

EDI 867 Implementation Guide

Meter Interval and Historical Usage Reporting Loida Mateo-Rivera

Document Revision Notes

Version	Date	Updated by	Revision Notes
1.0	12/01/2015	James Alberto	Initial draft
1.1	12/7/2015	Rachel Sadler	PTD05 Data Element: 127: removed verbiage "SDG&E will not use this code."
1.2	2/24/2016	Rachel Sadler	Added wording to MEA02 Notes: "The Multiplier value will be sent as a '1' in MEA03".
2.0	5/11/2016	Rachel Sadler	Consolidated electric and gas into one guide
2.1	7/15/2016	Rachel Sadler	Updated after review with Charles M.

867 Product Transfer and Resale Report

Best Practices

Global Best Practices

997 - Functional Acknowledgment

- The purpose of the 997 is to verify receipt of a transmitted document only, not the acceptance of the document. A 997 will NOT be returned to the sender per 867 transaction set.
- A 997 Functional Acknowledgment will NOT be used for confirming incoming and outgoing 867 Transaction Sets.

Interchange Control Number

 A unique and sequential interchange control number should be used on every envelope that is transmitted to a trading partner. This approach will allow the receiver to audit the interchange for any duplicate or missing transmissions.

Use of Dun & Bradstreet (DUNS) Number

 Dun & Bradstreet assigns a nine-digit identification number to every business entity. This number, known as the DUNS number, should be used to identify the trading partners.

Capitalization

The use of all upper case (capital) letters is mandatory.

Transaction Set File Level

- FILE LEVEL: SDG&E requires one transaction set type (i.e. 867) per file.
 In other words, a given file will contain a maximum of one transaction set type.
- FOLDER LEVEL: SDG&E requires one transaction set type (i.e. 867) per folder.

Valid Data

- SDG&E will reject all data that is not ANSI X12 compliant.
- SDG&E will ignore codes and related data content which can pass ANSI-X12 validation but are not explicitly stated in our 867 Implementation Guide.

Document-Specific Best Practices

Use of The PTD Segment

- The PTD loop conveys consumption information for one meter or register and for one commodity for metered service, over a number of metering intervals. Accounts that have multiple meters or registers require multiple PTD loops.
- SDG&E will not summarize the total consumption from multiple meters in a separate PTD loop as allowed in the 867 Transaction Set.
- Non-metered accounts will be identified by the use of the SU code in the PTD02 field.

Use of The QTY Loop

- For Interval data: Each QTY/DTM loop conveys consumption/usage information about one metering interval for the meter identified in the PTD/REF segment.
- For Monthly/Cumulative data: Each QTY/MEA/DTM loop conveys consumption (usage/reads) information about one metering interval for the meter identified in the PTD/REF segment.
- For Interval data: Each QTY/DTM(POS210) loop is required for each
 15 minute interval
- For Monthly/Cumulative data: MEA05 is optional. MEA06 is required. SDG&E will only use MEA06 to communicate ending reads. MEA05 will not be sent.

Use of The N1 Segment

 When you are a utility acting as a MDMA, you will identify yourself as both the MDMA (55) and the utility (8S). In addition, if you are the MDMA and the ESP, you will identify yourself as both the MDMA (55) and the ESP (SJ), otherwise provide a third party MDMA's Dun & Bradstreet Number.

General Use

• All items marked with this symbol (>>) are required.

867 Product Transfer and Resale Report

Functional Group ID=PT

Introduction:

This document contains the format and establishes the data contents of the Product Transfer and Resale Report Transaction Set (867) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to: (1) report information about product that has been transferred from one location to another; (2) report sales of product from one or more locations to an end customer; or (3) report sales of a product from one or more locations to an end customer, and demand beyond actual sales (lost orders). Report may be issued by either buyer or seller.

Heading:

Page No. 11	Pos. <u>No.</u> 010	Seg. <u>ID</u> ST	<u>Name</u> Transaction Set Header	Req. <u>Des.</u> M	Max.Use	Loop <u>Repeat</u>	Notes and Comments
12	020	BPT	Beginning Segment for Product Transfer and Resale	M	1		
			LOOP ID - N1			5	
14	080	N1	Name	О	1		
16	120	REF	Reference Identification	O	12		

Detail:

Page <u>No.</u>	Pos. <u>No.</u>	Seg. <u>ID</u>	<u>Name</u>	Req. <u>Des.</u>	<u>Max.Use</u>	Loop <u>Repeat</u>	Notes and Comments
			LOOP ID - PTD	_	_	>1	
17	010	PTD	Product Transfer and Resale Detail	M	1		
18	020	DTM	Date/Time Reference	O	10		
19	030	REF	Reference Identification	O	20		
			LOOP ID - QTY		_	>1	
21	110	QTY	Quantity	О	1		
22	160	MEA	Measurements	O	40		
24	210	DTM	Date/Time Reference	O	10		

Summary:

Page	Pos.	Seg.		Req.		Loop	Notes and
No.	No.	<u>ID</u>	<u>Name</u>	Des.	Max.Use	Repeat	Comments
25	030	SE	Transaction Set Trailer	M	1		

Segment: ST Transaction Set Header

Position: 010

Loop:

Level: Heading Usage: Mandatory

Max Use:

Purpose:

To indicate the start of a transaction set and to assign a control number

Syntax Notes: Semantic Notes:

1 The transaction set identifier (ST01) is used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).

Comments:

Notes:

>>	Ref. Des. ST01	Data Element 143	Name Transaction Set Identifier Code Code uniquely identifying a Transaction Set	Attributes M ID 3/3
			Product Transfer and Resale Report	
>>	ST02	329	Transaction Set Control Number Identifying control number that must be unique within the functional group assigned by the originator for a transaction	

	Segment:	BPT	Reginning Segme	nt for Product Transfer and Resale	
	Position:	020			
	Loop:	020			
	Level:	Heading			
	Usage:	Mandato	ry		
	Max Use:	1	•		
	Purpose:	To indica	ate the beginning of	the Product Transfer and Resale Report Tr	ansaction Set and
		transmit	identifying data		
	Syntax Notes:	1 D.D.T.	2011 46 4		
	Semantic Notes:		02 identifies the tran		
			03 identifies the tran		
			08 identifies the tran	necessary to reference a Previous Report	Number
	Comments:			eviously furnished information is being pr	
	Comments.			ta points have been corrected, only the co	
				, even if multiple meters were originally so	
				le is simply being reposted for download f	
				PT01 = 00 or CO does not need to be characteristic.	
	Notes:				
				-	
	D. C	D 4	Data Elen	nent Summary	
	Ref.	Data	NI		A 44
>>	<u>Des.</u> BPT01	Element 353	Name Transaction Set P	urnosa Cada	Attributes M ID 2/2
//	DF 101	333		urpose code urpose of transaction set	WI ID 2/2
				-	
			00	Original	
				Conveys original readings for the accreported.	count being
			07	Duplicate	
				Indicates that this is a retransmission	of previously
				furnished information. A resend.	
			52	Response to Historical Inquiry	
				Response to a request for historical met	er reading.
			CO	Corrected	
				Indicates that the readings previously	reported for the
n	DDT03	127	Defense Identif	account are being corrected.	O AN 1/20
R	BPT02	127	Reference Identif	tion as defined for a particular Transacti	O AN 1/30
				ference Identification Qualifier	on set of as
				on identification number, assigned by the	e originator
			Recommended for		ic originator.
>>	BPT03	373	Date	C. I.	M DT 8/8
			Date expressed as	CCYYMMDD	
			Date when the MD	MA record is created by the application (CCYYMMDD)
>>	BPT04	755	Report Type Cod	* **	O ID 2/2
	21101	700		e title or contents of a document, report or	-
			BR	Benchmark Test Results	
				Special Meter Reads	
			C1	Cost Data Summary	
				·· •	
				Interval values	
			C2	Interval values Functional Cost and Hour	

Cumulative values reported by time-of-use period

>> BPT08 337 Time O TM 4/8
Time when the MDMA record is created by the application (HHMM)

Segment: N1 Name

Position: 080

Loop: N1 Optional

Level: Heading

Usage: Optional (Must use)

Max Use:

Purpose: To identify a party by type of organization, name, and code **Syntax Notes:** 1 At least one of N102 or N103 is required.

At least one of N102 or N103 is required.
 If either N103 or N104 is present, then the other is required.

Semantic Notes: Comments:

- 1 This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
- 2 Three N1 segments will be used in California, with N101 = 55, 8S, and SJ, unless the values of N104 corresponding to N101 = 8S or SJ would duplicate the value corresponding to N101 = 55. The end-use customer's account numbers for the meter data management agent (N101 = 55), utility (N101 = 8S), and the energy service provider (N101 = SJ) must be placed in REF segments following these N1 segments, with REF01 = 10, 12, and 11, respectively.
- When N101 = 55 (Meter Data Management Agent), N106 = 41 (Submitter). When N101 = 8S (Utility) and SJ (Energy Service Provider), N106 = 40 (Receiver).

Notes:

>>	Ref. <u>Des.</u> N101	Data Element 1 98	Entity Identifier C	ode organizational entity, a physical location	Attributes M ID 2/3
			individual	organizational entity, a physical location	, property or an
			55	Service Manager	
				Person responsible for service department	
				Used to identify the party that manages rebehalf of another. Often referred to as the	
				Management Agent (MDMA).	
			8S	Consumer Service Provider (CSP)	
				Utility (LDC)	
			SJ	Service Provider	
				Identifies name and address information a service provider for which billing is be Energy Service Provider (ESP)	
>>	N103	66	Identification Code	e Qualifier	X ID 1/2
			Code designating th Code (67)	e system/method of code structure used f	for Identification
			1	D-U-N-S Number, Dun & Bradstreet	
>>	N104	67	Identification Code		X AN 2/80
			Code identifying a p	•	
>>	N106	98	Entity Identifier C		O ID 2/3
			Code identifying an individual	organizational entity, a physical location	, property or an
			40	Receiver	
				Entity to accept transmission	
				Entity receiving transaction set	
			41	Submitter	

Entity transmitting transaction set Entity transmitting transaction set Segment: REF Reference Identification

Position: 120

Loop: N1 Optional

Level: Heading

Usage: Optional (Must use)

Max Use: 12

Purpose: To specify identifying information

Syntax Notes: 1 At least one of REF02 or REF03 is required.

Semantic Notes: 1 REF04 contains data relating to the value cited in REF02.

Comments: 1 See Comments related to the N1 segment.

Notes:

	Ref.	Data			
	Des.	Element	<u>Name</u>		Attributes
>>	REF01	128	Reference Identific	ation Qualifier	M ID 2/3
			Code qualifying the	Reference Identification	
			06	System Number	
				A customer/commodity and location s	pecific identifier.
				SDG&E will not use this code.	
>>			10	Account Managers Code	
				Identifies the telecommunications man this account	nager assigned to
>>			11	Meter Data Management Agent (MD) account number for the end use custome Account Number	
//			11	Number identifies a telecommunication account	ons industry
				Energy Service Provider (ESP)-assign number for the end use customer.	ed account
>>			12	Billing Account Account number under which billing is	rendered
				Utility-assigned account number for the customer.	e end use
>>	REF02	127		ation on as defined for a particular Transaction erence Identification Qualifier	X AN 1/30 a Set or as

Segment: PTD Product Transfer and Resale Detail

Position: 010

Loop: PTD Mandatory

Level: Detail Usage: Mandatory

Max Use:

Purpose: To indicate the start of detail information relating to the transfer/resale of a product and

provide identifying data

Syntax Notes: Semantic Notes: Comments: 1 If either PTD04 or PTD05 is present, then the other is required.

1 The PTD loop conveys consumption information for one meter or register, and for one commodity for metered service, over a number of metering intervals. Accounts which have multiple meters or registers require multiple PTD loop; the total consumption from multiple meters may be summarized in another PTD loop, qualified by SU, at the option of the Meter Data Management Agent. Accounts which have multiple services (e.g., both electric and gas) or multiple metered commodities require separate PTD loops for each service or commodity. For unmetered service, multiple commodities may be reported in a single PTD loop.

Notes:

	Ref.	Data			
	Des.	Element	<u>Name</u>		<u>Attributes</u>
>>	PTD01	521	Product Trai	nsfer Type Code	M ID 2/2
			Code identify	ing the type of product transfer	
			PM	Physical Meter Information	
				Physical Meter Information, incl	uding data from a
				meter, totalizer, or recorder.	
			SU	Summary	
				Information provided is summarize	ed/totalized by
				account or by meter. Use of SU a	lso includes the
				reporting of unmetered service.	
>>	PTD04	128	Reference Ide	entification Qualifier	X ID 2/3
			Code qualifying	ng the Reference Identification	
			Code qualifying	ng the Reference Identification provided	in PTD05.
			OZ	Product Number	
>>	PTD05	127	Reference Ide	entification	X AN 1/30
			Reference info	ormation as defined for a particular Trans	action Set or as
			specified by the	he Reference Identification Qualifier	
			EL	Electric Service	
			GS	Gas Service	

Segment: **DTM** Date/Time Reference

Position: 020

Loop: PTD Mandatory

Level: Detail
Usage: Optional
Max Use: 10

Purpose: To specify pertinent dates and times

Syntax Notes: 1 If either DTM05 or DTM06 is present, then the other is required.

2 At least one of DTM02 DTM03 or DTM06 is required.

Semantic Notes:

Comments:

Notes:

>>	Ref. <u>Des.</u> DTM01	Data Element 374	Name Date/Time Qualifie	er be of date or time, or both date and time	Attributes M ID 3/3
			150	Service Period Start	
			151	Service Period End	
			MRR	Date of Special Meter Read	
>>	DTM05	1250	Date Time Period Code indicating the	Format Qualifier date format, or date and time	X ID 2/3 e format
			DT	Date and Time Expressed in Format CCYYMMDDHHMM	
>>	DTM06	1251	-	e, a time, or range of dates, times or dates	X AN 1/35 and times
			Service Period Start	or End Date	

Segment: REF Reference Identification

Position: 030

Loop: PTD Mandatory

Level: Detail
Usage: Optional
Max Use: 20

Purpose: To specify identifying information

Syntax Notes: 1 At least one of REF02 or REF03 is required.

Semantic Notes:
Comments:

1 REF04 contains data relating to the value cited in REF02.
See Comments related to the N1 segment.

Notes:

	Ref.	Data	Dutu Elem	ent Summary
			Nama	Attuibutos
	Des.	Element 120	Name	Attributes M. ID 2/2
>>	REF01	128	Reference Identifi	
				Reference Identification
			6W	Sequence Number
				Identifies channel number when there is more than one
				channel on a meter measuring the same quantity (e.g.
				two kWh channels).
>>			JH	Tag
				Meter Role. Valid values for REF02 are:
				A = Additive (this consumption contributes to the total
				for the account).
				S = Subtractive (this consumption must be subtracted
				from the total for the account). SDG&E does not use
				this code
>>			LU	Location Number
				Identifier for the Service Delivery Point (SDP). (See
				REF03 for valid use and values.)
			MG	Meter Number
				If PTD01=SU for multiple meter, no meter number
				value is required.
			MT	Meter Ticket Number
				Meter Data Type (see examples in REF02)
			SC	Shipper Car Order Number
				Service Indicator for non-metered accounts. Use REF02 = U if applicable.
>>	REF02	127	Reference Identifi	* *
				ion as defined for a particular Transaction Set or as
			specified by the Ret	ference Identification Qualifier
				Γ, the meter type is expressed as a 5-character field that
			identifies the type o	f consumption measured by this meter and the interval
			between measureme	ents. The first two characters are the type of consumption,
			expressed in the uni	its of measure from Data Element 355, as follows:
			K1	Kilowatt Demand
				l power load measured at predetermined intervals
			1	1
			K2	Kilovolt Amperes Reactive Demand
			Reactive power that	t must be supplied for specific types of customer's
			equipment; billable	when kilowatt demand usage meets or exceeds defined
			parameters (KVAR	

K3 Kilovolt Amperes Reactive Hour

Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters (KVARH)

KH Kilowatt Hour

The 3-character metering interval is expressed as one of the following values: Nnn = number of minutes from 001 to 999, or MON = monthly. For example, KHMON represents kWh per month, K1MON represents maximum kW demand during the month, and KH015 represents kWh per hourly interval.

GS Gas Service

When REF01 is LU, REF02 is not used.

REF03 352 Description

X AN 1/80

A free-form description to clarify the related data elements and their content If REF02 value is NOT "LU". When REF01 is LU, REF03 must be used and contains the SDP Code assigned by the utility.

Segment: QTY Quantity

Position: 110

Loop: QTY Optional

Level: Detail

Usage: Optional (Must use)

Max Use:

Comments:

Purpose: To specify quantity information

Syntax Notes: 1 At least one of QTY02 or QTY04 is required.

2 Only one of QTY02 or QTY04 may be present.

Semantic Notes: 1 QTY04 is used when the quantity is non-numeric.

1 Each QTY/MEA/DTM loop conveys consumption information about one metering interval. QTY02 reports billable quantities, including demands, while MEA05 and MEA06 report meter readings that are used to determine the billable quantities.

- 2 If MEA03 contains a multiplier, QTY02 equals the product of the multiplier and the meter readings reported in MEA05 and MEA06. Until it is resolved by UIG whether a MEA segment containing a multiplier (MEA02 = MU) can also contain meter reads, it is recommended that the multiplier should be placed in a separate MEA segment within the QTY loop.
- 3 QTY03 is not required if the unit of measurement has been defined by the REF02 value corresponding to REF01 = MT.

Notes:

Data Element Summary

			Data Elem	ent Summary
	Ref.	Data		
	Des.	Element	Name	Attributes
>>	$\overline{QTY01}$	673	Quantity Qualifier	M ID 2/2
			Code specifying the	type of quantity
			32	Quantity Sold
				Normal data transmission (not estimated, adjusted, or anomalous)
			87	Quantity Received
				Received from the customer in a co-generation environment.
			A5	Adjusted Quantity
				Adjusted value to correct metering inconsistencies or errors.
			AO	Verified Receipts
				Verified - data is actual but appears anomalous
			KA	Estimated
				The quantity shown is an estimated quantity
				Data that has been calculated based on standard estimation rules.
>>	QTY02	380	Quantity	X R 1/15

Numeric value of quantity

Segment: MEA Measurements

Position: 160

Loop: QTY Optional

Level: Detail
Usage: Optional
Max Use: 40

Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances,

and weights (See Figures Appendix for example of use of C001)

Syntax Notes: 1 If MEA05 is present, then MEA04 is required.

2 If MEA06 is present, then MEA04 is required.

3 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.

4 At least one of MEA03 MEA05 MEA06 or MEA08 is required.

Semantic Notes: Comments:

1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.

When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

Notes: For interval meter data, the MEA segment is not used by SDG&E. If used, this segment

should be sent with the first iteration of the QTY loop for interval meter data, to establish

the initial measurement values and readings. For subsequent iterations of the QTY loop, this segment need not be sent because the readings can be inferred by accumulating the QTY02 value.

For cumulative data, MEA06 is required if the service is <u>metered</u>, and contains the meter read at the end of the billing period. MEA05 is optional.

MEA05 and MEA06 report meter readings that are used to determine billable quantities, while QTY02 reports the billable quantities, including demands.

>>	Ref. Des. MEA02	Data Element 738	Name Measurement Qualifier Code identifying a specific product or process characterists a measurement applies		Attributes O ID 1/3 to which
			MU	Billing constant. The factor multiplied by the meter readings to obtain the true kWh usage. Calculation constant. The Multiplier value will be sa '1' in MEA03.	
			CF		
>>	MEA03	739	Measurement Val The value of the me		X R 1/20
>>	Represents the billing constant when MEA02 equals "MU". When no multiplier is present, or when no value is contained in MEA05 or Muse a value of 1. SDG&E sends a "1" for cumulative data. MEA04 C001 Composite Unit of Measure		A05 or MEA06,		
	WIEAU4	COOL	-		X s Appendix for

>>	C00101	355	Unit or Basis for Measurement Code M ID 2/2		
			Code specifying the units in which a value is being expressed, or manner		
			in which a measurement has been taken		
			K1 Kilowatt Demand Represents potential power load measured at		
			predetermined		
			intervals		
			K2 Kilovolt Amperes Reactive Demand		
			Reactive power that must be supplied for specific types of		
			customer's equipment; billable when kilowatt demand usage meets		
			or exceeds a defined parameter		
			K3 Kilovolt Amperes Reactive Hour		
			Represents actual electricity equivalent to kilowatt hours; billable		
			when usage meets or exceeds defined parameters		
			K4 Kilovolt Amperes		
			Measure of electrical power KH Kilowatt Hour		
			TD Therms		
	MEA05	740	Range Minimum X R 1/20		
	WENUS	, 10	The value specifying the minimum of the measurement range		
			Beginning reading (optional)		
>>	MEA06	741	Range Maximum X R 1/20		
			The value specifying the maximum of the measurement range		
			Ending reading or single reading (e.g., demand)		
>>	MEA07	935	Measurement Significance Code O ID 2/2		
			Code used to benchmark, qualify or further define a measurement value		
			For cumulative data, a measurement significance code may be required to		
			describe the reported data. The UIG had made Data Maintenance Requests		
			(DM) for several additional codes, which will take effect in a future version.		
			Until the DM-Requested codes are in effect, the following non-standard		
			previous-version code definitions will be in effect.		
			51 Total		
			45 Summer On Peak		
			74 Summer Mid Peak		
			73 Summer Off Peak		
			72 Summer Super Off Peak		
			49 Winter On Peak		
			50 Winter Mid Peak 75 Winter Off Peak		
			52 Winter Off Peak		
			57 Summer (SDG&E will use this code		
			for Summer Season Totals)		
			58 Winter (SDG&E will use this code		
			for Winter Season Totals)		
			Non-time related demand		
			76 Summon On Peak-2		
			78 Summer Mid Peak-2		
			76 Winter On Peak -2		
			77 Winter Mid Peak-2		

DTM Date/Time Reference **Segment:**

Position:

QTY Loop: Optional

Level: Detail Usage: **Optional** Max Use: 10

Purpose: To specify pertinent dates and times

1 If either DTM05 or DTM06 is present, then the other is required. **Syntax Notes:**

2 At least one of DTM02 DTM03 or DTM06 is required.

Semantic Notes: Comments:

Notes:

This segment may be sent to establish the date and time of the reported values, if the applicable data are available and desired by the recipient. For interval data, the ending time of each interval should be reported if the sender or receiver requires/requests these

Data Element Summary

			Data Elem	cht Summary	
	Ref.	Data			
	Des.	<u>Element</u>	<u>Name</u>		<u>Attributes</u>
>>	DTM01	374	Date/Time Qualifi	er	M ID 3/3
			Code specifying typ	pe of date or time, or both date and time	
			151	Service Period End	
>>	DTM05	1250	Date Time Period Format Qualifier Code indicating the date format, time format, or date and		X ID 2/3 e format
			DT	Date and Time Expressed in Format CCYYMMDDHHMM	
>>	DTM06	1251	Date Time Period Expression of a date	e, a time, or range of dates, times or dates	X AN 1/35 and times

For Interval: Date/Time stamp for each 15 minute interval is optional. If a trading partner requires interval level times stamps from SDG&E, they must request this service in writing.

Segment: **SE** Transaction Set Trailer

Position: 030

Loop:

Level: Summary Usage: Mandatory

Max Use: 1

Purpose: To indicate the end of the transaction set and provide the count of the transmitted

segments (including the beginning (ST) and ending (SE) segments)

Syntax Notes:

Semantic Notes:

Comments: 1 SE is the last segment of each transaction set.

Notes:

	Ref.	Data			
	Des.	Element	<u>Name</u>	<u>Attributes</u>	
>>	SE01	96	Number of Included Segments	M N0 1/10	
			Total number of segments included in a transaction set inclu- segments	ding ST and SE	
>>	SE02	329	Transaction Set Control Number	M AN 4/9	
			Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set		