## Building Energy Data Exchange Specification (BEDES) Compliant Mapping

Date9/27/2017ImplementationGreen Button

Implementation Version 0.7.20160225

BEDES Version V2.1

For more information about BEDES, please visit

https://bedes.lbl.gov/bedes-online

Green Button Field	Green Button Definition	Green Button Data Type	Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	BEDES Units	Unit Conversion	Notes
	[extension] Contains information about a Third Party Application requesting access to the DataCustodian services. Information requested may include items such as Organization Name, Website, Contact Info, Application Name, Description, Icon, Type, default Notification and Callback endpoints, and may also include agreement with terms of service.								
	Atom Links:								
ApplicationInformation	self link to this resource Contains the identifier for the Data Custodian. (e.g. 'Sandbox			I	Account Identifier	Identifier Label="Account"			
dataCustodianId	Data Custodian')	String64			Account identifier	identifier Label= Account			
						Identifier=[value]			
dataCustodianApplicationStatus	A code indicating the current status of the application. This value is provided by Data Custodian, cannot be modified by Third Party. (e.g. '2' => production)	DataCustodianAppl icationStatus			Customer Account Status	Contact Label="Customer"			
			1 - Review		Under review	Account Status="Under review"			
			2 - Production (Live)		Reviewed and approved	Account Status="Reviewed and approved"			
			3 - On Hold		On hold	Account Status="On hold"			
			4 - Revoked		Canceled	Account Status="Canceled"			
thirdPartyApplicationDescription	A description of the application. (e.g. 'Third Party Application Description is added as provided by each TP')	String256			Vendor Description	Identifier Label="Vendor"			
						Description=[value]			
thirdPartyApplicationStatus	A code indicating the current status of the application. (e.g. '1' => Development	ThirdPartyApplicat onStatus			NO MAPPING				
tiliuraityApplicationstatus	-> Development	Olistatus	1 - Development						
			2 - ReviewTest						
			3 - Production						
			4 - Retired						
thirdPartyApplicationType	A code indicating the type of the application. (e.g. '1' => Web)	ThirdPartyApplicati onType			NO MAPPING				
			1 - Web						
			2 - Desktop						
			3 - Mobile 4 - Device						
thirdPartyApplicationUse	A code indicating the expected use of the application. (e.g. '1' => EnergyManagement)	ThirdPartyApplicati onUse	4 - Device		NO MAPPING				
			1 - EnergyManagement						
			2 - Comparisons						
			3 - Government 4 - Academic						
			5 - LawEnforcement						
ulti la u al	The phone number of the organization to which access will be granted. (For debugging - not to be shared with customers).	Si : 22			Vendor Telephone Number	Identifier Label="Vendor"			
thirdPartyPhone	(e.g. '+1 800 673-6377')	String32		-		Telephone Number=[value]			
	Contains the base URI link to the authorization server. (e.g.				NO MAPPING	reseptione Number-[value]			
authorizationServerUri	'https://services.greenbuttondata.org/DataCustodian')	xs:anyURI							
	URI used to notify ThirdParty that subscribed information is available. (e.g. https://services.greenbuttondata.org/ThirdParty/espi/1_1/No				NO MAPPING				
thirdPartyNotifyUri	tification')	xs:anyURI							
, , ,	An OAuth 2.0 URI used by the client to obtain authorization				NO MAPPING				
	from the resource owner via user-agent redirection -								
authorizationConverAuthor:+:	{AuthorizationServer}{AuthorizationPath}. (e.g. 'https://services.greenbuttondata.org/DataCustodian/oauth/a								
authorizationServerAuthorizationE ndpoint	uthorize'	xs:anyURI							
	A URI used by the client to register a Third Party with a Data	,			NO MAPPING				
	Custodian via its {AuthorizationServer}{RegistrationPath}.								
l	(e.g.								
authorizationServerRegistrationEn dpoint	'https://services.greenbuttondata.org/DataCustodian/espi/1_ 1/register')	xs:anyURI							
aponit	14/108/3001 J	A3.aliyUNI		1	l .		<u> </u>		

Crean Button Field	Casa Buttan Daffattian	Green Button Data	Green Button List Value	Green Button	BEDES Term	BEDES Mapping	DEDEC Units	Unit Conversion	Notes
Green Button Field	Green Button Definition	Туре	Green Button List value	Units			BEDES UNITS	Unit Conversion	Notes
	An OAuth 2.0 URL used by the client to exchange an				NO MAPPING				
	authorization grant for an access token, typically with client authentication. (e.g.								
	https://services.greenbuttondata.org/DataCustodian/oauth/t								
authorizationServerTokenEndpoint		xs:anyURI							
	{DataCustodianBulkRequestURI} URI of DataCustodian's Bulk	, ,			NO MAPPING				
	Request endpoint. The value is provided by the Data								
	Custodian and cannot be modified by the ThirdParty. (e.g.								
	https://services.greenbuttondata.org/DataCustodian/espi/1_								
	1/resource/Batch/Bulk/{BulkID}' => bulkID from BR={bulkId}								
dataCustodianBulkRequestURI	from Scope)	xs:anyURI							
	{ResourceServer}{ResourcePath}. (e.g.				NO MAPPING				
dataCustodianResourceEndpoint	"https://services.greenbuttondata.org/DataCustodian/espi/1_ 1/resource')	xs:anyURI							
datacustodiankesourceenupoint	URI of the Scope Selection Screen used by the Retail Customer	xs.aliyuki			NO MAPPING				
	to select the characteristics of the Green Button data to be				INO WAFFING				
	shared with the ThirdParty. (e.g.								
thirdPartyScopeSelectionScreenUR	https://services.greenbuttondata.org/ThirdParty/espi/1_1/Ret								
1	ailCustomer/ScopeSelection')	xs:anyURI							
	URI of a Third Party's web page for use with Green Button				NO MAPPING				
	Connect My Data (e.g.								
	'https://services.greenbuttondata.org/ThirdParty/espi/1_1/ho								
thirdPartyUserPortalScreenURI	me')	xs:anyURI							
	A secret to be associated with this application, used to sign				NO MAPPING				
	OAuth requests. This value is provided by Data Custodian								
client_secret	(OAuth client_secret). (e.g. 'secret')	String512							
					NO MAPPING				
	The link to the logo image for the application. Size greater than								
	180 x 150 may be cropped or reduced (OAuth logo_uri). (e.g.								
logo_uri	http://services.greenbuttondata.org/ThirdParty/favicon.png')	vs:anvl IRI							
	The name of the application to which access will be granted				Vendor Contact Name	Identifier Label="Vendor"			
client_name	(OAuth client_name). (e.g. 'Green Button ThirdParty')	String256							
						Contact Name=[value]			
					NO MAPPING				
	The link to the main page of the application (OAuth client_uri).								
client_uri	(e.g. 'https://services.greenbuttondata.org/ThirdParty')	xs:anyURI							
	The default redirect back to the application after authorization				NO MAPPING				
	grant (OAuth redirect uri). (e.g.								
redirect_uri	'https://services.greenbuttondata.org/ThirdParty/espi/1_1/OA uthCallBack')	xs:anyURI							
redirect_dri	utificaliback )	xs.aliyuki			Vendor Identifier	Identifier Label="Vendor"			
	Contains the identifier for the Third Party (OAuth client_id).				vendor identinei	identiner Laber- Vendor			Not sure Vendor is the correct
client_id	(e.g. 'ThirdParty Name')	String64							label, but don't see a better option.
_	, , , , , ,	3-				identifier=[value]			
	A URI that points to a human-readable Terms of Service				NO MAPPING				
	document for the Third Party Application. The Terms of								
ĺ	Service usually describes a contractual relationship between								
ĺ	the Retail Customer and the Third Party Application that the								
ĺ	Retail Customer accepts when authorizing access to the Third								
ĺ	Party Application. (e.g.								
	http://services.greenbuttondata.org/ThirdParty/TermsOfServi								
tos_uri	ce')	xs:anyURI			NO MARRING		+		
	A URI that points to a human-readable Policy document for the				NO MAPPING				
ĺ	Third Party Application. The policy usually describes how a								
ĺ	Retail Customer's energy usage information will be used by the								
ĺ	Third Party Application. (e.g.								
policy_uri	'http://services.greenbuttondata.org/ThirdParty/UsagePolicy')	xs:anyURI							
	An identifier for the software that comprises the Third Party				NO MAPPING				
	Application. The software_id is asserted by the Third Party								
ĺ	software and is intended to be shared between all copies of								
ĺ	the Third Party software. The value of this field MAY be a								
software_id	UUID [RFC4122]. (e.g. 'MyCoolGreenButtonAnalyzer')	String256							

						BEDES Mapping			
Green Button Field	Green Button Definition	Green Button Data Type	Green Button List Value	Green Button Units	BEDES Term	всьсэ маррия	BEDES Units	Unit Conversion	Notes
	A version identifier for the software that comprises a Third				NO MAPPING				
	Party Application. The value of this field is a string that is								
	intended to be compared using string equality matching. The								
	value of the software_version SHOULD change on any update								
software_version	to the Third Party software. (e.g. 'Version 1.00.00')	String32							
		0.			NO MAPPING				
	Time date stamp at which this client_id was issued. Note the								
	schema data type is TimeType and the presentation in OAuth								
	message flow is xs:dateTime and requires a conversion when								
client_id_issued_at	accessed. (e.g. '1403190000' => 2014-06-19T15:00:00Z)	TimeType							
chene_id_ibbded_dt	Date time at which this client_secret expires value of 0	rimer ype			NO MAPPING				
	means the client_secret never expires. (e.g. '0' => never				NO WAFFING				
client_secret_expires_at	expires)	TimeType							
client_secret_expires_at	Array of email addresses for people responsible for the	типетуре			Vandar Empill Address	Identifier Label—"Vandar"			
					Vendor Emaill Address	Identifier Label="Vendor"			
	Authorized Third Party Application. These MAY be made								
	available to Retail Customers for support requests for the								
	Authorized Third Party application. The Data Custodian								
	Authorization Server MAY use the email addresses as								
	identifiers for an Authorized Third Party application								
contacts	administrative page. (e.g. 'support@energyos.org')	String256							
						Email Address=[value]			
	The authentication method used by the OAuth 2.0 Token				NO MAPPING				
	Endpoint to authenticate the Third Party Application. (e.g.	TokenEndPointMet							
token_endpoint_auth_method	'client_secret_basic')	hod							
			client_secret_basic						
	Space separated list of scope values the Third Party				NO MAPPING				
	Application may use when requesting access Tokens. (e.g.								
	'FB=1_3_4_5_8_13_18_19_31_34_35_39;IntervalDuration=90								
	0_3600;BlockDuration=Daily; HistoryLength=								
	34128000;SubscriptionFrequency=Daily;								
scope	AccountCollection=5;BR=1;')	String256							
	Grant types this interface supports. (e.g. 'client_credentials,				NO MAPPING				
grant_types	authorization_code, refresh_token' in separate tags	GrantType							
			authorization_code						
			client_credentials						
			refresh_token						
response_types	Response types supported. (e.g. 'code')	ResponseType			NO MAPPING				
	The state of the s		code						
			token						
	{ClientConfigurationURI} A URI used by a registered client to				NO MAPPING				
	manage registration information. This URI is returned by the								
	AuthorizationServer in the "registration_client_uri‶ield								
	of the client information response.								
	{AuthorizationServerRegistrationEndpoint}/ApplicationInforma								
	tion/{ApplicationInformationID}. (e.g.								
	https://services.greenbuttondata.org/DataCustodian/espi/1_								
registration client uri	1/resource/ApplicationInformation/{ApplicationInformationID}	xs:anyURI					1		
registration_client_un	, ,	AS. GITYUNI		-	NO MARRING				
I	A credential obtained during Third Party registration with the				NO MAPPING				
	Data Custodian to enable access to the ApplicationInformation						1		
	resource. This is persisted in the ApplicationInformation								
	resource structure. (e.g. 'fe82518d-e325-404e-978c-								
registration_access_token	c02f9339bccc')								
	The URI used by the Third Party to redirect the Retail Customer				NO MAPPING		1		
	to the Data Custodian Scope Selection Screen (note that this								
	will likely involve a dialog with the Retail Customer including a								
	log in authentication process). (e.g.								
dataCustodianScopeSelectionScree	http://localhost:8080/DataCustodian/RetailCustomer/ScopeSe								
nURI	lection)			1			1	1	

Green Button Field	Green Button Definition	Green Button Data Type	Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	BEDES Units	Unit Conversion	Notes
	[extension] Represents a permission granted by an owner for								
	access to a resource.								
	Atom Links:								
	self link to this resource								
	rel corresponding ApplicationInformation (if this is the client								
	access containing token instance)								
	rel corresponding to the authorized resource (if this is the access_token containing instance for a customer resource)								
	access_token containing instance for a customer resource)								
	Note: for privacy there is no identifier of the RetailCustomer in								
	this structure but an implementation will have consider how to								
Authorization	maintain a correspondence between a RetailCustomer and his authorization.								
Authorization	Restricts access to requests or subscriptions within this date			I	NO MAPPING		1	1	
authorizedPeriod	time interval. (e.g. 'duration=31536000,start=1333252800')	DateTimeInterval			110 110 1110				
	Restricts access to the objects within the associated resource				NO MAPPING				
	that were published within this date time interval. (e.g.								
publishedPeriod	'duration=31536000' for most recent 365 days)	DateTimeInterval AuthorizationStatu			NO MAPPING				
status	The status of this authorization. (e.g. '1' => active)	S			INO WAPPING				
	(-8		0 - Revoked						
			1 - Active						
	Fining the project for the court 1 / 14 40040000000000000000000000000000		2 - Denied						
expires_at	Expiration period for the accessToken. (e.g. '1403190000' for 2014-06-19T15:00:00Z)	TimeType			NO MAPPING				
expires_ut	2014 00 13113.00.002)	типстурс			NO MAPPING				
grant_type	Type of grant being negotiated for. (e.g. 'authorization_code')	GrantType							
			authorization_code						
			client_credentials refresh token						
	Negotiated scope of the authorization. (e.g.		rerresn_token		NO MAPPING				
	'FB=1_3_4_5_13_14_15_1937_39;IntervalDuration=3600;Bloc				INO WAFFING				
scope	kDuration=monthly;HistoryLength=94608000'	String256							
token_type	Type of token used. (e.g. 'Bearer')	TokenType			NO MAPPING				
			Bearer		NO MAPPING				
error	Contains last error returned to ThirdParty. (e.g. 'server_error')	OAuthError			INO WAFFING				
	, , , ,		invalid_request						
			invalid_client						
			invalid_grant unauthorized client						
			unsupported_grant_type						
			invalid_scope						
			invalid_redirect_uri						
			invalid_client_metadata						
<del> </del>			invalid_client_id access_denied	-					
			unsupported_response_ty						
			pe						
			server_error						
	Contains free text string describing last error returned to		temporarily_unavailable		NO MAPPING				
error_description	ThirdParty. (e.g. 'No Service')	String256			NO MAFFING				
	Specific error URI for last returned error. (e.g. 'na' if not				NO MAPPING				
error_uri	supported)	xs:anyURI							
	resourceURI that represents the data set authorized. Can be used in a GET of the resource subscription. (e.g.				NO MAPPING				
	http://localhost:8080/DataCustodian/espi/1_1/resource/Batc								
resourceURI	h/Subscription/1')	xs:anyURI							
	URI that can be used to update or delete this Authorization.	-			NO MAPPING				
	(e.g.								
authorizationURI	'http://localhost:8080/DataCustodian/espi/1_1/resource/Auth orization/1')	xs:anyURI							
authorizationoni	URI that can be used to retrieve customer account	AS.GIIYUNI			Customer URL	Contact Label="Customer"			
	information. Note will have differnt namespace than								
customerResourceURI	resourceURI	xs:anyURI							
						Contact URL=[value]	1		·

Green Button Field	Green Button Definition	Green Button Data Type	Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	BEDES Units	Unit Conversion	Notes
IntervalBlock	Time sequence of Readings of the same ReadingType.								
interval.duration	Specifies the time period during which the contained readings	Int		s	Interval Duration	Interval Duration=[value]	s		
	were taken. Duration of the interval, in seconds.								
interval.start	Specifies the time period during which the contained readings	Time Stamp			Interval Start Date	Interval Start Date=[value]			
	were taken.Date and time that this interval started			l			l	l	
UntorvalBoading	Specific value measured by a meter or other asset. Each Reading is associated with a specific ReadingType.								
IntervalReading	[correction] Specifies a cost associated with this reading, in	1		1	Resource Cost	Resource Cost=[value]	le .	1	
1	hundred-thousandths of the currency specified in the				Resource Cost	Resource Cost-[value]	۶		
cost	ReadingType for this reading. (e.g., 840 = USD, US dollar)	Int48							
timePeriod.duration	The date time and duration of a reading. If not specified,	Int			Interval Duration	Interval Duration=[value]	s		
	readings for each interval Length in ReadingType are present.					(1000)			
1	Duration of the interval, in seconds.			s					
timePeriod.start	The date time and duration of a reading. If not specified,	Time Stamp			Interval Start Date	Interval Start Date=[value]			
1	readings for each interval Length in ReadingType are present.								
	Date and time that this interval started								
value	[correction] Value in units specified by ReadingType	Int48			Resource Value	Resource Value=[value]	Dependent or	Resource type	
					Tier ID	Tier ID=[value]			BEDES Tier ID is a constrained list,
consumptionTier	[extension] Code for consumption tier associated with reading.	Int16							not Int16 code
tou	[extension] Code for the TOU type of reading.	Int16			Time Of Use Rate Structure ID	Rate Structure="Time of use rate"		-	BEDES Rate Structure ID is a string
•						Rate Structure ID=[value]		1	not Int16
	[extension] Critical peak period (CPP) bucket the reading value				NO MAPPING			<del> </del>	HOL HILLS
1	is attributed to. Value 0 means not applicable. Even though				NO WAPPING				
1	CPP is usually considered a specialized form of time of use								
срр		Int16							
MeterReading	Set of values obtained from the meter.								
	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	ReadingQuality).	1 1		ı	la 15 a : 15 a 4 11 l		ı	ı	Inches
1	Quality, to be specified if different than ReadingType.defaultQuality. The specific format is specified				Quality or Derivation Method or				BEDES constrained list values do
quality	per the standard is defined in QualityOfReading.	QualityOfReading			Collection Process or Normalization				not match all GreenButton values as noted below
quanty	per the standard is defined in QualityOfficeading.		) - valid		Valid	Quality="Valid"			as noted below
			7 - manually edited		Manually edited	Quality="Manually edited"			
- !			3 - estimated using		Reference day estimate	Derivation Method="Reference day			
1			reference day		, , , , , , , , , , , , , , , , , , , ,	estimate"			
		9	9 - estimated using linear		Linear interpolation	Derivation Method="Linear interpolation"			
1		ļ	nterpolation						
			10 - questionable		Questionable	Quality="Questionable"			
			11 - derived		Derived	Collection Process="Derived"			
			12 - projected (forecast)		Projected	Quality="Projected"			
			13 - mixed		Mixed	Quality="Mixed"			
			14 - raw		Raw	Quality="Raw"		-	
1			15 - normalized for weather		Weather normalized	Normalization="Weather normalized"		1	
			weatner 16 - other		Other	Quality="Other"	-		
			17 - validated		Validated	Quality="Validated"		<del>                                     </del>	
			18 - verified		Verified	Quality="Verified"			
			19 - revenue-quality		NO MAPPING	equality verified	<del>                                     </del>		
	Characteristics associated with all Readings included in a	ı			1	·			
ReadingType	MeterReading.								
ReadingType	MeterReading.  Code indicating how value is accumulated over time for				NO MAPPING		I	1	
ReadingType accumulationBehaviour		AccumulationKind			NO MAPPING				
	Code indicating how value is accumulated over time for	(	) - none		NO MAPPING				
	Code indicating how value is accumulated over time for	1	1 - bulkQuantity		NO MAPPING				
	Code indicating how value is accumulated over time for	1	1 - bulkQuantity 2 - continuousCumulative		NO MAPPING				
	Code indicating how value is accumulated over time for	1 1 2 3	1 - bulkQuantity 2 - continuousCumulative 3 - cumulative		NO MAPPING				
	Code indicating how value is accumulated over time for	1 1 2 3 2	1 - bulkQuantity 2 - continuousCumulative 3 - cumulative 4 - deltaData		NO MAPPING				
	Code indicating how value is accumulated over time for	1 1 2 3 4	1 - bulkQuantity 2 - continuousCumulative 3 - cumulative 4 - deltaData 5 - indicating		NO MAPPING				
	Code indicating how value is accumulated over time for	2 2 3 4 6	1 - bulkQuantity 2 - continuousCumulative 3 - cumulative 4 - deltaData 5 - indicating 9 - summation		NO MAPPING				
	Code indicating how value is accumulated over time for	2 2 2 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1 - bulkQuantity 2 - continuousCumulative 3 - cumulative 4 - deltaData 5 - indicating 9 - summation 10 - timeDelay		NO MAPPING				
	Code indicating how value is accumulated over time for	2 5 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1 - bulkQuantity 2 - continuousCumulative 3 - cumulative 4 - deltaData 5 - indicating 9 - summation		NO MAPPING				

Green Button Field	Green Button Definition	Green Button Data Type	Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	BEDES Units	Unit Conversion	Notes
		Туре		Offics	Resource or Emission Gas Type				BEDES constrained list values do
commodity	Code for commodity classification of Readings of ReadingType.	CommodityVind							not match all GreenButton values as noted below
commounty	Code for commonly classification of Readings of ReadingType.	Commoditykina	0 - none		None	Resource="None"			as noted below
			1 - electricity		Electricity Secondary	Resource="Electricity"			
			SecondaryMetered			Priority="Secondary"			
			2 - electricity		Electricity Primary	Resource="Electricity"			
			PrimaryMetered			Priority="Primary"			
			3 - communication		NO MAPPING				
			4 - air 5 - insulativeGas		NO MAPPING NO MAPPING				
			6 - insulativeOil	1	NO MAPPING				
			7 - naturalGas		Natural Gas	Resource="Natural Gas"			
			8 - propane		Propane	Resource="Propane"			
			9 - potableWater		Potable water	Resource="Potable water"			
			10 - steam		Distric steam	Resource="Distric steam"			
			11 - wasteWater		Wastewater	Resource="Wastewater"			
			12 - heatingFluid		NO MAPPING				
			13 - coolingFluid	-	NO MAPPING				
		<b>_</b>	14 - nonpotableWater 15 - nox	1	Alternative water	Resource="Alternative water"	-		
		-	15 - nox 16 - so2	1	Nox SO2	Emission Gas Type="Nox" Emission Gas Type="SO2"			
		<del> </del>	17 - ch4		CH4	Emission Gas Type= SO2 Emission Gas Type="CH4"			
			18 - co2		CO2	Emission Gas Type="CO2"			
			19 - carbon		NO MAPPING				
			20 - hch		NO MAPPING				
			21 - pfc		NO MAPPING				
			22 - sf6		NO MAPPING				
			23 - tvLicence		NO MAPPING				
			24 - internet	1	NO MAPPING				
			25 - refuse		NO MAPPING				
consumptionTier	Code for consumption tier associated with a Reading of ReadingType.	Int16			Tier ID	Tier ID=[value]			BEDES Tier ID is a constrained list, not Int16 code
	Code for the currency for costs associated with this				NO MAPPING				
	ReadingType. The valid values per the standard are defined in								
currency	CurrencyCode.	Currency	840 - USD	-					BEDES only uses USD
			978 - EUR	-					
			36 - AUD	1					
			124 - CAD	+					
			756 - CHF						
			156 - CNY						
			208 - DKK						
			826 - GBP						
			392 - JPY						
			578 - NOK						
		-	643 - RUB		-	-			
		-	752 - SEK 356 - INR						
		<del>                                     </del>	0 - other		1				
			o other	1	Interval Measure				BEDES constrained list values do
dataQualifier	Code describing a salient attribute of Readings of ReadingType.	DataQualifierKind			interval weasure				not match all GreenButton values as noted below
	0		0 - none		None	Interval Measure="None"			
			2 - average		Average	Interval Measure="Average"			
			4 - excess		NO MAPPING				
·			5 - highThreshold		NO MAPPING				
			7 - lowThreshold		NO MAPPING				
			8 - maximum		Maximum	Interval Measure="Maximum"			
	į.		9 - minimum		Minimum	Interval Measure="Minimum"	1		
				1	NO MAPPING	1	1	l	ĺ
			11 - nominal				1		
			12 - normal		NO MAPPING				
			12 - normal 16 - secondMaximum		NO MAPPING NO MAPPING				
			12 - normal 16 - secondMaximum 17 - secondMinimum		NO MAPPING NO MAPPING NO MAPPING				
			12 - normal 16 - secondMaximum 17 - secondMinimum 23 - thirdMaximum		NO MAPPING NO MAPPING NO MAPPING NO MAPPING				
			12 - normal 16 - secondMaximum 17 - secondMinimum		NO MAPPING NO MAPPING NO MAPPING				

Green Button Field	Green Button Definition	Green Button Data	Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	BEDES Units	Unit Conversion	Notes
		Туре		Units	Default Quality or Derivation	Collection Process="Default"			BEDES constrained list values do
					Method or Normalization	Quality = [value]			not match all GreenButton values
	Default value to be used if no value of ReadingQuality.quality is								as noted below
	provided.								Some additional values fall under
	Specific format and valid values per the standard are specified								other qualifiers like Collection
defaultQuality	in QualityOfReading.	QualityOfReading							Process and Normalization.
			0 - valid		Valid	Quality="Valid"			
			7 - manually edited		Manually edited	Quality="Manually edited"			
			8 - estimated using		Reference day estimate	Derivation Method="Reference day			
			reference day			estimate"			
			9 - estimated using linear		Linear interpolation	Derivation Method="Linear interpolation"			
			interpolation		0 11	0 12 110 11 11 11			
			10 - questionable		Questionable	Quality="Questionable"			
			11 - derived		Derived	Collection Process="Derived"			
			12 - projected (forecast) 13 - mixed		Projected Mixed	Quality="Projected"			
			14 - raw		Raw	Quality="Mixed"			
			15 - normalized for		Weather normalized	Quality="Raw"  Normalization="Weather normalized"			
			weather		weather normalized	Normalization= Weather normalized			
	+		16 - other		Other	Quality="Other"	1		1
	+		17 - validated		Validated	Quality="Other"  Quality="Validated"	1		1
	+		18 - verified		Verified	Quality="Varidated"  Quality="Verified"	1		1
	+		19 - revenue-quality		NO MAPPING	Quality- Verificu	1		1
			13 - Teveriue-quality		Current Flow Direction				REDES constrained list values do
					Carretti Flow Direction				BEDES constrained list values do not match all GreenButton values
flowDirection	Direction associated with current related Readings.	FlowDirectionKind							as noted below
nowbii ection	Direction associated with current related headings.	Tiowbirectionking	0 - none		None	Current Flow Direction="None"			as noted below
			1 - forward		Forward	Current Flow Direction= None  Current Flow Direction="Forward"			
			2 - lagging		NO MAPPING	Current Flow Direction - Forward			
			3 - leading		NO MAPPING				
			4 - net		NO MAPPING				
			5 - q1plusQ2		NO MAPPING				
			7 - q1plusQ3		NO MAPPING				
			8 - q1plusQ4		NO MAPPING				
			9 - q1minusQ4		NO MAPPING				
			10 - q2plusQ3		NO MAPPING				
			11 - q2plusQ4		NO MAPPING				
			12 - q2minusQ3		NO MAPPING				
			13 - q3plusQ4		NO MAPPING				
			14 - q3minusQ2		NO MAPPING				
			15 - quadrant1		NO MAPPING				
			16 - quadrant2		NO MAPPING				
			17 - quadrant3		NO MAPPING				
			18 - quadrant4		NO MAPPING				
			19 - reverse		Reverse	Current Flow Direction="Reverse"			
			20 - total		NO MAPPING				
			21 - totalByPhase		NO MAPPING				
	Default interval length specified in seconds for Readings of				Interval Duration		Dependent		
intervalLength	ReadingType.	UInt32					on Qualifier		
					Power Metric				BEDES constrained list values do
									not match all GreenButton values
									as noted below
kind	Code for general classification of a Reading of ReadingType.	MeasurementKind							Also, not all GB "kinds" are power
			0 - none		None	Power Metric="None"			
			2 - apparentPowerFactor		NO MAPPING				
			3 - currency		NO MAPPING				
			4 - current		Current	Power Metric="Current"			
			5 - currentAngle		Current angle	Power Metric="Current angle"			
			6 - currentImbalance		NO MAPPING				
			7 - date		NO MAPPING				
			8 - demand		NO MAPPING				
			9 - distance		NO MAPPING				
					NO MAPPING				
			10 - distortionVoltAmperes						
			11 - energization		NO MAPPING				
			12 - energy		NO MAPPING				
			13 - energizationLoadSide		NO MAPPING				
	1	İ	14 - fan	l	NO MAPPING		1	İ	

Green Button Field	Green Button Definition	Green Button Data Type Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	REDES Units	Unit Conversion	Notes
Green Button Field	Green Button Delimition		Units			BEDES UTILS	Offit Conversion	Notes
		15 - frequency		Frequency	Power Metric="Frequency"			
		16 - Funds		NO MAPPING				
		17 - ieee1366ASAI		NO MAPPING				
		18 - ieee1366ASIDI 19 - ieee1366ASIFI		NO MAPPING				
		20 - ieee1366CAIDI		NO MAPPING				
		21 - ieee1366CAIFI		NO MAPPING				
		22 - ieee1366CEMIn		NO MAPPING				
		23 - ieee1366CEMSMIn		NO MAPPING NO MAPPING				
		24 - ieee1366CTAIDI		NO MAPPING				
		25 - ieee1366MAIFI		NO MAPPING				
		26 - ieee1366MAIFle		NO MAPPING				
		27 - ieee1366SAIDI		NO MAPPING				
		28 - ieee1366SAIFI		NO MAPPING				
		31 - lineLosses		NO MAPPING				
		32 - losses		NO MAPPING				
		33 - negativeSequence		NO MAPPING				
		34 - phasorPowerFactor		NO MAPPING				
		54 - pilasoir oweii actoi		NO MAPPING		1		
		35 - phasorReactivePower		NO WIMPPING				
		36 - positiveSequence		NO MAPPING		1		
		37 - power		Power	Power Metric="Power"	1		
		38 - powerFactor		Power factor	Power Metric="Power factor"			
		40 - quantityPower		NO MAPPING	i ower wetric- rower ideler			
		40 - quantityPower 41 - sag		NO MAPPING		1		
		41 - 5dg 42 - Swell		NO MAPPING				
		43 - switchPosition		NO MAPPING				
		44 - tapPosition		NO MAPPING				
		45 - tariffRate		NO MAPPING				
		46 - temperature		NO MAPPING				
		47 -		NO MAPPING				
		totalHarmonicDistortion		NO WATTING				
		48 - transformerLosses		NO MAPPING				
		49 -		NO MAPPING				
		unipedeVoltageDip10to15		NO WATTING				
		50 -		NO MAPPING				
		unipedeVoltageDip15to30		NO WATTING				
		51 -		NO MAPPING				
		unipedeVoltageDip30to60		NO WATTING				
		52 -		NO MAPPING				
		unipedeVoltageDip60to90		NO WAFFING				
		53 -		NO MAPPING				
		unipedeVoltageDip90to10		NO WAFFING				
		0						
		54 - voltage		Voltago	Power Metric="Voltage"			
		55 - voltage 55 - voltageAngle		Voltage Voltage angle	Power Metric="Voltage angle"	1		
		56 - voltageArigie		NO MAPPING	Tower Wettie- Voltage aligie			
		30 VOITUBEENCUISION		Supply voltage imbalance	Power Metric="Supply voltage imbalance"			
		57 - voltageImbalance		Supply voltage illibalance	ower wetric- Supply voltage illibalance			
		58 - volume		NO MAPPING				
		59 - zeroFlowDuration		NO MAPPING				
		60 - zeroSequence		NO MAPPING				
		500 zerosequence		Distortion power factor	Power Metric="Distortion power factor"			
		64 - distortionPowerFactor		pistortion power ractor	ower wetric- Distortion power ractor			
		i o a distortioni owen actor		NO MAPPING				
		81 - frequencyEvourcion					1	
		81 - frequencyExcursion						
		90 - applicationContext		NO MAPPING				
		90 - applicationContext 91 - apTitle		NO MAPPING NO MAPPING				
		90 - applicationContext 91 - apTitle 92 - assetNumber		NO MAPPING NO MAPPING NO MAPPING				
		90 - applicationContext 91 - apTitle 92 - assetNumber 93 - bandwidth		NO MAPPING NO MAPPING NO MAPPING NO MAPPING				
		90 - applicationContext 91 - apTitle 92 - assetNumber 93 - bandwidth 94 - batteryVoltage		NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING				
		90 - applicationContext 91 - apTitle 92 - assetNumber 93 - bandwidth 94 - batteryVoltage 95 - broadcastAddress		NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING				
		90 - applicationContext 91 - apTitle 92 - assetNumber 93 - bandwidth 94 - batteryVoltage 95 - broadcastAddress 96 - deviceAddressType1		NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING				
		90 - applicationContext 91 - apTitle 92 - assetNumber 93 - bandwidth 94 - batteryVoltage 95 - broadcastAddress 96 - deviceAddressType1 97 - deviceAddressType2		NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING				
		90 - applicationContext 91 - apTitle 92 - assetNumber 93 - bandwidth 94 - batteryVoltage 95 - broadcastAddress 96 - deviceAddressType1 97 - deviceAddressType3		NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING				
		90 - applicationContext 91 - apTitle 92 - assetNumber 93 - bandwidth 94 - batteryVoltage 95 - broadcastAddress 96 - deviceAddressType1 97 - deviceAddressType2 98 - deviceAddressType3		NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING				
		90 - applicationContext 91 - apTitle 92 - assetNumber 93 - bandwidth 94 - batteryVoltage 95 - broadcastAddress 96 - deviceAddressType1 97 - deviceAddressType3		NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING NO MAPPING				

Green Button Field	Green Button Definition	Green Button Data Type Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	REDES Units	Unit Conversion	Notes
Green Button Fleid	Cicen Button Bermitton	Type 102 - endDeviceID	Units			DEDES OTHES	One conversion	Notes
		102 - enabeviceib 103 - groupAddressType1		NO MAPPING NO MAPPING				
		104 - groupAddressType2		NO MAPPING NO MAPPING				
		105 - groupAddressType3		NO MAPPING				
		106 - groupAddressType4		NO MAPPING				
		107 - ipAddress		NO MAPPING				
		108 - macAddress		NO MAPPING				
		109 -	.1	NO MAPPING				
		mfgAssignedConfiguration D	ni j					
		110 -		NO MAPPING				
		mfgAssignedPhysicalSeria	1					
		Number 111 -	-					
		mfgAssignedProductNum		NO MAPPING				
		er	٦					
		112 -	1	NO MAPPING				
		mfgAssignedUniqueComn	1					
		unicationAddress			<u> </u>			
		113 - multiCastAddress		NO MAPPING				
		114 - oneWayAddress		NO MAPPING				
		115 - signalStrength		NO MAPPING				
		116 - twoWayAddress 117 - signaltoNoiseRatio		NO MAPPING NO MAPPING				
		117 - signaltonoisekatio 118 - alarm	+	NO MAPPING NO MAPPING				
		119 - batteryCarryover	1	NO MAPPING	1			
		120 - dataOverflowAlarm		NO MAPPING				
		121 - demandLimit		NO MAPPING				
		122 - demandReset		NO MAPPING				-
		123 - diagnostic		NO MAPPING				
		124 - emergencyLimit	+	NO MAPPING				
		125 - encoderTamper 126 -		NO MAPPING				
		ieee1366MomentaryInter	r	NO MAPPING				
		uption						
		127 -	_	NO MAPPING				
		ieee1366MomentaryInter uptionEvent	r					
		uptionEvent 128 -	+	NO MAPPING				
		ieee1366SustainedInterru	р	INO WAFFING				
		tion	"					
		129 -		NO MAPPING				
		interruptionBehaviour						
		130 - inversionTamper		NO MAPPING				
		131 - loadinterrupt		NO MAPPING	+			
		132 - loadShed 133 - maintenance	1	NO MAPPING	<u> </u>			
		133 - maintenance 134 - physicalTamper		NO MAPPING NO MAPPING	+			
		135 - powerLossTamper		NO MAPPING				
		136 - powerOutage		NO MAPPING				
		137 - powerQuality		NO MAPPING				
		138 - powerRestoration		NO MAPPING				
		139 - programmed		NO MAPPING				
		140 - pushbutton		NO MAPPING	+			
		141 - relayActivation 142 - relayCycle		NO MAPPING	+			
		142 - relayCycle 143 - removalTamper		NO MAPPING NO MAPPING				
		144 -		NO MAPPING				
		reprogrammingTamper						
		145 -		NO MAPPING				
		reverseRotationTamper 146 - switchArmed		NO MAPPING				
		146 - switchArmed 147 - switchDisabled		NO MAPPING NO MAPPING	1			
		147 - Switchbisabled 148 - tamper		NO MAPPING				
		149 - watchdogTimeout		NO MAPPING				
		150 - billLastPeriod		NO MAPPING				
		151 - billToDate		NO MAPPING				
		152 - billCarryover		NO MAPPING				

Green Button Field	Green Button Definition	Green Button Data Type	Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	BEDES Units	Unit Conversion	Notes
			153 - connectionFee		NO MAPPING				
			154 - audibleVolume		NO MAPPING				
			155 - volumetricFlow		Volumetric flow	Power Metric="Volumetric flow"			
nhaco	Code for phase information associated with Readings of ReadingType.	PhaseCodeKind			Phase				BEDES constrained list values do not match all GreenButton values as noted below
phase	neading type.		225 - ABCN		NO MAPPING				as noted below
			224 - ABC		Phase ABC	Phase="Phase ABC"			
			193 - ABN		NO MAPPING	Thase-Thase Abe			
			41 - ACN		NO MAPPING				
			97 - BCN		NO MAPPING				
			132 - AB		Phase AB	Phase="Phase AB"			
			96 - AC		NO MAPPING				
			66 - BC		Phase BC	Phase="Phase BC"			
			129 - AN		Phase AN	Phase="Phase AN"			
			65 - BN		Phase BN	Phase="Phase BN"			
			33 - CN		Phase CN	Phase="Phase CN"			
			128 - A		Phase A	Phase="Phase A"			
			64 - B		Phase B	Phase="Phase B"			
			32 - C		Phase C	Phase="Phase C"			
			16 - N		NO MAPPING				
			272 - S2N		Phase S2N	Phase="Phase S2N"			
			784 - S12N						GreenButton Bug, 784 is the same as 769
			528 - S1N		Phase S1N	Phase="Phase S1N"			
			256 - S2		Phase S2	Phase="Phase S2"			
			768 - S12		Phase S1S2	Phase="Phase S1S2"			
			769 - S12N		Phase S1S2N	Phase="Phase S1S2N"			
			0 - none		None	Phase="None"			
			136 - AtoAv		NO MAPPING				
			72 - BAv		NO MAPPING				
			40 - CAv		Phase CA	Phase="Phase CA"			
			17 - NG		NO MAPPING				
			512 - S1		Phase S1	Phase="Phase S1"			
	Code for the power of ten multiplier which, when used in combination with the uom, specifies the actual unit of				NO MAPPING				
powerOfTenMultiplier	measure for Readings of ReadingType.	UnitMultiplierKind							
			-12 - p						
			-9 - n						
			-6 - micro						
			-3 - m						
			-2 - c						
			-1 - d						
			3 - k						
			6 - M						
			9 - G						
			12 - T						
			0 - none				1		
	1		1 - da		1		1		
	<u> </u>		2 - h						
timeAttribute	Code used to specify a particular type of time interval method for Readings of ReadingType.	est			Interval Frequency				
			0 - none		None	Interval Frequency="None"			
			8 - billingPeriod		NO MAPPING				
			11 - daily		Day	Interval Frequency="Day"			
			13 - monthly		Month	Interval Frequency="Month"			
			22 - seasonal		NO MAPPING		1		
			24 - weekly		Week	Interval Frequency="Week"	1		
	<u> </u>		32 - specifiedPeriod		NO MAPPING				
tou	Code for the TOU type of Readings of ReadingType.	Int16			Time Of Use Rate Structure ID	Rate Structure="Time of use rate"  Rate Structure ID=[value]			BEDES Rate Structure ID is a string
					1	+			not Int16
	Code for the base unit of measure for Readings of ReadingType. Used in combination with the				Unit Of Measure				BEDES constrained list values do not match all GreenButton values
uom	powerOfTenMultiplier to specify the actual unit of measure	UnitSymbolKind			1		1		as noted below
	1		61 - VA		NO MAPPING		1		
			38 - W 63 - VAr		W NO MAPPING	Unit of Measure="W"	_		

Green Button Field	Green Button Definition	Green Button Data Type Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	BEDES Units	Unit Conversion	Notes
		71 - VAh		NO MAPPING				
		72 - Wh		Wh	Unit of Measure="Wh"			
		73 - VArh		NO MAPPING				
		29 - V		V	Unit of Measure="V"	1		
		30 - ohm 5 - A		NO MAPPING	II II CAA HAH			
		25 - F		A NO MAPPING	Unit of Measure="A"			
		28 - H		NO MAPPING				
		23 - degC		C	Unit of Measure="C"			
		27 - sec		s	Unit of Measure="s"			
		159 - min		min	Unit of Measure="min"			
		160 - h		hour	Unit of Measure="hour"			
		9 - deg		degree	Unit of Measure="degree"			
		10 - rad		NO MAPPING				
		31 - J		NO MAPPING				
		32 - n		NO MAPPING				
		53 - siemens		NO MAPPING				
		0 - none		Not applicable	Unit of Measure="None"			
		33 - Hz		Hz	Unit of Measure="Hz"			
		3 - g		NO MAPPING				
		39 - pa		Pa	Unit of Measure="Pa"			-
		2 - m		NO MAPPING		1		
		41 - m2		NO MAPPING				
		42 - m3	<b>.</b>	NO MAPPING		1		
		69 - A2		NO MAPPING				
		105 - A2h		NO MAPPING				
		70 - A2s		NO MAPPING				
		106 - Ah		NO MAPPING				
		152 - APerA 103 - APerM		NO MAPPING				
		68 - As		NO MAPPING				
		79 - b		NO MAPPING NO MAPPING		1		
		113 - bm		NO MAPPING				
		22 - bq		NO MAPPING				
		132 - btu		Btu	Unit of Measure="Btu"			
		133 - btuPerH		Btu/hr	Unit of Measure="Btu/hr"			
		8 - cd		NO MAPPING	Sint of Measure Brayin			
		76 - char		NO MAPPING				
		75 - HzPerSec		NO MAPPING				
		114 - code		NO MAPPING				
		65 - cosTheta		NO MAPPING				
		111 - count		NO MAPPING				
		119 - ft3		ft3	Unit of Measure="ft3"			
		120 - ft3compensated		NO MAPPING				
				NO MAPPING				
		123 - ft3compensatedPerH						
		78 - gM2		NO MAPPING				
		144 - gPerG		NO MAPPING				
		21 - gy		NO MAPPING				-
		150 - HzPerHz	<b></b>	NO MAPPING		1		
		77 - charPerSec	ļ	NO MAPPING		1		
		130 - imperialGal	-	NO MAPPING		1		
		131 - imperialGalPerH	-	NO MAPPING		1		
		51 - jPerK	1	NO MAPPING		1		
		165 - jPerKg	<del>                                     </del>	NO MAPPING		1		
		6 - K 158 - kat	-	NO MAPPING				
			-	NO MAPPING		1		
		47 - kgM 48 - kgPerM3	<del>                                     </del>	NO MAPPING NO MAPPING		+		
+		48 - kgrerm3 134 - litre	-	NO MAPPING NO MAPPING				
+		134 - litre 157 - litreCompensated	<del>                                     </del>	NO MAPPING NO MAPPING		1		
		138 -	+	NO MAPPING NO MAPPING				
		litreCompensatedPerH	I	NO WIMPPING				
		137 - litrePerH	<del>                                     </del>	NO MAPPING		1		
+		143 - litrePerLitre		NO MAPPING				
		82 - litrePerSec		NO MAPPING				
		156 - litreUncompensated	l	NO MAPPING		+		

Green Button Field	Green Button Definition	Green Button Data	Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	BEDES Units	Unit Conversion	Notes
		Туре	139 -	Units	NO MAPPING				
			litreUncompensatedPerH		INO MAPPING				
			35 - lm		NO MAPPING				
			34 - lx		lux	Unit of Measure="lux"			
			49 - m2PerSec		NO MAPPING				
			167 - m3compensated		NO MAPPING				
			126 -		NO MAPPING				
			m3compensatedPerH		_				
			125 - m3PerH 45 - m3PerSec		NO MAPPING NO MAPPING				
			166 - m3uncompensated		NO MAPPING				
			127 -		NO MAPPING				
			m3uncompensatedPerH						
			118 - meCode		NO MAPPING				
			7 - mol		NO MAPPING				
			147 - molPerKg		NO MAPPING				
			145 - molPerM3		NO MAPPING				
			146 - molPerMol		NO MAPPING				
			80 - money		NO MAPPING		$\perp$		
			148 - mPerM 46 - mPerM3		NO MAPPING		+		
			43 - mPerN3		NO MAPPING NO MAPPING		+		
			44 - mPerSec2		NO MAPPING	+	+	+	
			102 - ohmM		NO MAPPING				
			155 - paA		NO MAPPING				
			140 - paG		NO MAPPING				
			141 - psiA		NO MAPPING				
			142 - psiG		NO MAPPING				
			100 - q		NO MAPPING				
			161 - q45		NO MAPPING				
			163 - q45h		NO MAPPING				
			162 - q60 164 - q60h		NO MAPPING NO MAPPING				
			101 - qh		NO MAPPING	_			
			54 - radPerSec		NO MAPPING				
			154 - rev		NO MAPPING				
			4 - revPerSec		NO MAPPING				
			149 - secPerSec		NO MAPPING				
			11 - sr		NO MAPPING				
			109 - status		NO MAPPING				
			24 - sv		NO MAPPING				
			37 - t 169 - therm		NO MAPPING	Linit of Manager With a well			
			108 - timeStamp		Therm NO MAPPING	Unit of Measure="Therm"			
			128 - usGal		gallons	Unit of Measure="gallons"	+		
			129 - usGalPerH		NO MAPPING	Sinc of Micasure - ganons			
			67 - V2		NO MAPPING				
			104 - V2h		NO MAPPING				
		·	117 - VAhPerRev		NO MAPPING				
			116 - VArhPerRev		NO MAPPING				
			74 - VPerHz		NO MAPPING				
			151 - VPerV		NO MAPPING		+		
			66 - Vs 36 - wb		NO MAPPING NO MAPPING		+		
			107 - WhPerM3		NO MAPPING	+	+	1	
			115 - WhPerRev		NO MAPPING		+		
			50 - wPerMK		NO MAPPING				
			81 - WPerSec		NO MAPPING				
			153 - WPerVA		NO MAPPING				
			168 - WPerW		NO MAPPING				
	[extension] Critical peak period (CPP) bucket the reading value				NO MAPPING				
	is attributed to. Value 0 means not applicable. Even though						1		
	CPP is usually considered a specialized form of time of use	I-+1C					1		
срр	'tou', this attribute is defined explicitly for flexibility.	Int16							

According to the definition between or insidencember to the control of the cont	Green Button Field	Green Button Definition	Green Button Data Type	Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	BEDES Units	Unit Conversion	Notes
Jestensey I was entake where the fundamental in later can be all the company of the first state of the first state of the first stat			Туре		Offics	Interval Frequency	Interval Frequency=[value]			REDES constrained list values do
reside year in 15 contents of the property of		[extension] Time attribute inherent or fundamental to the				micron requency	interval (requestey (value)			
Sizione de describe signatore con perce describe in person de la company										
Be meanward of the Price to the one of plants of the color of the price of the color of the price of the color of the price of the color of the price of the color of the price of the color of the color of the price of the color of the colo										
rescued and not to the foreground and and the foreground and provided in the mining from the m										
posecuring for example, in the style and indexes the section of th										
dest would be really found you and protection feeders of the control of the contr										
case of a hoursy ample for long years (a) to represent the member of the property of the property of										
Water would carry for "horry for control to enter the dept of the control of th										
it is common for motics to report degree of appetition of in the box will be returned to the four of appetition of in the box will be returned to the box will be returned										
entirgine application however commently assume the plant of the Mark of number lost of his Mark of number lost of his Mark of number lost of his Mark of number lost of his Mark of number lost of his Mark of his										
demand in New X-XVI a Jamanise day 1 April 2 A		measured over the course of a portion of an hour, while								
Recover marking directly from the meter the prefer presents of prefer the present parties plant and prefer the present parties plant and prefer the present parties plant and prefer the present parties plant and prefer the present parties plant and prefer the present parties plant and prefer the present parties plant and prefer the present parties plant and prefer the present parties plant and prefer the present parties plant and prefer the prefe										
perform the transferrance pattern. The circumstance and chases on the block shor (not any sub-intered side)		demand (in kW or kVAr) normalized to 1 hour. The system that								
Impact   The behave steep test array sub-interest sized										
Institution   Institution										
0   100										
1 - Institute   1 - Institut	measuringPeriod	based on the block size (not any sub-interval size).								
2 - Price Price Price   1 - Price Price   1 - Price										
3 - con-Minister   4 - the Performance   5										
1 - New Proprietion Control   1 -								1		
S Interpolyment   S In										
G. PoeMindue   NO MAPPING   N								1		
1 - touk/miture								1		
10 - two-finates								1		
14 three-Minute   NO MAPPING										
1.5 - present   NO MAPPING										
Signature   Sign								1		
33 - InvertifyAffruite   NO MAPPING								-		
So - FinedBloc-30Min										
5.1 - FinedBloc30Min   NO MAPPING										
\$2- fixedBloc420Min   NO MAPPING										
S3- FixedBloc4SMin   NO MAPPING										
S4 - fixedBlockSMin   NO MAPPING										
S5 - freedBlockSMin								1		
S6-fixedBlockSMin   NO MAPPING     57-				55 - fixedBlock5Min						
S7-   rollingBlock60MinintvI30M inSubirtvI   S9-   NO MAPPING   S9-   NO MAPPING   S9-   NO MAPPING   S9-   NO MAPPING   S9-   S8-   S8-   S8-   S9-   S8-   S9-										
TollingBlockGMInintvi30M   Insulativi30M   I										
SS -										
rollingBlock60MinIntv120M   S9 - rollingBlock60MinIntv115M   NO MAPPING										
InSubinty    S9 -				58 -		NO MAPPING				
Signature   Sign										
CollingBlock60MinIntv15M   InSubIntv1   CollingBlock60MinIntv12M   CollingBlock60MinIntv112M   CollingBlock60MinIntv110M   CollingBlock60MinIntv10M   CollingBlock60MinIntv10M   CollingBlock60MinIntv16Min   CollingBlock60MinIntv116Min   CollingBlock60MinIntv16Min   CollingBlock60MinIntv16Min   CollingBlock60MinIntv16Min   CollingBlock60MinIntv16				inSubIntvl						
InSubintvl						NO MAPPING				
60										
TollingBlock60MinIntv12M   InsubIntv1   In								<u>1</u>		
InSubinty						NO MAPPING				
61 -								I		
FollingBlock60MinIntvI10M   InSubIntvI										
Insubinty						NO MAPPING				
62 -								I		
FollingBlock60MinIntv16Mi   Substitut										
NO MAPPING   NO						NO MAPPING		1		
63 -								I		
rollingBlock60MinIntvISMi   nSubIntvI								1		
NO MAPPING   NO						NO MAPPING		1		
64 -     NO MAPPING								1		
rollingBlock60MinIntvI4Mi						NO 141000110				
NSubIntvl						NO MAPPING		1		
65 -   NO MAPPING										
rollingBlock30MinIntvl15M						110 111 1111		1		
inSubIntvl						NO MAPPING		I		
66 - NO MAPPING - rollingBlock30MinIntv10M								1		
rollingBlock30MinIntvl10M						110 111 1111		1		
						NO MAPPING				
				rollingBlock30MinIntvI10M inSubIntvl				I		

		O D D		O B		BEDES Mapping			
Green Button Field	Green Button Definition	Green Button Data Type	Green Button List Value	Green Button Units	BEDES Term	DEDES Wapping	<b>BEDES Units</b>	Unit Conversion	Notes
		<b>31</b>	67 -		NO MAPPING				
			rollingBlock30MinIntvl6Mi						
			nSubIntvl						
			68 -		NO MAPPING				
			rollingBlock30MinIntvl5Mi						
			nSubIntvl						
			69 - rollingBlock30MinIntvl3Mi		NO MAPPING				
			nSubIntvl						
			70 -		NO MAPPING				
			rollingBlock30MinIntvl2Mi						
			nSubIntvl						
			71 -		NO MAPPING				
			rollingBlock15MinIntvl5Mi						
			nSubIntvl 72 -		NO MAPPING				
			rollingBlock15MinIntvl3Mi		NO MAPPING				
			nSubIntvl						
			73 -		NO MAPPING				
			rollingBlock15MinIntvl1Mi						
			nSubIntvl						
			74 -		NO MAPPING				
			rollingBlock10MinIntvl5Mi						
			nSubIntvl 75 -		NO MAPPING				
			rollingBlock10MinIntvl2Mi		NO MAPPING				
			nSubIntvl						
			76 -		NO MAPPING				
			rollingBlock10MinIntvl1Mi						
			nSubIntvl						
			77 -		NO MAPPING				
			rollingBlock5MinIntvl1Min						
	[extension] Argument used to introduce numbers into the unit		SubIntvl		NO MAPPING				
	of measure description where they are needed (e.g., 4 where				NO MAPPING				
	the measure needs an argument such as CEMI(n=4)). Most								
	arguments used in practice however will be integers (i.e.,								
	'denominator'=1).								
	Value 0 in 'numerator' and 'denominator' means not								
argument	applicable.	RationalNumber							
IdentifiedObject	This is a root class to provide common naming attributes for all classes needing naming attributes								
identinedObject	Includes elements that make it possible to include multiple								
Batchiteminfo	transactions in a single (batch) request.								
	An identifier for this object that is only unique within the								
name	containing collection.	HexBinary16			NO MAPPING				
operation	Specifies the operation requested of this item.	CRUDOperation			NO MAPPING				
			0 - Create						
			1 - Read 2 - Update		+			-	
			3 - Delete		1				
statusCode	Indicates the status code of the associated transaction.	StatusCode			NO MAPPING				
			200 - Ok						
			201 - Created						
			204 - No Content						
			301 - Moved Permanently						
			302 - Redirect 304 - Not Modified						
1			400 - Bad Request						
			401 - Unauthorized						
			403 - Forbidden						
			404 - Not Found						
			405 - Method Not Allowed						
			410 - Gone						
statusReason	Indicates the reason for the indicated status code.	String256	500 - Internal Server Error		NO MAPPING				
statusnedSUII	indicates the reason for the mulcated status code.	Ju mg230	1	<u> </u>	INO IVIAPPING	1	1	1	

						BEDES Mapping			
Green Button Field	Green Button Definition	Green Button Data Type	Green Button List Value	Green Button Units	BEDES Term	DEDES Wapping	<b>BEDES Units</b>	<b>Unit Conversion</b>	Notes
	Logical point on a network at which consumption or	1,750		Onito					
	production is either physically measured (e.g., metered) or								
	estimated (e.g., unmetered street lights).								
	Specifies the roles that this usage point has been assigned. Bit			1	NO MAPPING		1	i I	
	1 - isMirror Bit 2 - isPremisesAggregationPoint Bit 3 - isPEV Bit							ļ	
	4 - isDER Bit 5 - isRevenueQuality Bit 6 - isDC Bit 7-16 -							ļ	
roleFlags F	Reserved	HexBinary16						ļ	
!	Specifies the current status of this usage point. Valid values				NO MAPPING				
	include: 0 = off 1 = on	UInt8							
	[extension] Tracks the lifecycle of the metering installation at a				NO MAPPING				
	usage point with respect to readiness for billing via advanced	AmiBillingReadyKin						ļ	
	metering infrastructure reads.	d							
	Usage point is equipped with an AMI capable meter that is not							ļ	
	yet currently equipped with a communications module.		amiCapable						
i l								ļ	
	Usage point is equipped with an AMI capable meter; however,		:D:					ļ	
	the AMI functionality has been disabled or is not being used.		amiDisabled						
	Usage point is equipped with an operating AMI capable meter and accuracy has been certified for billing purposes.		billingApproved					ļ	
	Usage point is equipped with an AMI capable meter having		DillingApproved				+	-	
	communications capability		enabled					ļ	
	Usage point is equipped with a non AMI capable meter.		nonAmi				+		
	Usage point is equipped with a non-Airi capable meter.		nonMetered				+	<del>                                     </del>	
	Usage point is equipped with an AMI capable meter that is						+		
	functioning and communicating with the AMI network.		operable					ļ	
	[extension] True if as a result of an inspection or otherwise,				NO MAPPING		+		
	there is a reason to suspect that a previous billing may have							ļ	
	been performed with erroneous data. Value should be reset							ļ	
checkBilling	once this potential discrepancy has been resolved	boolean						ļ	
	[extension] State of the usage point with respect to connection	UsagePointConnec			NO MAPPING				
	to the network. <td>tedKind</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	tedKind							
	The usage point is connected to the network and able to							ļ	
	receive or send the applicable commodity (electricity, gas,							ļ	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	water, etc.).		connected						
<b>l</b> .								ļ	
	The usage point has been disconnected through operation of a							ļ	
	disconnect function within the meter present at the usage							ļ	
	point. The usage point is unable to receive or send the							ļ	
	applicable commodity (electricity, gas, water, etc.) A logical disconnect can often be achieved without utilising a field crew		logicallyDisconnected					ļ	
	The usage point has been disconnected from the network at a		logicallyDisconflected				+		
	point upstream of the meter. The usage point is unable to							ļ	
	receive or send the applicable commodity (electricity, gas,							ļ	
	water, etc.). A physical disconnect is often achieved by utilising							ļ	
	a field crew.		physicallyDisconnected					ļ	
		SummaryMeasure			Estimated Connected Load	Derivation Method="Estimated"	1		
estimatedLoad [	[extension] Estimated load.	ment			Capacity		<u> </u>		
						Capacity Qualifier="Connected load"			
						Capacity=[value]			
		boolean			NO MAPPING				
	[extension] If true, this usage point is a service delivery point,			1	NO MAPPING				
	i.e., a usage point where the ownership of the service changes			1					
	hands.	boolean		-			+		
	extension] If true, this usage point is virtual, i.e., no physical				NO MAPPING		1		
	location exists in the network where a meter could be located			1			1		
	to collect the meter readings. For example, one may define a			1			1		
	virtual usage point to serve as an aggregation of usage for all			1			1		
	of a company's premises distributed widely across the distribution territory. Otherwise, the usage point is physical,			1			1		
	i.e., there is a logical point in the network where a meter could			1			1		
	be located to collect meter readings	boolean		1			1		
	[extension] If true, minimal or zero usage is expected at this				NO MAPPING		+	<del>                                     </del>	
	usage point for situations such as premises vacancy, logical or			1			1		
	physical disconnect. It is used for readings validation and			1			1		
	estimation.	boolean		1			1		
<del></del>		SummaryMeasure			Nominal Voltage Capacity	Capacity Qualifier="Nominal voltage"	1		
( I	Į.	Julilliai yivicasai c			Norminal voltage Capacity	capacity Qualifici - Northinal Voltage			
nominalServiceVoltage [	[extension] Nominal service voltage.	ment			Normal voltage capacity	Capacity Qualifier - Normal Voltage			

Green Button Field	Green Button Definition	Green Button Data	Green Button List Value	Green Button	BEDES Term	BEDES Mapping	BEDES Units	Unit Conversion	Notes
Green Button Freid	Creen Button Bermitton	Туре	Green Button List Value	Units	NO MAPPING		DEDES OTHES	Offic Conversion	Hotes
outageRegion	[extension] Outage region in which this usage point is located.	String256			NO MAPPING				
	[extension] Phase code. Number of wires and specific nominal	, and the second			Phase	Phase=[value]			
	phases can be deduced from enumeration literal values. For								
	example, ABCN is three-phase, four-wire, s12n (splitSecondary12N) is single-phase, three-wire, and s1n and								BEDES: Phase may not match
phaseCode	s2n are single-phase, two-wire.	PhaseCodeKind							Greenbutton list options
		SummaryMeasure			Current Power Metric Value	Power Metric="Current"			
ratedCurrent	deliver.	ment				Power Metric Value=[value]			
	[extension] Active power that this usage point is configured to	SummaryMeasure			Rated Power Consumption Rate	Consumption Rate Type="Rated power"			
ratedPower	deliver.	ment				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
						Consumption Rate=[value]			
	[extension] Cycle day on which the meter for this usage point				NO MAPPING				
readCycle	will normally be read. Usually correlated with the billing cycle.	String256							
,	[extension] Identifier of the route to which this usage point is				NO MAPPING				
	assigned for purposes of meter reading. Typically used to								
readRoute	configure hand held meter reading systems prior to collection of reads.	String256							
readnotte	[extension] Remarks about this usage point, for example the	String250			NO MAPPING				
serviceDeliveryRemark	reason for it being rated with a non-nominal priority.	String256							
	[extension] Priority of service for this usage point. Note that				NO MAPPING				
servicePriority	usage points at the same service location can have different priorities.	String32							
Services Hority	promess	50.111552			NO MAPPING				
	[extension] A single electrical system Node or subset of Nodes								
	where a physical injection or withdrawal of electricity is modeled and for which a Locational Marginal Price is								
pNode		String256							
priode	[extension] A sequence of references to AggregateNodes. An	String250			NO MAPPING				
	aggregated node can define a typed grouping further defined								
	by the AnodeType enumeratuion. Types range from System								
aggregateNodes	Zone/Regions to Market Energy Regions to Aggregated Loads and Aggregated Generators	AggregateNodes							
anodeType	Type of aggregated node	AnodeType			NO MAPPING				
	System Zone/Region		SYS						
	RUC Zone		RUC						
	Load Forecast Zone Market Energy/Ancillary Service Region		LFZ REG						
	Aggregate Generation Resource		AGR						
	Point of Delivery		POD						
	Aggregate Load Resource		ALR						
	Load TransmissionAccessCharge (TAC) Grou Adjacent Control Area		LTAC ACA						
	Aggregated System Resource		ASR						
	Embedded Control Area		ECA						
aggregateNodeRef		String256			NO MAPPING				
	A summary of power quality events. This information represents a summary of power quality information typically								
	required by customer facility energy management systems. It is								
	not intended to satisfy the detailed requirements of power								
	quality monitoring. All values are as defined by								
	measurementProtocol during the period. The standards								
	typically also give ranges of allowed values; the information attributes are the raw measurements, not the "yes/no―								
	determination by the various standards. See referenced								
ElectricPowerQualitySummary	standards for definition, measurement protocol and period.								
	A measurement of long term Rapid Voltage Change in				Power line flicker long term pst	Power Metric="Power line flicker long			
flickerPlt	hundredths of a Volt. flickerPlt is derived from 2 hours of Pst values (12 values combined in cubic relationship).	Int48			Power Metric Value	term pst"			
menell It	Tables (12 values combined in cubic relationship).					Power Metric Value=[value]			
	flickerPst is a value measured over 10 minutes that				Power line flicker short term pst	Power Metric="Power line flicker short			
	characterizes the likelihood that the voltage fluctuations would				Power Metric Value	term pst"			
	result in perceptible light flicker. A value of 1.0 is designed to	1							
	represent the level that EOV of people would person in finite in								
	represent the level that 50% of people would perceive flicker in a 60 watt incandescent bulb. The value reported is								

						BEDES Mapping			
Green Button Field	Green Button Definition	Green Button Data Type	Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	<b>BEDES Units</b>	Unit Conversion	Notes
		21				Power Metric Value=[value]			
	A measurement of the Harmonic Voltage during the period.				Harmonic voltage Power Metric	Power Metric="Harmonic voltage"			
harmonicVoltage	For DC, distortion is with respect to a signal of zero Hz.	Int48			Value	_			
						Power Metric Value=[value]			
	A count of Long Interruption events (as defined by				Long interruptions Power Metric	Power Metric="Long interruptions"			
longInterruptions	measurementProtocol) during the summary interval period.	Int48			Value				
	A					Power Metric Value=[value]			
mainsVoltage	A measurement of the Mains [Signaling] Voltage during the summary interval period in uV.	Int48			Mains voltage Power Metric Value	Power Metric="Mains voltage"			
manisvoitage	summary interval period in dv.	111140			value	Power Metric Value=[value]			
	A reference to the source standard used as the measurement				NO MAPPING	rower Wetric Value-[value]			
	protocol definition. Examples are: 0 = "IEEE1519-2009‶								
measurementProtocol	= "EN50160―	UInt8							
	A measurement of the power frequency during the summary				Power frequency Power Metric	Power Metric="Power Frequency"	micro Hz		
powerFrequency	interval period in uHz.	Int48			Value				
						Power Metric Value=[value]			
	A count of Rapid Voltage Change events during the summary				Rapid voltage changes Power	Power Metric="Rapid voltage changes"			
rapidVoltageChanges	interval period	Int48			Metric Value				
						Power Metric Value=[value]			
	A count of Short Interruption events during the summary	1-+40				Power Metric="Short interruptions"			
shortInterruptions	interval period	Int48			Value	Danier Martin Malura (calura)			
	Interval of summary period.Duration of the interval, in	Int			Summary Interval Duration	Power Metric Value=[value]  Power Metric="Summary interval"			
summaryInterval.duration	seconds.	IIIC		5	Summary interval Duration	Power Metric - Summary Interval			
Summary meet valuation	Seconds.					Interval Duration=[value]			
	Interval of summary period.Date and time that this interval	Time Stamp			Summary Interval Start Date	Power Metric="Summary interval"			
summaryInterval.start	started				,	, , , , , , , , , , , , , , , , , , , ,			
						Interval Start Date=[value]			
	A count of Supply Voltage Dip events during the summary				Supply voltage dips Power Metric	Power Metric="Supply voltage dips"			
supplyVoltageDips	interval period	Int48			Value				
						Power Metric Value=[value]			
	A count of Supply Voltage Imbalance events during the				Supply voltage imbalance Power	Power Metric="Supply voltage imbalance"			
supplyVoltageImbalance	summary interval period	Int48			Metric Value				
	A				6 1 11 8	Power Metric Value=[value]			
supplyVoltageVariations	A count of Supply Voltage Variations during the summary interval period	Int48			Supply voltage variations Power Metric Value	Power Metric="Supply voltage variations"			
supplyvoltagevariations	interval period	111140			Metric value	Power Metric Value=[value]			
	A count of Temporary Overvoltage events (as defined by				Temporary over voltage Power	Power Metric="Temporary over voltage"			
tempOvervoltage	measurementProtocol) during the summary interval period	Int48			Metric Value	, , , , , , , , , , , , , , , , , , , ,			
						Power Metric Value=[value]			
ElectricPowerUsageSummary	[deprecated] Summary of usage for a billing period								
UsageSummary	[extension] Summary of usage for a billing period				,				
	The billing period to which the included measurements apply.				Current billing period Interval	Temporal Status="Current billing period"			
1.00	May also be an off-bill arbitrary period. Duration of the				Duration				
billingPeriod.duration	interval, in seconds.	Int		S					
	The billing period to which the included measurements apply.				Current billing period Interval	Interval Duration=[value] Temporal Status="Current billing period"			
	May also be an off-bill arbitrary period. Date and time that this				Start Date	remporar status – current billing period			
billingPeriod.start	interval started	Time Stamp							
		r				Interval Start Date=[value]			
	The amount of the bill for the referenced billingPeriod in				Last billing period Resource Cost	Temporal Status="Last billing period"			
1	hundred-thousandths of the currency specified in the								
billLastPeriod	ReadingType for this reading (e.g., 840 = USD, US dollar).	Int48							
						Resource Cost=[value]	\$		
	If the summary contains data from a current period beyond				Billed to date Resource Cost	Temporal Status="Billed to date"			
	the end of the referenced billingPeriod, the bill amount as of								
	the date the summary is generated, in hundred-thousandths of the currency specified in the ReadingType for this reading.								
billToDate	(e.g., 840 = USD, US dollar).	Int48							
Simosate	(c.g., 0.10 055, 05 dollar).					Resource Cost=[value]	Ś		
	Additional charges from the for the referenced billingPeriod, in				Additional to last billing period	Temporal Status="Additional to last billing	T		
	hundred-thousandths of the currency specified in the				Resource Cost	period"			
costAdditionalLastPeriod	ReadingType for this reading. (e.g., 840 = USD, US dollar).	Int48							
						Resource Cost=[value]	\$		
					NO MAPPING				
	[extension] Additional charges from the for the referenced								
costAdditionalDetailLastPeriod	billingPeriod which in total add up to costAdditionalLastPeriod.	LineItem		<u> </u>		1			

		Green Button Data		Green Button		BEDES Mapping			
Green Button Field	Green Button Definition	Туре	Green Button List Value	Units	BEDES Term	3	BEDES Units	Unit Conversion	Notes
	The ISO 4217 code indicating the currency applicable to the bill								
currency	amounts in the summary.	Currency	840 - USD		NO MAPPING				
			978 - EUR						
			36 - AUD						
			124 - CAD						
			756 - CHF						
			156 - CNY 208 - DKK						
			826 - GBP						
			392 - JPY						
			578 - NOK						
			643 - RUB						
			752 - SEK						
			356 - INR 0 - other						
overallConsumptionLastPeriod.po	[extension] The amount of energy consumed in the Ifor the	PowerOfTenMultip	0 - Otilei		NO MAPPING				
werOfTenMultiplier	referenced billingPeriod. The multiplier part of the unit of measure, e.g. "kilo" (k)	lierType							
overallConsumptionLastPeriod.tim eStamp	[extension] The amount of energy consumed in the lfor the referenced billingPeriod. The date and time (if needed) of the summary measurement.	TimeType			Last billing period Summary Interval Start Date	Temporal Status=" Last billing period"			
						Power Metric="Summary interval"			
						Interval Start Date=[value]			
overallConsumptionLastPeriod.uo m	[extension] The amount of energy consumed in the Ifor the referenced billingPeriod. The units of the reading, e.g. "Wh"	Int			Last billing period Summary interval Unit of Measure	Temporal Status=" Last billing period"			
						Power Metric="Summary interval"			ess to the state of
						Unit of Measure=[value]			SEE [ReadingType.uom] for list of unit mapping
overallConsumptionLastPeriod.val	[extension] The amount of energy consumed in the Ifor the	Int			Last billing period Summary	Temporal Status=" Last billing period"			ини тарринд
ue	referenced billingPeriod. The total consumption for the billing period. The value of the summary measurement.				interval Total Resource Value				
						Power Metric="Summary interval"			
						Interval Measure="Total"			
						Resource Value=[value]			
overallConsumptionLastPeriod.rea	[extension] The amount of energy consumed in the Ifor the referenced billingPeriod. [extension] Reference to a full				NO MAPPING				
dingTypeRef	ReadingType.	xs:anyURI							
currentBillingPeriodOverAllConsu	The total consumption for the billing period. The multiplier	PowerOfTenMultip			NO MAPPING				
mption.powerOfTenMultiplier	part of the unit of measure, e.g. "kilo" (k)	lierType							
currentBillingPeriodOverAllConsu mption.timeStamp	The total consumption for the billing period. The date and time (if needed) of the summary measurement.	TimeType			Current billing period Summary Interval Start Date	Temporal Status="Current billing period"			
inpuon.timestamp	tine (ii needed) or the summary measurement.				interval start bate	Power Metric="Summary interval"			
						Interval Start Date=[value]			
currentBillingPeriodOverAllConsu	The total consumption for the billing period. The units of the	Int			Current billing period Summary	Temporal Status="Current billing period"			
mption.uom	reading, e.g. "Wh"				interval Unit of Measure				
						Power Metric="Summary interval" Unit of Measure=[value]			SEE [ReadingType.uom] for list of
						onit or ivieasure-[value]			unit mapping
currentBillingPeriodOverAllConsu	The total consumption for the billing period. The value of the	Int			Current billing period Summary	Temporal Status="Current billing period"			
mption.value	summary measurement.				interval Total Resource Value				
						Power Metric="Summary interval"			
						Interval Measure="Total"			
	If the summary contains data from a current period beyond				NO MAPPING	Resource Value=[value]			
	the end of the referenced billingPeriod, the total consumption				ING WAFFING				
currentBillingPeriodOverAllConsu	for the billing period. [extension] Reference to a full								
mption.readingTypeRef	ReadingType.	xs:anyURI							
currentDayLastYearNetConsumpti on.powerOfTenMultiplier	The amount of energy consumed one year ago interpreted as same day of week same week of year (see ISO 8601). The multiplier part of the unit of measure, e.g. "kilo" (k)	PowerOfTenMultip lierType			NO MAPPING				
currentDayLastYearNetConsumpti	The amount of energy consumed one year ago interpreted as	TimeType			Current day last year Summary	Temporal Status="Current day last year"			
on.timeStamp	same day of week same week of year (see ISO 8601). The date and time (if needed) of the summary measurement.	типетуре			Interval Start Date	remporar status— current day last year			
						Dougs Matric-"Cummany intervall			
						Power Metric="Summary interval"  Interval Start Date=[value]			
	l .	L	l .	<u> </u>	I	Interval start pate-(Adine)		I .	I .

Green Button Field	Green Button Definition	Green Button Data Type	Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	BEDES Units	Unit Conversion	Notes
		Int			Current day last year Summary interval Unit of Measure	Temporal Status="Current day last year"			
on.uom	The amount of energy consumed one year ago interpreted as same day of week same week of year (see ISO 8601). The units of the reading, e.g. "Wh"					Power Metric="Summary interval"			
	or the reading, e.g. will					Unit of Measure=[value]			SEE [ReadingType.uom] for list of unit mapping
on.value s	The amount of energy consumed one year ago interpreted as same day of week same week of year (see ISO 8601). The value of the summary measurement.	Int			Current day last year Summary interval Net Resource Value	Temporal Status="Current day last year"			
i	or the summary measurement.					Power Metric="Summary interval"			
						Resource Boundary="Net"			
						Resource Value=[value]			
on.readingTypeRef s	The amount of energy consumed one year ago interpreted as same day of week same week of year (see ISO 8601).  [extension] Reference to a full ReadingType.	xs:anyURI			NO MAPPING				
rentDayNetConsumption.powe Net consumption for the current day (delivered - received). The multiplier part of the unit of measure, e.g. "kilo" (k)	PowerOfTenMultip lierType			NO MAPPING					
	Net consumption for the current day (delivered - received). The date and time (if needed) of the summary measurement.	TimeType			Current day Summary Interval Start Date	Temporal Status="Current day"			
						Power Metric="Summary interval"			
						Interval Start Date=[value]			
	Net consumption for the current day (delivered - received). The units of the reading, e.g. "Wh"	Int			Current day Summary interval Unit of Measure	Temporal Status="Current day"			
						Power Metric="Summary interval"			
						Unit of Measure=[value]			SEE [ReadingType.uom] for list of unit mapping
	Net consumption for the current day (delivered - received). The value of the summary measurement.	Int			Current day Summary interval Net Resource Value	Temporal Status="Current day"			
	·					Power Metric="Summary interval"			
						Resource Boundary="Net"			
						Resource Value=[value]	1		
ngTypeRef [	Net consumption for the current day (delivered - received). [extension] Reference to a full ReadingType.	xs:anyURI			NO MAPPING				
	Overall energy consumption for the current day. The multiplier part of the unit of measure, e.g. "kilo" (k)	PowerOfTenMultip lierType			NO MAPPING				
	Overall energy consumption for the current day. The date and time (if needed) of the summary measurement.	TimeType			Current day Summary Interval Start Date	Temporal Status="Current day"			
						Power Metric="Summary interval"			
						Interval Start Date= [value]			
	Overall energy consumption for the current day. The units of the reading, e.g. "Wh"	Int			Current day Summary interval Unit of Measure	Temporal Status="Current day"			
						Power Metric="Summary interval"			
						Unit of Measure=[value]			SEE [ReadingType.uom] for list of unit mapping
	Overall energy consumption for the current day. The value of the summary measurement.	Int			Current day Summary interval Total Resource Value	Temporal Status="Current day"			
						Power Metric="Summary interval"			
<u> </u>				ļ		Interval Measure="Total"			
	Peak demand recorded for the current period. The multiplier	PowerOfTenMultip			NO MAPPING	Resource Value=[value]			
peakDemand.timeStamp	part of the unit of measure, e.g. "kilo" (k)  Peak demand recorded for the current period. The date and	lierType TimeType			Demand Summary Interval Start	Interval Measure="Demand"			
	time (if needed) of the summary measurement.			<del> </del>	Date	Power Metric="Summary interval"	1	-	
· · · · · · · · · · · · · · · · · · ·				1		Interval Start Date=Date of [value]	1	<del> </del>	
peakDemand.uom [	Peak demand recorded for the current period. The units of the reading, e.g. "Wh"	Int			Demand Summary interval Unit of Measure	Interval Measure="Demand"			
<del>,                                    </del>	reading, e.g. Will			<b> </b>	OT INICASUIC	Power Metric="Summary interval"		<u> </u>	
						Unit of Measure=[value]			SEE [ReadingType.uom] for list of unit mapping
	Peak demand recorded for the current period. The value of the summary measurement.	Int			Demand Summary interval Resource Value	Interval Measure="Demand"			anc mapping
		1		1	rvezonice value	II .	1		1
1	summary measurement.					Power Metric="Summary interval"			

Green Button Field	Green Button Definition	Green Button Data Type	Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	BEDES Units	Unit Conversion	Notes
previousDayLastYearOverallConsu	The amount of energy consumed on the previous day one year	PowerOfTenMultip			NO MAPPING				
mption.powerOfTenMultiplier	ago interpreted as same day of week same week of year (see	lierType							
	ISO 8601). The multiplier part of the unit of measure, e.g. "kilo" (k)								
previous Day Last Year Overall Consu	The amount of energy consumed on the previous day one year	TimeType			Previous day last year Summary	Temporal Status="Previous day last year"			
mption.timeStamp	ago interpreted as same day of week same week of year (see				Interval Start Date				
	ISO 8601). The date and time (if needed) of the summary								
	measurement.								
						Power Metric="Summary interval"			
						Interval Start Date=[value]			
previous DayLast Year Overall Consu	The amount of energy consumed on the previous day one year	Int			Previous day last year Summary	Temporal Status="Previous day last year"			
mption.uom	ago interpreted as same day of week same week of year (see ISO 8601). The units of the reading, e.g. "Wh"				interval Unit of Measure				
						Power Metric="Summary interval"			
						Unit of Measure=[value]			SEE [ReadingType.uom] for list of
									unit mapping
'	The amount of energy consumed on the previous day one year	Int			Previous day last year Summary	Temporal Status="Previous day last year"			
mption.value	ago interpreted as same day of week same week of year (see				interval Total Resource Value				
	ISO 8601). The value of the summary measurement.								
				1		Power Matric-"Cumman inten-"			
				1		Power Metric="Summary interval" Interval Measure="Total"			
				1		Resource Value=[value]			
previous DayNetConsumption.pow	Net consumption for the previous day. The multiplier part of	PowerOfTenMultip			NO MAPPING	Nesource value-[value]			
erOfTenMultiplier	the unit of measure, e.g. "kilo" (k)	lierType			NO MALTING				
previousDayNetConsumption.time	Net consumption for the previous day. The date and time (if	TimeType			Previous day Summary Interval	Temporal Status="Previous day"			
Stamp	needed) of the summary measurement.				Start Date	, , , , , , , , , , , , , , , , , , , ,			
, , , , , , , , , , , , , , , , , , ,	,					Power Metric="Summary interval"			
						Interval Start Date=[value]			
previousDayNetConsumption.uom	Net consumption for the previous day. The units of the	Int			Previous day Summary interval	Temporal Status="Previous day"			
	reading, e.g. "Wh"				Unit of Measure				
						Power Metric="Summary interval"			
						Unit of Measure=[value]			SEE [ReadingType.uom] for list of
									unit mapping
previous DayNetConsumption.valu	Net consumption for the previous day. The value of the	Int			Previous day Summary interval	Temporal Status="Previous day"			
e	summary measurement.				Net Resource Value				
						Power Metric="Summary interval"			
						Resource Boundary="Net"  Resource Value=[value]			
provious Day Overall Consumption p	The total consumption for the previous day. The multiplier part	DowerOfTenMultin			NO MAPPING	Resource value=[value]			
owerOfTenMultiplier	of the unit of measure, e.g. "kilo" (k)	lierType			NO WAFFING				
	The total consumption for the previous day. The date and	TimeType			Previous day Summary Interval	Temporal Status="Previous day"			
meStamp	time (if needed) of the summary measurement.	типстурс			Start Date	Temporar status Trevious day			
	(					Power Metric="Summary interval"			
						Interval Start Date=[value]			
previousDayOverallConsumption.u	The total consumption for the previous day. The units of the	Int			Previous day Summary interval	Temporal Status="Previous day"			
om	reading, e.g. "Wh"				Unit of Measure				
						Power Metric="Summary interval"			
						Unit of Measure=[value]			SEE [ReadingType.uom] for list of
									unit mapping
previousDayOverallConsumption.v	The total consumption for the previous day. The value of the	Int			Previous day Summary interval	Temporal Status="Previous day"			
alue	summary measurement.				Total Resource Value	D 24.1. NO 11.			
<u> </u>				1		Power Metric="Summary interval"			
				+		Interval Measure="Total"  Resource Value=[value]	1		
				1	Quality	nesource value-[value]			BEDES constrained list values do
					Quality				not match all GreenButton values
qualityOfReading	Indication of the quality of the summary readings	QualityOfReading							as noted below
.,			0 - valid		Valid	Quality="Valid"			
			7 - manually edited		Manually edited	Quality="Manually edited"			
			8 - estimated using		NO MAPPING	, , , , , , , , , , , , , , , , , , , ,			
			reference day						
			9 - estimated using linear		NO MAPPING				
			interpolation						
			10 - questionable		Questionable	Quality="Questionable"			
			11 - derived		NO MAPPING				
			12 - projected (forecast)		Projected	Quality="Projected"			
I			13 - mixed		Mixed	Quality="Mixed"			

Green Button Field	Green Button Definition	Green Button Data Type	Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	BEDES Units	Unit Conversion	Notes
			14 - raw		Raw	Quality="Raw"	1		
			15 - normalized for		NO MAPPING	,			
			weather						
			16 - other		Other	Quality="Other"			
			17 - validated		Validated	Quality="Validated"			
			18 - verified		Verified	Quality="Verified"			
			19 - revenue-quality		NO MAPPING				
ratchet Demand. power Of Ten Multi plier	The current ratchet demand value for the ratchet demand period. The multiplier part of the unit of measure, e.g. "kilo" (k)	PowerOfTenMultip lierType			NO MAPPING				
ratchetDemand.timeStamp	The current ratchet demand value for the ratchet demand period. The date and time (if needed) of the summary measurement.	TimeType			Ratchet demand Summary Interval Start Date	Interval Measure="Ratchet demand"			
						Power Metric="Summary interval"			
						Interval Start Date=[value]			
ratchetDemand.uom	The current ratchet demand value for the ratchet demand period. The units of the reading, e.g. "Wh"	Int			Ratchet demand Summary interval Unit of Measure	Interval Measure="Ratchet demand"			
						Power Metric="Summary interval"			
						Unit of Measure=[value]			SEE [ReadingType.uom] for list of unit mapping
ratchetDemand.value	The current ratchet demand value for the ratchet demand	Int			Ratchet demand Summary interval Resource Value	Interval Measure="Ratchet demand"			
	period. The value of the summary measurement.				interval Resource Value	Power Metric="Summary interval"	+		
						Resource Value=[value]	+		
ratchetDemandPeriod.duration	The period over which the ratchet demand applies. Duration of	Int			Ratchet demand Interval	Interval Measure="Ratchet demand"			
Total Choulder action	the interval, in seconds.				Duration				
						Interval Duration=[value]			
ratchet Demand Period. start	The period over which the ratchet demand applies. Date and time that this interval started	Time Stamp			Ratchet Demand Interval Start Date	Interval Measure="Ratchet demand"			
						Interval Start Date=[value]			
statusTimeStamp	Date/Time status of this UsageSummary	TimeType			Summary Interval Start Date	Power Metric="Summary Interval"			
						Interval Start Date=[value]			
commodity	[extension] The commodity for this summary report	CommodityKind			Resource				BEDES constrained list values do not match all GreenButton values as noted below
· · · · · · · · · · · · · · · · · · ·	, , ,	,	0 - none		None	Resource="None"			
			1 - electricity		Electricity Secondary	Resource="Electricity"			
			SecondaryMetered			Driarity = "Cocondany"			
			2 - electricity		Electricity Primary	Priority="Secondary"  Resource="Electricity"			
			PrimaryMetered		Liectricity Frimary	-			
						Priority="Primary"			
			3 - communication		NO MAPPING				
			4 - air		NO MAPPING				
			5 - insulativeGas 6 - insulativeOil		NO MAPPING		-		
			7 - naturalGas		NO MAPPING	Deserved Uhletwel Cool			
			8 - propane		Natural Gas Propane	Resource="Natural Gas"  Resource="Propane"			
			9 - potableWater		Potable water	Resource="Potable water"			
			10 - steam		Distric steam	Resource="Distric steam"			
			11 - wasteWater		Wastewater	Resource="Wastewater"			
			12 - heatingFluid		NO MAPPING				
			13 - coolingFluid		NO MAPPING				
			14 - nonpotableWater		Alternative water				
			15 - nox		NO MAPPING				
			16 - so2		NO MAPPING				
			17 - ch4		CH4	Emission Gas Type="CH4"			
			18 - co2		CO2	Emission Gas Type="CO2"			
		-	19 - carbon		NO MAPPING		1		1
		<del>                                     </del>	20 - hch 21 - pfc	<del>                                     </del>	NO MAPPING NO MAPPING		_		
		-	21 - prc 22 - sf6	-			+		
			23 - tvLicence		NO MAPPING NO MAPPING		1		
		<u> </u>	24 - internet		NO MAPPING				
		1		1	···· AICH I HTG	_			1
			25 - refuse		NO MAPPING				
	[extension] A schedule of charges; structure associated with Tariff that allows the definition of complex tariff structures		25 - refuse		NO MAPPING Rate Structure Reference	Rate Structure Reference=[value]			

		Green Button Data		Green Button		BEDES Mapping			
Green Button Field	Green Button Definition	Type	Green Button List Value	Units	BEDES Term		BEDES Units	Unit Conversion	Notes
					NO MAPPING				
	[extension] Cycle day on which the meter for this usage point								
readCycle	will normally be read. Usually correlated with the billing cycle. [extension] Contains attributes related to the configuration of	String256		1			1	1	
TimeConfiguration	the time service.								
	Rule to calculate end of daylight savings time in the current				NO MAPPING				
	year. Result of dstEndRule must be greater than result of								
	dstStartRule. [extension] Bit map encoded rule from which is								
dstEndRule	calculated the start or end time, within the current year, to which daylight savings time offset must be applied.	DstRuleType							
dstOffset	Daylight savings time offset from local standard time.	TimeType			NO MAPPING				
	Rule to calculate start of daylight savings time in the current	- 71-			NO MAPPING				
	year. Result of dstEndRule must be greater than result of								
dstStartRule	dstStartRule.	DstRuleType							
tzOffset	Local time zone offset from UTCTime. Does not include any daylight savings time offsets.	TimeType			NO MAPPING				
ProgramIdMappings	[extension] list of programIDmappings	Гинетуре		1	1		1		1
	single program id mapping								
tOUorCPPorConsumptionTier	kind of code				Rate Structure				
			tou			Rate Structure="Time of use rate"			
			cpp consumptiontier		NO MAPPING	Rate Structure="Critical peak pricing"	1	1	
code	code numeric value		consumptiontier		Rate Structure ID	Rate Structure ID=[value]			
name	name associated with code				Rate Structure Name	Rate Structure Name=[value]			
note	optional description of code				NO MAPPING				
	Interval of date and time. End is not included because it can be								
	derived from the start and the duration.	UInt32	I	I_	lu is ii	h. 18 1.1			1
duration start	[correction] Duration of the interval, in seconds. [correction] Date and time that this interval started.	TimeType		S	Interval Duration Interval Start Date	Interval Duration=[value] Interval Start Date=[value]	S		
	An aggregated summary measurement reading.	Гинетуре		1	interval start bate	interval Start Date-[value]	1		1
	The multiplier part of the unit of measure, e.g. "kilo‶k)	UnitMultiplierKind			NO MAPPING				
					Summary Interval Interval Start	Power Metric="Summary Interval"			
timeStamp	The date and time (if needed) of the summary measurement.	TimeType			Date				
					Unit Of Measure	Interval Start Date=[value] Unit of Measure=[value]			SEE [ReadingType.uom] for list of
uom	The units of the reading, e.g. "Wh―	UnitSymbolKind			Offic Of Measure	Offic of Measure-[Value]			unit mapping
value	The value of the summary measurement.	Int48			Resource Value	Resource Value=[value]			
readingTypeRef	[extension] Reference to a full ReadingType.	xs:anyURI			NO MAPPING				
Object	Superclass of all object classes to allow extensions.	l	I	1	luo suspenio			1	1
extension ServiceStatus	Contains an extension.  Contains the current status of the service.	xs:anyType		1	NO MAPPING		1		l
currentStatus	The current status of the service.	ESPIServiceStatus		1	Installation Status		1	l	
			0 - Unavailable		mstanation status	Installation Status="Unavailable"			
			1 - Normal			Installation Status="Ready"			
. IT. D	[extension] Contains attributes related to the configuration of								
LocalTimeParameters	the time service.  Rule to calculate end of daylight savings time in the current	ı			NO MAPPING		1	I	
	year. Result of dstEndRule must be greater than result of				INO IVIAPPING				
dstEndRule	dstStartRule.	DstRuleType							
dstOffset	Daylight savings time offset from local standard time.	TimeType			NO MAPPING				
	Rule to calculate start of daylight savings time in the current				NO MAPPING				
detCtartDula	year. Result of dstEndRule must be greater than result of dstStartRule.	DetBulaTuna							
dstStartRule	Local time zone offset from UTCTime. Does not include any	DstRuleType			NO MAPPING		+		
tzOffset	daylight savings time offsets.	TimeType							
	[extension] List of resource URIs that can be used to GET ESPI								•
BatchList	resources	1						1	1
resources		xs:anyURI			NO MAPPING		1		
	[extension] Interharmonics are represented as a rational number 'numerator' / 'denominator', and harmonics are								
Readinglaterharmonic	represented using the same mechanism and identified by								
ReadingInterharmonic numerator	'denominator'=1.	xs:integer			NO MAPPING		1	I	
denominator		AJ.IIILEGE!			NO MAPPING NO MAPPING		+	1	
RationalNumber	[extension] Rational number = 'numerator' / 'denominator'.	1	I	1	1		1		1
numerator		xs:integer			NO MAPPING				
denominator					NO MAPPING				
ServiceCategory	Category of service provided to the customer.								

Green Button Field	Green Button Definition	Green Button Data Type	Green Button List Value	Green Button Units	BEDES Term	BEDES Mapping	BEDES Units	Unit Conversion	Notes
	Service classification Examples are: 0 - electricity 1 - gas The list of specific valid values per the standard are itemized in				Resource				BEDES constrained list values do not match all GreenButton values
kind	ServiceKind.	ServiceKind							as noted below
			0 - electricity		Electricity	Resource="Electricity"			
			1 - gas		Natural gas	Resource="Natural gas"			
			2 - water		Water	Resource="Water"			
			3 - time		NO MAPPING				
			4 - heat		NO MAPPING				
			5 - refuse		NO MAPPING				
			6 - sewerage		NO MAPPING				
			7 - rates		NO MAPPING				
			8 - tvLicence		NO MAPPING				
			9 - internet		NO MAPPING				
ServiceDeliveryPoint	[extension] Service Delivery Point is representation of revenue UsagePoint attributes								
•	The name is any free human readable and possibly non unique				NO MAPPING		1		
name	text naming the object.	String256							
	A schedule of charges; structure associated with Tariff that				NO MAPPING				
	allows the definition of complex tariff structures such as step								
tariffProfile	and time of use.	String256							
	Agreement between the customer and the ServiceSupplier to				Customer Agreement Description	Contact Label="Customer agreement"			
	pay for service at a specific service location. It provides for the				Customer Agreement Description	contact taber = customer agreement			
	recording of certain billing information about the type of								
	service provided at the service location and is used during								
customerAgreement	charge creation to determine the type of service.	String256							
customeragreement	charge creation to determine the type of service.	3ti ilig230				Description=[value]	1		
LineItem	[extension] Line item of detail for additional cost	1		1		Description=[value]	1	1	
amount	Cost of line item.	Int48		T	Cost	Cost=[value]	1	1	
rounding	Rounded to nearest increment.	Int48		1	NO MAPPING	Cost-[value]	1		
dateTime	Significant date for line item.	TimeType			Date	Data finding			
note	Comment or description of line item.	String256			Description	Date=[value] Description=[value]			
note	Confinent of description of line item.	SummaryMeasure				Description=[value]			
	[+	ment			NO MAPPING				
measurement	[extension] relevant measurment for line item.	ment							
n we t	[extension] Classification of a line item i.e. usage charge,				NO MAPPING				
itemKind	taxes, etc.	ItemKind							
	Energy Generation Fee. A charge for generation of energy.	UInt16	1						
	Energy Delivery Fee. A charge for delivery of energy.		2	<u>'</u>					
	Energy Usage Fee. A charge for electricity, natural gas, water consumption		3	3					
	Administrative Fee. A fee for administrative services.		4	1					
	Tax. A local, state, or federal energy tax.			5					
	Energy Generation Credit. A credit, discount or rebate for								
	generation of energy.		6	5					
	Energy Delivery Credit. A credit, discount or rebate for delivery								
	of energy.		7	,					
	Administrative Credit. A credit, discount or rebate for								
	administrative services.		8	3					
	Payment. A payment for a previous billing.		Ç						
	Information. An informational line item.	<del> </del>	10				+		