March 15, 2025
Version 7.0

Pennsylvania
New Jersey
Delaware
Maryland

Implementation Guideline

For

Electronic Data Interchange

TRANSACTION SET

867

Interval Usage

Ver/Rel 004010

Table of Contents

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

September 10, 2000 Version 3.7	This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and Delaware (Delmarva only).
October 19, 2001 Version 3.7rev01	• Incorporate Delaware Electric Coop (DEC) information for Delaware • Incorporate PA Change Control 030. Add clarity when canceling a transaction that only specific loops are required: for interval ACCOUNT level - BB and SU; for interval METER level – BB and BO
December 13, 2001 Version 3.7rev02	• Incorporate PA Change Control 038 – change all references of PPL to PPL EU. • Incorporate PA Change Control 038 – change PPL EU's use of the 867IU • Add clarification to NJ Notes section for PSE&G regarding support of detail interval data (summary level not an option). Also add PSE&G clarification on cancel / rebills for supplier other than supplier of record. Remove note indicating PSE&G does not support cross reference to the 810.
January 9, 2002 Version 4.0	• Incorporate SMECO specifics for MD (MD Change Control 003) This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and Delaware.
May 2004 Version 4.0.1D	• Allow combined interval / non-interval meters on one transaction for NJ
August 4, 2004 Version 4.0.2.D	• Review current PA practices for sending interval data – all changes made to the Pennsylvania Notes section
January 20, 2006 Version 4.0.3D	• Incorporate NJ Change Control 005 (NJ CleanPower program changes). Add N1*G7 segment. • Incorporate NJ Change Control 006 (Update txn to reflect current practices)
October 23, 2006 Version 4.0.4D	• Incorporate NJ Change Control 008 to reflect NJ CleanPower – unmetered usage for RECO) • Incorporate NJ Change Control 009 to reflect NJ CleanPower change for partial usage. • Add clarifying notes for NJ Net Metering.
February 12, 2007 Version 4.0.5F	• Considered FINAL for PA and NJ
February 22, 2009 Version 4.0.6D	• Incorporate NJ Change Control PSEG-E-IU to reflect PSEG will send REF*45 as applicable. Allow sending of REF*6W for channel for net metered accts
January 24, 2010 Version 4.1	• This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and Delaware.
September 8, 2010 Version 4.1.1D	• Incorporate PA Change Control 060 – (PA Admin/Cleanup) • Incorporate MD Change Control – Admin (Admin/Cleanup for MD)
February 28, 2011 Version 5.0	• This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and Delaware.
February 16, 2012 Version 5.01	• Incorporate PA Change Control 77 (Add QTY01 Codes) • Incorporate PA Change Control 82 (Add/update QTY01 Codes) • Incorporate MD Change Control 010 (PEPCO AMI/Smart Meter Support)
March 8, 2013 Version 6.0	• Moving to v6.0 to align versions across all transaction sets • Cleaned up references to Allegheny and APS throughout document • 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 Version 6.1	• Incorporated PA Change Control 105 Update2 (clarify net meter bank rollover) • Incorporated PA Change Control 109 (clarify use of BQ loop) • 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)

February 18, 2015 Version 6.2		• Incorporate NJ Change Control Electric 033 (remove BR and PL loops) • Incorporate MD Change Control 036 (clarify net meter customer excess generation)
February 5, 2016 Version 6.3		• Incorporate PA Change Control 125 (Duquesne meter level support) • Incorporate PA Change Control 127 (Clarify PA Notes for net meter bank rollover) • Incorporate MD Change Control 42 (Clarify MD Notes for net meter bank rollover)
March 14, 2017 Version 6.4		• Incorporate PA Change Control 131 (Add DTM328 to identify data increment change) • Incorporate PA Change Control 133v3 (Uniform Daylight Savings Time Reporting) • Incorporate NJ Change Control Electric 039 (Uniform Daylight Savings Time Reporting) • Incorporate MD Change Control 046 (Uniform Daylight Savings Time Reporting) • Incorporate MD Change Control 048 (clarify Billed Demand reporting)
May 18, 2018 Version 6.5		• Incorporate PA Change Control 147 (Add Citizens & Wellsboro to IG) • Incorporate NJ Change Control Electric 040 (PSEG Cancel/Rebill process change)
March 22, 2019 Version 6.6		• Corrected Table of Contents page numbering • Incorporate NJ Change Control Electric 048 (NJ Note – End of Clean Power Choice) • Incorporate MD Change Control 056 (Clarify BGE Historical Usage in MD Notes)
March 31, 2020 Version 6.7		• Incorporate PA Change Control 150v3 (FirstEnergy PA net meter data reporting) • Incorporate MD Change Control 059 (Add new PTD*BJ loop to EDI 867IU to identify generation transferred, banked or for true-up)
March 25, 2021 Version 6.8		• Incorporate PA Change Control 158 (Add new MEA04 to MEA*CO) • Incorporate NJ Change Control Electric 053v4 (Add support for PTD*BJ loop) • Incorporate PA Change Control 160 (Correct MEA04 values)
April 30, 2024 Version 6.0		• Incorporate MD Change Control 080 (Add support for SCB)
March 15, 2024		• Incorporate MD Change Control 090 (Add Community Solar Support for PE) • Incorporate NJ Change Control Electric 056v4 (JCPL Net update for Net Metering)

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.

Monthly Billed Summary Information (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.
Pennsylvania Only – the PTD01=PM will be also be looped when the interval data reporting increment changes. See DTM*328 segment and examples section for additional information.

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
Pennsylvania Only – the PTD01=PM will be also be looped when the interval data reporting increment changes. See DTM*328 segment and examples section for additional information.

PTD Definition and Use: (continued)

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

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.
Pennsylvania Only – the PTD01=BQ will be also be looped when the interval data reporting increment changes. See DTM*328 segment and examples section for additional information.

Bill Presentment Loop (PTD01 = BP): Maryland SCB Only
One or more PTD=BP loops, one for each meter and unit of measure will be created to provide the MD SCB usage related information. Data is obtained from multiple Utility systems and provided to Suppliers to ensure all required information currently printed on Utility Invoices as well as details required to explain the Utility Charges will be available. The BP Loop is based on the meter and will be generated for each meter and Unit of measure. If consumption and generation are tracked separately there will be a BP loop for each.

Unmetered Services Information (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]

Generation Transferred In/Out (PTD01 = BJ) – MARYLAND & NEW JERSEY ONLY: This loop is used to convey the generation usage transferred in/out for the period. Maryland: Required if the account has net metering or is a part of an Aggregated Net Energy Metering (ANEM) Family. New Jersey: Required if the account has net metering.

Valid Loop Combinations:

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

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

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

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

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

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.

Daylight Savings Time (DST) Reporting

The following formats are required to report Daylight Savings Time (DST).

Spring Daylight Savings Time

60 Minute Interval Increment - Upon the change from Eastern Standard time (ES) to Eastern Daylight time (ED) at 0200, the interval ending 0300 is skipped and the interval ending 0400 is sent with a Time Code (DTM04) of ED. The Time Code 'ED' will be displayed for every reading until the fall DST where it will change to 'ES' denoting Eastern Standard time.

Example of Spring DST Change with 60-minute interval increments…

QTY~QD~95.58~KH
DTM~582~20150308~0100~ES
QTY~QD~96.9~KH
DTM~582~20150308~0200~ES
QTY~QD~86.7~KH
DTM~582~20150308~0400~ED
QTY~QD~96.9~KH
DTM~582~20150308~0500~ED
QTY~QD~97.44~KH

30 Minute Interval Increment - Upon the change from Eastern Standard time (ES) to Eastern Daylight time (ED) at 0200, the intervals ending 0230 & 0300 are skipped and the interval ending 0330 is sent with a Time Code (DTM04) of ED. The Time Code 'ED' will be displayed for every reading until the fall DST where it will change to 'ES' denoting Eastern Standard time.

Example of Spring DST Change with 30-minute interval increments…

QTY~QD~239.76~KH
DTM~582~20150308~0130~ES
QTY~QD~302.4~KH
DTM~582~20150308~0200~ES
QTY~QD~248.76~KH
DTM~582~20150308~0330~ED
QTY~QD~241.56~KH
DTM~582~20150308~0400~ED

15 Minute Interval Increment - Upon the change from Eastern Standard time (ES) to Eastern Daylight time (ED) at 0200, the intervals ending 0215, 0230, 0245 & 0300 are skipped and the interval ending 0315 is sent with a Time Code (DTM04) of ED. The Time Code 'ED' will be displayed for every reading until the fall DST where it will change to 'ES' denoting Eastern Standard time.

Example of Spring DST Change with 15-minute interval increments…
QTY~QD~239.76~KH
DTM~582~20150308~0145~ES
QTY~QD~302.4~KH
DTM~582~20150308~0200~ES
QTY~QD~248.76~KH
DTM~582~20150308~0315~ED
QTY~QD~241.56~KH
DTM~582~20150308~0330~ED

Fall Daylight Savings Time

60 Minute Interval Increment – Upon the change from Eastern Daylight time (ED) to Eastern Standard time (ES) at 0200, the interval ending 0200 reading is repeated. The first interval ending 0200 represents the last interval for Eastern Daylight time (ED) with a Time Code (DTM04) of ED. The second interval ending 0200 represents the initial interval for Eastern Standard time (ES) with a Time Code (DTM04) of ES. The Time Code 'ES' will be displayed for every reading until the spring DST where it will change to ED denoting Eastern Daylight time.

Example of Fall DST Change with 60-minute interval increments…
QTY*QD*54.87*KH
DTM*582*20151101*0100*ED
QTY*QD*55.62*KH
DTM*582*20151101*0200*ED
QTY*QD*54.71*KH
DTM*582*20151101*0200*ES
QTY*QD*53.46*KH
DTM*582*20151101*0300*ES

30 Minute Interval Increment – Upon the change from Eastern Daylight time (ED) to Eastern Standard time (ES) at 0200, the intervals ending 0130 & 0200 are repeated. The interval ending 0200 represents the last interval for Eastern Daylight time (ED) with a Time Code (DTM04) of ED. The second interval ending 0130 represents the initial interval for Eastern Standard time (ES) with a Time Code (DTM04) of ES. The Time Code 'ES' will be displayed for every reading until the spring DST where it will change to ED denoting Eastern Daylight time.

Example of Fall DST Change with 30-minute interval increments…
QTY~QD~18.9~KH
DTM~582~20151101~0100~ED
QTY~QD~18.63~KH
DTM~582~20151101~0130~ED
QTY~QD~19.17~KH
DTM~582~20151101~0200~ED
QTY~QD~19.44~KH
DTM~582~20151101~0130~ES
QTY~QD~19.575~KH
DTM~582~20151101~0200~ES
QTY~QD~19.17~KH
DTM~582~20151101~0230~ES

15 Minute Interval Increment – Upon the change from Eastern Daylight time (ED) to Eastern Standard time (ES) at 0200, the intervals ending 0115, 0130, 0145 & 0200 are repeated. The interval ending 0200 represents the last interval for Eastern Daylight time (ED) with a Time Code (DTM04) of ED. The second interval ending 0115 represents the initial interval for Eastern Standard time (ES) with a Time Code (DTM04) of ES. The Time Code 'ES' will be displayed for every reading until the spring DST where it will change to ED denoting Eastern Daylight time.

Example of Fall DST Change with 15-minute interval increments…
QTY~QD~18.63~KH
DTM~582~20151101~0115~ED
QTY~QD~19.17~KH
DTM~582~20151101~0130~ED
QTY~QD~19.44~KH
DTM~582~20151101~0145~ED

QTY~QD~19.575~KH
DTM~582~20151101~0200~ED
QTY~QD~19.17~KH
DTM~582~20151101~0115~ES
QTY~QD~18.9~KH
DTM~582~20151101~0130~ES
QTY~QD~20.115~KH
DTM~582~20151101~0145~ES
QTY~QD~18.36~KH
DTM~582~20151101~0200~ES
QTY~QD~18.765~KH

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. .

- Citizens & Wellsboro - will provide detail interval data using 867IU with BB, BO, PM loops. The default is summary and 867MU and is sent with BB, SU, PM (BPT04 will be "DD").
- Duquesne – Will provide detail interval data using 867IU with BB, BO and PM 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.

Change in Interval Data Increment

The PTD01=BQ & PM loops will be repeated when the interval data reporting increment changes. See DTM*328 segment and examples section for additional information.

Requirements for uniform support of Net Metered Customers:

Interval Metered - ACCOUNT Level Detail – all meters summarized (FE, PPL, and PECO)
BB (Monthly Billed Summary) Loop – reports the monthly billed summary usage for net metered customers.

1. All PA EDCs (Excluding FirstEnergy)
    a. 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).

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

b. When customer's generation is greater than consumption, the billed usage in the QTY02 will be reported as 0 (zero) KH.
c. In either scenario, the QTY02 will never be signed negative.

2. FirstEnergy Companies
   a. Reports the consumption (delivered) KH as the billed usage

SU (Account Services Summary) Loop – reports the summary usage for net metered customers by unit of measure.

1. All PA EDCs (Excluding FirstEnergy)
   a. 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.
   b. 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).
   c. In either scenario, the QTY02 will never be signed negative.
2. FirstEnergy Companies
   a. Instead of reporting net KH in the SU loop, FirstEnergy will report the consumption and generation separately
      i. Reports consumption (delivered) KH (QTY01 w/actual = QD or estimated = KA)
      ii. Reports generation (received) KH (QTY01 w/actual = 87 or estimated = 9H)

BQ (Account Services Detail) Loop – reports the account level detail KH for net metered customers and will be looped for each unit of measure.

1. All PA EDCs (Excluding FirstEnergy)
   a. The QTY02 will report the net KH for ALL metered services being summed to the account level.
   b. If the net KH for a given report period is generation, the QTY01 will be either '87' or '9H'.
   c. 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.
2. FirstEnergy Companies
   a. Will send two BQ loops, one for consumption (delivered) KH and one for generation (generation) KH
   b. Consumption (Delivered) loop identified by REF6W = "1" with each interval reported as consumption (QTY01 w/actual = QD or estimated = KA)
   c. Generation (Received) loop identified by REF6W = "2" with each interval reported as (QTY01 w/actual = 87 or estimated = 9H)
      i. Generation (Received) loop will be sent even when there is no generation reported for the period.

Interval Metered – METER Level Detail – each meter reported separately.
(used by Duquesne Light, Citizens & Wellsboro and 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

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

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.

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
3. 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.
4. The meter number should be unique for each KH loop. The meter attributes for each KH loop may have different values.
5. The QTY02 will never be signed negative.

Banked KH adjustment for excess customer generation:

Applies to 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 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. 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. Settlement process for excess customer generation varies by EDC. EGSs should contact each EDC directly to obtain this information.

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: Before August 1st, 2016 (867 bill window close date)
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).

PSE&G: On or After August 1st, 2016 (867 bill window close date)
PSE&G implemented a system enhancement that will allow the billing option to remain consolidated for a cancel/rebill processed after the customer-supplier relationship has terminated.
- PSE&G will cancel charges from 810(s) that correspond to the original 867(s) being canceled.
- Send 867(s) cancel
- Send 867(s) rebill noting that customer billing option is CONSOLIDATED.
- 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 send in 810 charges for the rebilled 867(s).
- PSE&G will issue an 820 for the amount of the 810(s) for the rebilled 867(s).

Net Metering:

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

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

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

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…

- Atlantic City Electric – with new CIS (est. early 2015)
- 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 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. All NJ LDCs (Excluding JCP&L)
  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.
- SU (Metered Services Summary) Loop –reports the summary usage for net metered customers.(JCP&L)
  1. Consumption (Usage) KH reported under QTY*QD segment
  2. Generation KH reported under QTY*87 (or 9H) segment
  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. All NJ LDCs (Excluding JCP&L)
  1. 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.
- BQ (Account Services Detail) Loop – reports the account level detail KH for net metered customers looped by Channel Number. Also looped for each unit of measure. (JCP&L Only)
  1. In the consumption loop, the KH usage will be reported in quantity delivered (actual = QD or estimated = KA) and the REF*6W Delivery Channel will be "1".
  2. In the generation loop the KH usage will be reported as net generation delivered (actual = 87 or estimated = 9H) and the REF*6W Delivery Channel will be "2".
  3. The QTY02 will never be signed negative.

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.

The QTY02 will never be signed negative

NJ Clean Power Choice

Pursuant to Board Order, Docket No. QO18040393, the Clean Power Choice Program is coming to an end effective February 28, 2019. The EDI segments and data elements used for Clean Power Choice will remain in the EDI Implementation Guidelines to support any cancel/rebill scenarios or for future use in the event another program is established that may need these data elements.

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.
  1. 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.

Example of banked KH adjustment (non-TOU customers)…
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

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)

Settlement process for excess customer generation varies by LDC. Suppliers should contact each LDC directly to obtain this information.

Demand Reporting – Multiple suppliers during same billing period

The following describes each utility's process for reporting Demand (K1) when multiple suppliers serve the same customer during the same billing period.

BGE
The demands passed in each 867MU/IU reflects the highest demand values that occurred during each supplier's sub-period, NOT the entire billing period. Demand values for each sub-period are NOT prorated.

BB Loop / QTY*D1 - The highest overall demand (regardless of TOU Peak) that occurred in the supplier's sub-period. Although coded "D1", this may not be the highest overall demand billed by BGE for the entire billing period.
BB Loop / QTY*QD - The highest recorded On Peak demand that occurred in the supplier's sub-period (This may or may not be the highest overall billed "D1" demand).

Potomac Edison (FirstEnergy)
Will send the peak demand for the entire billing period in all 867s created for the period. If the customer's peak demand is 10.4 K1 for the whole billing period, all suppliers would receive 10.4K1 in their 867.

PHI (Delmarva MD & PEPCO MD)
Will prorate demand for the entire period based on the number of days served by the supplier.
If max demand for entire period is 90 and one supplier serves 15/30 days, PHI will send that supplier 45, if another supplier serves 10/30 days, will send that supplier 30, and if utility has remaining 5/30 days, they will have 15. PHI will implement this to be consistent with all meter types and to ensure the customer is never charged more than the maximum.

MD Supplier Consolidated Billing (SCB)

MD SCB Usage Considerations:

MD SCB Bill Option includes a Purchase of Receivables process in which the Supplier is responsible for creating the consolidated customer bill utilizing information obtained via numerous EDI transactions including an 810 Invoice, 867MU or 867IU usage transactions, and the 814 Enrollment response and change transactions sent to the Supplier by the Utility. The following changes to the 867IU are to ensure the Supplier has access to data currently printed on the Utility bills that is required to be present on the MD SCB bill, as well as additional information that provides support for explaining Utility charges.

Bill Presentment – PTD=BP
Utilities will provide Meter Beginning Reading and Meter Ending Reading values on the MEA05 and MEA06 when available for the Supplier to include on the Customer SCB bill. There are some instances where this information is not currently provided consistently on the PM loops. The LDC Rate Description will be provided in a new REF*K6 segment for all MD SCB accounts.
Utilities will also provide the following information when available and appropriate:
MU=Meter Multiplier (The meter multiplier will always be passed even when equal to 1.0).
ZA=Power Factor
CO=Transformer Loss Multiplier

The PTD*BJ Loop is required for MD SCB 867 transactions for Potomac Edison that also participate in Community Solar programs. The BJ loop will provide information to be printed on the customer bill including the kwh amount of the usage base CS credit and the name of the community Solar program.

How to Use the Implementation Guideline

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

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

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

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

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

One or more examples.

Data Element Summary

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

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

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

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

M = Mandatory, O= Optional, X = Conditional

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

1/30 = Minimum 1, Maximum 30

867 Product Transfer and Resale Report
X12 Structure

Functional Group ID=PT

Heading:

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

Detail:

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

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

Summary:

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

Data Dictionary

867 Interval Usage					
Appl Field	***Field Name***	***Description***	***EDI Segment***	***Related EDI Qualifier***	***Data Type***
Header Information					
1	Purpose Code	**00 –** Original **01 –** Cancellation – Cancels an entire Usage	BPT01		X(2)
2	Transaction Reference Number	Unique Number identifying this transaction assigned by the sender of the transaction. This number should be unique over all time. This number will also be shown on the related 810 document (both Bill Ready and Rate Ready), and for cases where the billing party makes the other party whole, on the 820 document.	BPT02		X(30)
3	System Date	Date that the data was processed by the sender's application system.	BPT03		9(8)
4	Report Type Code	C1- Cost Data Summary – Indicates this is an interval usage transaction. DR – Transaction includes interval and non-interval data KH-Proposal Support Data-Meter Changeout when Meter Agent Changes. Interval Usage (used to tell the receiver that this is a partial usage statement). The billing agent must combine the KH usage and the MV usage to determine total usage for period.	BPT04	BPT01	X(2)
5	Final Indicator	Indicates if this is a final reading for that particular ESP (e.g., customer moves, customer switches, etc.).	BPT07 = **F**		X(1)
6	Transaction Reference Number	Transaction Reference Number echoed from BPT02 of the Original Transaction	BPT09		X(30)
7	Document Due Date/Time	The last date/time that information will be accepted by the billing party for processing the bill. If 810 is received after this date/time, and the billing party cannot process it, they must notify the non-billing party (via email, phone call, etc.)	DTM02 (CCYYMMDD) and DTM03(HHMM)	DTM01= **649**	DTM02= 9(8) and DTM03= 9(4)
8	Percent Participation	Used to express the percentage of the total load that is being supplied by the ESP. This is the multiplication of two fields that are on the 814 transaction, AMT*7N (Participating Interest) and AMT*QY (Eligible Load).	MEA03	MEA02 = **NP**	9(1).9999 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	LDC Account Number - unmetered	LDC Customer Account Number – Unmetered	REF03	N1: N101 = **8R** REF01 = **12** REF03 = **U**	X(80)
16	Old Account Number	Previous LDC Customer Account Number	REF02	N1: N101*8R Loop REF01 = **45**	X(30)
17	Billing Type	Indicates type of billing - LDC consolidated Billing (REF02=LDC) - ESP consolidated Billing (REF02=ESP) - Dual bills (REF02=DUAL)	REF02	LIN: REF01= **BLT**	X(4)
18	Billing Calculation Method	Indicates party to calculate bill. - LDC calculates bill (REF02=LDC) - Each calculate portion (REF02=DUAL)	REF02	LIN: REF01= **PC**	X(4)
Please refer to General Notes for details about the use of the PTD loop combinations.					
Monthly Billed Summary - Loop Required if the LDC reads the meter					
This information is obtained from the billing system to reflect billing data for this account at the unit of measure level.					
19	Product Transfer Type	Monthly Billed Summary	PTD01= **BB**		X(2)
20	Service Period Start Date	Start date of the period for which the readings are provided	DTM02	DTM01 = **150**	9(8)
21	Service Period End Date	End date of the period for which the readings are provided	DTM02	DTM01 = **151**	9(8)
22	Quantity Qualifier	Represents that the quantity was billed: **D1** - Billed	QTY01		X(2)
23	Quantity Delivered - Billed kWh	This data is taken from the LDC billing system and reflects the KWH amount on which the customer was billed.	QTY02	QTY01	-9(10).9(4)
24	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period. **KH** - Kilowatt Hours	QTY03		X(2)
25	Quantity Qualifier	Represents that the quantity was billed: **D1** - Billed	QTY01		X(2)

26	Quantity Delivered - Derived or Billed Demand	Demand for which the customer was actually billed at account level only. Derived or billed demand is different from measured demand because the result is based on contract demand or rate minimum demand.	QTY02	QTY01	-9(10).9(4)
27	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period. **K1** - Demand (kW)	QTY03		X(2)
28	Quantity Qualifier	Represents whether the quantity is actual or estimated: **KA** = Estimated 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)
Metered Services Summary - Loop Required when the metering agent is reporting interval data at the meter level.					
31	Product Transfer Type	Metered Services Summary	PTD01= **BO**		X(2)
32	Service Period Start Date	Start date of the service period or start date of the changed in meter.	DTM02	DTM01 = **150**	9(8)
33	Service Period End Date	End date of the service period or end date of the changed out meter.	DTM02	DTM01 = **151**	9(8)
33.1	Change Interval Data Increment	Date when the change in the interval data increment occurs.	DTM02	DTM01 = **328**	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 Meter)	QTY01		X(2)
39	Quantity Delivered	Represents quantity of consumption delivered for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors, excluding Power Factor.	QTY02	QTY01	9(10).9(4)
40	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period.	QTY03		X(2)
41	Meter Multiplier	Meter Constant - used to represent how many units are reflected by one dial or digit increment.	MEA03	MEA02 = **MU**	9(9).9(4)
42	Power Factor	Relationship between watts and volt - amperes necessary to supply electric load	MEA03	MEA02 = **ZA**	9(9).9(4)
43	Transformer Loss Multiplier	Used when a customer owns a transformer and the transformer loss is not measured by the meter. Consumption figures from meter must be adjusted by this factor to reflect true end use consumption.	MEA03	MEA02 = **CO**	9(9).9(4)
43a	Transformer Loss Multiplier Meter Type	Represents the Meter Type: **MV** **AM**	MEA04	MEA02 = **CO**	X(2)
Metered Services Detail - Loop Required when the metering agent is reporting interval data at the meter level. [Loop not required on a cancel transaction]					
44	Product Transfer Type	Metered Services Detail	PTD01= **PM**		X(2)
45	Service Period Start Date	Start date of the service period or start date of the changed in meter.	DTM02	DTM01 = **150**	9(8)
46	Service Period End Date	End date of the service period or end date of the changed out meter.	DTM02	DTM01 = **151**	9(8)
46.1	Change Interval Data Increment	Date when the change in the interval data increment occurs.	DTM02	DTM01 = **328**	9 (8)
47	Meter Change Out Date	Used in conjunction with either the Service Period Start Date or the Service Period End Date to indicate when a meter has been replaced. Separate PTD loops must be created for each period and meter.	DTM02	DTM01 = **514**	9(8))
48	Meter Number	Serial number of this specific meter (may have multiple meters)	REF02	REF01 = **MG**	X(30)
49	Meter Type	Type of Meter	REF02	REF01= **MT**	X(5)
50	Quantity Qualifier	Represents whether the quantity is actual or estimated: **KA** = Estimated Quantity Delivered **QD** = Actual Quantity Delivered	QTY01		X(2)

		20 = Unavailable **87** = Actual Quantity Received (Net Meter) **96** = Non-Billable Quantity **9H** = Estimated Quantity Received (Net Meter)			
51	Quantity Delivered	Represents quantity of consumption delivered for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors, excluding Power Factor.	QTY02	QTY01	9(10).9(4)
52	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period.	QTY03		X(2)
53	Report Period Date/Time	The date/time of the end of the interval.	DTM02 (CCYYMMDD) and DTM03(HHMM	DTM01 = **582**	DTM02= 9(8) and DTM03= 9(4)
54	Time Code	The time code must accurately provide the time zone when the daylight savings time starts and ends if the meter is adjusted for daylight savings time. **ED** = Eastern Daylight Time **ES** = Eastern Standard Time	DTM04		X(2)
Account Services Summary - Loop required when the metering agent is reporting interval data at the account level.					
55	Product Transfer Type	Account Services Summary	PTD01= **SU**		X(2)
56	Service Period Start Date	Start date of the period for which the readings are provided	DTM02	DTM01 = **150**	9(8)
57	Service Period End Date	End date of the period for which the readings are provided	DTM02	DTM01 = **151**	9(8)
58	Meter Channel	Summarizes usage at the channel level	REF02	REF01=**6W**	X(30)
59	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)
60	Quantity Delivered	Represents quantity of consumption delivered for service period. Contains the difference in the meter readings multiplied by various factors, excluding Power Factor.	QTY02	QTY01	-9(10).9(4)
Account Services Detail - Loop required when the metering agent is reporting interval data at the account level.					
61	Product Transfer Type	Account Services Detail	PTD01= **BQ**		X(2)
62	Service Period Start Date	Start date of the service period or start date of the changed in meter.	DTM02	DTM01 = **150**	9(8)
63	Service Period End Date	End date of the service period or end date of the changed out meter.	DTM02	DTM01 = **151**	9(8)

63.1	Change Interval Data Increment	Date when the change in the interval data increment occurs.	DTM02	DTM01 = **328**	9 (8)
64	Meter Type	Type of Meter	REF02	REF01= **MT**	X(5)
65	Meter Channel	Summarizes usage at the channel level	REF02	REF01=**6W**	X(30)
66	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)
67	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)
68	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period.	QTY03		X(2)
69	Report Period Date/Time	The date/time of the end of the interval.	DTM02 (CCYYMMDD) and DTM03(HHMM	DTM01 = **582**	DTM02= 9(8) and DTM03= 9(4)
70	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)
Generation Transferred In/Out - Loop required when account has net metering or is part of an Aggregated Net Energy Metering (ANEM) Family					
71	Product Transfer Type	Account Services Detail	PTD01= **BQ**		X(2)
72	Service Period Start Date	Start date of the service period	DTM02	DTM01 = **150**	9(8)
73	Service Period End Date	End date of the service period	DTM02	DTM01 = **151**	9(8)
74	Quantity Qualifier	Represents whether the quantity is actual or estimated: **77 =** Generation transferred from another account to this account **78 =** Generation transferred from this account to another account **79** = Self-generation applied from Starting Bank **QB** = Excess generation for True-Up event. **QE** = Ending Bank	QTY01		X(2)

		QH = Starting Bank			
75	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)
76	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period. **KH** = Kilowatt Hour	QTY03		X(2)
77	Measurement Reference Code	Code identifying category to which measurement applies.	MEA01		X(2)
78	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)
79	Unit of Measure	Unit of measure for readings.	MEA04		X(2)
80	Beginning Reading	Value specifying beginning reading for the metering period. Factors have not been applied to this value.	MEA05		9(8).9(4)
81	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)
82	Measurement Significance Code	Code used to benchmark, qualify, or further define a measurement value. **41** = Off Peak **42** = On Peak **43** – Intermediate **51** = Totalizer **66** = Shoulder	MEA07		X(2)
Bill Presentation Loop – Maryland SCB only					
83	Product Transfer Type	Metered Services Detail	PTD01=**BP**		X(2)
84	Service Period Begin Date	Start date of the service period or start date of the changed in meter.	DTM02	DTM01 = **150**	9(8)
85	Service Period End Date	End date of the service period or end date of the changed-out meter.	DTM02	DTM01 = **151**	9(8)
86	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)
87	Meter Number	Serial number of this specific meter (may have multiple meters). Metered accounts will have the Meter Number.	REF02	REF01 = **MG**	X(30)

		Unmetered accounts will have the value UNMETERED.	Meter Number or "UNMETERED"		
88	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)
89	LDC Rate Subclass Code	Used to provide further classification of a rate.	REF02	REF01= **PR**	X(30)
90	LDC Print Summary Box Indicator	Used to Identify Additional Utility Bill print requirements.	REF02= (Y or N)	REF01= **K6**	X(30)
91	LDC Rate Description	Rate Description required per current Utility Bill requirements.	REF03	REF01= **K6**	X(80)
92	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)
93	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
94	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)
95	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)
96	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period.	QTY03		X(2)
97	Measurement Reference Code	Code identifying category to which measurement applies.	MEA01		X(2)
98	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)
99	Usage Deviation	Usage Deviation (applies to Kilowatt Hours, Kilowatt Demand and Reactive Demand) Required when Billed Usage is different than the PRQ Consumption value provided in the PM loop.	MEA03	MEA02 = **RUD**	9(9).9(4)
100	Unit of Measure	Unit of measure for readings.	MEA04		X(2)
101	Beginning Reading	Value specifying beginning reading for the metering period. Factors have not been applied to this value.	MEA05		9(8).9(4)

102	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)
103	Measurement Significance Code	Code used to benchmark, qualify, or further define a measurement value.	MEA07		X(2)
104	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)
105	Power Factor	Relationship between watts and volt - amperes necessary to supply electric load	MEA03	MEA02 = **ZA**	9(9).9(4)
106	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)

Segment: **ST** **Transaction Set Header**
Position: 010
Loop:
Level: Heading
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number
Syntax Notes:
Semantic Notes: **1** The transaction set identifier (ST01) is used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
Comments:

PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	ST*867*000000001

Data Element Summary

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

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

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

Data Element Summary

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

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

Segment: **DTM** **Date/Time Reference (649=Document Due Date)**
Position: 050
Loop:
Level: Heading
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes: **1** At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	Required for Bill Ready Consolidated Billing where the meter reading party sends an 867 to the non-billing party, who calculates their own portion of the bill and sends the 810 to the billing party. Must be expressed in Eastern Prevailing Time. Not provided on cancel transaction.
PA Use:	Required for Bill Ready, not used in Rate Ready and Dual Billing **Note:** For ESP Consolidated Billing, the document due date will be set according to the specific LDC bill ready implementation.
NJ Use:	Required for Bill Ready, not used in Rate Ready and Dual Billing
DE Use:	Required for Bill Ready, not used in Rate Ready and Dual Billing
MD Use:	Required for Bill Ready, not used in Rate Ready and Dual Billing
Examples:	DTM*649*19990131*2359

Data Element Summary

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

Segment: **MEA** **Measurements (NP=Percent Participation)**
Position: 075
Loop:
Level: Heading
Usage: Optional
Max Use: 20
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

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

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies	**O ID 1/3**
			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 measurement The whole number "1" represents 100 percent. Decimal numbers less than "1" represent percentages from 1 percent to 99 percent.	**X R 1/20**

Segment: **N1** **Name (8S=LDC Name)**
Position: 080
Loop: N1
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: **1** At least one of N102 or N103 is required.
2 If either N103 or N104 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2 N105 and N106 further define the type of entity in N101.

PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	N1*8S*LDC COMPANY*1*007909411

Data Element Summary

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

Segment: **N1** **Name (SJ=ESP Name)**
Position: 080
Loop: N1
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: **1** At least one of N102 or N103 is required.
2 If either N103 or N104 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2 N105 and N106 further define the type of entity in N101.

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

Data Element Summary

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

Segment: **N1** **Name (G7=Renewable Energy Provider Name)**
Position: 080
Loop: N1
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: **1** At least one of N102 or N103 is required.
2 If either N103 or N104 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2 N105 and N106 further define the type of entity in N101.

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

Data Element Summary

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

Segment: **N1** **Name (8R=Customer Name)**
Position: 080
Loop: N1
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: **1** At least one of N102 or N103 is required.
2 If either N103 or N104 is present, then the other is required.
Semantic Notes:
Comments: **1** This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
2 N105 and N106 further define the type of entity in N101.

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

Data Element Summary

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

Segment: **REF** **Reference Identification (11=ESP Account Number)**
Position: 120
Loop: N1
Level: Heading
Usage: Optional
Max Use: 12
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	Required if it was previously provided to the LDC.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	REF*11*1394959

Data Element Summary

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

Segment: **REF** **Reference Identification (12=LDC Account Number)**
Position: 120
Loop: N1
Level: Heading
Usage: Optional
Max Use: 12
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	REF*12*1239485790

Data Element Summary

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

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

Data Element Summary

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

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

Data Element Summary

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

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

Data Element Summary

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

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

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

Segment:	**PTD** **Product Transfer and Resale Detail (BB=Monthly Billed Summary)**
Position:	010
Loop:	PTD
Level:	Detail
Usage:	Mandatory
Max Use:	1
Syntax Notes:	**1** If either PTD02 or PTD03 is present, then the other is required. **2** If either PTD04 or PTD05 is present, then the other is required.
Semantic Notes:	
Comments:	

Notes:	PTD Loops may be sent in any order.
PA Use:	One Monthly Billed Summary PTD loop is required for every account.
NJ Use:	One Monthly Billed Summary PTD loop is required for every account.
DE Use:	One Monthly Billed Summary PTD loop is required for every account.
MD Use:	One Monthly Billed Summary PTD loop is required for every account.
Example:	PTD*BB

Data Element Summary

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

Note:

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

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

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

Data Element Summary

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

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

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

Data Element Summary

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

Segment: **QTY** **Quantity (Billed kwh)**
Position: 110
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify quantity information
Syntax Notes: **1** At least one of QTY02 or QTY04 is required.
2 Only one of QTY02 or QTY04 may be present.
Semantic Notes: **1** QTY04 is used when the quantity is non-numeric.
Comments:

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

Data Element Summary

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

Segment: **QTY** **Quantity (Billed Demand)**
Position: 110
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify quantity information
Syntax Notes: **1** At least one of QTY02 or QTY04 is required.
2 Only one of QTY02 or QTY04 may be present.
Semantic Notes: **1** QTY04 is used when the quantity is non-numeric.
Comments:

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

Data Element Summary

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

Segment: **QTY** **Quantity (Measured Demand)**
Position: 110
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify quantity information
Syntax Notes: **1** At least one of QTY02 or QTY04 is required.
2 Only one of QTY02 or QTY04 may be present.
Semantic Notes: **1** QTY04 is used when the quantity is non-numeric.
Comments:

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

Data Element Summary

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

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

Data Element Summary

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

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

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

Data Element Summary

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

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

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

Data Element Summary

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

Segment: **DTM** **Date/Time Reference (328=Change Interval Data Increment)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes: **1** At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	Used in conjunction with either the Service Period Start Date or the Service Period End Date to indicate when the Interval Data Increment has been changed by the LDC. Separate PTD loops must be created for each period and Interval Data Increment value reporting in the REF*MT (meter type) segment.
PA Use:	Required when there is a change to the Interval Data Increment
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not Used
Example:	Date Range in the first PTD is shown as: DTM*150*20151201 DTM*328*20151214 Date Range in the second PTD is shown as: DTM*328*20151214 DTM*151*20151231

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 328 Changed Change Interval Data Increment	**M ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**

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

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

Data Element Summary

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

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

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

Data Element Summary

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

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

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

Data Element Summary

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

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

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

Data Element Summary

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

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

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

Notes:	There will be one QTY loop for each of the QTY03 Units of Measurement listed below that are measured on this account when interval data is being provided at the meter level.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	QTY*QD*22348*KH

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity		**M ID 2/2**
			KA	Estimated 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 Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		**M ID 2/2**
			K3	Kilovolt Amperes Reactive Hour (kVARH) Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters	
			KH	Kilowatt Hour (kWh)	

Segment: **MEA** **Measurements (MU=Meter Multiplier)**
Position: 160
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 40
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

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

Data Element Summary

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

Segment:	**MEA** **Measurements (ZA=Power Factor)**
Position:	160
Loop:	QTY
Level:	Detail
Usage:	Optional
Max Use:	40
Purpose:	To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:	**1** At least one of MEA03 MEA05 MEA06 or MEA08 is required. **3** If MEA05 is present, then MEA04 is required. **3** If MEA06 is present, then MEA04 is required. **3** If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required. **3** Only one of MEA08 or MEA03 may be present.
Semantic Notes:	**1** MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:	**1** When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.
PA Use:	Power Factor: Relationship between watts and volt amperes necessary to supply electric load. Required if it is available to the meter agent and it is used in the calculation of the customer's bill. This is only relevant and should only be sent with Demand (K1). If not present with a demand quantity, it should be assumed to be 1.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	MEA**ZA*.95

Data Element Summary

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

Segment: **MEA** **Measurements (CO=Transformer Loss Factor)**
Position: 160
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 40
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
3 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
3 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
3 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

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

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies	**O ID 1/3**
			CO Transformer Loss Multiplier When a customer owns a transformer and the transformer loss is not measured by the meter.	
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement Represents the Transformer Loss Multiplier when MEA02 equals “CO”.	**X R 1/20**
Optional	**MEA04**	**740**	**Meter Type** MV MV90 - Interval data should be adjusted by MEA03 value AM AMI - Interval data should NOT be adjusted by MEA03 value	**M ID 2/2**

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

Data Element Summary

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

Note:

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

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

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

Data Element Summary

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

Segment: **DTM** **Date/Time Reference (151=Service Period End)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes: **1** At least one of DTM02 DTM03 or DTM05 is required.
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 Meter Services Summary loop must match the dates in the Meter Services Detail loop.
PA Use:	Required, unless a "DTM*514" is substituted for this code.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	DTM*151*19990131

Data Element Summary

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

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

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

Data Element Summary

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

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

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

Data Element Summary

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

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

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

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification MT Meter Type	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier When REF01 is MT, the meter type is expressed as a five-character field. The first two characters are the type of consumption, the last three characters are the metering interval. Since this value ties to the consumption being reported, the value "COMBO" is not valid. Valid values can be a combination of the following values:	**X AN 1/30**

Type of Consumption

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

Metering Interval

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

For Example:

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

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

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

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity	**M ID 2/2**
			KA Estimated Quantity Delivered Used when the quantity delivered is an estimated quantity.	
			QD Actual Quantity Delivered Used when the quantity delivered is an actual quantity.	
			20 Unavailable Used when meter data is not available to fill 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.	
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity	**X R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	**M ID 2/2**
			K1 Kilowatt Demand (kW) Represents potential power load measured at predetermined intervals	
			K2 Kilovolt Amperes Reactive Demand (kVAR) Reactive power that must be supplied for specific types of customer's equipment; billable when kilowatt demand usage meets or exceeds a defined parameter	
			K3 Kilovolt Amperes Reactive Hour (kVARH) Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters	
			K4 Kilovolt Amperes (KVA)	

KH	Kilowatt Hour (kWh)

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

Notes:	End date and time of the period for which the quantity is provided. Time will include zone. Each interval must be explicitly labeled with the date and time.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	DTM*582*19990115*1500*ET

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time	**M ID 3/3**
			582 Report Period The date/time of the end of the interval.	
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**
Must Use	**DTM03**	**337**	**Time** Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99) HHMM format	**X TM 4/8**
Must Use	**DTM04**	**623**	**Time Code** Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or – and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and – are substituted by P and M in the codes that follow 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	**O ID 2/2**

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

Data Element Summary

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

Note:

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

Segment: **DTM** **Date/Time Reference (150=Service Period Start)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes: **1** At least one of DTM02 DTM03 or DTM05 is required.

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

Data Element Summary

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

Segment: **DTM** **Date/Time Reference (151=Service Period End)**
Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes: **1** At least one of DTM02 DTM03 or DTM05 is required.

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

Data Element Summary

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

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

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

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**REF01**	**128**	**Reference Identification Qualifier**		**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			

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:

Notes:	There will be one QTY loop for each of the QTY03 Units of Measurement listed below that are measured on this account when interval data is being provided at the Account level.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	QTY*QD*22348*KH

Data Element Summary

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

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

Data Element Summary

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

Note:

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

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

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

Data Element Summary

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

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

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

Data Element Summary

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

Segment: **DTM** **Date/Time Reference (328=Change Interval Data Increment)**
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.
4 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 the Interval Data Increment has been changed by the LDC. Separate PTD loops must be created for each period and Interval Data Increment value reporting in the REF*MT (meter type) segment.
PA Use:	Required when there is a change to the Interval Data Increment
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not Used
Example:	Date Range in the first PTD is shown as: DTM*150*20151201 DTM*328*20151214 Date Range in the second PTD is shown as: DTM*328*20151214 DTM*151*20151231

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**DTM01**	**374**	**Date/Time Qualifier** Code specifying type of date or time, or both date and time 328 Changed Change Interval Data Increment	**M ID 3/3**
Must Use	**DTM02**	**373**	**Date** Date expressed as CCYYMMDD	**X DT 8/8**

Segment: **REF** **Reference Identification (MT=Meter Type)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.

- 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:

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

Data Element Summary

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

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

Type of Consumption

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

Metering Interval

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

For Example:

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

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

PA Use:	Used by FirstEnergy: Channel 1 = Delivered kWh and Channel 2 = Received kWh
NJ Use:	PSEG. If only one channel is used, this will still be sent. FirstEnergy (JCP&L): Channel 1 = Delivered kWh and Channel 2 = Received kWh
DE Use:	N/A
MD Use:	N/A
Example:	REF*6W*1

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
Must Use	**REF01**	**128**	**Reference Identification Qualifier**		**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			

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. **1.** Only one of QTY02 or QTY04 may be present.
Semantic Notes:	**1** QTY04 is used when the quantity is non-numeric.
Comments:	
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	QTY*QD*87*KH

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity		**M ID 2/2**
			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 Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		**M ID 2/2**
			K1	Kilowatt Demand (kW) Represents potential power load measured at predetermined intervals	

K2	Kilovolt Amperes Reactive Demand (kVAR)
	Reactive power that must be supplied for specific types of customer's equipment; billable when kilowatt demand usage meets or exceeds a defined parameter
K3	Kilovolt Amperes Reactive Hour (kVARH)
	Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters
K4	Kilovolt Amperes (KVA)
KH	Kilowatt Hour (kWh)

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

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

Data Element Summary

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

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

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

Data Element Summary

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

Note:

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

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

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

Data Element Summary

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

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

PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Required if there are unmetered services on this account
Example:	DTM*151*19990131

Data Element Summary

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

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

Notes:	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

Data Element Summary

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

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

Notes:	PTD Loops may be sent in any order. There will be a separate PTD BP loop for each meter and unit of measurement on the account. There will also be BP loops for unmetered data as needed.
PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB
Example:	PTD*BP

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**PTD01**	**521**	**Product Transfer Type Code** Code identifying the type of product transfer BP Bill Presentment Information	**M ID 2/2**

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

Notes:	This date reflects the beginning of the date range for this meter for this billing period.
PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB
Example:	DTM*150*20240101

Data Element Summary

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

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

Notes:	This date reflects the end of the date range for this meter for this billing period.
PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB
Example:	DTM*151*20240131

Data Element Summary

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

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

Notes:	Used in conjunction with either the Service Period Start Date or the Service Period End Date to indicate when a meter has been replaced. Separate PTD loops must be created for each period and meter.
PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB and if included on the corresponding PTD*PM Loop
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*19990215 DTM*151*19990228

Data Element Summary

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

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

PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB. Metered accounts will have the Meter Number. Unmetered accounts will have the value UNMETERED.
Example:	REF*MG*2222277S REF*MG*UNMETERED

Data Element Summary

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

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

PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB if present on corresponding 867MU PTD-PM Loop
Example:	REF*NH*GS1

Data Element Summary

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

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

Notes:	This iteration of the REF segment is used for meter level information.
PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB if present on corresponding 867MU PTD-PM Loop
Example:	REF*PR*123

Data Element Summary

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

Segment: **REF** **Reference Identification (K6=LDC Rate Description)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:

Notes:	This iteration of the REF segment is used for passing the Rate description on some PHI accounts for inclusion on the MD SCB Bill.
PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB if Rate Description is required to be printed on MD SCB Customer Bill.
Example:	REF*K6*Y*Unmetered Street Lighting REF*K6*N*Telecommunications Network

Data Element Summary

	Ref. Des.	Data Element	Name	X12 Attributes	
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification	**M**	**ID 2/3**
			K6 Purchase Description LDC Rate Description – Used to provide required detail for inclusion on MD SCB Bill.		
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier.	**X**	**AN 1/30**
			Print Summary Box indicator (Y/N)		
Must Use	**REF03**	**352**	**Description** A free-form description to clarify the related data elements and their content	**X**	**AN 1/80**

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

PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB
Example:	REF*JH*A

Data Element Summary

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

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

PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB if present on corresponding 867MU PTD-PM Loop
Examples:	REF*IX*6.0 REF*IX*5.1 REF*IX*4.2

Data Element Summary

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

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

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

PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB when the REF*MG Meter number = UNMETERED and the REF*K6 Print Summary Box = Y. REF*MG*UNMETERED REF*K6*Y*Unmetered Street Lighting PHI and Potomac Edison will provide additional information to the Supplier for the specified Unmetered Service for inclusion on the MD SCB Bill. Includes the type of device as well as additional text information which may be useful (i.e., a specific wattage of a light, additional text information for further clarification, etc.) BGE does not currently provide this detail on their bill and will not provide it in the 867.
Examples:	REF*PRT*UNMETERED*100 WATT HPS REF*PRT*UNMETERED*150 WATT HPS REF*PRT*UNMETERED*400 WATT HPS REF*PRT*UNMETERED*70 WATT HPS REF*PRT*UNMETERED*ATTACHED TO C&P TEL CO POLE

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification	**M**	**ID 2/3**
			PRT Product Type Defined Unmetered Service Type		
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN 1/30**
			UNMETERED This code will be used for all PHI and PE unmetered devices. BGE does not currently provide this detail on their bills.		
Must Use	**REF03**	**352**	**Description** A free-form description to clarify the related data elements and their content	**X**	**AN 1/80**
			Used to provide the description of the specific Unmetered Device. i.e., 100 WATT HPS This free-form text cannot contain any characters that may be used as element delimiters, sub-element delimiters, segment terminators, or field separators (This includes asterisk *, pipes |, tabs, linefeeds, carets ^, angle brackets < >, and tildes ~).		

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

Notes:	There will be one QTY loop for **each** of the QTY03 Units of Measurement listed below for each meter that is measured on this account. If there are 2 meters on the account, and one measures KWH and KW, and the other measures just KWH, there will be 3 PTD01=PM loops. If a meter measures total usage, as well as on-peak and off-peak, there will be three QTY loops sent within one PTD01=PM loop. The MEA segment that follows each QTY will specify which time of use the QTY applies to.
PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB if present on corresponding 867MU PTD-PM Loop and when the REF*MG Meter number = UNMETERED and the REF*K6 Print Summary Box = Y. (REF*MG*UNMETERED and REF*K6*Y*Unmetered Street Lighting) One QTY Loop is required for each consumption quantity per unmetered device. The billable quantity is the total unmetered consumption per device type for the billable period.
Example:	QTY*QD*22348*KH QTY*QD*14*K1 (If meter measures both, you will have two QTY loops) QTY~QD~2000~EA^^20^KH

Data Element Summary

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

				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)		
			EA	Each		
Cond	**C00103**	**649**	**Multiplier** Value to be used as a multiplier to obtain a new value		**O**	**R 1/10**
			Number of unmetered devices for this specific Unmetered Service Type (as defined in the REF~PRT segment).			
Cond	**C00104**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken.		**O**	**ID 2/2**
			KH	Kilowatt Hour		

Segment: **MEA** **Measurements**
Position: 160
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 40
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

Notes:	The MEA segment is sent for each QTY loop. The MEA will indicate the "time of use" that applies to the QTY. If meter readings are included in the MEA, they will indicate the "time of use" that the meter readings apply to.
PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB if present on corresponding PTD-PM Loop and to provide additional information for bill presentment purposes. MEA segment must contain MEA05 and MEA06 Meter Beginning Reading and Meter Ending Reading values on KH reads. BGE does not provide on TOU reads, only total usage segments.
Examples:	MEA*AE*PRQ*589.00000*KH*89466.00000*90055.00000*51 MEA*BO*RUD*243342*KH***51

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA01**	**737**	**Measurement Reference ID Code** Code identifying the broad category to which a measurement applies AA Meter reading-beginning actual/ending actual AE Meter reading-beginning actual/ending estimated AF Actual Total BO Meter Reading as Billed Used when billing charges are based on contractual agreements or pre-established usage and not on actual usage EA Meter reading-beginning estimated/ending actual EE Meter reading-beginning estimated/ending estimated	**O ID 2/2**
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies PRQ Consumption	**O ID 1/3**

			RUD	Usage Deviation (applies to Kilowatt Hours, Kilowatt Demand and Reactive Demand) MD SCB: A RUD MEA segment is required when Billed Usage is different than the PRQ Consumption value provided in the PM loop. This is used for Supplier to be able to present the current level of detail that is on the Utility Bill.		
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement 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.	**X**	**R**	**1/20**
Must Use	**MEA04**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	**M**	**ID**	**2/2**
			K1 Kilowatt Demand Represents potential power load measured at predetermined intervals			
			K2 Kilovolt Amperes Reactive Demand Reactive power that must be supplied for specific types of customer's equipment; billable when kilowatt demand usage meets or exceeds a defined parameter			
			K3 Kilovolt Amperes Reactive Hour Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters			
			K4 Kilovolt Amperes (KVA)			
			K5 Kilovolt Amperes Reactive			
			KH Kilowatt Hour			
Must Use	**MEA05**	**740**	**Range Minimum** The value specifying the minimum of the measurement range Beginning reading Required for MD SCB for Printing in the SCB Customer Bill.	**X**	**R**	**1/20**
Must Use	**MEA06**	**741**	**Range Maximum** **The value specifying the maximum of the measurement range** Ending reading or single reading (e.g., demand). Required for MD SCB for Printing in the SCB Customer Bill.	**X**	**R**	**1/20**
Must Use	**MEA07**	**935**	**Measurement Significance Code** Code used to benchmark, qualify, or further define a measurement value	**O**	**ID**	**2/2**
			41 Off Peak			
			42 On Peak			
			43 Intermediate			
			51 Total Totalizer			
			66 Shoulder			

Segment: **MEA** **Measurements (MU=Meter Multiplier)**
Position: 160
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 40
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB if present on corresponding PTD-PM Loop and to provide additional information for bill presentment purposes. Will be added in the BP Loop when Meter Multiplier = 1 or missing in the corresponding PM Loop.
Example:	MEA**MU*2

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies **MU Multiplier**	**O ID 1/3**
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement Represents the meter constant when MEA02 equals "MU". MD SCB Use - the Meter Multiplier should be provided when available including when it is equal to 1.	**X R 1/20**

Segment: **MEA** **Measurements (ZA=Power Factor)**
Position: 160
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 40
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB if present on corresponding PTD-PM Loop and to provide additional information for bill presentment purposes. Will be added in the BP Loop when Meter Multiplier = 1 or missing in the corresponding PM Loop.
Example:	MEA**ZA*.95

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies ZA Power Factor Relationship between watts and volt - amperes necessary to supply electric load	**O ID 1/3**
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement Represents the Power Factor when MEA02 equals "ZA". MD SCB Use - the Power Factor should be provided when available including when it is equal to 1.	**X R 1/20**

Segment: **MEA** **Measurements (CO=Transformer Loss Multiplier)**
Position: 160
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 40
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required**.**
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional: Required for MD SCB if present on corresponding PTD-PM Loop and to provide additional information for bill presentment purposes. Will be added in the BP Loop when Meter Multiplier = 1 or missing in the corresponding PM Loop.
Example:	MEA**CO*1.02

Data Element Summary

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

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

Notes:	PTD Loops may be sent in any order. There will be one PTD loop to identify the generation transferred in/out for the period.
PA Use:	Not Used
NJ Use:	ACE and JCPL Only: Required if the account has net metering
DE Use:	Not Used
MD Use:	Required if the account has net metering or is a part of an Aggregated Net Energy Metering (ANEM) Family.
Example:	PTD*BJ

Data Element Summary

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

BJ	Relocation Generation transferred: • From this account to another account • From another account to this account • From this account to this account Generation banked: • Starting Bank • Ending Bank

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

Notes:	This specific PTD loop is required if the account has net metering or is a part of an Aggregated Net Energy Metering (ANEM) Family. This date reflects the beginning of the date range for this meter for this billing period.
PA Use:	Not Used
NJ Use:	ACE and JCPL Only: Required if the account has net metering
DE Use:	Not Used
MD Use:	Required
Example:	DTM*150*20160615

Data Element Summary

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

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

Notes:	This specific PTD loop is required if the account has net metering or is a part of an Aggregated Net Energy Metering (ANEM) Family. This date reflects the end of the date range for this meter for this billing period.
PA Use:	Not Used
NJ Use:	ACE and JCPL Only: Required if the account has net metering
DE Use:	Not Used
MD Use:	Required
Example:	DTM*151*20160715

Data Element Summary

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

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

Notes:	This specific PTD loop is required if the account has net metering or is a part of an Aggregated Net Energy Metering (ANEM) Family. If the meter measures total usage, as well as on-peak, intermediate peak and off-peak, there will be three MEA loops sent within each QTY loop to specify which time of use each MEA applies to. If any TOU measurement is zero, it must be sent.
PA Use:	Not Used
NJ Use:	ACE and JCPL Only: Required if the account has net metering
DE Use:	Not Used
MD Use:	Required Notes for use… QTY01 = 77: required in ANEM family accounts when generation is transferred into the account. Not used for net metered accounts not part of ANEM family. MD SCB – FE (Potomac Edison) only. Will use "77" to show transfer of Community Solar kwh credit from the Host account to the Child account. QTY01 = 78: required in ANEM family accounts when generation is transferred out of the account. Not used for net metered accounts not part of ANEM family. QTY01 = 79: required in ANEM family accounts and regular net metered accounts not part of ANEM family when there is excess generation self-applied from the Starting Bank. QTY01 = QB: required in ANEM family accounts and regular net metered accounts not part of ANEM family when there is excess generation for a True-Up event. QTY01 = QH (Starting Bank) & QE (Ending Bank): required for the PARENTHOST account and CHILD accounts with net metering under the ANEM family. Also required for any net metered account that is not part of the ANEM family. These segments will be sent even where the value is 0 kWh. Not sent under the PARENT account for PHI.
Example:	QTY*77*1000*KH Example generation transferred in to this child account MEA*AF*PRQ*1000*KH***51 QTY*78*750*KH Example generation transferred out from TOU parent account MEA*AF*PRQ*400*KH***41 MEA*AF*PRQ*300*KH***42 MEA*AF*PRQ*50*KH***43 Additional examples provided in the back of this Implementation Guideline.

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity	**M ID 2/2**
			77 Stock Transfers In Generation transferred from another account to this account	
			78 Stock Transfers Out Generation transferred from this account to another account	
			79 Billing Unit(s) Per Pricing Unit	

				Self-generation applied from Starting Bank		
			QB	Quantity Dispensed		
				Excess generation for True-Up event.		
			QE	Quantity Carried Forward		
				Ending Bank		
			QH	Quantity on Hold		
				Starting Bank		
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity		**X**	**R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		**M**	**ID 2/2**
			KH	Kilowatt Hour (kWh)		

Segment: **MEA** **Measurements**
Position: 160
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 40
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:
1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
2 If MEA05 is present, then MEA04 is required.
3 If MEA06 is present, then MEA04 is required.
4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:
1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:
1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

Notes:	This specific PTD loop is required if the account has net metering or is a part of an Aggregated Net Energy Metering (ANEM) Family. The MEA segment is sent for each QTY loop. The MEA will indicate the "time of use" that applies to the QTY.
PA Use:	Not Used
NJ Use:	ACE and JCPL Only: Required if the account has net metering
DE Use:	Not Used
MD Use:	Required for each QTY
Examples:	QTY*77*1000*KH Example kWh transferred to child account MEA*AF*PRQ*1000*KH***51 QTY*78*750*KH Example kWh transferred away from TOU host account MEA*AF*PRQ*400*KH***41 MEA*AF*PRQ*300*KH***42 MEA*AF*PRQ*50*KH***43

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**MEA01**	**737**	**Measurement Reference ID Code** Code identifying the broad category to which a measurement applies	**O ID 2/2**
			AF Actual Total Total consumption being transferred from a host account or to a child account; or starting/ending bank value.	
Must Use	**MEA02**	**738**	**Measurement Qualifier** Code identifying a specific product or process characteristic to which a measurement applies	**O ID 1/3**
			PRQ Consumption	
Must Use	**MEA03**	**739**	**Measurement Value** The value of the measurement	**X R 1/20**
			Represents quantity of consumption being transferred between host and child accounts for a service period. The addition of the QTYs in this loop, as well as the PTD*PM and PTD*BC loop should add to the PTD*BB loop.	
Must Use	**MEA04**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	**M ID 2/2**
			KH Kilowatt Hour	
Must Use	**MEA07**	**935**	**Measurement Significance Code**	**O ID 2/2**

Code used to benchmark, qualify or further define a measurement value

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

Segment:	**REF** **Reference Identification (AN=Aggregate Net Energy Meter Role)**
Position:	**190**
Loop:	QTY
Level:	Detail
Usage:	Optional
Max Use:	>1
Purpose:	To specify identifying information
Syntax Notes:	**1** At least one of REF02 or REF03 is required. **2** If either C04003 or C04004 is present, then the other is required. **3** If either C04005 or C04006 is present, then the other is required.
Semantic Notes:	**1** REF04 contains data relating to the value cited in REF02.
Comments:	
PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional –FE (Potomac Edison) ONLY: Required when customer participates in BOTH Supplier Consolidated Billing (SCB) and Community Solar (CS) programs. Used when usage is transferred into a Child account from the Community Solar Host account.in order to provide the Community Solar Program Description for printing on the customer bill. NOTE: Not Used by BGE and PHI. Neither provide usage-based Community Solar Credits.
Example:	REF*AN* CHILD* Maryland Community Solar Program.”

Data Element Summary

	Ref. Des.	Data Element	Name	X12 Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification AN Associated Accounts FE (Potomac Edison) Community Solar Child Account	**M ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier CHILD FE (Potomac Edison): Community Solar Child Account to identify the Community Solar Program description for SCB customer bill requirements. BGE & PHI: Not Used	**X AN 1/30**
Must Use	**REF03**	**352**	**Description** A free-form description to clarify the related data elements and their content Maryland Community Solar Program. Required for Potomac Edison Community Solar Program description for bill print requirements. This should be printed on the SCB bill.	**X AN 1/80**

Segment: **SE** **Transaction Set Trailer**
Position: 030
Loop:
Level: Summary
Usage: Mandatory
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)
Syntax Notes:
Semantic Notes:
Comments: **1** SE is the last segment of each transaction set.

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

Data Element Summary

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

Interval Usage Examples

Example 1: Interval Detail reporting at the SUMMARY Level

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

Example 2: Interval Detail reporting at the ACCOUNT Level

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

DTM*582*20000131*2330*ES	End date and time of the period for which the quantity is provided.
QTY*QD*730*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000131*2359*ES	End date and time of the period for which the quantity is provided.

Example 3: Interval Detail reporting at the METER Level

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

Example 4: Renewable Energy Provider - Interval Detail reporting

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

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

N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*G7*RENEWABLE ENERGY COMPANY*9*007909422ESP1	Renewable Energy Provider Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*11*1394959	ESP Account number
REF*12*111111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*D1*123456*KH	Monthly billed kWh
QTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
…. . . Continued on until the end of the transaction. Details may vary depending on whether this is a Summary level, an Account level, or a Meter level transaction.	

Example 4: Interval Detail reporting at the ACCOUNT Level – with net metering (Channel indicator)

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

QTY*87*2045*KH	Calculated summary of all metered for kWh / kvarh only
PTD*BQ	Account Services Detail Loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
REF*MT*KH030	Meter Type
REF*6W*2	Outbound usage
QTY*87*18*KH	Quantity of consumption generated for entire metering period specified
DTM*582*20000101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*87*62*KH	Quantity of consumption generated for entire metering period specified
DTM*582*20000101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*87*178*KH	Quantity of consumption generated for entire metering period specified
DTM*582*20000101*0130*ES	End date and time of the period for which the quantity is provided.
…. . . Continued on until the end of the period specified below	
QTY*87*0*KH	Quantity of consumption generated for entire metering period specified
DTM*582*20000131*2330*ES	End date and time of the period for which the quantity is provided.
QTY*87*8*KH	Quantity of consumption generated for entire metering period specified
DTM*582*20000131*2359*ES	End date and time of the period for which the quantity is provided.

867IU Net Meter less than consumption with Incomplete Net Meter Quantity

BPT*00*REF01-000201*20000201*C1	**Meter detail loop**
DTM*649*20000203*1700	This is only required on Bill Ready Consolidated Billing scenarios. Time is always represented as Eastern prevailing time.
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*11*1394959	ESP Account number
REF*12*111111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
*PTD*BB*	Monthly Billed Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*D1*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 5 - Multiple Services, Metered and Unmetered (Maryland only)

Metered consumption = 123456, Unmetered consumption is 1000.

BPT*00*PEP867200002012000008934771062*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*1111111111	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 6 - Net Metering / Customer Generation Examples (PA& NJ)

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*111111111111111	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) (Excluding First Energy)

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*111111111111111	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 in, MD or NJ. Used in PA only by Duquesne Light.
(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*111111111111111	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*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
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*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*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 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 in MD or NJ. Used in PA only by Duquesne Light.
(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*111111111111111	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 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

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*111111111111111	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*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
QTY*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
REF*JH*A	Meter Role - **Additive**
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**
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

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*111111111111111	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
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
REF*JH*A	Meter Role - **Additive**
REF*IX*6.0	Number of dials or digits
QTY*QD*4000*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**
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 metering

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*111111111111111	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	
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
QTY*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	

Pennsylvania Net Metering / Customer Generation Examples (FirstEnergy Companies)

Scenario 1 – Customer Generation (5000 KH) more than Consumption (3000 KH)

BPT*00*700418133078E*20181213*DD	Meter detail loop
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT6	Customer name
REF*12*6323423480	LDC Account number
REF*11*13949594	ESP Account number
REF*BLT*DUAL	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary Loop
DTM*150*20181219	Start period
DTM*151*20190118	End period
QTY*D1*3000.00000*KH	Monthly **DELIVERED** KH (Consumption)
QTY*QD*73.00000*K1	Monthly Delivered Demand
QTY*D1*73.00000*K1	Monthly Billed Demand
PTD*SU	Metered services Summary loop
DTM*150*20181219	Start period
DTM*151*20190118	End period
QTY*QD*3000.00000*KH	Monthly **DELIVERED** KH
QTY*87*5000.00000*KH	Monthly **RECEIVED** KH
PTD*BQ	Account Services Detail loop – **Consumption Loop (DELIVERED KH)**
DTM*150*20181219	Start period
DTM*151*20190118	End period
REF*MT*KH015	Meter Type
REF*6W*1	DELIVERED Channel ID
QTY*QD*67.25000000*KH	Consumption
DTM*582*20181219*0015*ES	End date and time of the period for which the quantity is provided.
QTY*QD*73.79000000*KH	Consumption
DTM*582*20181219*0030*ES	End date and time of the period for which the quantity is provided.
QTY*QD*54.73000000*KH	Consumption
DTM*582*20181219*0045*ES	End date and time of the period for which the quantity is provided.
…. . .Continued until the end of the reporting period	
PTD*BQ	Account Services Detail loop – **Generation Loop (RECEIVED KH)**
DTM*150*20181219	Start period
DTM*151*20190118	End period
REF*MT*KH015	Meter Number
REF*6W*2	RECEIVED Channel ID
QTY*87*107.25000000*KH	Generation
DTM*582*20181219*0015*ES	End date and time of the period for which the quantity is provided.
QTY*87*103.79000000*KH	Generation
DTM*582*20181219*0030*ES	End date and time of the period for which the quantity is provided.
QTY*87*104.73000000*KH	Generation
DTM*582*20181219*0045*ES	End date and time of the period for which the quantity is provided.
…. . .Continued until the end of the reporting period	

Scenario 2 – Customer Generation (3000 KH) less than Consumption (5000 KH)

BPT*00*700418133078E*20181213*DD	Meter detail loop
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT6	Customer name
REF*12*6323423480	LDC Account number
REF*11*13949594	ESP Account number
REF*BLT*DUAL	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary Loop
DTM*150*20181219	Start period
DTM*151*20190118	End period
QTY*D1*5000.00000*KH	Monthly **DELIVERED** KH (Consumption)
QTY*QD*73.00000*K1	Monthly Delivered Demand
QTY*D1*73.00000*K1	Monthly Billed Demand
PTD*SU	Metered services Summary loop
DTM*150*20181219	Start period
DTM*151*20190118	End period
QTY*QD*5000.00000*KH	Monthly **DELIVERED** KH
QTY*87*3000.00000*KH	Monthly **RECEIVED** KH
PTD*BQ	Account Services Detail loop – **Consumption Loop (DELIVERED KH)**
DTM*150*20181219	Start period
DTM*151*20190118	End period
REF*MT*KH015	Meter Type
REF*6W*1	DELIVERED Channel ID (Interval readings total 5000 KH)
QTY*QD*107.25000000*KH	Consumption
DTM*582*20181219*0015*ES	End date and time of the period for which the quantity is provided.
QTY*QD*103.79000000*KH	Consumption
DTM*582*20181219*0030*ES	End date and time of the period for which the quantity is provided.
QTY*QD*104.73000000*KH	Consumption
DTM*582*20181219*0045*ES	End date and time of the period for which the quantity is provided.
…. . .Continued until the end of the reporting period	
PTD*BQ	Account Services Detail loop – **Generation Loop (RECEIVED KH)**
DTM*150*20181219	Start period
DTM*151*20190118	End period
REF*MT*KH015	Meter Number
REF*6W*2	RECEIVED Channel ID (Interval readings total -3000 KH)
QTY*87*17.25000000*KH	Generation
DTM*582*20181219*0015*ES	End date and time of the period for which the quantity is provided.
QTY*87*13.79000000*KH	Generation
DTM*582*20181219*0030*ES	End date and time of the period for which the quantity is provided.
QTY*87*14.73000000*KH	Generation
DTM*582*20181219*0045*ES	End date and time of the period for which the quantity is provided.
…. . .Continued until the end of the reporting period	

Example 8 - Maryland - 867 Interval Usage - Multiple meter exchange in same service period.
(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*111111111111111	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*151*20130213	End period
QTY*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
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
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*514*20130119	Meter
DTM*151*20130213	Meter Exchange Date
REF*MG* **MTREXCHG2**	Meter Number of 2nd Meter Exchange
REF*MT*KH030	Meter Type
QTY*QD*112*KH	Consumption
DTM*582*20130119*0930*ES	End date and time of the period for which the quantity is provided.
QTY*QD*128*KH	Consumption
DTM*582*20130119*1000*ES	End date and time of the period for which the quantity is provided.
QTY*QD*216*KH	Consumption
DTM*582*20130119*1030*ES	End date and time of the period for which the quantity is provided.
…. . .Continued on until the end of the service period specified below	

QTY*QD*789*KH	Consumption
DTM*582*20130213*2330*ES	End date and time of the period for which the quantity is provided.
QTY*QD*730*KH	Consumption
DTM*582*20130213*2359*ES	End date and time of the period for which the quantity is provided.

Examples of PTD*BJ Loop for MD Aggregate Net Energy Metering Non-TOU

(BGE Only. Neither PHI nor FirstEnergy provided Examples)

BGE Example #1 *– Parent Host Net Metered Account (Non-TOU), Beginning Bank, Records consumption for current billing period, Self-generation applied from Starting Bank, Part of Reduced Excess Generation Transferred to 1 Child Account (Non-TOU), Remaining Generation Banked*

Parent Host Account

- Starting Bank = 1000 kWh
- Net Consumption = 200.07 kWh (Account level)
- Self-generation applied from Starting Bank = 200 kWh
- Adjusted Net Generation Available = 800 kWh
- Generation Transferred to Child Account = 300 kWh
- Ending Bank = 500 kWh

PTD*BB = 0
PTD*SU = 200 Net Consumption
PTD*BQ = 200.07 Net Consumption (Account level)
PTD*BJ (QH) = 1000 Starting Bank
PTD*BJ (79) = 200 Self-generation Applied from Starting Bank
PTD*BJ (78) = 300 Net Transferred Out
PTD*BJ (QE) = 500 Ending Bank

1000 Starting Bank – 200 Self-generation applied - 300 Net Transferred Out - 500 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*QD*200*KH	Calculated net KH
PTD*BQ	Account Services Detail Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
REF*MT*KH060	Meter Type
QTY*QD*1.17*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2100*ED	End date and time of the period for which the quantity is provided
QTY*QD*.924*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2200*ED	End date and time of the period for which the quantity is provided
QTY*QD*.3876*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.27*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0000*ED	End date and time of the period for which the quantity is provided
QTY*QD*.186*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0100*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6024*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0200*ED	End date and time of the period for which the quantity is provided
QTY*QD*.2196*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.1668*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0400*ED	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*.4212*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1300*ED	End date and time of the period for which the quantity is provided

QTY*QD*.4428*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1400*ED	End date and time of the period for which the quantity is provided
QTY*QD*1.0236*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1500*ED	End date and time of the period for which the quantity is provided
QTY*QD*1.4388*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1600*ED	End date and time of the period for which the quantity is provided
QTY*QD*.5784*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1700*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6252*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1800*ED	End date and time of the period for which the quantity is provided
QTY*QD*.63*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1900*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6684*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*2000*ED	End date and time of the period for which the quantity is provided
PTD*BJ	Generation Transferred Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*QH*1000*KH	**Starting Bank**
MEA*AF*PRQ*1000*KH***51	Starting Bank – Total Non TOU
QTY*79*200*KH	**Self-generation Applied From Starting Bank**
MEA*AF*PRQ*200*KH***51	Self-generation Applied From Starting Bank – Total Non TOU
QTY*78*300*KH	**Generation Transferred Out**
MEA*AF*PRQ*300*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*500*KH	**Ending Bank**
MEA*AF*PRQ*500*KH***51	Ending Bank – Total Non TOU

Child Account (Non-TOU) – Not Net Metered

- Consumption = 299.89 kWh (Account level)
- Generation Transferred In = 300 kWh
- Billed Consumption – 0 kWh

PTD*BB = 0 Billed Consumption
PTD*SU = 300 Net Consumption
PTD*BQ = 299.89 Net Consumption (Account level)
PTD*BJ (77) = 300 Generation Transferred In

299.89 Net Consumption - 300 Net Transferred In = PTD*BB Loop of 0 kWh Billed

PTD*BB	Monthly Billed Summary Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*QD*300*KH	Measured Net Consumption
PTD*BQ	Account Services Detail Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
REF*MT*KH060	Meter Type
QTY*QD*1.77*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2100*ED	End date and time of the period for which the quantity is provided
QTY*QD*.8724*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2200*ED	End date and time of the period for which the quantity is provided
QTY*QD*.3126*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.27*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0000*ED	End date and time of the period for which the quantity is provided
QTY*QD*.179*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0100*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6224*KH	Quantity of consumption delivered for entire metering period specified

DTM*582*20190503*0200*ED	End date and time of the period for which the quantity is provided
QTY*QD*.4216*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.5668*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0400*ED	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*.4982*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6428*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1400*ED	End date and time of the period for which the quantity is provided
QTY*QD*1.8436*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1500*ED	End date and time of the period for which the quantity is provided
QTY*QD*1.6888*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1600*ED	End date and time of the period for which the quantity is provided
QTY*QD*.7784*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1700*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6852*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1800*ED	End date and time of the period for which the quantity is provided
QTY*QD*.83*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1900*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6884*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*2000*ED	End date and time of the period for which the quantity is provided
PTD*BJ	Generation Transferred Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*77*300*KH	**Generation Transferred In**
MEA*AF*PRQ*300*KH***51	Generation Transferred In – Total Non TOU

BGE Example #2 *– Parent Host Net Metered Account (Non-TOU), Beginning Bank, Records consumption for current billing period, Self-generation applied from Starting Bank, Reduced Excess Generation Transferred to 1 Child Account (Non-TOU), No Remaining Generation Banked*

Parent Host Account

- Starting Bank = 500 kWh
- Net Consumption = 200.07 kWh (Account level)
- Self-generation applied from Starting Bank = 200 kWh
- Adjusted Net Generation Available = 300 kWh
- Generation Transferred to Child Account = 300 kWh
- Ending Bank = 0 kWh

PTD*BB = 0
PTD*SU = 200 Net Consumption
PTD*BQ = 200.07 Net Consumption (Account level)
PTD*BJ (QH) = 500 Starting Bank
PTD*BJ (79) = 200 Self-generation Applied from Starting Bank
PTD*BJ (78) = 300 Net Transferred Out
PTD*BJ (QE) = 0 Ending Bank

500 Starting Bank – 200 Self-generation applied - 300 Net Transferred Out - 0 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*QD*200*KH	Calculated net KH
PTD*BQ	Account Services Detail Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
REF*MT*KH060	Meter Type
QTY*QD*1.17*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2100*ED	End date and time of the period for which the quantity is provided
QTY*QD*.924*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2200*ED	End date and time of the period for which the quantity is provided
QTY*QD*.3876*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.27*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0000*ED	End date and time of the period for which the quantity is provided
QTY*QD*.186*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0100*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6024*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0200*ED	End date and time of the period for which the quantity is provided
QTY*QD*.2196*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.1668*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0400*ED	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*.4212*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.4428*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1400*ED	End date and time of the period for which the quantity is provided
QTY*QD*1.0236*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1500*ED	End date and time of the period for which the quantity is provided
QTY*QD*1.4388*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1600*ED	End date and time of the period for which the quantity is provided
QTY*QD*.5784*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1700*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6252*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1800*ED	End date and time of the period for which the quantity is provided
QTY*QD*.63*KH	Quantity of consumption delivered for entire metering period specified

DTM*582*20190605*1900*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6684*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*2000*ED	End date and time of the period for which the quantity is provided
PTD*BJ	Generation Transferred Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*QH*500*KH	**Starting Bank**
MEA*AF*PRQ*500*KH***51	Starting Bank – Total Non TOU
QTY*79*200*KH	**Self-generation Applied From Starting Bank**
MEA*AF*PRQ*200*KH***51	Self-generation Applied From Starting Bank – Total Non TOU
QTY*78*300*KH	**Generation Transferred Out**
MEA*AF*PRQ*300*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*0*KH	**Ending Bank**
MEA*AF*PRQ*0*KH***51	Ending Bank – Total Non TOU

Child Account (Non-TOU) – Not Net Metered

- Consumption = 499.91 kWh (Account level)
- Generation Transferred In = 300 kWh
- Billed Consumption = 200 kWh

PTD*BB = 200 Billed Consumption
PTD*SU = 500 Net Consumption
PTD*BQ = 499.91 Net Consumption (Account level)
PTD*BJ (77) = 300 Generation Transferred In

499.91 Net Consumption - 300 Net Transferred In = PTD*BB Loop of 200 kWh Billed

PTD*BB	Monthly Billed Summary Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*D1*200*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*QD*500*KH	Measured Net Consumption
PTD*BQ	Account Services Detail Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
REF*MT*KH060	Meter Type
QTY*QD*1.77*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2100*ED	End date and time of the period for which the quantity is provided
QTY*QD*.8724*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2200*ED	End date and time of the period for which the quantity is provided
QTY*QD*.3126*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.27*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0000*ED	End date and time of the period for which the quantity is provided
QTY*QD*.179*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0100*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6224*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0200*ED	End date and time of the period for which the quantity is provided
QTY*QD*.4216*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.5668*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0400*ED	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*.4982*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6428*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1400*ED	End date and time of the period for which the quantity is provided
QTY*QD*1.8436*KH	Quantity of consumption delivered for entire metering period specified

DTM*582*20190605*1500*ED	End date and time of the period for which the quantity is provided
QTY*QD*1.6888*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1600*ED	End date and time of the period for which the quantity is provided
QTY*QD*.7784*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1700*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6852*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1800*ED	End date and time of the period for which the quantity is provided
QTY*QD*.83*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1900*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6884*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*2000*ED	End date and time of the period for which the quantity is provided
PTD*BJ	Generation Transferred Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*77*300*KH	**Generation Transferred In**
MEA*AF*PRQ*300*KH***51	Generation Transferred In – Total Non TOU

BGE Example #3 *– Parent Host Net Metered Account (Non-TOU), Beginning Bank, Records consumption for current billing period, Self-generation applied from Starting Bank, Reduced Excess Generation Transferred to 1 Child Account (TOU), No Remaining Generation Banked*

Parent Host Account

- Starting Bank = 500 kWh
- Net Consumption = 200.07 kWh (Account level)
- Self-generation applied from Starting Bank = 200 kWh
- Adjusted Net Generation Available = 300 kWh
- Generation Transferred to Child Account = 300 kWh
- Ending Bank = 0 kWh

PTD*BB = 0
PTD*SU = 200 Net Consumption
PTD*BQ = 200.07 Net Consumption (Account level)
PTD*BJ (QH) = 500 Starting Bank
PTD*BJ (79) = 200 Self-generation Applied from Starting Bank
PTD*BJ (78) = 300 Net Transferred Out
PTD*BJ (QE) = 0 Ending Bank

500 Starting Bank – 200 Self-generation applied - 300 Net Transferred Out - 0 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*QD*200*KH	Calculated net KH
PTD*BQ	Account Services Detail Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
REF*MT*KH060	Meter Type
QTY*QD*1.17*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2100*ED	End date and time of the period for which the quantity is provided
QTY*QD*.924*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2200*ED	End date and time of the period for which the quantity is provided
QTY*QD*.3876*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.27*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0000*ED	End date and time of the period for which the quantity is provided
QTY*QD*.186*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0100*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6024*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0200*ED	End date and time of the period for which the quantity is provided
QTY*QD*.2196*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.1668*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0400*ED	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*.4212*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.4428*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1400*ED	End date and time of the period for which the quantity is provided
QTY*QD*1.0236*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1500*ED	End date and time of the period for which the quantity is provided
QTY*QD*1.4388*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1600*ED	End date and time of the period for which the quantity is provided
QTY*QD*.5784*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1700*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6252*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1800*ED	End date and time of the period for which the quantity is provided
QTY*QD*.63*KH	Quantity of consumption delivered for entire metering period specified

DTM*582*20190605*1900*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6684*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*2000*ED	End date and time of the period for which the quantity is provided
PTD*BJ	Generation Transferred Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*QH*500*KH	**Starting Bank**
MEA*AF*PRQ*500*KH***51	Starting Bank – Total Non TOU
QTY*79*200*KH	**Self-generation Applied From Starting Bank**
MEA*AF*PRQ*200*KH***51	Self-generation Applied From Starting Bank – Total Non TOU
QTY*78*300*KH	**Generation Transferred Out**
MEA*AF*PRQ*300*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*0*KH	**Ending Bank**
MEA*AF*PRQ*0*KH***51	Ending Bank – Total Non TOU

Child Account (TOU) – Not Net Metered

- Consumption = 499.91 kWh (Account level)
- Generation Transferred In = 300 kWh
- Billed Consumption = 200 kWh

PTD*BB = 200 Billed Consumption
PTD*SU = 500 Net Consumption
PTD*BQ = 499.91 Net Consumption (Account level)
PTD*BJ (77) = 300 Generation Transferred In
499.91 Net Consumption - 300 Net Transferred In (275 for On Peak and 25 for Int Peak) = PTD*BB Loop of 200 kWh Billed

PTD*BB	Monthly Billed Summary Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*D1*200*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*QD*500*KH	Measured Net Consumption
PTD*BQ	Account Services Detail Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
REF*MT*KH060	Meter Type
QTY*QD*1.77*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2100*ED	End date and time of the period for which the quantity is provided
QTY*QD*.8724*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2200*ED	End date and time of the period for which the quantity is provided
QTY*QD*.3126*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190502*2300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.27*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0000*ED	End date and time of the period for which the quantity is provided
QTY*QD*.179*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0100*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6224*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0200*ED	End date and time of the period for which the quantity is provided
QTY*QD*.4216*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.5668*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190503*0400*ED	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*.4982*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1300*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6428*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1400*ED	End date and time of the period for which the quantity is provided
QTY*QD*1.8436*KH	Quantity of consumption delivered for entire metering period specified

DTM*582*20190605*1500*ED	End date and time of the period for which the quantity is provided
QTY*QD*1.6888*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1600*ED	End date and time of the period for which the quantity is provided
QTY*QD*.7784*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1700*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6852*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1800*ED	End date and time of the period for which the quantity is provided
QTY*QD*.83*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*1900*ED	End date and time of the period for which the quantity is provided
QTY*QD*.6884*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20190605*2000*ED	End date and time of the period for which the quantity is provided
PTD*BJ	Generation Transferred Loop
DTM*150*20190502	Start period
DTM*151*20190605	End period
QTY*77*0*KH	**Generation Transferred In**
MEA*AF*PRQ*0*KH***41	Generation Transferred In – Off Peak
QTY*77*275*KH	**Generation Transferred In**
MEA*AF*PRQ*275*KH***42	Generation Transferred In – On Peak
QTY*77*25*KH	**Generation Transferred In**
MEA*AF*PRQ*25*KH***43	Generation Transferred In – Intermediate Peak

Maryland SCB Example – 1: Single Meter Consumption Only

Metered consumption is 763, Meter Multiplier =1.
This demonstrates adding the MU to the BP when it is equal to 1 or missing.

BPT*00*REF09-990201*20230201*C1	Meter detail loop
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT9	Customer name
REF*12*99999999999	LDC Account number
REF*11*13949594	ESP Account number
REF*BLT*ESP	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20230101	Start period
DTM*151*20230131	End period
QTY*D1*763*KH	Monthly billed kWh
PTD*SU	Metered services Summary loop
DTM*150*20230101	Start period
DTM*151*20230131	End period
QTY*QD*763*KH	Calculated summary of all metered for kWh / kvarh only
PTD*BP	Meter detail loop
DTM*150*20230101	Start period
DTM*151*20230131	End period
REF*MG*2222299S	Meter Number
REF*K6*Y*Rate Description	LDC Rate Description
REF*IX*6.0	Number of dials or digits
REF*JH*A	Additive Meter
QTY*QD*763*KH	Consumption
MEA*AA*PRQ*763*KH*12000*12763*51	Total consumption with begin/end readings
MEA**MU*1	Meter Multiplier
PTD*BQ	Interval Meter Summary
DTM*150*20230101	Start period
DTM*151*20230131	End period
REF*MT*KH015	Meter Type
QTY*QD*3*KH	Consumption

DTM*582*20221121*0015*ES	End date and time of the period for which the quantity is provided.
QTY*QD*5*KH	Consumption
DTM*582*20221121*0030*ES	End date and time of the period for which the quantity is provided.
. . . . .	
QTY*QD*8*KH	Consumption
DTM*582*20221220*2359*ES	End date and time of the period for which the quantity is provided.

Maryland SCB Example – 2: Two Meters

Require a Bill Presentment loop for each meter and UOM (KH and K1)

BPT*00*MD867I54230106181219999999999*20231011*C1	Meter detail loop
N1*8S*PEPCO MD*1*006920284	LDC Company
N1*SJ*SUPPLIER NAME*9*9999999999999	ESP Company
N1*8R*CUSTOMER NAME	Customer name
REF*12*99999999999	LDC Account number
REF*11*13949594	ESP Account number
REF*BLT*ESP	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20221121	Start period
DTM*151*20221220	End period
QTY*D1*266370*KH	Monthly billed kWh
QTY*D1*534*K1	Monthly derived demand
QTY*QD*534*K1	Monthly Measured demand
PTD*SU	Metered services Summary loop
DTM*150*20221121	Start period
DTM*151*20221220	End period
QTY*D1*266370*KH	Calculated summary of all metered for kWh
PTD*BP	Bill Presentment Loop
DTM*150*20221121	Start period
DTM*151*20221220	End period
REF*MG*KZD351048542	Meter Number
REF*NH*2A6	LDC Rate
REF*JH*A	Additive Meter
REF*K6*Y*Time Meter GS-Low Voltage	LDC Rate Description
REF*IX*6.0	Number of dials or digits
QTY*QD*66600*KH	Consumption
MEA**MU*300	Meter Multiplier
MEA*AA*PRQ*66600*KH*15929*16151*41	Off peak with consumption and begin/end reads
QTY*QD*32700*KH	Consumption
MEA**MU*300	Meter Multiplier
MEA*AA*PRQ*32700*KH*8184*8293*42	On peak with consumption and begin/end reads
QTY*QD*31200*KH	Consumption
MEA**MU*300	Meter Multiplier
MEA*AA*PRQ*31200*KH*7521*7625*43	Intermediate peak with consumption and begin/end reads
PTD*BP	Bill Presentment Loop
DTM*150*20221121	Start period

DTM*151*20221220	End period
REF*MG*KZD351641944	Meter Number
REF*NH*2A6	LDC Rate
REF*JH*A	Additive Meter
REF*K6*Y*Time Meter GS-Low Voltage	LDC Rate Description
REF*IX*6.0	Number of dials or digits
QTY*QD*70500*KH	Consumption
MEA**MU*300	Meter Multiplier
MEA*AA*PRQ*70500*KH*35418*35653*41	Off peak with consumption and begin/end reads
QTY*QD*33000*KH	Consumption
MEA**MU*300	Meter Multiplier
MEA*AA*PRQ*33000*KH*17192*17302*42	On peak with consumption and begin/end reads
QTY*QD*32700*KH	Consumption
MEA**MU*300	Meter Multiplier
MEA*AA*PRQ*32700*KH*16293*16402*43	Intermediate peak with consumption and begin/end reads
PTD*BP	Bill Presentment Loop
DTM*150*20221121	Start period
DTM*151*20221220	End period
REF*MG*KZD351048542	Meter Number
REF*NH*2A6	LDC Rate
REF*JH*A	Additive Meter
REF*K6*Y*Time Meter GS-Low Voltage	LDC Rate Description
REF*IX*6.0	Number of dials or digits
QTY*QD*267.6*K1	Demand
MEA**MU*300	Meter Multiplier
MEA*AA*PRQ*267.6*K1*0*267.6*42	On Peak Demand
QTY*QD*264.9*K1	Consumption
MEA**MU*300	Meter Multiplier
MEA*AA*PRQ*264.9*K1*0*264.9*43	Intermediate peak Demand
QTY*QD*258*K1	Consumption
MEA**MU*300	Meter Multiplier
MEA*AA*PRQ*258*K1*0*258*41	Off peak Demand
PTD*BP	Bill Presentment Loop
DTM*150*20221121	Start period
DTM*151*20221220	End period
REF*MG*KZD351641944	Meter Number
REF*NH*2A6	LDC Rate
REF*JH*A	Additive Meter
REF*K6*Y*Time Meter GS-Low Voltage	LDC Rate Description
REF*IX*6.0	Number of dials or digits
QTY*QD*266.4*K1	Demand
MEA**MU*300	Meter Multiplier
MEA*AA*PRQ*266.4*K1*0*266.4*42	On Peak Demand
QTY*QD*262.2*K1	Consumption
MEA**MU*300	Meter Multiplier
MEA*AA*PRQ*262.2*K1*0*262.2*43	Intermediate peak Demand
QTY*QD*260.4*K1	Consumption
MEA**MU*300	Meter Multiplier
MEA*AA*PRQ*260.4*K1*0*260.4*41	Off peak Demand
PTD*BQ	Interval Meter Summary
DTM*150*20221121	Start period

DTM*151*20221220	End period
REF*MT*KH015	Meter Type
QTY*QD*91*KH	Consumption
DTM*582*20221121*0015*ES	End date and time of the period for which the quantity is provided.
QTY*QD*92*KH	Consumption
DTM*582*20221121*0030*ES	End date and time of the period for which the quantity is provided.
QTY*QD*90.8*KH	Generation
DTM*582*20221121*0045*ES	End date and time of the period for which the quantity is provided.
. . . . .	
QTY*QD*103.3*KH	Consumption
DTM*582*20221220*2330*ES	End date and time of the period for which the quantity is provided.
QTY*QD*103.6*KH	Consumption
DTM*582*20221220*2345*ES	End date and time of the period for which the quantity is provided.
QTY*QD*102*KH	Consumption
DTM*582*20221220*2359*ES	End date and time of the period for which the quantity is provided.

Maryland SCB Example – 3: Meter Exchange

Service period 06/21/2023 to 07/20/2023 - 1st Meter Exchange on 06/21/2023

BPT*00*MD867M012307280726479999999999*20230720*C1	Meter detail loop
N1*8S*PEPCO MD*1*006920284	LDC Company
N1*SJ*SUPPLIER NAME*9*9999999999999	ESP Company
N1*8R*CUSTOMER NAME	Customer name
REF*12*99999999999	LDC Account number
REF*BLT*ESP	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20230621	Start period
DTM*151*20230720	End period
QTY*D1*902*KH	Monthly billed kWh
PTD*SU	Metered services Summary loop
DTM*150*20230621	Start period
DTM*151*20230720	End period
QTY*QD*902*KH	Monthly billed kWh
PTD*BP	Bill Presentment Loop
DTM*150*20230621	Start period
DTM*514*20230621	End period
REF*MG*99F105746440	Meter number
REF*NH*250	LDC Rate
REF*K6*Y*Residential Service	LDC Rate Description
REF*JH*A	Additive meter
REF*IX*6.0	Number of dials or digits
QTY*QD*28*KH	Consumption
MEA*AA*PRQ*28*KH*51640*51668*51	Total consumption with begin/end reads
MEA**MU*1.0	Meter multiplier
PTD*BP	Bill Presentment Loop

DTM*514*20230622	Start period
DTM*151*20230720	End period
REF*MG*TXA172818236	Meter number
REF*NH*250	LDC Rate
REF*K6*Y*Residential Service	LDC Rate Description
REF*JH*A	Additive meter
REF*IX*6.0	Number of dials or digits
QTY*QD*874*KH	Consumption
MEA*AA*PRQ*874*KH*0*874*51	Total consumption with begin/end reads
MEA**MU*1.0	Meter multiplier
PTD*BQ	Metered services Summary loop
DTM*150*20230621	Start period
DTM*151*20230720	End period
REF*MT*KH015	Meter Type
QTY*QD*2*KH	Consumption
DTM*582*20221121*0015*ES	End date and time of the period for which the quantity is provided.
. . . . .	
QTY*QD*3*KH	Consumption
DTM*582*20221121*0015*ES	End date and time of the period for which the quantity is provided.

Maryland SCB Example – 4: BGE Time of Use

BP Loops for UOM K4, KH & K1

BPT~00~2023-07-03-22.08.29.994134BGE1~20230703~C1	Meter detail loop
N1~8S~BALTIMORE GAS AND ELECTRIC COMPANY~1~156171464	LDC Company
N1~SJ~Retail Supplier Svcs, Inc~1~999999999	ESP Company
N1~8R~BGE Customer LLC	Customer name
REF~12~1111111111	LDC Account number
REF~BLT~ESP	Bill type
REF~PC~DUAL	Bill Calculator
PTD~BB	Monthly Billed Summary loop
DTM~150~20230606	Start period
DTM~150~20230703	End period
QTY~D1~2218~KH	Monthly **DELIVERED** KH (Consumption)
PTD~SU	Metered services Summary loop
DTM~150~20230606	Start period
DTM~150~20230703	End period
QTY~QD~2218~KH	Monthly **DELIVERED** KH
PTD~BP	Bill Presentment Loop
DTM~150~20230606	Start period
DTM~150~20230703	End period
REF~MG~D119050651	Meter number
REF~NH~165	LDC Rate
REF~K6~Y~Residential Service	LDC Rate Description
REF~JH~A	Additive meter
REF~IX~5.0	Number of dials or digits
QTY~QD~5~K4	Kilovolt Amperes (KVA)
MEA~AA~PRQ~5~K4~0~0~51	Kilovolt Amperes (KVA)
MEA~~MU~100	Meter multiplier
PTD~BP	Bill Presentment Loop

DTM~150~20230606	Start period
DTM~150~20230703	End period
REF~MG~D119050651	Meter number
REF~NH~165	LDC Rate
REF~K6~Y~Residential Service	LDC Rate Description
REF~JH~A	Additive meter
REF~IX~5.0	Number of dials or digits
QTY~QD~127~KH	Consumption - Off Peak
MEA~AA~PRQ~127~KH~0~0~41	Total Consumption – Off Peak
MEA~~MU~100	Meter multiplier
QTY~QD~47~KH	Consumption - On Peak
MEA~AA~PRQ~47~KH~0~0~42	Total Consumption – On Peak
MEA~~MU~100	Meter multiplier
QTY~QD~30~KH	Consumption - Intermediate Peak
MEA~AA~PRQ~30~KH~0~0~43	Total Consumption – Intermediate Peak
MEA~~MU~100	Meter multiplier
PTD~BP	Bill Presentment Loop
DTM~150~20230606	Start period
DTM~150~20230703	End period
REF~MG~D119050651	Meter number
REF~NH~165	LDC Rate
REF~K6~Y~Residential Service	LDC Rate Description
REF~JH~A	Additive meter
REF~IX~5.0	Number of dials or digits
QTY~QD~4~K1	Demand - Off Peak
MEA~AA~PRQ~4~K1~0~0~41	Demand - Off Peak
MEA~~MU~100	Meter multiplier
QTY~QD~5~K1	Demand - On Peak
MEA~AA~PRQ~5~K1~0~0~42	Demand – On Peak
MEA~~MU~100	Meter multiplier
QTY~QD~4~K1	Demand - Intermediate Peak
MEA~AA~PRQ~4~K1~0~0~43	Demand – Intermediate Peak
MEA~~MU~100	Meter multiplier
PTD~BQ	Account Services Detail Loop
DTM~150~20230606	Start period
DTM~151~20230703	End period
REF~MT~KH060	Meter Type
QTY~QD~3.8~KH	Quantity of **consumption** delivered for entire metering period specified
DTM~582~20230606~0100~ED	End date and time of the period for which the quantity is provided.
QTY~QD~3.79~KH	Quantity of **consumption** delivered for entire metering period specified
DTM~582~20230606~0200~ED	End date and time of the period for which the quantity is provided.
QTY~QD~3.69~KH	Quantity of **consumption** delivered for entire metering period specified
DTM~582~20230606~0300~ED	End date and time of the period for which the quantity is provided.
. . . . .	
QTY~QD~9.03~KH	Quantity of **consumption** delivered for entire metering period specified
DTM~582~20230703~0000~ED	End date and time of the period for which the quantity is provided.

Maryland SCB Example – 5: PE Community Solar Child Account
No Self Generation on the Child Account
Allocation of 16,651 kwh from the Host Account

Starting Child Bank QTY*QH = 0
Child Self Generation QTY*79 = 0
Child Ending Bank QTY*QE = 0
Generation transferred from Host to Child account QTY*77 = 16,650
The REF*AN Segment, in the PTM*BJ - QTY*77 Loop, provides the name of the Community Solar Program.

The following example is for a PE CHILD, Community Solar account that has consumption of 21,120 kwh. The Child account does not have self-generation, but receives an allocation of from the community solar host account of 16,651 kwh resulting in billed usage of 4,469 kwh,

This example demonstrates adding the MU and ZA information when missing from the BQ loops or equal to 1.0.

BPT*00*000263518990*20230605*DD	Meter detail loop
DTM*649*20230608*0958	
N1*8S*POTOMAC EDISON MD - DISTRIBUTI*9*043381565EDC	LDC Company
N1*SJ*SUPPLIER NAME*9*123456789PE01	ESP Company
N1*8R*CUSTOMER NAME	Customer name
REF*12*08012345678909876543	LDC Account number
REF*11*9999999	ESP Account number
REF*BLT*ESP	Bill type
REF*PC*DUAL	Bill Calculator
PTM*BB	Monthly Billed Summary loop
DTM*150*20230415	Start period
DTM*151*20230511	End period
QTY*D1*4469.00000*KH	Monthly billed kWh
PTD*SU	Metered services Summary loop
DTM*150*20230415	Start period
DTM*151*20230511	End period
QTY*QD*21120*KH	Calculated summary of all meters for kWh
PTD*BP	Meter detail loop for kWh
DTM*150*20230415	Start period
DTM*151*20230511	End period
REF*MG*G123456789	Meter number
REF*NH*PE-GSG2D	LDC Rate
REF*JH*A	Additive meter
REF*IX*5.0	Number of dials or digits
QTY*QD*21120*KH	Consumption
MEA*EA*PRQ*21120.00000*KH*16216.00000*16744.00000*51	Total consumption with begin/end reads
MEA**MU*40.00000	Meter Multiplier
PTD*BQ	Meter detail loop for kWh
DTM*150*20230415	Start period
DTM*151*20230511	End period
REF*MG*G123456789	Meter number
REF*NH*PE-GSG2D	LDC Rate
REF*JH*A	Additive meter
REF*IX*5.0	Number of dials or digits

QTY*QD*25*KH	Consumption
DTM*582*202404151*0015*ES	End date and time of the period for which the quantity is provided.
QTY*QD*30*KH	Consumption
DTM*582*20240415*0030*ES	End date and time of the period for which the quantity is provided.
. . . . .	
QTY*QD*20*KH	Consumption
DTM*582*20240511*2359*ES	End date and time of the period for which the quantity is provided.
MEA**MU*40.00000	Meter Multiplier
PTD*BJ	
DTM*150*20230415	Start period
DTM*151*20230511	End period
QTY***QH***0*KH	Starting Bank
MEA*AF*PRQ*0*KH***51	Starting Bank
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***51	Self-generation Applied From Starting Bank Total
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***51	Ending Bank – Total
QTY***77***16651*KH	**Generation Transferred In**
MEA*AF*PRQ*16651*KH***51	Generation Transferred into Child account from Host - Total
REF*AN*CHILD*Maryland Community Solar Program	MD Community Solar Program Description

FirstEnergy (PA & NJ) Net Metering Examples

867IU EXAMPLE 1 - CUSTOMER GENERATION (5000 KH) MORE THAN CONSUMPTION (3000 KH)

BPT*00*000450199999E*20190122*C1
N1*SJ*SUPPLIER NAME*9*123456789ABCD
N1*8S*JCPL-DISTRIBUTION*1*006973358
N1*8R*CUSTOMER NAME
REF*12*08012345678906547862
REF*11*123456897
REF*BLT*LDC
REF*PC*LDC
PTD*BB
DTM*150*20181219
DTM*151*20190118
QTY*D1*0000.00000*KH ←=====NET USAGE
QTY*QD*73.00000*K1
QTY*D1*73.00000*K1
PTD*SU
DTM*150*20181219
DTM*151*20190118
QTY*QD*3000.00000*KH ←=====DELIVERED USAGE
QTY*87*5000.00000*KH ←=====RECEIVED USAGE
PTD*BQ
DTM*150*20181219
DTM*151*20190118
REF*MT*KH015
REF*6W*1 ←=====DELIVERED CHANNEL ID (INTERVAL READS TOTAL 3000 KH)
QTY*QD*67.25000000*KH
DTM*582*20181219*0015*ES
QTY*QD*73.79000000*KH
DTM*582*20181219*0030*ES
QTY*QD*54.73000000*KH
DTM*582*20181219*0045*ES
QTY*QD*96.62000000*KH
DTM*582*20181219*0100*ES
PTD*BQ
DTM*150*20181219
DTM*151*20190118
REF*MT*KH015
REF*6W*2 ←=====RECEIVED CHANNEL ID (INTERVAL READS TOTAL 5000 KH)
QTY*87*107.25000000*KH
DTM*582*20181219*0015*ES
QTY*87*103.79000000*KH
DTM*582*20181219*0030*ES
QTY*87*104.73000000*KH
DTM*582*20181219*0045*ES
QTY*87*106.62000000*KH
DTM*582*20181219*0100*ES

867IU EXAMPLE 2 - CUSTOMER GENERATION (1500 KH) LESS THAN CONSUMPTION (4000 KH) and (2000 KH) BANK/NET EXCESS

BPT*00*000450199999E*20190222*C1
N1*SJ*SUPPLIER NAME*9*123456789ABCD
N1*8S*JCPL-DISTRIBUTION*1*006973358
N1*8R*CUSTOMER NAME
REF*12*08012345678906547862
REF*11*123456897
REF*BLT*LDC
REF*PC*LDC
PTD*BB
DTM*150*20190119
DTM*151*20190218
QTY*D1*500.00000*KH ←=====NET USAGE
QTY*QD*73.00000*K1
QTY*D1*73.00000*K1
PTD*SU
DTM*150*20190119
DTM*151*20190218
QTY*QD*4000.00000*KH ←=====DELIVERED USAGE
QTY*87*1500.00000*KH ←=====RECEIVED USAGE
PTD*BQ
DTM*150*20190119
DTM*151*20190218
REF*MT*KH015
REF*6W*1 ←=====DELIVERED CHANNEL ID (INTERVAL READS TOTAL 4000 KH)
QTY*QD*67.25000000*KH
DTM*582*20190119*0015*ES
QTY*QD*73.79000000*KH
DTM*582*20190119*0030*ES
QTY*QD*54.73000000*KH
DTM*582*20190119*0045*ES
QTY*QD*96.62000000*KH
DTM*582*20190119*0100*ES
PTD*BQ
DTM*150*20190119
DTM*151*20190218
REF*MT*KH015
REF*6W*2 ←=====RECEIVED CHANNEL ID (INTERVAL READS TOTAL 1500 KH)
QTY*87*107.25000000*KH
DTM*582*20190218*0015*ES
QTY*87*103.79000000*KH
DTM*582*20190218*0030*ES
QTY*87*104.73000000*KH
DTM*582*20190218*0045*ES
QTY*87*106.62000000*KH
DTM*582*20190218*0100*ES