Pennsylvania New Jersey Delaware Maryland

Implementation Guideline

Electronic Data Interchange

TRANSACTION SET

867
Interval Usage
Ver/Rel 004010

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	Summary of Changes
December 21, 1998 Version 1.0	Initial release.
January 7, 1999 Version 3.3	 Fixed footer to read PA867IU Added additional types of quantity qualifiers to satisfy Co-generation needs – this allows reporting of the meter receiving quantity from the co-generation site. Added Clarification to use of Power factor. Clarified use of QTY/MEA segments in the Interim Account Services Summary Loog ("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 compan 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 segmen 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 comp 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)

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 There is a cross reference between billing related documents.

Cross Reference Number between 867, 810, and 820

- 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 nonbilling party must also include the cross reference number from 867/810 document.

PTD Definition and

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.

<u>Metered Services Information – by Meter:</u> (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.

Use:

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)

<u>Account Services Information – by Account:</u> (PTD01 = SU and BQ)

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

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

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.

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

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

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:

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

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

<u>Combination # 2 – Interval Meter Level Reporting (intervals are provided at meter level)</u>

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

Note: For cancel transactions, the account and summary loop information is sent; however, it is optional to include the PM and BQ loops.

Order Loops are sent

The PTD loop may be sent in any order.

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...

OTY~OD~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~582~20151101~0200~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 OTY~OD~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).
 - 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)

uniform support of Net Metered Customers (continued):

Requirements for

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...

- O Atlantic City Electric with new CIS (est. early 2015)
- JCP&L 4Q 2014 (867MU/HU) and 1Q 2015 (867IU)
- o 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.
 - 1. When the customer's consumption is greater than generation, the KH will be reported as net consumption (QTY01 w/actual = QD or estimated = KA) with the total generation subtracted from total consumption.
 - 2. When the customer's generation is greater than consumption, the KH will be reported as net generation (actual = 87 or estimated = 9H) with the total consumption subtracted from total generation).
 - 3. In either scenario, the QTY02 will never be signed negative.
- BQ (Account Services Detail) Loop reports the account level detail KH for net metered customers and will be looped for each unit of measure.
 - The QTY02 will report the net KH for ALL metered services being summed to the account level.
 - 2. If the net KH for a given report period is generation, the QTY01 will be either '87' or '9H'.
 - 3. However if the total account's customer generation is less than consumption for a single reporting period, only the net consumption is sent with QTY01 qualifier of as consumption, non-billable, incomplete, or unavailable.

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.

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 OTY02 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

Maryland Notes

What document is sent if supplier elects NOT to receive detail interval data? If a supplier elects to receive only summary level information for an interval account, they will receive an 867MU document.

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

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

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

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

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

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

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

Sample provided in the back of this implementation guideline.

Requirements for uniform support of Net Metered Customers

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

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

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

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

Net Metering – banked KH adjustment for excess customer generation Applies to Potomac Edison, BG&E, Delmarva MD and PEPCO MD

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

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.

RGF

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)

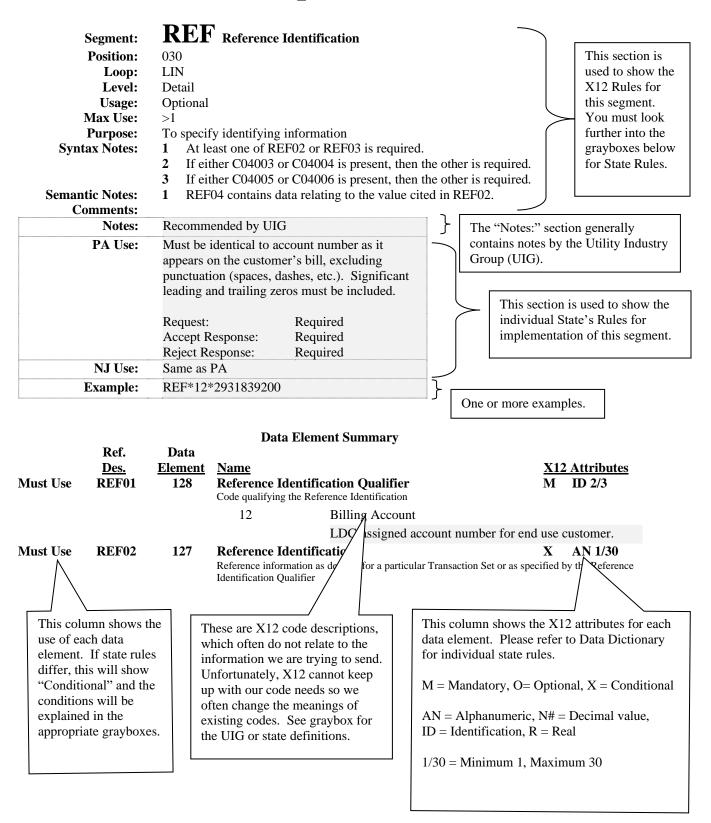
Will send the peak demand for the entire billing period in all 867s created for the period. If the customer's peak demand is 10.4 K1 for the whole billing period, all suppliers would receive 10.4K1 in their 867.

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.

How to Use the Implementation Guideline



867 Product Transfer and Resale Report X12 Structure

Functional Group ID=PT

Heading:

	Pos. <u>No.</u>	Seg. <u>ID</u>	Name	Req. Des.	Max.Use	Loop <u>Repeat</u>	Notes and Comments
Must Use	010	ST	Transaction Set Header	M	1	<u> </u>	
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. <u>No.</u>	Seg. <u>ID</u>	<u>Name</u>	Req. Des.	Max.Use	Loop <u>Repeat</u>	Notes and Comments
			LOOP ID – PTD			>1	
Must Use	010	PTD	Product Transfer and Resale Detail (Monthly Billed Summary) – BB	M	1		
	020	DTM	Date/Time Reference	O	10		
			LOOP ID – QTY			>1	
	110	QTY	Quantity	О	1		
			LOOP ID – PTD			>1	
Must Use	010	PTD	Product Transfer and Resale Detail (Meter Services Summary) – BO	M	1		
	020	DTM	Date/Time Reference	O	10		
	030	REF	Reference Identification	O	20		
			LOOP ID – QTY	•		>1	
	110	QTY	Quantity	O	1		
	160	MEA	Measurements	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	О	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	О	1		

	160	MEA	Measurements	0	40		
			LOOP ID – PTD			>1	
Must Use	010	PTD	Product Transfer and Resale Detail (Non-	M	1	>1	
Widst Osc			Interval Meter Services Detail) – PL				
	020	DTM	Date/Time Reference	0	10		
	030	REF	Reference Identification	O	20		
	110	OTN	LOOP ID – QTY	0	1	>1	
	110	QTY	Quantity	0	1		
	210	DTM	Date/Time Reference	0	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	О	1		
			LOOP ID – PTD			>1	
Must Use	010	PTD	Product Transfer and Resale Detail (Account	M	1		
	020	DTM	Services Detail) – BQ Date/Time Reference	О	10		
	030	REF	Reference Identification	0	20		
	000	1121	LOOP ID – QTY			>1	
	110	QTY	Quantity	0	1		
	210	DTM	Date/Time Reference	0	10		
			LOOP ID – PTD			>1	
Must Use	010	PTD	Product Transfer and Resale Detail (Residential	M	1	<i>></i> 1	
Wast Cae			Meter Services Summary) – IA				
	020	DTM	Date/Time Reference	0	10		
	030	REF	Reference Identification	O	20		
	110	OTT	LOOP ID – QTY		1	>1	
	110	QTY	Quantity	0	1		
	160	MEA	Measurements	0	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	О	1		
	210	DTM	Date/Time Reference	O	10		
Summary:							
	Pos.	Seg.		Req.		Loop	Notes and
Must II	No.	<u>ID</u>	Name Transportion Set Trailer	Des.	Max.Use	Repeat	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	BPT04	BPT01	X(2)
		KH-Proposal Support Data-Meter Changeout when Meter Agent Changes. Interval Usage (used to tell the receiver that this is a partial usage statement). The billing agent must combine the KH usage and the MV usage to determine total usage for period.			
5	Final Indicator	Indicates if this is a final reading for that particular ESP (e.g., customer moves, customer switches, etc.).	$BPT07 = \mathbf{F}$		X(1)
6	Transaction Reference Number	Transaction Reference Number echoed from BPT02 of the Original Transaction	BPT09		X(30)
7	Document Due Date/Time	The last date/time that information will be accepted by the billing party for processing the bill. If 810 is received after this date/time, and the billing party cannot process it, they must notify the non-billing party (via email, phone call, etc.)	DTM02 (CCYYMM DD) and DTM03(HH MM)	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	X(13)

				N103 = 1 or 9	
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		for details about the use of the PTD loop con			
TD1 : : /		Billed Summary - Loop Required if the LDC			1 1
1 nis ini		om the billing system to reflect billing data for to 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)
Meter	ed Services Summary -	Loop Required when the metering agent is r level.	reporting inte	rval data at th	e meter
21	D. 1 . T C. T	Martin 1 Company	DTD01 BO	1	V(2)
31	Service Period Start	Metered Services Summary Start date of the service period or start date of	PTD01= BO DTM02	DTM01 =	X(2) 9(8)
32	Date	the changed in meter.		150	
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 = M U	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)
Meto	ered Services Detail - I	Loop Required when the metering agent is replevel. [Loop not required on a cancel transaction.]		val data at the	meter
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	$REF01 = \mathbf{MG}$	X(30)
49	la	Type of Meter	REF02	REF01 = MT	X(5)
77	Meter Type Quantity Qualifier	Represents whether the quantity is actual or	QTY01	KLI 01= WII	11(3)

		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 (CCYYMM DD) and DTM03(HH MM	DTM01 = 582	DTM02= 9(8) and DTM03= 9(4)
54 Ac	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 ary - Loop required when the metering agent	DTM04 is reporting i	nterval data a	X(2)
		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
Acco	unt Services Detail - L	oop required when the metering agent is repolevel.	orting interva	l data at the a	account
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 <u>Date/Time</u>	The date/time of the end of the interval.	DTM02 (CCYYMM DD) and DTM03(HH MM	DTM01 = 582	DTM02= 9(8) and DTM03= 9(4)
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)
Gener	ration Transferred In/	Out - Loop required when account has net m Net Energy Metering (ANEM) Family		oart of an Agg	regated
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)
77	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			
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. KH = Kilowatt Hour	QTY03		X(2)
69	Measurement Reference Code	Code identifying category to which measurement applies.	MEA01		X(2)
70	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)
71	Unit of Measure	Unit of measure for readings.	MEA04		X(2)
72	Beginning Reading	Value specifying beginning reading for the metering period. Factors have not been applied to this value.	MEA05		9(8).9(4)
73	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)
74	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)

Segment: ST Transaction Set Header

Position: 010

Loop:

Level: Heading Usage: Mandatory

Max Use:

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

Syntax Notes:

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

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

selects the Invoice Transaction Set).

Comments:

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

Data Element Summary

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

Segment: ${f BPT}$ Beginning Segment for Product Transfer and Resale

Position: 020

Loop:

Level: Heading Usage: Mandatory

Max Use: 1

Syntax Notes: 1 If either BPT05 or BPT06 is present, then the other is required.

Semantic Notes: 1 BPT02 identifies the transfer/resale number.

BPT03 identifies the transfer/resale date.

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

Must Use	Ref. <u>Des.</u> BPT01	Data Element 353	Name Transaction Set Pu Code identifying purpose		Attributes M ID 2/2
			00	Original	
				Conveys original readings for the accoureported.	nt being
			01	Cancellation	
				Indicates that the readings previously reaccount are to be ignored.	ported for the
Must Use	BPT02	127	· ·		•
A unique transaction identification number assigned by the contransaction. This number must be unique over time.		riginator of this			
				be used as a cross reference to the 810 biles that make the other party whole, it will 20.	_
Must Use	BPT03	373	Date Date (CCYYMMDD)		M DT 8/8
			Transaction Creation application system.	n Date – the date that the data is processe	d by the
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.

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

O ID 1/2

Code indicating type of action

F Final

Code to indicate this is the final usage data being sent for this customer. Either the customer account is final with the LDC or the customer switched to a new ESP. **NJ PSE&G:** PSE&G only sends "F" on a customer account final. They do not send an "F" on a customer

switch.

Conditional BPT09 127 Reference Identification

O AN 1/30

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

When BPT01 = 01 (cancel), this element is required and should contain the transaction identification number from BPT02 of the transaction that is being cancelled.

Segment: **DTM** Date/Time Reference (649=Document Due Date)

Position: 050

Loop:

Level: Heading Usage: Optional Max Use: 10

Purpose: To specify pertinent dates and times

Syntax Notes: 1 At least one of DTM02 DTM03 or DTM05 is required.

2 If DTM04 is present, then DTM03 is required.

3 If either DTM05 or DTM06 is present, then the other is required.

Semantic Notes:

Comments:

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.	Data				
	Des.	Element	<u>Name</u>		Att	<u>ributes</u>
Must Use	$\overline{\mathrm{DTM}}01$	374	Date/Time Qualific	er	$\overline{\mathbf{M}}$	ID 3/3
			Code specifying type of	date or time, or both date and time		
			649	Document Due		
				The date that the non-billing party mustransaction back to the billing party.	st pro	vide the 810
				If a file is received by the billing party and the billing party cannot process it, the non-billing party (via email, phone means).	they	must notify
Must Use	DTM02	373	Date Date expressed as CCYY	YMMDD	X	DT 8/8
Must Use	DTM03	337	HHMMSSDD, where H	ur clock time as follows: HHMM, or HHMMSS, of hours (00-23), M = minutes (00-59), S = integer lecimal seconds are expressed as follows: D = tent	secon	ds (00-59) and
			HHMM format			

Segment: MEA Measurements (NP=Percent Participation)

Position: 075

Loop:

Level: Heading Usage: Optional Max Use: 20

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

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

Syntax Notes: 1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.

2 If MEA05 is present, then MEA04 is required.3 If MEA06 is present, then MEA04 is required.

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

5 Only one of MEA08 or MEA03 may be present.

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

Comments: 1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or

any measurement where a positive (+) value cannot be assumed, use MEA05 as the

negative (-) value and MEA06 as the positive (+) value.

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

Data Element Summary

Must Use	Ref. <u>Des.</u> MEA02	Data Element 738	Name Measurement Qualifier Code identifying a specific pro	Attributes O ID 1/3 oduct or process characteristic to which a measurement applies
			Th loa mu trai	cent Participation is code is used to indicate the percentage of the total d that is supplied by the ESP. This is the ltiplication of two fields that are on the 814 asaction, AMT*7N (Participating Interest) and MT*QY (Eligible Load).
Must Use	MEA03	739	Measurement Value The value of the measurement	X R 1/20

The whole number "1" represents 100 percent. Decimal numbers less than "1" represent percentages from 1 percent to 99 percent.

Segment: N1 Name (8S=LDC Name)

Position: 080
Loop: N1
Level: Heading
Usage: Optional

Max Use:

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

Must Use	Ref. <u>Des.</u> N101	Data <u>Element</u> 98	Name Entity Identifier Code Code identifying an organizational entity, a physical location, propage 8S Consumer Service Provider (CS)	M erty or an indi	ributes ID 2/3 vidual
Must Use	N102	93	LDC Name Free-form name LDC Company Name	X	AN 1/60
Must Use	N103	66	Identification Code Qualifier X ID 1/2 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		de (67)
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.

If either N103 or N104 is present, then the other is required.

Semantic Notes:

Comments: 1 This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must

provide a key to the table maintained by the transaction processing party.

N105 and N106 further define the type of entity in N101.

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

Data Element Summary

Must Use	Ref. <u>Des.</u> N101	Data <u>Element</u> 98	Name Entity Identifier Code Code identifying an organizational entity, a physical location, pr SJ Service Provider	M	ributes ID 2/3 vidual
Must Use	N102	93	ESP Name	X	AN 1/60
widst Ose	11102)3	Free-form name ESP Company Name	A	AIN 1/00
Must Use	N103	66	Identification Code Qualifier X ID 1/2 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 Suffix	r with Four C	haracter
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

 $Segment: \qquad N1 \ {\tt Name} \ ({\tt G7=Renewable} \ {\tt Energy} \ {\tt Provider} \ {\tt Name})$

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

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

Segment: N1 Name (8R=Customer Name)

Position: 080
Loop: N1
Level: Heading
Usage: Optional

Max Use: 1

Purpose: To identify a party by type of organization, name, and code

Syntax Notes: 1 At least one of N102 or N103 is required.

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

	Ref.	Data				
	Des.	Element	<u>Name</u>		Att	<u>ributes</u>
Must Use	N101	98	Entity Identifier C	code	M	ID 2/3
			Code identifying an orga 8R	nizational entity, a physical location, property or Consumer Service Provider (CSP) Cu		
				End Use Customer		
Must Use	N102	93	Name Free-form name Customer Name		X	AN 1/60

 $\textbf{Segment:} \quad \textbf{REF} \text{ Reference Identification (11=ESP Account Number)}$

Position: 120
Loop: N1
Level: Heading
Usage: Optional
Max Use: 12

Purpose: To specify identifying information

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

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

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

Comments:

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

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

Segment: REF Reference Identification (12=LDC Account Number)

Position: 120
Loop: N1
Level: Heading
Usage: Optional
Max Use: 12

Purpose: To specify identifying information

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

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

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

Comments:

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

Must Use	Ref. <u>Des.</u> REF01	Data Element 128		tification Qualifier Reference Identification	Att M	ributes ID 2/3
			12	Billing Account		
				LDC-assigned account number for customer. Must appear as it does		
Must Use	REF02	127	Reference Iden Reference information Identification Qualif	on as defined for a particular Transaction Set or	X as specified	AN 1/30 by the Reference

Segment: REF Reference Identification (45=LDC Old Account Number)

Position: 120
Loop: N1
Level: Heading
Usage: Optional
Max Use: 12

Purpose: To specify identifying information

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

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

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

Comments:

PA Use:	Note: Only used when LDC is sending this transaction. Required if account number has changed within the last 60 days.
NJ Use:	Required if account number has changed within the last 60 days.
DE Use:	Not used
MD Use:	Note: Only used when LDC is sending this transaction. Not Used by BGE, PEPCO, or Delmarva. PE: Required if the account number has changed in the last 60 days.
Example:	REF*45*939581900

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

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.

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

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

Comments:

PA Use: Required

Note: Some utilities may not be able to comply with this until later since this was added

so close to the 4010 implementation date.

NJ Use: Optional
DE Use: Optional
MD Use: Optional

Example: REF*BLT*LDC

Data Element Summary

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

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

When REF01 is BLT, valid values for REF02 are:

LDC - The LDC bills the customer ESP - The ESP bills the customer

DUAL - Each party bills the customer for their portion

Note: In New Jersey, only LDC and DUAL are valid.

Segment: **REF** Reference Identification (PC=Bill Calculator)

Position: 120
Loop: N1
Level: Heading
Usage: Optional
Max Use: 12

Purpose: To specify identifying information

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

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

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

Semantic Notes: Comments:

omments:

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.

Identification Qualifier

NJ Use: Optional
DE Use: Optional
MD Use: Optional
Example: REF*PC*LDC

Data Element Summary

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

When REF01 is PC, valid values for REF02 are:

LDC - The LDC calculates the charges on the bill (Rate Ready)

DUAL - Each party calculates its portion of the bill (Dual or Bill Ready)

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

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

Segment: PTD Product Transfer and Resale Detail (BB=Monthly Billed Summary)

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

Max Use: 1

Syntax Notes: 1 If either PTD02 or PTD03 is present, then the other is required.

2 If either PTD04 or PTD05 is present, then the other is required.

Semantic Notes:

Comments:

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

Data Element Summary

Must Use	Ref. <u>Des.</u> PTD01	Data Element 521	Name Product Transfer Type Code Code identifying the type of product transfer			ributes ID 2/2
			BB	Demand Information Only		
				This information is obtained from the breflect the billing data for this account 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

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

Segment: DTM Date/Time Reference (151=Service Period End)

Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10

Purpose: To specify pertinent dates and times

Syntax Notes: 1 At least one of DTM02 DTM03 or DTM05 is required.

2 If DTM04 is present, then DTM03 is required.

3 If either DTM05 or DTM06 is present, then the other is required.

Semantic Notes:

Comments:

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

	Ref.	Data				
	Des.	Element	<u>Name</u>		Att	<u>ributes</u>
Must Use	DTM01	374	Date/Time Q	ualifier	\mathbf{M}	ID 3/3
			Code specifying t	type of date or time, or both date and time		
			151	Service Period End		
Must Use	DTM02	373	Date		X	DT 8/8
			Date expressed as	s CCYYMMDD		

Segment: \mathbf{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:

001111101100	
Notes:	Billed KWH
PA Use:	Required
NJ Use:	Required
	Note: For a net metered account, this will reflect the net usage.
DE Use:	Required
MD Use:	Required
Example:	QTY*D1*22348*KH

Data Element Summary

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

Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken

is been taken

KH Kilowatt Hour

Billed Kilowatt Hours as shown on the customer's bill. May or may not be the same as measured kilowatt hours.

Segment: \mathbf{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

Must Use	Ref. <u>Des.</u> QTY01	Data Element 673	Name Quantity Qualifier Code specifying the type		Att M	ributes ID 2/2
			D1	Billed		
				Used when Quantity in QTY02 is a "B	illed'	' quantity.
Must Use	QTY02	380	Quantity Numeric value of quantit	у	X	R 1/15
Must Use	QTY03	355	Unit or Basis for M. Code specifying the units has been taken	Ieasurement Code s in which a value is being expressed, or manner in	M which	ID 2/2 h a measurement
			K1	Kilowatt Demand		

Segment: QTY Quantity (Measured Demand)

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

Max Use:

Purpose: To specify quantity information

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

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

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

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

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

Max Use:

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

provide identifying data

Syntax Notes: 1 If either PTD02 or PTD03 is present, then the other is required.

2 If either PTD04 or PTD05 is present, then the other is required.

Semantic Notes:

Comments:

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

Must Use PTD	<u>Element</u>		sfer Type Code te type of product transfer	Attributes M ID 2/2
		ВО	Designated Items	
			Meter Services Summary	

Segment: DTM Date/Time Reference (150=Service Period Start)

Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10

Purpose: To specify pertinent dates and times

Syntax Notes: 1 At least one of DTM02 DTM03 or DTM05 is required.

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 <u>must</u> match the dates in the Metered Services Detail loop.				
PA Use:	Required, unless a "DTM*514" is substituted for this code.				
NJ Use:	Not Used				
DE Use:	Not Used				
MD Use:	Not Used				
Example:	DTM*150*19990101				

Must Use	Ref. <u>Des.</u> DTM01	Data Element 374	Name Date/Time Qualifier Code specifying type of date or time, or both date and time		Att M	ributes ID 3/3
Must Use	DTM02	373	150 Date Date expressed as	Service Period Start	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 <u>must</u> match the dates in the Metered Services Detail loop.				
PA Use:	Required, unless a "DTM*514" is substituted for this code.				
NJ Use:	Not Used				
DE Use:	Not Used				
MD Use:	Not Used				
Example:	DTM*151*19990131				

	Ref.	Data				
	Des.	Element	Name		Att	<u>ributes</u>
Must Use	$\overline{DTM01}$	374	Date/Time Qu	aalifier	$\overline{\mathbf{M}}$	ID 3/3
			Code specifying t	ype of date or time, or both date and time		
			151	Service Period End		
Must Use	DTM02	373	Date		X	DT 8/8
			Date expressed as	CCYYMMDD		

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

	Ref.	Data				
	Des.	Element	<u>Name</u>		Att	<u>ributes</u>
Must Use	DTM01	374	Date/Time Qu	ualifier	M	ID 3/3
			Code specifying ty	ype of date or time, or both date and time		
			328	Changed		
				Change Interval Data Increment		
Must Use	DTM02	373	Date		X	DT 8/8
			Date expressed as	CCYYMMDD		

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

Must Use	Ref. <u>Des.</u> DTM01	Data Element 374	Name Date/Time Qualifier Code specifying type of date or time, or both date and time		Att M	ributes ID 3/3
			514	Transferred		
				Exchanged meter read date		
Must Use	DTM02	373	Date		X	DT 8/8
			Date expressed as CCYY	(MMDD		

 $\textbf{Segment:} \quad \textbf{REF} \,\, \textbf{Reference Identification} \, (\textbf{MG-Meter Number})$

Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20

Purpose: To specify identifying information

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

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

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

Comments:

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

Must Use	Ref. <u>Des.</u> REF01	Data <u>Element</u> 128		entification Qualifier he Reference Identification	Att M	ributes ID 2/3
			MG	Meter Number		
Must Use	REF02	127	Reference Ide Reference information Qual	ation as defined for a particular Transaction So	X et or as specified	AN 1/30 by the Reference

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:	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						

Must Use	Ref. <u>Des.</u> REF01	Data Element 128		lentification Qualifier the Reference Identification	Attributes M ID 2/3
			JH	Meter Role	
Must Use	REF02	127	Reference Id Reference inform Identification Qu	nation as defined for a particular Transaction S	X AN 1/30 Set or as specified by the Reference
			S = S	is JH, valid values for REF02 are: Subtractive - this consumption needs summarized total.	to be subtracted from the

- $\label{eq:Additive-this consumption} A = Additive \text{ this consumption contributed to the summarized total} \\ \text{(do nothing)}.$
- I = Ignore this consumption did not contribute to the summarized total (do nothing).

Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20

Purpose: To specify identifying information

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

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

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

Comments:

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

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

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

Segment: QTY Quantity

Position: 110
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 1

Purpose: To specify quantity information

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

2 Only one of QTY02 or QTY04 may be present.

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

Comments:

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

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

Segment: MEA Measurements (MU=Meter Multiplier)

Position: 160
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 40

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

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

Syntax Notes: 1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.

2 If MEA05 is present, then MEA04 is required.3 If MEA06 is present, then MEA04 is required.

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

5 Only one of MEA08 or MEA03 may be present.

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

Comments: 1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the

negative (-) value and MEA06 as the positive (+) value.

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

Data Element Summary

	Ref.	Data			
	Des.	Element	<u>Name</u>	<u>Attri</u>	butes
Must Use	MEA02	738	Measurement Qualifier	O	ID 1/3
			Code identifying a specific product or process characteristic to whic	h a measureme	nt applies
			MU Multiplier		
Must Use	MEA03	739	Measurement Value	\mathbf{X}	R 1/20
			The value of the measurement		

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

multiplier equals 1, do not send this MEA segment.

Segment: MEA Measurements (ZA=Power Factor)

Position: 160
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 40

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

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

Syntax Notes: 1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.

3 If MEA05 is present, then MEA04 is required.3 If MEA06 is present, then MEA04 is required.

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

3 Only one of MEA08 or MEA03 may be present.

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

Comments: 1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the

negative (-) value and MEA06 as the positive (+) value.

	negative () value and ividire 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

Must Use	Ref. <u>Des.</u> MEA02	Data <u>Element</u> 738	Name Measurement Qua Code identifying a specif	lifier fic product or process characteristic to which a m	Attributes O ID 1/3 reasurement applies
			ZA	Power Factor	
				Relationship between watts and volt – necessary to supply electric load	- amperes
Must Use	MEA03	739	Measurement Value The value of the measure		X R 1/20
			*	er Factor when MEA02 equals "ZA". Very the value is 1, do not send this MEA se	

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.

	B ()
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)

Must Use	Ref. <u>Des.</u> MEA02	Data Element 738	Name Measurement Code identifying a	Qualifier O ID 1/3 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.
Must Use	MEA03	739	Measurement The value of the me	11 11 1/2
			Represents the	Transformer Loss Multiplier when MEA02 equals "CO".
Optional	MEA04	740	Meter Type MV AM	M ID 2/2 MV90 - Interval data should be adjusted by MEA03 value AMI - Interval data should NOT be adjusted by MEA03 value

Segment: PTD Product Transfer and Resale Detail (PM=Meter Services Detail)

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

Max Use:

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

provide identifying data

Syntax Notes: 1 If either PTD02 or PTD03 is present, then the other is required.

3 If either PTD04 or PTD05 is present, then the other is required.

Semantic Notes:

Comments:

Comments.	
Notes:	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

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

Meter Services Detail

Note:

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

Segment: **DTM** Date/Time Reference (150=Service Period Start)

Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10

Purpose: To specify pertinent dates and times

Syntax Notes: 1 At least one of DTM02 DTM03 or DTM05 is required.

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 <u>must</u> match the dates in the Meter Services Detail loop.
PA Use:	Required, unless a "DTM*514" is substituted for this code.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	DTM*150*19990101

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

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 <u>must</u> match the dates in the Meter Services Detail loop.						
PA Use:	Required, unless a "DTM*514" is substituted for this code.						
NJ Use:	Same as PA						
DE Use:	Same as PA						
MD Use:	Same as PA						
Example:	DTM*151*19990131						

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

Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10

Purpose: To specify pertinent dates and times

Syntax Notes: 1 At least one of DTM02 DTM03 or DTM05 is required.

If DTM04 is present, then DTM03 is required.

3 If either DTM05 or DTM06 is present, then the other is required.

Semantic Notes:

Comments:

Notes:	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

Must Use	Ref. <u>Des.</u> DTM01	Data Element 374	Name Date/Time Qualific Code specifying type of	e r date or time, or both date and time	Att M	ributes ID 3/3
			514	Transferred		
				Exchanged meter read date		
Must Use	DTM02	373	Date		X	DT 8/8
			Date expressed as CCYY	(MMDD		

Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20

Purpose: To specify identifying information

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

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

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

Comments:

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

Data Element Summary

Must Use	Ref. <u>Des.</u> REF01	Data Element 128		entification Qualifier the Reference Identification	Att. M	ributes ID 2/3
			MG	Meter Number		
	REF02	127	Reference Ide	entification	X	AN 1/30

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

 $\pmb{REF} \ \ \textbf{Reference Identification} \ (\textbf{MT=Meter Type})$ **Segment:**

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

Purpose: To specify identifying information

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

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

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

Comments:

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

Data Element Summary

Must Use	Ref. <u>Des.</u> REF01	Data Element 128		entification Qualifier he Reference Identification	Att M	ributes ID 2/3
			MT	Meter Type		
Must Use	REF02	127	Reference Ide Reference inform Identification Qua	ation as defined for a particular Transaction Set or as s	X specified b	AN 1/30 by the Reference
			two characters metering inter	is MT, the meter type is expressed as a five s are the type of consumption, the last three rval. Since this value ties to the consumptio 8O" is not valid. Valid values can be a comb	charact n being	ers are the reported, the

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

QTR

For Example:

T9

KHMON Kilowatt Hours Per Month

Thousand Kilowatt Hours

K1015 Kilowatt Demand per 15 minute interval Quarterly

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

	Ref.	Data		Sat Summary
Must Use	Des.	<u>Element</u>	Name	Attributes
Must Use	QTY01	673	Quantity Qualifier Code specifying the type	
			KA	
			NA	Estimated Quantity Delivered Used when the quantity delivered is an estimated
				quantity.
			QD	Actual Quantity Delivered
			QБ	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	x R 1/15
Must Osc	Q1102	300	Numeric value of quantity	
Must Use	QTY03	355	Unit or Basis for M Code specifying the units has been taken	Ideasurement Code M ID 2/2 in which a value is being expressed, or manner in which a measurement
			K1	Kilowatt Demand (kW)
				Represents potential power load measured at predetermined intervals
			K2	Kilovolt Amperes Reactive Demand (kVAR)
				Reactive power that must be supplied for specific types of customer's equipment; billable when kilowatt demand usage meets or exceeds a defined parameter
			K3	Kilovolt Amperes Reactive Hour (kVARH)
				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

Must Use	Des. DTM01	Element 374	Name Date/Time Qu Code specifying ty	ualifier ype 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	X DT 8/8	
Must Use	DTM03	337	HHMMSSDD, wh DD = decimal seco	Time X TM 4/8 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	ıt .	
Must Use	DTM04	623		O ID 2/2 the time. In accordance with International Standards Organization standard 860 field by a + or - and an indication in hours in relation to Universal Time	01,

Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a+or-and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow

The time code must accurately provide the time zone when the daylight savings time starts and ends if the meter is adjusted for daylight savings time. If meter is not adjusted for daylight savings time, the time code will always reflect Eastern Daylight Time which will be interpreted as prevailing time.

ED Eastern Daylight Time
ES Eastern Standard Time

Segment: **PTD** Product Transfer and Resale Detail (SU=Account Services Summary)

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

Max Use:

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

provide identifying data

Syntax Notes: 1 If either PTD02 or PTD03 is present, then the other is required.

3 If either PTD04 or PTD05 is present, then the other is required.

Semantic Notes:

Comments:

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. <u>Des.</u>	Data Element	Name		Attributes
Must Use	PTD01	521	Product Tra	nsfer Type Code 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.

 $\textbf{Segment:} \quad \textbf{DTM} \ \, \textbf{Date/Time Reference} \ \, \textbf{(150=Service Period Start)}$

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 <u>must</u> match the dates in the Account Services Detail loop.		
PA Use:	Required		
NJ Use:	Required		
DE Use:	Required		
MD Use:	Required		
Example:	DTM*150*19990101		

	Ref.	Data				
	Des.	Element	Name		<u>At</u>	<u>tributes</u>
Must Use	DTM01	374	Date/Time Qu	ıalifier	\mathbf{M}	ID 3/3
			Code specifying ty	ype of date or time, or both date and time		
			150	Service Period Start		
Must Use	DTM02	373	Date Date expressed as	CCYYMMDD	X	DT 8/8

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 <u>must</u> match the dates in the Account Services Detail loop.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	DTM*151*19990131

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

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.

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

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

Semantic Notes: Comments:

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

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

Channel Number

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

	Ref.	Data		
	Des.	Element	<u>Name</u>	Attributes
Must Use	$\overline{\text{QTY}01}$	673	Quantity Qualifier	$\overline{\text{M}}$ ID $2/2$
			Code specifying the type	of quantity
			KA	Estimated Quantity Delivered
				Used when the quantity delivered is an estimated
				quantity.
			QD	Actual Quantity Delivered
				Used when the quantity delivered is an actual quantity.
			87	Actual Quantity Received (Net Metering)
				Used when the net generation quantity received is
				actual.
			9H	Estimated Quantity Received (Net Metering)
				Used when the net generation quantity received is
				estimated.
Must Use	QTY02	380	Quantity Numeric value of quantity	X R 1/15
Must Use	QTY03	355	Unit or Basis for M Code specifying the units has been taken	leasurement Code M ID 2/2 in which a value is being expressed, or manner in which a measurement
			K3	Kilovolt Amperes Reactive Hour (kVARH)
				Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters
			KH	Kilowatt Hour

Segment: PTD Product Transfer and Resale Detail (BQ=Account Services Detail)

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

Max Use: 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:

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.	Data			
	Des.	Element	<u>Name</u>	<u>Att</u>	<u>ributes</u>
Must Use	PTD01	521	Product Transfer Type Code	M	ID 2/2
			Code identifying the type of product transfer		

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 <u>must</u> match the dates in the Account Services Detail loop.		
PA Use:	Required		
NJ Use:	Required		
DE Use:	Required		
MD Use:	Required		
Example:	DTM*150*19990101		

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

Segment: DTM Date/Time Reference (151=Service Period End)

Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10

Purpose: To specify pertinent dates and times

Syntax Notes: 1 At least one of DTM02 DTM03 or DTM05 is required.

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 <u>must</u> match the dates in the Account Services Detail loop.
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	DTM*151*19990131

	Ref.	Data				
	Des.	Element	<u>Name</u>		At	<u>tributes</u>
Must Use	$\overline{\text{DTM}01}$	374	Date/Time Qu	aalifier	$\overline{\mathbf{M}}$	ID 3/3
			Code specifying t	ype of date or time, or both date and time		
			151	Service Period End		
Must Use	DTM02	373	Date		X	DT 8/8
			Date expressed as	CCYYMMDD		

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					

	Ref. Des.	Data Element	Name		Att	ributes
Must Use	DTM01	374	Date/Time Qu	ualifier ype of date or time, or both date and time	M	ID 3/3
			328	Changed		
				Change Interval Data Increment		
Must Use	DTM02	373	Date		\mathbf{X}	DT 8/8
			Date expressed as	CCYYMMDD		

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:

Ref.

Data

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

Data Element Summary

Must Use	<u>Des.</u> REF01	Element 128	Name Reference Identification Qualifier Code qualifying the Reference Identification		Attı M	ributes ID 2/3
			MT	Meter Type		
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			
			two characters are t metering interval.	Γ, the meter type is expressed he type of consumption, the la Since this value ties to the construction and valid. Valid values can be	ast three charactersumption being	ers are the reported, the
		Type of	Consumption	Met	tering Interva	al

Kilowatt Demand	Nnn	Number of minutes from 001 to 999
Kilovolt Amperes Reactive Demand	ANN	Annual
Kilovolt Amperes Reactive Hour	BIA	Bi-annual
Kilovolt Amperes	BIM	Bi-monthly
Kilovolt Amperes Reactive	DAY	Daily
	Kilovolt Amperes Reactive Demand Kilovolt Amperes Reactive Hour Kilovolt Amperes	Kilovolt Amperes Reactive Demand ANN Kilovolt Amperes Reactive Hour BIA Kilovolt Amperes BIM

KH Kilowatt HourT9 Thousand Kilowatt HoursMON MonthlyQTR Quarterly

For Example:

KHMON Kilowatt Hours Per Month

K1015 Kilowatt Demand per 15 minute interval

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

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

Purpose: To specify identifying information

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

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

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

Semantic Notes: Comments:

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

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

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

QTY Quantity **Segment:**

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

Purpose: To specify quantity information

Syntax Notes: 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.	Data				
	Des.	Element	<u>Name</u>	<u>Attributes</u>		
Must Use	QTY01	673	Quantity Qualifier	M ID 2/2		
			Code specifying the type			
			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		
			• 0	generation.		
			20	Unavailable		
				Used when meter data is not available to fill the		
			97	intervals.		
			87	Actual Quantity Received (Net Metering) Used when the net generation quantity received is		
				actual.		
			96	Non-Billable Quantity		
			70	Indicates this quantity and interval are outside of the		
				actual bill period		
			9H	Estimated Quantity Received (Net Metering)		
				Used when the net generation quantity received is		
				estimated.		
			KA	Estimated Quantity Delivered		
				Used when the quantity delivered is an estimated		
			0.00	quantity.		
			QD	Actual Quantity Delivered		
Must Use	OTV02	200	O	Used when the quantity delivered is an actual quantity.		
Must Ose	QTY02	380	Quantity Numeric value of quantity	X R 1/15		
Must Use	QTY03	355	Unit or Basis for M	easurement Code M ID 2/2		
			Code specifying the units has been taken	in which a value is being expressed, or manner in which a measurement		
			K1	Kilowatt Demand (kW)		
				Represents potential power load measured at predetermined intervals		
	867	Interval Usa	age (4010)	IG867IUv6-8.docx		

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:

Dof

Data

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

Data Element Summary

Must Use	Ref. <u>Des.</u> DTM01	Element 374	Name Date/Time Qualifier Code specifying type of date or time, or both date and time 582 Report Period		Attributes M ID 3/3	
				The date/time of the end of the interv	al.	
Must Use	DTM02	373	Date Date expressed as Co	CYYMMDD	X	DT 8/8
Must Use	DTM03	337	Time X TM 4 Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DI hundredths (00-99)			
			HHMM format			
Must Use	DTM04	623	Time Code		O	ID 2/2

Code identifying the time. In accordance with International Standards Organization standard 8601, time can be specified by a + or - and an indication in hours in relation to Universal Time Coordinate (UTC) time; since + is a restricted character, + and - are substituted by P and M in the codes that follow

The time code must accurately provide the time zone when the daylight savings time starts and ends if the meter is adjusted for daylight savings time. If meter is not adjusted for daylight savings time, the time code will always reflect Eastern Daylight Time which will be interpreted as prevailing time.

ED Eastern Daylight Time
ES Eastern Standard Time

 $\textbf{Segment:} \quad \textbf{PTD} \text{ Product Transfer and Resale Detail (BC=Unmetered Services Summary)}$

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.	Data				
	Des.	Element	<u>Name</u>		Att	ributes
Must Use	PTD01	521	Product Transfer Type Code		\mathbf{M}	ID $2/2$
			Code identifying t	the type of product transfer		
			BC	Unmetered Services Summary		

Note:

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

Segment: DTM Date/Time Reference (150=Service Period Start)

Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10

Purpose: To specify pertinent dates and times

Syntax Notes: 1 At least one of DTM02 DTM03 or DTM05 is required.

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

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

Segment: DTM Date/Time Reference (151=Service Period End)

Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10

Purpose: To specify pertinent dates and times

Syntax Notes: 1 At least one of DTM02 DTM03 or DTM05 is required.

2 If DTM04 is present, then DTM03 is required.

3 If either DTM05 or DTM06 is present, then the other is required.

Semantic Notes:

Comments:

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

	Ref.	Data				
	Des.	Element	<u>Name</u>		Att	<u>ributes</u>
Must Use	$\overline{\text{DTM}}01$	374	Date/Time Qu	ualifier	M	$\overline{1D} 3/3$
			Code specifying t	ype of date or time, or both date and time		
			151	Service Period End		
Must Use	DTM02	373	Date		X	DT 8/8
			Date expressed as	CCYYMMDD		

Segment: QTY Quantity

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

Max Use:

Purpose: To specify quantity information

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

2 Only one of QTY02 or QTY04 may be present.

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

Comments:

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

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

Segment: PTD Product Transfer and Resale Detail (BJ=Generation Transferred In/Out)

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

Max Use:

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

provide identifying data

Syntax Notes: 1 If either PTD02 or PTD03 is present, then the other is required.

2 If either PTD04 or PTD05 is present, then the other is required.

Semantic Notes:

Comments:

Notes:	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.	Data		
	Des.	Element	<u>Name</u>	<u>Attributes</u>
Must Use	PTD01	521	Product Transfer Type Code	M ID 2/2

Code identifying the type of product transfer

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

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

Segment: DTM Date/Time Reference (151=Service Period End)

Position: 020
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 10

Purpose: To specify pertinent dates and times

Syntax Notes: 1 At least one of DTM02 DTM03 or DTM05 is required.

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

	Ref.	Data				
	Des.	Element	<u>Name</u>		Att	<u>ributes</u>
Must Use	DTM01	374	Date/Time Q	ualifier	$\overline{\mathbf{M}}$	ID 3/3
			Code specifying t	ype of date or time, or both date and time		
			151	Service Period End		
Must Use	DTM02	373	Date		\mathbf{X}	DT 8/8
			Date expressed as	CCYYMMDD		

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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:

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 $\underline{OTY01 = 77}$: required in ANEM family accounts when generation is									
	transferred into the account. Not used for net metered accounts not part of ANEM family.									
	$\overline{\text{QTY01}} = 78$: required in ANEM family accounts when generation is transferred out of the									
	account. Not used for net metered accounts not part of ANEM family.									
	$\overline{\text{QTY01}} = 79$: 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									
Tlos	0 kWh. Not sent under the PARENT account for PHI. OTY*77*1000*KH Example generation transferred in to this child account									
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									
	MEN IN TRY SO MIT 45									
	Additional examples provided in the back of this Implementation Guideline.									
	radicional examples provided in the back of this implementation dutaeline.									

Must Use	Ref. <u>Des.</u> QTY01	Data Element 673	Name Quantity Qualifier Code specifying the type		At M	tributes ID 2/2
			77	Stock Transfers In		
				Generation transfer account	red from another accou	nt to this
			78	Stock Transfers Ou	ıt	
				Generation transfer account	rred from this account to	another
			79	Billing Unit(s) Per	Pricing Unit	
				Self-generation app	olied from Starting Banl	ζ.
			QB	Quantity Dispensed	l	
				Excess generation f	for True-Up event.	
	867	Interval Usa	ige (4010)	91 I	G867IUv6-8.docx	

	QE Quantity Carried Forward		Quantity Carried Forward			
				Ending Bank		
			QH	Quantity on Hold		
				Starting Bank		
Must Use	QTY02	380	Quantity		X	R 1/15
			Numeric value of quan	tity		
Must Use	QTY03	355	Unit or Basis for	Measurement Code	\mathbf{M}	ID 2/2
			Code specifying the units in which a value is being expressed, or manner in which a measure has been taken		h a measurement	
			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 OTY.			
PA Use:	Not Used			
NJ Use:	ACE and JCPL Only: Required if th	e 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 MEA*AF*PRQ*400*KH***41 MEA*AF*PRQ*300*KH***42 MEA*AF*PRQ*50*KH***43	Example kWh transferred away from TOU host account		

	Ref.	Data					
	Des.	Element	Name			Att	ributes
Must Use	MEA01	737	Measurement	Reference II) Code	O	ID 2/2
			Code identifying t	he broad category	to which a measurement applies		
			AF	Actual	Total		
				Total co	onsumption being transferred f	rom a	host
				account	or to a child account; or starti	ng/en	ding bank
				value.			
Must Use	MEA02	738	Measurement	•		O	ID 1/3
			Code identifying a	specific product	or process characteristic to which a me	easurer	nent applies
			PRQ	Consun	nption		
Must Use	MEA03	739	Measurement			X	R 1/20
			The value of the n	neasurement			
			Represents qua	antity of consu	mption being transferred between	een h	ost and child
			accounts for a	service period	. The addition of the QTYs in	this l	oop, as well as
					oop should add to the PTD*BI	3 loop	
Must Use	MEA04	355	Unit or Basis			M	ID 2/2
			Code specifying that been taken	ne units in which	a value is being expressed, or manner i	n whic	h a measurement
			KH	Kilowa	tt Hour		
Must Use	MEA07	935	Measurement	Significance	Code	O	ID 2/2
	867	Interval Usa	age (4010)	93	IG867IUv6-8.docx		

Code used to	benchmark, qualify or further define a measurement value
41	Off Peak
42	On Peak
43	Intermediate
51	Total
	Totalizer
66	Shoulder

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*1111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
QTY*D1*12345*KH	Monthly billed kWh
QTY*D1*50*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
PTD*SU	Metered services Summary loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
QTY*QD*12345*KH	Calculated summary of all metered for kWh / kvarh only

Example 2: Interval Detail reporting at the ACCOUNT Level

BPT*00*REF01-000201*20000201*C1	Meter detail loop
DTM*649*20000203*1700	This is only required on Bill Ready Consolidated Billing scenarios. Time is
	always represented as Eastern prevailing time.
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*11*1394959	ESP Account number
REF*12*11111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*D1*123456*KH	Monthly billed kWh
QTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
PTD*SU	Account services Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*QD*123456*KH	Calculated summary of all metered for kWh / kvarh only
PTD*BQ	Account Services Detail Loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
REF*MT*KH030	Meter Type
QTY*QD*112*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*QD*232*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*QD*248*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20000101*0130*ES	End date and time of the period for which the quantity is provided.
Continued on until the end of the period specified	
below	
QTY*QD*789*KH	Quantity of consumption delivered for entire metering period specified

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

Example 3: Interval Detail reporting at the METER Level

BPT*00*REF01-000201*20000201*C1	Meter detail loop
DTM*649*20000203*1700	This is only required on Bill Ready Consolidated Billing scenarios. Time is
	always represented as Eastern prevailing time.
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*11*1394959	ESP Account number
REF*12*1111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*D1*123456*KH	Monthly billed kWh
QTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
PTD*BO	Metered Services Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
REF*MG*2222277S	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*123456*KH	Calculated summary of all metered for kWh / kvarh only
MEA**MU*2	Meter multiplier = 2
MEA**ZA*1.9999	Power factor = 1.9999
MEA**CO*1.02	Transformer Loss Multiplier
PTD*PM	Meter Services Detail Loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
REF*MG*2222277S	Meter Number
REF*MT*KH030	Meter Type
QTY*QD*112*KH	Consumption
DTM*582*20000101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*QD*128*KH	Consumption
DTM*582*20000101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*QD*216*KH	Consumption
DTM*582*20000101*0130*ES	End date and time of the period for which the quantity is provided.
Continued on until the end of the period specified	
below	
QTY*QD*789*KH	Consumption
DTM*582*20000131*2330*ES	End date and time of the period for which the quantity is provided.
QTY*QD*730*KH	Consumption
DTM*582*20000131*2359*ES	End date and time of the period for which the quantity is provided.

Example 4: Renewable Energy Provider - Interval Detail reporting

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

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

N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*G7*RENEWABLE ENERGY	Renewable Energy Provider Company
COMPANY*9*007909422ESP1	
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*11*1394959	ESP Account number
REF*12*1111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*D1*123456*KH	Monthly billed kWh
QTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
Continued on until the end of the transaction. Details	
may vary depending on whether this is a Summary level, an	
Account level, or a Meter level transaction.	

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

BPT*00*REF01-000201*20000201*C1	Account detail loop
DTM*649*20000203*1700	This is only required on Bill Ready Consolidated Billing scenarios. Time is
	always represented as Eastern prevailing time.
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*11*1394959	ESP Account number
REF*12*11111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*D1*123456*KH	Monthly billed kWh
QTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
PTD*SU	Account services Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
REF*6W*1	Inbound usage
QTY*QD*123456*KH	Calculated summary of all metered for kWh / kvarh only
PTD*BQ	Account Services Detail Loop
PTD*BQ DTM*150*20000101	Account Services Detail Loop Start period
	-
DTM*150*20000101	Start period
DTM*150*20000101 DTM*151*20000131	Start period End period
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030 REF*6W*1 QTY*QD*112*KH DTM*582*20000101*0030*ES	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided.
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030 REF*6W*1 QTY*QD*112*KH DTM*582*20000101*0030*ES QTY*QD*232*KH	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030 REF*6W*1 QTY*QD*112*KH DTM*582*20000101*0030*ES QTY*QD*232*KH DTM*582*20000101*0100*ES	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided.
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030 REF*6W*1 QTY*QD*112*KH DTM*582*20000101*0030*ES QTY*QD*232*KH DTM*582*20000101*0100*ES QTY*QD*248*KH	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified Quantity of consumption delivered for entire metering period specified
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030 REF*6W*1 QTY*QD*112*KH DTM*582*20000101*0030*ES QTY*QD*232*KH DTM*582*20000101*0100*ES QTY*QD*248*KH DTM*582*20000101*0130*ES	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided.
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030 REF*6W*1 QTY*QD*112*KH DTM*582*20000101*0030*ES QTY*QD*232*KH DTM*582*20000101*0100*ES QTY*QD*248*KH DTM*582*20000101*0130*ES Continued on until the end of the period specified	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified Quantity of consumption delivered for entire metering period specified
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030 REF*6W*1 QTY*QD*112*KH DTM*582*20000101*0030*ES QTY*QD*232*KH DTM*582*20000101*0100*ES QTY*QD*248*KH DTM*582*20000101*0130*ES Continued on until the end of the period specified below	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. End date and time of the period for which the quantity is provided.
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030 REF*6W*1 QTY*QD*112*KH DTM*582*20000101*0030*ES QTY*QD*232*KH DTM*582*20000101*0100*ES QTY*QD*248*KH DTM*582*20000101*0130*ES Continued on until the end of the period specified below QTY*QD*789*KH	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified Quantity of consumption delivered for entire metering period specified
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030 REF*6W*1 QTY*QD*112*KH DTM*582*20000101*0030*ES QTY*QD*232*KH DTM*582*20000101*0100*ES QTY*QD*248*KH DTM*582*20000101*0130*ES Continued on until the end of the period specified below QTY*QD*789*KH DTM*582*20000131*2330*ES	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided.
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030 REF*6W*1 QTY*QD*112*KH DTM*582*20000101*0030*ES QTY*QD*232*KH DTM*582*20000101*0100*ES QTY*QD*248*KH DTM*582*20000101*0130*ES Continued on until the end of the period specified below QTY*QD*789*KH DTM*582*20000131*2330*ES QTY*QD*730*KH	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030 REF*6W*1 QTY*QD*112*KH DTM*582*20000101*0030*ES QTY*QD*232*KH DTM*582*20000101*0100*ES QTY*QD*248*KH DTM*582*20000101*0130*ES Continued on until the end of the period specified below QTY*QD*789*KH DTM*582*20000131*2330*ES QTY*QD*730*KH DTM*582*20000131*2359*ES	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided.
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030 REF*6W*1 QTY*QD*112*KH DTM*582*20000101*0030*ES QTY*QD*232*KH DTM*582*20000101*0100*ES QTY*QD*244*KH DTM*582*20000101*0130*ES Continued on until the end of the period specified below QTY*QD*789*KH DTM*582*20000131*2330*ES QTY*QD*730*KH DTM*582*20000131*2359*ES PTD*SU	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Account services Summary loop
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030 REF*6W*1 QTY*QD*112*KH DTM*582*20000101*0030*ES QTY*QD*232*KH DTM*582*20000101*0100*ES QTY*QD*248*KH DTM*582*20000101*0130*ES Continued on until the end of the period specified below QTY*QD*789*KH DTM*582*20000131*2330*ES QTY*QD*730*KH DTM*582*20000131*2359*ES PTD*SU DTM*150*20000101	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Account services Summary loop Start period
DTM*150*20000101 DTM*151*20000131 REF*MT*KH030 REF*6W*1 QTY*QD*112*KH DTM*582*20000101*0030*ES QTY*QD*232*KH DTM*582*20000101*0100*ES QTY*QD*248*KH DTM*582*20000101*0130*ES Continued on until the end of the period specified below QTY*QD*789*KH DTM*582*20000131*2330*ES QTY*QD*730*KH DTM*582*20000131*2359*ES PTD*SU	Start period End period Meter Type Inbound usage Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Quantity of consumption delivered for entire metering period specified End date and time of the period for which the quantity is provided. Account services Summary loop

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*1111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*D1*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.

<u>Example 5 - Multiple Services, Metered and Unmetered (Maryland only)</u>

Metered consumption = 123456, Unmetered consumption is 1000.

BPT*00*PEP86720000201200008934771062*20000201*C1	Meter detail loop
DTM*649*20000204*1600	This is only required on Bill Ready Consolidated
	Billing scenarios. Time is always represented as
	Eastern prevailing time.
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*1*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer Name
REF*11*1394959	ESP Account number
REF*12*111111111	LDC Account number
REF*BLT*LDC	Bill Type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*D1*124456*KH	Monthly billed kWh
QTY*D1*450*K1	Monthly derived demand
QTY*D1*29*K1	Monthly measured demand
PTD*SU	Account services Summary loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*QD*123456*KH	Calculated summary for all metered kWh/kvarh only
PTD*BQ	Account Services Detail loop
DTM*150*20000101	Start period
DTM*151*20000131	End period
REF*MT*KH060	Meter Type
QTY*QD*0.219*KH	Quantity of consumption delivered for entire
	metering period specified
DTM*582*20000101*0100*ES	End date and time of the period for which the
	quantity is provided
QTY*QD*0.2124*KH	Quantity of consumption delivered for entire
	metering period specified
DTM*582*20000101*0200*ES	End date and time of the period for which the
	quantity is provided
QTY*QD*0.1776*KH	Quantity of consumption delivered for entire
	metering period specified
DTM*582*20000101*0300*ES	End date and time of the period for which the
	quantity is provided
Continued on until the end date of the period specified	
below	
QTY*QD*0.3774*KH	Quantity of consumption delivered for entire
	metering period specified
DTM*582*20000131*2359*ES	End date and time of the period for which the
	quantity is provided
PTD*BC	Unmetered Services Summary
DTM*150*20000101	Start period
DTM*151*20000131	End period
QTY*QD*1000*KH	Unmetered consumption

Example 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*1111111111111	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.

$\label{lem:consumption} Interval\ Detail\ reporting\ at\ the\ ACCOUNT\ Level-\ with\ net\ metering\ (Generation\ greater\ than\ consumption)} \\ \underline{(Excluding\ First\ Energy)}$

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*11111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*D1*0*KH	Monthly billed kWh - ZERO
QTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
PTD*SU	Account Services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*87*1066*KH	Calculated summary of all metered for kWh (net generation)
PTD*BQ	Account Services Detail Loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MT*KH030	Meter Type
QTY*QD*101*KH	Quantity of consumption delivered for entire metering period specified
DTM*582*20120101*0030*ES	End date and time of the period for which the quantity is provided.
QTY*87*232*KH	Quantity of generation delivered for entire metering period specified
DTM*582*20120101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*87*248*KH	Quantity of generation delivered for entire metering period specified
DTM*582*20120101*0130*ES	End date and time of the period for which the quantity is provided.
Continued on until the end of the period specified	
below	
QTY*87*789*KH	Quantity of generation delivered for entire metering period specified
DTM*582*20120131*2330*ES	End date and time of the period for which the quantity is provided.
QTY*87*730*KH	Quantity of generation delivered for entire metering period specified
DTM*582*20120131*2359*ES	End date and time of the period for which the quantity is provided.

Interval Detail reporting at the METER Level – SINGLE Meter registering both generation & consumption with net metering (Consumption greater than generation) NOT USED in, MD or NJ. Used in PA only by Duquesne Light.

(see below for PSE&G NJ example)

DTM*649*20120203*1700	BPT*00*REF01-000201*20120201*C1	Meter detail loop
always represented as Eastern prevailing time.	DTM*649*20120203*1700	
N *8S*EDC COMPANY* *007909411 LDC Company	2112 017 20120200 1700	
NI*SI*ESP COMPANY*9*007909422ESP1	N1*8S*LDC COMPANY*1*007909411	
N *8R*CUSTOMER NAME - ACCT1		
REF* 1*1394959		
REF*12*1111111111111		
Bill Calculator	REF*12*1111111111111	LDC Account number
Monthly Billed Summary loop	REF*BLT*LDC	Bill type
DTM*150*20120101	REF*PC*DUAL	
DTM*151*20120131		
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*51*20120131 End period REF*MG*2222277S Meter Number REF*MPA Meter Role - Additive REF*X1*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 REF*MG*87667144 Meter Number 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*QP*128*KH Generation DTM*582*20120101*0100*ES End date and time of the period for which the quantity is provided. QTY*QP*789*KH Consumption DTM		
Monthly measured demand	QTY*D1*123456*KH	
PTD*BO DTM*150*20120101 Start period DTM*151*20120131 End period REF*MG*2222277S Meter Number REF*JH*A Meter Role - Additive Number of dials or digits QTY*QD*123456*KH Meter multiplier = 2 MEA**ZA*1.9999 MEA**ZA*1.9999 MEA**CO*1.02 Transformer Loss Multiplier PTD*PM Meter Solution DTM*151*20120131 End period REF*MG*87667144 Meter Number Meter Number Meter Survices Detail Loop DTM*151*20120131 End period Meter Number Meter Number REF*MG*87667144 Meter Number REF*MG*87667144 Meter Number REF*MF*KH030 Meter Type 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*128*KH DTM*582*20120101*0100*ES End date and time of the period for which the quantity is provided. QTY*Sp*8*KH DTM*582*20120101*010*ES End date and time of the period for which the quantity is provided. QTY*QD*78*KH Consumption DTM*582*20120101*0130*ES End date and time of the period for which the quantity is provided. QTY*QD*78*SP*KH Consumption DTM*582*20120101*0130*ES End date and time of the period for which the quantity is provided. CONSUMPTION CONSUMPTION	QTY*D1*450*K1	
DTM*150*20120101 DTM*151*20120131 End period REF*MG*222277S Meter Number REF*NG*2222277S Meter Number 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 Meter multiplier = 2 Meter wild plier = 2 Meter services Detail Loop DTM*150*20120101 DTM*150*20120101 DTM*150*20120101 DTM*151*20120131 End period DTM*151*20120131 End period REF*MG*87667144 Meter Number REF*MG*87667144 Meter Number REF*MG*87667144 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 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. QTY*87*216*KH DTM*582*20120101*0130*ES End date and time of the period for which the quantity is provided. QTY*80*78*8*KH DTM*582*20120101*0130*ES End date and time of the period for which the quantity is provided. QTY*QD*78*8*KH Consumption DTM*582*20120101*0130*ES End date and time of the period for which the quantity is provided. Consumption DTM*582*20120101*0130*ES End date and time of the period for which the quantity is provided. Consumption DTM*582*20120101*0130*ES End date and time of the period for which the quantity is provided. Consumption DTM*582*20120101*0130*ES End date and time of the period for which the quantity is provided. Consumption DTM*582*20120131*2330*ES End date and time of the period for which the quantity is provided. Consumption	<u> </u>	
DTM*151*20120131		· 1
REF*MG*2222277S REF*JH*A Meter Role - Additive REF*JX*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 MEA**ZA*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 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*S2126*KH DTM*582*20120101*0130*ES End date and time of the period for which the quantity is provided. QTY*S216*KH DTM*582*20120101*0130*ES End date and time of the period for which the quantity is provided. QTY*S2785*KH Consumption DTM*582*201201101*0130*ES End date and time of the period for which the quantity is provided. QTY*QD*789*KH Consumption DTM*582*20120131*2330*ES End date and time of the period for which the quantity is provided. Consumption DTM*582*20120131*2330*ES End date and time of the period for which the quantity is provided. Consumption		
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DTM*582*20120131*2330*ES End date and time of the period for which the quantity is provided. QTY*QD*730*KH Consumption	below	
QTY*QD*730*KH Consumption	QTY*QD*789*KH	Consumption
	DTM*582*20120131*2330*ES	End date and time of the period for which the quantity is provided.
DTM*582*20120131*2359*ES End date and time of the period for which the quantity is provided	QTY*QD*730*KH	Consumption
period for time of the period for time in a quantity to provided:	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*1111111111111	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

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*1111111111111	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.
OTY*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.
DTWL 502 20120101 0030 E3	End date and time of the period for which the quality 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

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
D1W1 049 20120203 1700	always represented as Eastern prevailing time.
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*11*1394959	ESP Account number
REF*12*1111111111111	LDC Account number
REF*BLT*LDC	Bill type
KLI BEI EBC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
OTY*D1*0*KH	Monthly billed kWh - ZERO
QTY*D1*450*K1	Monthly derived demand
OTY*OD*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.
OTY*87*216*KH	Generation
DTM*582*20120101*0130*ES	End date and time of the period for which the quantity is provided.
Continued on until the end of the period specified	and the side of the period for when the quantity is provided.
below	
QTY*87*789*KH	Generation
DTM*582*20120131*2330*ES	End date and time of the period for which the quantity is provided.
OTY*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*20120101	End period
REF*MG*87667144A	Meter Number
REF*JH*A	Meter Number Meter Role - Additive
REF*IX*6.0	Number of dials or digits
	č
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*11111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*D1*123456*KH	Monthly billed or net kWh
QTY*D1*450*K1	Monthly derived demand
QTY*QD*29*K1	Monthly measured demand
PTD*BO	Metered Services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*2222277S	Meter Number
REF*JH*A	Meter Role - Additive
REF*IX*5.0	Number of dials or digits
QTY*QD*123456*KH	Calculated summary of metered kWh / consumption (inflow) usage
MEA**MU*4200	Meter multiplier = 2
QTY*87*123456*KH	Calculated summary of metered kWh / generation (outflow) usage
MEA**MU*4200	Meter multiplier = 2
PTD*PM	Meter Services Detail Loop – Consumption Loop (Inflow) usage
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*87667144	Meter Number
REF*MT*KH030	Meter Type
QTY*QD*112*KH	Consumption
DTM*582*20120101*0100*ES	End date and time of the period for which the quantity is provided.
QTY*QD*216*KH	Consumption
DTM*582*20120101*0200*ES	End date and time of the period for which the quantity is provided.
Continued on until the end of the reporting period	
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
I	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
OTY*D1*3000.00000*KH	Monthly DELIVERED KH (Consumption)
·	Monthly Delivered Demand
QTY*QD*73.00000*K1 QTY*D1*73.00000*K1	Monthly Billed Demand 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.
OTY*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	1 1 1
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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
OTY*D1*5000.00000*KH	Monthly DELIVERED KH (Consumption)
OTY*OD*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
OTY*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	

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

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

BPT*00*REF01-000201*20130214*C1	Meter detail
DTM*649*20130214*1700	This is only required on Bill Ready Consolidated Billing scenarios.
	Time is always represented as Eastern prevailing time.
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*11*1394959	ESP Account number
REF*12*1111111111111	LDC Account number
REF*BLT*LDC	Bill type
REF*PC*DUAL	Bill Calculator

PTD*BB	Monthly Billed Summary loop
DTM*150*20130114	Start period
DTM*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 MEA**ZA*1.9999	Meter multiplier = 2 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.
\dots . Continued on until the end of the period when the 1^{st} 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 DTM*514*20130117	Meter Services Detail Loop Meter
DTM*514*20130117 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*MG* MTREACHG2 REF*JH*A	b
112.2 11. 11	I Meter Role
REF*IX*60	Meter Role Number of dials or digits
REF*IX*6.0 OTY*OD*123456*KH	Number of dials or digits
QTY*QD*123456*KH	
	Number of dials or digits Calculated summary of all metered for kWh / kvarh only
QTY*QD*123456*KH MEA**MU*2	Number of dials or digits Calculated summary of all metered for kWh / kvarh only Meter multiplier = 2
QTY*QD*123456*KH MEA**MU*2 MEA**ZA*1.9999 MEA**CO*1.02 PTD*PM	Number of dials or digits Calculated summary of all metered for kWh / kvarh only Meter multiplier = 2 Power factor = 1.9999
QTY*QD*123456*KH MEA**MU*2 MEA**ZA*1.9999 MEA**CO*1.02 PTD*PM DTM*514*20130119	Number of dials or digits Calculated summary of all metered for kWh / kvarh only Meter multiplier = 2 Power factor = 1.9999 Transformer Loss Multiplier Meter Services Detail Loop Meter
QTY*QD*123456*KH MEA**MU*2 MEA**ZA*1.9999 MEA**CO*1.02 PTD*PM DTM*514*20130119 DTM*151*20130213	Number of dials or digits Calculated summary of all metered for kWh / kvarh only Meter multiplier = 2 Power factor = 1.9999 Transformer Loss Multiplier Meter Services Detail Loop Meter Meter Exchange Date
QTY*QD*123456*KH MEA**MU*2 MEA**ZA*1.9999 MEA**CO*1.02 PTD*PM DTM*514*20130119 DTM*151*20130213 REF*MG* MTREXCHG2	Number of dials or digits Calculated summary of all metered for kWh / kvarh only Meter multiplier = 2 Power factor = 1.9999 Transformer Loss Multiplier Meter Services Detail Loop Meter Meter Exchange Date Meter Number of 2 nd Meter Exchange
QTY*QD*123456*KH MEA**MU*2 MEA**ZA*1.9999 MEA**CO*1.02 PTD*PM DTM*514*20130119 DTM*151*20130213 REF*MG* MTREXCHG2 REF*MT*KH030	Number of dials or digits Calculated summary of all metered for kWh / kvarh only Meter multiplier = 2 Power factor = 1.9999 Transformer Loss Multiplier Meter Services Detail Loop Meter Meter Exchange Date Meter Number of 2 nd Meter Exchange Meter Type
QTY*QD*123456*KH MEA**MU*2 MEA**ZA*1.9999 MEA**CO*1.02 PTD*PM DTM*514*20130119 DTM*151*20130213 REF*MG* MTREXCHG2 REF*MT*KH030 QTY*QD*112*KH	Number of dials or digits Calculated summary of all metered for kWh / kvarh only Meter multiplier = 2 Power factor = 1.9999 Transformer Loss Multiplier Meter Services Detail Loop Meter Meter Exchange Date Meter Number of 2 nd Meter Exchange Meter Type Consumption
QTY*QD*123456*KH MEA**MU*2 MEA**ZA*1.9999 MEA**CO*1.02 PTD*PM DTM*514*20130119 DTM*151*20130213 REF*MG* MTREXCHG2 REF*MT*KH030 QTY*QD*112*KH DTM*582*20130119*0930*ES	Number of dials or digits Calculated summary of all metered for kWh / kvarh only Meter multiplier = 2 Power factor = 1.9999 Transformer Loss Multiplier Meter Services Detail Loop Meter Meter Exchange Date Meter Number of 2 nd Meter Exchange Meter Type Consumption End date and time of the period for which the quantity is provided.
QTY*QD*123456*KH MEA**MU*2 MEA**ZA*1.9999 MEA**CO*1.02 PTD*PM DTM*514*20130119 DTM*151*20130213 REF*MG* MTREXCHG2 REF*MT*KH030 QTY*QD*112*KH DTM*582*20130119*0930*ES QTY*QD*128*KH	Number of dials or digits Calculated summary of all metered for kWh / kvarh only Meter multiplier = 2 Power factor = 1.9999 Transformer Loss Multiplier Meter Services Detail Loop Meter Meter Exchange Date Meter Number of 2 nd Meter Exchange Meter Type Consumption End date and time of the period for which the quantity is provided. Consumption
QTY*QD*123456*KH MEA**MU*2 MEA**ZA*1.9999 MEA**CO*1.02 PTD*PM DTM*514*20130119 DTM*151*20130213 REF*MG* MTREXCHG2 REF*MT*KH030 QTY*QD*112*KH DTM*582*20130119*0930*ES QTY*QD*128*KH DTM*582*20130119*1000*ES	Number of dials or digits Calculated summary of all metered for kWh / kvarh only Meter multiplier = 2 Power factor = 1.9999 Transformer Loss Multiplier Meter Services Detail Loop Meter Meter Exchange Date Meter Number of 2 nd Meter Exchange Meter Type Consumption End date and time of the period for which the quantity is provided. Consumption End date and time of the period for which the quantity is provided.
QTY*QD*123456*KH MEA**MU*2 MEA**ZA*1.9999 MEA**CO*1.02 PTD*PM DTM*514*20130119 DTM*151*20130213 REF*MG* MTREXCHG2 REF*MT*KH030 QTY*QD*112*KH DTM*582*20130119*0930*ES QTY*QD*128*KH DTM*582*20130119*1000*ES QTY*QD*216*KH	Number of dials or digits Calculated summary of all metered for kWh / kvarh only Meter multiplier = 2 Power factor = 1.9999 Transformer Loss Multiplier Meter Services Detail Loop Meter Meter Exchange Date Meter Number of 2 nd Meter Exchange Meter Type Consumption End date and time of the period for which the quantity is provided. Consumption End date and time of the period for which the quantity is provided. Consumption
QTY*QD*123456*KH MEA**MU*2 MEA**ZA*1.9999 MEA**CO*1.02 PTD*PM DTM*514*20130119 DTM*151*20130213 REF*MG* MTREXCHG2 REF*MT*KH030 QTY*QD*112*KH DTM*582*20130119*0930*ES QTY*QD*128*KH DTM*582*20130119*1000*ES	Number of dials or digits Calculated summary of all metered for kWh / kvarh only Meter multiplier = 2 Power factor = 1.9999 Transformer Loss Multiplier Meter Services Detail Loop Meter Meter Exchange Date Meter Number of 2 nd Meter Exchange Meter Type Consumption End date and time of the period for which the quantity is provided. Consumption End date and time of the period for which the quantity is provided.

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

Quantity of consumption delivered for entire metering period specified
End date and time of the period for which the quantity is provided
Quantity of consumption delivered for entire metering period specified
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Quantity of consumption delivered for entire metering period specified
End date and time of the period for which the quantity is provided
Quantity of consumption delivered for entire metering period specified
End date and time of the period for which the quantity is provided
Generation Transferred Loop
Start period
End period
Starting Bank
Starting Bank – Total Non TOU
Self-generation Applied From Starting Bank
Self-generation Applied From Starting Bank – Total Non TOU
Generation Transferred Out
Generation Transferred Out – Total Non TOU
Ending Bank
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*SO = 500 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

MEA*AF*PRQ*300*KH***51	Generation Transferred In – Total Non TOU
OTY*77*300*KH	Generation Transferred In
DTM*151*20190605	End period
DTM*150*20190502	Start period
PTD*BJ	Generation Transferred Loop
DTM*582*20190605*2000*ED	End date and time of the period for which the quantity is provided
OTY*OD*.6884*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
OTY*OD*.83*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
OTY*OD*.6852*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
OTY*OD*.7784*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
OTY*OD*1.6888*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*1.8436*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
OTY*OD*.6428*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*.4982*KH	Quantity of consumption delivered for entire metering period specified
Specified below	
Continued on until the end of the period	
DTM*582*20190503*0400*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*0300*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*0200*ED	End date and time of the period for which the quantity is provided

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*500*20100005*1500*ED	Ford data and since of the maint formalist the manufaction movided
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