Pennsylvania
New Jersey
Delaware
Maryland

Implementation Guideline

For

Electronic Data Interchange

TRANSACTION SET

867

Interval Usage

Ver/Rel 004010

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	Summary of Changes
December 21, 1998 Version 1.0	Initial release.
January 7, 1999 Version 3.3	• Fixed footer to read PA867IU • Added additional types of quantity qualifiers to satisfy Co-generation needs – this allows reporting of the meter receiving quantity from the co-generation site. • Added Clarification to use of Power factor. • Clarified use of QTY/MEA segments in the Interim Account Services Summary Loop ("SU").
February 10, 1999 Version 3.4	• Corrected to include REF segment for meter type in BO, PM, BQ, IA, and IB loops. This is needed to report interval size. • Add D8 as an option for DTM06 in the SU loop. This is needed for the Interim Solution when interval data is not being sent. If interval data is being sent, DTM06 must be set to DT.
August 10, 1999 Version 3.5a	• Initial changes for version 4010 • Added NJ and Delaware (Delmarva) to the document
September 8, 1999 Version 3.5b	• Added Note clarifying use of explicit date/timestamp with every interval for Pennsylvania. • Added note clarifying use of BB loop (required in PA, optional in NJ/DE (Delmarva)). • Formatting changes • Changed all headers to the true X12 definition… correcting some mistakes that were missed in the upgrade from Version 3070 to Version 4010. Also corrected the Table on Page 4 to reflect X12 definitions and added the words "X12 Structure" to the title on that page.
September 15, 1999 Version 3.5c	• Added QTY01=96 in PM, BQ, and IB loops to indicate when quantity reading is provided for a period outside of the actual billing period. This is used when a company always sends an entire day's worth of readings, but not all readings on the start date and end date are within the current bill period. • Removed Timestamp and Zone from the DTM in location 020 in all loops. Only the Date is used in this location. The Date, Time, and Zone are valid for all DTM segments in position 210. • Added clarification as to what document will be used by each Pennsylvania utility when the 4010 changes are implemented in November 1999.
October 1, 1999 Version 3.5d	• Added REF*BLT and REF*PC for PA. **Note:** Due to the late date this is being added, all companies may not be able to comply with it until some later date. **Note:** The use of these segments will have to be discussed in NJ and DE (Delmarva) • Made BB loop mandatory for New Jersey and Delaware
November 4, 1999 Version 3.6	This is a FINAL version for Pennsylvania and New Jersey
April 20, 2000 Version 3.6MD1	• Add Table of contents • Add Data Dictionary • Add Maryland to document Update PA use of 867 document for interval
June 26, 2000 Version 3.6MD2	• Corrections to TOC • Corrected some data types in data dictionary • Added clarity to some of the data dictionary fields • Added clarity to PTD loops on relevance of "use" column
August 14, 2000 Version 3.6MD3	• Add New Jersey Notes section • Add Note for PSE&G on BPT07 • Add clarity to PTD segments in regards to the "Use" within the segments in that specific loop.

September 10, 2000 Version 3.7	This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and Delaware (Delmarva only).
October 19, 2001 Version 3.7rev01	• Incorporate Delaware Electric Coop (DEC) information for Delaware • Incorporate PA Change Control 030. Add clarity when canceling a transaction that only specific loops are required: for interval ACCOUNT level - BB and SU; for interval METER level – BB and BO
December 13, 2001 Version 3.7rev02	• Incorporate PA Change Control 038 – change all references of PPL to PPL EU. • Incorporate PA Change Control 038 – change PPL EU's use of the 867IU • Add clarification to NJ Notes section for PSE&G regarding support of detail interval data (summary level not an option). Also add PSE&G clarification on cancel / rebills for supplier other than supplier of record. Remove note indicating PSE&G does not support cross reference to the 810.
January 9, 2002 Version 4.0	• Incorporate SMECO specifics for MD (MD Change Control 003) This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and Delaware.
May 2004 Version 4.0.1D	• Allow combined interval / non-interval meters on one transaction for NJ
August 4, 2004 Version 4.0.2.D	• Review current PA practices for sending interval data – all changes made to the Pennsylvania Notes section
January 20, 2006 Version 4.0.3D	• Incorporate NJ Change Control 005 (NJ CleanPower program changes). Add N1*G7 segment. • Incorporate NJ Change Control 006 (Update txn to reflect current practices)
October 23, 2006 Version 4.0.4D	▪ Incorporate NJ Change Control 008 to reflect NJ CleanPower – unmetered usage for RECO) • Incorporate NJ Change Control 009 to reflect NJ CleanPower change for partial usage. • Add clarifying notes for NJ Net Metering.
February 12, 2007 Version 4.0.5F	▪ Considered FINAL for PA and NJ
February 22, 2009 Version 4.0.6D	▪ Incorporate NJ Change Control PSEG-E-IU to reflect PSEG will send REF*45 as applicable. Allow sending of REF*6W for channel for net metered accts
January 24, 2010 Version 4.1	This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and Delaware.
September 8, 2010 Version 4.1.1D	• Incorporate PA Change Control 060 – (PA Admin/Cleanup) • Incorporate MD Change Control – Admin (Admin/Cleanup for MD)
February 28, 2011 Version 5.0	This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and Delaware.

General Notes

LDC Definitions:

The term LDC (Local Distribution Company) in this document refers to the utility. Each state may refer to the utility by a different acronym:

- EDC – Electric Distribution Company (Pennsylvania, Delaware)
- LDC – Local Distribution Company (New Jersey)
- EC – Electric Company (Maryland)

ESP Definitions:

The term ESP (Energy Service Provider) in this document refers to the supplier. Each state may refer to the supplier by a different acronym:

- EGS – Electric Generation Supplier (Pennsylvania)
- TPS – Third Party Supplier (New Jersey)
- ES – Electric Supplier (Delaware)
- ES – Electricity Supplier (Maryland)

Renewable Energy Provider Definition:

The term Renewable Energy Provider in this document refers to the party that provides Renewable Energy Credits (RECs). This party does not provide generation to the account. Each state may refer to the Renewable Energy Provider by a different acronym:

- GPM – Green Power Marketer (New Jersey)

Note: The transaction will either have an ESP or a Renewable Energy Provider, but not both.

Cross Reference Number between 867, 810, and 820

There is a cross reference between billing related documents.

- 867 – BPT02 – This document establishes the cross reference number.
- 810 – BIG05 – This document must have the cross reference number from the respective 867.
- 820 – REF6O (letter O) – When making the other party whole, the 820 to the non-billing party must also include the cross reference number from 867/810 document.

PTD Definition and Use:

The PTD Loops are required. Some are used individually, others are used in pairs. This section describes the purpose of each PTD loop. Depending on the characteristics of the account, there may be a different number of loops.

<u>Monthly Billed Summary Information</u> (PTD=BB): This loop is always required for every type of account if the LDC reads the meter. See description of BB loop for applicability in each states.

Monthly Billed Summary (PTD01=BB): One PTD per Account – Data obtained from the billing system to reflect the billing data for this account.

<u>Residential Account Information</u>: (PTD01 = IA and IB) – These loops are used to convey the usage and specific intervals for a residential interval account. This is at both an interval level by meter by unit of measure (PTD01=IB) and at a summary level (with readings) for each meter by unit of measure (PTD01=IA).

Residential Metered Services Summary (PTD01=IA): This loop provides the readings for each unit of measure on each meter. For every PTD01=IA, there must be a PTD01=IB. The PTD01=IA loop is used for all units of measure.

Residential Metered Services Detail (PTD01=IB): One or more PTDs, one for each unit of measure for each meter. In the case of one meter reporting one unit of measure (kWh), the PTD01=IB will provide the individual intervals that supports the summary (PTD=IA).

Metered Services Information – by Meter: (PTD01 = BO and PM)

Metered Services Summary (PTD01=BO): Sums intervals by meter by unit of measure. For each meter provided in the detail, there must be one summary loop for a kwh or kvarh unit of measurement. Data is obtained from the metering system.. The PTD01=BO provides control totals for the sum of all intervals in the PTD01=PM by unit of measure and meter. However, the PTD01=BO loop will NEVER be provided for kW or KVAR. For instance, if there are two meters on the account, one of which measures KW and kwh and the other of which measures kwh, there will be two PTD01=BO for the summary kwh information and three PTD01=PM loops.

Metered Services Detail (PTD01=PM): One or more PTDs, one for each unit of measure for each meter. Data is obtained from the metering system. Individual intervals are provided in the PTD01=PM

PTD Definition and Use: (continued)

Account Services Information – by Account: (PTD01 = SU and BQ)

Account Services Summary (PTD01=SU): Summing to the account level by kWh and KVARH. Data is obtained from the metering system. For every PTD01=SU, there must be a PTD01=BQ. The PTD01=SU loop will NEVER be provided for kW or KVAR. This is typically used when the account has a Data Recorder or Load Profile Recorder, or the metering system can sum information to the account level.

Account Services Detail (PTD01=BQ): One or more PTDs, one for each unit of measure. Data is obtained from the metering system. Individual intervals are provided in the PTD01=BQ loop. If the account measures KW and kwh, there will be one PTD loop for the kwh intervals and one PTD loop for the KW intervals.

Valid Loop Combinations:

There are several valid combinations of the use of the different PTD loops when EDC is the metering agent:

Combination # 1 – Interval **Account** Level Reporting (intervals are summed to ACCOUNT level)

- Monthly Billed Summary (PTD01=BB) – if required by state
- Account Services Summary (PTD01=SU)
- Account Services Detail (PTD01=BQ) [not required on a cancel]

Combination # 2 – Interval **Meter** Level Reporting (intervals are provided at meter level)

- Monthly Billed Summary (PTD01=BB) – if required by state
- Meter Services Summary (PTD01=BO)
- Meter Services Detail (PTD01=PM) [not required on a cancel]

Combination # 3 – **Residential** Interval Level Reporting (readings and intervals are provided at meter level)
Note: This is currently not being used by Pennsylvania, New Jersey, Delaware, or Maryland.

- Monthly Billed Summary (PTD01=BB) – if required by state
- Residential Meter Services Summary (PTD01=IA) [not required on a

	cancel] • Residential Meter Services Detail (PTD01=IB) [not required on a cancel] <u>Combination # 4 – Interval / Non-Interval **Meter** Level Reporting (intervals are provided at meter level)</u> • Monthly Billed Summary (PTD01=BB) – if required by state • Meter Services Summary (PTD01=BO) (Sum of interval meters) • Meter Services Detail (PTD01=PM) (interval meters)[not required on a cancel] • Meter Services Summary (PTD01=BR) (Sum of non-interval meters) • Meter Services Detail (PTD01=PL) (non-interval meters) **Note:** For cancel transactions, the account and summary loop information is sent; however, it is optional to include the PM, IA, IB, and BQ loops.
Order Loops are sent	The PTD loop may be sent in any order.

Pennsylvania Notes

What document is sent if supplier elects NOT to receive detail interval data?

If a supplier elects to receive only summary level information for an interval account, they will receive an 867MU document.

The 867IU document will be used when interval detail and summary level data is being sent.

Pennsylvania:

- Listed below are the plans, by utility, of the information to be sent for summary and detail transaction. .
- Allegheny – Will provide detail interval data using 867IU with BB, SU, and BQ loops. If summary level is requested, will provide an 867IU with BB, SU, and BQ loops. Does not provide stand alone interval summary data
- Duquesne – Will provide detail interval data using 867IU with BB, SU, and BQ loops. If summary level is requested, will provide an 867MU with BB, SU, and PM loops (BPT04 will be "X5").
- FIRST ENERGY – Will provide detail interval data using 867IU with BB, SU, and BQ loops. If summary level is requested, will provide an 867MU with BB, SU, and PM loops (BPT04 will be "X5").
- PECO – Will provide detail interval data using 867IU with BB, SU, and BQ loops. If summary level is requested, will provide an 867MU with BB, SU, and PM loops (BPT04 will be "C1").
- Penn Power – Will provide detail interval data using 867IU with BB, SU, and BQ loops. If summary level is requested, will provide an 867MU with BB, SU, and PM loops (BPT04 will be "X5")
- PPL EU – Will provide detail interval data using 867IU with BB, SU, and BQ loops. If summary level is requested, will provide an 867MU with BB and SU loops (BPT04 will be "DD")
- UGI – No Interval Usage Customers

Use of date/timestamp with every interval:

All utilities provide a timestamp with each interval.

New Jersey Notes

What document is sent if supplier elects NOT to receive detail interval data?

The standard method for interval accounts is to always pass interval data.

- JCP&L – JCP&L will allow the summary option under the same guidelines they use in PA. JCP&L will provide detail interval data using 867IU with BB, SU, and BQ loops. If summary level is requested, will provide an 867MU with BB, SU, and PM loops (BPT04 will be "X5").
- Atlantic City Electric will allow a summary option. Atlantic City Electric will provide detail interval data using 867IU with BB, SU, and BQ loops. If summary level is requested, will provide an 867MU with BB, SU, and PM loops.
- PSE&G will not support supplier having a choice to receive summary only.

Cancel / Rebill when supplier is no longer active supplier

PSE&G cannot provide consolidated billing for ESP's who are not supplier of record at the time the cancel / rebill is processed. The process for Cancel/ Rebill for an ESP who is not customer's current supplier of record is:

- PSE&G will cancel charges from 810(s) that correspond to the original 867(s) being canceled.
- Send 867(s) cancel
- Send 867(s) rebill noting that customer billing option is DUAL.
- PSE&G will issue an 820 and reduce a future payment by the amount of the canceled 810(s) (on the scheduled date of the 820).
- TPS must Dual bill customer for the rebilled 867(s).

Net Metering:

- PSE&G- Is currently using meters that have different channels to capture inbound and outbound usage and will send inbound and outbound at the detail level, and the net in the billed summary loop.

- Atlantic City Electric- Is currently using watt-hour meters that go both ways ultimately providing the net usage to the EDI process. This is for both the TPSs as well as the Clean Power providers.

- JCP&L-Is currently using a bi-directional meter for both the TPS's as well as the Clean Power suppliers. The bi-directional meter is providing the in and the out reading to the EDI process. The EDI summary loop will include the net usage.

RECO- (This section will be updated in the near future)

Maryland Notes

What document is sent if supplier elects NOT to receive detail interval data?

If a supplier elects to receive only summary level information for an interval account, they will receive an 867MU document.

Note: Delmarva will not support supplier having a choice to receive summary only when the market opens.

If a supplier elects to receive detail and summary level information for an interval account, this is what they will receive, by utility.

- Delmarva – Supplier will receive 867IU for all accounts.
- BGE – Supplier will receive 867MU for summary, and detail will be posted on their website
- PEPCO – Supplier will receive 867MU for summary, and detail will be posted on their website
- Allegheny – Supplier will receive 867IU with BB and SU loops only for summary. Detail will be posted on their website.

867IU Implementation Guide

Note: The 867IU Implementation Guide for "MD Use" does not pertain to BG&E and PEPCO since they will never send an 867IU transaction.

How to Use the Implementation Guideline

Segment: **REF** **Reference Identification**
Position: 030
Loop: LIN
Level: Detail
Usage: Optional
Max Use: >1
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:

This section is used to show the X12 Rules for this segment. You must look further into the grayboxes below for State Rules.

Notes:	Recommended by UIG
PA Use:	Must be identical to account number as it appears on the customer's bill, excluding punctuation (spaces, dashes, etc.). Significant leading and trailing zeros must be included. Request: Required Accept Response: Required Reject Response: Required
NJ Use:	Same as PA
Example:	REF*12*2931839200

The "Notes:" section generally contains notes by the Utility Industry Group (UIG).

This section is used to show the individual State's Rules for implementation of this segment.

One or more examples.

Data Element Summary

	Ref. Des.	Data Element	Name	X12 Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification 12 Billing Account LDC assigned account number for end use customer.	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

This column shows the use of each data element. If state rules differ, this will show "Conditional" and the conditions will be explained in the appropriate grayboxes.

These are X12 code descriptions, which often do not relate to the information we are trying to send. Unfortunately, X12 cannot keep up with our code needs so we often change the meanings of existing codes. See graybox for the UIG or state definitions.

This column shows the X12 attributes for each data element. Please refer to Data Dictionary for individual state rules.

M = Mandatory, O= Optional, X = Conditional

AN = Alphanumeric, N# = Decimal value, ID = Identification, R = Real

1/30 = Minimum 1, Maximum 30

867 Product Transfer and Resale Report
X12 Structure

Functional Group ID=PT

Heading:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
Must Use	010	ST	Transaction Set Header	M	1		
Must Use	020	BPT	Beginning Segment for Product Transfer and Resale	M	1		
	050	DTM	Date/Time Reference	O	10		
	075	MEA	Measurements	O	20		
			LOOP ID – N1			5	
	080	N1	Name	O	1		
	120	REF	Reference Identification	O	12		

Detail:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
			LOOP ID – PTD			>1	
Must Use	010	PTD	Product Transfer and Resale Detail (Monthly Billed Summary) – **BB**	M	1		
	020	DTM	Date/Time Reference	O	10		
			LOOP ID – QTY			>1	
	110	QTY	Quantity	O	1		
			LOOP ID – PTD			>1	
Must Use	010	PTD	Product Transfer and Resale Detail (Meter Services Summary) – **BO**	M	1		
	020	DTM	Date/Time Reference	O	10		
	030	REF	Reference Identification	O	20		
			LOOP ID – QTY			>1	
	110	QTY	Quantity	O	1		
	160	MEA	Measurements	O	40		
			LOOP ID – PTD			>1	
Must Use	010	PTD	Product Transfer and Resale Detail (Meter Services Detail) – **PM**	M	1		
	020	DTM	Date/Time Reference	O	10		
	030	REF	Reference Identification	O	20		
			LOOP ID – QTY			>1	
	110	QTY	Quantity	O	1		
	210	DTM	Date/Time Reference	O	10		
			LOOP ID – PTD			>1	
Must Use	010	PTD	Product Transfer and Resale Detail (Non-interval Meter Services Summary) – **BR**	M	1		
	020	DTM	Date/Time Reference	O	10		
	030	REF	Reference Identification	O	20		

			LOOP ID – QTY			>1
	110	QTY	Quantity	O	1	
	160	MEA	Measurements	O	40	

			LOOP ID – PTD			>1
Must Use	010	PTD	Product Transfer and Resale Detail (Non-Interval Meter Services Detail) – **PL**	M	1	
	020	DTM	Date/Time Reference	O	10	
	030	REF	Reference Identification	O	20	
			LOOP ID – QTY			>1
	110	QTY	Quantity	O	1	
	210	DTM	Date/Time Reference	O	10	

			LOOP ID – PTD			>1
Must Use	010	PTD	Product Transfer and Resale Detail (Account Services Summary) – **SU**	M	1	
	020	DTM	Date/Time Reference	O	10	
			LOOP ID – QTY			>1
	110	QTY	Quantity	O	1	

			LOOP ID – PTD			>1
Must Use	010	PTD	Product Transfer and Resale Detail (Account Services Detail) – **BQ**	M	1	
	020	DTM	Date/Time Reference	O	10	
	030	REF	Reference Identification	O	20	
			LOOP ID – QTY			>1
	110	QTY	Quantity	O	1	
	210	DTM	Date/Time Reference	O	10	

			LOOP ID – PTD			>1
Must Use	010	PTD	Product Transfer and Resale Detail (Residential Meter Services Summary) – **IA**	M	1	
	020	DTM	Date/Time Reference	O	10	
	030	REF	Reference Identification	O	20	
			LOOP ID – QTY			>1
	110	QTY	Quantity	O	1	
	160	MEA	Measurements	O	40	

			LOOP ID – PTD			>1
Must Use	010	PTD	Product Transfer and Resale Detail (Residential Meter Readings Detail) – **IB**	M	1	
	020	DTM	Date/Time Reference	O	10	
	030	REF	Reference Identification	O	20	
			LOOP ID – QTY			>1
	110	QTY	Quantity	O	1	
	210	DTM	Date/Time Reference	O	10	

Summary:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
Must Use	030	SE	Transaction Set Trailer	M	1		

Data Dictionary

867 Interval Usage					
Appl Field	***Field Name***	***Description***	***EDI Segment***	***Related EDI Qualifier***	***Data Type***
Header Information					
1	Purpose Code	**00 –** Original **01 –** Cancellation – Cancels an entire Usage	BPT01		X(2)
2	Transaction Reference Number	Unique Number identifying this transaction assigned by the sender of the transaction. This number should be unique over all time. This number will also be shown on the related 810 document (both Bill Ready and Rate Ready), and for cases where the billing party makes the other party whole, on the 820 document.	BPT02		X(30)
3	System Date	Date that the data was processed by the sender's application system.	BPT03		9(8)
4	Report Type Code	C1- Cost Data Summary – Indicates this is an interval usage transaction. DR – Transaction includes interval and non-interval data KH-Proposal Support Data-Meter Changeout when Meter Agent Changes. Interval Usage (used to tell the receiver that this is a partial usage statement). The billing agent must combine the KH usage and the MV usage to determine total usage for period.	BPT04	BPT01	X(2)
5	Final Indicator	Indicates if this is a final reading for that particular ESP (e.g., customer moves, customer switches, etc.).	BPT07 = **F**		X(1)
6	Transaction Reference Number	Transaction Reference Number echoed from BPT02 of the Original Transaction	BPT09		X(30)
7	Document Due Date/Time	The last date/time that information will be accepted by the billing party for processing the bill. If 810 is received after this date/time, and the billing party cannot process it, they must notify the non-billing party (via email, phone call, etc.)	DTM02 (CCYYMMDD) and DTM03(HHMM)	DTM01= **649**	DTM02= 9(8) and DTM03= 9(4)
8	Percent Participation	Used to express the percentage of the total load that is being supplied by the ESP. This is the multiplication of two fields that are on the 814 transaction, AMT*7N (Participating Interest) and AMT*QY (Eligible Load).	MEA03	MEA02 = **NP**	9(1).99999
9	LDC Name	LDC's Name	N102	N1: N101 = **8S**	X(60)
10	LDC Duns	LDC's DUNS Number or DUNS+4 Number	N104	N1: N101 = **8S** N103 = **1** or **9**	X(13)

11	ESP Name	ESP's Name	N102	N1: N101 = **SJ**	X(60)
12	ESP Duns	ESP's DUNS Number or DUNS+4 Number	N104	N1: N101 = **SJ** N103 = **1** or **9**	X(13)
12.3	Renewable Energy Provider Name	Renewable Energy Provider 's Name	N102	N1: N101 = **G7**	X(60)
12.4	Renewable Energy Provider Duns	Renewable Energy Provider 's DUNS Number or DUNS+4 Number	N104	N1: N101 = **G7** N103 = **1** or **9**	X(13)
13	Customer Name	Customer Name	N102	N1: N101 = **8R**	X(60)
14	ESP Account Number	ESP Customer Account Number	REF02	N1: N101*8R Loop REF01 = **11**	X(30)
15	LDC Account Number	LDC Customer Account Number	REF02	N1: N101*8R Loop REF01 = **12**	X(30)
15.2	LDC Account Number - unmetered	LDC Customer Account Number – Unmetered	REF03	N1: N101 = **8R** REF01 = **12** REF03 = **U**	X(80)
16	Old Account Number	Previous LDC Customer Account Number	REF02	N1: N101*8R Loop REF01 = **45**	X(30)
17	Billing Type	Indicates type of billing - LDC consolidated Billing (REF02=LDC) - ESP consolidated Billing (REF02=ESP) - Dual bills (REF02=DUAL)	REF02	LIN: REF01= **BLT**	X(4)
18	Billing Calculation Method	Indicates party to calculate bill. - LDC calculates bill (REF02=LDC) - Each calculate portion (REF02=DUAL)	REF02	LIN: REF01= **PC**	X(4)
Please refer to General Notes for details about the use of the PTD loop combinations.					
Monthly Billed Summary - Loop Required if the LDC reads the meter					
This information is obtained from the billing system to reflect billing data for this account at the unit of measure level.					
19	Product Transfer Type	Monthly Billed Summary	PTD01= **BB**		X(2)
20	Service Period Start Date	Start date of the period for which the readings are provided	DTM02	DTM01 = **150**	9(8)
21	Service Period End Date	End date of the period for which the readings are provided	DTM02	DTM01 = **151**	9(8)
22	Quantity Qualifier	Represents that the quantity was billed: **D1** - Billed	QTY01		X(2)
23	Quantity Delivered - Billed kWh	This data is taken from the LDC billing system and reflects the KWH amount on which the customer was billed.	QTY02	QTY01	-9(10).9(4)
24	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period. **KH** - Kilowatt Hours	QTY03		X(2)
25	Quantity Qualifier	Represents that the quantity was billed: **D1** - Billed	QTY01		X(2)

26	Quantity Delivered - Derived or Billed Demand	Demand for which the customer was actually billed at account level only. Derived or billed demand is different from measured demand because the result is based on contract demand or rate minimum demand.	QTY02	QTY01	-9(10).9(4)
27	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period. **K1** - Demand (kW)	QTY03		X(2)
28	Quantity Qualifier	Represents whether the quantity is actual or estimated: **KA** = Estimated **87** = Quantity Received **9H** = Estimated Duration **QD** = Actual	QTY01		X(2)
29	Quantity Delivered - Measured or Registered Demand	Reflects what the meter actual shows (including all factors except Power Factor) and is provided at the account level only.	QTY02	QTY01	-9(10).9(4)
30	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period. **K1** - Demand (KW)	QTY03		X(2)
Metered Services Summary - Loop Required when the metering agent is reporting interval data at the meter level.					
31	Product Transfer Type	Metered Services Summary	PTD01= **BO**		X(2)
32	Service Period Start Date	Start date of the service period or start date of the changed in meter.	DTM02	DTM01 = **150**	9(8)
33	Service Period End Date	End date of the service period or end date of the changed out meter.	DTM02	DTM01 = **151**	9(8)
34	Meter Change Out Date	Used in conjunction with either the Service Period Start Date or the Service Period End Date to indicate when a meter has been replaced. Separate PTD loops must be created for each period and meter.	DTM02	DTM01 = **514**	9(8)
35	Meter Number	Serial number of this specific meter (may have multiple meters)	REF02	REF01 = **MG**	X(30)
36	Meter Role	Effect of consumption on summarized total. **S** = Subtractive (consumption subtracted from summarized total). **A** = Additive (consumption contributed to summarized total - do nothing). **I** = Ignore (consumption did not contribute to summarized total - do nothing	REF02	REF01 = **JH**	X(30)
37	Number of Dials / Digits and related decimal positions	Needed to determine usage if meter reading rolls over during the billing period. Number of dials on the meter displayed as the number of dials to the left of the decimal, a decimal point, and number of dials to the right of the decimal.	REF02	REF01 = **IX**	9.9
38	Quantity Qualifier	Represents whether the quantity is actual or estimated: **KA** = Estimated **87** = Quantity Received **9H** = Estimated Duration **QD** = Actual	QTY01		X(2)

39	Quantity Delivered	Represents quantity of consumption delivered for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors, excluding Power Factor.	QTY02	QTY01	9(10).9(4)
40	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period.	QTY03		X(2)
41	Meter Multiplier	Meter Constant - used to represent how many units are reflected by one dial or digit increment.	MEA03	MEA02 = **MU**	9(9).9(4)
42	Power Factor	Relationship between watts and volt - amperes necessary to supply electric load	MEA03	MEA02 = **ZA**	9(9).9(4)
43	Transformer Loss Multiplier	Used when a customer owns a transformer and the transformer loss is not measured by the meter. Consumption figures from meter must be adjusted by this factor to reflect true end use consumption.	MEA03	MEA02 = **CO**	9(9).9(4)
Metered Services Detail - Loop Required when the metering agent is reporting interval data at the meter level. [Loop not required on a cancel transaction]					
44	Product Transfer Type	Metered Services Detail	PTD01= **PM**		X(2)
45	Service Period Start Date	Start date of the service period or start date of the changed in meter.	DTM02	DTM01 = **150**	9(8)
46	Service Period End Date	End date of the service period or end date of the changed out meter.	DTM02	DTM01 = **151**	9(8)
47	Meter Change Out Date	Used in conjunction with either the Service Period Start Date or the Service Period End Date to indicate when a meter has been replaced. Separate PTD loops must be created for each period and meter.	DTM02	DTM01 = **514**	9(8))
48	Meter Number	Serial number of this specific meter (may have multiple meters)	REF02	REF01 = **MG**	X(30)
49	Meter Type	Type of Meter	REF02	REF01= **MT**	X(5)
50	Quantity Qualifier	Represents whether the quantity is actual or estimated: **KA** = Estimated **87** = Quantity Received **9H** = Estimated Duration **QD** = Actual **96** = Non-billable quantity	QTY01		X(2)
51	Quantity Delivered	Represents quantity of consumption delivered for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors, excluding Power Factor.	QTY02	QTY01	9(10).9(4)
52	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period.	QTY03		X(2)
53	Report Period Date/Time	The date/time of the end of the interval.	DTM02 (CCYYMMDD) and DTM03(HHMM	DTM01 = **582**	DTM02= 9(8) and DTM03= 9(4)

54	Time Code	The time code must accurately provide the time zone when the daylight savings time starts and ends if the meter is adjusted for daylight savings time. **ED** = Eastern Daylight Time **ES** = Eastern Standard Time	DTM04		X(2)
Metered Services Summary - Loop required if there are non-interval metered services on the account					
61	Product Transfer Type	Metered Services Summary	PTD01= **BR**		X(2)
62	Service Period Begin Date	Start date of the period for which the readings are provided	DTM02	DTM01 = **150**	9(8)
63	Service Period End Date	End date of the period for which the readings are provided	DTM02	DTM01 = **151**	9(8)
64	Quantity Qualifier	Represents whether the quantity is actual or estimated: **QD** = Actual **KA** = Estimated	QTY01		X(2)
65	Quantity Delivered	Represents quantity of consumption delivered for service period. Contains the difference in the meter readings multiplied by various factors, excluding Power Factor.	QTY02	QTY01	-9(10).9(4)
66	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period. Only valid for KWH and KVARH.	QTY03		X(2)

Metered Services Detail - Loop Required if there are non-interval metered services on the account					
67	Product Transfer Type	Metered Services Detail	PTD01= **PL**		X(2)
68	Service Period Begin Date	Start date of the service period or start date of the changed in meter.	DTM02	DTM01 = **150**	9(8)
69	Service Period End Date	End date of the service period or end date of the changed out meter.	DTM02	DTM01 = **151**	9(8)
70	Meter Change Out Date	Used in conjunction with either the Service Period Start Date or the Service Period End Date to indicate when a meter has been replaced. Separate PTD loops must be created for each period and meter.	DTM02	DTM01 = **514**	X(12)
71	Meter Number	Serial number of this specific meter (may have multiple meters)	REF02	REF01 = **MG**	X(30)
72	LDC Rate Code	Code indicating the rate a customer is being charged by LDC per tariff. Codes posted on LDC's Web site	REF02	REF01 = **NH**	X(30)
73	LDC Rate Subclass Code	Used to provide further classification of a rate.	REF02	REF01= **PR**	X(30)
74	Meter Role	Effect of consumption on summarized total. **S** = Subtractive (consumption subtracted from summarized total). **A** = Additive (consumption contributed to summarized total - do nothing). **I** = Ignore (consumption did not contribute to summarized total - do nothing).	REF02	REF01 = **JH**	X(30)

75	Number of Dials / Digits and related decimal positions	Needed to determine usage if meter reading rolls over during the billing period. Number of dials on the meter displayed as the number of dials to the left of the decimal, a decimal point, and number of dials to the right of the decimal.	REF02	REF01 = **IX**	9.9
76	Quantity Qualifier	Represents whether the quantity is actual or estimated: **QD** = Actual **KA** = Estimated	QTY01		X(2)
77	Quantity Delivered	Represents quantity of consumption delivered for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors, excluding Power Factor.	QTY02	QTY01	9(10).9(4)
78	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period.	QTY03		X(2)
79	Measurement Reference Code	Code identifying category to which measurement applies.	MEA01		X(2)
80	Consumption	Represents quantity of consumption delivered for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors, excluding Power Factor.	MEA03	MEA02 = **PRQ**	9(9).9(4)
81	Unit of Measure	Unit of measure for readings.	MEA04		X(2)
82	Beginning Reading	Value specifying beginning reading for the metering period. Factors have not been applied to this value.	MEA05		9(8).9(4)
83	Ending/Single Reading	The ending reading or single reading for metering period. Factors have not been applied to this value.	MEA06		9(8).9(4)
84	Measurement Significance Code	Code used to benchmark, qualify, or further define a measurement value.	MEA07		X(2)
815	Meter Multiplier	Meter Constant - used to represent how many units are reflected by one dial or digit increment.	MEA03	MEA02 = **MU**	9(9).9(4)
86	Power Factor	Relationship between watts and volt - amperes necessary to supply electric load	MEA03	MEA02 = **ZA**	9(9).9(4)
87	Transformer Loss Multiplier	Used when a customer owns a transformer and the transformer loss is not measured by the meter. Consumption figures from meter must be adjusted by this factor to reflect true end use consumption.	MEA03	MEA02 = **CO**	9(9).9(4)

Account Services Summary - Loop required when the metering agent is reporting interval data at the account level.					
101	Product Transfer Type	Account Services Summary	PTD01= **SU**		X(2)
102	Service Period Start Date	Start date of the period for which the readings are provided	DTM02	DTM01 = **150**	9(8)
103	Service Period End Date	End date of the period for which the readings are provided	DTM02	DTM01 = **151**	9(8)

103.2	Meter Channel	Summarizes usage at the channel level	REF02	REF01=**6W**	X(30)
104	Quantity Qualifier	Represents whether the quantity is actual or estimated: **KA** = Estimated **87** = Quantity Received **9H** = Estimated Duration **QD** = Actual	QTY01		X(2)
105	Quantity Delivered	Represents quantity of consumption delivered for service period. Contains the difference in the meter readings multiplied by various factors, excluding Power Factor.	QTY02	QTY01	-9(10).9(4)
Account Services Detail - Loop required when the metering agent is reporting interval data at the account level. [Loop not required on a cancel transaction]					
110	Product Transfer Type	Account Services Detail	PTD01= **BQ**		X(2)
111	Service Period Start Date	Start date of the service period or start date of the changed in meter.	DTM02	DTM01 = **150**	9(8)
112	Service Period End Date	End date of the service period or end date of the changed out meter.	DTM02	DTM01 = **151**	9(8)
113	Meter Type	Type of Meter	REF02	REF01= **MT**	X(5)
113.2	Meter Channel	Summarizes usage at the channel level	REF02	REF01=**6W**	X(30)
114	Quantity Qualifier	Represents whether the quantity is actual or estimated: **KA** = Estimated **87** = Quantity Received **9H** = Estimated Duration **QD** = Actual **96** = Non-billable Quantity	QTY01		X(2)
115	Quantity Delivered	Represents quantity of consumption delivered for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors, excluding Power Factor.	QTY02	QTY01	9(10).9(4)
116	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period.	QTY03		X(2)
117	Report Period Date/Time	The date/time of the end of the interval.	DTM02 (CCYYMMDD) and DTM03(HHMM	DTM01 = **582**	DTM02= 9(8) and DTM03= 9(4)
118	Time Code	The time code must accurately provide the time zone when the daylight savings time starts and ends if the meter is adjusted for daylight savings time. **ED** = Eastern Daylight Time **ES** = Eastern Standard Time	DTM04		X(2)
Residential Metered Services - Loop Required if this is a residential account. [Loop not required on a cancel transaction]					
119	Product Transfer Type	Residential Meter Readings Summary	PTD01= **IA**		X(2)
120	Service Period Start Date	Start date of the service period or start date of the changed in meter.	DTM02	DTM01 = **150**	9(8)
121	Service Period End Date	End date of the service period or end date of the changed out meter.	DTM02	DTM01 = **151**	9(8)

122	Meter Change Out Date	Used in conjunction with either the Service Period Start Date or the Service Period End Date to indicate when a meter has been replaced. Separate PTD loops must be created for each period and meter.	DTM02	DTM01 = **514**	9(8))
123	Meter Number	Serial number of this specific meter (may have multiple meters)	REF02	REF01 = **MG**	X(30)
124	Meter Role	Effect of consumption on summarized total. **S** = Subtractive (consumption subtracted from summarized total). **A** = Additive (consumption contributed to summarized total - do nothing). **I** = Ignore (consumption did not contribute to summarized total - do nothing).	REF02	REF01 = **JH**	X(30)
125	Number of Dials / Digits and related decimal positions	Needed to determine usage if meter reading rolls over during the billing period. Number of dials on the meter displayed as the number of dials to the left of the decimal, a decimal point, and number of dials to the right of the decimal.	REF02	REF01 = **IX**	9.9
126	Quantity Qualifier	Represents whether the quantity is actual or estimated: **KA** = Estimated **87** = Quantity Received **9H** = Estimated Duration **QD** = Actual	QTY01		X(2)
127	Quantity Delivered	Represents quantity of consumption delivered for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors, excluding Power Factor.	QTY02	QTY01	9(10).9(4)
128	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period.	QTY03		X(2)
129	Measurement Reference Code	Code identifying category to which measurement applies.	MEA01		X(2)
130	Unit of Measure	Unit of measure for readings.	MEA04		X(2)
131	Beginning Reading	Value specifying beginning reading for the metering period. Factors have not been applied to this value.	MEA05		9(8).9(4)
132	Ending/Single Reading	The ending reading or single reading for metering period. Factors have not been applied to this value.	MEA06		9(8).9(4)
133	Measurement Significance Code	Code used to benchmark, qualify, or further define a measurement value.	MEA07		X(2)
134	Meter Multiplier	Meter Constant - used to represent how many units are reflected by one dial or digit change.	MEA03	MEA02 = **MU**	9(9).9(4)
135	Power Factor	Relationship between watts and volt - amperes necessary to supply electric load	MEA03	MEA02 = **ZA**	9(9).9(4)
136	Transformer Loss Multiplier	When a customer owns a transformer and the transformer loss is not measured by the meter.	MEA03	MEA02 = **CO**	9(9).9(4)
Residential Meter Readings Detail - Loop Required if this is a residential account. [Loop not required on a cancel transaction]					
137	Product Transfer Type	Residential Meter Readings Detail	PTD01= **IB**		X(2)

138	Service Period Start Date	Start date of the service period or start date of the changed in meter.	DTM02	DTM01 = **150**	9(8)
139	Service Period End Date	End date of the service period or end date of the changed out meter.	DTM02	DTM01 = **151**	9(8)
140	Meter Type	Type of Meter	REF02	NM1: REF01= **MT**	X(5)
141	Quantity Qualifier	Represents whether the quantity is actual or estimated: **KA** = Estimated **87** = Quantity Received **9H** = Estimated Duration **QD** = Actual	QTY01		X(2)
142	Quantity Delivered	Represents quantity of consumption delivered for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors, excluding Power Factor.	QTY02	QTY01	9(10).9(4)
143	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period.	QTY03		X(2)
144	Report Period Date/Time	The date/time of the end of the interval.	DTM02 (CCYYMMDD) and DTM03(HHMM	DTM01 = **582**	DTM02= 9(8) and DTM03= 9(4)
145	Time Code	The time code must accurately provide the time zone when the daylight savings time starts and ends if the meter is adjusted for daylight savings time. **ED** = Eastern Daylight Time **ES** = Eastern Standard Time	DTM04		X(2)

Segment:	**ST** **Transaction Set Header**
Position:	010
Loop:	
Level:	Heading
Usage:	Mandatory
Max Use:	1
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:	
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	ST*867*000000001

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**ST01**	**143**	**Transaction Set Identifier Code** Code uniquely identifying a Transaction Set 867 Product Transfer and Resale Report	**M**	**ID 3/3**
Must Use	**ST02**	**329**	**Transaction Set Control Number** Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	**M**	**AN 4/9**

Segment: **BPT** **Beginning Segment for Product Transfer and Resale**
Position: 020
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Syntax Notes:
1 If either BPT05 or BPT06 is present, then the other is required.
Semantic Notes:
1 BPT02 identifies the transfer/resale number.
2 BPT03 identifies the transfer/resale date.
3 BPT08 identifies the transfer/resale time.
4 BPT09 is used when it is necessary to reference a Previous Report Number.
Comments:

PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Examples:	BPT*00*199902010001*19990131*C1 BPT*00*199902010001*19990131*C1***F BPT*01*199902020001*19990131*C1*****1999020100001 BPT*00*199902010001*19990131*DR

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**BPT01**	**353**	**Transaction Set Purpose Code** Code identifying purpose of transaction set 00 Original Conveys original readings for the account being reported. 01 Cancellation Indicates that the readings previously reported for the account are to be ignored.	**M ID 2/2**
Must Use	**BPT02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier A unique transaction identification number assigned by the originator of this transaction. This number must be unique over time. **PA:** This code will be used as a cross reference to the 810 billing document, and for billing parties that make the other party whole, it will also be cross referenced on the 820.	**O AN 1/30**
Must Use	**BPT03**	**373**	**Date** Date (CCYYMMDD) Transaction Creation Date – the date that the data is processed by the application system.	**M DT 8/8**
Must Use	**BPT04**	**755**	**Report Type Code** Code indicating the title or contents of a document, report or supporting item C1 Cost Data Summary Indicates transaction is an Interval Data transaction. This will be used whether supplier is receiving summary data only, or both summary and detail interval data.	**O ID 2/2**

			DR	Datalog Report		
				Mixed Values - transaction contains data for both interval and non-interval meters		
			KH	Proposal Support Data		
				Meter Changeout when Meter Agent Changes - Interval Usage (used to tell the receiver that this is a partial usage statement. The billing agent must combine the KH usage and the MV usage to determine total usage for period.		
Conditional	**BPT07**	**306**	**Action Code** Code indicating type of action		**O**	**ID 1/2**
			F	Final		
				Code to indicate this is the final usage data being sent for this customer. Either the customer account is final with the LDC or the customer switched to a new ESP. **NJ PSE&G:** PSE&G only sends “F” on a customer account final. They do not send an “F” on a customer switch.		
Conditional	**BPT09**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier		**O**	**AN 1/30**
			When BPT01 = 01 (cancel), this element is required and should contain the transaction identification number from BPT02 of the transaction that is being cancelled.			

Segment:	**DTM** **Date/Time Reference (649=Document Due Date)**
Position:	050
Loop:	
Level:	Heading
Usage:	Optional
Max Use:	10
Purpose:	To specify pertinent dates and times
Syntax Notes:	**1** At least one of DTM02 DTM03 or DTM05 is required. **2** If DTM04 is present, then DTM03 is required. **3** If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:	
Comments:	
Notes:	Required for Bill Ready Consolidated Billing where the meter reading party sends an 867 to the non-billing party, who calculates their own portion of the bill and sends the 810 to the billing party. Must be expressed in Eastern Prevailing Time. Not provided on cancel transaction.
PA Use:	Required for Bill Ready, not used in Rate Ready and Dual Billing **Note:** For ESP Consolidated Billing, the document due date will be set according to the specific LDC bill ready implementation.
NJ Use:	Required for Bill Ready, not used in Rate Ready and Dual Billing
DE Use:	Required for Bill Ready, not used in Rate Ready and Dual Billing
MD Use:	Required for Bill Ready, not used in Rate Ready and Dual Billing
Examples:	DTM*649*19990131*2359

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 649 Document Due The date that the non-billing party must provide the 810 transaction back to the billing party. If a file is received by the billing party after the date, and the billing party cannot process it, they must notify the non-billing party (via email, phone call, or any other means).	**M ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**
Must Use	**DTM03**	**337**	**Time** Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99) HHMM format	**X TM 4/8**

Segment:	**MEA** **Measurements (NP=Percent Participation)**
Position:	075
Loop:	
Level:	Heading
Usage:	Optional
Max Use:	20
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** At least one of MEA03 MEA05 MEA06 or MEA08 is required. **2** If MEA05 is present, then MEA04 is required. **3** If MEA06 is present, then MEA04 is required. **4** If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required. **5** Only one of MEA08 or MEA03 may be present.
Semantic Notes:	**1** MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:	**1** 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.
PA Use:	Required if less than 100%
NJ Use:	Not used Exception - RECO: For RECO only – allow this field to have value other than 100%. When this is less than 100%, RECO will apply this percentage to the customers usage when calculating a rate ready bill.
DE Use:	Not used
MD Use:	Only used by Allegheny
Example:	MEA**NP*.66667

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies NP Percent Participation This code is used to indicate the percentage of the total load that is supplied by the ESP. This is the multiplication of two fields that are on the 814 transaction, AMT*7N (Participating Interest) and AMT*QY (Eligible Load).	**O ID 1/3**
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement The whole number "1" represents 100 percent. Decimal numbers less than "1" represent percentages from 1 percent to 99 percent.	**X R 1/20**

Segment:	**N1** **Name (8S=LDC Name)**
Position:	080
Loop:	N1
Level:	Heading
Usage:	Optional
Max Use:	1
Purpose:	To identify a party by type of organization, name, and code
Syntax Notes:	**1** At least one of N102 or N103 is required. **2** 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** N105 and N106 further define the type of entity in N101.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	N1*8S*LDC COMPANY*1*007909411

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**N101**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, property or an individual 8S Consumer Service Provider (CSP) LDC	**M ID 2/3**
Must Use	**N102**	**93**	**Name** Free-form name LDC Company Name	**X AN 1/60**
Must Use	**N103**	**66**	**Identification Code Qualifier** Code designating the system/method of code structure used for Identification Code (67) 1 D-U-N-S Number, Dun & Bradstreet 9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix	**X ID 1/2**
Must Use	**N104**	**67**	**Identification Code** Code identifying a party or other code LDC D-U-N-S Number or D-U-N-S + 4 Number	**X AN 2/20**

Segment: **N1** **Name (SJ=ESP Name)**
Position: 080
Loop: N1
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes:
1 At least one of N102 or N103 is required.
2 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 N105 and N106 further define the type of entity in N101.

PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	N1*SJ*ESP COMPANY*9*007909422ESP

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**N101**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, property or an individual SJ Service Provider ESP	**M ID 2/3**
Must Use	**N102**	**93**	**Name** Free-form name ESP Company Name	**X AN 1/60**
Must Use	**N103**	**66**	**Identification Code Qualifier** Code designating the system/method of code structure used for Identification Code (67) 1 D-U-N-S Number, Dun & Bradstreet 9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix	**X ID 1/2**
Must Use	**N104**	**67**	**Identification Code** Code identifying a party or other code ESP D-U-N-S Number or D-U-N-S + 4 Number	**X AN 2/20**

Segment: **N1** **Name (G7=Renewable Energy Provider Name)**
Position: 080
Loop: N1
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: **1** At least one of N102 or N103 is required.
2 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 N105 and N106 further define the type of entity in N101.

PA Use:	Not used
NJ Use:	Required
DE Use:	Not used
MD Use:	Not used
Example:	N1*G7*RENEWABLE COMPANY*9*007909422GPM

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**N101**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, property or an individual G7 Entity Providing the Service Renewable Energy Provider	**M ID 2/3**
Must Use	**N102**	**93**	**Name** Free-form name Renewable Energy Provider Company Name	**X AN 1/60**
Must Use	**N103**	**66**	**Identification Code Qualifier** Code designating the system/method of code structure used for Identification Code (67) 1 D-U-N-S Number, Dun & Bradstreet 9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix	**X ID 1/2**
Must Use	**N104**	**67**	**Identification Code** Code identifying a party or other code Renewable Energy Provider D-U-N-S Number or D-U-N-S + 4 Number	**X AN 2/20**

Segment: **N1** **Name (8R=Customer Name)**
Position: 080
Loop: N1
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: **1** At least one of N102 or N103 is required.
2 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 N105 and N106 further define the type of entity in N101.

Notes:	Please note that while you may place your N1 segments in any order, the REF segments that follow must be contained within the N1*8R loop.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	N1*8R*CUSTOMER NAME

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**N101**	**98**	**Entity Identifier Code** Code identifying an organizational entity, a physical location, property or an individual 8R Consumer Service Provider (CSP) Customer End Use Customer	**M**	**ID 2/3**
Must Use	**N102**	**93**	**Name** Free-form name Customer Name	**X**	**AN 1/60**

Segment:	**REF Reference Identification (11=ESP Account Number)**
Position:	120
Loop:	N1
Level:	Heading
Usage:	Optional
Max Use:	12
Purpose:	To specify identifying information
Syntax Notes:	**1** At least one of REF02 or REF03 is required. **2** If either C04003 or C04004 is present, then the other is required. **3** If either C04005 or C04006 is present, then the other is required.
Semantic Notes:	**1** REF04 contains data relating to the value cited in REF02.
Comments:	
PA Use:	Required if it was previously provided to the LDC.
NJ Use:	Conditional
	In New Jersey, Atlantic City Electric, JCP&L and PSE&G will store ESP account number and will be required to send it if it was previous provided to the LDC. Rockland Electric will not be storing ESP account number, and will never send it on an 867 transaction. Atlantic City Electric will only be storing 20 characters.
DE Use:	Delmarva will store ESP account number and will be required to send it if it was previous provided to the LDC. Delmarva will only be storing 20 characters.
MD Use:	Same as PA **Note:** Delmarva will store ESP account number, but will only store 20 characters.
Example:	REF*11*1394959

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification 11 Account Number ESP-assigned account number for the end use customer.	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

Segment:	**REF Reference Identification (12=LDC Account Number)**
Position:	120
Loop:	N1
Level:	Heading
Usage:	Optional
Max Use:	12
Purpose:	To specify identifying information
Syntax Notes:	**1** At least one of REF02 or REF03 is required. **2** If either C04003 or C04004 is present, then the other is required. **3** If either C04005 or C04006 is present, then the other is required.
Semantic Notes:	**1** REF04 contains data relating to the value cited in REF02.
Comments:	
PA Use:	Required
NJ Use:	Required **Note:** RECO only uses REF03 value of "U" for unmetered usage. Separate enrollment requests must be made for metered/unmetered usage for RECO. No other EDC uses REF03.
DE Use:	Required
MD Use:	Required
Example:	REF*12*1239485790

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification 12 Billing Account LDC-assigned account number for the end use customer. Must appear as it does on the customer's bill.	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**
Optional	**REF03**	**352**	**Description** A free-form description to clarify the related data elements and their content U Unmetered	**X AN 1/80**

Segment:	**REF Reference Identification (45=LDC Old Account Number)**
Position:	120
Loop:	N1
Level:	Heading
Usage:	Optional
Max Use:	12
Purpose:	To specify identifying information
Syntax Notes:	**1** At least one of REF02 or REF03 is required. **4** If either C04003 or C04004 is present, then the other is required. **5** If either C04005 or C04006 is present, then the other is required.
Semantic Notes:	**1** REF04 contains data relating to the value cited in REF02.
Comments:	
PA Use:	**Note:** Only used when LDC is sending this transaction. Required if account number has changed within the last 60 days.
NJ Use:	Required if account number has changed within the last 60 days.
DE Use:	Not used
MD Use:	**Note:** Only used when LDC is sending this transaction. Not Used by BGE, PEPCO, or Delmarva. APS: Required if the account number has changed in the last 60 days.
Example:	REF*45*939581900

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification 45 Old Account Number Previous LDC-assigned account number for the end use customer.	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

Segment: **REF** **Reference Identification (BLT=Billing Type)**
Position: 120
Loop: N1
Level: Heading
Usage: Optional
Max Use: 12
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:
PA Use: Required
Note: Some utilities may not be able to comply with this until later since this was added so close to the 4010 implementation date.
NJ Use: Optional
DE Use: Optional
MD Use: Optional
Example: REF*BLT*LDC

Data Element Summary

	Ref. Des.	Data Element	Name	X12 Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification BLT Billing Type Identifies whether the bill is consolidated by the LDC or ESP, or whether each party will render their own bill. See REF02 for valid values.	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier When REF01 is BLT, valid values for REF02 are: LDC - The LDC bills the customer ESP - The ESP bills the customer DUAL - Each party bills the customer for their portion **Note:** In New Jersey, only LDC and DUAL are valid.	**X AN 1/30**

Segment: **REF** **Reference Identification (PC=Bill Calculator)**
Position: 120
Loop: N1
Level: Heading
Usage: Optional
Max Use: 12
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:
PA Use: Required
Note: Some utilities may not be able to comply with this until later since this was added so close to the 4010 implementation date.
NJ Use: Optional
DE Use: Optional
MD Use: Optional
Example: REF*PC*LDC

Data Element Summary

	Ref. Des.	Data Element	Name	X12 Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification PC — Production Code Identifies the party that is to calculate the charges on the bill.	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier When REF01 is PC, valid values for REF02 are: LDC - The LDC calculates the charges on the bill (Rate Ready) DUAL - Each party calculates its portion of the bill (Dual or Bill Ready)	**X AN 1/30**

IF …			THEN…	
Bills the	**Calculates**		**Billing Party**	**Calc. Party**
Customer	**LDC Portion**	**ESP Portion**	**REF*BLT**	**REF*PC**
LDC	LDC	LDC	LDC	LDC
LDC	LDC	ESP	LDC	DUAL
ESP	LDC	ESP	ESP	DUAL
DUAL	LDC	ESP	DUAL	DUAL

Be careful to use the UIG Standard Code Values LDC and ESP rather than the Pennsylvania versions of those codes.

Segment:	**PTD** **Product Transfer and Resale Detail (BB=Monthly Billed Summary)**
Position:	010
Loop:	PTD
Level:	Detail
Usage:	Mandatory
Max Use:	1
Syntax Notes:	**1** If either PTD02 or PTD03 is present, then the other is required. **2** If either PTD04 or PTD05 is present, then the other is required.
Semantic Notes:	
Comments:	
Notes:	PTD Loops may be sent in any order.
PA Use:	One Monthly Billed Summary PTD loop is required for every account.
NJ Use:	One Monthly Billed Summary PTD loop is required for every account.
DE Use:	One Monthly Billed Summary PTD loop is required for every account.
MD Use:	One Monthly Billed Summary PTD loop is required for every account.
Example:	PTD*BB

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
Must Use	**PTD01**	**521**	**Product Transfer Type Code** Code identifying the type of product transfer		**M ID 2/2**
			BB	Demand Information Only This information is obtained from the billing system to reflect the billing data for this account at the unit of measure level.	

Note:

Refer to the "PTD Loops Definition and Use" section earlier in this document for an explanation of this specific PTD Loop.

Segment: **DTM** **Date/Time Reference (150=Service Period Start)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	DTM*150*19990101

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 150 Service Period Start	**M**	**ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X**	**DT 8/8**

Segment: **DTM** **Date/Time Reference (151=Service Period End)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	DTM*151*19990131

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 151 Service Period End	**M ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**

Segment: **QTY** **Quantity (Billed kwh)**
Position: 110
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 1
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.
Comments:

Notes:	Billed KWH
PA Use:	Required
NJ Use:	Required **Note:** For a net metered account, this will reflect the net usage.
DE Use:	Required
MD Use:	Required
Example:	QTY*D1*22348*KH

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity		**M**	**ID 2/2**
			D1	Billed Used when Quantity in QTY02 is a “Billed” quantity.		
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity		**X**	**R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		**M**	**ID 2/2**
			KH	Kilowatt Hour Billed Kilowatt Hours as shown on the customer’s bill. May or may not be the same as measured kilowatt hours.		

Segment: **QTY** **Quantity (Billed Demand)**
Position: 110
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 1
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.
Comments:

Notes:	Billed Demand
PA Use:	Required if account measures Demand (KW). This must be sent even if Billed (derived) demand is equal to measured demand.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	QTY*D1*14*K1

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity		**M**	**ID 2/2**
			D1	Billed Used when Quantity in QTY02 is a “Billed” quantity.		
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity		**X**	**R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		**M**	**ID 2/2**
			K1	Kilowatt Demand		

Segment: **QTY** **Quantity (Measured Demand)**
Position: 110
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 1
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.
Comments:

Notes:	Measured Demand
PA Use:	Required if account measures Demand (KW)
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	QTY*QD*14*K1

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity		**M**	**ID 2/2**
			KA	Estimated		
				Used when Quantity in QTY02 is Estimated		
			87	Quantity Received		
				Quantity Received from customer in a Co-generation environment		
			9H	Estimated Duration		
				The quantity received shown is an estimated quantity in a Co-generation environment		
			QD	Quantity Delivered		
				Used when Quantity in QTY02 is Actual		
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity		**X**	**R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		**M**	**ID 2/2**
			K1	Kilowatt Demand		

Segment:	**PTD** **Product Transfer and Resale Detail (BO=Meter Services Summary)**
Position:	010
Loop:	PTD
Level:	Detail
Usage:	Mandatory
Max Use:	1
Purpose:	To indicate the start of detail information relating to the transfer/resale of a product and provide identifying data
Syntax Notes:	**1** If either PTD02 or PTD03 is present, then the other is required. **2** If either PTD04 or PTD05 is present, then the other is required.
Semantic Notes:	
Comments:	
Notes:	Metered Services Summary. This loop is always used in conjunction with the Metered Services Detail loop (PTD01=PM). It is used when the metering agent is reporting interval data at the **meter** level. **Note:** All "Use" fields for this PTD loop are relevant only if this PTD loop (PTD01=BO) is used.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	PTD*BO

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**PTD01**	**521**	**Product Transfer Type Code** Code identifying the type of product transfer	**M ID 2/2**
			BO Designated Items **Meter Services Summary**	

Segment: **DTM** **Date/Time Reference (150=Service Period Start)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the beginning of the date range for this meter for this billing period. **Note:** The Service Period Start Date and Service Period End Date in the Metered Services Summary loop must match the dates in the Metered Services Detail loop.
PA Use:	Required, unless a "DTM*514" is substituted for this code.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not Used
Example:	DTM*150*19990101

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 150 Service Period Start	**M ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**

Segment: **DTM** **Date/Time Reference (151=Service Period End)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the end of the date range for this meter for this billing period. **Note:** The Service Period Start Date and Service Period End Date in the Metered Services Summary loop must match the dates in the Metered Services Detail loop.
PA Use:	Required, unless a "DTM*514" is substituted for this code.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not Used
Example:	DTM*151*19990131

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 151 Service Period End	**M ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**

Segment:	**DTM** **Date/Time Reference (514=Meter Exchange Date)**
Position:	020
Loop:	PTD
Level:	Detail
Usage:	Optional
Max Use:	10
Purpose:	To specify pertinent dates and times
Syntax Notes:	**1** At least one of DTM02 DTM03 or DTM05 is required. **2** If DTM04 is present, then DTM03 is required. **3** If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:	
Comments:	
Notes:	Used in conjunction with either the Service Period Start Date or the Service Period End Date to indicate when a meter has been replaced. Separate PTD loops must be created for each period and meter.
PA Use:	Required when a meter is changed and the meter agent does not change.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not Used
Example:	Date Range in the first PTD is shown as: DTM*150*19990201 DTM*514*19990214 Date Range in the second PTD is shown as: DTM*514*19990214 DTM*151*19990228

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time		**M**	**ID 3/3**
			514	Transferred Exchanged meter read date		
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD		**X**	**DT 8/8**

Segment: **REF** **Reference Identification (MG=Meter Number)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	Required if this is a metered account and the meter is on the account at the end of the period. For some utilities, they may not be able to provide the actual meter number for a meter that has been changed out during the month. In that case, the REF*MG will not be sent. Everyone is working toward being able to provide the old meter number.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	REF*MG*2222277S

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification MG Meter Number	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

Segment: **REF** **Reference Identification (JH=Meter Role)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:

Notes:	Meter Role – effect of consumption on summarized total:
PA Use:	Required if consumption is provided at a meter level
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	REF*JH*A

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification JH Meter Role	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier When REF01 is JH, valid values for REF02 are: S = Subtractive - this consumption needs to be subtracted from the summarized total. A = Additive - this consumption contributed to the summarized total (do nothing). I = Ignore - this consumption did not contribute to the summarized total (do nothing).	**X AN 1/30**

Segment: **REF** **Reference Identification (IX=Number of Dials)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	Required for meters with dials
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	REF*IX*6.0 REF*IX*5.1 REF*IX*4.2

Data Element Summary

	Ref. Des.	Data Element	Name	X12 Attributes	
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification IX Rate Card Number Number of Dials on the Meter displayed as the number of dials to the left of the decimal, a decimal point, and the number of dials to the right of the decimal.	**M**	**ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN 1/30**
Optional	**REF03**	**352**	**Description** A free-form description to clarify the related data elements and their content Optional use: See Meter Type (REF*MT) on 814 Enrollment for valid codes.	**X**	**AN 1/80**

# Dials	Positions to left of decimal	Positions to right of decimal	X12 Example
6	6	0	REF*IX*6.0
6	5	1	REF*IX*5.1
6	4	2	REF*IX*4.2

Segment:	**QTY** **Quantity**
Position:	110
Loop:	QTY
Level:	Detail
Usage:	Optional
Max Use:	1
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.
Comments:	
Notes:	There will be one QTY loop for each of the QTY03 Units of Measurement listed below that are measured on this account when interval data is being provided at the meter level.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	QTY*QD*22348*KH

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity		**M**	**ID 2/2**
			KA	Estimated		
				The quantity delivered shown is an estimated quantity.		
			QD	Quantity Delivered		
				Used when Quantity in QTY02 is Actual		
			87	Quantity Received		
				Quantity received from a customer in a Co-generation environment.		
			9H	Estimated Duration		
				Quantity received shown is an estimated quantity in a Co-generation environment		
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity		**X**	**R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		**M**	**ID 2/2**
			K3	Kilovolt Amperes Reactive Hour (kVARH)		
				Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters		
			KH	Kilowatt Hour (kWh)		

Segment: **MEA** **Measurements (MU=Meter Multiplier)**
Position: 160
Loop: QTY
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 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 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.

PA Use:	Required for a meter that has a meter multiplier other than 1.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	MEA**MU*2

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies MU Multiplier	**O ID 1/3**
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement Represents the meter constant when MEA02 equals “MU”. When the multiplier equals 1, do not send this MEA segment.	**X R 1/20**

Segment: **MEA** **Measurements (ZA=Power Factor)**
Position: 160
Loop: QTY
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 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
3 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
3 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
3 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 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.

PA Use:	Power Factor: Relationship between watts and volt amperes necessary to supply electric load. Required if it is available to the meter agent and it is used in the calculation of the customer's bill. This is only relevant and should only be sent with Demand (K1). If not present with a demand quantity, it should be assumed to be 1.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	MEA**ZA*.95

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies ZA Power Factor Relationship between watts and volt – amperes necessary to supply electric load	**O ID 1/3**
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement Represents the Power Factor when MEA02 equals "ZA". When no Power Factor is present or the value is 1, do not send this MEA segment.	**X R 1/20**

Segment: **MEA** **Measurements (CO=Transformer Loss Factor)**
Position: 160
Loop: QTY
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 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
3 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
3 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
3 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 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.

PA Use:	Transformer Loss Factor: Required when customer owns a transformer and the transformer loss is not calculated by the meter.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	MEA**CO*1.02

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies CO — Transformer Loss Multiplier When a customer owns a transformer and the transformer loss is not measured by the meter.	**O ID 1/3**
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement Represents the Transformer Loss Multiplier when MEA02 equals “CO”.	**X R 1/20**

Segment:	**PTD** **Product Transfer and Resale Detail (PM=Meter Services Detail)**
Position:	010
Loop:	PTD
Level:	Detail
Usage:	Mandatory
Max Use:	1
Purpose:	To indicate the start of detail information relating to the transfer/resale of a product and provide identifying data
Syntax Notes:	**1** If either PTD02 or PTD03 is present, then the other is required. **3** If either PTD04 or PTD05 is present, then the other is required.
Semantic Notes:	
Comments:	
Notes:	Meter Services Detail This loop is always used in conjunction with the Metered Services Summary loop (PTD01=BO). It is used when the metering agent is reporting interval data at the **meter** level. **Note:** This loop is optional on a cancel transaction. **Note:** All "Use" fields for this PTD loop are relevant only if this PTD loop (PTD01=PM) is used.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	PTD*PM

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**PTD01**	**521**	**Product Transfer Type Code** Code identifying the type of product transfer PM Physical Meter Information Meter Services Detail	**M ID 2/2**

Note:

Refer to the "PTD Loops Definition and Use" section earlier in this document for an explanation of this specific PTD Loop.

Segment: **DTM** **Date/Time Reference (150=Service Period Start)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
3 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the beginning of the date range for this meter for this billing period. **Note:** The Service Period Start Date and Service Period End Date in the Meter Services Summary loop must match the dates in the Meter Services Detail loop.
PA Use:	Required, unless a "DTM*514" is substituted for this code.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	DTM*150*19990101

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 150 Service Period Start	**M ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**

Segment: **DTM** **Date/Time Reference (151=Service Period End)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
3 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the end of the date range for this meter for this billing period. **Note:** The Service Period Start Date and Service Period End Date in the Meter Services Summary loop must match the dates in the Meter Services Detail loop.
PA Use:	Required, unless a "DTM*514" is substituted for this code.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	DTM*151*19990131

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 151 Service Period End	**M**	**ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X**	**DT 8/8**

Segment: **DTM** **Date/Time Reference (514=Meter Exchange Date)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes: **1** At least one of DTM02 DTM03 or DTM05 is required.
3 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	Used in conjunction with either the Service Period Start Date or the Service Period End Date to indicate when a meter has been replaced. Separate PTD loops must be created for each period and meter.
PA Use:	Required when a meter is changed and the meter agent does not change.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	Date Range in the first PTD is shown as: DTM*150*19990201 DTM*514*19990214 Date Range in the second PTD is shown as: DTM*514*19990214 DTM*151*19990228

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time		**M**	**ID 3/3**
			514	Transferred Exchanged meter read date		
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD		**X**	**DT 8/8**

Segment: **REF** **Reference Identification (MG=Meter Number)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
3 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	Required if this is a metered account and the meter is on the account at the end of the period. For some utilities, they may not be able to provide the actual meter number for a meter that has been changed out during the month. In that case, the REF*MG will not be sent. Everyone is working toward being able to provide the old meter number.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	REF*MG*2222277S

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification MG Meter Number	**M ID 2/3**
	REF02	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

Segment: **REF** **Reference Identification (MT=Meter Type)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
3 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:

Notes:	The use of this segment allows the receiver to know the interval length being sent.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	REF*MT*KH015

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification MT Meter Type	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

When REF01 is MT, the meter type is expressed as a five-character field. The first two characters are the type of consumption, the last three characters are the metering interval. Since this value ties to the consumption being reported, the value "COMBO" is not valid. Valid values can be a combination of the following values:

Type of Consumption

K1	Kilowatt Demand
K2	Kilovolt Amperes Reactive Demand
K3	Kilovolt Amperes Reactive Hour
K4	Kilovolt Amperes
K5	Kilovolt Amperes Reactive
KH	Kilowatt Hour
T9	Thousand Kilowatt Hours

Metering Interval

Nnn	Number of minutes from 001 to 999
ANN	Annual
BIA	Bi-annual
BIM	Bi-monthly
DAY	Daily
MON	Monthly
QTR	Quarterly

For Example:

KHMON	Kilowatt Hours Per Month
K1015	Kilowatt Demand per 15 minute interval

Segment:	**QTY** **Quantity**
Position:	110
Loop:	QTY
Level:	Detail
Usage:	Optional
Max Use:	1
Purpose:	To specify quantity information
Syntax Notes:	**1** At least one of QTY02 or QTY04 is required. **3** Only one of QTY02 or QTY04 may be present.
Semantic Notes:	**1** QTY04 is used when the quantity is non-numeric.
Comments:	
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	QTY*QD*87*KH

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity	**M ID 2/2**
			KA Estimated The quantity delivered shown is an estimated quantity	
			QD Quantity Delivered Used when Quantity in QTY02 is Actual	
			87 Quantity Received Quantity Received from customer in a Co-generation environment	
			96 Non-Billable Quantity Indicates this quantity and interval are outside of the actual bill period	
			9H Estimated Duration The quantity received shown is an estimated quantity in a Co-generation environment	
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity	**X R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	**M ID 2/2**
			K1 Kilowatt Demand (kW) Represents potential power load measured at predetermined intervals	
			K2 Kilovolt Amperes Reactive Demand (kVAR) 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 (kVARH) Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters	
			K4 Kilovolt Amperes (KVA)	
			KH Kilowatt Hour (kWh)	

Segment:	**DTM** **Date/Time Reference (582=Report Period)**
Position:	210
Loop:	QTY
Level:	Detail
Usage:	Optional
Max Use:	10
Purpose:	To specify pertinent dates and times
Syntax Notes:	**1** At least one of DTM02 DTM03 or DTM05 is required. **3** If DTM04 is present, then DTM03 is required. **3** If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:	
Comments:	
Notes:	End date and time of the period for which the quantity is provided. Time will include zone. Each interval must be explicitly labeled with the date and time.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	DTM*582*19990115*1500*ET

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time	**M ID 3/3**
			582 Report Period	
			The date/time of the end of the interval.	
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**
Must Use	**DTM03**	**337**	**Time** Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)	**X TM 4/8**
			HHMM format	
Must Use	**DTM04**	**623**	**Time Code** Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or – and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and – are substituted by P and M in the codes that follow	**O ID 2/2**
			The time code must accurately provide the time zone when the daylight savings time starts and ends if the meter is adjusted for daylight savings time. If meter is not adjusted for daylight savings time, the time code will always reflect Eastern Daylight Time which will be interpreted as prevailing time.	
			ED Eastern Daylight Time	
			ES Eastern Standard Time	

Segment: **PTD** **Product Transfer and Resale Detail (BR=Non-Interval Metered Services Summary)**
Position: 010
Loop: PTD
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of detail information relating to the transfer/resale of a product and provide identifying data
Syntax Notes:
1 If either PTD02 or PTD03 is present, then the other is required.
2 If either PTD04 or PTD05 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	PTD Loops may be sent in any order.
PA Use:	Not Used
NJ Use:	Required if this is a transaction containing interval and non-interval data; otherwise, not used. Non-interval data will be summed in this loop.
DE Use:	Not Used
MD Use:	Not Used
Example:	PTD*BR

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**PTD01**	**521**	**Product Transfer Type Code** Code identifying the type of product transfer BR Other A summary loop will be provided for each type of consumption for every unit of measure for all non-interval meters in the account.	**M ID 2/2**

Note:

Refer to the "PTD Loops Definition" section earlier in this document for an explanation of this specific PTD Loop.

Segment: **DTM** **Date/Time Reference (150=Service Period Start)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

PA Use:	Not Used
NJ Use:	Required if this is a transaction containing interval and non-interval data; otherwise, not used.
DE Use:	Not Used
MD Use:	Not Used
Example:	DTM*150*19990101

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 150 Service Period Start	**M**	**ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X**	**DT 8/8**

Segment: **DTM** **Date/Time Reference (151=Service Period End)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

PA Use:	Not Used
NJ Use:	Required if this is a transaction containing interval and non-interval data; otherwise, not used.
DE Use:	Not Used
MD Use:	Not Used
Example:	DTM*151*19990131

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 151 Service Period End	**M**	**ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X**	**DT 8/8**

Segment: **QTY** **Quantity**
Position: 110
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 1
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.
Comments:

Notes:	There will be one QTY loop for each of the QTY03 Units of Measurement listed below that are measured on this account.
PA Use:	Not Used
NJ Use:	Required if this is a transaction containing interval and non-interval data; otherwise, not used.
DE Use:	Not Used
MD Use:	Not Used
Example:	QTY*QD*22348*KH

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity		**M**	**ID 2/2**
			KA	Estimated		
				Used when Quantity in QTY02 is Estimated		
			QD	Quantity Delivered		
				Used when Quantity in QTY02 is Actual		
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity		**X**	**R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		**M**	**ID 2/2**
			K3	Kilovolt Amperes Reactive Hour (kVARH)		
				Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters		
			KH	Kilowatt Hour		

Segment: **PTD** **Product Transfer and Resale Detail (PL=Non-Interval Metered Services Detail)**
Position: 010
Loop: PTD
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of detail information relating to the transfer/resale of a product and provide identifying data
Syntax Notes:
1 If either PTD02 or PTD03 is present, then the other is required.
2 If either PTD04 or PTD05 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	PTD Loops may be sent in any order. There will be a separate PTD loop for each unit of measurement for each non-interval meter on the account.
PA Use:	Not Used
NJ Use:	Required if this is a transaction containing interval and non-interval data; otherwise, not used.
DE Use:	Not Used
MD Use:	Not Used
Example:	PTD*PM

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**PTD01**	**521**	**Product Transfer Type Code** Code identifying the type of product transfer PL Physical Non-Interval Meter Information	**M ID 2/2**

Note:

Refer to the "PTD Loops Definition" section earlier in this document for an explanation of this specific PTD Loop.

Segment: **DTM** **Date/Time Reference (150=Service Period Start)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the beginning of the date range for this meter for this billing period. This specific PTD loop is required if there are metered services on the account.
PA Use:	Not Used
NJ Use:	Required unless a "DTM*514" is substituted for this code, if this is a transaction containing interval and non-interval data; otherwise, not used.
DE Use:	Not Used
MD Use:	Not Used
Example:	DTM*150*19990101

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 150 Service Period Start	**M**	**ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X**	**DT 8/8**

Segment: **DTM** **Date/Time Reference (151=Service Period End)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the end of the date range for this meter for this billing period. This specific PTD loop is required if there are metered services on the account.
PA Use:	Not Used
NJ Use:	Required unless a "DTM*514" is substituted for this code, if this is a transaction containing interval and non-interval data; otherwise, not used.
DE Use:	Not Used
MD Use:	Not Used
Example:	DTM*151*19990131

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 151 Service Period End	**M**	**ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X**	**DT 8/8**

Segment: **DTM** **Date/Time Reference (514=Meter Exchange Date)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	Used in conjunction with either the Service Period Start Date or the Service Period End Date to indicate when a non-interval meter has been replaced. Separate PTD loops must be created for each period and non-interval meter.
PA Use:	Not Used
NJ Use:	Required when a meter is changed, if this is a transaction containing interval and non-interval data; otherwise, not used.
DE Use:	Not Used
MD Use:	Not Used
Example:	Date Range in the first PTD is shown as: DTM*150*19990201 DTM*514*19990214 Date Range in the second PTD is shown as: DTM*514*19990214 DTM*151*19990228

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time		**M**	**ID 3/3**
			514	Transferred Exchanged meter read date		
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD		**X**	**DT 8/8**

Segment: **REF** **Reference Identification (MG=Meter Number)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	Not Used
NJ Use:	Required if this is a transaction containing interval and non-interval data; otherwise, not used.
DE Use:	Not Used
MD Use:	Not Used
Example:	REF*MG*2222277S

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification MG Meter Number	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

Segment: **REF** **Reference Identification (NH=LDC Rate Class)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	Not Used
NJ Use:	Optional if this is a transaction containing interval and non-interval data; otherwise, not used.
DE Use:	Not Used
MD Use:	Not Used
Example:	REF*NH*GS1

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification NH LDC Rate Code	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

Segment: **REF** **Reference Identification (PR=LDC Rate Subclass)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:

Notes:	This iteration of the REF segment is used for meter level information.
PA Use:	Not Used
NJ Use:	Optional if this is a transaction containing interval and non-interval data; otherwise, not used.
DE Use:	Not Used
MD Use:	Not Used
Example:	REF*PR*123

Data Element Summary

	Ref. Des.	Data Element	Name		X12 Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification		**M ID 2/3**
			PR	Price Quote Number	
				LDC Rate Subclass – Used to provide further classification of a rate.	
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier		**X AN 1/30**

Segment: **REF** **Reference Identification (JH=Meter Role)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	Not Used
NJ Use:	Required if this is a transaction containing interval and non-interval data; otherwise, not used. **Note:** In New Jersey, Co-gen accounts will be handled on a case by case basis, and the usage for them may not be sent via EDI.
DE Use:	Not Used
MD Use:	Not Used
Example:	REF*JH*A

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification JH Meter Role	**M**	**ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN 1/30**

When REF01 is JH, valid values for REF02 are:
S = Subtractive - this consumption needs to be subtracted from the summarized total.
A = Additive - this consumption contributed to the summarized total (do nothing).
I = Ignore - this consumption did not contribute to the summarized total (do nothing).

Segment: **REF** **Reference Identification (IX=Number of Dials/Digits)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	Not Used
NJ Use:	Required if this is a transaction containing interval and non-interval data; otherwise, not used.
DE Use:	Not Used
MD Use:	Not Used
Examples:	REF*IX*6.0 REF*IX*5.1 REF*IX*4.2

Data Element Summary

	Ref. Des.	Data Element	Name	X12 Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification IX Rate Card Number Number of Dials on the Meter displayed as the number of dials to the left of the decimal, a decimal point, and the number of dials to the right of the decimal.	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**
Optional	**REF03**	**352**	**Description** A free-form description to clarify the related data elements and their content Optional use: See Meter Type (REF*MT) on 814 Enrollment for valid codes.	**X AN 1/80**

# Dials	Positions to left of decimal	Positions to right of decimal	X12 Example
6	6	0	REF*IX*6.0
6	5	1	REF*IX*5.1
6	4	2	REF*IX*4.2

Segment: **QTY** **Quantity**
Position: 110
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 1
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.
Comments:

Notes:	There will be one QTY loop for **each** of the QTY03 Units of Measurement listed below for each meter that is measured on this account. If there are 2 meters on the account, and one measures KWH and KW, and the other measures just KWH, there will be 3 PTD01=PM loops. If a meter measures total usage, as well as on-peak and off-peak, there will be three QTY loops sent within one PTD01=PM loop. The MEA segment that follows each QTY will specify which time of use the QTY applies to.
PA Use:	Not Used
NJ Use:	Required if this is a transaction containing interval and non-interval data; otherwise, not used.
DE Use:	Not Used
MD Use:	Not Used
Example:	QTY*QD*22348*KH QTY*QD*14*K1 (If meter measures both, you will have two QTY loops)

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity		**M**	**ID 2/2**
			KA	Estimated		
			QD	Quantity Delivered		
				Used when Quantity in QTY02 is Actual		
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity		**X**	**R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		**M**	**ID 2/2**
			K1	Kilowatt Demand (kW)		
				Represents potential power load measured at predetermined intervals		
			K2	Kilovolt Amperes Reactive Demand (kVAR)		
				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 (kVARH)		
				Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters		
			K4	Kilovolt Amperes (KVA)		
			KH	Kilowatt Hour (kWh)		

Segment: **MEA** **Measurements**
Position: 160
Loop: QTY
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 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 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:	The MEA segment is sent for each QTY loop. The MEA will indicate the "time of use" that applies to the QTY. If meter readings are included in the MEA, they will indicate the "time of use" that the meter readings apply to.
PA Use:	Not Used
NJ Use:	Required if this is a transaction containing interval and non-interval data; otherwise, not used. Optional on a cancel
DE Use:	Not Used
MD Use:	Not Used
Examples:	MEA*AA*PRQ*22348*KH***51 MEA*AA*PRQ*14*K1***51 (If meter measures multiple things, you need to send multiple QTY loops, one for each unit of measurement).

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA01**	**737**	**Measurement Reference ID Code** Code identifying the broad category to which a measurement applies	**O ID 2/2**
			AA Meter reading-beginning actual/ending actual	
			AE Meter reading-beginning actual/ending estimated	
			AF Actual Total	
			BO Meter Reading as Billed Used when billing charges are based on contractual agreements or pre-established usage and not on actual usage	
			EA Meter reading-beginning estimated/ending actual	
			EE Meter reading-beginning estimated/ending estimated	
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies	**O ID 1/3**
			PRQ Consumption	
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement	**X R 1/20**
			Represents quantity of consumption delivered for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors, excluding Power Factor.	

Must Use	**MEA04**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	**M**	**ID 2/2**

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 (KVA)
K5	Kilovolt Amperes Reactive
KH	Kilowatt Hour

Conditional	**MEA05**	**740**	**Range Minimum** The value specifying the minimum of the measurement range	**X**	**R 1/20**

Beginning reading

Condition for PA: Required for Residential. If the meter provides beginning and ending reads for on and off peak usage, then you must provide beginning and ending reads and consumption. If the meter does not provide beg/ending reads, you only provide consumption.
Condition for MD: Required for residential if printed on the LDC bill.
Condition for NJ: Required for all rate classes if printed on the LDC bill, and this is an actual read. If the meter does not provide begin/ending reads, only consumption will be provided.

Must Use	**MEA06**	**741**	**Range Maximum** The value specifying the maximum of the measurement range	**X**	**R 1/20**

Ending reading or single reading (e.g., demand).

PA: Required for Residential. If the meter provides beginning and ending reads for on and off peak usage, then you must provide beginning and ending reads and consumption. If the meter does not provide beg/ending reads, you only provide consumption.
MD: Required for residential if printed on the LDC bill.

Must Use	**MEA07**	**935**	**Measurement Significance Code** Code used to benchmark, qualify or further define a measurement value	**O**	**ID 2/2**

41	Off Peak
42	On Peak
43	Intermediate
51	Total
	Totalizer
66	Shoulder

Segment: **MEA** **Measurements (MU=Meter Multiplier)**
Position: 160
Loop: QTY
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 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 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.

PA Use:	Not Used
NJ Use:	Required for non-interval meters that have a meter multiplier other than 1 if this is a transaction containing interval and non-interval data; otherwise, not used.
DE Use:	Not Used
MD Use:	Not Used
Example:	MEA**MU*2

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies MU Multiplier	**O ID 1/3**
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement Represents the meter constant when MEA02 equals "MU". When the multiplier equals 1, do not send this MEA segment.	**X R 1/20**

Segment: **MEA** **Measurements (ZA=Power Factor)**
Position: 160
Loop: QTY
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 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 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.

PA Use:	Not Used
NJ Use:	Required for non-interval meters that have a meter multiplier other than 1 if this is a transaction containing interval and non-interval data; otherwise, not used. Note: It is only required if it is used in the calculation of the customer's bill. This is only relevant and should only ever be sent with Demand (K1). If not present with a demand quantity, it should be assumed to be 1.
DE Use:	Not Used
MD Use:	Not Used
Example:	MEA**ZA*.95

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies ZA Power Factor Relationship between watts and volt - amperes necessary to supply electric load	**O**	**ID 1/3**
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement Represents the Power Factor when MEA02 equals "ZA". When no Power Factor is present or the value is 1, do not send this MEA segment.	**X**	**R 1/20**

Segment: **MEA** **Measurements (CO=Transformer Loss Multiplier)**
Position: 160
Loop: QTY
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 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 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.

PA Use:	Not Used
NJ Use:	Required for non-interval meters when Transformer Loss is not calculated by the meter if this is a transaction containing interval and non-interval data; otherwise, not used. Note: It is only required if it is used in the calculation of the customer's bill. This is only relevant and should only ever be sent with Demand (K1). If not present with a demand quantity, it should be assumed to be 1.
DE Use:	Not Used
MD Use:	Not Used
Example:	MEA**CO*1.02

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies CO Transformer Loss Multiplier When a customer owns a transformer and the transformer loss is not measured by the meter.	**O ID 1/3**
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement Represents the Transformer Loss Multiplier when MEA02 equals "CO".	**X R 1/20**

Segment:	**PTD** **Product Transfer and Resale Detail (SU=Account Services Summary)**
Position:	010
Loop:	PTD
Level:	Detail
Usage:	Mandatory
Max Use:	1
Purpose:	To indicate the start of detail information relating to the transfer/resale of a product and provide identifying data
Syntax Notes:	**1** If either PTD02 or PTD03 is present, then the other is required. **3** If either PTD04 or PTD05 is present, then the other is required.
Semantic Notes:	
Comments:	
Notes:	Account Services Summary This loop is always used in conjunction with the Account Services Detail loop (PTD01=BQ). It is used when the metering agent is reporting interval data at the **account** level. **Note:** All "Use" fields for this PTD loop are relevant only if this PTD loop (PTD01=SU) is used.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	PTD*SU

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**PTD01**	**521**	**Product Transfer Type Code** Code identifying the type of product transfer	**M ID 2/2**
			SU Summary Account Services Summary	

Note:

Refer to the "PTD Loops Definition and Use" section earlier in this document for an explanation of this specific PTD Loop.

Segment: **DTM** **Date/Time Reference (150=Service Period Start)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
3 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the end of the date range for this meter for this billing period. **Note:** The Service Period Start Date and Service Period End Date in the Account Services Summary loop must match the dates in the Account Services Detail loop.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	DTM*150*19990101

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 150 Service Period Start	**M ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**

Segment: **DTM** **Date/Time Reference (151=Service Period End)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
3 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the end of the date range for this meter for this billing period. **Note:** The Service Period Start Date and Service Period End Date in the Account Services Summary loop must match the dates in the Account Services Detail loop.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	DTM*151*19990131

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 151 Service Period End	**M ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**

Segment: **REF** **Reference Identification (6W=Channel Number)**

Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	N/A
NJ Use:	Used by PSEG. If only one channel is used, this will still be sent.
DE Use:	N/A
MD Use:	N/A
Example:	REF*6W*1

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification 6W Sequence Number Channel Number	**M**	**ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Channel Number	**X**	**AN 1/30**

Segment:	**QTY** **Quantity**
Position:	110
Loop:	QTY
Level:	Detail
Usage:	Optional
Max Use:	1
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.
Comments:	
Notes:	There will be one QTY loop for each of the QTY03 Units of Measurement listed below that are measured on this account when interval data is being provided at the Account level.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	QTY*QD*22348*KH

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity		**M**	**ID 2/2**
			KA	Estimated		
				Used when Quantity in QTY02 is Estimated		
			QD	Quantity Delivered		
				Used when Quantity in QTY02 is Actual		
			87	Quantity Received		
				Quantity Received from customer in a Co-generation environment		
			9H	Estimated Duration		
				The quantity received shown is an estimated quantity in a Co-generation environment		
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity		**X**	**R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		**M**	**ID 2/2**
			K3	Kilovolt Amperes Reactive Hour (kVARH)		
				Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters		
			KH	Kilowatt Hour		

Segment:	**PTD** **Product Transfer and Resale Detail (BQ=Account Services Detail)**
Position:	010
Loop:	PTD
Level:	Detail
Usage:	Mandatory
Max Use:	1
Purpose:	To indicate the start of detail information relating to the transfer/resale of a product and provide identifying data
Syntax Notes:	**1** If either PTD02 or PTD03 is present, then the other is required. **3** If either PTD04 or PTD05 is present, then the other is required.
Semantic Notes:	
Comments:	
Notes:	Account Services Detail This loop is always used in conjunction with the Account Services Summary loop (PTD01=SU). It is used when the metering agent is reporting interval data at the **account** level. **Note:** This loop is optional on a cancel transaction. **Note:** All "Use" fields for this PTD loop are relevant only if this PTD loop (PTD01=BQ) is used.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	PTD*BQ

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**PTD01**	**521**	**Product Transfer Type Code** Code identifying the type of product transfer	**M ID 2/2**
			BQ Other **Account Services Detail** Issue from inventory, when a specific reason type is not otherwise provided	

Note:

Refer to the "PTD Loops Definition and Use" section earlier in this document for an explanation of this specific PTD Loop.

Segment: **DTM** **Date/Time Reference (150=Service Period Start)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
4 If DTM04 is present, then DTM03 is required.
5 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the end of the date range for this meter for this billing period. **Note:** The Service Period Start Date and Service Period End Date in the Account Services Summary loop must match the dates in the Account Services Detail loop.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	DTM*150*19990101

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 150 Service Period Start	**M ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**

Segment: **DTM** **Date/Time Reference (151=Service Period End)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
6 If DTM04 is present, then DTM03 is required.
7 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the end of the date range for this meter for this billing period. **Note:** The Service Period Start Date and Service Period End Date in the Account Services Summary loop must match the dates in the Account Services Detail loop.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	DTM*151*19990131

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 151 Service Period End	**M ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**

Segment: **REF** **Reference Identification (MT=Meter Type)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
8 If either C04003 or C04004 is present, then the other is required.
9 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:

Notes:	The use of this segment allows the receiver to know the interval length being sent.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	REF*MT*KH015

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification MT Meter Type	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

When REF01 is MT, the meter type is expressed as a five-character field. The first two characters are the type of consumption, the last three characters are the metering interval. Since this value ties to the consumption being reported, the value "COMBO" is not valid. Valid values can be a combination of the following values:

Type of Consumption		Metering Interval	
K1	Kilowatt Demand	Nnn	Number of minutes from 001 to 999
K2	Kilovolt Amperes Reactive Demand	ANN	Annual
K3	Kilovolt Amperes Reactive Hour	BIA	Bi-annual
K4	Kilovolt Amperes	BIM	Bi-monthly
K5	Kilovolt Amperes Reactive	DAY	Daily
KH	Kilowatt Hour	MON	Monthly
T9	Thousand Kilowatt Hours	QTR	Quarterly

For Example:

KHMON	Kilowatt Hours Per Month
K1015	Kilowatt Demand per 15 minute interval

Segment: **REF** **Reference Identification (6W=Channel Number)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	N/A
NJ Use:	Used by PSEG. If only one channel is used, this will still be sent.
DE Use:	N/A
MD Use:	N/A
Example:	REF*6W*1

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification 6W Sequence Number Channel Number	**M**	**ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Channel Number	**X**	**AN 1/30**

Segment:	**QTY** **Quantity**
Position:	110
Loop:	QTY
Level:	Detail
Usage:	Optional
Max Use:	1
Purpose:	To specify quantity information
Syntax Notes:	**1** At least one of QTY02 or QTY04 is required. **10** Only one of QTY02 or QTY04 may be present.
Semantic Notes:	**1** QTY04 is used when the quantity is non-numeric.
Comments:	
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	QTY*QD*87*KH

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity		**M**	**ID 2/2**
			KA	Estimated		
				The quantity delivered shown is an estimated quantity		
			QD	Quantity Delivered		
				Used when Quantity in QTY02 is Actual		
			87	Quantity Received		
				Quantity Received from customer in a Co-generation environment		
			96	Non-Billable Quantity		
				Indicates this quantity and interval are outside of the actual bill period		
			9H	Estimated Duration		
				The quantity received shown is an estimated quantity in a Co-generation environment		
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity		**X**	**R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		**M**	**ID 2/2**
			K1	Kilowatt Demand (kW)		
				Represents potential power load measured at predetermined intervals		
			K2	Kilovolt Amperes Reactive Demand (kVAR)		
				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 (kVARH)		
				Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters		
			K4	Kilovolt Amperes (KVA)		
			KH	Kilowatt Hour (kWh)		

Segment: **DTM** **Date/Time Reference (582=Report Period)**
Position: 210
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
11 If DTM04 is present, then DTM03 is required.
12 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	End date and time of the period for which the quantity is provided. Time will include zone. Each interval must be explicitly labeled with the date and time.
PA Use:	Required
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Required
Example:	DTM*582*19990115*1500*ES

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time	**M ID 3/3**
			582 Report Period	
			The date/time of the end of the interval.	
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**
Must Use	**DTM03**	**337**	**Time** Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)	**X TM 4/8**
			HHMM format	
Must Use	**DTM04**	**623**	**Time Code** Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow	**O ID 2/2**
			The time code must accurately provide the time zone when the daylight savings time starts and ends if the meter is adjusted for daylight savings time. If meter is not adjusted for daylight savings time, the time code will always reflect Eastern Daylight Time which will be interpreted as prevailing time.	
			ED Eastern Daylight Time	
			ES Eastern Standard Time	

Segment:	**PTD Product Transfer and Resale Detail (IA=Residential Meter Services Summary)**
Position:	010
Loop:	PTD
Level:	Detail
Usage:	Mandatory
Max Use:	1
Purpose:	To indicate the start of detail information relating to the transfer/resale of a product and provide identifying data
Syntax Notes:	**1** If either PTD02 or PTD03 is present, then the other is required. **2** If either PTD04 or PTD05 is present, then the other is required.
Semantic Notes:	
Comments:	
Notes:	Residential Meter Readings Summary **Note:** This loop is only used if this is a residential account. It will provide the readings that need to print on the customer's bill. There will be a PTD*IA loop for each meter on the account. **Note:** This loop is optional on a cancel transaction. **Note:** If a residential account <u>only</u> has an advanced meter as part of a load profile sampling, the actual interval data will not be sent – that meter will be treated as a monthly meter and the 867MU will be sent.
PA Use:	Conditional
NJ Use:	Not used since only the utility can do meter reading, and the only residential accounts with advanced meters are part of a load profile sampling.
DE Use:	Not used since only the utility can do meter reading, and the only residential accounts with advanced meters are part of a load profile sampling.
MD Use:	Not used since rules for third party metering have not been defined, and for utility owned meters, the only residential accounts with advanced meters are part of a load profile sampling.
Example:	PTD*IA

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**PTD01**	**521**	**Product Transfer Type Code** Code identifying the type of product transfer	**M ID 2/2**
			IA Inventory adjustment Residential Meter Readings Summary	

Note:

Refer to the "PTD Loops Definition and Use" section earlier in this document for an explanation of this specific PTD Loop.

Segment:	**DTM** **Date/Time Reference (150=Service Period Start)**
Position:	020
Loop:	PTD
Level:	Detail
Usage:	Optional
Max Use:	10
Purpose:	To specify pertinent dates and times
Syntax Notes:	**1** At least one of DTM02 DTM03 or DTM05 is required. **2** If DTM04 is present, then DTM03 is required. **2** If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:	
Comments:	
Notes:	This date reflects the beginning of the date range for this meter for this billing period. **Note:** The Service Period Start Date and Service Period End Date in the Residential Meter Services Summary loop must match the dates in the Residential Meter Services Detail loop.
PA Use:	Required, unless a "DTM*514" is substituted for this code.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	DTM*150*19990101

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 150 Service Period Start	**M ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**

Segment: **DTM** **Date/Time Reference (151=Service Period End)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
2 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the end of the date range for this meter for this billing period. **Note:** The Service Period Start Date and Service Period End Date in the Residential Meter Services Summary loop must match the dates in the Residential Meter Services Detail loop.
PA Use:	Required, unless a "DTM*514" is substituted for this code.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	DTM*151*19990131

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 151 Service Period End	**M**	**ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X**	**DT 8/8**

Segment: **DTM** **Date/Time Reference (514=Meter Exchange Date)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
2 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	Used in conjunction with either the Service Period Start Date or the Service Period End Date to indicate when a meter has been replaced. Separate PTD loops must be created for each period and meter.
PA Use:	Required when a meter is changed and the meter agent does not change.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	Date Range in the first PTD is shown as: DTM*150*19990201 DTM*514*19990214 Date Range in the second PTD is shown as: DTM*514*19990214 DTM*151*19990228

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time		**M**	**ID 3/3**
			514	Transferred Exchanged meter read date		
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD		**X**	**DT 8/8**

Segment:	**REF** **Reference Identification (MG=Meter Number)**
Position:	030
Loop:	PTD
Level:	Detail
Usage:	Optional
Max Use:	20
Purpose:	To specify identifying information
Syntax Notes:	**1** At least one of REF02 or REF03 is required. **2** If either C04003 or C04004 is present, then the other is required. **2** If either C04005 or C04006 is present, then the other is required.
Semantic Notes:	**1** REF04 contains data relating to the value cited in REF02.
Comments:	
PA Use:	Required if this is a metered account and the meter is on the account at the end of the period. For some utilities, they may not be able to provide the actual meter number for a meter that has been changed out during the month. In that case, the REF*MG will not be sent. Everyone is working toward being able to provide the old meter number. If there is a Load Profile Recorder (LPR) or Data Recorder, only send consumption on this device once. Either send data on the LPR/Data Recorder level or on each specific meter.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	REF*MG*2222277S

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification MG Meter Number	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

Segment: **REF** **Reference Identification (JH=Meter Role)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
2 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:

Notes:	Meter Role – effect of consumption on summarized total
PA Use:	Required if consumption is provided at a meter level
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	REF*JH*A

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification JH Meter Role	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier When REF01 is JH, valid values for REF02 are: S = Subtractive – this consumption needs to be subtracted from the summarized total. A = Additive – this consumption contributed to the summarized total (do nothing). I = Ignore – this consumption did not contribute to the summarized total (do nothing).	**X AN 1/30**

Segment: **REF** **Reference Identification (IX=Number of Dials/digits)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
2 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	Required for meters with dials
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	REF*IX*6.0 REF*IX*5.1 REF*IX*4.2

Data Element Summary

	Ref. Des.	Data Element	Name	X12 Attributes	
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification IX Rate Card Number Number of Dials on the Meter displayed as the number of dials to the left of the decimal, a decimal point, and the number of dials to the right of the decimal.	**M**	**ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN 1/30**
Optional	**REF03**	**352**	**Description** A free-form description to clarify the related data elements and their content Optional use: See Meter Type (REF*MT) on 814 Enrollment for valid codes.	**X**	**AN 1/80**

# Dials	Positions to left of decimal	Positions to right of decimal	X12 Example
6	6	0	REF*IX*6.0
6	5	1	REF*IX*5.1
6	4	2	REF*IX*4.2

Segment: **QTY** **Quantity**
Position: 110
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 1
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.
Comments:

Notes:	There will be one QTY loop for **each** of the QTY03 Units of Measurement listed below for each meter that is measured on this account. If there are 2 meters on the account, and one measures KWH and KW, and the other measures just KWH, there will be 3 PTD01=IA loops. If a meter measures total usage, as well as on-peak and off-peak, there will be three QTY loops sent within one PTD01=PM loop. The MEA segment that follows each QTY will specify which time of use the QTY applies to.
PA Use:	Required if there are metered services on the account.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	QTY*QD*22348*KH QTY*QD*14*K1 (If meter measures both, you will have two QTY loops)

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity		**M ID 2/2**
			KA	Estimated	
				The quantity delivered shown is an estimated quantity.	
			QD	Quantity Delivered	
				Used when Quantity in QTY02 is Actual	
			87	Quantity Received	
				Quantity received from a customer in a Co-generation environment.	
			9H	Estimated Duration	
				Quantity received shown is an estimated quantity in a Co-generation environment	
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity		**X R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		**M ID 2/2**
			K1	Kilowatt Demand (kW)	
				Represents potential power load measured at predetermined intervals	

K2	Kilovolt Amperes Reactive Demand (kVAR)
	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 (kVARH)
	Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters
K4	Kilovolt Amperes (KVA)
KH	Kilowatt Hour (kWh)

Segment: **MEA** **Measurements**
Position: 160
Loop: QTY
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 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
2 If MEA06 is present, then MEA04 is required.
2 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
2 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 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:	The MEA segment is sent for each QTY loop. The MEA will indicate the "time of use" that applies to the QTY. If meter readings are included in the MEA, they will indicate the "time of use" that the meter readings apply to.
PA Use:	Required (optional on a cancellation)
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	MEA*AA***KH*2001*2100*51 MEA*AA**K1**14*51 (If meter measures multiple things, you need to send multiple QTY loops, one for each unit of measurement).

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA01**	**737**	**Measurement Reference ID Code** Code identifying the broad category to which a measurement applies	**O ID 2/2**
			AA Meter reading-beginning actual/ending actual	
			AE Meter reading-beginning actual/ending estimated	
			AF Actual Total	
			BO Meter Reading as Billed Used when billing charges are based on contractual agreements or pre-established usage and not on actual usage	
			EA Meter reading-beginning estimated/ending actual	
			EE Meter reading-beginning estimated/ending estimated	
Must Use	**MEA04**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	**M ID 2/2**
			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 (KVA)
K5	Kilovolt Amperes Reactive
KH	Kilowatt Hour

Conditional **MEA05** **740** **Range Minimum** **X** **R 1/20**
The value specifying the minimum of the measurement range

Beginning reading for Residential – factors have not been applied to this value.

PA: Required for Residential. If the meter provides beginning and ending reads for on and off peak usage, then you must provide beginning and ending reads and consumption. If the meter does not provide beg/ending reads, you only provide consumption.

Must Use **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) – for Residential – factors have not been applied to this value.

PA: Required for Residential. If the meter provides beginning and ending reads for on and off peak usage, then you must provide beginning and ending reads and consumption. If the meter does not provide beg/ending reads, you only provide consumption.

Must Use **MEA07** **935** **Measurement Significance Code** **O** **ID 2/2**
Code used to benchmark, qualify or further define a measurement value

41	Off Peak
42	On Peak
43	Intermediate
51	Total
	Totalizer
66	Shoulder

Segment: **MEA** **Measurements (MU=Meter Multiplier)**
Position: 160
Loop: QTY
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 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
2 If MEA06 is present, then MEA04 is required.
2 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
2 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 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.

PA Use:	Required for a meter that has a meter multiplier other than 1.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	MEA**MU*2

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies MU Multiplier	**O ID 1/3**
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement Represents the meter constant when MEA02 equals “MU”. When the multiplier equals 1, do not send this MEA segment.	**X R 1/20**

Segment: **MEA** **Measurements (ZA=Power Factor)**
Position: 160
Loop: QTY
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 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
2 If MEA06 is present, then MEA04 is required.
2 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
2 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 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.

PA Use:	Power Factor: Relationship between watts and volt amperes necessary to supply electric load. Required if it is available to the meter agent and it is used in the calculation of the customer's bill. This is only relevant and should only ever be sent with Demand (K1). If not present with a demand quantity, it should be assumed to be 1.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	MEA**ZA*.95

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies ZA Power Factor Relationship between watts and volt – amperes necessary to supply electric load	**O ID 1/3**
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement Represents the Power Factor when MEA02 equals "ZA". When no Power Factor is present or the value is 1, do not send this MEA segment.	**X R 1/20**

Segment: **MEA** **Measurements (CO=Transformer Loss Factor)**
Position: 160
Loop: QTY
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 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
2 If MEA06 is present, then MEA04 is required.
2 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
2 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 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.

PA Use:	Transformer Loss Factor: Required when customer owns a transformer and the transformer loss is not calculated by the meter.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	MEA**CO*1.02

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies CO — Transformer Loss Multiplier When a customer owns a transformer and the transformer loss is not measured by the meter.	**O ID 1/3**
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement Represents the Transformer Loss Multiplier when MEA02 equals “CO”.	**X R 1/20**

Segment: **PTD** **Product Transfer and Resale Detail (IB=Residential Meter Readings Detail)**
Position: 010
Loop: PTD
Level: Detail
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of detail information relating to the transfer/resale of a product and provide identifying data
Syntax Notes:
1 If either PTD02 or PTD03 is present, then the other is required.
2 If either PTD04 or PTD05 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	Residential Meter Readings Detail **Note:** This loop is only used if this is a residential account. It will provide the actual interval for each unit of measure for each meter on the account. There will be a PTD*IB loop for each unit of measure for each meter on the account. **Note:** This loop is optional on a cancel transaction. **Note:** If a residential account <u>only</u> has an advanced meter as part of a load profile sampling, the actual interval data will not be sent – that meter will be treated as a monthly meter and the 867MU will be sent.
PA Use:	Conditional
NJ Use:	Not used since only the utility can do meter reading, and the only residential accounts with advanced meters are part of a load profile sampling.
DE Use:	Not used since only the utility can do meter reading, and the only residential accounts with advanced meters are part of a load profile sampling.
MD Use:	Not used since rules for third party metering have not been defined, and for utility owned meters, the only residential accounts with advanced meters are part of a load profile sampling.
Example:	PTD*IB

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**PTD01**	**521**	**Product Transfer Type Code** Code identifying the type of product transfer	**M ID 2/2**
			IB Interbranch Residential Meter Readings Detail	

Note:

Refer to the "PTD Loops Definition and Use" section earlier in this document for an explanation of this specific PTD Loop.

Segment: **DTM** **Date/Time Reference (150=Service Period Start)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the beginning of the date range for this meter for this billing period. **Note:** The Service Period Start Date and Service Period End Date in the Residential Meter Services Summary loop must match the dates in the Residential Meter Services Detail loop.
PA Use:	Required, unless a "DTM*514" is substituted for this code.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	DTM*150*19990101

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 150 Service Period Start	**M ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**

Segment: **DTM** **Date/Time Reference (151=Service Period End)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the end of the date range for this meter for this billing period. **Note:** The Service Period Start Date and Service Period End Date in the Residential Meter Services Summary loop must match the dates in the Residential Meter Services Detail loop.
PA Use:	Required, unless a "DTM*514" is substituted for this code.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	DTM*151*19990131

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 151 Service Period End	**M ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**

Segment: **DTM** **Date/Time Reference (514=Meter Exchange Date)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	Used in conjunction with either the Service Period Start Date or the Service Period End Date to indicate when a meter has been replaced. Separate PTD loops must be created for each period and meter.
PA Use:	Required when a meter is changed and the meter agent does not change.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	Date Range in the first PTD is shown as: DTM*150*19990201 DTM*514*19990214 Date Range in the second PTD is shown as: DTM*514*19990214 DTM*151*19990228

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time		**M**	**ID 3/3**
			514	Transferred Exchanged meter read date		
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD		**X**	**DT 8/8**

Segment:	**REF** **Reference Identification (MG=Meter Number)**
Position:	030
Loop:	PTD
Level:	Detail
Usage:	Optional
Max Use:	20
Purpose:	To specify identifying information
Syntax Notes:	**1** At least one of REF02 or REF03 is required. **2** If either C04003 or C04004 is present, then the other is required. **3** If either C04005 or C04006 is present, then the other is required.
Semantic Notes:	**1** REF04 contains data relating to the value cited in REF02.
Comments:	
PA Use:	Required if this is a metered account and the meter is on the account at the end of the period. For some utilities, they may not be able to provide the actual meter number for a meter that has been changed out during the month. In that case, the REF*MG will not be sent. Everyone is working toward being able to provide the old meter number. If there is a Load Profile Recorder (LPR) or Data Recorder, only send consumption on this device once. Either send data on the LPR/Data Recorder level or on each specific meter.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	REF*MG*2222277S

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification MG Meter Number	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

Segment: **REF** **Reference Identification (MT=Meter Type)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes:
1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:
1 REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	Required
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	REF*MT*KH015

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
	Ref. Des.	**Data Element**	**Name**	**X12 Attributes**
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification MT Meter Type	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

When REF01 is MT, the meter type is expressed as a five-character field. The first two characters are the type of consumption, the last three characters are the metering interval. Since this value ties to the consumption being reported, the value "COMBO" is not valid. Valid values can be a combination of the following values:

Type of Consumption		Metering Interval	
K1	Kilowatt Demand	Nnn	Number of minutes from 001 to 999
K2	Kilovolt Amperes Reactive Demand	ANN	Annual
K3	Kilovolt Amperes Reactive Hour	BIA	Bi-annual
K4	Kilovolt Amperes	BIM	Bi-monthly
K5	Kilovolt Amperes Reactive	DAY	Daily
KH	Kilowatt Hour	MON	Monthly
T9	Thousand Kilowatt Hours	QTR	Quarterly

For Example:

KHMON	Kilowatt Hours Per Month
K1015	Kilowatt Demand per 15 minute interval

Segment:	**QTY** **Quantity**
Position:	110
Loop:	QTY
Level:	Detail
Usage:	Optional
Max Use:	1
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.
Comments:	
Notes:	Represents quantity of consumption delivered for entire metering period specified (a specific interval).
PA Use:	Required
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	QTY*QD*20*KH

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**QTY01**	**673**	**Quantity Qualifier**		**M**	**ID 2/2**
			KA	Estimated		
				The quantity delivered shown is an estimated quantity		
			QD	Quantity Delivered		
			87	Quantity Received		
				Quantity Received from customer in a Co-generation environment		
			96	Non-Billable Quantity		
				Indicates this quantity and interval are outside of the actual bill period		
			9H	Estimated Duration		
				The quantity received shown is an estimated quantity in a Co-generation environment		
	QTY02	**380**	**Quantity**		**X**	**R 1/15**
			Indicates unit of measurement for quantity of consumption delivered during service period.			
	QTY03	**C001**	**Composite Unit of Measure**		**O**	
Must Use	**C00101**	**355**	**Unit or Basis for Measurement Code**		**M**	**ID 2/2**
			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		
			KH	Kilowatt Hour		

Segment: **DTM** **Date/Time Reference (582=Report Period)**
Position: 210
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	End date and time of the period for which the quantity is provided. Time will include zone. Each interval must be explicitly labeled with the date and time.
PA Use:	Required
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not defined
Example:	DTM*582*19990115*1500*ES

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time	**M**	**ID 3/3**
			582 Report Period		
			The date/time of the end of the interval.		
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X**	**DT 8/8**
Must Use	**DTM03**	**337**	**Time** Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)	**X**	**TM 4/8**
			HHMM format		
Must Use	**DTM04**	**623**	**Time Code** Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow	**O**	**ID 2/2**
			The time code must accurately provide the time zone when the daylight savings time starts and ends if the meter is adjusted for daylight savings time. If meter is not adjusted for daylight savings time, the time code will always reflect Eastern Daylight Time which will be interpreted as prevailing time.		
			ED Eastern Daylight Time		
			ES Eastern Standard Time		

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.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	SE*28*000000001

Data Element Summary

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

Interval Usage Examples

Example 1: Interval Detail reporting at the SUMMARY Level

BPT*00*REF01-990201*19990201*C1	**Meter detail loop**
DTM*649*19990203*1700	This is only required on Bill Ready Consolidated Billing scenarios. Time is always represented as Eastern prevailing time.
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*11*1394959	ESP Account number
REF*12*111111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
QTY*D1*12345*KH	Monthly billed kWh
QTY*D1*50*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
PTD*SU	Metered services Summary loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
QTY*QD*12345*KH	Calculated summary of all metered for kWh / kvarh only

Example 2: Interval Detail reporting at the ACCOUNT Level

BPT*00*REF01-000201*20000201*C1	**Meter detail loop**
DTM*649*20000203*1700	This is only required on Bill Ready Consolidated Billing scenarios. Time is always represented as Eastern prevailing time.
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*11*1394959	ESP Account number
REF*12*111111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*D1*123456*KH	Monthly billed kWh
QTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
PTD*SU	Account services Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*QD*123456*KH	Calculated summary of all metered for kWh / kvarh only
PTD*BQ	Account Services Detail Loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
REF*MT*KH030	Meter Type
QTY*QD*112*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*QD*232*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*QD*248*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000101*0130*ES	End date and time of the period for which the quantity is provided.
…. . . Continued on until the end of the period specified below	
QTY*QD*789*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000131*2330*ES	End date and time of the period for which the quantity is provided.

QTY*QD*730*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000131*2359*ES	End date and time of the period for which the quantity is provided.

Example 3: Interval Detail reporting at the METER Level

BPT*00*REF01-000201*20000201*C1	**Meter detail loop**
DTM*649*20000203*1700	This is only required on Bill Ready Consolidated Billing scenarios. Time is always represented as Eastern prevailing time.
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*11*1394959	ESP Account number
REF*12*111111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*D1*123456*KH	Monthly billed kWh
QTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
PTD*BO	Metered Services Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
REF*MG*2222277S	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*123456*KH	Calculated summary of all metered for kWh / kvarh only
MEA**MU*2	Meter multiplier = 2
MEA**ZA*1.9999	Power factor = 1.9999
MEA**CO*1.02	Transformer Loss Multiplier
PTD*PM	Meter Services Detail Loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
REF*MG*2222277S	Meter Number
REF*MT*KH030	Meter Type
QTY*QD*112*KH	Consumption
DTM*582*20000101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*QD*128*KH	Consumption
DTM*582*20000101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*QD*216*KH	Consumption
DTM*582*20000101*0130*ES	End date and time of the period for which the quantity is provided.
…. . .Continued on until the end of the period specified below	
QTY*QD*789*KH	Consumption
DTM*582*20000131*2330*ES	End date and time of the period for which the quantity is provided.
QTY*QD*730*KH	Consumption
DTM*582*20000131*2359*ES	End date and time of the period for which the quantity is provided.

Example 4: Renewable Energy Provider - Interval Detail reporting

Note: The only difference between an ESP and a Renewable Energy Provider is the use of N1*SJ for an ESP and the use of N1*G7 for a Renewable Energy Provider. The details are not shown since all of the examples that are valid for an ESP are valid for a Renewable Energy Provider.

BPT*00*REF01-000201*20000201*C1	**Meter detail loop**
DTM*649*20000203*1700	This is only required on Bill Ready Consolidated Billing scenarios. Time is always represented as Eastern prevailing time.
N1*8S*LDC COMPANY*1*007909411	LDC Company

N1*G7*RENEWABLE ENERGY COMPANY*9*007909422ESP1	Renewable Energy Provider Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*11*1394959	ESP Account number
REF*12*111111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*D1*123456*KH	Monthly billed kWh
QTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
…. . . Continued on until the end of the transaction. Details may vary depending on whether this is a Summary level, an Account level, or a Meter level transaction.	

Example 5: Interval Detail reporting at the ACCOUNT Level – with net metering (Channel indicator)

BPT*00*REF01-000201*20000201*C1	**Account detail loop**
DTM*649*20000203*1700	This is only required on Bill Ready Consolidated Billing scenarios. Time is always represented as Eastern prevailing time.
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*11*1394959	ESP Account number
REF*12*111111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*D1*123456*KH	Monthly billed kWh
QTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
PTD*SU	Account services Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
REF*6W*1	Inbound usage
QTY*QD*123456*KH	Calculated summary of all metered for kWh / kvarh only
PTD*BQ	Account Services Detail Loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
REF*MT*KH030	Meter Type
REF*6W*1	Inbound usage
QTY*QD*112*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*QD*232*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*QD*248*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000101*0130*ES	End date and time of the period for which the quantity is provided.
…. . . Continued on until the end of the period specified below	
QTY*QD*789*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000131*2330*ES	End date and time of the period for which the quantity is provided.
QTY*QD*730*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000131*2359*ES	End date and time of the period for which the quantity is provided.
PTD*SU	Account services Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
REF*6W*2	Outbound usage
QTY*87*2045*KH	Calculated summary of all metered for kWh / kvarh only
PTD*BQ	Account Services Detail Loop

DTM*150*20000101	Start period
DTM*151*20000131	End period
REF*MT*KH030	Meter Type
REF*6W*2	Outbound usage
QTY*87*18*KH	Quantity of consumption generated for entire metering period specified
DTM*582*20000101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*87*62*KH	Quantity of consumption generated for entire metering period specified
DTM*582*20000101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*87*178*KH	Quantity of consumption generated for entire metering period specified
DTM*582*20000101*0130*ES	End date and time of the period for which the quantity is provided.
…. . . Continued on until the end of the period specified below	
QTY*87*0*KH	Quantity of consumption generated for entire metering period specified
DTM*582*20000131*2330*ES	End date and time of the period for which the quantity is provided.
QTY*87*8*KH	Quantity of consumption generated for entire metering period specified
DTM*582*20000131*2359*ES	End date and time of the period for which the quantity is provided.