Pennsylvania New Jersey Delaware Maryland

Implementation Guideline

Electronic Data Interchange

TRANSACTION SET

867
Interval Usage
Ver/Rel 004010

Table of Contents

Summary of	Changes	4
General Not	es	7
Pennsylvani	a Notes	9
New Jersey	Notes	11
	otes	
How to Use	the Implementation Guideline	16
X12 Structu	re	17
Data Diction	nary	19
Segment:	ST Transaction Set Header	26
Segment:	BPT Beginning Segment for Product Transfer and Resale	27
Segment:	DTM Date/Time Reference (649=Document Due Date)	29
Segment:	MEA Measurements (NP=Percent Participation)	30
	N1 Name (8S=LDC Name)	
Segment:	N1 Name (SJ=ESP Name)	32
	N1 Name (G7=Renewable Energy Provider Name)	
	N1 Name (8R=Customer Name)	
Segment:	REF Reference Identification (11=ESP Account Number)	
	REF Reference Identification (12=LDC Account Number)	36
Segment:	REF Reference Identification (45=LDC Old Account Number)	
Segment:	REF Reference Identification (BLT=Billing Type)	
	REF Reference Identification (PC=Bill Calculator)	
	PTD Product Transfer and Resale Detail (BB=Monthly Billed Summary)	
Segment:	· · · · · · · · · · · · · · · · · · ·	
Segment:		
Segment:	QTY Quantity (Billed kwh)	
Segment:	QTY Quantity (Billed Demand)	
Segment:	QTY Quantity (Measured Demand)	
	PTD Product Transfer and Resale Detail (BO=Meter Services Summary)	
Segment:	•	
Segment:	DTM Date/Time Reference (151=Service Period End)	
Segment:	DTM Date/Time Reference (514=Meter Exchange Date)	
Segment:	REF Reference Identification (MG=Meter Number)	
Segment:	REF Reference Identification (JH=Meter Role)	
Segment:	REF Reference Identification (IX=Number of Dials)	
Segment:	QTY Quantity	
Segment:		
Segment:	• • • • • • • • • • • • • • • • • • • •	
Segment:		
	PTD Product Transfer and Resale Detail (PM=Meter Services Detail)	
Segment:	DTM Date/Time Reference (150=Service Period Start)	
Segment:	DTM Date/Time Reference (151=Service Period End)	
Segment:	DTM Date/Time Reference (514=Meter Exchange Date)	
Segment:	REF Reference Identification (MG=Meter Number)	
Segment:	REF Reference Identification (MT=Meter Type)	
Segment:	QTY Quantity	
Segment:	DTM Date/Time Reference (582=Report Period)	65
Segment:	PTD Product Transfer and Resale Detail (SU=Account Services Summary)	72
Segment:	DTM Date/Time Reference (150=Service Period Start)	73
Segment:	DTM Date/Time Reference (151=Service Period End)	
Segment:	REF Reference Identification (6W=Channel Number)	
Segment:	QTY Quantity	
	PTD Product Transfer and Resale Detail (BQ=Account Services Detail)	
Segment:	DTM Date/Time Reference (150=Service Period Start)	
Segment:	DTM Date/Time Reference (150–Service Feriod Start)	
Segment:	REF Reference Identification (MT=Meter Type)	
Segment:	REF Reference Identification (6W=Channel Number)	
ocanicii.	TEL TOTOTOTO I GUITITI CALION (U.W. CHAINING I NUMBOLI)	01

February 18, 2015 Version 6.2

Segment:	QTY Quantity	82
Segment:	DTM Date/Time Reference (582=Report Period)	
Segment: P	TD Product Transfer and Resale Detail (BC=Unmetered Services Summary)	85
Segment:	DTM Date/Time Reference (150=Service Period Start)	86
Segment:	DTM Date/Time Reference (151=Service Period End)	87
Segment:	QTY Quantity	88
Interval Usage	Examples	89
Example 1:	Interval Detail reporting at the SUMMARY Level	89
Example 2:	Interval Detail reporting at the ACCOUNT Level	89
Example 3:	Interval Detail reporting at the METER Level	90
Example 4:	Renewable Energy Provider - Interval Detail reporting	90
	Interval Detail reporting at the ACCOUNT Level – with net metering (Channel indicator)	
Example 6	- Multiple Services, Metered and Unmetered (Maryland only)	93
Example 7	- Net Metering / Customer Generation Examples (PA, NJ & MD)	94
	- Maryland - 867 Interval Usage - Multiple meter exchange in same service period	

	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.

G . 1 10 2000	
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	Incorporate Delaware Electric Coop (DEC) information for Delaware
Version 3.7rev01	• 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	• Incorporate PA Change Control 038 – change all references of PPL to PPL EU.
Version 3.7rev02	• 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	• Incorporate SMECO specifics for MD (MD Change Control 003)
Version 4.0	This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and
	Delaware.
May 2004	Allow combined interval / non-interval meters on one transaction for NJ
Version 4.0.1D	
August 4, 2004	Review current PA practices for sending interval data – all changes made to the
Version 4.0.2.D	Pennsylvania Notes section
January 20, 2006	 Incorporate NJ Change Control 005 (NJ CleanPower program changes). Add N1*G7
Version 4.0.3D	segment.
	 Incorporate NJ Change Control 006 (Update txn to reflect current practices)
October 23, 2006	 Incorporate NJ Change Control 008 to reflect NJ CleanPower – unmetered usage for
Version 4.0.4D	RECO)
	• Incorporate NJ Change Control 009 to reflect NJ CleanPower change for partial usage.
	Add clarifying notes for NJ Net Metering.
February 12, 2007	Considered FINAL for PA and NJ
Version 4.0.5F	
February 22, 2009	 Incorporate NJ Change Control PSEG-E-IU to reflect PSEG will send REF*45 as
Version 4.0.6D	applicable. Allow sending of REF*6W for channel for net metered accts
January 24, 2010	This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and
Version 4.1	Delaware.
September 8, 2010	Incorporate PA Change Control 060 – (PA Admin/Cleanup)
Version 4.1.1D	Incorporate MD Change Control – Admin (Admin/Cleanup for MD)
February 28, 2011	This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and
Version 5.0	Delaware.
February 16, 2012 Version 5.01	Incorporate PA Change Control 77 (Add QTY01 Codes) Incorporate PA Change Control 82 (Add/update QTY01 Codes)
version 3.01	Incorporate MD Change Control 010 (PEPCO AMI/Smart Meter Support)
March 8, 2013	Moving to v6.0 to align versions across all transaction sets
Version 6.0	Cleaned up references to Allegheny and APS throughout document
, 5151011 0.0	Incorporated PA Change Control 103 (uniform net meter consumption reporting)
	 Incorporated MD Change Control 016 (add BC loop for MD use)
	Removed IA/IB loops, region confirmed not used.
March 17, 2014	Incorporated PA Change Control 105 Update2 (clarify net meter bank rollover)
Version 6.1	Incorporated PA Change Control 109 (clarify use of BQ loop)
. 5-2-5-1	Incorporated PA Change Control 111 (clarify PECO use of BPT04)
	 Incorporated MD Change Control 018 (clarify multiple meter exchanges)
	 Incorporated MD Change Control 024 (PEPCO new CIS)
	Incorporate MD Change Control 028 (BGE support for 867IU)
	 Incorporate MD Change Control 029 (uniform net meter data reporting)
	 Incorporate NJ Change Control 031 (RECO removal from IG)
	Incorporate NJ Change Control 032 (PSE&G admin updates)
	- incorporate in change control 052 (i bleed admin updates)

February 18, 2015	•	Incorporate NJ Change Control Electric 033 (remove BR and PL loops)	
Version 6.2	•	Incorporate MD Change Control 036 (clarify net meter customer excess generation)	

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.

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)

<u>Account Services Information – by Account:</u> (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.

<u>Unmetered Services Information</u> (PTD01 = BC) – This loop is used to convey the usage for any unmetered portion of an account. This information must be provided at the summary level (PTD01=BC). [Maryland only]

Unmetered Services Summary (PTD01=BC): Total Consumption for all unmetered services at the account level. Even though some of the consumption may be estimated, the consumption is reported as actual for unmetered services. The summary is required for Unmetered Services. [Maryland only]

Valid Loop Combinations:

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

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

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

<u>Combination # 2 – 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)
- Meter Services Detail (PTD01=PM) [not required on a cancel]

Note: For cancel transactions, the account and summary loop information is sent; however, it is optional to include the PM 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. Listed below are the plans, by utility, of the information to be sent for summary and detail transaction.

- 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 If account-level interval detail is requested, will provide using 867IU with BB, SU, and BQ loops. If meter-level interval detail is requested, will provide using BB, BO, and PM loops. Else, will provide an 867MU with BB, SU, and PM loops (BPT04 in 867MU will be "DD" for AMR monthly metered accounts and "X5" for interval metered accounts).
- 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.

Requirements for uniform support of Net Metered Customers:

Interval Metered - ACCOUNT Level Detail – all meters summarized (DLC, FE, PPL, and PECO)

- BB (Monthly Billed Summary) Loop reports the monthly billed summary usage for net metered customers.
 - 1. When customer's consumption is greater than generation, the billed KH usage in the QTY02 will be reported as net KH (generation subtracted from total consumption).
 - 2. When customer's generation is greater than consumption, the billed usage in the QTY02 will be reported as 0 (zero) KH.
 - 3. In either scenario, the QTY02 will never be signed negative.
- SU (Account Services Summary) Loop reports the summary usage for net metered customers by unit of measure.
 - 1. When the customer's consumption is greater than generation, the KH will be reported as net consumption (QTY01 w/actual = QD or estimated = KA) with the total generation subtracted from total consumption.
 - 2. When the customer's generation is greater than consumption, the KH will be reported as net generation (actual = 87 or estimated = 9H) with the total consumption subtracted from total generation).
 - 3. In either scenario, the OTY02 will never be signed negative.
- BQ (Account Services Detail) Loop reports the account level detail KH for net metered customers and will be looped for each unit of measure.
 - The QTY02 will report the net KH for ALL metered services being summed to the account level.
 - 2. If the net KH for a given report period is generation, the QTY01 will be either '87' or '9H'.
 - 3. However if the total account's customer generation is less than consumption for a single reporting period, only the net consumption is sent with QTY01 qualifier of as consumption, non-billable, incomplete, or unavailable.

Requirements for uniform support of Net Metered Customers (continued):

Interval Metered – METER Level Detail – each meter reported separately. (used by PECO only if EGS requests meter detail via 814E/C)

- BB (Monthly Billed Summary) Loop reports the monthly billed summary usage for net metered customers.
 - 1. When customer's consumption is greater than generation, the billed KH usage in the QTY02 will be reported as net KH (generation subtracted from total consumption).
 - 2. When customer's generation is greater than consumption, the billed usage in the QTY02 will be reported as 0 (zero) KH. I
 - 3. In either scenario, the QTY02 will never be signed negative
- BO (Meter Services Summary) Loop –sums intervals by meter by unit of measure. Each meter will have its own associated BO loop. Provides control totals for the sum of all intervals in the PM loops.
 - 1. When the customer's consumption is greater than generation, the KH will be reported as net consumption (QTY01 w/actual = QD or estimated = KA) with the total generation subtracted from total consumption. The meter role (REF*JH) will be Additive.
 - 2. When the customer's generation is greater than consumption, the KH will be reported as net generation (actual = 87 or estimated = 9H) with the total consumption subtracted from total generation). The meter role (REF*JH) will be subtractive.
 - 3. In either scenario, the QTY02 will never be signed negative
- PM (Meter Services Detail) Loop SINGLE meter reporting in/out flow. The meter loop will report the meter level detail KH for net metered customers via a single meter reporting both in and out flow. PM is looped for each meter and each unit of measure. Currently NOT used by any PA EDC.
 - 1. When the quantity for a given report period (interval reading) is generation, the quantity qualifier (QTY01) will be either '87' or '9H'. Otherwise, the QTY01 will be reported as consumption, non-billable, incomplete, or unavailable.
 - 2. The QTY02 will never be signed negative
- PM (Meter Services Detail) Loops SEPARATE meters, one reporting inflow and another meter reporting outflow. The PM loop will be repeated for each unit of measure, one meter reporting consumption and one meter reporting generation. Used by PECO only.
 - 1. The meter number should be unique for each KH loop. The meter attributes for each KH loop may have different values.
 - 2. The QTY02 will never be signed negative.

3

Banked KH adjustment for excess customer generation:

Applies to FirstEnergy companies, PPLEU, Duquesne and UGI (PECO does NOT bank excess customer generation)

The LDC will apply excess generation KH from a prior month(s) into the billed quantity (D1) segment of the billed summary (BB) loop of the 867MU/IU transaction sets. This process reduces the billed consumption which effectively 'forces' a supplier invoicing off the BB loop to 'credit' customer excess generation from a prior month(s). When this occurs, the sum of the metered services (PM) loops will not equal the KH being reporting in the BB loop. Suppliers should understand this practice and examine current billing processes for net metered customers. In most cases, the customer's actual consumption and generation is made available in the PM (meter) loops of the 867MU/IU.

For settlement purposes, each of the LDCs applying the banked KH adjustment reports the net KH to PJM or zero KH if net negative on a monthly basis.

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, PM and BC loops. (BPT04 will be
 "X5")
- PSE&G will not support supplier having a choice to receive summary only.

Cancel / Re-bill 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 / re-bill is processed. The process for Cancel/ Re-bill 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) re-bill 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 re-billed 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.

Rockland Electric Company

Rockland Electric Company (RECO) in New Jersey does NOT follow this implementation guideline. RECO utilizes the New York State EDI standards.

Data Requirements for uniform support of Net Metered Customers:

NJ EDI Change Control Electric 016 mandates specific data requirements in support of net metered customers. Implementation by utility as follows...

- o Atlantic City Electric with new CIS (est. early 2015)
- o JCP&L 4Q 2014 (867MU/HU) and 1Q 2015 (867IU)
- PSE&G currently supported, see below for additional PSE&G notes

Interval Metered - ACCOUNT Level Detail – all meters summarized (JCP&L, Atlantic City Electric)

- BB (Monthly Billed Summary) Loop reports the monthly billed summary usage for net metered customers.
 - 1. When customer's consumption is greater than generation, the billed KH usage in the QTY02 will be reported as net KH (generation subtracted from total consumption).
 - 2. When customer's generation is greater than consumption, the billed usage in the OTY02 will be reported as 0 (zero) KH.
 - 3. In either scenario, the QTY02 will never be signed negative.
- SU (Account Services Summary) Loop reports the summary usage for net metered customers by unit of measure.
 - 1. When the customer's consumption is greater than generation, the KH will be reported as net consumption (QTY01 w/actual = QD or estimated = KA) with the total generation subtracted from total consumption.
 - 2. When the customer's generation is greater than consumption, the KH will be reported as net generation (actual = 87 or estimated = 9H) with the total consumption subtracted from total generation).
 - 3. In either scenario, the QTY02 will never be signed negative.
- BQ (Account Services Detail) Loop reports the account level detail KH for net metered customers and will be looped for each unit of measure.
 - The QTY02 will report the net KH for ALL metered services being summed to the account level.
 - 2. If the net KH for a given report period is generation, the QTY01 will be either '87' or '9H'.
 - 3. However if the total account's customer generation is less than consumption for a single reporting period, only the net consumption is sent with QTY01 qualifier of as consumption, non-billable, incomplete, or unavailable.

Data Requirements for uniform support of Net Metered Customers (Continued):

Interval Metered – METER Level Detail – each meter reported separately. (used by PSE&G only)

- BB (Monthly Billed Summary) Loop reports the monthly billed summary usage for net metered customers.
 - 1. When customer's consumption is greater than generation, the billed KH usage in the QTY02 will be reported as net KH (generation subtracted from total consumption).
 - 2. When customer's generation is greater than consumption, the billed usage in the QTY02 will be reported as 0 (zero) KH. I
 - 3. In either scenario, the QTY02 will never be signed negative
- BO (Meter Services Summary) Loop –sums intervals by meter by unit of measure. Provides control totals for the sum of all intervals in the PM loops.
 - 1. PSE&G defaults meter role (REF*JH) to additive.
 - 2. The customer's consumption KH is reported as a single QTY segment with the QTY01 of actual = QD or estimated = KA.
 - 3. The customer's generation KH is reported as a single QTY segment with the QTY01 of actual = 87 or estimated = 9H.
 - 4. In either QTY segment, the QTY02 will never be signed negative
- PM (Meter Services Detail) Loop SINGLE meter reporting in/out flow. The meter loop will report the meter level detail KH for net metered customers via a single meter reporting both in and out flow. PM is looped for each meter, each unit of measure, and for KH, looped for in-flow and out-flow.
 - 1. For the KH in-flow PM loop PSE&G reports the customers consumption for each given report period (interval reading). The quantity qualifier (QTY01) will be consumption reported as actual (QD) or estimated (KA).
 - 2. For the KH out-flow PM loop PSE&G reports the customers generation for each given report period (interval reading). The quantity qualifier (QTY01) will be generation reported as actual (87) or estimated (9H).
 - 3. The meter role (REF*JH) is not sent.
 - 4. The QTY02 will never be signed negative

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: BGE – The default is that an ESP will receive interval data at the summary level only.

- If an ESP wants to receive interval data at the detail level for AMI/Smart metered accounts, the ESP must submit "SI" in the LIN05 and "DETAIL" in the REF17.
- The ESP may request detail level interval data post enrollment by submitting a Change Request at a later date.
- For non-AMI/Smart metered interval accounts, the ESP will receive 867MU with the detail interval data posted to BGE's website.

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

- Delmarva & PEPCO Supplier will receive 867IU for all accounts (unless supplier has requested summary data). If the supplier elects NOT to receive detail interval data, PHI will send EDI 867MU (BB/SU/PM/BC loops) with BPT04 = 'X5' for accounts the supplier requested summary interval usage.
- BG&E For AMI/Smart metered accounts, will provide 867IU if requested as stated above. For non-AMI/Smart metered accounts, no 867IU will be sent and interval data will be provided on web; however, an 867MU will be provided for the Summary data.
- Potomac Edison 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").

Looping of DTM segments in the PM (meter) loop when multiple meter exchanges occur during the same service period If the event the utility experiences multiple meter exchanges during the same service period, the following format applies. In the rare event a meter exchange occurs and a day or more go by without the new meter being installed, the meter party cannot have a 'gap' in the service period. By design, the consumption was never intended to have any break in the dates

867IU - PTD*BO, PTD*PM and PTD*PL Loops - Position 020

The PTD*BO and PTD*PM (or PTD*PL) loops will be separate for each meter throughout the multiple meter exchange process.

Sample provided in the back of this implementation guideline.

Requirements for uniform support of Net Metered Customers

Interval Metered - ACCOUNT Level Detail – all meters summarized (BGE, PHI & PE)

- BB (Monthly Billed Summary) Loop reports the monthly billed summary usage for net metered customers.
 - 1. When customer's consumption is greater than generation, the billed KH usage in the QTY02 will be reported as net KH (generation subtracted from total consumption).
 - 2. When customer's generation is greater than consumption, the billed usage in the QTY02 will be reported as 0 (zero) KH.
 - 3. In either scenario, the QTY02 will never be signed negative.
- SU (Account Services Summary) Loop reports the summary usage for net metered customers by unit of measure.
 - 1. When the customer's consumption is greater than generation, the KH will be reported as net consumption (QTY01 w/actual = QD or estimated = KA) with the

- total generation subtracted from total consumption.
- 2. When the customer's generation is greater than consumption, the KH will be reported as net generation (actual = 87 or estimated = 9H) with the total consumption subtracted from total generation).
- 3. In either scenario, the QTY02 will never be signed negative.
- BQ (Account Services Detail) Loop reports the account level detail KH for net metered customers and will be looped for each unit of measure.
 - The QTY02 will report the net KH for ALL metered services being summed to the account level.
 - 2. If the net KH for a given report period is generation, the QTY01 will be either '87' or '9H'.
 - 3. However if the total account's customer generation is less than consumption for a single reporting period, only the net consumption is sent with QTY01 qualifier of as consumption, non-billable, incomplete, or unavailable.

Net Metering – Excess Customer Generation

Maryland legislation PUA 7-306 states the Electric Company, not the Electricity Supplier, must pay the customer for accrued net excess generation on an annual basis (April meter read). Furthermore the rule states... "For customers served by an electricity supplier, the dollar value of the net excess generation shall be equal to the generation or commodity rate that the customer would have been charged by the electricity supplier multiplied by the number of kilowatt–hours of net excess generation." To support this requirement, each LDC maintains customer generation balance and for any excess generation during the annual true-up, the customer is credited based on their LDC or EGS rate.

Net Metering – banked KH adjustment for excess customer generation

Applies to Potomac Edison, BG&E, Delmarva MD and PEPCO MD

The LDC will apply excess generation KH from a prior month(s) into the billed quantity (D1) segment of the billed summary (BB) loop of the 867MU/IU transaction sets reducing billed consumption. When this occurs, the sum of the metered services (PM) loops will not equal the KH being reporting in the BB loop. In the event the banked KH is not exhausted it will carry over to the following month. In conjunction with Maryland excess generation rules, the EGS should understand this banked rollover practice and examine current billing processes for net metered customers. For settlement purposes, each of the LDCs applying the banked KH adjustment reports the net KH to PJM or zero KH if net negative on a monthly basis.

Example of banked KH adjustment...

Month 1 – Customer consumes 200KH and generates 500KH, net is excess generation of 300KH.

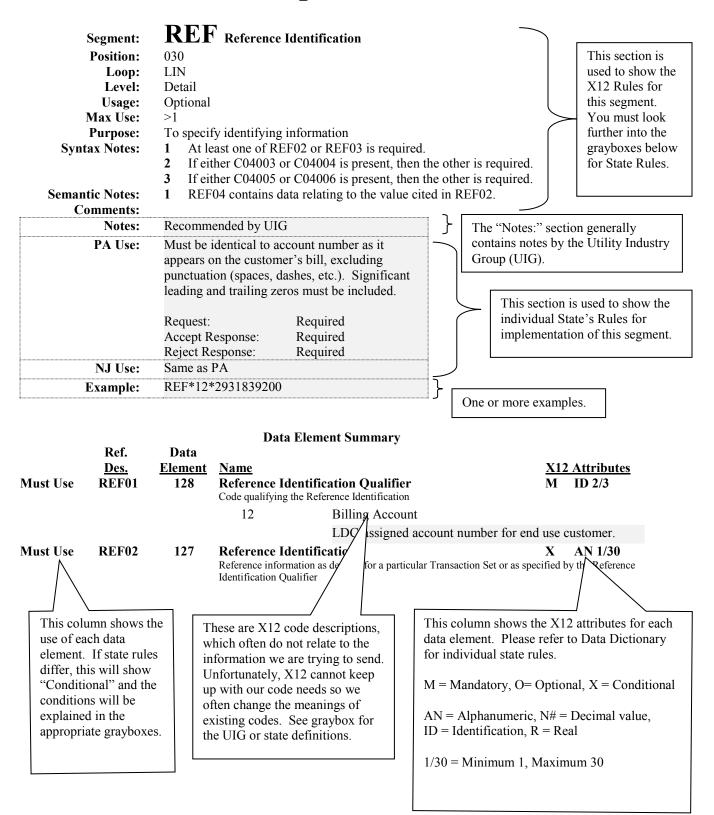
The utility sends 0KH in BB loop. Supplier would bill customer 0 KH and is settled on 0 KH at PJM.

Month 2 – Customer consumes 500KH and generates 150KH, net is consumption of 350KH.

The utility rolls banked excess of 300KH from prior month and applies to current month bill. Utility and supplier bill customer for 50KH (350KH – 300KH) and the same 50KH is settled at PJM for Month 2.

For settlement purposes, each of the LDCs applying the banked KH adjustment reports the net KH to PJM or zero KH if net negative on a monthly basis

How to Use the Implementation Guideline



867 Product Transfer and Resale Report X12 Structure

Functional Group ID=PT

Heading:

N	Pos.	Seg.	Name	Req.	Max.Use	Loop <u>Repeat</u>	Notes and Comments
Must Use	010	ST	Transaction Set Header	M	I		
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:

Detail.							
	Pos. <u>No.</u>	Seg. ID	Name	Req. <u>Des.</u>	<u>Max.Use</u>	Loop <u>Repeat</u>	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	О	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	О	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	О	1		
	210	DTM	Date/Time Reference	O	10		
			LOOP ID – PTD			>1	
Must Use	010	PTD	Product Transfer and Resale Detail (Non-	M	1		
	020	DTM	interval Meter Services Summary) – BR Date/Time Reference	O	10		

030

REF

Reference Identification

20

			LOOP ID – QTY			>1	
	110	QTY	Quantity	0	1		
	160	MEA	Measurements	O	40		
			LOOP ID – PTD			>1	
Must Use	010	PTD	Product Transfer and Resale Detail (Non-	M	1		
	020	DTM	Interval Meter Services Detail) – PL	0	10		
	020	DTM	Date/Time Reference Reference Identification	0	10		
	030	REF		О	20	. 1	
	110	OTV	LOOP ID – QTY	O	1	>1	
	210	QTY DTM	Quantity Date/Time Reference	0	10		
	210	DIM	Date/Time Reference	0	10		
			LOOP ID. DED			> 1	
M (T)	010	DTD	LOOP ID – PTD		,	>1	
Must Use	010	PTD	Product Transfer and Resale Detail (Account Services Summary) – SU	M	1		
	020	DTM	Date/Time Reference	О	10		
			LOOP ID – QTY			>1	
	110	QTY	Quantity	О	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	0	1		
	210	DTM	Date/Time Reference	O	10		
							I I
			LOOP ID – PTD			>1	
Must Use	010	PTD	Product Transfer and Resale Detail (Residential	M	1		
	020	DTM	Meter Services Summary) – IA Date/Time Reference	0	10		
	030	REF	Reference Identification	0	20		
			LOOP ID – QTY			>1	
	110	QTY	Quantity	0	1	•	
	160	MEA	Measurements	О	40		
			LOOP ID – PTD			>1	
Must Use	010	PTD	Product Transfer and Resale Detail (Residential	M	1	•	
			Meter Readings Detail) – IB				
	020	DTM	Date/Time Reference	0	10		
	030	REF	Reference Identification	О	20	~ 1	
	110	QTY	LOOP ID – QTY Quantity	O	1	>1	
	210	DTM	Date/Time Reference	0	10		
	210	ווווע	Date/Time reference	<u> </u>	10		
Summary:							
, ·		6		D			N. A
	Pos. <u>No.</u>	Seg. <u>ID</u>	<u>Name</u>	Req. <u>Des.</u>	Max.Use	Loop <u>Repeat</u>	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		•	•	l .
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.	BPT04	BPT01	X(2)
		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.			
5	Final Indicator	Indicates if this is a final reading for that particular ESP (e.g., customer moves, customer switches, etc.).	$BPT07 = \mathbf{F}$		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	DTM02 (CCYYMM DD) and DTM03(HH MM)	DTM01= 649	DTM02= 9(8) and DTM03= 9(4)
		notify the non-billing party (via email, phone call, etc.)			
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
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	- 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 con	nbinations.		
		Billed Summary - Loop Required if the LDC			
		om the billing system to reflect billing data for t			
19 20	**	Monthly Billed Summary Start date of the period for which the readings are provided	PTD01= BB DTM02	DTM01 = 150	X(2) 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 Quantity Delivered QD = Actual Quantity Delivered 87 = Actual Quantity Received (Net Meter) 9H = Estimated Quantity Received (Net Meter)	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)
Meter	ed Services Summary -	Loop Required when the metering agent is a	eporting inte	rval data at th	e meter
		level.			
31	Product Transfer Type	Metered Services Summary	PTD01= BO		X(2)
32	Service Period Start Date	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 Quantity Delivered QD = Actual Quantity Delivered 87 = Actual Quantity Received (Net Meter) 9H = Estimated Quantity Received (Net	QTY01		X(2)

1		T	Τ	
	(Meter)			
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
Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period.	QTY03		X(2)
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)
Power Factor	Relationship between watts and volt - amperes necessary to supply electric load	MEA03	MEA02 = ZA	9(9).9(4)
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)
ered Services Detail - I			al data at the	meter
	level. [Loop not required on a cancel transa	ction		
Product Transfer Type	Metered Services Detail	PTD01= PM		X(2)
Service Period Start Date	Start date of the service period or start date of the changed in meter.		DTM01 = 150	9(8)
Service Period End Date	End date of the service period or end date of the changed out meter.	DTM02	DTM01 = 151	9(8)
Meter Change Out Date	Period Start Date or the Service Period End Date to indicate when a meter has been		DTM01 = 514	9(8))
Meter Number	Serial number of this specific meter (may have multiple meters)	REF02	$REF01 = \mathbf{MG}$	X(30)
Meter Type	Type of Meter	REF02	REF01= MT	X(5)
Quantity Qualifier	Represents whether the quantity is actual or estimated: KA = Estimated Quantity Delivered QD = Actual Quantity Delivered 20 = Unavailable 87 = Actual Quantity Received (Net Meter) 96 = Non-Billable Quantity 9H = Estimated Quantity Received (Net Meter)	QTY01		X(2)
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
	Quantity Delivered Unit of Measurement Meter Multiplier Power Factor Transformer Loss Multiplier Product Transfer Type Service Period Start Date Service Period End Date Meter Change Out Date Meter Number Meter Type Quantity Qualifier	for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors, excluding Power Factor. Quantity Delivered Unit of Measurement Meter Multiplier Meter Constant - used to represent how many units are reflected by one dial or digit increment. Power Factor Relationship between watts and volt - amperes necessary to supply electric load 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. Product Transfer Type Metered Services Detail Service Period Start Date Service Period Start Date Meter Change Out Date Date Used in conjunction with either the Service Period End Date to indicate when a meter has been replaced. Separate PTD loops must be created for each period and meter. Meter Number Meter Type Quantity Qualifier Represents whether the quantity is actual or estimated: KA = Estimated Quantity Delivered QD = Actual Quantity Delivered QD = Actual Quantity Received (Net Meter) 96 = Non-Billable Quantity 91 = Estimated Quantity Received (Net Meter) 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,	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. Quantity Delivered Indicates unit of measurement for quantity of consumption delivered during service period. Meter Multiplier Meter Constant - used to represent how many units are reflected by one dial or digit increment. Power Factor Relationship between watts and volt - amperes necessary to supply electric load 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. Product Transfer Type Metered Services Detail Start date of the service period or start date of the changed in meter. Service Period End Date End date of the service period or end date of the changed out meter. Meter Change Out Used in conjunction with either the Service Period End Date to indicate when a meter has been replaced. Separate PTD loops must be created for each period and meter. Meter Number Serial number of this specific meter (may have multiple meters) Meter Type Type of Meter Represents whether the quantity is actual or estimated: KA = Estimated Quantity Delivered QD = Actual Quantity Delivered QD = Actual Quantity Delivered QD = Actual Quantity Received (Net Meter) 96 = Non-Billable Quantity Pelivered for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors,	Quantity Delivered for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors, excluding Power Factor. Quantity Delivered Unit of Measurement Indicates unit of measurement for quantity of consumption delivered during service period. Meter Multiplier Meter Constant - used to represent how many units are reflected by one dial or digit increment. Power Factor Relationship between watts and volt - amperes mecessary to supply electric load 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. Loop Required when the metering agent is reporting interval data at the level. [Loop not required on a cancel transaction] Product Transfer Type Metered Services Detail Service Period Start date of the service period or start date of DTM02 DTM01 = the changed in meter. Service Period End End date of the service period or end date of the changed out meter. Meter Change Out Date Indicate when a meter has been replaced. Separate PTD loops must be created for each period and meter. Meter Number Serial number of this specific meter (may have multiple meters) Meter Type Type of Meter Represents whether the quantity is actual or experimental parts and meter. Meter Type Type of Meter Represents whether the quantity is actual or eximated: KA = Estimated Quantity Delivered QD = Actual Quantity Delivered (Not Meter) 96 = Non-Billable Quantity Perivered (Net Meter) 96 = Non-Billable Quantity Received (Net Meter) 96 = No

53	Report Period Date/Time	The date/time of the end of the interval.	DTM02 (CCYYMM DD) and DTM03(HH MM	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)
M	Ietered Services Summ	ary - Loop required if there are non-interval	metered serv	rices on the acc	count
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: KA = Estimated Quantity Delivered QD = Actual Quantity Delivered	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	il - Loop Required if there are non-interval n	netered servic	es on the accor	unt
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: KA = Estimated Quantity Delivered QD = Actual Quantity Delivered	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	$MEA02 = \mathbf{ZA}$	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	$MEA02 = \mathbf{CO}$	9(9).9(4)

Ac	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		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 Quantity Delivered QD = Actual Quantity Delivered 87 = Actual Quantity Received (Net Meter) 9H = Estimated Quantity Received (Net Meter) Meter)	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
Acco	unt Services Detail - L	oop required when the metering agent is repolevel. [Loop not required on a cancel transal		l data at the a	ccount
110	Product Transfer Type	Account Services Detail	PTD01 = BQ		X(2)
111	Service Period Start Date		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: 17 = Incomplete Quantity Delivered 19 = Incomplete Quantity Received (Net Meter) 20 = Unavailable 87 = Actual Quantity Received (Net Meter) 96 = Non-Billable Quantity 9H = Estimated Quantity Received (Net Meter) KA = Estimated Quantity Delivered QD = Actual Quantity Delivered	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 <u>Date/Time</u>	The date/time of the end of the interval.	DTM02 (CCYYMM DD) and DTM03(HH MM	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)

Segment: ST Transaction Set Header

Position: 010

Loop:

Level: Heading Usage: Mandatory

Max Use:

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

Syntax Notes:

Semantic Notes: 1 The transaction set identifier (ST01) is used by the translation routines of the

interchange partners to select the appropriate transaction set definition (e.g., 810

selects the Invoice Transaction Set).

Comments:

PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	ST*867*00000001

Must Use	Ref. <u>Des.</u> ST01	Data Element 143		Set Identifier Code cntifying a Transaction Set	Att M	ributes ID 3/3
Must Use	ST02	329		Product Transfer and Resale Report Set Control Number I number that must be unique within the transaction set	M function	AN 4/9 nal group assigned
			by the originator f	or a transaction set		

 $Segment: \quad BPT \ Beginning \ Segment \ for \ Product \ Transfer \ and \ Resale$

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.

BPT03 identifies the transfer/resale date.
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

Must Use	Ref. <u>Des.</u> BPT01	Data Element 353	Name Transaction Set Pu Code identifying purpose			ributes ID 2/2
			00	Original		
				Conveys original readings for the accourreported.	nt be	ing
			01	Cancellation		
				Indicates that the readings previously repaccount are to be ignored.	orte	d for the
Must Use	BPT02	127	Reference Identific Reference information as Identification Qualifier	ation defined for a particular Transaction Set or as specif	O ied by	AN 1/30 the Reference
				n identification number assigned by the or amber must be unique over time.	rigina	tor of this
				be used as a cross reference to the 810 billies that make the other party whole, it will 10.		
Must Use	BPT03	373	Date Date (CCYYMMDD)		M	DT 8/8
			Transaction Creation application system.	n Date – the date that the data is processed	d by	the
Must Use	BPT04	755	Report Type Code Code indicating the title of	or contents of a document, report or supporting item	O	ID 2/2
			C1	Cost Data Summary		
				Indicates transaction is an Interval Data This will be used whether supplier is rec data only, or both summary and detail in	eivin	g summary

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

O ID 1/2

Code indicating type of action

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

O AN 1/30

Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

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:

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

	Ref.	Data				
	Des.	Element	<u>Name</u>		Attı	<u>ributes</u>
Must Use	DTM01	374	Date/Time Qualific	er	M	ID 3/3
			Code specifying type of	date or time, or both date and time		
			649	Document Due		
				The date that the non-billing party mus transaction back to the billing party.	t prov	vide the 810
				If a file is received by the billing party and the billing party cannot process it, the non-billing party (via email, phone means).	they	must notify
Must Use	DTM02	373	Date Date expressed as CCYY	YMMDD	X	DT 8/8
Must Use	DTM03	337	HHMMSSDD, where H	ur clock time as follows: HHMM, or HHMMSS, c = hours (00-23), M = minutes (00-59), S = integer decimal seconds are expressed as follows: D = tent	secon	ds (00-59) and
			HHMM format			

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.

	-5 () () (
PA Use:	Required if less than 100%
NJ Use:	Not used
DE Use:	Not used
MD Use:	Only used by Potomac Edison
Example:	MEA**NP*.66667

Data Element Summary

Must Use	Ref. <u>Des.</u> MEA02	Data <u>Element</u> 738	Name Measurement Qual Code identifying a specifi	Attributes O ID 1/3 c 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).
Must Use	MEA03	739	Measurement Value The value of the measurer	
			The whole number "	1" represents 100 percent. Decimal numbers less than "1"

represent percentages from 1 percent to 99 percent.

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.

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

Must Use	Ref. <u>Des.</u> N101	Data <u>Element</u> 98	Name Entity Identifier Code Code identifying an organizational entity, a physical location, prope 8S Consumer Service Provider (CSI LDC	M erty or an indi	ributes ID 2/3 vidual
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 Iden 1 D-U-N-S Number, Dun & Brads	treet	, ,
Must Use	N104	67	9 D-U-N-S+4, D-U-N-S Number of Suffix Identification Code Code identifying a party or other code LDC D-U-N-S Number or D-U-N-S + 4 Number	with Four C	Character 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.

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

Must Use	Ref. <u>Des.</u> N101	Data <u>Element</u> 98	Name Entity Identifier C Code identifying an orga SJ	nizational entity, a physical location, property or a Service Provider	M	ributes ID 2/3 vidual
Must Use	N102	93	Name Free-form name ESP Company Nam	ESP	X	AN 1/60
Must Use	N103	66	Identification Code Code designating the sys 1 9	e Qualifier stem/method of code structure used for Identification D-U-N-S Number, Dun & Bradstreet D-U-N-S+4, D-U-N-S Number with Fo		, ,
Must Use	N104	67	Identification Cod Code identifying a party	Suffix e	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.

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

	Ref. <u>Des.</u>	Data <u>Element</u>	Name	<u>Att</u>	ributes
Must Use	N101	98	Entity Identifier Code	M	ID 2/3
			Code identifying an organizational entity, a physical location, propert G7 Entity Providing the Service	y or an indi	vidual
			Renewable Energy Provider		
Must Use	N102	93	Name Free-form name	X	AN 1/60
			Renewable Energy Provider Company Name		
Must Use	N103	66	Identification Code Qualifier Code designating the system/method of code structure used for Identi 1 D-U-N-S Number, Dun & Bradstructure		ID 1/2 de (67)
			9 D-U-N-S+4, D-U-N-S Number wi Suffix	th Four C	haracter
Must Use	N104	67	Identification Code Code identifying a party or other code Renewable Energy Provider D-U-N-S Number or D-U-	X N-S + 4 N	AN 2/20 Number

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.

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

	Ref. Des.	Data Element	Name	•	A ++	ributes
3.6 . TT					Att	
Must Use	N101	98	Entity Identifier C	ode	N	ID 2/3
			Code identifying an orga	nizational entity, a physical location, property or a	an indi	vidual
			8R	Consumer Service Provider (CSP) Cus	stome	r
				End Use Customer		
Must Use	N102	93	Name Free-form name		X	AN 1/60
			Customer Name			

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.

If either C04003 or C04004 is present, then the other is required.
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:	Same as PA	
Ī	DE Use:	Same as PA	
	MD Use:	Same as PA	
ľ	Example:	REF*11*1394959	

Must Use	Ref. <u>Des.</u> REF01	Data Element 128	Name Reference Identific Code qualifying the Refe		Attı M	ributes ID 2/3
			11	Account Number		
				ESP-assigned account number for the	end us	se customer.
Must Use	REF02	127	Reference Identific Reference information as Identification Qualifier	cation s defined for a particular Transaction Set or as spe-	X cified b	AN 1/30 by the Reference

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.

If either C04003 or C04004 is present, then the other is required.
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
DE Use:	Required
MD Use:	Required
Example:	REF*12*1239485790

Must Use	Ref. <u>Des.</u> REF01	Data Element 128	Name Reference Identification Qualifier Code qualifying the Reference Identification		Attributes M ID 2/3
			12	Billing Account	
				LDC-assigned account number for the end use customer. Must appear as it does on the customer's bill.	
Must Use	REF02	127	Reference Ident Reference informati Identification Quali	ion as defined for a particular Transaction Set	X AN 1/30 or as specified by the Reference

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. PE: Required if the account number has changed in the last 60 days.
Example:	REF*45*939581900

Must Use	Ref. <u>Des.</u> REF01	Data Element 128	Name Reference Identific Code qualifying the Ref	•	Att:	ributes ID 2/3
			45	Old Account Number		
				Previous LDC-assigned account numb customer.	er for	the end use
Must Use	REF02	127	Reference Identification and Identification Qualifier	cation s defined for a particular Transaction Set or as spe	X cified b	AN 1/30 by the Reference

REF Reference Identification (BLT=Billing Type) **Segment:**

Position: 120 Loop: N1Level: Heading Usage: Optional Max Use: 12

Purpose: To specify identifying information

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

If either C04003 or C04004 is present, then the other is required. If either C04005 or C04006 is present, then the other is required. 3

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

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 Optional **DE Use:** Optional MD Use:

Example: REF*BLT*LDC

Data Element Summary

Must Use	Ref. <u>Des.</u> REF01	Data <u>Element</u> 128	Name Reference Identific Code qualifying the Refe	•	<u>X12</u> M	2 Attributes ID 2/3
			BLT	Billing Type		
				Identifies whether the bill is consolida ESP, or whether each party will render See REF02 for valid values.	-	
Must Use	REF02	127	Reference Identific	eation	X	AN 1/30

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.

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.

If either C04003 or C04004 is present, then the other is required.
 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

Must Use	Ref. <u>Des.</u> REF01	Data Element 128	Name Reference Identifi Code qualifying the Ref	•	<u>X12</u> M	2 Attributes ID 2/3
			PC	Production Code		
				Identifies the party that is to calculate bill.	the cl	narges on the
Must Use	REF02	127	Reference Identifi	cation s defined for a particular Transaction Set or as spe	X cified l	AN 1/30

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)

IF		THE	N	
Bills the	Calci	ulates	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

Must Use	Ref. <u>Des.</u> PTD01	Data Element 521	Name Product Transi Code identifying the	fer Type Code e type of product transfer	Attributes M ID 2/2
			BB	Demand Information Only	
				This information is obtained from the breflect the billing data for this account measure level	U 3

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

Must Use	Ref. <u>Des.</u> DTM01	Data Element 374	Name Date/Time Ou	ualifier	<u>Att</u> M	ributes ID 3/3
			_	ype of date or time, or both date and time		
			150	Service Period Start		
Must Use	DTM02	373	Date		X	DT 8/8
			Date expressed as	CCYYMMDD		

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

Must Use	Ref. <u>Des.</u> DTM01	Data Element 374	Name Date/Time Que Code specifying t	ualifier ype of date or time, or both date and time	Att M	ributes ID 3/3
			151	Service Period End		
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:

0011111101100	
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

Must Use	Ref. <u>Des.</u> QTY01	Data <u>Element</u> 673	Name Quantity Qualifier Code specifying the type		Attı M	ributes ID 2/2
			D1	Billed		
				Used when Quantity in QTY02 is a "B	illed"	' quantity.
Must Use	QTY02	380	Quantity Numeric value of quantity	y	X	R 1/15
Must Use	QTY03	355	Unit or Basis for M Code specifying the units	leasurement Code in which a value is being expressed, or manner in	M n which	ID 2/2 a measurement

has been taken

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.

Only one of QTY02 or QTY04 may be present.

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

Comments:

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

Must Use	Ref. <u>Des.</u> QTY01	Data Element 673	Name Quantity Qualifier Code specifying the type		Att M	ributes ID 2/2
			D1	Billed		
				Used when Quantity in QTY02 is a "B	illed'	' quantity.
Must Use	QTY02	380	Quantity Numeric value of quantity	y	X	R 1/15
Must Use	QTY03	355	Unit or Basis for M Code specifying the units has been taken	leasurement Code in which a value is being expressed, or manner in	M n which	ID 2/2 h a measurement
			TZ 1	IZ'1 44 D 1		

Segment: QTY Quantity (Measured Demand)

Position: 110
Loop: QTY
Level: Detail
Usage: Optional

Max Use:

Purpose: To specify quantity information

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

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 Eleme	ant Summary		
	Ref.	Data				
	Des.	Element	<u>Name</u>	<u>Attributes</u>		
Must Use	QTY01	673	Quantity Qualifier	M ID 2/2		
	_		Code specifying the type	of quantity		
			KA	Estimated Quantity Delivered		
				Used when the quantity delivered is an estimated quantity.		
			QD	Actual Quantity Delivered		
			-	Used when the quantity delivered is an actual quantity.		
			87	Actual Quantity Received (Net Metering)		
				Used when the net generation quantity received is actual.		
			9H Estimated Quantity Received (Net Metering)			
				Used when the net generation quantity received is estimated.		
Must Use	QTY02	380	Quantity Numeric value of quantity	X R 1/15		
Must Use	QTY03	355	Unit or Basis for M Code specifying the units has been taken	Teasurement Code M ID 2/2 in which a value is being expressed, or manner in which a measurement		
			K1	Kilowatt Demand		

Segment: **PTD** Product Transfer and Resale Detail (BO=Meter Services Summary)

Position: 010 Loop: PTD Level: Detail Usage: Mandatory

Max Use:

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

provide identifying data

Syntax Notes: 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:

Commency.	
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

Must Use	Ref. <u>Des.</u> PTD01	Data <u>Element</u> 521	Name Product Transfer Code identifying the typ	• •	Attributes M ID 2/2
			ВО	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.

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 <u>must</u> 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

	Ref.	Data				
	Des.	Element	<u>Name</u>		Att	<u>ributes</u>
Must Use	DTM01	374	Date/Time Qu	ualifier	M	ID 3/3
			Code specifying t	ype of date or time, or both date and time		
			150	Service Period Start		
Must Use	DTM02	373	Date		X	DT 8/8
			Date expressed as	CCYYMMDD		

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 <u>must</u> 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			

Must Use	Ref. <u>Des.</u> DTM01	Data Element 374	Name Date/Time Qualifier Code specifying type of date or time, or both date and time		Att. M	ributes ID 3/3
			151	Service Period End		
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:

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

Must Use	Ref. <u>Des.</u> DTM01	Data Element 374	Name Date/Time Qualifier Code specifying type of date or time, or both date and time		Att M	ributes ID 3/3
			514	Transferred		
				Exchanged meter read date		
Must Use	DTM02	373	Date Date expressed as CCYY	YMMDD	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.

If either C04003 or C04004 is present, then the other is required.
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

Must Use	Ref. <u>Des.</u> REF01	Data Element 128		ntification Qualifier e Reference Identification	Att M	ributes ID 2/3
			MG	Meter Number		
Must Use	REF02	127	Reference Ide Reference informa Identification Qua	tion as defined for a particular Transaction Set or	X as specified l	AN 1/30 by the Reference

REF Reference Identification (JH=Meter Role) **Segment:**

030 **Position:** PTD Loop: Level: Detail Usage: Optional Max Use:

Purpose: To specify identifying information

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

If either C04003 or C04004 is present, then the other is required. If either C04005 or C04006 is present, then the other is required. 3

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

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.	Data				
	Des.	Element	<u>Name</u>		<u>Att</u> i	<u>ributes</u>
Must Use	REF01	128		lentification Qualifier the Reference Identification	M	ID 2/3
			JH	Meter Role		
Must Use	REF02	127	Reference Identification Reference information as defined for a particular Transaction Set or as sp Identification Qualifier When REF01 is JH, valid values for REF02 are: S = Subtractive - this consumption needs to be sul summarized total. A = Additive - this consumption contributed to the (do nothing).		X Set or as specified b	AN 1/30 by the Reference

total (do nothing).

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.

If either C04003 or C04004 is present, then the other is required.
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

Must Use	Ref. <u>Des.</u> REF01	Data Element 128		tification Qualifier Reference Identification	<u>X12</u> M	2 Attributes ID 2/3
			IX	Rate Card Number		
				Number of Dials on the Meter displayed of dials to the left of the decimal, a deciment the number of dials to the right of the	cimal	point, and
Must Use	REF02	127	Reference Iden	tification	X	AN 1/30
			Reference information Identification Qualif	on as defined for a particular Transaction Set or as spe ier	cified l	by the Reference
Optional	REF03	352	Description A free-form descript	ion to clarify the related data elements and their conte	X	AN 1/80
			Optional use: Se	e Meter Type (REF*MT) on 814 Enrollmen	nt for	valid codes.

# Dials	Positions to	Positions to	X12 Example
	left of decimal	right of decimal	
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

	Ref.	Data		
	Des.	Element	<u>Name</u>	<u>Attributes</u>
Must Use	QTY01	673	Quantity Qualifier	M ID 2/2
			Code specifying the type	of quantity
			KA	Estimated Quantity Delivered
				Used when the quantity delivered is an estimated
				quantity.
			QD	Actual Quantity Delivered
				Used when the quantity delivered is an actual quantity.
			87	Actual Quantity Received (Net Metering)
				Used when the net generation quantity received is
				actual.
			9H	Estimated Quantity Received (Net Metering)
				Used when the net generation quantity received is estimated.
Must Use	QTY02	380	Quantity Numeric value of quantity	X R 1/15
Must Use	QTY03	355	Unit or Basis for M Code specifying the units has been taken	Teasurement Code M ID 2/2 in which a value is being expressed, or manner in which a measurement
			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

Must Use	Ref. <u>Des.</u> MEA02	Data Element 738	Name Measuremen Code identifying	t Qualifier a specific product or process characteristic to w	0	ributes ID 1/3 nent applies
			MU	Multiplier		
Must Use	MEA03	739	Measuremen The value of the 1		X	R 1/20

Represents the meter constant when MEA02 equals "MU". When the

multiplier equals 1, do not send this MEA segment.

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.

negative () varie and ividitio as the positive (1) varie.
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.
Same as PA
Same as PA
Same as PA
MEA**ZA*.95

Must Use	Ref. <u>Des.</u> MEA02	Data Element 738	Name Measurement Qual Code identifying a specif	ifier Attributes O ID 1/3 ic product or process characteristic to which a measurement applies	
			ZA	Power Factor	
				Relationship between watts and volt – amperes necessary to supply electric load	
Must Use	MEA03 739	739	Measurement Value The value of the measure		
				er Factor when MEA02 equals "ZA". When no Power he value is 1, do not send this MEA segment.	

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.

	negative (-) value and will hoo as the positive (+) value.					
PA Use:	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					

Must Use	Ref. <u>Des.</u> MEA02	Data Element 738	Name Measurement Quali Code identifying a specific	fier O ID 1/3 product or process characteristic to which a measurement applies		
				Transformer Loss Multiplier When a customer owns a transformer and the		
Must Use	MEA03	739	Measurement Value	transformer loss is not measured by the meter. X R 1/20		
Widst Osc	MEAUS	WIEAUS 759	The value of the measuren			
			Represents the Transformer Loss Multiplier when MEA02 equals "CO"			

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:

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.	Data			A 27
	<u>Des.</u>	<u>Element</u>	<u>Name</u>		<u>Attributes</u>
Must Use	PTD01	521	Product Trai	nsfer Type Code	M ID 2/2
			Code identifying	the type of product transfer	
			PM	Physical Meter Information	
				Meter Services 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.

- If DTM04 is present, then DTM03 is required.
- 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 <u>must</u> 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

Must Use	Ref. <u>Des.</u> DTM01	Data Element 374	Name Date/Time Qualifier Code specifying type of date or time, or both date and time		Att M	ributes ID 3/3
			150	Service Period Start		
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					

	Ref. Des.	Data Element	Name		A ++	ributes
Must Use	<u>Des.</u> DTM01	374	Date/Time Qu	ualifier	M	ID 3/3
			Code specifying t	ype of date or time, or both date and time		
			151	Service Period End		
Must Use	DTM02	373	Date Date expressed as	s 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:
	<u> </u>
	DTM*514*19990214
	DTM*151*19990228

Must Use	Ref. <u>Des.</u> DTM01	Data Element 374	Name Date/Time Qualifier Code specifying type of date or time, or both date and time			ributes ID 3/3
			514	Transferred		
				Exchanged meter read date		
Must Use	DTM02	373	Date Date expressed as CCYY	YMMDD	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*222277S

Data Element Summary

Must Use	Ref. <u>Des.</u> REF01	Data <u>Element</u> 128		entification Qualifier ne Reference Identification		ributes ID 2/3
			MG	Meter Number		
	REF02	127	Reference Ide	entification	X	AN 1/30
			Reference information Our	ation as defined for a particular Transaction S	Set or as specified by	y the Reference

Identification Qualifier

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

				ziemene summurj		
	Ref. Des.	Data Element	Name		Δtt	ributes
Must Use	REF01			ontification Qualifier		ID 2/3
Widst Osc	KEFUI	128		entification Qualifier the Reference Identification	M	ID 2/3
			MT	Meter Type		
Must Use	REF02	EF02 127	Reference Ide Reference inform Identification Qua	ation as defined for a particular Transaction Set or as sp	X ecified l	AN 1/30 by the Reference
			two characters metering inter	When REF01 is MT, the meter type is expressed as a five-character field. It wo characters are the type of consumption, the last three characters are the metering interval. Since this value ties to the consumption being reported, value "COMBO" is not valid. Valid values can be a combination of the followalues:		ers are the reported, the

	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
. Error	mm1a:		

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.

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

	D 6	ъ.	Data Eleme	ant Summary
	Ref.	Data	N	A 44 - 9 4
Must Use	Des.	Element (72	Name	Attributes
Must Use	QTY01	673	Quantity Qualifier Code specifying the type	M ID 2/2
			KA	Estimated Quantity Delivered
				Used when the quantity delivered is an estimated
			OD	quantity.
			QD	Actual Quantity Delivered
			20	Used when the quantity delivered is an actual quantity.
			20	Unavailable
				Used when meter data is not available to fill the intervals.
			87	Actual Quantity Received (Net Metering)
				Used when the net generation quantity received is actual.
			96	Non-Billable Quantity
			70	Indicates this quantity and interval are outside of the
				actual bill period
			9H	Estimated Quantity Received (Net Metering)
			,	Used when the net generation quantity received is
				estimated.
Must Use	QTY02	380	Quantity Numeric value of quantity	X R 1/15
Must Use	QTY03	355	Unit or Basis for M Code specifying the units has been taken	Ieasurement Code M ID 2/2 in which a value is being expressed, or manner in which a measurement
			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)
			110	Represents actual electricity equivalent to kilowatt hours;
				billable when usage meets or exceeds defined parameters
			K4	Kilovolt Amperes (KVA)
				1 /

Kilowatt Hour (kWh) KH

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

Must Use	Ref. <u>Des.</u> DTM01	Data Element 374	Name Date/Time Qualifi Code specifying type of	er date or time, or both date and time	Att M	tributes ID 3/3
			582	Report Period		
				The date/time of the end of the interval	1.	
Must Use	DTM02	373	Date Date expressed as CCY	YMMDD	X	DT 8/8
Must Use	DTM03	337	HHMMSSDD, where H	our clock time as follows: HHMM, or HHMMSS, if a hours (00-23), M = minutes (00-59), S = integer decimal seconds are expressed as follows: D = tent	secon	ds (00-59) and
			HHMM format			
Must Use	DTM04	623	Time Code		O	ID 2/2

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

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 (SU=Account Services Summary)

Position: 010
Loop: PTD
Level: Detail
Usage: Mandatory

Max Use:

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

provide identifying data

Syntax Notes: 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:

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

Must Use	Ref. <u>Des.</u> PTD01	Data Element 521	Name Product Transfer Type Code Code identifying the type of product transfer		Attributes 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 <u>must</u> 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

	Ref. <u>Des.</u>	Data <u>Element</u>	<u>Name</u>		At	<u>tributes</u>
Must Use	DTM01	374	_	Date/Time Qualifier Code specifying type of date or time, or both date and time		ID 3/3
			150	Service Period Start		
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 <u>must</u> 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					

Must Use	Ref. <u>Des.</u> DTM01	Data Element 374	Name	ualifian	At M	tributes ID 3/3
Must Ose	DIMUI	3/4	_	Date/Time Qualifier Code specifying type of date or time, or both date and time		
			151	Service Period End		
Must Use	DTM02	373	Date Date expressed as	s CCYYMMDD	X	DT 8/8

<u>Segment:</u> <u>REF</u> <u>Reference</u> <u>Identification</u> (6W=Channel <u>Number</u>)

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.

If either C04003 or C04004 is present, then the other is required.
If either C04005 or C04006 is present, then the other is required.

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

Semantic Notes: 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 Elem	ent Summary		
Must Use	Ref. <u>Des.</u> REF01	Data Element 128	<u>Name</u> Reference Identific	cation Qualifier	Attr M	ributes ID 2/3
			Code qualifying the	Reference Identification		
			6W	Sequence Number		
				Channel Number		
Must Use	REF02	127	Reference Identific	cation	X	AN 1/30
			specified by the Ref	on as defined for a particular Transaction Ference Identification Qualifier	Set o	or as
			Channel Number			

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

	Ref.	Data		
	Des.	Element	<u>Name</u>	<u>Attributes</u>
Must Use	QTY01	673	Quantity Qualifier	M ID 2/2
			Code specifying the type	of quantity
			KA	Estimated Quantity Delivered
				Used when the quantity delivered is an estimated
				quantity.
			QD	Actual Quantity Delivered
				Used when the quantity delivered is an actual quantity.
			87	Actual Quantity Received (Net Metering)
				Used when the net generation quantity received is
				actual.
			9H	Estimated Quantity Received (Net Metering)
				Used when the net generation quantity received is
				estimated.
Must Use	QTY02	380	Quantity Numeric value of quantity	X R 1/15
Must Use	QTY03	355	Unit or Basis for M Code specifying the units has been taken	Iteasurement Code M ID 2/2 in which a value is being expressed, or manner in which a measurement
			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:

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:

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 Note: One loop for kWh is required, all other unit of measure loops are optional.
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	PTD*BQ
i	

Data Element Summary

	Ref.	Data		
	Des.	Element	<u>Name</u>	<u>Attributes</u>
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.

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 <u>must</u> 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

	Ref. Des.	Data Element	Name		A +	tributes
Must Use	DTM01	374	Date/Time Qualifier Code specifying type of date or time, or both date and time		M	ID 3/3
			150	Service Period Start		
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.

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 <u>must</u> 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

Must Use	Ref. <u>Des.</u> DTM01	Data Element 374	Name	ualifian		tributes ID 3/3
Must Ose	DIMUI	3/4	Date/Time Que Code specifying t	ype of date or time, or both date and time	M	11) 3/3
			151	Service Period End		
Must Use	DTM02	373	Date Date expressed as	s 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

Must Use	Ref. <u>Des.</u> REF01	Data Element 128	Name Reference Identification Qualifier Code qualifying the Reference Identification	Attributes M ID 2/3
			MT Meter Type	
Must Use	REF02	127	Reference Identification Reference information as defined for a particular Transactio Identification Qualifier	X AN 1/30 on Set or as specified by the Reference
			When REF01 is MT, the meter type is expressed two characters are the type of consumption, the metering interval. Since this value ties to the covalue "COMBO" is not valid. Valid values can values:	last three characters are the onsumption being reported, the
		Type of	Consumption	otoring Intorvol

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

For Example:

KHMON Kilowatt Hours Per Month

K1015 Kilowatt Demand per 15 minute interval

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

Position: 030 Loop: PTD Level: Detail Usage: Optional Max Use:

Purpose: To specify identifying information

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

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.

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

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

specified by the Reference Identification Qualifier

Channel Number

QTY Quantity **Segment:**

Position: 110 QTY Loop: Level: Detail Usage: Optional Max Use:

Purpose: To specify quantity information **Syntax Notes:**

At least one of QTY02 or QTY04 is required. 10 Only one of QTY02 or QTY04 may be present.

1 QTY04 is used when the quantity is non-numeric.

Semantic Notes:

Comments:

PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	QTY*QD*87*KH

			Data Eleme	ent Summary
	Ref.	Data		
	Des.	Element	<u>Name</u>	<u>Attributes</u>
Must Use	$\overline{\text{QTY01}}$	673	Quantity Qualifier	\overline{M} ID $2/2$
			Code specifying the type	of quantity
			17	Incomplete Quantity Delivered
				Used when multi-metered account rolled up and at least
				one of the meters is not available.
			19	Incomplete Quantity Received (Net Metering)
				Used when multi-metered account rolled up, at least one
				of the meters is not available and the total is net
				generation.
			20	Unavailable
				Used when meter data is not available to fill the intervals.
			87	Actual Quantity Received (Net Metering)
				Used when the net generation quantity received is
				actual.
			96	Non-Billable Quantity
				Indicates this quantity and interval are outside of the actual bill period
			9H	Estimated Quantity Received (Net Metering)
				Used when the net generation quantity received is estimated.
			KA	Estimated Quantity Delivered
				Used when the quantity delivered is an estimated
				quantity.
			QD	Actual Quantity Delivered
				Used when the quantity delivered is an actual quantity.
Must Use	QTY02	380	Quantity Numeric value of quantity	X R 1/15
Must Use	QTY03	355	Unit or Basis for M Code specifying the units has been taken	in which a value is being expressed, or manner in which a measurement
			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

Must Use	Ref. <u>Des.</u> DTM01	Data <u>Element</u> 374	Name Date/Time Qualic Code specifying type	ifier of date or time, or both date and time	At M	tributes ID 3/3
			582	Report Period		
				The date/time of the end of the interva	1.	
Must Use	DTM02	373	Date Date expressed as CC	YYMMDD	X	DT 8/8
Must Use	DTM03	337	HHMMSSDD, where	-hour clock time as follows: HHMM, or HHMMSS, H = hours (00-23), M = minutes (00-59), S = intege s; decimal seconds are expressed as follows: D = ten	r secon	ds (00-59) and
			HHMM format			
Must Use	DTM04	623	Time Code		O	ID 2/2

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

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 (BC=Unmetered Services Summary)

Position: 010 Loop: PTD Level: Detail Usage: Mandatory

Max Use:

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

provide identifying data

Syntax Notes: 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:	TD Loops may be sent in any order.				
PA Use:	Not Used				
NJ Use:	Not Used				
DE Use:	Not Used				
MD Use:	Required if there are unmetered services on this account.				
Example:	PTD*BC				

Data Element Summary

	Ref.	Data				
	Des.	Element	<u>Name</u>		Att	<u>ributes</u>
Must Use	PTD01	521	Product Tran	nsfer Type Code	M	ID 2/2
			Code identifying	the type of product transfer		
			BC	Unmetered Services Summary		

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.

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:	Not Used			
DE Use:	Not Used			
MD Use:	Required if there are unmetered services on this account			
Example:	DTM*150*19990101			

	Ref.	Data				
	Des.	Element	<u>Name</u>		Att	<u>ributes</u>
Must Use	$\overline{DTM01}$	374	Date/Time Qu	ualifier	M	ID 3/3
			Code specifying t	ype of date or time, or both date and time		
			150	Service Period Start		
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:	Not Used		
DE Use:	Not Used		
MD Use:	Required if there are unmetered services on this account		
Example:	DTM*151*19990131		

	Ref.	Data				
	Des.	Element	<u>Name</u>		Att	<u>ributes</u>
Must Use	DTM01	374	Date/Time Que Code specifying t	nalifier upe of date or time, or both date and time	M	ID 3/3
			151	Service Period End		
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:

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:	This loop is required when there are unmetered services on the account. This will contain			
	the total quantity for the unmetered services.			
PA Use:	Not Used			
NJ Use:	Not Used			
DE Use:	Not Used			
MD Use:	Required is there are unmetered services on the account			
Example:	QTY*QD*500*KH			

Must Use	Ref. <u>Des.</u> QTY01	Data Element 673	Name Quantity Qualifier Code specifying the type	of quantity	Attı M	ributes ID 2/2
			QD	Actual Quantity Delivered		
				Used when the quantity delivered is an	actua	al quantity.
				All States: Whether unmetered service		,
				calculated, or actual, they will be coded	d as a	ctual.
Must Use	QTY02	380	Quantity Numeric value of quantity	y	X	R 1/15
Must Use	QTY03	355	Unit or Basis for M Code specifying the units has been taken	leasurement Code in which a value is being expressed, or manner in	M which	ID 2/2 a measurement
			99	Watts		
			K1	Kilowatt Demand (kW)		
			KH	Kilowatt Hour		

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*11111111111111	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*11111111111111	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*1111111111111	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	Renewable Energy Provider Company
COMPANY*9*007909422ESP1	
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*11*1394959	ESP Account number
REF*12*1111111111111	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.	

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

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*11111111111111	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*BO	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.

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*11111111111111	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*2548*KH	Monthly billed kWh
PTD*SU	Account services Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*QD*2548*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*87*312*KH	Net Meter quantity received 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*232*KH	Net Meter quantity received for entire metering period specified
DTM*582*20000101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*19*166*KH	Incomplete Net Meter quantity received 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*402*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*187*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 6 - Multiple Services, Metered and Unmetered (Maryland only)

Metered consumption = 123456, Unmetered consumption is 1000.

BPT*00*PEP86720000201200008934771062*20000201*C1	Meter detail loop
DTM*649*20000204*1600	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*1*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer Name
REF*11*1394959	ESP Account number
REF*12*111111111	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*124456*KH	Monthly billed kWh
QTY*D1*450*K1	Monthly derived demand
QTY*D1*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 for all metered kWh/kvarh only
PTD*BQ	Account Services Detail loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
REF*MT*KH060	Meter Type
QTY*QD*0.219*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*0.2124*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000101*0200*ES	End date and time of the period for which the quantity is provided
QTY*QD*0.1776*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000101*0300*ES	End date and time of the period for which the quantity is provided
Continued on until the end date of the period specified below	•
QTY*QD*0.3774*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*BC	Unmetered Services Summary
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*QD*1000*KH	Unmetered consumption

Example 7 - Net Metering / Customer Generation Examples (PA, NJ & MD)

Interval Detail reporting at the ACCOUNT Level – with net metering (Consumption greater than generation)

BPT*00*REF01-120201*20120201*C1	Account detail loop
DTM*649*20120203*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*11111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	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*20120101	Start period
DTM*151*20120131	End period
QTY*QD*123456*KH	Calculated summary of all metered for kWh / kvarh only
PTD*BQ	Account Services Detail Loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MT*KH030	Meter Type
QTY*QD*101*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20120101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*87*232*KH	Quantity of generation delivered for entire metering period specified
DTM*582*20120101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*87*248*KH	Quantity of generation delivered for entire metering period specified
DTM*582*20120101*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*20120131*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*20120131*2359*ES	End date and time of the period for which the quantity is provided.

Interval Detail reporting at the ACCOUNT Level – with net metering (Generation greater than consumption)

BPT*00*REF01-120201*20120201*C1	Account detail loop
DTM*649*20120203*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*11111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*D1*0*KH	Monthly billed kWh - ZERO
QTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
PTD*SU	Account Services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*87*1066*KH	Calculated summary of all metered for kWh (net generation)
PTD*BQ	Account Services Detail Loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MT*KH030	Meter Type
QTY*QD*101*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20120101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*87*232*KH	Quantity of generation delivered for entire metering period specified
DTM*582*20120101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*87*248*KH	Quantity of generation delivered for entire metering period specified
DTM*582*20120101*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*789*KH	Quantity of generation delivered for entire metering period specified
DTM*582*20120131*2330*ES	End date and time of the period for which the quantity is provided.
QTY*87*730*KH	Quantity of generation delivered for entire metering period specified
DTM*582*20120131*2359*ES	End date and time of the period for which the quantity is provided.

Interval Detail reporting at the METER Level – SINGLE Meter registering both generation & consumption with net metering (Consumption greater than generation) NOT USED by in PA, MD or NJ. (see below for PSE&G NJ example)

(see below for PSE&G NJ example)	
BPT*00*REF01-000201*20120201*C1	Meter detail loop
DTM*649*20120203*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*11111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*D1*123456*KH	Monthly billed kWh
OTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
PTD*BO	Metered Services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*2222277S	Meter Number
REF*JH*A	Meter Role - Additive
REF*IX*6.0	Number of dials or digits
OTY*OD*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*20120101	Start period
DTM*151*20120131	End period
REF*MG*87667144	Meter Number
REF*MT*KH030	Meter Type
OTY*OD*112*KH	Consumption
DTM*582*20120101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*QD*128*KH	Consumption
DTM*582*20120101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*87*216*KH	Generation
DTM*582*20120101*0130*ES	End date and time of the period for which the quantity is provided.
Continued on until the end of the period specified	and and and of the period for which the quality is provided.
below	
QTY*QD*789*KH	Consumption
DTM*582*20120131*2330*ES	End date and time of the period for which the quantity is provided.
QTY*QD*730*KH	Consumption
DTM*582*20120131*2359*ES	End date and time of the period for which the quantity is provided.

Interval Detail reporting at the METER Level – SINGLE Meter registering both generation & consumption with net metering (Generation greater than consumption) NOT USED by in PA, MD or NJ. (see below for PSE&G NJ example)

BPT*00*REF01-000201*20120201*C1	Meter detail loop
DTM*649*20120203*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*11111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*D1*0*KH	Monthly billed kWh - ZERO
QTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
PTD*BO	Metered Services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*2222277S	Meter Number
REF*JH*S	Meter Role - Subtractive
REF*IX*6.0	Number of dials or digits
QTY*87*1166*KH	Calculated summary of all metered for kWh (net generation)
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*20120101	Start period
DTM*151*20120131	End period
REF*MG*87667144	Meter Number
REF*MT*KH030	Meter Type
QTY*QD*112*KH	Consumption
DTM*582*20120101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*87*128*KH	Generation
DTM*582*20120101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*87*216*KH	Generation
DTM*582*20120101*0130*ES	End date and time of the period for which the quantity is provided.
Continued on until the end of the period specified	1 1 7 7 1 1 1 1
below	
QTY*87*789*KH	Generation
DTM*582*20120131*2330*ES	End date and time of the period for which the quantity is provided.
QTY*QD*730*KH	Consumption
DTM*582*20120131*2359*ES	End date and time of the period for which the quantity is provided.

$Interval\ Detail\ reporting\ at\ the\ METER\ Level-TWO\ Meters, one\ for\ generation\ \&\ another\ for\ consumption\ with\ net\ metering\ (Consumption\ greater\ than\ generation)\ PECO\ only\ when\ EGS\ requests\ meter\ detail\ via$ 814E/C

014E/C	T
BPT*00*REF01-000201*20120201*C1	Meter detail loop
DTM*649*20120203*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*1111111111111	LDC Account number
REF*BLT*LDC	Bill type
ALL BET ESC	Zin typt
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*D1*83000*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*20120101	Start period
DTM*151*20120131	End period
REF*MG*2222277S	Meter Number
REF*JH*S	Meter Role - Subtractive
REF*IX*6.0	Number of dials or digits
OTY*87*5000*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*20120101	Start period
DTM*151*20120131	End period
REF*MG*2222277S	Meter Number
REF*MT*KH030	Meter Type
QTY*87*112*KH	Generation
DTM*582*20120101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*87*128*KH	Generation
DTM*582*20120101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*87*216*KH	Generation
DTM*582*20120101*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*789*KH	Generation
DTM*582*20120131*2330*ES	End date and time of the period for which the quantity is provided.
QTY*87*730*KH	Generation
DTM*582*20120131*2359*ES	End date and time of the period for which the quantity is provided.
PTD*BO	Metered Services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*87667144A	Meter Number
	Meter Role - Additive
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*87000*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*20120101	Start period
DTM*151*20120131	End period
REF*MG*87667144A	Meter Number
REF*MT*KH030	Meter Type
QTY*QD*112*KH	Consumption
DTM*582*20120101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*QD*128*KH	Consumption
	Consumption

DTM*582*20120101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*QD*216*KH	Consumption
DTM*582*20120101*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*20120131*2330*ES	End date and time of the period for which the quantity is provided.
QTY*QD*730*KH	Consumption
DTM*582*20120131*2359*ES	End date and time of the period for which the quantity is provided.

$Interval\ Detail\ reporting\ at\ the\ METER\ Level-TWO\ Meters, one\ for\ generation\ \&\ another\ for\ consumption\ with\ net\ metering\ (Generation\ greater\ than\ consumption)\ PECO\ only\ when\ EGS\ requests\ meter\ detail\ via$ 814E/C

014L/C	
BPT*00*REF01-000201*20120201*C1	Meter detail loop
DTM*649*20120203*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*11111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*D1*0*KH	Monthly billed kWh - ZERO
QTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
PTD*BO	Metered Services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*2222277S	Meter Number
REF*JH*S	Meter Role - Subtractive
REF*IX*6.0	Number of dials or digits
QTY*87*5000*KH	Calculated summary of all metered for kWh (net generation)
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*20120101	Start period
DTM*151*20120131	End period
REF*MG*87667144	Meter Number
REF*MT*KH030	Meter Type
OTY*87*112*KH	Generation
DTM*582*20120101*0030*ES	End date and time of the period for which the quantity is provided.
OTY*87*128*KH	Generation
DTM*582*20120101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*87*216*KH	Generation
DTM*582*20120101*0130*ES	
Continued on until the end of the period specified	End date and time of the period for which the quantity is provided.
below	
QTY*87*789*KH	Generation
DTM*582*20120131*2330*ES	End date and time of the period for which the quantity is provided.
QTY*87*730*KH	Generation
DTM*582*20120131*2359*ES	End date and time of the period for which the quantity is provided.
PTD*BO	Metered Services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*87667144A	Meter Number
REF*JH*A	Meter Role - Additive
REF*IX*6.0	Number of dials or digits
OTY*OD*4000*KH	Calculated summary of all metered for kWh / kvarh only
MEA**MU*2	Meter multiplier = 2
MEA**MU*2 MEA**ZA*1.9999	Power factor = 1.9999
MEA · LA I 1.9999	rowei iactor = 1.9999

MEA**CO*1.02	Transformer Loss Multiplier
PTD*PM	Meter Services Detail Loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*87667144A	Meter Number
REF*MT*KH030	Meter Type
QTY*QD*112*KH	Consumption
DTM*582*20120101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*QD*128*KH	Consumption
DTM*582*20120101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*QD*216*KH	Consumption
DTM*582*20120101*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*20120131*2330*ES	End date and time of the period for which the quantity is provided.
QTY*QD*730*KH	Consumption
DTM*582*20120131*2359*ES	End date and time of the period for which the quantity is provided.

PSE&G New Jersey ONLY - Interval Detail reporting at the METER Level - SINGLE Meter registering

both generation & consumption with net meterin		
BPT*00*REF01-000201*20120201*C1	Meter detail loop	
DTM*649*20120203*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*11111111111111	LDC Account number	
REF*BLT*LDC	Bill type	
REF*PC*DUAL	Bill Calculator	
PTD*BB	Monthly Billed Summary loop	
DTM*150*20120101	Start period	
DTM*151*20120131	End period	
QTY*D1*123456*KH	Monthly billed or net kWh	
QTY*D1*450*K1	Monthly derived demand	
QTY*QD*29*K1	Monthly measured demand	
PTD*BO	Metered Services Summary loop	
DTM*150*20120101	Start period	
DTM*151*20120131	End period	
REF*MG*2222277S	Meter Number	
REF*JH*A	Meter Role - Additive	
REF*IX*5.0	Number of dials or digits	
QTY*QD*123456*KH	Calculated summary of metered kWh / consumption (inflow) usage	
MEA**MU*4200	Meter multiplier = 2	
QTY*87*123456*KH	Calculated summary of metered kWh / generation (outflow) usage	
MEA**MU*4200	Meter multiplier = 2	
PTD*PM	Meter Services Detail Loop – Consumption Loop (Inflow) usage	
DTM*150*20120101	Start period	
DTM*151*20120131	End period	
REF*MG*87667144	Meter Number	
REF*MT*KH030	Meter Type	
QTY*QD*112*KH	Consumption	
DTM*582*20120101*0100*ES	End date and time of the period for which the quantity is provided.	
QTY*QD*216*KH	Consumption	
DTM*582*20120101*0200*ES	End date and time of the period for which the quantity is provided.	
Continued on until the end of the reporting period	The state of the s	
PTD*PM	Meter Services Detail Loop – Generation Loop (Outflow) usage	
DTM*150*20120101	Start period	
DTM*151*20120131	End period	
REF*MG*87667144	Meter Number	
REF*MT*KH030	Meter Type	
OTY*87*112*KH	Generation	
DTM*582*20120101*0100*ES	End date and time of the period for which the quantity is provided.	
QTY*87*216*KH	Generation	
DTM*582*20120101*0200*ES	End date and time of the period for which the quantity is provided.	
Continued on until the end of the reporting period	The state of the property of t	
reporting period		

<u>Example 8 - Maryland - 867 Interval Usage - Multiple meter exchange in same service period.</u> (Meter Detail – Maryland)

Service period 1/14/2013 to 2/13/2013 1st Meter Exchange on 1/17/2013 2nd Meter Exchange on 1/19/2013

BPT*00*REF01-000201*20130214*C1	Meter detail
DTM*649*20130214*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*1111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20130114	Start period
DTM*150*20130114 DTM*151*20130213	End period End period
OTY*D1*123456*KH	Monthly billed kWh
PTD*BO	Metered Services Summary loop
REF*MG* OLDMETER1	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*20130114	Start period
DTM*151*20130117	Meter Exchange Date
REF*MG* OLDMETER1	Meter Number
REF*MT*KH030	Meter Type
QTY*QD*112*KH	Consumption
DTM*582*20130114*0030*ES	End date and time of the period for which the quantity is provided.
QTY*QD*128*KH	Consumption
DTM*582*20130114*0100*ES	End date and time of the period for which the quantity is provided.
QTY*QD*216*KH	Consumption
DTM*582*20130114*0130*ES	End date and time of the period for which the quantity is provided.
Continued on until the end of the period when the 1st meter exchange occurs.	
PTD*BO	Metered Services Summary loop
REF*MG* MTREXCHG1	Meter Number of 1st Meter Exchange
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
	1
DTM*514*20130117	Meter
DTM*514*20130119	Meter Exchange Date
REF*MG* MTREXCHG1	Meter Number of 1st Meter Exchange
REF*MT*KH030	Meter Type
QTY*QD*112*KH	Consumption
DTM*582*20130117*1230*ES	End date and time of the period for which the quantity is provided.
QTY*QD*128*KH	Consumption
DTM*582*20130117*1300*ES	End date and time of the period for which the quantity is provided.
QTY*QD*216*KH	Consumption
DTM*582*20130117*1330*ES	End date and time of the period for which the quantity is provided.
Continued on until the end of the period when the 2nd meter exchange	
occurs.	
PTD*BO	Metered Services Summary loop
REF*MG* MTREXCHG2	Meter Number of 2nd Meter Exchange
REF*JH*A	Meter Role
0/71 / 1 II (4010)	100/7111 / 2

Number of dials or digits
Calculated summary of all metered for kWh / kvarh only
Meter multiplier = 2
Power factor = 1.9999
Transformer Loss Multiplier
Meter Services Detail Loop
Meter
Meter Exchange Date
Meter Number of 2 nd Meter Exchange
Meter Type
Consumption
End date and time of the period for which the quantity is provided.
Consumption
End date and time of the period for which the quantity is provided.
Consumption
End date and time of the period for which the quantity is provided.
Consumption
End date and time of the period for which the quantity is provided.
Consumption
End date and time of the period for which the quantity is provided.