerAccount /CustomerAgreement/ServiceSupplier/kind Where supplierKind = 'mdma' (static - lowercase) + Customer/CustomerAccount /CustomerAgreement/ServiceSupplier/Organization/name Where name = name of MDMA	1) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)
R24 Click Thru Ph1	Program Enrollment	Both	MSP	PII	Customer/CustomerAccount /CustomerAgreement/ServiceSupplier/kind Where supplierKind = 'msp' (static - lowercase) + Customer/CustomerAccount /CustomerAgreement/ServiceSupplier/Organization/name Where name = name of MSP	1)../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/BulkRetailCustomerInfo/{BulkID} 3) .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID} 4) .../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID} --> new API for requesting individual RetailCustomer details using Client Access Token (for offline auths and 2ndary 3Ps)

Category: Other (non-R24) existing SMD data elements						
SMD (Existing)	Usage or Billing (either)	Both	Commodity	non-PII	UsagePoint/ServiceCategory/Kind	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} Usage Information: 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock/{IntervalBlockID} Billing Information: 8).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 9).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
SMD (Existing)	Any	Both	Local Time Parameters (DST details)	Both	LocalTimeParameters (in both schemas) Where: dstEndRule = B40E2000 [hexadecimal timestamp] dstOffset = 3600 = 1 hour (in seconds) dstStartRule = 360E2000 tzOffset = -28800 = -8 hours (in seconds) further explanation: http://osgug.ucaiug.org/HelpDesk/Lists/servicerequests/DispForm.aspx?ID=62 https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwjMu7PIjNjWAhVPxGMKHQP-BmMQFggmMAA&url=https%3A%2F%2Fgreenbuttondata.squarespace.com%2Fs%2FLocalTimeParameters-Details.docx&usg=AOvVaw2ePD2aXbTMSNlqY2TTBtya	1).../espi/1_1/resource/LocalTimeParameters 2).../espi/1_1/resource/LocalTimeParameters/{LocalTimeParametersID}
SMD (Existing)	Usage	Both	Default Data Quality (if not specified in IntervalReading/ReadingQuality)	Non-PII	UsagePoint/MeterReading/IntervalBlock/ReadingType/defaultQuality Note: Smart Meter data is defaulted to defaultQuality = 17 = 'validated' (i.e. data has gone through initial Validation Editing and Estimation process) ReadingType will have an uplink associating it to a specific UsagePoint's MeterReading and IntervalBlock	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for offline auths & 2ndary 3Ps 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID} ReadingType will have an uplink associating it to a specific UsagePoint's MeterReading and IntervalBlock
SMD (Existing)	Usage	E	Energy Direction	Non-PII	UsagePoint/MeterReading/IntervalBlock/ReadingType/flowDirection ReadingType will have an uplink associating it to a specific UsagePoint's MeterReading and IntervalBlock	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for offline auths & 2ndary 3Ps 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID} ReadingType will have an uplink associating it to a specific UsagePoint's MeterReading and IntervalBlock
SMD (Existing)	Usage	Both	Power of Ten Multiplier (for interval usage values)	Non-PII	UsagePoint/MeterReading/IntervalBlock/ReadingType/powerOfTenMultiplier ReadingType will have an uplink associating it to a specific UsagePoint's MeterReading and IntervalBlock	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for offline auths & 2ndary 3Ps 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID} ReadingType will have an uplink associating it to a specific UsagePoint's MeterReading and IntervalBlock
SMD (Existing)	Billing	Both	Power of Ten Multiplier (for Billed Demand by TOU and Season / TOU Usage by Season / Tiered Usage)	Non-PII	UsagePoint/UsageSummary/costAdditionalDetailLastPeriod/measurement/powerOfTenMultiplier	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6) .../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
SMD (Existing)	Usage or Billing (either)	Both	Power of Ten Multiplier (for Billed total usage)	Non-PII	UsagePoint/UsageSummary/overallConsumptionLastPeriod/powerOfTenMultiplier	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6) .../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
SMD (Existing)	Usage	Both	Interval Length (of Usage Reading)	Non-PII	UsagePoint/MeterReading/IntervalBlock/ReadingType/intervalLength and UsagePoint/MeterReading/IntervalBlock/ReadingType/measuringPeriod ReadingType will have an uplink associating it to a specific UsagePoint's MeterReading and IntervalBlock	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} --> for offline auths & 2ndary 3Ps 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID} ReadingType will have an uplink associating it to a specific UsagePoint's MeterReading and IntervalBlock
SMD (Existing)	Billing	Both	Currency of bill total costs	Non-PII	UsagePoint/UsageSummary/currency	1) .../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2) .../espi/1_1/resource/Batch/Bulk/{BulkID} 3) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4) .../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5) .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6) .../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/UsageSummary/{UsageSummaryID}
SMD (Existing)	Usage	E	Electric Interval TOU Indicators	Non-PII	UsagePoint/MeterReading/IntervalBlock/IntervalReading/timePeriod/TOU in combination with ProgramIDMappings/programIDMapping/ (tOUorCPPorConsumptionTier, code, name, note)	1).../espi/1_1/resource/Batch/Bulk/{BulkID}/{CorrelationID} --> daily subscription job 2).../espi/1_1/resource/Batch/Bulk/{BulkID} 3).../espi/1_1/resource/Batch/Subscription/{SubscriptionID} 4).../espi/1_1/resource/Batch/Custom/Subscription/{SubscriptionID} 5).../espi/1_1/resource/Batch/Subscription/{SubscriptionID}/UsagePoint/{UsagePointId} 6).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock 7).../espi/1_1/resource/Subscription/{SubscriptionID}/UsagePoint/{UsagePointID}/MeterReading/{MeterReadingID}/IntervalBlock/{IntervalBlockID}

Release	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	N/A	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
R24 Click Thru Ph1	Authorization Revocation	N/A	Synchronous	DELETE	N/A	.../espi/1_1/resource/Authorziation/{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
R24 Click Thru Ph1	Usage Point IDs	Customer	Synchronous	GET	(request parameters ignored)	.../espi/1_1/resource/Subscription/Custom/{SubscriptionID}/UsagePoint	client_access_token	To be retired in a future release (in light of offline authorization token request mechanism): Request all usage points (i.e. obfuscated service IDs) for given subscription (authorization). This custom API is designed to allow requests for such data for offline authorizations and by secondary 3rd parties for offline authorizations.	(FB_N/A) (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	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
R24 Click Thru Ph1	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/Custom/Subscription/{SubscriptionID}	client_access_token	To be retired in a future release (in light of offline authorization token request mechanism): API for requesting individual non-PII data (UsagePoint details) using Client Access Token for 2ndary 3Ps and offline auths. Same results as .../espi/1_1/resource/Batch/Subscription/{SubscriptionID}	(FB_N/A) (Resource Level REST)
SMD Ph1	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	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	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	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	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
R24 Click Thru Ph1	Customer Info	Customer	Synchronous	GET	(request parameters ignored) data comprises current values	.../espi/1_1/resource/Batch/Custom/RetailCustomer/{RetailCustomerID}	client_access_token	To be retired in a future release (in light of offline authorization token request mechanism): API for requesting (synchronously) individual PII data (RetailCustomer details) using Client Access Token for 2ndary 3Ps and offline auths. Same results as .../espi/1_1/resource/Batch/RetailCustomer/{RetailCustomerID}	(FB_N/A) (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
R24 Click Thru Ph1	DR Enrollment Info	Customer	Synchronous	GET	(request parameters ignored) data comprises current values	.../espi/1_1/resource/Batch/RetailDRPrgInfo/{RetailCustomerID}	access_token	(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)
R24 Click Thru Ph1	DR Enrollment Info	Customer	Synchronous	GET	(request parameters ignored) data comprises current values	.../espi/1_1/resource/Batch/Custom/RetailDRPrgInfo/{RetailCustomerID}	client_access_token	(synchronous) Custom API for requesting DR Enrollment info at the Customer Level where RetailCustomerID = AuthorizationID = SubscriptionID using Client Access Token for 2ndary 3Ps and offline auths. Same results as .../espi/1_1/resource/Batch/RetailDRPrgInfo/{RetailCustomerID}.	(FB_N/A) (Resource Level REST)
R24 Click Thru Ph1	DR Enrollment Info (used for daily delta subscription)	3rd Party	Asynchronous	GET	(request parameters ignored) data comprises current values	.../espi/1_1/resource/Batch/BulkRetailDRPrgInfo/{BulkID}	client_access_token	(asynchronous) API for requesting DR Enrollment info for all authorizations of 3rd party.	(FB_N/A) REST for Bulk