March 31, 2020
Version 6.7

Pennsylvania
New Jersey
Delaware
Maryland

Implementation Guideline

For

Electronic Data Interchange

TRANSACTION SET

867

Monthly Usage

Ver/Rel 004010

Table of Contents

	Summary of Changes
June 29, 1999 Version 1.0	Initial Release. Changes since last draft: • Changed "EGS" to "ESP" and "EDC" to "LDC" throughout the guideline. Removed "NJ Definitions" and replaced it with "LDC Definitions" and "ESP Definitions" in the Notes section. • Added "How to use the implementation guideline" page. In addition, changed all headers to the true X12 definition. Also corrected the Table on Page 4 to reflect X12 definitions and added the words "X12 Structure" to the title on that page.
July 1, 1999 Version 1.1	• Removed Code 77 from the BPT07 and modified code F to indicate that it is used when the customer account finals in addition to if the customer switched to a new ESP. • Clarified that Document Due Date is not provided for cancel transaction. • Added "Must Use" to MEA07 per the data dictionary. • Added "… if the LDC reads the meter" to the requirements for the PTD*BB Loop.
October 1, 1999 Version 1.1a	• Add Delaware Use for Delmarva • Add BPT04 code to indicate this is for Summary Data only for an Interval customer. • Added clarification to use of DTM*649 to indicate it should only be used for Bill Ready. It is not valid for Rate Ready or Dual Billing.
November 4, 1999 Version 1.2	This is a FINAL version for Pennsylvania and New Jersey
November ??, 1999 Draft version 1.2MD1	• Add Maryland use to document – the changes were added to the version 1.2 of the regional standards • Added Table of Contents • Added Data Dictionary
December 23, 1999 Version 1.2MD2	• Clarified use of X4 code for Maryland • Noted that BGE can only provide billed demand
January 17, 2000 Version 1.2MD3	• Clarified setting of DTM*649 for ESP consolidated bill • Clarified REF*45 is only used when LDC sends transaction.
April 20, 2000 Version 1.2MD4	• Clarified APS use of REF*45 in MD • Incorporate PA Change Control X015 to add X5 as a valid value for BPT04 • Removed comment on mandatory use of PTD*BD loop for PA by 3/2000. This is being discussed as part of PA Change Control X018. While it is not determined if there are cases when this loop may be needed, it was agreed that it will not be mandatory by 3/2000. • Add PA Notes Section • Add MD Notes Section
May 17, 2000 Version 1.2MD5	• Incorporate PA Change Control X023 – allow PM loop to be optional on a cancellation
May 30, 2000 Version 1.2MD6	• Incorporate PA Change Control X018 – remove BD loop. PA decided this loop would not be used, and PA was the only state that intended to use this loop.
June 26, 2000 Version 1.2MD7	• Added clarity to Meter Multiplier and Transformer Loss Multiplier definitions in Data Dictionary • Added clarity to example titles
August 14, 2000 Version 1.2MD8	• Add NJ Notes Section • Add Note for PSE&G on BPT07 • Added NJ Note for MEA05
September 10, 2000 Version 1.3	This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and Delaware (Delmarva only).
October 19, 2001 Version 1.3rev01	• Incorporate Delaware Electric Coop (DEC) information for Delaware

December 13, 2001 Version 1.3rev02	- Incorporate PA Change Control 038 – change all references of PPL to PPL EU. ▪ 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 2.0	1. Incorporate SMECO specific data for MD (MD Change Control 003) This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and Delaware.
January 20, 2006 Version 2.0.1D	• Incorporate NJ Change Control 005 (NJ CleanPower program changes) • Incorporate PA Change Control 039 to reflect "generated usage" • Incorporate NJ Change Control 006 to reflect current operations
October 23, 2006 Version 2.0.2D	• 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 2.0.3F	• Considered FINAL for PA and NJ
February 22, 2009 Version 2.0.4D	• Incorporate NJ Change Control PSEG-E-Ref45
January 24, 2010 Version 2.1	This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and Delaware.
September 8, 2010 Version 2.1.1D	• Incorporate PA Change Control 060 – (PA Admin/Cleanup) • Incorporate MD Change Control – Admin (Admin/Cleanup for MD)
February 28, 2011 Version 3.0	This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and Delaware.
February 16, 2012 Version 3.01	• Incorporate PA Change Control 093 (Admin Changes) • 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)
March 17, 2014 Version 6.1	• Incorporate PA Change Control 105 Update2 (clarify net meter bank rollover) • Incorporate PA Change Control 111 (clarify PECO use of BPT04) • Incorporate PA Change Control 116 (update DLCO net meter looping) • Incorporate MD Change Control 018 (clarify multiple meter exchanges) • Incorporate MD Change Control 025 (867MU changes in PHI new CIS) • Incorporate MD Change Control 028 (BGE support interval usage via EDI) • Incorporate MD Change Control 029 (uniform net meter data reporting) • Incorporate NJ Change Control Electric 016 (uniform net meter data reporting) • Incorporate NJ Change Control Electric 020 (ACE new CIS; 867MU changes) • Incorporate NJ Change Control Electric 031 (RECO removal from IG)
February 18, 2015 Version 6.2	• Incorporate MD Change Control 036 (clarify net meter customer excess generation)
February 5, 2016 Version 6.3	• Incorporate PA Change Control 127 (Clarify PA Notes for net meter bank rollover) • Incorporate MD Change Control 039 (BGE net meter data reporting) • Incorporate MD Change Control 042 (Clarify MD Notes for net meter bank rollover)
March 14, 2017 Version 6.4	• Incorporate MD Change Control 048 (clarify Billed Demand reporting)
May 18, 2018 Version 6.5	• Incorporate PA Change Control 147 (Incorporate Citizens & Wellsboro into IG) • Incorporate NJ Change Control Electric 040 (clarify Notes for PSEG Cancel/Rebill)
March 22, 2019 Version 6.6	• Incorporate MD Change Control 53 (Add new PTD*BJ loop) • Incorporate NJ Change Control Electric 048 (NJ Note – End of Clean Power Choice)

March 31, 2020 Version 6.7		• Incorporate PA Change Control 150v3 (FirstEnergy PA net meter data reporting)

General Notes

PTD Loops Definition

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.

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

Metered Services Information (PTD01 = SU and PM) – These loops are used to convey the usage for metered data, at both a detail level by meter by unit of measure (PTD01=PM) and for some units of measure, at a summary level for all meters (PTD01=SU).

> **Metered 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=PM. The PTD01=SU loop will NEVER be provided for kW or KVAR.
>
> **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. In the case of one meter reporting one unit of measure (kWh), the PTD01=PM will be the same as the PTD01=SU and both must be provided. If you have two meters and each meter measures kW and kWh, you will send one PTD SU Loop. The kWh readings from Meter 1 and Meter 2 will be summed and provided in one PTD SU Loop.

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

> **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 at this time for Unmetered Services.

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

Cancellations

- The MEA is an optional segment on a cancellation.
- Cancel 867s will be by metering period, i.e. same as the original 867's. Rebills may be for multiple periods.
- The "from" and "to" dates on the cancel must match exactly with the original usage.
- On a cancellation, the signs are not reversed (don't change positive usage to negative usage). Quantities will not be negative on Cancels. Cancels should be interpreted as negative consumption.
- The consumption sent in the cancel must match the consumption sent in the original transaction.
- Cancels must be sent at the same level of detail as the original usage.
  - PA: Cancels must include all account and summary information, however, it is optional to include the PM loops.

Restatements	• In order to restate usage for a period, the metering party must first completely cancel all usage for that period; then send the full set of restatement transactions. • If you receive a cancellation, you will not necessarily receive a restatement (i.e. if the data was sent to you in error in the first place). • The "from" and "to" dates on the restatement transactions do not have to match the corresponding original or cancel transactions for the same period. • Restatements across multiple cycles may match original from and to dates or may cross bill cycles. • An 867 cancel can be followed by an 867 original the next month. The metering period would include the metering period from the cancelled and the current usage.
Reporting of usage if supplier is not providing 100% of generation	The usage information provided in the 867 is the total usage not the prorated information. Meter reading party will always send total consumption rounded to nearest kWh.
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)
Cross Reference Number between 867, 810, and 820	There is a cross reference between billing related documents. • 867 – BPT02 – This document establishes the cross reference number. • 810 – BIG05 – This document must have the cross reference number from the respective 867. • 820 – REF6O (letter O) – When making the other party whole, the 820 to the non-billing party must also include the cross reference number from 867/810 document.
Total Usage is sent, even if supplier is not providing 100% of load.	The usage information provided in the 867 is the total usage not the prorated information. Meter reading party will always send total consumption rounded to nearest kWh. It is the obligation of the receiving party to apply their participation percentage to the total provided to determine their actual obligation. If the decimal is .50000 or less, it will go to the lower whole number; if the decimal is .50001 or greater, it will go to the next higher whole number).

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

Pennsylvania Notes

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

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

Pennsylvania:

- Citizens and 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, SU, and BQ loops. If summary level is requested, will provide an 867MU with BB, SU, and PM loops (BPT04 will be "X5").
- FIRST ENERGY – Will provide detail interval data using 867IU with BB, SU, and BQ loops. If summary level is requested, will provide an 867MU with BB, SU, and PM loops (BPT04 will be "X5").
- PECO – If account-level interval detail is requested, will provide using 867IU with BB, SU, and BQ loops. If meter-level interval detail is requested, will provide using BB, BO, and PM loops. Else, will provide an 867MU with BB, SU, and PM loops (BPT04 in 867MU will be "DD" for AMR monthly metered accounts and "X5" for interval metered accounts).
- PPL EU – Will provide detail interval data using 867IU with BB, SU, and BQ loops. If summary level is requested, will provide an 867MU with BB and SU loops (BPT04 will be "DD")
- UGI – No interval customers.

Requirements for uniform support of Net Metered Customers:

BB (Billed Summary) Loop –reports the monthly billed summary usage for net metered customers.

a. All PA EDCs (Excluding FirstEnergy)
    i. 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).
    ii. When customer's generation is greater than consumption, the billed usage in the QTY02 will be reported as 0 (zero) KH.
    iii. In either scenario, the QTY02 will never be signed negative.
b. FirstEnergy Companies
    i. Reports the consumption (delivered) KH as the billed usage

SU (Metered Services Summary) Loop –reports the summary usage for net metered customers.

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

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

PM (Meter Services Detail) Loop – The meter loop will report the meter level detail for net metered customers. This may be done via one of the three following configurations:

1. Single meter reporting both in and out flow. The PM loop for KH will be repeated, one reporting consumption and one reporting generation. Used by First Energy and PPL (MV90 only).
    a. The meter number will be identical for each loop.
    b. In the consumption loop, the meter role (REF*JH) will be 'A' (additive) and the KH usage will be reported in quantity delivered (actual = QD or estimated = KA).
        i. FirstEnergy Only: sends channel number (REF6W) with value of "1"
    c. In the generation loop, the meter role (REF*JH) will be 'S' (subtractive) and the KH usage will be reported as net generation delivered (actual = 87 or estimated = 9H).
        i. FirstEnergy Only:
            1. Sends channel number (REF6W) with value of "2"
            2. Sends generation loop even when there is no generation reported for the period.
    d. The QTY02 will never be signed negative
    e. Being this is a single meter, the meter attributes will remain the same for both PM loops.
2. Single meter reporting only the net consumption, one PM loop for KH. Used by PPL (non-MV90), Duquesne Light and Citizens & Wellsboro
    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). The meter role (REF*JH) will be 'A' (additive).
    b. When customer's generation is greater than consumption, the KH usage will be reported as net generation delivered (actual = 87 or estimated = 9H). The meter role (REF*JH) will be 'S' (subtractive).
    c. The QTY02 will never be signed negative.
3. Separate meters, one reporting inflow and another meter reporting outflow. The PM loop will be repeated for KH, one meter reporting consumption and one meter reporting generation. Used by PECO and UGI.
    a. The meter number should be unique for each KH loop. The meter attributes for each KH loop may have different values.
    b. In the consumption loop, the meter role (REF*JH) will be 'A' (additive) and the KH usage will be reported in quantity delivered (actual = QD or estimated = KA).
    c. In the generation loop, the meter role (REF*JH) will be 'S' (subtractive) and the KH usage will be reported as net generation delivered (actual = 87 or estimated = 9H).
    d. The QTY02 will never be signed negative.

Banked KH adjustment for excess customer generation:

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

The LDC will apply excess generation KH from a prior month(s) into the billed quantity (D1) segment of the billed summary (BB) loop of the 867MU/IU transaction sets 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

Rockland Electric Company

Rockland Electric Company (RECO) does not utilize this EDI implementation guideline. RECO uses the New York EDI implementation guidelines.

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 / Rebill 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 / rebill is processed. The process for Cancel/ Rebill for an ESP who is not customer's current supplier of record is:

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

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 Information:

PSE&G- Is currently using a bi-directional meter for the TPS's and providing the in reading as well as the out reading to the EDI process. For Clean Power suppliers a watt-hour meter which goes both ways ultimately provides the net usage to the EDI process.

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.

Data Requirements for uniform support of Net Metered Customers:

- BB (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 (Metered Services Summary) Loop –reports the summary usage for net metered customers.
  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.
- PM (Meter Services Detail) Loop – The meter loop will report the meter level detail for net metered customers. This may be done via one of the three following configurations:
  1. Single meter reporting both in and out flow. The PM loop for KH will be repeated, one reporting consumption and one reporting generation. Used by Atlantic City Electric and PSE&G (Note: PSE&G sends one PM loop with separate QTY segments reporting generation and consumption)
     a. The meter number will be identical for each loop. (Note: PSE&G sends one PM loop)
     b. In the consumption loop, the meter role (REF*JH) will be 'A' (additive) and the KH usage will be reported in quantity delivered (actual = QD or estimated = KA). (PSE&G sends meter role of 'A')
     c. In the generation loop, the meter role (REF*JH) will be 'S' (subtractive) and the KH usage will be reported as net generation delivered (actual = 87 or estimated = 9H). (N/A to PSE&G)
     d. The QTY02 will never be signed negative
     e. Being this is a single meter, the meter attributes will remain the same for both PM loops. (PSE&G sends one PM loop)
  2. Single meter reporting only the net consumption, one PM loop for KH. (Used by JCP&L and Atlantic City Electric)
     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). The meter role (REF*JH) will be 'A' (additive).
     b. When customer's generation is greater than consumption, the KH usage will be reported as net generation delivered (actual = 87 or estimated = 9H). The meter role (REF*JH) will be 'S' (subtractive).
     c. The QTY02 will never be signed negative.

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

3. Separate meters, one reporting inflow and another meter reporting outflow. The PM loop will be repeated for KH, one meter reporting consumption and one meter reporting generation.
    a. The meter number should be unique for each KH loop. The meter attributes for each KH loop may have different values.
    b. In the consumption loop, the meter role (REF*JH) will be 'A' (additive) and the KH usage will be reported in quantity delivered (actual = QD or estimated = KA).
    c. In the generation loop, the meter role (REF*JH) will be 'S' (subtractive) and the KH usage will be reported as net generation delivered (actual = 87 or estimated = 9H).
    d. The QTY02 will never be signed negative.

NJ Clean Power Choice

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

Maryland Notes

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

If a supplier elects to receive only summary level information for an interval account, they will receive an 867MU document.
With PHI new CIS, the 'SI' process will be supported by ALL interval metered accounts, not just those with smart meters.

Note: BGE – The default is that an ESP will receive interval data at the summary level only (BPT04 = DD)

- 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. 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.

867MU – PTD*PM Loop – Position 020

DTM*150*20130114 – Service Period Start
DTM*514*20130117 – First Meter Exchange on 1/17/2013
DTM*514*20130117
DTM*514*20130119 – Second Meter Exchange on 1/19/2013
DTM*514*20130119
DTM*151*20130213 – Service Period End

Requirements for uniform support of Net Metered Customers:

- BB (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 (Metered Services Summary) Loop –reports the summary usage for net metered customers.
  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.

- PM (Meter Services Detail) Loop – The meter loop will report the meter level detail for net metered customers. This may be done via one of the three following configurations:
  1. Single meter reporting both in and out flow. The PM loop for KH will be repeated, one reporting consumption and one reporting generation. (Delmarva, PEPCO)
     a. The meter number will be identical for each loop.
     b. In the consumption loop, the meter role (REF*JH) will be 'A' (additive) and the KH usage will be reported in quantity delivered (actual = QD or estimated = KA).
     c. In the generation loop, the meter role (REF*JH) will be 'S' (subtractive) and the KH usage will be reported as net generation delivered (actual = 87 or estimated = 9H).
     d. The QTY02 will never be signed negative
     e. Being this is a single meter, the meter attributes will remain the same for both PM loops.
  2. Single meter reporting only the net consumption, one PM loop for KH. (Potomac Edison& BGE non-Time of Use. See below for BGE Time of Use reporting))
     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). The meter role (REF*JH) will be 'A' (additive).
     b. When customer's generation is greater than consumption, the KH usage will be reported as net generation delivered (actual = 87 or estimated = 9H). The meter role (REF*JH) will be 'S' (subtractive).
     c. The QTY02 will never be signed negative.
  3. Separate meters, one reporting inflow and another meter reporting outflow. The PM loop will be repeated for KH, one meter reporting consumption and one meter reporting generation.
     a. The meter number should be unique for each KH loop. The meter attributes for each KH loop may have different values.
     b. In the consumption loop, the meter role (REF*JH) will be 'A' (additive) and the KH usage will be reported in quantity delivered (actual = QD or estimated = KA).
     c. In the generation loop, the meter role (REF*JH) will be 'S' (subtractive) and the KH usage will be reported as net generation delivered (actual = 87 or estimated = 9H).
     d. The QTY02 will never be signed negative.

Demand Reporting – Multiple suppliers during same billing period

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

BGE

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

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

BB Loop / QTY*QD - The highest recorded On Peak demand that occurred in the supplier's sub-period (This may or may not be the highest overall billed "D1" demand).

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

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

Requirements for BGE non-residential Time of Use (TOU) Net Metered Customers:

BGE non-residential Time of Use (TOU) only, refer to above section for non-TOU customer net metering data reporting requirements.
Samples provided in the back of this implementation guideline.

BGE's process 'trues up' customer net metering bank(s) upon supplier switch. BGE is settling on the KH value in the BB (billed) loop at PJM. BGE maintains a 'bank' for each TOU reading. When a customer's TOU reading for the month is generation it is placed into the bank. Once the TOU reading for the month is positive consumption, BGE will apply the bank. This process is not shown in the PM loop, as the PM loop is reporting meter readings not billing adjustments.

BB (Billed Summary) Loop –reports the monthly billed summary usage for net metered customers.

1. BGE will bill all positive consumption for each TOU reading minus any banked excess generation.
2. The QTY02 will never be signed negative.

SU (Metered Services Summary) Loop –reports the summary usage for net metered customers. This reports the customer's net usage for the billing period.

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.

PM (Meter Services Detail) Loop – The meter loop reports the meter level detail for TOU net metered customers from the metering system. Single meter reporting On-Peak, Off-Peak and Intermediate-Peak Time TOU in one PM loop.

1. The meter role (REF*JH) will always report as additive (REF*JH*A) regardless if any generation is reported in the PM loop.
2. Each TOU reading may be reported as consumption (QTY01 w/actual = QD or estimated = KA) or generation (QTY01 w/actual = 87 or estimated = 9H) based on the usage. Note the TOU readings in the PM loop will not be based on the meter role, there will be cases where at least one TOU is generation and the meter role is 'Additive'.
3. The QTY02 will never be signed negative

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.

With MD EDI Change Control 053, the Generation Transferred In/Out (PTD01 = BJ) loop will identify the generation kWh being transferred In/Out as well as any Starting Bank or Ending Bank generation kWh.

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.

How to Use the Implementation Guideline

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

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

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

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

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

One or more examples.

Data Element Summary

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

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

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

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

M = Mandatory, O= Optional, X = Conditional

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

1/30 = Minimum 1, Maximum 30

867 Product Transfer and Resale Report
X12 Structure

Functional Group ID=PT

Heading:

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

Detail:

	Pos. No.	Seg. ID	Name	Req. Des.	Max.Use	Loop Repeat	Notes and Comments
			LOOP ID – PTD			>1	
Must Use	010	PTD	Product Transfer and Resale Detail	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		

Summary:

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

Data Dictionary for 867 Monthly Usage

867 Monthly 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	"DD" Monthly Usage "X4" Summarized data for interval account at account level "X5" Summarized data for interval account at meter level "KJ" Meter Changeout when Meter Agent Changes – Monthly Usage (used to tell the receiver that this is a partial usage statement. The billing agent must sum the KJ usage and the DD usage to calculate the bill.)	BPT04	BPT01	X(2)
5	Final Indicator	Indicates if this is a final reading for that particular ESP (e.g., customer moves, customer switches, etc.).	BPT07 = **F**		X(1)
6	Transaction Reference Number	Transaction Reference Number echoed from BPT02 of the Original Transaction	BPT09		X(30)
7	Document Due Date/Time	The last date/time that information will be accepted by the billing party for processing the bill. If 810 is received after this date/time, and the billing party cannot process it, they must notify the non-billing party (via email, phone call, etc.)	DTM02 (CCYYMMDD) and DTM03(HHMM)	DTM01= **649**	DTM02= 9(8) and DTM03= 9(4)
8	Percent Participation	Used to express the percentage of the total load that is being supplied by the ESP. This is the multiplication of two fields that are on the 814 transaction, AMT*7N (Participating Interest) and AMT*QY (Eligible Load).	MEA03	MEA02 = **NP**	9(1).9999 9
9	LDC Name	LDC's Name	N102	N1: N101 = **8S**	X(60)
10	LDC Duns	LDC's DUNS Number or DUNS+4 Number	N104	N1: N101 = **8S** N103 = **1** or **9**	X(13)
11	ESP Name	ESP's Name	N102	N1: N101 = **SJ**	X(60)
12	ESP Duns	ESP's DUNS Number or DUNS+4 Number	N104	N1: N101 = **SJ** N103 = **1** or **9**	X(13)

12.3	Renewable Energy Provider Name	Renewable Energy Provider 's Name	N102	N1: N101 = **G7**	X(60)
12.4	Renewable Energy Provider Duns	Renewable Energy Provider 's DUNS Number or DUNS+4 Number	N104	N1: N101 = **G7** N103 = **1** or **9**	X(13)
13	Customer Name	Customer Name	N102	N1: N101 = **8R**	X(60)
14	LDC Account Number	LDC Customer Account Number	REF02	N1: N101*8R Loop REF01 = **12**	X(30)
14.2	LDC Account Number - unmetered	LDC Customer Account Number – Unmetered	REF03	N1: N101 = **8R** REF01 = **12** REF03 = **U**	X(80)
15	Old Account Number	Previous LDC Customer Account Number	REF02	N1: N101*8R Loop REF01 = **45**	X(30)
16	ESP Account Number	ESP Customer Account Number	REF02	N1: N101*8R Loop REF01 = **11**	X(30)
17	Billing Type	Indicates type of billing - LDC consolidated Billing (REF02=LDC) - ESP consolidated Billing (REF02=ESP) - Dual bills (REF02=DUAL)	REF02	LIN: REF01= **BLT**	X(4)
18	Billing Calculation Method	Indicates party to calculate bill. - LDC calculates bill (REF02=LDC) - Each calculate portion (REF02=DUAL)	REF02	LIN: REF01= **PC**	X(4)
Please refer to General Notes for details about the use of the PTD loop combinations.					
Monthly Billed Summary - Loop Required if the LDC reads the meter					
This information is obtained from the billing system to reflect billing data for this account at the unit of measure level.					
19	Product Transfer Type	Monthly Billed Summary	PTD01= **BB**		X(2)
20	Service Period Begin 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	QTY01		X(2)
29	Quantity Delivered - Measured or Registered Demand	Reflects what the meter actual shows (including all factors except Power Factor) and is provided at the account level only.	QTY02	QTY01	-9(10).9(4)
30	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period. **K1** - Demand (KW)	QTY03		X(2)
Metered Services Summary - Loop required if there are metered services on the account					
31	Product Transfer Type	Metered Services Summary	PTD01= **SU**		X(2)
32	Service Period Begin Date	Start date of the period for which the readings are provided	DTM02	DTM01 = **150**	9(8)
33	Service Period End Date	End date of the period for which the readings are provided	DTM02	DTM01 = **151**	9(8)
34	Quantity Qualifier	Represents whether the quantity is actual or estimated: **KA** = Estimated Quantity Delivered **QD** = Actual Quantity Delivered **87** = Actual Quantity Received (Net Meter) **9H** = Estimated Quantity Received (Net	QTY01		X(2)
35	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)
36	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period. Only valid for KWH and KVARH.	QTY03		X(2)
Metered Services Detail - Loop Required if there are metered services on the account					
37	Product Transfer Type	Metered Services Detail	PTD01= **PM**		X(2)
38	Service Period Begin Date	Start date of the service period or start date of the changed in meter.	DTM02	DTM01 = **150**	9(8)
39	Service Period End Date	End date of the service period or end date of the changed out meter.	DTM02	DTM01 = **151**	9(8)
40	Meter Change Out Date	Used in conjunction with either the Service Period Start Date or the Service Period End Date to indicate when a meter has been replaced. Separate PTD loops must be created for each period and meter.	DTM02	DTM01 = **514**	X(12)
41	Meter Number	Serial number of this specific meter (may have multiple meters)	REF02	REF01 = **MG**	X(30)
42	LDC Rate Code	Code indicating the rate a customer is being charged by LDC per tariff. Codes posted on LDC's Web site	REF02	REF01 = **NH**	X(30)
43	LDC Rate Subclass Code	Used to provide further classification of a rate.	REF02	REF01= **PR**	X(30)

44	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)
45	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
46	Quantity Qualifier	Represents whether the quantity is actual or estimated: **KA** = Estimated Quantity Delivered **QD** = Actual Quantity Delivered **87** = Actual Quantity Received (Net Meter) **9H** = Estimated Quantity Received (Net	QTY01		X(2)
47	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)
48	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period.	QTY03		X(2)
49	Measurement Reference Code	Code identifying category to which measurement applies.	MEA01		X(2)
50	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)
51	Unit of Measure	Unit of measure for readings.	MEA04		X(2)
52	Beginning Reading	Value specifying beginning reading for the metering period. Factors have not been applied to this value.	MEA05		9(8).9(4)
53	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)
54	Measurement Significance Code	Code used to benchmark, qualify, or further define a measurement value.	MEA07		X(2)
55	Meter Multiplier	Meter Constant - used to represent how many units are reflected by one dial or digit increment.	MEA03	MEA02 = **MU**	9(9).9(4)
56	Power Factor	Relationship between watts and volt - amperes necessary to supply electric load	MEA03	MEA02 = **ZA**	9(9).9(4)
57	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)

Unmetered Services Summary - Loop required if there are unmetered services on the account					
58	Product Transfer Type	Unmetered Services Summary	PTD01= **BC**		X(2)
59	Service Period Begin Date	Start date of the period for which the readings are provided	DTM02	DTM01 = **150**	9(8)
60	Service Period End Date	End date of the period for which the readings are provided	DTM02	DTM01 = **151**	9(8)
61	Quantity Qualifier	Represents that the quantity is actual: **QD** = Actual Quantity Delivered	QTY01		X(2)
62	Quantity Delivered	Represents quantity of consumption delivered for service period.	QTY02	QTY01	9(10).9(4)
63	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period.	QTY03		X(2)
Generation Transferred In/Out (MD Only) - Loop required for net metered accounts or ANEM accounts					
64	Product Transfer Type	Generation Transferred In/Out	PTD01= **BJ**		X(2)
65	Service Period Begin Date	Start date of the period for which the readings are provided	DTM02	DTM01 = **150**	9(8)
66	Service Period End Date	End date of the period for which the readings are provided	DTM02	DTM01 = **151**	9(8)
67	Quantity Qualifier	Represents the type of generation kWh: **77** = Generation transferred from another account to this account **78** = Generation transferred from another account to another account **79** = Self-generation applied from Starting Bank **QB** = Excess generation from True-Up event **QE** = Ending Bank **QH** = Starting Bank	QTY01		X(2)
68	Quantity Delivered	Represents quantity of consumption delivered for service period.	QTY02	QTY01	9(10).9(4)
69	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during service period.	QTY03		X(2)
70	Measurement Reference Code	Code identifying category to which measurement applies.	MEA01		X(2)
71	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)
72	Unit of Measure	Unit of measure for readings.	MEA04		X(2)
73	Measurement Significance Code	Code used to benchmark, qualify, or further define a measurement value.	MEA07		X(2)

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

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

Data Element Summary

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

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

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

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**BPT01**	**353**	**Transaction Set Purpose Code** Code identifying purpose of transaction set	**M ID 2/2**
			00 Original	
			Conveys original readings for the account being reported.	
			01 Cancellation	
			Indicates that the readings previously reported for the account are to be ignored.	
Must Use	**BPT02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**O AN 1/30**
			A unique transaction identification number assigned by the originator of this transaction. This number must be unique over time. **PA:** This code will be used as a cross reference to the 810 billing document, and for billing parties that make the other party whole, it will also be cross referenced on the 820.	
Must Use	**BPT03**	**373**	**Date** Date (CCYYMMDD)	**M DT 8/8**
			Transaction Creation Date – the date that the data is processed by the application system.	
Must Use	**BPT04**	**755**	**Report Type Code** Code indicating the title or contents of a document, report or supporting item	**O ID 2/2**
			DD Monthly Usage	
			For monthly metered customers only (not interval metered customers).	
			KJ Meter Changeout when Meter Agent Changes – Monthly Usage	
			For monthly metered customers only (not interval metered customers)	

			X4	Summary Report (defined for PA and MD) For interval metered customers, when only summary data is being sent at the ACCOUNT level. **PA Note:** Some utilities may not be able to comply with this until later since this was added so close to the 4010 implementation date. If the utilities can not comply day 1, the utility will send the code of "DD" **MD Note:** Use of the "X4" code on the 867MU indicates the interval detail will be provided on the web.		
			X5	Restricted Report For interval metered customers, when only summary data is being sent at the METER level. **PA Note:** Mandatory implementation date is June 2000.		
Conditional	**BPT07**	**306**	**Action Code** Code indicating type of action		**O**	**AN 1/2**
			F	Final – Indicates Final Usage for specific ESP. **Condition:** Code to indicate this is the final usage data being sent for this customer. Either the customer account is final with the LDC or the customer switched to a new ESP. **NJ PSE&G:** PSE&G only sends "F" on a customer account final. They do not send an "F" on a customer switch.		
Conditional	**BPT09**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier		**O**	**AN 1/30**
			Condition: When this is a cancellation of usage, that is BPT01 = 01, 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 or 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 or Dual Billing
DE Use:	Required for Bill Ready, not used in Rate Ready or Dual Billing
MD Use:	Required for Bill Ready, not used in Rate Ready or Dual Billing
Examples:	DTM*649*19990131*2359

Data Element Summary

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

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

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

Data Element Summary

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

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

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

Data Element Summary

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

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

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

Data Element Summary

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

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

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

Data Element Summary

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

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

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

Data Element Summary

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

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

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

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification	**M ID 2/3**
			12 Billing Account LDC-assigned account number for the end use customer. Must appear as it does on the customer's bill excluding punctuation (spaces, dashes, etc.) Significant leading and trailing zeros must be included.	
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**

Segment: **REF** **Reference Identification (45=LDC Old Account Number)**
Position: 120
Loop: N1
Level: Heading
Usage: Optional
Max Use: 12
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	Required if 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:	Not Used by BGE, PEPCO and Delmarva. PE: Required if the account number has changed in the last 60 days.
Example:	REF*45*939581900

Data Element Summary

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

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

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

Data Element Summary

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

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

PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	REF*BLT*LDC

Data Element Summary

	Ref. Des.	Data Element	Name	X12 Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification	**M ID 2/3**
			BLT Billing Type Identifies whether the bill is consolidated by the LDC or ESP, or whether each party will render their own bill. See REF02 for valid values.	
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**
			When REF01 is 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.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	REF*PC*LDC

Data Element Summary

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

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

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

Segment: **PTD** **Product Transfer and Resale Detail (BB=Billed 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:	One Monthly Billed Summary PTD loop is required for every account.
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	PTD*BB

Data Element Summary

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

Note:

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

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

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

Data Element Summary

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

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

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

Data Element Summary

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

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

Notes:	Billed KWH
PA Use:	Required
NJ Use:	Required
DE Use:	Required
MD Use:	Required
Example:	QTY*D1*22348*KH

Data Element Summary

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

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

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

Data Element Summary

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

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

Notes:	Measured Demand
PA Use:	Required if account measures Demand (KW)
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA **Note:** BGE does not store Measured Demand. They will send Billed Demand in this field.
Example:	QTY*QD*14*K1

Data Element Summary

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

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

Notes:	PTD Loops may be sent in any order.
PA Use:	Required if this is a metered account that measures kWh or KVARH and the LDC reads the meter.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	PTD*SU

Data Element Summary

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

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:	Required if account has metered services.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	DTM*150*19990101

Data Element Summary

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

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

PA Use:	Required if account has metered services.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	DTM*151*19990131

Data Element Summary

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

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

Notes:	There will be one QTY loop for each of the QTY03 Units of Measurement listed below that are measured on this account.
PA Use:	Required if account has metered services
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	QTY*QD*22348*KH

Data Element Summary

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

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

Notes:	PTD Loops may be sent in any order. There will be a separate PTD loop for each unit of measurement for each meter on the account. **Note:** If the BPT04=”X4” indicating this document is being sent for an interval account at the account level, this loop may be sent for each unit of measure, but not each meter. When the BPT04=”X4”, the data may be summarized for the account.
PA Use:	Required if this is a metered account. **Note:** The sending of the PM loop s is optional when this is a cancel transaction (BPT01=01).
NJ Use:	Required if this is a metered account.
DE Use:	Same as PA
MD Use:	Same as PA
Example:	PTD*PM

Data Element Summary

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

Note:

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

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

Notes:	This date reflects the beginning of the date range for this meter for this billing period. This specific PTD loop is required if there are metered services on the account.
PA Use:	Required, unless a "DTM*514" is substituted for this code.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	DTM*150*19990101

Data Element Summary

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

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

Notes:	This date reflects the end of the date range for this meter for this billing period. This specific PTD loop is required if there are metered services on the account.
PA Use:	Required, unless a "DTM*514" is substituted for this code.
NJ Use:	Same as PA.
DE Use:	Same as PA
MD Use:	Same as PA
Example:	DTM*151*19990131

Data Element Summary

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

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

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

Data Element Summary

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

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

PA Use:	Used by FirstEnergy: Channel 1 = Delivered kWh and Channel 2 = Received kWh
NJ Use:	N/A
DE Use:	N/A
MD Use:	N/A
Example:	REF*6W*1

Data Element Summary

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

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

PA Use:	Required if this is a metered account and the meter is on the account at the end of the period. For some utilities, they may not be able to provide the actual meter number for a meter that has been changed out during the month. In that case, the REF*MG will not be sent. Everyone is working toward being able to provide the old meter number. **Note:** If the BPT04=”X4” indicating this document is being sent for an interval account at the account level, this segment will be not be used.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	REF*MG*2222277S

Data Element Summary

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

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

PA Use:	Optional
NJ Use:	Optional
DE Use:	Optional
MD Use:	Optional
Example:	REF*NH*GS1

Data Element Summary

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

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

Notes:	This iteration of the REF segment is used for meter level information.
PA Use:	Conditional: If maintained by utility, must be sent for each meter loop that is used for billing purposes. **Note:** If the BPT04=”X4” indicating this document is being sent for an interval account at the account level, this segment will be not be used.
NJ Use:	Optional
DE Use:	Optional
MD Use:	Optional
Example:	REF*PR*123

Data Element Summary

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

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

PA Use:	Required if consumption is provided at a meter level **Note:** If the BPT04=”X4” indicating this document is being sent for an interval account at the account level, this segment will be not be used.
NJ Use:	Required if consumption is provided at a meter level
DE Use:	Required if consumption is provided at a meter level
MD Use:	Required if consumption is provided at a meter level
Example:	REF*JH*A

Data Element Summary

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

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

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

PA Use:	Required for meters with dials **Note:** If the BPT04=”X4” indicating this document is being sent for an interval account at the account level, this segment will be not be used.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Examples:	REF*IX*6.0 REF*IX*5.1 REF*IX*4.2

Data Element Summary

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

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

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

Notes:	There will be one QTY loop for **each** of the QTY03 Units of Measurement listed below for each meter that is measured on this account. If there are 2 meters on the account, and one measures KWH and KW, and the other measures just KWH, there will be 3 PTD01=PM loops. If a meter measures total usage, as well as on-peak and off-peak, there will be three QTY loops sent within one PTD01=PM loop. The MEA segment that follows each QTY will specify which time of use the QTY applies to.
PA Use:	Required if there are metered services on the account.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	QTY*QD*22348*KH QTY*QD*14*K1 (If meter measures both, you will have two QTY loops)

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity	**M ID 2/2**
			KA Estimated Quantity Delivered Used when the quantity delivered is an estimated quantity.	
			QD Actual Quantity Delivered Used when the quantity delivered is an actual quantity.	
			87 Actual Quantity Received (Net Metering) Used when the net generation quantity received is actual.	
			9H Estimated Quantity Received (Net Metering) Used when the net generation quantity received is estimated.	
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity	**X R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	**M ID 2/2**
			K1 Kilowatt Demand (kW) Represents potential power load measured at predetermined intervals	
			K2 Kilovolt Amperes Reactive Demand (kVAR) Reactive power that must be supplied for specific types of customer's equipment; billable when kilowatt demand usage meets or exceeds a defined parameter	

K3	Kilovolt Amperes Reactive Hour (kVARH) Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters
K4	Kilovolt Amperes (KVA)
KH	Kilowatt Hour (kWh)

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

Notes:	The MEA segment is sent for each QTY loop. The MEA will indicate the "time of use" that applies to the QTY. If meter readings are included in the MEA, they will indicate the "time of use" that the meter readings apply to.
PA Use:	Required (optional on a cancellation)
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Examples:	MEA*AA*PRQ*22348*KH***51 MEA*AA*PRQ*14*K1***51 (If meter measures multiple things, you need to send multiple QTY loops, one for each unit of measurement).

Data Element Summary

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

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

K1	Kilowatt Demand
	Represents potential power load measured at predetermined intervals
K2	Kilovolt Amperes Reactive Demand
	Reactive power that must be supplied for specific types of customer's equipment; billable when kilowatt demand usage meets or exceeds a defined parameter
K3	Kilovolt Amperes Reactive Hour
	Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters
K4	Kilovolt Amperes (KVA)
K5	Kilovolt Amperes Reactive
KH	Kilowatt Hour

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

Beginning reading

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

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

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

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

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

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

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

PA Use:	Required for a meter that has a meter multiplier other than 1. **Note:** If the BPT04=”X4” indicating this document is being sent for an interval account at the account level, this segment will be not be used.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	MEA**MU*2

Data Element Summary

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

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

PA Use:	Required if it is available to the meter agent and it is used in the calculation of the customer's bill. This is only relevant and should only ever be sent with Demand (K1). If not present with a demand quantity, it should be assumed to be 1. **Note:** If the BPT04="X4" indicating this document is being sent for an interval account at the account level, this segment will be not be used.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	MEA**ZA*.95

Data Element Summary

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

Segment: **MEA** **Measurements (CO=Transformer Loss 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 when Transformer Loss is not calculated by the meter. **Note:** If the BPT04=”X4” indicating this document is being sent for an interval account at the account level, this segment will be not be used.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	MEA**CO*1.02

Data Element Summary

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

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

Notes:	PTD Loops may be sent in any order.
PA Use:	Required if there are unmetered services on this account.
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	PTD*BC

Data Element Summary

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

Note:

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

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

PA Use:	Required if there are unmetered services on this account
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	DTM*150*19990101

Data Element Summary

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

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

PA Use:	Required if there are unmetered services on this account
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	DTM*151*19990131

Data Element Summary

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

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

Notes:	This loop is required when there are unmetered services on the account. This will contain the total quantity for the unmetered services.
PA Use:	Required is there are unmetered services on the account
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Example:	QTY*QD*500*KH

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity	**M ID 2/2**
			QD Actual Quantity Delivered Used when the quantity delivered is an actual quantity. **All States**: Whether unmetered services are estimated, calculated, or actual, they will be coded as actual.	
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity	**X R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	**M ID 2/2**
			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: 1
Purpose: To indicate the start of detail information relating to the transfer/resale of a product and provide identifying data
Syntax Notes: **1** If either PTD02 or PTD03 is present, then the other is required.
2 If either PTD04 or PTD05 is present, then the other is required.
Semantic Notes:
Comments:

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

Data Element Summary

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

BJ Relocation
Generation transferred:
- From this account to another account
- From another account to this account
- From this account to this account

Generation banked:
- Starting Bank
- Ending Bank

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

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

Data Element Summary

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

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

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

Data Element Summary

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

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

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

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity	**M ID 2/2**
			77 Stock Transfers In Generation transferred from another account to this account	
			78 Stock Transfers Out Generation transferred from this account to another account	
			79 Billing Unit(s) Per Pricing Unit Self-generation applied from Starting Bank	
			QB Quantity Dispensed Excess generation for True-Up event.	
			QE Quantity Carried Forward	

				Ending Bank		
			QH	Quantity on Hold		
				Starting Bank		
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity		**X**	**R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		**M**	**ID 2/2**
			KH	Kilowatt Hour (kWh)		

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

Notes:	This specific PTD loop is required if the account has net metering or is a part of an Aggregated Net Energy Metering (ANEM) Family. The MEA segment is sent for each QTY loop. The MEA will indicate the "time of use" that applies to the QTY.
PA Use:	Required (optional on a cancellation)
NJ Use:	Same as PA
DE Use:	Same as PA
MD Use:	Same as PA
Examples:	QTY*77*1000*KH Example kWh transferred to child account MEA*AF*PRQ*1000*KH***51 QTY*78*750*KH Example kWh transferred away from TOU host account MEA*AF*PRQ*400*KH***41 MEA*AF*PRQ*300*KH***42 MEA*AF*PRQ*50*KH***43

Data Element Summary

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

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

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

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

Data Element Summary

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

Examples:

General Note:

For the detail portion, you may send your PTD loops in any order; this is a function of ANSI. The indicator in the PTD loop tells what information is contained in the loop. A translator's mapper will map the loop according to your instructions.

Example 1 – One Meter – On/off peak:

Following example is for an account with one meter. Meter multiplier is 2, Power factor is 1.9999, and no transformer loss. The meter measures on and off peak consumption, and the meter readings are at the on / off peak consumption level. The meter also measures on and off peak demand.

- Total consumption is 100 KWH (60 on peak / 40 off-peak). Demand: On peak 4.7, Off peak 4.1 (billed 4.7).
- This example includes the Summary loop which summarizes kWh (and KVARH, if it existed), and the Monthly Billed Summary for billed kWh, kW (and kvarh if relevant).

BPT*00*REF1-990125*19990125*DD	Meter detail loop
DTM*649*19990202*1700	This is only required on Bill Ready Consolidated Billing scenarios. Time is always represented as Eastern prevailing time.
MEA**NP*0.66667	Percent participation. If 100%, no need to send. This example is ESP has 66.667%, LDC 33.333%.
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME	Customer name
REF*12*1234567891	LDC Account number
REF*45*9395819001	Old LDC Account number (to be sent for 60 days after a account number change)
REF*11*1394951	ESP Account number
REF*BLT*DUAL	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*100*KH	Monthly billed kWh
QTY*D1*4.7*K1	Monthly derived (billed) demand
QTY*QD*4.7*K1	Monthly measured demand
PTD*SU	Metered services Summary loop
DTM*150*19990101	
DTM*151*19990131	
QTY*QD*100*KH	Calculated summary of all meters for kWh / kvarh only
PTD*PM	Meter detail loop for kWh
DTM*150*19990101	
DTM*151*19990131	
REF*MG*11111111	Meter number
REF*NH*RES	LDC Rate
REF*PR*RESRT	LDC Rate Subclass
REF*JH*A	Additive meter
REF*IX*6.0	Number of dials or digits
QTY*QD*100*KH	Consumption
MEA**MU*2	Meter multiplier = 2
MEA*AA*PRQ*100*KH*1201*1250*51	Total consumption with begin/end reads
QTY*QD*60*KH	Consumption
MEA**MU*2	Meter multiplier = 2
MEA*AA*PRQ*60*KH*11001*11030*42	(On peak with consumption and begin/end reads)
QTY*QD*40*KH	Consumption
MEA**MU*2	Meter multiplier = 2
MEA*AA*PRQ*40*KH*23031*23050*41	(Off peak with consumption and begin/end reads)
PTD*PM	Meter detail loop for kW
DTM*150*19990101	
DTM*151*19990131	

REF*MG*11111111	Meter number
REF*NH*RES	LDC Rate
REF*PR*RESRT	LDC Rate Subclass
REF*JH*A	Additive meter
REF*IX*6.0	Number of dials or digits
QTY*QD*4.7*K1	Demand
MEA**MU*2	Meter multiplier = 2
MEA**ZA*1.9999	Power factor = 1.9999
MEA*AA*PRQ*4.7*K1***42	On peak demand – readings not required since reset each month
QTY*QD*4.2*K1	Demand
MEA**MU*2	Meter multiplier = 2
MEA**ZA*1.9999	Power factor = 1.9999
MEA*AA*PRQ*4.2*K1***41	Off peak demand

Example 2 – One Meter - Totalizer

Following example is for an account with one meter. Meter multiplier is 2, Power factor is 1.9999, and no transformer loss. The meter measures on and off peak consumption, and the meter readings are only at the "totalizer" level. The meter also measures on and off peak demand.

- Total consumption is 100 KWH (60 on peak / 40 off-peak). Demand: On peak 4.7, Off peak 4.1 (billed 4.7).
- This example includes the Summary loop which summarizes kWh (and Kvarh, if it existed), and the Monthly Billed Summary for billed kWh, kW (and kvarh if relevant).

BPT*00*REF1-990155*19990131*DD	Meter detail loop
DTM*649*19990202*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	Customer name
REF*12*1234567890	LDC Account number
REF*45*9395819000	Old LDC Account number (to be sent for 60 days after a account number change)
REF*11*1394959	ESP Account number
REF*BLT*DUAL	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*100*KH	Monthly billed kWh
QTY*D1*4.7*K1	Monthly derived demand
QTY*QD*4.7*K1	Monthly measured demand
PTD*SU	Metered services Summary loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
QTY*QD*100*KH	Calculated summary of all metered for kWh / kvarh only
PTD*PM	Meter detail loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
REF*MG*11111111	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*100*KH	Consumption
MEA**MU*2	Meter multiplier = 2
MEA*AA*PRQ*100*KH*2500*2550*51	Total consumption, and begin and end readings
QTY*QD*60*KH	Consumption
MEA**MU*2	Meter multiplier = 2
MEA*AA*PRQ*60*KH***42	(On peak consumption)
QTY*QD*40*KH	Consumption
MEA**MU*2	Meter multiplier = 2
MEA*AA*PRQ*40*KH***41	(off peak consumption)
PTD*PM	Meter detail loop
DTM*150*19990101	Start period

DTM*151*19990131	End period
REF*MG*11111111	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*4.7*K1	Demand
MEA**MU*2	Meter multiplier = 2
MEA**ZA*1.9999	Power factor = 1.9999
MEA*AA*PRQ*4.7*K1***42	On peak demand – readings not required since reset each month
QTY*QD*4.2*K1	Demand
MEA**MU*2	Meter multiplier = 2
MEA**ZA*1.9999	Power factor = 1.9999
MEA*AA*PRQ*4.2*K1***41	Off peak demand)

Example 3 – One Meter – Totalizer Only – No Demand:

Following example is for an account with one meter. Meter multiplier is 1. There is no Power factor and no transformer loss. There is no time of use on the meter. Demand is not measured.

- Total consumption is 600 kWh.
- This example includes the Summary loop which summarizes kWh, and the Monthly Billed Summary for billed kWh.

BPT*00*REF1-990124*19990124*DD	Meter detail loop
DTM*649*19990202*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	Customer name
REF*12*12345678920	LDC Account number
REF*45*93958190020	Old LDC Account number (to be sent for 60 days after a account number change)
REF*11*13949529	ESP Account number
REF*BLT*DUAL	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*600*KH	Monthly billed kWh
PTD*SU	Metered services Summary loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
QTY*QD*600*KH	Calculated summary of all metered for kWh / kvarh only
PTD*PM	Meter detail loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
REF*MG*22222222	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*600*KH	Consumption
MEA*AA*PRQ*600*KH*32000*32600*51	Total consumption, and begin and end readings

Selected Billing Test Scenarios:

Scenario - Single meter totalized (one rate), Month 1

Consumption is 1234.

BPT*00*REF01-990201*19990201*DD	Meter detail loop

DTM*649*19990202*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*12*111111111111111	LDC Account number
REF*11*1394959	ESP Account number
REF*BLT*DUAL	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*1234*KH	Monthly billed kWh
PTD*SU	Metered services Summary loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
QTY*QD*1234*KH	Calculated summary of all metered for kWh / kvarh only
PTD*PM	Meter detail loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
REF*MG*2222222S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*1234*KH	Consumption
MEA*AA*PRQ*1234*KH*32000*33234*51	Total consumption, and begin and end readings

Scenario - Single meter with time of day billing, Month 1

On peak – 724, Off peak 539.

BPT*00*REF04-990201*19990201*DD	Meter detail loop
DTM*649*19990202*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 – ACCT4	Customer name
REF*12*4444444444	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*19990101	Start period
DTM*151*19990131	End period
QTY*D1*1263*KH	Monthly billed kWh
PTD*SU	Metered services Summary loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
QTY*QD*1263*KH	Calculated summary of all metered for kWh / kvarh only
PTD*PM	Meter detail loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
REF*MG*2222233S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*1263*KH	Consumption
MEA*AA*PRQ*1263*KH*10000*11263*51	Total consumption
QTY*QD*724*KH	Consumption
MEA*AA*PRQ*724*KH*32000*32724*42	On peak, and begin and end readings
QTY*QD*539*KH	Consumption
MEA*AA*PRQ*539*KH*15000*15539*41	Off peak, and begin and end readings

Scenario - Single meter totalized. Meter switched by LDC during month 1.

Meter 1 usage 652, meter 2 usage 235.

BPT*00*REF06-990201*19990201*DD	Meter detail loop
DTM*649*19990202*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 – 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*19990101	Start period
DTM*151*19990131	End period
QTY*D1*887*KH	Monthly billed kWh
PTD*SU	Metered services Summary loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
QTY*QD*887*KH	Calculated summary of all metered for kWh / kvarh only
PTD*PM	Meter detail loop – Meter 1
DTM*150*19990101	Start period
DTM*514*19990121	End period
REF*MG*2222266S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*652*KH	Consumption – Meter 1
MEA*AA*PRQ*652*KH*20000*20652*51	Total consumption, with begin/end readings– Meter 1
PTD*PM	Meter detail loop – Meter 2
DTM*514*19990122	Start period
DTM*151*19990131	End period
REF*MG*3333366S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*235*KH	Consumption – Meter 2
MEA*AA*PRQ*235*KH*0*235*51	Total consumption, with begin/end readings– meter 2

Scenario - Single meter. , Demand and KWH meter (non-interval), Month 1

Month 1 information: KW 14, KWH 22,348 (no readings available). Billed demand is 50 per contract.

BPT*00*REF07-990201*19990201*DD	Meter detail loop
DTM*649*19990202*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 – ACCT7	Customer name
REF*12*77777777777	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*19990101	Start period
DTM*151*19990131	End period
QTY*D1*22348*KH	Monthly billed kWh
QTY*D1*50*K1	Monthly derived demand
QTY*QD*14*K1	Monthly measured demand
PTD*SU	Metered services Summary loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
QTY*QD*22348*KH	Calculated summary of all metered for kWh / kvarh only
PTD*PM	Meter detail loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
REF*MG*2222277S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*22348*KH	Consumption
MEA*AA*PRQ*22348*KH*130000*152348*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
REF*MG*2222277S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*14*K1	Demand
MEA*AA*PRQ*14*K1***51	Total demand, with begin/end readings

Scenario - Multiple meters. Demand and KWH meter (non-interval).

Month 1 Meter 1 information: KW 14, KWH 22,348 (no readings available). Billed demand is 50 per contract.
Meter 2 information: KW 15, KWH 20,000.

BPT*00*REF07-990201*19990201*DD	Meter detail loop
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT8	Customer name
REF*12*888888888888	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*19990101	Start period
DTM*151*19990131	End period
QTY*D1*42348*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*42348*KH	Calculated summary of all metered for kWh / kvarh only
PTD*PM	Meter 1 detail loop
DTM*150*19990101	Start period

DTM*151*19990131	End period
REF*MG*2222277S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*22348*KH	Consumption
MEA*AA*PRQ*22348*KH*130000*152348*51	Total consumption, with begin/end readings
PTD*PM	Meter 1 detail loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
REF*MG*2222277S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*14*K1	Demand
MEA*AA*PRQ*14*K1***51	Total demand, with begin/end readings
PTD*PM	Meter 2 detail loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
REF*MG*1234577S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*20000*KH	Consumption
MEA*AA*PRQ*20000*KH*185000*205000*51	Total consumption, with begin/end readings
PTD*PM	Meter 1 detail loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
REF*MG*1234577S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*15*K1	Demand
MEA*AA*PRQ*15*K1***51	Total demand, with begin/end readings

Scenario - Multiple services, metered and unmetered.

Metered consumption is 763, unmetered is 48.

BPT*00*REF09-990201*19990201*DD	Meter detail loop
DTM*649*19990202*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 – ACCT9	Customer name
REF*12*99999999999	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*19990101	Start period
DTM*151*19990131	End period
QTY*D1*811*KH	Monthly billed kWh
PTD*SU	Metered services Summary loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
QTY*QD*763*KH	Calculated summary of all metered for kWh / kvarh only
PTD*PM	Meter detail loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
REF*MG*2222299S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*763*KH	Consumption
MEA*AA*PRQ*763*KH*12000*12763*51	Total consumption, with begin/end readings
PTD*BC	Unmetered Services Summary
DTM*150*19990101	Start period
DTM*151*19990131	End period

QTY*QD*48*KH	Unmetered consumption

Scenario - Unmetered Service alone.

Unmetered consumption is 97.

BPT*00*REF10-990201*19990201*DD	Meter detail loop
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT10	Customer name
REF*12*100000000	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*19990101	Start period
DTM*151*19990131	End period
QTY*D1*97*KH	Monthly billed kWh
PTD*BC	Unmetered Services Summary
DTM*150*19990101	Start period
DTM*151*19990131	End period
QTY*QD*97*KH	Unmetered consumption

Scenario - Single meter totalized (one rate), month 2

Consumption is 867.

BPT*00*REF01-990301*19990301*DD	Meter detail loop
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*12*111111111111111	LDC Account number
REF*11*1394959	ESP Account number
REF*BLT*DUAL	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*19990201	Start period
DTM*151*19990228	End period
QTY*D1*867*KH	Monthly billed kWh
PTD*SU	Metered services Summary loop
DTM*150*19990201	Start period
DTM*151*19990228	End period
QTY*QD*867*KH	Calculated summary of all metered for kWh / kvarh only
PTD*PM	Meter detail loop
DTM*150*19990201	Start period
DTM*151*19990228	End period
REF*MG*2222222S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*867*KH	Consumption
MEA*AA*PRQ*867*KH*33244*34111*51	Total consumption, and begin and end readings

Scenario - Cancel Months 1 and 2.

Separate documents must be sent for each month.

BPT*01*REF01-990310A*19990310*DD*****REF01-090201	Meter detail loop
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*12*111111111111111	LDC Account number
REF*11*1394959	ESP Account number
REF*BLT*DUAL	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*1234*KH	Monthly billed kWh
PTD*SU	Metered services Summary loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
QTY*QD*1234*KH	Calculated summary of all metered for kWh / kvarh only
PTD*PM	Meter detail loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
REF*MG*2222222S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*1234*KH	Consumption
MEA*AA*PRQ*1234*KH*32000*33234*51	Total consumption, and begin and end readings (not all LDCs can provide MEA on a cancel)

BPT*01*REF01-990310B*19990301*DD*****REF01-990301	Meter detail loop
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*12*1	LDC Account number
REF*11*1394959	ESP Account number
REF*BLT*DUAL	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*19990201	Start period
DTM*151*19990228	End period
QTY*D1*867*KH	Monthly billed kWh
PTD*SU	Metered services Summary loop
DTM*150*19990201	Start period
DTM*151*19990228	End period
QTY*QD*867*KH	Calculated summary of all metered for kWh / kvarh only
PTD*PM	Meter detail loop
DTM*150*19990201	Start period
DTM*151*19990228	End period
REF*MG*2222222S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*867*KH	Consumption
MEA*AA*PRQ*867*KH*33234*34101*51	Total consumption, and begin and end readings (not all LDCs can provide MEA on a cancel)

Scenario - Restatement of usage for Months 1 and 2.

Total usage for 2 months is 2043.

BPT*00*REF01-990310C*19990310*DD	Meter detail loop
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT1	Customer name
REF*12*111111111111111	LDC Account number
REF*11*1394959	ESP Account number
REF*BLT*DUAL	Bill type
REF*PC*DUAL	Bill Calculator
PTD*BB	Monthly Billed Summary loop
DTM*150*19990101	Start period
DTM*151*19990228	End period
QTY*D1*2043*KH	Monthly billed kWh
PTD*SU	Metered services Summary loop
DTM*150*19990101	Start period
DTM*151*19990228	End period
QTY*QD*2043*KH	Calculated summary of all metered for kWh only
PTD*PM	Meter detail loop
DTM*150*19990101	Start period
DTM*151*19990228	End period
REF*MG*2222222S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*2043*KH	Consumption
MEA*AA*PRQ*2043*KH***51	Total consumption, and readings not known

Scenario - FINAL during month 2.

Single meter with time of day billing. Month 2 – On peak – 189, Off peak 67.

BPT*00*REF04-990301*19990301*DD***F	Meter detail loop
DTM*649*19990202*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 – ACCT4	Customer name
REF*12*4444444444	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*19990201	Start period
DTM*151*19990224	End period
QTY*D1*256*KH	Monthly billed kWh
PTD*SU	Metered services Summary loop
DTM*150*19990201	Start period
DTM*151*19990224	End period
QTY*QD*256*KH	Calculated summary of all metered for kWh / kvarh only
PTD*PM	Meter detail loop
DTM*150*19990201	Start period
DTM*151*19990224	End period
REF*MG*2222233S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*256*KH	Consumption
MEA*AA*PRQ*256*KH*20100*20356*51	Total consumption
QTY*QD*189*KH	Consumption
MEA*AA*PRQ*189*KH*32724*32913*42	On peak, and begin and end readings
QTY*QD*67*KH	Consumption
MEA*AA*PRQ*67*KH*15539*15606*41	Off peak, and begin and end readings

Scenario - Single meter. Demand and KWH meter (non-interval), Month 1:

KW 14, KWH 22,348 (no readings available – non-residential account). Percent participation: ESP has .6667, LDC has .3333

BPT*00*REF07-990201*19990201*DD	Meter detail loop
DTM*649*19990202*1700	This is only required on Bill Ready Consolidated Billing scenarios. Time is always represented as Eastern prevailing time.
MEA**NP*0.66667	Percent participation. This example is ESP has 66.667%, LDC 33.333%.
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*CUSTOMER NAME – ACCT17	Customer name
REF*12*17	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*19990101	Start period
DTM*151*19990131	End period
QTY*D1*22348*KH	Monthly billed kWh
QTY*D1*14*K1	Monthly derived demand
QTY*QD*14*K1	Monthly measured demand
PTD*SU	Metered services Summary loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
QTY*QD*22348*KH	Calculated summary of all metered for kWh / kvarh only
PTD*PM	Meter detail loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
REF*MG*2222277S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*22348*KH	Consumption
MEA*AA*PRQ*22348*KH***51	Consumption
PTD*PM	Meter detail loop
DTM*150*19990101	Start period
DTM*151*19990131	End period
REF*MG*2222277S	
REF*JH*A	
REF*IX*6.0	Number of dials or digits
QTY*QD*14*K1	Consumption
MEA*AA*PRQ*14*K1***51	Total consumption, with begin/end readings

Pennsylvania, & New Jersey (not PSE&G or FirstEnergy) Net Metering / Customer Generation Examples

Net Meter / Customer Generation Scenario 1A: Consumption greater than generation

Single meter reporting both in and out flow KH.
Customer consumed 1000KH and generated 200KH. The billed KH in the BB loop is 800KH.
The net consumption in the SU loop is 800KH. The PM is looped, one for the consumption KH (1000KH) and another for the generation KH (200) both with same meter number.

BPT*00*REF06-120201*20120201*DD	Meter detail loop
DTM*649*20120202*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 – 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*20120101	Start period
DTM*151*20120131	End period
QTY*D1*800*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*QD*800*KH	Calculated summary of all metered for KH / kvarh only
PTD*PM	Meter detail loop – **Consumption Meter**
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*1000*KH	**Consumption**
MEA*AA*PRQ*1000*KH*20000*21000*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – **Generation Meter**
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*200*KH	**Actual Generation**
MEA*AA*PRQ*200*KH*300*500*51	Total generation, with begin/end readings

Net Meter / Customer Generation Scenario 1B: Generation greater than consumption

Single meter reporting both in and out flow KH.
Customer generated 1300KH and consumed 1000KH.
The billed KH in the BB loop is zero. The net generation reported in the SU loop is 300KH. The PM is looped, one for the consumption KH (1000KH) and another for the generation KH (1300) both with same meter number.

BPT*00*REF06-120201*20120201*DD	Meter detail loop
DTM*649*20120202*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 – 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*20120101	Start period
DTM*151*20120131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*87*300*KH	Calculated net KH
PTD*PM	Meter detail loop – **Consumption Meter**
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*1000*KH	**Consumption**
MEA*AA*PRQ*1000*KH*20000*21000*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – **Generation Meter**
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*1300*KH	**Actual Generation**
MEA*AA*PRQ*1300*KH*300*1600*51	Total generation, with begin/end readings

Net Meter / Customer Generation Scenario 2A: Consumption greater than generation

Single meter reporting net KH. Customer consumed 1000KH and generated 200KH. The billed KH in the BB loop is 800KH. The net generation is reported in both the SU and PM loops is 800KH. This method his does NOT report the customer's actual consumption; only the net generation is being reported.

BPT*00*REF06-120201*20120201*DD	Meter detail loop
DTM*649*20120202*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 – 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*20120101	Start period
DTM*151*20120131	End period
QTY*D1*800*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*QD*800*KH	Calculated summary of all metered for KH / kvarh only
PTD*PM	Meter detail loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*800*KH	**Consumption**
MEA*AA*PRQ*800*KH*20000*20800*51	Total consumption, with begin/end readings

Net Meter / Customer Generation Scenario 2B: Generation greater than consumption

Single meter reporting net KH. Customer generated 650KH and consumed 500KH.
The billed KH in the BB loop is zero. The net generation is reported in both the SU and PM loops is 150KH. This method his does NOT report the customer's actual consumption; only the net generation is being reported.

BPT*00*REF06-120201*20120201*DD	Meter detail loop
DTM*649*20120202*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 – 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*20120101	Start period
DTM*151*20120131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*87*150*KH	Net generation, the meter is only reporting the net
PTD*PM	Meter detail loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*150*KH	**Actual Generation**
MEA*AA*PRQ*150*KH*20000*20150*51	Net generation, with begin/end readings

Net Meter / Customer Generation Scenario 3A: Consumption greater than generation

Separate meters, one reporting inflow and another meter reporting outflow KH.
Customer consumed 1000KH and generated 600KH. The net consumption in the SU loop is 400KH.
The billed KH in the BB loop is 400KH.

BPT*00*REF06-120201*20120201*DD	Meter detail loop
DTM*649*20120202*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 – 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*20120101	Start period
DTM*151*20120131	End period
QTY*D1*400*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*QD*400*KH	Calculated summary of all metered for KH / kvarh only
PTD*PM	Meter detail loop – **Consumption Meter**
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*2222266S	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*1000*KH	**Consumption**
MEA*AA*PRQ*1000*KH*20000*21000*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – **Generation Meter**
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*3333366S	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*600*KH	**Actual Generation**
MEA*AA*PRQ*600*KH*300*900*51	Total generation, with begin/end readings

Net Meter / Customer Generation Scenario 3B: Generation greater than consumption

Separate meters, one reporting inflow and another meter reporting outflow KH.
Customer generated 600KH and consumed 400KH. The net generation reported in the SU loop is 200KH.
The billed KH in the BB loop is zero.

BPT*00*REF06-120201*20120201*DD	Meter detail loop
DTM*649*20120202*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 – 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*20120101	Start period
DTM*151*20120131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*87*200*KH	Calculated summary of all metered for KH / kvarh only
PTD*PM	Meter detail loop – **Consumption Meter**
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*2222266S	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*400*KH	**Consumption**
MEA*AA*PRQ*400*KH*20000*20400*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – **Generation Meter**
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*3333366S	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*600*KH	**Actual Generation**
MEA*AA*PRQ*600*KH*300*900*51	Total generation, with begin/end readings

Pennsylvania Net Metering / Customer Generation Examples ("Bank Rollover") / not FirstEnergy

Scenario is for single meter reading both consumption and generation. Month 1 is net generation applied into 'bank'. Month 2 is net consumption with bank applied to bill but not fully exhausted. Month 3 is net consumption with bank applied to bill and exhausted with remaining consumption billed to customer.

Month 1- Customer net generates 800KH into 'bank', billed KH is zero.

BPT*00*REF06-120201*20120201*DD	Meter detail loop
DTM*649*20120202*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 – 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*20120101	Start period
DTM*151*20120131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*87*800*KH	Net KH – 800KH excess generation
PTD*PM	Meter detail loop – **Consumption Loop**
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*100*KH	**Actual Consumption**
MEA*AA*PRQ*100*KH*21000*21100*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – **Generation Loop**
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*900*KH	**Actual Generation**
MEA*AA*PRQ*900*KH*100*1000*51	Total generation, with begin/end readings

Month 2- Customer net consumes 500KH reducing the 800KH 'bank' by 500KH, billed KH remains zero.

BPT*00*REF06-120201*20120201*DD	Meter detail loop
DTM*649*20120202*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 – 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*20120201	Start period
DTM*151*20120228	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20120201	Start period
DTM*151*20120228	End period
QTY*QD*500*KH	Net KH – 500KH consumption
PTD*PM	Meter detail loop – **Consumption Loop**
DTM*150*20120201	Start period
DTM*151*20120228	End period
REF*MG*11111111	Meter Number

REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*700*KH	**Actual Consumption**
MEA*AA*PRQ*700*KH*21100*21800*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – **Generation Loop**
DTM*150*20120201	Start period
DTM*151*20120228	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*200*KH	**Actual Generation**
MEA*AA*PRQ*200*KH*1000*1200*51	Total generation, with begin/end readings

Month 3- Customer net consumes 500KH, empties the remaining 'bank' of 300KH, billed net of consumption and the bank which is 200KH.

BPT*00*REF06-120201*20120201*DD	Meter detail loop
DTM*649*20120202*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 – 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*20120301	Start period
DTM*151*20120331	End period
QTY*D1*200*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20120301	Start period
DTM*151*20120331	End period
QTY*QD*500*KH	Net KH – 500KH consumption
PTD*PM	Meter detail loop – **Consumption Loop**
DTM*150*20120201	Start period
DTM*151*20120228	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*800*KH	**Actual Consumption**
MEA*AA*PRQ*800*KH*21800*22600*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – **Generation Loop**
DTM*150*20120201	Start period
DTM*151*20120228	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*300*KH	**Actual Generation**
MEA*AA*PRQ*300*KH*1200*1500*51	Total generation, with begin/end readings

Pennsylvania Net Metering / Customer Generation Examples (FirstEnergy Companies)
Scenario 1 – Customer Generation (2000 KH) more than Consumption (1500 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*20181115	Start period
DTM*151*20181213	End period
QTY*D1*1500.00000*KH	Monthly **DELIVERED** KH (Consumption)
PTD*SU	Metered services Summary loop
DTM*150*20181115	Start period
DTM*151*20181213	End period
QTY*QD*1500.00000*KH	Monthly **DELIVERED** KH
QTY*87*2000.00000*KH	Monthly **RECEIVED** KH
PTD*PM	Meter detail loop – **Consumption Loop (DELIVERED KH)**
DTM*150*20181115	Start period
DTM*151*20181213	End period
REF*MG*11111111	Meter Number
REF*6W*1	DELIVERED Channel ID (FirstEnergy ONLY)
REF*NH*ME-RSD	LDC Rate Class
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*1500.00000*KH	**Actual Consumption (Delivered KH)**
MEA*AA*PRQ*1500.00*KH*32134.00000*33634.00000*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – **Generation Loop (RECEIVED KH)**
DTM*150*20181115	Start period
DTM*151*20181213	End period
REF*MG*11111111	Meter Number
REF*6W*2	RECEIVED Channel ID (FirstEnergy ONLY)
REF*NH*ME-RSD	LDC Rate Class
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*2000.00000*KH	**Actual Generation (Received KH)**
MEA*AA*PRQ*2000.00000*KH*2393.00000*4393.00000*51	Total generation, with begin/end readings

Scenario 2 – Customer Generation (500 KH) less than Consumption (1500 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*20181115	Start period
DTM*151*20181213	End period
QTY*D1*1500.00000*KH	Monthly **DELIVERED** KH (Consumption)
PTD*SU	Metered services Summary loop
DTM*150*20181115	Start period
DTM*151*20181213	End period
QTY*QD*1500.00000*KH	Monthly **DELIVERED** KH
QTY*87*500.00000*KH	Monthly **RECEIVED** KH
PTD*PM	Meter detail loop – **Consumption Loop (DELIVERED KH)**
DTM*150*20181115	Start period
DTM*151*20181213	End period
REF*MG*11111111	Meter Number
REF*6W*1	DELIVERED Channel ID (FirstEnergy ONLY)
REF*NH*ME-RSD	LDC Rate Class
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*1500.00000*KH	**Actual Consumption (Delivered KH)**
MEA*AA*PRQ*1500.00*KH*32134.00000*33634.00000*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – **Generation Loop (RECEIVED KH)**
DTM*150*20181115	Start period
DTM*151*20181213	End period
REF*MG*11111111	Meter Number
REF*6W*2	RECEIVED Channel ID (FirstEnergy ONLY)
REF*NH*ME-RSD	LDC Rate Class
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*500.00000*KH	**Actual Generation (Received KH)**
MEA*AA*PRQ*500.00000*KH*2393.00000*4393.00000*51	Total generation, with begin/end readings

New Jersey (PSE&G) Net Metering / Customer Generation Examples

Net Meter / Customer Generation PSE&G Scenario 1A: Consumption greater than generation

Single meter reporting both in and out flow KH.
Customer consumed 1000KH and generated 200KH.
The billed KH in the BB loop is 800KH.
The net consumption in the SU loop is 800KH.
There is one PM with the QTY looped, one for the consumption KH (1000KH) and another for the generation KH (200) both with same meter number.

BPT*00*REF06-120201*20120201*DD	Meter detail loop
DTM*649*20120202*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 – 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*20120101	Start period
DTM*151*20120131	End period
QTY*D1*800*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*QD*800*KH	Calculated summary of all metered for KH / kvarh only
PTD*PM	Meter detail loop – **Consumption Meter**
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*1000*KH	**Consumption**
MEA*AA*PRQ*1000*KH*20000*21000*51	Total consumption, with begin/end readings
QTY*87*200*KH	**Actual Generation**
MEA*AA*PRQ*200*KH*300*500*51	Total generation, with begin/end readings

Net Meter / Customer Generation PSE&G Scenario 1B: Generation greater than consumption

Single meter reporting both in and out flow KH.
Customer generated 1300KH and consumed 1000KH.
The billed KH in the BB loop is zero.
The net generation reported in the SU loop is 300KH.
There is one PM with the QTYlooped, one for the consumption KH (1000KH) and another for the generation KH (1300).

BPT*00*REF06-120201*20120201*DD	Meter detail loop
DTM*649*20120202*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 – 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*20120101	Start period
DTM*151*20120131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20120101	Start period
DTM*151*20120131	End period
QTY*87*300*KH	Calculated net KH
PTD*PM	Meter detail loop – **Consumption Meter**
DTM*150*20120101	Start period
DTM*151*20120131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*1000*KH	**Consumption**
MEA*AA*PRQ*1000*KH*20000*21000*51	Total consumption, with begin/end readings
QTY*87*1300*KH	**Actual Generation**
MEA*AA*PRQ*1300*KH*300*1600*51	Total generation, with begin/end readings

Maryland – 867 Monthly Usage - Multiple meter exchange in same service period.

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*1234567890*20130214*DD	Meter detail loop
DTM*649*20130217*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	Customer name
REF*12*8771441829	LDC Account number
REF*11*13949594	ESP 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*7187*KH	Monthly billed kWh
PTD*SU	Metered services Summary loop
DTM*150*20130114	Start period
DTM*151*20130213	End period
QTY*QD*7187*KH	Calculated summary of all metered for kWh / kvarh only
PTD*PM	Meter detail loop
DTM*150*20130114	Start period
DTM*514*20130117	Meter Change Out Date
REF*MG*OLDMETER1	Old Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*710*KH	Consumption
MEA*AA*PRQ*710*KH***51	Consumption
PTD*PM	Meter detail loop
DTM*514*20130117	Start period
DTM*514*20130119	End period
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*0*KH	Consumption
MEA*AA*PRQ*0*KH***51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*514*20130119	Start period
DTM*151*20130213	End period
REF*MG* MTREXCHG2	Meter Number of 2nd Meter Exchange
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*6477*KH	Consumption
MEA*AA*PRQ*6477*KH***51	Total consumption, with begin/end readings

Maryland (BGE)- Examples of regular Net Metered Accounts with PTD*BJ loop (non-TOU/TOU)
(*these do not include Aggregate Net Energy Metered (ANEM) account scenarios)*

BGE Scenario A - Non-TOU net meter account. Starting banked amount applied to current usage. Not enough banked generation to cover current usage. Remaining consumption amount billed and no ending banked amount.

Current usage amount in PM loop
+800 kWh

Starting banked amount (QTY*QH)
-600 kWh

Self-generation applied from Starting Bank (QTY*79)
-600 kWh

Ending banked amounts (QTY*QE)
0 kWh

Non TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*200*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*800*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*800*KH	Consumption
MEA*AA*PRQ*800*KH*59245*60045*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***600*KH	Starting Bank
MEA*AF*PRQ*600*KH***51	Starting Bank
QTY*79*600*KH	Self-Generation
MEA*AF*PRQ*600*KH***51	Self-Generation Applied

QTY***QE****0*KH	Ending Bank
MEA*AF*PRQ*0*KH***51	Ending Bank

BGE Scenario B - Non-TOU account. Meter exchange (old meter is non-net meter; new meter is net meter). No starting banked amount. Old meter reflects positive usage; new meter reflects net negative usage. Zero billed usage. Account has an ending banked amount. Meter exchange on 12/18/17.

Current usage amount in PM loop
+500 kWh old meter
-1000 kWh new meter

Starting banked amount (QTY*QH)
0 kWh

Self-generation applied from Starting Bank (QTY*79)
0 kWh

Ending banked amounts (QTY*QE)
-500 kWh

Non TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY*87*500*KH	Calculated net KH
PTD*PM	Meter detail loop – Meter 1
DTM*150*20171208	Start period
DTM*514*20171218	End period
REF*MG*11111111	Old Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*500*KH	Consumption
MEA*AA*PRQ*500*KH*59545*60045*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – Meter 2
DTM*514*20171218	Start period
DTM*151*20180110	End period
REF*MG*22222222	New Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*1000*KH	Consumption

MEA*AA*PRQ*1000*KH*59245*58245*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY***QH***0*KH	Starting Bank
MEA*AF*PRQ*0*KH***51	Starting Bank
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***51	Self-Generation Applied from Starting Bank
QTY***QE***500*KH	Ending Bank
MEA*AF*PRQ*500*KH***51	Ending Bank

BGE Scenario C - Non-TOU account. Meter exchange (old meter is net meter; new meter is net meter). Account has starting banked amount. Old meter reflects negative usage; new meter reflects negative usage. Zero billed usage. Account has ending banked amount. Meter exchange on 12/18/17.

Current usage amount in PM loop
-500 kWh old meter
-1000 kWh new meter

Starting banked amount (QTY*QH)
600 kWh

Self-generation applied from Starting Bank (QTY*79)
0 kWh

Ending banked amounts (QTY*QE)
-2100 kWh

Non TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY*87*1500*KH	Calculated net KH
PTD*PM	Meter detail loop – Meter 1
DTM*150*20171208	Start period
DTM*514*20171218	End period
REF*MG*11111111	Old Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits

QTY*87*500*KH	Consumption
MEA*AA*PRQ*500*KH*59545*59045*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – Meter 2
DTM*514*20171218	Start period
DTM*151*20180110	End period
REF*MG*22222222	New Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*1000*KH	Consumption
MEA*AA*PRQ*1000*KH*32145*31145*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY***QH***600*KH	Starting Bank
MEA*AF*PRQ*600*KH***51	Starting Bank
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***51	Self-Generation Applied from Starting Bank
QTY***QE***2100*KH	Ending Bank
MEA*AF*PRQ*2100*KH***51	Ending Bank

BGE Scenario D - Non-TOU account. Account has two meters. One meter is net metered; the other meter is not net metered. Account has starting banked amount. The net meter reflects negative usage. The other meter reflects positive usage. Current consumption of +500 is offset by current generation of -1000. Zero billed usage. No generation was applied from starting banked amount. Account has ending banked amount.

Current usage amount in PM loop
-1000 kWh for the net meter
+500 kWh for the non-net meter

Starting banked amount (QTY*QH)
600 kWh

Self-generation applied from Starting Bank (QTY*79)
0 kWh

Ending banked amounts (QTY*QE)
-1100 kWh

Non TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20171208	Start period
DTM*151*20180110	End period

QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY*87*500*KH	Calculated net KH
PTD*PM	Meter detail loop – Meter 1 (Net Meter)
DTM*150*20171208	Start period
DTM*151*20180110	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*1000*KH	Consumption
MEA*AA*PRQ*1000*KH*59545*58545*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – Meter 2 (Non-net Meter)
DTM*150*20171208	Start period
DTM*151*20180110	End period
REF*MG*22222222	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*500*KH	Consumption
MEA*AA*PRQ*500*KH*32145*32645*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY***QH***600*KH	Starting Bank
MEA*AF*PRQ*600*KH***51	Starting Bank
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***51	Self-Generation Applied from Starting Bank
QTY***QE***1100*KH	Ending Bank
MEA*AF*PRQ*1100*KH***51	Ending Bank

BGE Scenario E - TOU net meter account with consumption for current month and starting/ending banked amounts. Zero usage billed.

Current usage amounts in PM loop
Off Peak +1000 kWh
On Peak +1400 kWh
Int Peak +1200 kWh

Starting banked amounts (QTY*QH)
Off Peak -2000 kWh
On Peak -3000 kWh
Int Peak -1500 kWh

Self-generation applied from Starting Bank (QTY*79)
Off Peak – 1000 kWh
On Peak – 1400 kWh
Int Peak – 1200 kWh

Ending banked amounts (QTY*QE)
Off Peak -1000 kWh
On Peak -1600 kWh
Int Peak -300 kWh

Note: For a regular net meter account (non-NMA/ANEM), BGE will only apply generation from an individual peak period to consumption from the same peak period. There will be no cross-peak pollination as done with BGE ANEM TOU accounts. Excess generation will roll forward at the peak level.

TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*3600*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*1000*KH	Consumption - Off Peak
MEA*AA*PRQ*1000*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*1400*KH	Consumption - On Peak
MEA*AA*PRQ*1400*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*1200*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*1200*KH*0*0*43	Total consumption, with begin/end readings

PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***2000*KH	Starting Bank
MEA*AF*PRQ*2000*KH***41	Starting Bank – Off Peak
QTY*QH*3000*KH	Starting Bank
MEA*AF*PRQ*3000*KH***42	Starting Bank – On Peak
QTY*QH*1500*KH	Starting Bank
MEA*AF*PRQ*1500*KH***43	Starting Bank – Intermediate Peak
QTY*79*1000*KH	Self-Generation
MEA*AF*PRQ*1000*KH***41	Self-Generation Applied – Off Peak
QTY*79*1400*KH	Self-Generation
MEA*AF*PRQ*1400*KH***42	Self-Generation Applied – On Peak
QTY*79*1200*KH	Self-Generation
MEA*AF*PRQ*1200*KH***43	Self-Generation Applied – Intermediate Peak
QTY***QE***1000*KH	Ending Bank
MEA*AF*PRQ*1000*KH***41	Ending Bank – Off Peak
QTY*QE*1600*KH	Ending Bank
MEA*AF*PRQ*1600*KH***42	Ending Bank – On Peak
QTY*QE*300*KH	Ending Bank
MEA*AF*PRQ*300*KH***43	Ending Bank – Intermediate Peak

BGE Scenario F - TOU net meter account. On and Intermediate Peak excess generation rolls forward; Off Peak consumption billed. No self-application.

Current usage amounts in PM loop
Off Peak +500 kWh
On Peak -1000 kWh
Int Peak -800 kWh

Starting banked amounts (QTY*QH)
Off Peak 0 kWh
On Peak -2000 kWh
Int Peak -1000 kWh

Self-generation applied from Starting Bank (QTY*79)
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Ending banked amounts (QTY*QE)
Off Peak = 0 kWh
On Peak -3000 kWh
Int Peak -1800 kWh

Note: For a regular net meter account (non-NMA/ANEM), BGE will only apply generation from an individual peak period to consumption from the same peak period. There will be no cross-peak pollination as done with BGE ANEM TOU accounts. Excess generation will roll forward at the peak level.

TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*500*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*1300*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*500*KH	Consumption - Off Peak
MEA*AA*PRQ*500*KH*0*0*41	Total consumption, with begin/end readings
QTY*87*1000*KH	Consumption - On Peak
MEA*AA*PRQ*1000*KH*0*0*42	Total consumption, with begin/end readings
QTY*87*800*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*800*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***0*KH	Starting Bank
MEA*AF*PRQ*0*KH***41	Starting Bank – Off Peak
QTY*QH*2000*KH	Starting Bank
MEA*AF*PRQ*2000*KH***42	Starting Bank – On Peak
QTY*QH*1000*KH	Starting Bank
MEA*AF*PRQ*1000*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***41	Self-Generation Applied – Off Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***42	Self-Generation Applied – On Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***43	Self-Generation Applied – Intermediate Peak
QTY***QE***0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*3000*KH	Ending Bank
MEA*AF*PRQ*3000*KH***42	Ending Bank – On Peak

QTY*QE*1800*KH	Ending Bank
MEA*AF*PRQ*1800*KH***43	Ending Bank – Intermediate Peak

BGE Scenario G - TOU net meter account. On Peak excess generation rolls forward. Self-generation applied to Intermediate and Off Peak. Remaining consumption for Intermediate and Off Peak billed.

Current usage amounts in PM loop
Off Peak +800 kWh
On Peak -1000 kWh
Int Peak +700 kWh

Starting banked amounts (QTY*QH)
Off Peak -200 kWh
On Peak -500 kWh
Int Peak -200 kWh

Self-generation applied from Starting Bank (QTY*79)
Off Peak -200 kWh
On Peak 0 kWh
Int Peak -200 kWh

Ending banked amounts (QTY*QE)
Off Peak 0 kWh
On Peak -1500 kWh
Int Peak 0 kWh

Note: For a regular net meter account (non-NMA/ANEM), BGE will only apply generation from an individual peak period to consumption from the same peak period. There will be no cross-peak pollination as done with BGE ANEM TOU accounts. Excess generation will roll forward at the peak level.

TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*1100*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*500*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*800*KH	Consumption - Off Peak
MEA*AA*PRQ*800*KH*0*0*41	Total consumption, with begin/end readings

QTY*87*1000*KH	Consumption - On Peak
MEA*AA*PRQ*1000*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*700*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*700*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***200*KH	Starting Bank
MEA*AF*PRQ*200*KH***41	Starting Bank – Off Peak
QTY*QH*500*KH	Starting Bank
MEA*AF*PRQ*500*KH***42	Starting Bank – On Peak
QTY*QH*200*KH	Starting Bank
MEA*AF*PRQ*200*KH***43	Starting Bank – Intermediate Peak
QTY*79*200*KH	Self-Generation
MEA*AF*PRQ*200*KH***41	Self-Generation Applied – Off Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***42	Self-Generation Applied – On Peak
QTY*79*200*KH	Self-Generation
MEA*AF*PRQ*200*KH***43	Self-Generation Applied – Intermediate Peak
QTY***QE***0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*1500*KH	Ending Bank
MEA*AF*PRQ*1500*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

BGE Scenario H - TOU net meter account. No starting banked amounts for any peak period. On Peak excess generation rolls forward. Consumption for Intermediate and Off Peak billed.

Current usage amounts in PM loop
Off Peak +800 kWh
On Peak -500 kWh
Int Peak +700 kWh

Starting banked amounts (QTY*QH)
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Self-generation applied from Starting Bank (QTY*79)
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Ending banked amounts (QTY*QE) Off Peak 0 kWh
Off Peak 0 kWh
On Peak -500 kWh
Int Peak 0 kWh

Note: For a regular net meter account (non-NMA/ANEM), BGE will only apply generation from an individual peak period to consumption from the same peak period. There will be no cross-peak pollination as done with BGE ANEM TOU accounts. Excess generation will roll forward at the peak level.

TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*1500*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*1000*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*800*KH	Consumption - Off Peak
MEA*AA*PRQ*800*KH*0*0*41	Total consumption, with begin/end readings
QTY*87*500*KH	Consumption - On Peak
MEA*AA*PRQ*500*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*700*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*700*KH*0*0*43	Total consumption, with begin/end readings

PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***0*KH	Starting Bank
MEA*AF*PRQ*0*KH***41	Starting Bank – Off Peak
QTY*QH*0*KH	Starting Bank
MEA*AF*PRQ*0*KH***42	Starting Bank – On Peak
QTY*QH*0*KH	Starting Bank
MEA*AF*PRQ*0*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***41	Self-Generation Applied – Off Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***42	Self-Generation Applied – On Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***43	Self-Generation Applied – Intermediate Peak
QTY***QE***0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*500*KH	Ending Bank
MEA*AF*PRQ*500*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

BGE Scenario I - TOU net meter account. On Peak excess generation rolls forward. Self-generation applied to Intermediate and Off Peak. Remaining consumption for Intermediate and Off Peak billed. Example for end of year net metering True-Up of excess generation.

Note this is like Scenario G, except the utility cashes out the customer for the year end excess generation.

Current usage amounts in PM loop
Off Peak +800 kWh
On Peak -1000 kWh
Int Peak +700 kWh

Starting banked amounts (QTY*QH)
Off Peak -200 kWh
On Peak -500 kWh
Int Peak -200 kWh

Self-generation applied from Starting Bank (QTY*79)
Off Peak -200 kWh
On Peak 0 kWh
Int Peak -200 kWh

True-up of Excess Generation (QTY*QB)
Off Peak 0 kWh
On Peak -1500 kWh
Int Peak 0 kWh

Ending banked amounts (QTY*QE)
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Note 1: For a regular net meter account (non-NMA/ANEM), BGE will only apply generation from an individual peak period to consumption from the same peak period. There will be no cross-peak pollination as done with BGE ANEM TOU accounts. Excess generation will roll forward at the peak level and eventually be cashed out (true-up).
Note 2: During True-Up for TOU, if one TOU peak contains excess generation passed in QTY*QB, all TOU peaks must be sent even when 0 kWh. For non-TOU, if there is no excess generation during the True-Up event, the QTY*QB will NOT be sent.

TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*1100*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*500*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role

REF*IX*5.0	Number of dials or digits
QTY*QD*800*KH	Consumption - Off Peak
MEA*AA*PRQ*800*KH*0*0*41	Total consumption, with begin/end readings
QTY*87*1000*KH	Consumption - On Peak
MEA*AA*PRQ*1000*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*700*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*700*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***200*KH	Starting Bank
MEA*AF*PRQ*200*KH***41	Starting Bank – Off Peak
QTY*QH*500*KH	Starting Bank
MEA*AF*PRQ*500*KH***42	Starting Bank – On Peak
QTY*QH*200*KH	Starting Bank
MEA*AF*PRQ*200*KH***43	Starting Bank – Intermediate Peak
QTY*79*200*KH	Self-Generation
MEA*AF*PRQ*200*KH***41	Self-Generation Applied – Off Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***42	Self-Generation Applied – On Peak
QTY*79*200*KH	Self-Generation
MEA*AF*PRQ*200*KH***43	Self-Generation Applied – Intermediate Peak
QTY***QB***0*KH	True-Up
MEA*AF*PRQ*0*KH***41	True-Up – Off Peak
QTY*QB*1500*KH	True-Up
MEA*AF*PRQ*1500*KH***42	True-Up – On Peak
QTY*QB*0*KH	True-Up
MEA*AF*PRQ*0*KH***43	True-Up – Intermediate Peak
QTY***QE***0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Maryland (PHI/Potomac Edison)- Examples of regular Net Metered Accounts w/PTD*BJ loop (non-TOU/TOU)
(these do not include Aggregate Net Energy Metered (ANEM) accounts.

PHI/PE Scenario A - Non-TOU net meter account. Starting banked amount applied to current usage. Not enough banked generation to cover current usage. Remaining consumption amount billed and no ending banked amount.

Current consumption in PM loop
+1800 kWh

Current generation in PM loop
-1000 kWh

Starting banked amount (QTY*QH)
-600 kWh

Self-generation applied from Starting Bank (QTY*79)
-600 kWh

Ending banked amounts (QTY*QE)
0 kWh

Non TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*200*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*800*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*1800*KH	Consumption
MEA*AA*PRQ*1800*KH*59245*61045*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits

QTY*87*1000*KH	Generation
MEA*AA*PRQ*1000*KH*42101*41101*51	Total Generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***600*KH	Starting Bank
MEA*AF*PRQ*600*KH***51	Starting Bank
QTY*79*600*KH	Self-Generation
MEA*AF*PRQ*600*KH***51	Self-Generation Applied
QTY***QE***0*KH	Ending Bank
MEA*AF*PRQ*0*KH***51	Ending Bank

PHI/PE Scenario B - Non-TOU account. Meter exchange (old meter is non-net meter; new meter is net meter). No starting banked amount. Old meter reflects positive usage; new meter reflects net negative usage. Zero billed usage. Account has an ending banked amount. Meter exchange on 12/18/17.

OLD METER - Current consumption in PM loop
+500 kWh

NEW METER - Current consumption in PM loop
+500 kWh
NEW METER - Current generation in PM loop
-1500 kWh

Starting banked amount (QTY*QH)
0 kWh

Self-generation applied from Starting Bank (QTY*79)
0 kWh

Ending banked amounts (QTY*QE)
-500 kWh

Non TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY*87*500*KH	Calculated net KH
PTD*PM	Meter detail loop – OLD Meter 1
DTM*150*20171208	Start period
DTM*514*20171218	End period

REF*MG*11111111	Old Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*500*KH	Consumption
MEA*AA*PRQ*500*KH*59545*60045*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – NEW Meter 2
DTM*514*20171218	Start period
DTM*151*20180110	End period
REF*MG*22222222	New Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*500*KH	Consumption
MEA*AA*PRQ*500*KH*59245*59745*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – NEW Meter 2
DTM*514*20171218	Start period
DTM*151*20180110	End period
REF*MG*22222222	New Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*1500*KH	Generation
MEA*AA*PRQ*1500*KH*12122*10622*51	Total Generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY***QH***0*KH	Starting Bank
MEA*AF*PRQ*0*KH***51	Starting Bank
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***51	Self-Generation Applied from Starting Bank
QTY***QE***500*KH	Ending Bank
MEA*AF*PRQ*500*KH***51	Ending Bank

PHI/PE Scenario C - Non-TOU account. Meter exchange (old meter is net meter; new meter is net meter). Account has starting banked amount. Old meter reflects negative usage; new meter reflects negative usage. Zero billed usage. Account has ending banked amount. Meter exchange on 12/18/17.

OLD METER - Current consumption in PM loop
+500 kWh
OLD METER - Current generation in PM loop
-1000 kWh

NEW METER - Current consumption in PM loop
+1000 kWh
NEW METER - Current generation in PM loop
-2000 kWh

Starting banked amount (QTY*QH)
600 kWh

Self-generation applied from Starting Bank (QTY*79)
0 kWh

Ending banked amounts (QTY*QE)
-2100 kWh

Non TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY*87*1500*KH	Calculated net KH
PTD*PM	Meter detail loop – Meter 1
DTM*150*20171208	Start period
DTM*514*20171218	End period
REF*MG*11111111	Old Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*500*KH	Consumption
MEA*AA*PRQ*500*KH*59545*59045*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – Meter 1
DTM*150*20171208	Start period
DTM*514*20171218	End period
REF*MG*11111111	Old Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*1000*KH	Generation

MEA*AA*PRQ*1000*KH*12122*11122*51	Total Generation, with begin/end readings
PTD*PM	Meter detail loop – Meter 2
DTM*514*20171218	Start period
DTM*151*20180110	End period
REF*MG*22222222	New Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*1000*KH	Consumption
MEA*AA*PRQ*1000*KH*32145*33145*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – Meter 2
DTM*514*20171218	Start period
DTM*151*20180110	End period
REF*MG*22222222	New Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*2000*KH	Generation
MEA*AA*PRQ*2000*KH*32145*30145*51	Total Generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY***QH***600*KH	Starting Bank
MEA*AF*PRQ*600*KH***51	Starting Bank
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***51	Self-Generation Applied from Starting Bank
QTY***QE***2100*KH	Ending Bank
MEA*AF*PRQ*2100*KH***51	Ending Bank

PHI/PE Scenario D - Non-TOU account. Account has two meters. One meter is net metered; the other meter is not net metered. Account has starting banked amount. The net meter reflects negative usage. The other meter reflects positive usage. Current consumption of +500 is offset by current generation of -1000. Zero billed usage. No generation was applied from starting banked amount. Account has ending banked amount.

NET METER - Current consumption in PM loop
+1000 kWh
NET METER - Current generation in PM loop
-2000 kWh

NON-NET METER - Current consumption in PM loop
+500 kWh

Starting banked amount (QTY*QH)
600 kWh

Self-generation applied from Starting Bank (QTY*79)
0 kWh

Ending banked amounts (QTY*QE)
-1100 kWh

Non TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY*87*500*KH	Calculated net KH
PTD*PM	Meter detail loop – Meter 1 (Net Meter)
DTM*150*20171208	Start period
DTM*151*20180110	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*1000*KH	Consumption
MEA*AA*PRQ*1000*KH*59545*60545*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop – Meter 1 (Net Meter)
DTM*150*20171208	Start period
DTM*151*20180110	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*2000*KH	Generation

MEA*AA*PRQ*2000*KH*59545*57545*51	Total Generation, with begin/end readings
PTD*PM	Meter detail loop – Meter 2 (Non-net Meter)
DTM*150*20171208	Start period
DTM*151*20180110	End period
REF*MG*22222222	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*500*KH	Consumption
MEA*AA*PRQ*500*KH*32145*32645*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20171208	Start period
DTM*151*20180110	End period
QTY***QH***600*KH	Starting Bank
MEA*AF*PRQ*600*KH***51	Starting Bank
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***51	Self-Generation Applied from Starting Bank
QTY***QE***1100*KH	Ending Bank
MEA*AF*PRQ*1100*KH***51	Ending Bank

PHI/PE Scenario E - TOU net meter account with consumption for current month and starting/ending banked amounts. Zero usage billed.

Current consumption in PM loop
Off Peak +1800 kWh
On Peak +2400 kWh
Int Peak +1700 kWh

Current generation in PM loop
Off Peak -800 kWh
On Peak -1000 kWh
Int Peak -500 kWh

Starting banked amounts (QTY*QH)
Off Peak -2000 kWh
On Peak -3000 kWh
Int Peak -1500 kWh

Self-generation applied from Starting Bank (QTY*79)
Off Peak –1000 kWh
On Peak –1400 kWh
Int Peak –1200 kWh

Ending banked amounts (QTY*QE)
Off Peak -1000 kWh
On Peak -1600 kWh
Int Peak -300 kWh

Note: For a regular net meter account (non-NMA/ANEM), the utility will only apply generation from an individual peak period to consumption from the same peak period. Excess generation will roll forward at the peak level.

TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*3600*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*1800*KH	Consumption - Off Peak
MEA*AA*PRQ*1800*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*2400*KH	Consumption - On Peak
MEA*AA*PRQ*2400*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*1700*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*1700*KH*0*0*43	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*800*KH	Generation - Off Peak
MEA*AA*PRQ*800*KH*0*0*41	Total Generation, with begin/end readings
QTY*87*1000*KH	Generation - On Peak
MEA*AA*PRQ*1000*KH*0*0*42	Total Generation, with begin/end readings
QTY*87*500*KH	Generation - Intermediate Peak
MEA*AA*PRQ*500*KH*0*0*43	Total Generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***2000*KH	Starting Bank
MEA*AF*PRQ*2000*KH***41	Starting Bank – Off Peak
QTY***QH***3000*KH	Starting Bank
MEA*AF*PRQ*3000*KH***42	Starting Bank – On Peak

QTY***QH***1500*KH	Starting Bank
MEA*AF*PRQ*1500*KH***43	Starting Bank – Intermediate Peak
QTY***79***1000*KH	Self-Generation
MEA*AF*PRQ*1000*KH***41	Self-Generation Applied – Off Peak
QTY***79***1400*KH	Self-Generation
MEA*AF*PRQ*1400*KH***42	Self-Generation Applied – On Peak
QTY***79***1200*KH	Self-Generation
MEA*AF*PRQ*1200*KH***43	Self-Generation Applied – Intermediate Peak
QTY***QE***1000*KH	Ending Bank
MEA*AF*PRQ*1000*KH***41	Ending Bank – Off Peak
QTY***QE***1600*KH	Ending Bank
MEA*AF*PRQ*1600*KH***42	Ending Bank – On Peak
QTY***QE***300*KH	Ending Bank
MEA*AF*PRQ*300*KH***43	Ending Bank – Intermediate Peak

PHI/PE Scenario F - TOU net meter account. On and Intermediate Peak excess generation rolls forward; Off Peak consumption billed. No self-application.

Current consumption in PM loop
Off Peak +1300 kWh
On Peak +200 kWh
Int Peak +100 kWh

Current generation in PM loop
Off Peak -800 kWh
On Peak -1200 kWh
Int Peak -900 kWh

Starting banked amounts (QTY*QH)
Off Peak = 0 kWh
On Peak -2000 kWh
Int Peak -1000 kWh

Self-generation applied from Starting Bank (QTY*79)
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh
Ending banked amounts (QTY*QE)
Off Peak = 0 kWh
On Peak -3000 kWh
Int Peak -1800 kWh

Note: For a regular net meter account, the utility will only apply generation from an individual peak period to consumption from the same peak period. Excess generation will roll forward at the peak level.
Proposed EDI Transaction

TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period

QTY*D1*500*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*1300*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*1300*KH	Consumption - Off Peak
MEA*AA*PRQ*1300*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*200*KH	Consumption - On Peak
MEA*AA*PRQ*200*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*100*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*100*KH*0*0*43	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*800*KH	Generation - Off Peak
MEA*AA*PRQ*800*KH*0*0*41	Total Generation, with begin/end readings
QTY*87*1200*KH	Generation - On Peak
MEA*AA*PRQ*1200*KH*0*0*42	Total Generation, with begin/end readings
QTY*87*900*KH	Generation - Intermediate Peak
MEA*AA*PRQ*900*KH*0*0*43	Total Generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***0*KH	Starting Bank
MEA*AF*PRQ*0*KH***41	Starting Bank – Off Peak
QTY*QH*2000*KH	Starting Bank
MEA*AF*PRQ*2000*KH***42	Starting Bank – On Peak
QTY*QH*1000*KH	Starting Bank
MEA*AF*PRQ*1000*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***41	Self-Generation Applied – Off Peak

QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***42	Self-Generation Applied – On Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***43	Self-Generation Applied – Intermediate Peak
QTY***QE***0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*3000*KH	Ending Bank
MEA*AF*PRQ*3000*KH***42	Ending Bank – On Peak
QTY*QE*1800*KH	Ending Bank
MEA*AF*PRQ*1800*KH***43	Ending Bank – Intermediate Peak

PHI/PE Scenario G - TOU net meter account. On Peak excess generation rolls forward. Self-generation applied to Intermediate and Off Peak. Remaining consumption for Intermediate and Off Peak billed.

Current consumption in PM loop
Off Peak +1600 kWh
On Peak +200 kWh
Int Peak +1550 kWh

Current generation in PM loop
Off Peak -800 kWh
On Peak -1200 kWh
Int Peak -850 kWh

Starting banked amounts (QTY*QH)
Off Peak -200 kWh
On Peak -500 kWh
Int Peak -200 kWh

Self-generation applied from Starting Bank (QTY*79)
Off Peak -200 kWh
On Peak = 0 kWh
Int Peak -200 kWh

Ending banked amounts (QTY*QE)
Off Peak = 0 kWh
On Peak -1500 kWh
Int Peak = 0 kWh

Note: For a regular net meter account, the utility will only apply generation from an individual peak period to consumption from the same peak period. Excess generation will roll forward at the peak level.

TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*1100*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period

QTY*QD*500*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*1600*KH	Consumption - Off Peak
MEA*AA*PRQ*1600*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*200*KH	Consumption - On Peak
MEA*AA*PRQ*200*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*1550*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*1550*KH*0*0*43	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*800*KH	Generation - Off Peak
MEA*AA*PRQ*800*KH*0*0*41	Total Generation, with begin/end readings
QTY*87*1200*KH	Generation - On Peak
MEA*AA*PRQ*1200*KH*0*0*42	Total Generation, with begin/end readings
QTY*87*850*KH	Generation - Intermediate Peak
MEA*AA*PRQ*850*KH*0*0*43	Total Generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***200*KH	Starting Bank
MEA*AF*PRQ*200*KH***41	Starting Bank – Off Peak
QTY*QH*500*KH	Starting Bank
MEA*AF*PRQ*500*KH***42	Starting Bank – On Peak
QTY*QH*200*KH	Starting Bank
MEA*AF*PRQ*200*KH***43	Starting Bank – Intermediate Peak
QTY*79*200*KH	Self-Generation
MEA*AF*PRQ*200*KH***41	Self-Generation Applied – Off Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***42	Self-Generation Applied – On Peak
QTY*79*200*KH	Self-Generation
MEA*AF*PRQ*200*KH***43	Self-Generation Applied – Intermediate Peak

QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*1500*KH	Ending Bank
MEA*AF*PRQ*1500*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Scenario H - TOU net meter account. No starting banked amounts for any peak period. On Peak excess generation rolls forward. Consumption for Intermediate and Off Peak billed.

Current consumption in PM loop
Off Peak +1600 kWh
On Peak +700 kWh
Int Peak +1550 kWh

Current generation in PM loop
Off Peak -800 kWh
On Peak -1200 kWh
Int Peak -850 kWh

Starting banked amounts (QTY*QH)
Off Peak = 0 kWh
On Peak = 0 kWh
Int Peak = 0 kWh

Self-generation applied from Starting Bank (QTY*79)
Off Peak = 0 kWh
On Peak = 0 kWh
Int Peak = 0 kWh

Ending banked amounts (QTY*QE)
Off Peak = 0 kWh
On Peak -500 kWh
Int Peak = 0 kWh

Note: For a regular net meter account, the utility will only apply generation from an individual peak period to consumption from the same peak period. Excess generation will roll forward at the peak level.

TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*1500*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*1000*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period

REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*1600*KH	Consumption - Off Peak
MEA*AA*PRQ*1600*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*700*KH	Consumption - On Peak
MEA*AA*PRQ*700*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*1550*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*1550*KH*0*0*43	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*800*KH	Generation - Off Peak
MEA*AA*PRQ*800*KH*0*0*41	Total Generation, with begin/end readings
QTY*87*1200*KH	Generation - On Peak
MEA*AA*PRQ*1200*KH*0*0*42	Total Generation, with begin/end readings
QTY*87*850*KH	Generation - Intermediate Peak
MEA*AA*PRQ*850*KH*0*0*43	Total Generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***0*KH	Starting Bank
MEA*AF*PRQ*0*KH***41	Starting Bank – Off Peak
QTY*QH*0*KH	Starting Bank
MEA*AF*PRQ*0*KH***42	Starting Bank – On Peak
QTY*QH*0*KH	Starting Bank
MEA*AF*PRQ*0*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***41	Self-Generation Applied – Off Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***42	Self-Generation Applied – On Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***43	Self-Generation Applied – Intermediate Peak
QTY***QE***0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*500*KH	Ending Bank
MEA*AF*PRQ*500*KH***42	Ending Bank – On Peak

QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

PHI/PE Scenario I - TOU net meter account. On Peak excess generation rolls forward. Self-generation applied to Intermediate and Off Peak. Remaining consumption for Intermediate and Off Peak billed. Example for end of year net metering True-Up of excess generation.
Note this is like Scenario G, except the utility cashes out the customer for the year end excess generation.

Current consumption in PM loop
Off Peak +1600 kWh
On Peak +200 kWh
Int Peak +1550 kWh

Current generation in PM loop
Off Peak -800 kWh
On Peak -1200 kWh
Int Peak -850 kWh

Starting banked amounts (QTY*QH)
Off Peak -200 kWh
On Peak -500 kWh
Int Peak -200 kWh

Self-generation applied from Starting Bank (QTY*79)
Off Peak -200 kWh
On Peak = 0 kWh
Int Peak -200 kWh

True-up of Excess Generation (QTY*QB)
Off Peak 0 kWh
On Peak -1500 kWh
Int Peak 0 kWh

Ending banked amounts (QTY*QE)
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Note 1: For a regular net meter account, the utility will only apply generation from an individual peak period to consumption from the same peak period. Excess generation will roll forward at the peak level and eventually be cashed out (true-up).
Note 2: During True-Up for TOU, if one TOU peak contains excess generation passed in QTY*QB, all TOU peaks must be sent even when 0 kWh. For non-TOU, if there is no excess generation during the True-Up event, the QTY*QB will NOT be sent.

TOU Net Meter account	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*1100*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period

DTM*151*20160504	End period
QTY*QD*500*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*1600*KH	Consumption - Off Peak
MEA*AA*PRQ*1600*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*200*KH	Consumption - On Peak
MEA*AA*PRQ*200*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*1550*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*1550*KH*0*0*43	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*800*KH	Generation - Off Peak
MEA*AA*PRQ*800*KH*0*0*41	Total Generation, with begin/end readings
QTY*87*1200*KH	Generation - On Peak
MEA*AA*PRQ*1200*KH*0*0*42	Total Generation, with begin/end readings
QTY*87*850*KH	Generation - Intermediate Peak
MEA*AA*PRQ*850*KH*0*0*43	Total Generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***200*KH	Starting Bank
MEA*AF*PRQ*200*KH***41	Starting Bank – Off Peak
QTY*QH*500*KH	Starting Bank
MEA*AF*PRQ*500*KH***42	Starting Bank – On Peak
QTY*QH*200*KH	Starting Bank
MEA*AF*PRQ*200*KH***43	Starting Bank – Intermediate Peak
QTY*79*200*KH	Self-Generation
MEA*AF*PRQ*200*KH***41	Self-Generation Applied – Off Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***42	Self-Generation Applied – On Peak
QTY*79*200*KH	Self-Generation

MEA*AF*PRQ*200*KH***43	Self-Generation Applied – Intermediate Peak
QTY***QB***0*KH	True-Up
MEA*AF*PRQ*0*KH***41	True-Up – Off Peak
QTY*QB*1500*KH	True-Up
MEA*AF*PRQ*1500*KH***42	True-Up – On Peak
QTY*QB*0*KH	True-Up
MEA*AF*PRQ*0*KH***43	True-Up – Intermediate Peak
QTY***QE***0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Maryland (BGE) - Examples of PTD*BJ Loop for Aggregate Net Energy Metering (ANEM), Non-TOU

Example #1 – Parent Host Net Metered Account, No Beginning Bank, No Self-generation applied from Starting Bank, Excess Generation Transferred to 1 Child Account, Remaining Banked

Parent Host Account

- Starting Bank = 0 kWh
- Net Generation = 300 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred to Child Account = 200 kWh
- Ending Bank = 100 kWh

PTD*BB = 0
PTD*SU = 300 Net Generation
PTD*PM = 300 Net Generation
PTD*BJ (QH) = 0 Starting Bank
PTD*BJ (79) = 0 Self-generation Applied from Starting Bank
PTD*BJ (78) = 200 Net Transferred Out
PTD*BJ (QE) = 100 Banked

0 Starting Bank + 300 Net Generation - 200 Net Transferred -100 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*87*300*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*300*KH	**Generation**
MEA*AA*PRQ*300*KH*4300*4000*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QH*0*KH	**Starting Bank**
MEA*AF*PRQ*0*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied From Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied From Starting Bank – Total Non TOU
QTY*78*200*KH	**Generation Transferred Out**
MEA*AF*PRQ*200*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*100*KH	**Ending Bank**
MEA*AF*PRQ*100*KH***51	Ending Bank – Total Non TOU

Child Account – Not Net Metered

- Consumption = 200 kWh
- Generation Transferred In = 200 kWh
- Billed Consumption – 0 kWh

PTD*BB = 0 Billed Consumption
PTD*SU = 200 Net Consumption
PTD*PM = 200 Net Consumption
PTD*BJ (77) = 200 Generation Transferred In

300 Net Consumption - 200 Net Transferred In = PTD*BB Loop of 100 kWh Billed

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*200*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*200*KH	**Consumption**
MEA*AA*PRQ*200*KH*20000*20200*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*77*200*KH	**Generation Transferred In**
MEA*AF*PRQ*200*KH***51	Generation Transferred In – Total Non TOU

Non-TOU reporting only net kWh (BGE)
Example #2 – Parent Host Net Metered Account, Beginning Bank, No Self-generation applied from Starting Bank, Excess Generation Transferred to 1 Child Account, Remaining Banked

Parent Host Account

- Starting Bank = 50 kWh
- Net Generation = 300 kWh
- Net Generation Available = 350 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred to Child Account = 200 kWh
- Ending Bank = 150 kWh

PTD*BB = 0
PTD*SU = 300 Net Generation
PTD*PM = 300 Net Generation
PTD*BJ (QH) = 50 Starting Bank
PTD*BJ (79) = 0 Self-generation Applied from Starting Bank
PTD*BJ (78) = 200 Net Transferred Out
PTD*BJ (QE) = 150 Banked

50 Starting Bank + 300 Net Generation - 200 Net Transferred -150 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*87*300*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*300*KH	**Generation**
MEA*AA*PRQ*300*KH*4600*4300*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QH*50*KH	**Starting Bank**
MEA*AF*PRQ*50*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied From Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied From Starting Bank – Total Non TOU
QTY*78*200*KH	**Generation Transferred Out**
MEA*AF*PRQ*200*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*150*KH	**Ending Bank**
MEA*AF*PRQ*150*KH***51	Ending Bank – Total Non TOU

Child Account – Not Net Metered

- Consumption = 200 kWh
- Generation Transferred In = 200 kWh
- Billed Consumption – 0 kWh

PTD*BB = 0 Billed Consumption
PTD*SU = 200 Net Consumption
PTD*PM = 200 Net Consumption
PTD*BJ (77) = 200 Generation Transferred In

200 Net Consumption - 200 Net Transferred In = PTD*BB Loop of 0 kWh Billed

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*200*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*200*KH	**Consumption**
MEA*AA*PRQ*200*KH*20000*20200*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*77*200*KH	**Generation Transferred In**
MEA*AF*PRQ*200*KH***51	Generation Transferred In – Total Non TOU

Non-TOU reporting only net kWh (BGE)
Example #3 – Parent Host Net Metered Account, Beginning Bank, No Self-generation applied from Starting Bank, All Excess Generation/Banked kWh Transferred to 1 Child Account, No Ending Bank

Parent Host Account

- Starting Bank = 50 kWh
- Net Generation = 150 kWh
- Net Generation Available = 200 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred to Child Account = 200 kWh
- Ending Bank = 0 kWh

PTD*BB = 0
PTD*SU = 150 Net Generation
PTD*PM = 150 Net Generation
PTD*BJ (QH) = 50 Starting Bank
PTD*BJ (79) = 0 Self-generation Applied from Starting Bank
PTD*BJ (78) = 200 Net Transferred Out
PTD*BJ (QE) = 0 Ending Bank

50 Starting Bank + 150 Net Generation - 200 Net Transferred - 0 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*87*150*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*150*KH	**Generation**
MEA*AA*PRQ*150*KH*12450*12300*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QH*50*KH	**Starting Bank**
MEA*AF*PRQ*50*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied From Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied From Starting Bank – Total Non TOU
QTY*78*200*KH	**Generation Transferred Out**
MEA*AF*PRQ*200*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 – Not Net Metered

- Consumption = 300 kWh
- Generation Transferred In = 200 kWh
- Billed Consumption – 100 kWh

PTD*BB = 100 Billed Consumption
PTD*SU = 300 Net Consumption
PTD*PM = 300 Net Consumption
PTD*BJ (77) = 200 Generation Transferred In

300 Net Consumption - 200 Net Transferred In = PTD*BB Loop of 100 kWh Billed

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*100*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*300*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*300*KH	**Consumption**
MEA*AA*PRQ*300*KH*20000*20300*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*77*200*KH	**Generation Transferred In**
MEA*AF*PRQ*200*KH***51	Generation Transferred In – Total Non TOU

Non-TOU reporting only net kWh (BGE)
Example #4 – Parent Host Generation Only Account, Beginning Bank, No Self-generation applied from Starting Bank. Child Account #1 Net Metered with Bank, Child Account #2 Net Metered without Bank.

Parent Host Account

- Starting Bank = 1,500 kWh
- Generation = 8,000 kWh
- Net Generation Available = 9,500 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred to Child Account #1 = 3,200 kWh
- Generation Transferred to Child Account #2 = 3,300 kWh
- Ending Bank = 3,000 kWh

PTD*BB = 0
PTD*SU = 8,000 Net Generation
PTD*PM = 8,000 Net Generation
PTD*BJ (QH) = 1,500 Starting Bank
PTD*BJ (79) = 0 Self-generation Applied from Starting Bank
PTD*BJ (78) = 6,500 Net Transferred Out
PTD*BJ (QE) = 3,000 Ending Bank

1,500 Starting Bank + 8,000 Net Generation – 6,500 Net Transferred – 3,000 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*87*8000*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*8000*KH	**Generation**
MEA*AA*PRQ*8000*KH*28300*20300*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QH*1500*KH	**Starting Bank**
MEA*AF*PRQ*1500*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied From Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied From Starting Bank – Total Non TOU
QTY*78*6500*KH	**Generation Transferred Out**
MEA*AF*PRQ*6500*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*3000*KH	**Ending Bank**
MEA*AF*PRQ*3000*KH***51	Ending Bank – Total Non TOU

Child Account #1– Net Metered with Starting Bank (BGE Net Metered Child Accounts retain their OWN excess generation, carried over to the following month. It is NOT transferred out to the Total Generation for the family during the period. BGE Net Metered Child must first exhaust all of its own generation before receiving any generation from the Parent Host)

- Starting Bank = 500 kWh
- Net Consumption = 3,700 kWh
- Self-generation applied from Starting Bank = 500 kWh
- Generation Transferred In = 3,200 kWh
- Ending Bank = 0 kWh

PTD*BB = 0
PTD*SU = 3,700 Net Consumption
PTD*PM = 3,700 Net Consumption
PTD*BJ (QH) = 500 Starting Bank
PTD*BJ (79) = 500 Self-generation Applied from Starting Bank
PTD*BJ (77) = 3,200 Net Transferred In
PTD*BJ (QE) = 0 Ending Bank

500 Starting Bank - 3,700 Net Consumption + 3,200 Net Transferred In – 0 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*3700*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*3700*KH	**Consumption**
MEA*AA*PRQ*3700*KH*20000*23700*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QH*500*KH	**Starting Bank**
MEA*AF*PRQ*500*KH***51	Starting Bank – Total Non TOU
QTY*79*500*KH	**Self-generation Applied From Starting Bank**
MEA*AF*PRQ*500*KH***51	Self-generation Applied From Starting Bank – Total Non TOU
QTY*77*3200*KH	**Generation Transferred In**
MEA*AF*PRQ*3200*KH***51	Generation Transferred In – Total Non TOU
QTY*QE*0*KH	**Ending Bank**
MEA*AF*PRQ*0*KH***51	Ending Bank – Total Non TOU

Child Account #2– Net Metered without Starting Bank or Ending Bank

- Starting Bank = 0 kWh
- Net Consumption = 3,300 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred In = 3,300 kWh
- Ending Bank = 0 kWh

PTD*BB = 0
PTD*SU = 3,300 Net Consumption
PTD*PM = 3,300 Net Consumption
PTD*BJ (QH) = 0 Starting Bank
PTD*BJ (79) = 0 Self-generation Applied from Starting Bank
PTD*BJ (77) = 3,300 Net Transferred In
PTD*BJ (QE) = 0 Ending Bank

0 Starting Bank - 3,300 Net Consumption + 3,300 Net Transferred In – 0 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*3300*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*3300*KH	**Consumption**
MEA*AA*PRQ*3300*KH*40000*43300*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QH*0*KH	**Starting Bank**
MEA*AF*PRQ*0*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied From Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied From Starting Bank – Total Non TOU
QTY*77*3300*KH	**Generation Transferred In**
MEA*AF*PRQ*3300*KH***51	Generation Transferred In – Total Non TOU
QTY*QE*0*KH	**Ending Bank**
MEA*AF*PRQ*0*KH***51	Ending Bank – Total Non TOU

Non-TOU reporting only net kWh (BGE)
Example #5 – Parent Host Net Metered Account, Beginning Bank, No Self-generation applied from Starting Bank, Excess Generation Transferred to 1 Child Account with Multiple Meters, *Remaining Banked*

Parent Host Account

- Starting Bank = 50 kWh
- Net Generation = 300 kWh
- Net Generation Available = 350 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred to Child Account = 200 kWh
- Ending Bank = 150 kWh

PTD*BB = 0
PTD*SU = 300 Net Generation
PTD*PM = 300 Net Generation
PTD*BJ (QH) = 50 Starting Bank
PTD*BJ (79) = 0 Self-generation Applied from Starting Bank
PTD*BJ (78) = 200 Net Transferred Out
PTD*BJ (QE) = 150 Banked

50 Starting Bank + 300 Net Generation - 200 Net Transferred -150 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*87*300*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*300*KH	**Generation**
MEA*AA*PRQ*300*KH*4600*4300*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QH*50*KH	**Starting Bank**
MEA*AF*PRQ*50*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied From Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied From Starting Bank – Total Non TOU
QTY*78*200*KH	**Generation Transferred Out**
MEA*AF*PRQ*200*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*150*KH	**Ending Bank**
MEA*AF*PRQ*150*KH***51	Ending Bank – Total Non TOU

Child Account – Not Net Metered

- Consumption = 200 kWh
- Generation Transferred In = 200 kWh
- Billed Consumption – 0 kWh

PTD*BB = 0 Billed Consumption
PTD*SU = 200 Net Consumption
PTD*PM = 200 Net Consumption
PTD*BJ = 200 Generation Transferred In

200 Net Consumption - 200 Net Transferred In = PTD*BB Loop of 0 kWh Billed
Two meters -Meter 11111111 – Consumption 125, Meter 22222222 – Consumption 75

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*200*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*125*KH	**Consumption**
MEA*AA*PRQ*125*KH*20000*20125*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*22222222	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*75*KH	**Consumption**
MEA*AA*PRQ*75*KH*20000*20075*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*77*200*KH	**Generation Transferred In**
MEA*AF*PRQ*200*KH***51	Generation Transferred In – Totalizer (Non TOU)

Non-TOU reporting only net kWh (BGE)
***Example #6** – Parent Host Net Metered Account, example for end of year net metering True-Up of excess generation. (Showing Parent Host accounts only)*

Parent Host Account – April reporting month (Ending bank true up month).
NOTE: During True-Up for TOU, if one TOU peak contains excess generation, the QTY*QB must be sent for all TOU's even when others contain 0 kWh. For non-TOU, if there is no excess generation during the True-Up event, the QTY*QB will NOT be sent.

- Starting Bank = 0 kWh
- Net Generation = 300 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred to Child Account = 200 kWh
- True-Up = 100 kWh
- Ending Bank = 0 kWh

PTD*BB = 0
PTD*SU = 300 Net Generation
PTD*PM = 300 Net Generation
PTD*BJ (QH) = 0 Starting Bank
PTD*BJ (79) = 0 Self-generation Applied from Starting Bank
PTD*BJ (78) = 200 Net Transferred Out
PTD*BJ (QB) = 100 True-up (Cashed Out)
PTD*BJ (QE) = 0 Banked (Trued up, will NOT appear in May's Starting Bank)

0 Starting Bank + 300 Net Generation - 200 Net Transferred -100 Trued up = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160401	Start period
DTM*151*20160430	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160401	Start period
DTM*151*20160430	End period
QTY*87*300*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160401	Start period
DTM*151*20160430	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*300*KH	**Generation**
MEA*AA*PRQ*300*KH*4300*4000*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160401	Start period
DTM*151*20160430	End period
QTY*QH*0*KH	**Starting Bank**
MEA*AF*PRQ*0*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied From Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied From Starting Bank – Total Non TOU
QTY*78*200*KH	**Generation Transferred Out**
MEA*AF*PRQ*200*KH***51	Generation Transferred Out – Total Non TOU
QTY*QB*100*KH	**True-Up**
MEA*AF*PRQ*100*KH***51	True-Up – Total Non TOU
QTY*QE*0*KH	**Ending Bank**
MEA*AF*PRQ*0*KH***51	Ending Bank – Total Non TOU

Parent Host Account – May reporting month (Ending bank from April trued up, no Starting Bank)

- Starting Bank = 0 kWh
- Net Generation = 300 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred to Child Account = 100 kWh
- Ending Bank = 200 kWh

PTD*BB = 0
PTD*SU = 300 Net Generation
PTD*PM = 300 Net Generation
PTD*BJ (QH) = 0 Starting Bank
PTD*BJ (79) = 0 Self-generation Applied from Starting Bank
PTD*BJ (78) = 100 Net Transferred Out
PTD*BJ (QE) = 200 Banked

0 Starting Bank + 300 Net Generation - 100 Net Transferred -200 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160430	Start period
DTM*151*20160530	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160430	Start period
DTM*151*20160530	End period
QTY*87*300*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160430	Start period
DTM*151*20160530	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*300*KH	**Generation**
MEA*AA*PRQ*300*KH*4300*4000*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160430	Start period
DTM*151*20160530	End period
QTY*QH*0*KH	**Starting Bank**
MEA*AF*PRQ*0*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied From Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied From Starting Bank – Total Non TOU
QTY*78*100*KH	**Generation Transferred Out**
MEA*AF*PRQ*100*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*200*KH	**Ending Bank**
MEA*AF*PRQ*200*KH***51	Ending Bank – Total Non TOU

Non-TOU reporting consumption kWh (BGE)
***Example #7** – Parent Host Net Metered Account, Beginning Bank, Records consumption for current billing period, Self-generation applied from Starting Bank, Part of Reduced Excess Generation Transferred to 1 Child Account, Remaining Generation Banked*

Parent Host Account

- Starting Bank = 1000 kWh
- Net Consumption = 200 kWh
- 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*PM = 200 Net Consumption
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*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*200*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*200*KH	**Generation**
MEA*AA*PRQ*200*KH*12450*12650*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QH*1000*KH	**Starting Bank**
MEA*AF*PRQ*1000*KH***51	Starting Bank – Total Non TOU
QTY*79*200*KH	**Self-generation Applied From Starting Bank**
MEA*AF*PRQ*200*KH***51	Self-generation Applied From Starting Bank – Total Non TOU
QTY*78*300*KH	**Generation Transferred Out**
MEA*AF*PRQ*300*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*500*KH	**Ending Bank**
MEA*AF*PRQ*500*KH***51	Ending Bank – Total Non TOU

Child Account – Not Net Metered

- Consumption = 300 kWh
- Generation Transferred In = 300 kWh
- Billed Consumption – 0 kWh

PTD*BB = 0 Billed Consumption
PTD*SU = 300 Net Consumption
PTD*PM = 300 Net Consumption
PTD*BJ (77) = 300 Generation Transferred In

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

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*300*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*300*KH	**Consumption**
MEA*AA*PRQ*300*KH*20000*20300*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*77*300*KH	**Generation Transferred In**
MEA*AF*PRQ*300*KH***51	Generation Transferred In – Total Non TOU

Maryland (PHI/PE) - Examples of PTD*BJ Loop for Aggregate Net Energy Metering (ANEM), Non-TOU

Non-TOU with Separate Consumption & Generation (PHI & FirstEnergy)
***Example #1** – Parent Host Net Metered Account, No Beginning Bank, No Self-generation applied from Starting Bank, Excess Generation Transferred to 1 Child Account, Remaining Banked*

Parent Host Account

- Starting Bank = 0 kWh
- Consumption = 1,000 kWh
- Generation = 1,300 kWh
- Net Generation Available = 300 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred to Child Account = 200 kWh
- Ending Bank = 100 kWh

PTD*BB = 0
PTD*SU = 300 Net Generation
PTD*PM = 1000 Consumption
PTD*PM = 1300 Generation
PTD*BJ (QH) = 0 Starting Bank
PTD*BJ (79) = 0 Self-generation Applied from Starting Bank
PTD*BJ (78) = 200 Net Transferred Out
PTD*BJ (QE) = 100 Banked

0 Starting Bank + 300 Net Generation - 200 Net Transferred -100 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*87*300*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*1000*KH	**Consumption**
MEA*AA*PRQ*1000*KH*20000*21000*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*1300*KH	**Generation**
MEA*AA*PRQ*1300*KH*4300*3000*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QH*0*KH	**Starting Bank**
MEA*AF*PRQ*0*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied from Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied from Starting Bank – Total Non TOU
QTY*78*200*KH	**Generation Transferred Out**
MEA*AF*PRQ*200*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*100*KH	**Ending Bank**
MEA*AF*PRQ*100*KH***51	Ending Bank – Total Non TOU

Child Account – Not Net Metered

- Consumption = 300 kWh
- Generation Transferred In = 200 kWh
- Billed Consumption – 100 kWh

PTD*BB = 0 Billed Consumption
PTD*SU = 200 Consumption
PTD*PM = 200 Consumption
PTD*BJ = 200 Generation Transferred In

200 Net Consumption - 200 Net Transferred In = PTD*BB Loop of 0 kWh Billed

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*200*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*200*KH	**Consumption**
MEA*AA*PRQ*200*KH*20000*20200*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*77*200*KH	**Generation Transferred In**
MEA*AF*PRQ*200*KH***51	Generation Transferred In – Total Non TOU

Non-TOU with Separate Consumption & Generation (PHI & FirstEnergy)
***Example #2** – Parent Host Net Metered Account, Beginning Bank, No Self-generation applied from Starting Bank, Excess Generation Transferred to 1 Child Account, Remaining Banked*

Parent Host Account

- Starting Bank = 50 kWh
- Consumption = 1,000 kWh
- Generation = 1,300 kWh
- Net Generation Available = 350 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred to Child Account = 200 kWh
- Ending Bank = 150 kWh

PTD*BB = 0
PTD*SU = 300 Net Generation
PTD*PM = 1000 Consumption
PTD*PM = 1300 Generation
PTD*BJ (QH) = 50 Starting Bank
PTD*BJ (79) = 0 Self Generation Applied from Starting Bank
PTD*BJ (78) = 200 Net Transferred Out
PTD*BJ (QE) = 150 Banked

50 Starting Bank + 300 Net Generation - 200 Net Transferred -150 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*87*300*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*1000*KH	**Consumption**
MEA*AA*PRQ*1000*KH*20000*21000*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*1300*KH	**Generation**
MEA*AA*PRQ*1300*KH*4600*3300*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QH*50*KH	**Starting Bank**
MEA*AF*PRQ*50*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied from Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied from Starting Bank – Total Non TOU
QTY*78*200*KH	**Generation Transferred Out**
MEA*AF*PRQ*200*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*150*KH	**Ending Bank**
MEA*AF*PRQ*150*KH***51	Ending Bank – Total Non TOU

Child Account – Not Net Metered

- Consumption = 200 kWh
- Generation Transferred In = 200 kWh
- Billed Consumption – 0 kWh

PTD*BB = 0 Billed Consumption
PTD*SU = 200 Consumption
PTD*PM = 200 Consumption
PTD*BJ = 200 Generation Transferred In

200 Net Consumption - 200 Net Transferred In = PTD*BB Loop of 0 kWh Billed

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*200*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*200*KH	**Consumption**
MEA*AA*PRQ*200*KH*20000*20200*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*77*200*KH	**Generation Transferred In**
MEA*AF*PRQ*200*KH***51	Generation Transferred In – Total Non TOU

Non-TOU with Separate Consumption & Generation (PHI & FirstEnergy)
***Example #3** – Parent Host Net Metered Account, Beginning Bank, No Self-generation applied from Starting Bank, All Excess Generation/Banked kWh Transferred to 1 Child Account, No Ending Bank*

Parent Host Account

- Starting Bank = 50 kWh
- Consumption = 1,000 kWh
- Generation = 1,150 kWh
- Net Generation Available = 200 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred to Child Account = 200 kWh
- Ending Bank = 0 kWh

PTD*BB = 0
PTD*SU = 150 Net Generation
PTD*PM = 1000 Consumption
PTD*PM = 1150 Generation
PTD*BJ (QH) = 50 Starting Bank
PTD*BJ (79) = 0 Self Generation Applied from Starting Bank
PTD*BJ (78) = 200 Net Transferred Out
PTD*BJ (QE) = 0 Ending Bank

50 Starting Bank + 150 Net Generation - 200 Net Transferred - 0 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*87*150*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*1000*KH	**Consumption**
MEA*AA*PRQ*1000*KH*20000*21000*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*1150*KH	**Generation**
MEA*AA*PRQ*1150*KH*13450*12300*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QH*50*KH	**Starting Bank**
MEA*AF*PRQ*50*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied from Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied from Starting Bank – Total Non TOU
QTY*78*200*KH	**Generation Transferred Out**
MEA*AF*PRQ*200*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 – Not Net Metered

- Consumption = 300 kWh
- Generation Transferred In = 200 kWh
- Billed Consumption – 100 kWh

PTD*BB = 100 Billed Consumption
PTD*SU = 300 Consumption
PTD*PM = 300 Consumption
PTD*BJ = 200 Generation Transferred In

300 Net Consumption - 200 Net Transferred In = PTD*BB Loop of 100 kWh Billed

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*100*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*300*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*300*KH	**Consumption**
MEA*AA*PRQ*300*KH*20000*20300*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*77*200*KH	**Generation Transferred In**
MEA*AF*PRQ*200*KH***51	Generation Transferred In – Total Non TOU

Non-TOU with Separate Consumption & Generation (PHI & FirstEnergy)
***Example #4** – Parent Host Net Metered Account, Beginning Bank, No Self-generation applied from Starting Bank, Excess Generation Transferred to 1 Child Account with Multiple Meters, Remaining Banked*

Parent Host Account

- Starting Bank = 50 kWh
- Consumption = 1,000 kWh
- Generation = 1,300 kWh
- Net Generation Available = 350 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred to Child Account = 200 kWh
- Ending Bank = 150 kWh

PTD*BB = 0
PTD*SU = 300 Net Generation
PTD*PM = 1000 Consumption
PTD*PM = 1300 Generation
PTD*BJ (QH) = 50 Starting Bank
PTD*BJ (79) = 0 Self Generation Applied from Starting Bank
PTD*BJ (78) = 200 Net Transferred Out
PTD*BJ (QE) = 150 Banked

50 Starting Bank + 300 Net Generation - 200 Net Transferred -150 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*87*300*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*1000*KH	**Consumption**
MEA*AA*PRQ*1000*KH*20000*21000*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*1300*KH	**Generation**
MEA*AA*PRQ*1300*KH*4600*3300*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QH*50*KH	**Starting Bank**
MEA*AF*PRQ*50*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied from Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied from Starting Bank – Total Non TOU
QTY*78*200*KH	**Generation Transferred Out**
MEA*AF*PRQ*200*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*150*KH	**Ending Bank**
MEA*AF*PRQ*150*KH***51	Ending Bank – Total Non TOU

Child Account – Not Net Metered

- Consumption = 200 kWh
- Generation Transferred In = 200 kWh
- Billed Consumption – 0 kWh

PTD*BB = 0 Billed Consumption
PTD*SU = 200 Net Consumption
PTD*PM = 125 Net Consumption (Meter 11111111)
PTD*PM = 75 Net Consumption (Meter 22222222)
PTD*BJ = 200 Generation Transferred In

200 Net Consumption - 200 Net Transferred In = PTD*BB Loop of 0 kWh Billed
Two meters -Meter 11111111 – Consumption 125, Meter 22222222 – Consumption 75

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*200*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*125*KH	**Consumption**
MEA*AA*PRQ*125*KH*20000*20125*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*22222222	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*75*KH	**Consumption**
MEA*AA*PRQ*75*KH*20000*20075*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*77*200*KH	**Generation Transferred In**
MEA*AF*PRQ*200*KH***51	Generation Transferred In – Totalizer (Non TOU)

Non-TOU reporting Separate Consumption & Generation (PHI & FirstEnergy)
***Example #5** – Parent Host Net Metered Account, Beginning Bank, Records consumption for current billing period, Self-generation applied from Starting Bank, Part of Reduced Excess Generation Transferred to 1 Child Account, Remaining Generation Banked*

Parent Host Account

- Starting Bank = 1000 kWh
- Consumption = 400 kWh
- Generation = 200 kWh
- 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*PM = 400 Consumption
PTD*PM = 200 Generation
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

200 Net Consumption - 200 Self-generation applied = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*200*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160401	Start period
DTM*151*20160430	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*400*KH	**Consumption**
MEA*AA*PRQ*400*KH*20000*20400*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*200*KH	**Generation**
MEA*AA*PRQ*200*KH*12450*12650*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QH*1000*KH	**Starting Bank**
MEA*AF*PRQ*1000*KH***51	Starting Bank – Total Non TOU
QTY*79*200*KH	**Self-generation Applied from Starting Bank**
MEA*AF*PRQ*200*KH***51	Self-generation Applied from Starting Bank – Total Non TOU
QTY*78*300*KH	**Generation Transferred Out**
MEA*AF*PRQ*300*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*500*KH	**Ending Bank**
MEA*AF*PRQ*500*KH***51	Ending Bank – Total Non TOU

Child Account – Not Net Metered

- Consumption = 300 kWh
- Generation Transferred In = 300 kWh
- Billed Consumption – 0 kWh

PTD*BB = 0 Billed Consumption
PTD*SU = 300 Net Consumption
PTD*PM = 300 Net Consumption
PTD*BJ (77) = 300 Generation Transferred In

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

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*300*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*300*KH	**Consumption**
MEA*AA*PRQ*300*KH*20000*20300*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*77*300*KH	**Generation Transferred In**
MEA*AF*PRQ*300*KH***51	Generation Transferred In – Total Non TOU

Non-TOU with Separate Consumption & Generation
Example #6** – Parent Host Generation Only Account, Two Parent Accounts with Generation, Two Child Accounts, remaining banked.* ***(PHI only scenario, neither BGE nor FirstEnergy use Parent accounts)

Parent Host Account

- Starting Bank = 1,500 kWh
- Generation = 8,000 kWh
- Generation Transferred In from 1st Parent Account = 1000 kWh
- Net Generation Available = 10,500 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred Out to 2nd Parent Account = 500 kWh
- Generation Transferred Out to 1st Child Account = 4,700 kWh
- Generation Transferred Out to 2nd Child Account = 4,300 kWh
- Ending Bank = 1,000 kWh

PTD*BB = 0
PTD*SU = 8,000 Generation
PTD*PM = 1,000 Consumption
PTD*PM = 9,000 Generation
PTD*BJ (QH) = 1,500 Starting Bank
PTD*BJ (77) = 1,000 Net Transferred In (from Parent #1)
PTD*BJ (79) = 0 Self Generation Applied from Starting Bank
PTD*BJ (78) = 9,500 Net Transferred Out
PTD*BJ (QE) = 1,000 Ending Bank

1,500 Starting Bank + 8,000 Net Generation + 1,000 Net Generation from 1st Parent – 500 Net Transferred to 2nd Parent – 4,700 Transferred to 1st Child – 4,300 Transferred to 2nd Child – 1,000 Ending Bank = PTD*BB Loop 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*87*8000*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*1000*KH	**Consumption**
MEA*AA*PRQ*1000*KH*28300*29300*51	Total generation, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*9000*KH	**Generation**
MEA*AA*PRQ*9000*KH*29300*20300*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QH*1500*KH	**Starting Bank**
MEA*AF*PRQ*1500*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied from Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied from Starting Bank – Total Non TOU

QTY*77*1000*KH	**Generation Transferred In**
MEA*AF*PRQ*1000*KH***51	Generation Transferred In – Totalizer (Non TOU)
QTY*78*9500*KH	**Generation Transferred Out**
MEA*AF*PRQ*500*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*1000*KH	**Ending Bank**
MEA*AF*PRQ*1000*KH***51	Ending Bank – Total Non TOU

Parent Account #1 – PHI parent account's excess generation is transferred out to the total net generation available for the family during the reporting period. Does not utilize any starting bank or ending bank to carry over to itself for use during the following month.

- Consumption = 2,000 kWh
- Generation = 3,000 kWh
- Net Generation Available = 1,000 kWh
- Generation Transferred In = 0 kWh
- Generation Transferred Out = 1,000 kWh

PTD*BB = 0
PTD*SU = 1,000 Net Generation
PTD*PM = 2,000 Consumption
PTD*PM – 3,000 Generation
PTD*BJ (77) = 0 Net Transferred In (from ParentHost)
PTD*BJ (78) = 1,000 Net Transferred Out

1000 Net Generation – 1,000 Net Transferred = PTD*BB Loop of 0

Total Generation Available for period is now – 10,500 (Parent Host 9,500 + 1st Parent 1,000)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*87*1000*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*2000*KH	**Consumption**
MEA*AA*PRQ*2000*KH*26300*28300*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*3000*KH	**Generation**
MEA*AA*PRQ*3000*KH*28300*25300*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*77*0*KH	**Generation Transferred In**
MEA*AF*PRQ*0*KH***51	Generation Transferred In – Totalizer (Non TOU)
QTY*78*1000*KH	**Generation Transferred Out**
MEA*AF*PRQ*1000*KH***51	Generation Transferred Out – Total Non TOU

Parent Account #2 - Does not utilize any starting bank or ending bank to carry over to itself for use during the following month.

- Consumption = 2,500 kWh
- Generation = 2,000 kWh
- Generation Transferred In = 500 kWh
- Generation Transferred Out = 0 kWh

PTD*BB = 0
PTD*SU = 500 Net Consumption
PTD*PM = 2,500 Consumption
PTD*PM – 2,000 Generation
PTD*BJ (77) = 500 Net Generation Transferred In
PTD*BJ (78) = 1,000 Net Transferred Out

500 Net Consumption – 500 Net Transferred = PTD*BB Loop of 0

Total Generation Available for period is now – 10,000 (Parent Host 9,500 + 1st Parent 1,000 – 2nd Parent 500)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*500*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*2500*KH	**Consumption**
MEA*AA*PRQ*2500*KH*26300*28800*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*2000*KH	**Generation**
MEA*AA*PRQ*3000*KH*28800*26800*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*77*500*KH	**Generation Transferred In**
MEA*AF*PRQ*500*KH***51	Generation Transferred In – Total Non TOU
QTY*78*0*KH	**Generation Transferred Out**
MEA*AF*PRQ*0*KH***51	Generation Transferred Out – Total Non TOU

Child Account #1

- Consumption = 4,700 kWh
- Generation Transferred In = 4,700 kWh

PTD*BB = 0
PTD*SU = 4,700 Consumption
PTD*PM = 4,700 Consumption
PTD*BJ (77) = 4,700 Transferred In

4,700 Consumption - 4,700 Transferred In – 0 Ending Bank = PTD*BB Loop of 0

Total Generation Available for period is now – 5,300 (Parent Host 9,500 + Parent1 1,000 – Parent2 500 – Child1 4700)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*4700*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*4700*KH	**Consumption**
MEA*AA*PRQ*4700*KH*20000*24700*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*77*4700*KH	**Generation Transferred In**
MEA*AF*PRQ*4700*KH***51	Generation Transferred In – Total Non TOU

Child Account #2

- Consumption = 4,300 kWh
- Generation Transferred In = 4,300 kWh

PTD*BB = 0
PTD*SU = 4,300 Net Consumption
PTD*PM = 4,300 Consumption
PTD*BJ (77) = 4,300 Net Transferred In

4,300 Consumption - 4,300 Transferred In – 0 Ending Bank = PTD*BB Loop of 0

Total Generation Ending Bank on Parent Host = 1,000 (Parent Host 9,500 + 1st Parent 1,000 – 2nd Parent 500 – 1st Child 4700 – 2nd Child 4300)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*QD*4300*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*4300*KH	**Consumption**
MEA*AA*PRQ*4300*KH*40000*44300*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160101	Start period
DTM*151*20160131	End period
QTY*77*4300*KH	**Generation Transferred In**
MEA*AF*PRQ*4300*KH***51	Generation Transferred In – Total Non TOU

Non-TOU reporting Separate Consumption & Generation (PHI & FirstEnergy)
***Example #7** – Parent Host Net Metered Account, example for end of year net metering True-Up of excess generation. (Showing Parent Host accounts only)*

Parent Host Account - April reporting month (Ending bank true up month)

NOTE: During True-Up for TOU, if one TOU peak contains excess generation, the QTY*QB must be sent for all TOU's even when others contain 0 kWh. For non-TOU, if there is no excess generation during the True-Up event, the QTY*QB will NOT be sent.

- Starting Bank = 0 kWh
- Consumption = 1,000 kWh
- Generation = 1,300 kWh
- Net Generation Available = 300 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred to Child Account = 200 kWh
- True-Up = 100 kWh
- Ending Bank = 0 kWh

PTD*BB = 0
PTD*SU = 300 Net Generation
PTD*PM = 1000 Consumption
PTD*PM = 1300 Generation
PTD*BJ (QH) = 0 Starting Bank
PTD*BJ (79) = 0 Self Generation Applied from Starting Bank
PTD*BJ (78) = 200 Net Transferred Out
PTD*BJ (QB) = 100 True-Up (Cashed Out)
PTD*BJ (QE) = 0 Banked

0 Starting Bank + 300 Net Generation - 200 Net Transferred -100 True-Up= PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160401	Start period
DTM*151*20160430	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160401	Start period
DTM*151*20160430	End period
QTY*87*300*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160401	Start period
DTM*151*20160430	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*1000*KH	**Consumption**
MEA*AA*PRQ*1000*KH*20000*21000*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160401	Start period
DTM*151*20160430	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*1300*KH	**Generation**
MEA*AA*PRQ*1300*KH*4300*3000*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160401	Start period
DTM*151*20160430	End period
QTY*QH*0*KH	**Starting Bank**
MEA*AF*PRQ*0*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied from Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied from Starting Bank – Total Non TOU
QTY*78*200*KH	**Generation Transferred Out**
MEA*AF*PRQ*200*KH***51	Generation Transferred Out – Total Non TOU
QTY*QB*100*KH	**True Up**
MEA*AF*PRQ*100*KH***51	True Up – Total Non TOU

QTY*QE*0*KH	**Ending Bank**
MEA*AF*PRQ*0*KH***51	Ending Bank – Total Non TOU

Parent Host Account – May reporting month (Ending bank from April trued up, no Starting Bank)

- Starting Bank = 0 kWh
- Consumption = 1,000 kWh
- Generation = 1,300 kWh
- Net Generation Available = 300 kWh
- Self-generation applied from Starting Bank = 0 kWh
- Generation Transferred to Child Account = 200 kWh
- Ending Bank = 100 kWh

PTD*BB = 0
PTD*SU = 300 Net Generation
PTD*PM = 1000 Consumption
PTD*PM = 1300 Generation
PTD*BJ (QH) = 0 Starting Bank (Bank Trued up, does not match prior month's ending bank)
PTD*BJ (79) = 0 Self Generation Applied from Starting Bank
PTD*BJ (78) = 200 Net Transferred Out
PTD*BJ (QE) = 100 Banked

0 Starting Bank + 300 Net Generation - 200 Net Transferred -100 Ending Bank = PTD*BB Loop of 0

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160430	Start period
DTM*151*20160531	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160430	Start period
DTM*151*20160531	End period
QTY*87*300*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160430	Start period
DTM*151*20160531	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*QD*1000*KH	**Consumption**
MEA*AA*PRQ*1000*KH*20000*21000*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160430	Start period
DTM*151*20160531	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*6.0	Number of dials or digits
QTY*87*1300*KH	**Generation**
MEA*AA*PRQ*1300*KH*4300*3000*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160430	Start period
DTM*151*20160531	End period
QTY*QH*0*KH	**Starting Bank**
MEA*AF*PRQ*0*KH***51	Starting Bank – Total Non TOU
QTY*79*0*KH	**Self-generation Applied from Starting Bank**
MEA*AF*PRQ*0*KH***51	Self-generation Applied from Starting Bank – Total Non TOU
QTY*78*200*KH	**Generation Transferred Out**
MEA*AF*PRQ*200*KH***51	Generation Transferred Out – Total Non TOU
QTY*QE*100*KH	**Ending Bank**
MEA*AF*PRQ*100*KH***51	Ending Bank – Total Non TOU

Maryland (BGE) - Examples of PTD*BJ Loop for Aggregate Net Energy Metering (ANEM), TOU

BGE Scenario A - Host is TOU, Child # 1 is Non-TOU, Child # 2 is TOU. Neither Child is net metered.

Parent Host Account
Starting Banked amounts for Host
Off Peak -300 kWh
On Peak -500 kWh
Int Peak -400 kWh

Host's current usage for 04/05/16 to 05/04/16
Off Peak -50 kWh
On Peak -100 kWh
Int Peak -75 kWh

So the host now has the following excess generation to apply to his children:
-350 kWh from Off Peak
-600 kWh from On Peak
-475 kWh from Int Peak

Ending Banked amounts for Host
Off Peak 0 kWh
On Peak -325 kWh
Int Peak 0 kWh

Child #1 (NON-TOU)
Current usage for 04/05/16 to 05/04/16 is +400 kWh (350 kWh from Host's Off Peak and 50 kWh from Host's Int Peak applied)

Child #2 (TOU)
Current usage for 04/05/16 to 05/04/16
Off Peak +200 kWh (200 kwh from Host's On Peak applied)
On Peak +300 kWh (300 kWh from Host's Int Peak applied)
Int Peak +200 kWh (125 kWh from Host's Int Peak and 75 kWh from Host's On Peak applied)

Notes:

4. BGE applies generation from the host using Off Peak first, then Intermediate and lastly On Peak.
5. BGE applies generation to a child in the opposite order (On Peak first, then Intermediate and lastly Off Peak).

Parent Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*225*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period

REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*50*KH	Generation - Off Peak
MEA*AA*PRQ*50*KH*0*0*41	Total generation, with begin/end readings
QTY*87*100*KH	Generation - On Peak
MEA*AA*PRQ*100*KH*0*0*42	Total consumption, with begin/end readings
QTY*87*75*KH	Generation - Intermediate Peak
MEA*AA*PRQ*75*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***300*KH	Starting Bank
MEA*AF*PRQ*300*KH***41	Starting Bank – Off Peak
QTY*QH*500*KH	Starting Bank
MEA*AF*PRQ*500*KH***42	Starting Bank – On Peak
QTY*QH*400*KH	Starting Bank
MEA*AF*PRQ*400*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*78*350*KH	Generation Transferred Out
MEA*AF*PRQ*350*KH***41	Generation Transferred Out – Off Peak
QTY*78*275*KH	Generation Transferred Out
MEA*AF*PRQ*275*KH***42	Generation Transferred Out – On Peak
QTY*78*475*KH	Generation Transferred Out
MEA*AF*PRQ*475*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*325*KH	Ending Bank
MEA*AF*PRQ*325*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Child #1 (Non-TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*400*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*400*KH	Consumption
MEA*AA*PRQ*400*KH*20000*20400*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*400*KH	Generation Transferred In
MEA*AF*PRQ*400*KH***51	Generation Transferred In – Total Non TOU

Child #2 (TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*700*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits

QTY*QD*200*KH	Consumption - Off Peak
MEA*AA*PRQ*200*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*300*KH	Consumption - On Peak
MEA*AA*PRQ*300*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*200*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***41	Generation Transferred In – Off Peak
QTY*77*300*KH	Generation Transferred In
MEA*AF*PRQ*300*KH***42	Generation Transferred In – On Peak
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***43	Generation Transferred In – Intermediate Peak

BGE Scenario B - Host is TOU, Child # 1 is TOU, Child # 2 is Non-TOU

Parent Host Account
Starting Banked amounts for Host
Off Peak -300 kWh
On Peak -500 kWh
Int Peak -400 kWh

Host's current usage for 04/05/16 to 05/04/16
Off Peak -50 kWh
On Peak -100 kWh
Int Peak -75 kWh

So the host now has the following excess generation to apply to his children:
-350 kWh from Off Peak
-600 kWh from On Peak
-475 kWh from Int Peak

Ending Banked amounts for Host
Off Peak 0 kWh
On Peak -325 kWh
Int Peak 0 kWh

Child #1 (TOU)
Current usage for 04/05/16 to 05/04/16
Off Peak +200 kWh (200 kwh from Host's Int Peak applied)
On Peak +300 kWh (300 kWh from Host's Off Peak applied)
Int Peak +200 kWh (50 kWh from Host's Off Peak and 150 kWh from Host's Int Peak applied)

Child #2 (NON-TOU)
Current usage for 04/05/16 to 05/04/16 is +400 kWh (125 kWh from Host's Int Peak and 275 kWh from Host's On Peak applied)

Notes:

4. BGE applies generation from the host using Off Peak first, then Intermediate and lastly On Peak.
5. BGE applies generation to a child in the opposite order (On Peak first, then Intermediate and lastly Off Peak).

Parent Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*225*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*50*KH	Generation - Off Peak
MEA*AA*PRQ*50*KH*0*0*41	Total generation, with begin/end readings
QTY*87*100*KH	Generation - On Peak
MEA*AA*PRQ*100*KH*0*0*42	Total consumption, with begin/end readings
QTY*87*75*KH	Generation - Intermediate Peak
MEA*AA*PRQ*75*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH****300*KH	Starting Bank
MEA*AF*PRQ*300*KH***41	Starting Bank – Off Peak
QTY*QH*500*KH	Starting Bank
MEA*AF*PRQ*500*KH***42	Starting Bank – On Peak
QTY*QH*400*KH	Starting Bank
MEA*AF*PRQ*400*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak

QTY*78*350*KH	Generation Transferred Out
MEA*AF*PRQ*350*KH***41	Generation Transferred Out – Off Peak
QTY*78*275*KH	Generation Transferred Out
MEA*AF*PRQ*275*KH***42	Generation Transferred Out – On Peak
QTY*78*475*KH	Generation Transferred Out
MEA*AF*PRQ*475*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*325*KH	Ending Bank
MEA*AF*PRQ*325*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Child #1 (TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*700*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*200*KH	Consumption - Off Peak
MEA*AA*PRQ*200*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*300*KH	Consumption - On Peak
MEA*AA*PRQ*300*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*200*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop

DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***41	Generation Transferred In – Off Peak
QTY*77*300*KH	Generation Transferred In
MEA*AF*PRQ*300*KH***42	Generation Transferred In – On Peak
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***43	Generation Transferred In – Intermediate Peak

Child #2 (Non-TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*400*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*400*KH	Consumption
MEA*AA*PRQ*400*KH*20000*20400*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*400*KH	Generation Transferred In
MEA*AF*PRQ*400*KH***51	Generation Transferred In – Total Non TOU

BGE Scenario C - Host is TOU, Child # 1 is TOU, Child # 2 is TOU (Host's generation is exhausted on Child # 2)

Parent Host Account
Starting Banked amounts for Host
Off Peak -300 kWh
On Peak -500 kWh
Int Peak -400 kWh

Host's current usage for 04/05/16 to 05/04/16
Off Peak -50 kWh
On Peak -100 kWh
Int Peak -75 kWh

So the host now has the following excess generation to apply to his children:
-350 kWh from Off Peak
-600 kWh from On Peak
-475 kWh from Int Peak

Ending Banked amounts for Host
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Child #1 (TOU)
Current usage for 04/05/16 to 05/04/16
Off Peak +200 kWh (200 kwh from Host's Int Peak applied)
On Peak +300 kWh (300 kWh from Host's Off Peak applied)
Int Peak +200 kWh (50 kWh from Host's Off Peak and 150 kWh from Host's Int Peak applied)

Child #2 (TOU)
Current usage for 04/05/16 to 05/04/16
Off Peak +300 kWh (Child will be billed for 300 kWh from Off Peak)
On Peak +500 kWh (125 kWh from Host's Int Peak applied and 375 kWh from Host's On Peak applied)
Int Peak +400 kWh (225 kWh from Host's On Peak applied; Child will be billed for 175 kWh from Int Peak)

Notes:

4. BGE applies generation from the host using Off Peak first, then Intermediate and lastly On Peak.
5. BGE applies generation to a child in the opposite order (On Peak first, then Intermediate and lastly Off Peak).

ParentHost Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*225*KH	Calculated net KH
PTD*PM	Meter detail loop

DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*50*KH	Generation - Off Peak
MEA*AA*PRQ*50*KH*0*0*41	Total generation, with begin/end readings
QTY*87*100*KH	Generation - On Peak
MEA*AA*PRQ*100*KH*0*0*42	Total consumption, with begin/end readings
QTY*87*75*KH	Generation - Intermediate Peak
MEA*AA*PRQ*75*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***300*KH	Starting Bank
MEA*AF*PRQ*300*KH***41	Starting Bank – Off Peak
QTY*QH*500*KH	Starting Bank
MEA*AF*PRQ*500*KH***42	Starting Bank – On Peak
QTY*QH*400*KH	Starting Bank
MEA*AF*PRQ*400*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*78*350*KH	Generation Transferred Out
MEA*AF*PRQ*350*KH***41	Generation Transferred Out – Off Peak
QTY*78*600*KH	Generation Transferred Out
MEA*AF*PRQ*600*KH***42	Generation Transferred Out – On Peak
QTY*78*475*KH	Generation Transferred Out
MEA*AF*PRQ*475*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Child #1 (TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*700*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*200*KH	Consumption - Off Peak
MEA*AA*PRQ*200*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*300*KH	Consumption - On Peak
MEA*AA*PRQ*300*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*200*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***41	Generation Transferred In – Off Peak
QTY*77*300*KH	Generation Transferred In
MEA*AF*PRQ*300*KH***42	Generation Transferred In – On Peak
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***43	Generation Transferred In – Intermediate Peak

Child #2 (TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*475*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period

DTM*151*20160504	End period
QTY*QD*1200*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*300*KH	Consumption - Off Peak
MEA*AA*PRQ*300*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*500*KH	Consumption - On Peak
MEA*AA*PRQ*500*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*400*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*400*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*0*KH	Generation Transferred In
MEA*AF*PRQ*0*KH***41	Generation Transferred In – Off Peak
QTY*77*500*KH	Generation Transferred In
MEA*AF*PRQ*500*KH***42	Generation Transferred In – On Peak
QTY*77*225*KH	Generation Transferred In
MEA*AF*PRQ*225*KH***43	Generation Transferred In – Intermediate Peak

BGE Scenario D - Host is TOU, Child # 1 is TOU Net Meter, Child # 2 is TOU

Parent Host Account
Starting Banked amounts for Host
Off Peak -500 kWh
On Peak -1000 kWh
Int Peak -800 kWh

Host's current usage for 04/05/16 to 05/04/16
Off Peak -100 kWh
On Peak -500 kWh
Int Peak -200 kWh

So the host now has the following excess generation to apply to his children:
-600 kWh from Off Peak
-1500 kWh from On Peak
-1000 kWh from Int Peak

Ending Banked amounts for Host
Off Peak 0 kWh
On Peak -200 kWh
Int Peak 0 kWh

Child #1 (TOU- Net Meter)
Starting Banked amounts for Child # 1
Off Peak 0 kWh
On Peak -200 kWh
Int Peak -100 kWh

Current usage for 04/05/16 to 05/04/16 for Child # 1
Off Peak +100 kWh (100 kwh from Host's Off Peak applied)
On Peak +400 kWh (100 kWh from Child's Int Peak applied, 200 kWh from Child's On Peak applied and 100 kWh from Host's Off Peak applied)
Int Peak +200 kWh (200 kWh from Host's Off Peak applied)

Ending Banked amounts for Child # 1
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Child #2 (TOU)
Current usage for 04/05/16 to 05/04/16
Off Peak +700 kWh (700 kWh from Host's On Peak applied)
On Peak +1000 kWh (200 kWh from Host's Off Peak applied and 800 kWh from Host's Int Peak applied)
Int Peak +800 kWh (200 kWh from Host's Int Peak applied and 600 kWh from Host's On Peak applied)

Notes:

4. BGE applies generation from the host using Off Peak first, then Intermediate and lastly On Peak.
5. BGE applies generation to a child in the opposite order (On Peak first, then Intermediate and lastly Off Peak).
6. A net metered Child account must first exhaust his own excess generation across all peaks before tapping into the Host's excess generation. A net metered Child will first use any excess generation from his Off peak, then Int Peak and lastly On Peak. This excess generation will be applied first to his On Peak, then Int Peak and lastly Off Peak. Once the Child's excess generation has been exhausted, the Child can receive excess generation from the Host account.

Parent Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*800*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*100*KH	Generation - Off Peak
MEA*AA*PRQ*100*KH*0*0*41	Total generation, with begin/end readings
QTY*87*500*KH	Generation - On Peak
MEA*AA*PRQ*500*KH*0*0*42	Total consumption, with begin/end readings
QTY*87*200*KH	Generation - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***500*KH	Starting Bank
MEA*AF*PRQ*500*KH***41	Starting Bank – Off Peak
QTY*QH*1000*KH	Starting Bank
MEA*AF*PRQ*1000*KH***42	Starting Bank – On Peak
QTY*QH*800*KH	Starting Bank
MEA*AF*PRQ*800*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*78*600*KH	Generation Transferred Out

MEA*AF*PRQ*600*KH***41	Generation Transferred Out – Off Peak
QTY*78*1300*KH	Generation Transferred Out
MEA*AF*PRQ*1300*KH***42	Generation Transferred Out – On Peak
QTY*78*1000*KH	Generation Transferred Out
MEA*AF*PRQ*1000*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*200*KH	Ending Bank
MEA*AF*PRQ*200*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Child #1 (TOU Net Meter)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*700*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*100*KH	Consumption - Off Peak
MEA*AA*PRQ*100*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*400*KH	Consumption - On Peak
MEA*AA*PRQ*400*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*200*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***0*KH	Starting Bank
MEA*AF*PRQ*0*KH***41	Starting Bank – Off Peak
QTY*QH*200*KH	Starting Bank

MEA*AF*PRQ*200*KH***42	Starting Bank – On Peak
QTY*QH*100*KH	Starting Bank
MEA*AF*PRQ*100*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY*79*300*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*300*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*77*100*KH	Generation Transferred In
MEA*AF*PRQ*100*KH***41	Generation Transferred In – Off Peak
QTY*77*100*KH	Generation Transferred In
MEA*AF*PRQ*100*KH***42	Generation Transferred In – On Peak
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***43	Generation Transferred In – Intermediate Peak
QTY***QE***0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Child #2 (TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*2500*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*700*KH	Consumption - Off Peak
MEA*AA*PRQ*700*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*1000*KH	Consumption - On Peak

MEA*AA*PRQ*1000*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*800*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*800*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*700*KH	Generation Transferred In
MEA*AF*PRQ*700*KH***41	Generation Transferred In – Off Peak
QTY*77*1000*KH	Generation Transferred In
MEA*AF*PRQ*1000*KH***42	Generation Transferred In – On Peak
QTY*77*800*KH	Generation Transferred In
MEA*AF*PRQ*800*KH***43	Generation Transferred In – Intermediate Peak

BGE Scenario E - Host Net Meter TOU, Child #1 Net Meter TOU (Child uses his own generation to offset current month's consumption. Child's generation is not exhausted). Child #1 receives nothing from the Host account. Child #2 is Non-TOU and receives generation from the Host.

Parent Host Account
Starting Banked amounts for Host
Off Peak -300 kWh
On Peak -500 kWh
Int Peak -400 kWh

Host's current usage for 04/05/16 to 05/04/16
Off Peak -50 kWh
On Peak -100 kWh
Int Peak -75 kWh

So the host now has the following excess generation to apply to his children:
-350 kWh from Off Peak
-600 kWh from On Peak
-475 kWh from Int Peak

Ending Banked amounts for Host
Off Peak 0 kWh
On Peak -600 kWh
Int Peak -425 kWh

Child #1 (TOU- Net Meter)
Starting Banked amounts for Child # 1
Off Peak 0 kWh
On Peak -2000 kWh
Int Peak -100 kWh

Current usage for 04/05/16 to 05/04/16 for Child # 1
Off Peak +1000 kWh (1000 kwh from Child's On Peak applied)
On Peak +400 kWh (100 kWh from Child's Int Peak applied, 300 kWh from Child's On Peak applied)
Int Peak +200 kWh (200 kWh from Child's On Peak applied)

Ending Banked amounts for Child # 1
Off Peak 0 kWh
On Peak 500 kWh
Int Peak 0 kWh

Child #2 (Non-TOU)
Current usage for 04/05/16 to 05/04/16 is +400 kWh (350 kWh from Host's Off Peak and 50 kWh from Host's Int Peak applied).

Notes:

1. BGE applies generation from the host using Off Peak first, then Intermediate and lastly On Peak.
2. BGE applies generation to a child in the opposite order (On Peak first, then Intermediate and lastly Off Peak).
3. A net metered Child account must first exhaust his own excess generation across all peaks before tapping into the Host's excess generation. A net metered Child will first use any excess generation from his Off peak, then Int Peak and lastly On Peak. This excess generation will be applied first to his On Peak, then Int Peak and lastly Off Peak. Once the Child's excess generation has been exhausted, the Child can receive excess generation from the Host account.

Parent Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*225*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*50*KH	Generation - Off Peak
MEA*AA*PRQ*50*KH*0*0*41	Total generation, with begin/end readings
QTY*87*100*KH	Generation - On Peak
MEA*AA*PRQ*100*KH*0*0*42	Total consumption, with begin/end readings
QTY*87*75*KH	Generation - Intermediate Peak
MEA*AA*PRQ*75*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***300*KH	Starting Bank
MEA*AF*PRQ*300*KH***41	Starting Bank – Off Peak
QTY*QH*500*KH	Starting Bank
MEA*AF*PRQ*500*KH***42	Starting Bank – On Peak
QTY*QH*400*KH	Starting Bank
MEA*AF*PRQ*400*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*78*350*KH	Generation Transferred Out
MEA*AF*PRQ*350*KH***41	Generation Transferred Out – Off Peak
QTY*78*0*KH	Generation Transferred Out
MEA*AF*PRQ*0*KH***42	Generation Transferred Out – On Peak

QTY*78*50*KH	Generation Transferred Out
MEA*AF*PRQ*50*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*600*KH	Ending Bank
MEA*AF*PRQ*600*KH***42	Ending Bank – On Peak
QTY*QE*425*KH	Ending Bank
MEA*AF*PRQ*425*KH***43	Ending Bank – Intermediate Peak

Child #1 (TOU Net Meter)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*1600*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*1000*KH	Consumption - Off Peak
MEA*AA*PRQ*1000*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*400*KH	Consumption - On Peak
MEA*AA*PRQ*400*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*200*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***0*KH	Starting Bank
MEA*AF*PRQ*0*KH***41	Starting Bank – Off Peak
QTY*QH*2000*KH	Starting Bank
MEA*AF*PRQ*2000*KH***42	Starting Bank – On Peak
QTY*QH*100*KH	Starting Bank
MEA*AF*PRQ*100*KH***43	Starting Bank – Intermediate Peak
QTY*79*1000*KH	Self-Generation

MEA*AF*PRQ*1000*KH***41	Self-Generation Applied to Off Peak
QTY*79*400*KH	Self-Generation
MEA*AF*PRQ*400*KH***42	Self-Generation Applied to On Peak
QTY*79*200*KH	Self-Generation
MEA*AF*PRQ*200*KH***43	Self-Generation Applied to Intermediate Peak
QTY*77*0*KH	Generation Transferred In
MEA*AF*PRQ*0*KH***41	Generation Transferred In – Off Peak
QTY*77*0*KH	Generation Transferred In
MEA*AF*PRQ*0*KH***42	Generation Transferred In – On Peak
QTY*77*0*KH	Generation Transferred In
MEA*AF*PRQ*0*KH***43	Generation Transferred In – Intermediate Peak
QTY***QE***0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*500*KH	Ending Bank
MEA*AF*PRQ*500*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Child #2 (Non-TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*400*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*400*KH	Consumption
MEA*AA*PRQ*400*KH*20000*20400*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***77***400*KH	Generation Transferred In
MEA*AF*PRQ*400*KH***51	Generation Transferred In – Total Non TOU

BGE Scenario F - Host TOU, Child is TOU and Net Meter. Child applies his own generation to himself first, then receives the remaining available generation from the Host. Child has consumption left over after generation from Host and Child applied to current month's usage.

Parent Host Account
Starting Banked amounts for Host
Off Peak -0 kWh
On Peak -4900 kWh
Int Peak -0 kWh

Host's current usage for 04/05/16 to 05/04/16
Off Peak +500 kWh
On Peak +1000 kWh
Int Peak +2000 kWh

Host applied 4900 kWh excess generation from On Peak to: 1000 kWh from On Peak, 2000 kWh from Intermediate Peak and lastly to 500 kWh from Off Peak using up 3500 kWh of generation. This leaves 1400 kWh generation from On Peak to apply to his child. Host applied 1100 kWh to Child's On Peak and then 300 kWh to Child's Intermediate Peak. Host has no remaining banked amount in any peak period.

Ending Banked amounts for Host
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Child (TOU- Net Meter)
Starting Banked amounts for Child
Off Peak 0 kWh
On Peak -200 kWh
Int Peak -100 kWh

Current usage for 04/05/16 to 05/04/16 for Child
Off Peak +1000 kWh (Nothing applied from either Child or Host leaving 1000 kwh to be billed)
On Peak +1400 kWh (100 kWh from Child's Int Peak applied, 200 kWh from Child's On Peak applied, 1100 kWh from Host's On Peak applied)
Int Peak +1200 kWh (300 kWh from Host's On Peak applied, leaving 900 kWh to be billed)

Child has 1900 kWh left to bill at the peak level below.
Off Peak = 1000
On Peak = 0
Int Peak = 900

Ending Banked amounts for Child
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Notes:

1. BGE applies generation from the host using Off Peak first, then Intermediate and lastly On Peak.
2. BGE applies generation to a child in the opposite order (On Peak first, then Intermediate and lastly Off Peak).
3. A net metered Child account must first exhaust his own excess generation across all peaks before tapping into the Host's excess generation. A net metered Child will first use any excess generation from his Off peak, then Int Peak and lastly On Peak. This excess generation will be applied first to his On Peak, then Int Peak and lastly Off Peak. Once the Child's excess generation has been exhausted, the Child can receive excess generation from the Host account.

Parent Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*3500*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*500*KH	Generation - Off Peak
MEA*AA*PRQ*500*KH*0*0*41	Total generation, with begin/end readings
QTY*QD*1000*KH	Generation - On Peak
MEA*AA*PRQ*1000*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*2000*KH	Generation - Intermediate Peak
MEA*AA*PRQ*2000*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***0*KH	Starting Bank
MEA*AF*PRQ*0*KH***41	Starting Bank – Off Peak
QTY*QH*4900*KH	Starting Bank
MEA*AF*PRQ*4900*KH***42	Starting Bank – On Peak
QTY*QH*0*KH	Starting Bank
MEA*AF*PRQ*0*KH***43	Starting Bank – Intermediate Peak
QTY*79*500*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*500*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY*79*1000*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*1000*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*2000*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*2000*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*78*0*KH	Generation Transferred Out
MEA*AF*PRQ*0*KH***41	Generation Transferred Out – Off Peak
QTY*78*1400*KH	Generation Transferred Out

MEA*AF*PRQ*1400*KH***42	Generation Transferred Out – On Peak
QTY*78*0*KH	Generation Transferred Out
MEA*AF*PRQ*0*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Child (TOU Net Meter)	
PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*1900*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*3600*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*1000*KH	Consumption - Off Peak
MEA*AA*PRQ*1000*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*1400*KH	Consumption - On Peak
MEA*AA*PRQ*1400*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*1200*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*1200*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***0*KH	Starting Bank
MEA*AF*PRQ*0*KH***41	Starting Bank – Off Peak
QTY*QH*200*KH	Starting Bank
MEA*AF*PRQ*200*KH***42	Starting Bank – On Peak
QTY*QH*100*KH	Starting Bank
MEA*AF*PRQ*100*KH***43	Starting Bank – Intermediate Peak

QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***41	Self-Generation Applied to Off Peak
QTY*79*300*KH	Self-Generation
MEA*AF*PRQ*300*KH***42	Self-Generation Applied to On Peak
QTY*79*0*KH	Self-Generation
MEA*AF*PRQ*0*KH***43	Self-Generation Applied to Intermediate Peak
QTY*77*0*KH	Generation Transferred In
MEA*AF*PRQ*0*KH***41	Generation Transferred In – Off Peak
QTY*77*1100*KH	Generation Transferred In
MEA*AF*PRQ*1100*KH***42	Generation Transferred In – On Peak
QTY*77*300*KH	Generation Transferred In
MEA*AF*PRQ*300*KH***43	Generation Transferred In – Intermediate Peak
QTY***QE***0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

BGE Scenario G - Host is TOU, Child # 1 is TOU Net Meter, Child # 2 is TOU. April True-up month. Host has excess generation after the April billing and needs a True-up. Child #1 does not have any excess generation left so there is no True-up. Please note: Since Child #1 does not need a True-up, we will not send the Qty*QB section in the BJ loop.

Parent Host Account
Starting Banked amounts for Host
Off Peak -500 kWh
On Peak -1000 kWh
Int Peak -800 kWh

Host's current usage for 03/05/16 to 04/04/16
Off Peak -100 kWh
On Peak -500 kWh
Int Peak -200 kWh

So the host now has the following excess generation to apply to his children:
-600 kWh from Off Peak
-1500 kWh from On Peak
-1000 kWh from Int Peak

True-Up amounts for Host (cashed out to customer)
Off Peak 0 kWh
On Peak 200 kWh
Int Peak 0 kWh

Ending Banked amounts for Host
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Child #1 (TOU- Net Meter)
Starting Banked amounts for Child # 1
Off Peak 0 kWh
On Peak -200 kWh
Int Peak -100 kWh

Current usage for 03/05/16 to 04/04/16 for Child # 1
Off Peak +100 kWh (100 kwh from Host's Off Peak applied)
On Peak +400 kWh (100 kWh from Child's Int Peak applied, 200 kWh from Child's On Peak applied and 100 kWh from Host's Off Peak applied)
Int Peak +200 kWh (200 kWh from Host's Off Peak applied)

Ending Banked amounts for Child # 1
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Child #2 (TOU)
Current usage for 03/05/16 to 04/04/16
Off Peak +700 kWh (700 kWh from Host's On Peak applied)
On Peak +1000 kWh (200 kWh from Host's Off Peak applied and 800 kWh from Host's Int Peak applied)
Int Peak +800 kWh (200 kWh from Host's Int Peak applied and 600 kWh from Host's On Peak applied)

Notes:
1. BGE applies generation from the host using Off Peak first, then Intermediate and lastly On Peak.

2. BGE applies generation to a child in the opposite order (On Peak first, then Intermediate and lastly Off Peak).
3. A net metered Child account must first exhaust his own excess generation across all peaks before tapping into the Host's excess generation. A net metered Child will first use any excess generation from his Off peak, then Int Peak and lastly On Peak. This excess generation will be applied first to his On Peak, then Int Peak and lastly Off Peak. Once the Child's excess generation has been exhausted, the Child can receive excess generation from the Host account.
4. During True-Up for TOU, if one TOU peak contains excess generation passed in QTY*QB, all TOU peaks must be sent even when 0 kWh.

Parent Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY*87*800*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*100*KH	Generation - Off Peak
MEA*AA*PRQ*100*KH*0*0*41	Total generation, with begin/end readings
QTY*87*500*KH	Generation - On Peak
MEA*AA*PRQ*500*KH*0*0*42	Total consumption, with begin/end readings
QTY*87*200*KH	Generation - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY***QH***500*KH	Starting Bank
MEA*AF*PRQ*500*KH***41	Starting Bank – Off Peak
QTY*QH*1000*KH	Starting Bank
MEA*AF*PRQ*1000*KH***42	Starting Bank – On Peak
QTY*QH*800*KH	Starting Bank
MEA*AF*PRQ*800*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank

MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*78*600*KH	Generation Transferred Out
MEA*AF*PRQ*600*KH***41	Generation Transferred Out – Off Peak
QTY*78*1300*KH	Generation Transferred Out
MEA*AF*PRQ*1300*KH***42	Generation Transferred Out – On Peak
QTY*78*1000*KH	Generation Transferred Out
MEA*AF*PRQ*1000*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QB*0*KH	True-Up
MEA*AF*PRQ*0*KH***41	True-Up – Off Peak
QTY*QB*200*KH	True-Up
MEA*AF*PRQ*200*KH***42	True-Up – On Peak
QTY*QB*0*KH	True-Up
MEA*AF*PRQ*0*KH***43	True-Up – Intermediate Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY* QE *0*KH	Ending Bank
MEA*AF*PRQ*0*KH***42	Ending Bank – On Peak
QTY* QE *0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Child #1 (TOU Net Meter)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY*QD*700*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits

QTY*QD*100*KH	Consumption - Off Peak
MEA*AA*PRQ*100*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*400*KH	Consumption - On Peak
MEA*AA*PRQ*400*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*200*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY***QH***0*KH	Starting Bank
MEA*AF*PRQ*0*KH***41	Starting Bank – Off Peak
QTY*QH*200*KH	Starting Bank
MEA*AF*PRQ*200*KH***42	Starting Bank – On Peak
QTY*QH*100*KH	Starting Bank
MEA*AF*PRQ*100*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY*79*300*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*300*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*77*100*KH	Generation Transferred In
MEA*AF*PRQ*100*KH***41	Generation Transferred In – Off Peak
QTY*77*100*KH	Generation Transferred In
MEA*AF*PRQ*100*KH***42	Generation Transferred In – On Peak
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***43	Generation Transferred In – Intermediate Peak
QTY***QE***0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Child #2 (TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop

DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY*QD*2500*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*700*KH	Consumption - Off Peak
MEA*AA*PRQ*700*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*1000*KH	Consumption - On Peak
MEA*AA*PRQ*1000*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*800*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*800*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY*77*700*KH	Generation Transferred In
MEA*AF*PRQ*700*KH***41	Generation Transferred In – Off Peak
QTY*77*1000*KH	Generation Transferred In
MEA*AF*PRQ*1000*KH***42	Generation Transferred In – On Peak
QTY*77*800*KH	Generation Transferred In
MEA*AF*PRQ*800*KH***43	Generation Transferred In – Intermediate Peak

BGE Scenario H - Host is TOU, Child # 1 is TOU Net Meter, Child # 2 is TOU. April True-up month. Both Host and Child have excess generation after the April billing and need a True-up.

Parent Host Account
Starting Banked amounts for Host
Off Peak -500 kWh
On Peak -1000 kWh
Int Peak -800 kWh

Host's current usage for 03/05/16 to 04/04/16
Off Peak -100 kWh
On Peak -500 kWh
Int Peak -200 kWh

So the host now has the following excess generation to apply to his children:
-600 kWh from Off Peak
-1500 kWh from On Peak
-1000 kWh from Int Peak

True-Up amounts for Host (cashed out to customer)
Off Peak 0 kWh
On Peak 600 kWh
Int Peak 0 kWh

Ending Banked amounts for Host
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Child #1 (TOU- Net Meter)
Starting Banked amounts for Child # 1
Off Peak 0 kWh
On Peak -1200 kWh
Int Peak -100 kWh

Current usage for 03/05/16 to 04/04/16 for Child # 1
Off Peak +100 kWh (100 kwh from Child's On Peak applied)
On Peak +400 kWh (100 kWh from Child's Int Peak applied, 300 kWh from Child's On Peak applied)
Int Peak +200 kWh (200 kWh from Child's On Peak applied)

True-Up amounts for Child#1 (cashed out to customer)
Off Peak 0 kWh
On Peak 600 kWh
Int Peak 0 kWh

Ending Banked amounts for Child # 1
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Child #2 (TOU)
Current usage for 03/05/16 to 04/04/16
Off Peak +700 kWh (700 kWh from Host's On Peak applied)
On Peak +1000 kWh (600 kWh from Host's Off Peak applied and 400 kWh from Host's Int Peak applied)
Int Peak +800 kWh (600 kWh from Host's Int Peak applied and 200 kWh from Host's On Peak applied)

Notes:

1. BGE applies generation from the host using Off Peak first, then Intermediate and lastly On Peak.
2. BGE applies generation to a child in the opposite order (On Peak first, then Intermediate and lastly Off Peak).
3. A net metered Child account must first exhaust his own excess generation across all peaks before tapping into the Host's excess generation. A net metered Child will first use any excess generation from his Off peak, then Int Peak and lastly On Peak. This excess generation will be applied first to his On Peak, then Int Peak and lastly Off Peak. Once the Child's excess generation has been exhausted, the Child can receive excess generation from the Host account.
4. During True-Up for TOU, if one TOU peak contains excess generation passed in QTY*QB, all TOU peaks must be sent even when 0 kWh.

Parent Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY*87*800*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*100*KH	Generation - Off Peak
MEA*AA*PRQ*100*KH*0*0*41	Total generation, with begin/end readings
QTY*87*500*KH	Generation - On Peak
MEA*AA*PRQ*500*KH*0*0*42	Total consumption, with begin/end readings
QTY*87*200*KH	Generation - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160305	Start period

DTM*151*20160404	End period
QTY***QH***500*KH	Starting Bank
MEA*AF*PRQ*500*KH***41	Starting Bank – Off Peak
QTY*QH*1000*KH	Starting Bank
MEA*AF*PRQ*1000*KH***42	Starting Bank – On Peak
QTY*QH*800*KH	Starting Bank
MEA*AF*PRQ*800*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*78*600*KH	Generation Transferred Out
MEA*AF*PRQ*600*KH***41	Generation Transferred Out – Off Peak
QTY*78*900*KH	Generation Transferred Out
MEA*AF*PRQ*900*KH***42	Generation Transferred Out – On Peak
QTY*78*1000*KH	Generation Transferred Out
MEA*AF*PRQ*1000*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QB*0*KH	True-Up
MEA*AF*PRQ*0*KH***41	True-Up – Off Peak
QTY*QB*600*KH	True-Up
MEA*AF*PRQ*600*KH***42	True-Up – On Peak
QTY*QB*0*KH	True-Up
MEA*AF*PRQ*0*KH***43	True-Up – Intermediate Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Child #1 (TOU Net Meter)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160305	Start period

DTM*151*20160404	End period
QTY*QD*700*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*100*KH	Consumption - Off Peak
MEA*AA*PRQ*100*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*400*KH	Consumption - On Peak
MEA*AA*PRQ*400*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*200*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY***QH***0*KH	Starting Bank
MEA*AF*PRQ*0*KH***41	Starting Bank – Off Peak
QTY*QH*1200*KH	Starting Bank
MEA*AF*PRQ*1200*KH***42	Starting Bank – On Peak
QTY*QH*100*KH	Starting Bank
MEA*AF*PRQ*100*KH***43	Starting Bank – Intermediate Peak
QTY*79*100*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*100*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY*79*400*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*400*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*200*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*200*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*77*0*KH	Generation Transferred In
MEA*AF*PRQ*0*KH***41	Generation Transferred In – Off Peak
QTY*77*0*KH	Generation Transferred In
MEA*AF*PRQ*0*KH***42	Generation Transferred In – On Peak
QTY*77*0*KH	Generation Transferred In
MEA*AF*PRQ*0*KH***43	Generation Transferred In – Intermediate Peak
QTY*QB*0*KH	True-Up
MEA*AF*PRQ*0*KH***41	True-Up – Off Peak
QTY*QB*600*KH	True-Up
MEA*AF*PRQ*600*KH***42	True-Up – On Peak

QTY*QB*0*KH	True-Up
MEA*AF*PRQ*0*KH***43	True-Up – Intermediate Peak
QTY***QE***0*KH	Ending Bank
MEA*AF*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AF*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Child #2 (TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY*QD*2500*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*700*KH	Consumption - Off Peak
MEA*AA*PRQ*700*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*1000*KH	Consumption - On Peak
MEA*AA*PRQ*1000*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*800*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*800*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160305	Start period
DTM*151*20160404	End period
QTY*77*700*KH	Generation Transferred In
MEA*AF*PRQ*700*KH***41	Generation Transferred In – Off Peak
QTY*77*1000*KH	Generation Transferred In
MEA*AF*PRQ*1000*KH***42	Generation Transferred In – On Peak
QTY*77*800*KH	Generation Transferred In
MEA*AF*PRQ*800*KH***43	Generation Transferred In – Intermediate Peak

Maryland (PHI/PE) - Examples of PTD*BJ Loop for Aggregate Net Energy Metering (ANEM), TOU

PHI/PE Scenario A - Host is TOU, Child # 1 is Non-TOU, Child # 2 is TOU

Parent Host Account
Starting Bank = -1200 kWh
Off Peak -300 kWh
On Peak -500 kWh
Int Peak -400 kWh

Current usage for 04/05/16 to 05/04/16 = -225 kWh, 0 kWh Billed
Off Peak -50 kWh
On Peak -100 kWh
Int Peak -75 kWh

Excess generation for family = -1425 kWh
-350 kWh from Off Peak
-600 kWh from On Peak
-475 kWh from Int Peak

Transferred Out = -1000 kWh
-200 kWh from Off Peak
-600 kWh from On Peak
-200 kWh from Int Peak

Ending Bank = -425 kWh
Off Peak -150 kWh
On Peak 0 kWh
Int Peak -275 kWh

Child #1 (NON-TOU)
Current usage for 04/05/16 to 05/04/16 is 400 kWh, -400 kWh applied from ParentHost's On Peak = 0 kWh billed

Child #2 (TOU)
Current usage for 04/05/16 to 05/04/16 = 100 kWh billed
Off Peak +200 kWh (200 kwh from ParentHost's Off Peak applied) = 0 kWh
On Peak +300 kWh (200 kWh from ParentHost's On Peak applied) = 100 kWh billed
Int Peak +200 kWh (200 kWh from ParentHost's Int Peak applied) = 0 kWh

Notes:

1. Applies TOU generation using the "waterfall" method. Off Peak to Off Peak, On Peak to On Peak & Intermediate Peak to Intermediate Peak.
2. When applying TOU excess generation to a non-TOU account will use the On Peak energy first, followed by the Intermediate Peak and finally the Off-Peak.

Parent Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH

PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*225*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*100*KH	Consumption - Off Peak
MEA*AA*PRQ*100*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*0*KH	Consumption - On Peak
MEA*AA*PRQ*0*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*200*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*150*KH	Generation - Off Peak
MEA*AA*PRQ*150*KH*0*0*41	Total generation, with begin/end readings
QTY*87*100*KH	Generation - On Peak
MEA*AA*PRQ*100*KH*0*0*42	Total generation, with begin/end readings
QTY*87*275*KH	Generation - Intermediate Peak
MEA*AA*PRQ*275*KH*0*0*43	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***300*KH	Starting Bank
MEA*AA*PRQ*300*KH***41	Starting Bank – Off Peak
QTY*QH*500*KH	Starting Bank
MEA*AA*PRQ*500*KH***42	Starting Bank – On Peak
QTY*QH*400*KH	Starting Bank
MEA*AA*PRQ*400*KH***43	Starting Bank – Intermediate Peak
QTY***79***0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY***79***0*KH	Self-generation Applied From Starting Bank

MEA*AF*PRQ*0*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*78*200*KH	Generation Transferred Out
MEA*AF*PRQ*200*KH***41	Generation Transferred Out – Off Peak
QTY*78*600*KH	Generation Transferred Out
MEA*AF*PRQ*600*KH***42	Generation Transferred Out – On Peak
QTY*78*200*KH	Generation Transferred Out
MEA*AF*PRQ*200*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QE*150*KH	Ending Bank
MEA*AA*PRQ*150*KH***41	Ending Bank – Off Peak
QTY*QE*0*KH	Ending Bank
MEA*AA*PRQ*0*KH***42	Ending Bank – On Peak
QTY*QE*275*KH	Ending Bank
MEA*AA*PRQ*275*KH***43	Ending Bank – Intermediate Peak

Child #1 (Non-TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*400*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*400*KH	Consumption
MEA*AA*PRQ*400*KH*20000*20810*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*400*KH	Generation Transferred In
MEA*AF*PRQ*400*KH***51	Generation Transferred In – Total Non TOU

Child #2 (TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*100*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*100*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*200*KH	Consumption - Off Peak
MEA*AA*PRQ*200*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*300*KH	Consumption - On Peak
MEA*AA*PRQ*300*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*200*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***41	Generation Transferred In – Off Peak
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***42	Generation Transferred In – On Peak
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***43	Generation Transferred In – Intermediate Peak

PHI/PE Scenario B - Host is TOU, Child # 1 is TOU, Child # 2 is Non-TOU

Parent Host Account
Starting Bank = -1200 kWh
Off Peak -300 kWh
On Peak -500 kWh
Int Peak -400 kWh

Current usage for 04/05/16 to 05/04/16 = -225 kWh, 0 kWh Billed
Off Peak -50 kWh
On Peak -100 kWh
Int Peak -75 kWh

Excess generation for family = -1425 kWh
-350 kWh from Off Peak
-600 kWh from On Peak
-475 kWh from Int Peak

Transferred Out = -1100 kWh
-200 kWh from Off Peak
-600 kWh from On Peak
-300 kWh from Int Peak

Ending Bank = -325 kWh
Off Peak -150 kWh
On Peak 0 kWh
Int Peak -175 kWh

Child #1 (TOU)
Current usage for 04/05/16 to 05/04/16, 700 kWh, -700 kWh applied from ParentHost's On Peak = 0 kWh billed
Off Peak +200 kWh (200 kwh from ParentHost's Off Peak applied) = 0 kWh
On Peak +300 kWh (300 kWh from ParentHost's On Peak applied) = 0 kWh
Int Peak +200 kWh (200 kWh from ParentHost's Int Peak applied) = 0 kWh

Child #2 (NON-TOU)
Current usage for 04/05/16 to 05/04/16 is +400 kWh (300 kWh from ParentHost's On Peak and 100 kWh from ParentHost's Int Peak applied)

Notes:

1. Applies TOU generation using the "waterfall" method. Off Peak to Off Peak, On Peak to On Peak & Intermediate Peak to Intermediate Peak.
2. When applying TOU excess generation to a non-TOU account PHI will use the On Peak energy first, followed by the Intermediate Peak and finally the Off-Peak.

Parent Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*225*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*300*KH	Consumption - Off Peak
MEA*AA*PRQ*300*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*400*KH	Consumption - On Peak
MEA*AA*PRQ*400*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*325*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*325*KH*0*0*43	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*350*KH	Generation - Off Peak
MEA*AA*PRQ*350*KH*0*0*41	Total generation, with begin/end readings
QTY*87*500*KH	Generation - On Peak
MEA*AA*PRQ*500*KH*0*0*42	Total generation, with begin/end readings
QTY*87*400*KH	Generation - Intermediate Peak
MEA*AA*PRQ*400*KH*0*0*43	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***300*KH	Starting Bank
MEA*AA*PRQ*300*KH***41	Starting Bank – Off Peak
QTY*QH*500*KH	Starting Bank
MEA*AA*PRQ*500*KH***42	Starting Bank – On Peak
QTY*QH*400*KH	Starting Bank

MEA*AA*PRQ*400*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*78*200*KH	Generation Transferred Out
MEA*AF*PRQ*200*KH***41	Generation Transferred Out – Off Peak
QTY*78*600*KH	Generation Transferred Out
MEA*AF*PRQ*600*KH***42	Generation Transferred Out – On Peak
QTY*78*300*KH	Generation Transferred Out
MEA*AF*PRQ*300*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QE*150*KH	Ending Bank
MEA*AA*PRQ*150*KH***41	Ending Bank – Off Peak
QTY* QE *0*KH	Ending Bank
MEA*AA*PRQ*0*KH***42	Ending Bank – On Peak
QTY* QE *175*KH	Ending Bank
MEA*AA*PRQ*175*KH***43	Ending Bank – Intermediate Peak

Child #1 (TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*700*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*200*KH	Consumption - Off Peak
MEA*AA*PRQ*200*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*300*KH	Consumption - On Peak
MEA*AA*PRQ*300*KH*0*0*42	Total consumption, with begin/end readings

QTY*QD*200*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***41	Generation Transferred In – Off Peak
QTY*77*300*KH	Generation Transferred In
MEA*AF*PRQ*300*KH***42	Generation Transferred In – On Peak
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***43	Generation Transferred In – Intermediate Peak

Child #2 (Non-TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*400*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*400*KH	Consumption
MEA*AA*PRQ*400*KH*20000*20400*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*400*KH	Generation Transferred In
MEA*AF*PRQ*400*KH***51	Generation Transferred In – Total Non TOU

PHI/PE Scenario C - Host is TOU, Child # 1 is TOU, Child # 2 is TOU (Host's generation is exhausted on Child # 2)

Parent Host Account
Starting Bank = -1200 kWh
Off Peak -300 kWh
On Peak -500 kWh
Int Peak -400 kWh

Current usage for 04/05/16 to 05/04/16 = -225 kWh, 0 kWh Billed
Off Peak -50 kWh
On Peak -100 kWh
Int Peak -75 kWh

Excess generation for family = -1425 kWh
-350 kWh from Off Peak
-600 kWh from On Peak
-475 kWh from Int Peak

Transferred Out = -1425 kWh
-350 kWh from Off Peak
-600 kWh from On Peak
-475 kWh from Int Peak

Ending Bank = 0 kWh
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Child #1 (TOU)
Current usage for 04/05/16 to 05/04/16 (700 kWh, -700kWh applied = 0 kWh billed)
Off Peak +200 kWh (200 kwh from ParentHost's Off Peak applied) = 0 kWh
On Peak +300 kWh (300 kWh from ParentHost's On Peak applied) = 0 kWh
Int Peak +200 kWh (200 kWh from ParentHost's Int Peak applied) = 0 kWh

Child #2 (TOU)
Current usage for 04/05/16 to 05/04/16 (1200 kWh, -725kWh applied = 475 kWh billed)
Off Peak +300 kWh (150 kwh from ParentHost's Off Peak applied) = 150 kWh billed
On Peak +500 kWh (300 kwh from ParentHost's Off Peak applied) = 200 kWh billed
Int Peak +400 kWh (275 kwh from ParentHost's Int Peak applied) = 125 kWh billed

Note: Applies TOU generation using the "waterfall" method. Off Peak to Off Peak, On Peak to On Peak & Intermediate Peak to Intermediate Peak.

Parent Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*225*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*300*KH	Consumption - Off Peak
MEA*AA*PRQ*300*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*1000*KH	Consumption - On Peak
MEA*AA*PRQ*1000*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*275*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*275*KH*0*0*43	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*350*KH	Generation - Off Peak
MEA*AA*PRQ*350*KH*0*0*41	Total generation, with begin/end readings
QTY*87*1100*KH	Generation - On Peak
MEA*AA*PRQ*1100*KH*0*0*42	Total consumption, with begin/end readings
QTY*87*350*KH	Generation - Intermediate Peak
MEA*AA*PRQ*350*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***300*KH	Starting Bank
MEA*AA*PRQ*300*KH***41	Starting Bank – Off Peak
QTY*QH*500*KH	Starting Bank
MEA*AA*PRQ*500*KH***42	Starting Bank – On Peak

QTY*QH*400*KH	Starting Bank
MEA*AA*PRQ*400*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*78*350*KH	Generation Transferred Out
MEA*AF*PRQ*350*KH***41	Generation Transferred Out – Off Peak
QTY*78*600*KH	Generation Transferred Out
MEA*AF*PRQ*600*KH***42	Generation Transferred Out – On Peak
QTY*78*475*KH	Generation Transferred Out
MEA*AF*PRQ*475*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QE*0*KH	Ending Bank
MEA*AA*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*0*KH	Ending Bank
MEA*AA*PRQ*0*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AA*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Child #1 (TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*700*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*200*KH	Consumption - Off Peak
MEA*AA*PRQ*200*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*300*KH	Consumption - On Peak
MEA*AA*PRQ*300*KH*0*0*42	Total consumption, with begin/end readings

QTY*QD*200*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***41	Generation Transferred In – Off Peak
QTY*77*300*KH	Generation Transferred In
MEA*AF*PRQ*300*KH***42	Generation Transferred In – On Peak
QTY*77*200*KH	Generation Transferred In
MEA*AF*PRQ*200*KH***43	Generation Transferred In – Intermediate Peak

Child #2 (TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*475*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*1200*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*300*KH	Consumption - Off Peak
MEA*AA*PRQ*300*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*500*KH	Consumption - On Peak
MEA*AA*PRQ*500*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*400*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*400*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*150*KH	Generation Transferred In
MEA*AF*PRQ*150*KH***41	Generation Transferred In – Off Peak
QTY*77*300*KH	Generation Transferred In
MEA*AF*PRQ*300*KH***42	Generation Transferred In – On Peak

QTY*77*275*KH	Generation Transferred In
MEA*AF*PRQ*275*KH***43	Generation Transferred In – Intermediate Peak

PHI/PE Scenario D - ParentHost TOU & current period is net consumption. Starting bank contains single TOU

Parent Host Account (TOU)
Starting Banked amounts for Host
Off Peak 0 kWh
On Peak -4900 kWh
Int Peak 0 kWh

Host's current usage for 04/05/16 to 05/04/16 = 3500 kWh
Off Peak +500 kWh
On Peak +1000 kWh
Int Peak +2000 kWh

Self-generation applied to Host (-1000 kWh On Peak applied, 500 kWh Off Peak & 2000 kWh Int Peak remain) = 2500 kwh Billed
Off Peak 0 kWh = 500 kWh
On Peak -1000 kWh = 0 kWh
Int Peak 0 kWh = 2000 kWh

Excess generation for family = -3900 kWh
0 kWh from Off Peak
-3900 kWh from On Peak
0 kWh from Int Peak

Transferred Out = -1000 kWh
0 kWh from Off Peak
-1000 kWh from On Peak
0 kWh from Int Peak

Ending Bank = -2900 kWh
Off Peak 0 kWh
On Peak -2900 kWh
Int Peak 0 kWh

Child #1 (TOU)
Current usage for 04/05/16 to 05/04/16, 2600 kWh, -1000 kWh applied from ParentHost = 1600 kWh billed
Off Peak +800 kWh = 800 kWh billed
On Peak +1000 kWh (1000 kWh from Host's On Peak applied) = 0 kWh
Int Peak +800 kWh = 800 kWh billed

ParentHost Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*2500*KH	Monthly billed KH

PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*3500*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*1500*KH	Consumption - Off Peak
MEA*AA*PRQ*1500*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*2000*KH	Consumption - On Peak
MEA*AA*PRQ*2000*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*2600*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*2600*KH*0*0*43	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*1000*KH	Generation - Off Peak
MEA*AA*PRQ*1000*KH*0*0*41	Total generation, with begin/end readings
QTY*87*1000*KH	Generation - On Peak
MEA*AA*PRQ*1000*KH*0*0*42	Total generation, with begin/end readings
QTY*87*600*KH	Generation - Intermediate Peak
MEA*AA*PRQ*600*KH*0*0*43	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***0*KH	Starting Bank
MEA*AA*PRQ*0*KH***41	Starting Bank – Off Peak
QTY*QH*4900*KH	Starting Bank
MEA*AA*PRQ*4900*KH***42	Starting Bank – On Peak
QTY*QH*0*KH	Starting Bank
MEA*AA*PRQ*0*KH***43	Starting Bank – Intermediate Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank

MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY*79*1000*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*1000*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY*79*0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*78*0*KH	Generation Transferred Out
MEA*AF*PRQ*0*KH***41	Generation Transferred Out – Off Peak
QTY*78*1000*KH	Generation Transferred Out
MEA*AF*PRQ*1000*KH***42	Generation Transferred Out – On Peak
QTY*78*0*KH	Generation Transferred Out
MEA*AF*PRQ*0*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QE*0*KH	Ending Bank
MEA*AA*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*2900*KH	Ending Bank
MEA*AA*PRQ*2900*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AA*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Child #1 (TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*1600*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*2600*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*800*KH	Consumption - Off Peak
MEA*AA*PRQ*800*KH*0*0*41	Total consumption, with begin/end readings

QTY*QD*1000*KH	Consumption - On Peak
MEA*AA*PRQ*1000*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*800*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*800*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*0*KH	Generation Transferred In
MEA*AF*PRQ*0*KH***41	Generation Transferred In – Off Peak
QTY*77*1000*KH	Generation Transferred In
MEA*AF*PRQ*1000*KH***42	Generation Transferred In – On Peak
QTY*77*0*KH	Generation Transferred In
MEA*AF*PRQ*0*KH***43	Generation Transferred In – Intermediate Peak

PHI Scenario E - ParentHost is TOU, Parent is TOU, Child is TOU *(only PHI uses Parent accounts)*

Parent Host Account
Starting Bank = -2300 kWh
Off Peak -500 kWh
On Peak -1000 kWh
Int Peak -800 kWh

Current usage for 04/05/16 to 05/04/16 = -1800 kWh, 0 kWh Billed
Off Peak -100 kWh
On Peak -1500 kWh
Int Peak -200 kWh

Transferred In (from Parent) = -800 kWh
-100 kWh from Off Peak
-500 kWh from On Peak
-200 kWh from Int Peak

Excess generation for family = -4900 kWh (sum of Starting Bank, Current Period Excess & transferred in from Parent)
-700 kWh from Off Peak
-3000 kWh from On Peak
-1200 kWh from Int Peak

Transferred Out = -2500 kWh
-700 kWh from Off Peak
-1000 kWh from On Peak
-800 kWh from Int Peak

Ending Bank = -2400 kWh
Off Peak 0 kWh
On Peak -2000 kWh
Int Peak -400 kWh

Parent Account TOU w/Net Meter (does not utilize starting or ending bank, all excess transfers out to ParentHost)
Current usage for 04/05/16 to 05/04/16 = -800 kWh, 0 kWh Billed
Off Peak -100 kWh
On Peak -500 kWh
Int Peak -200 kWh

Transferred Out (to ParentHost into Generation available for family) = -800 kWh
-100 kWh from Off Peak
-500 kWh from On Peak
-200 kWh from Int Peak

Child #1 (TOU)
Current usage for 04/05/16 to 05/04/16, 2600 kWh, -2500 kWh applied from ParentHost = 100 kWh billed
Off Peak +800 kWh (700 kWh from Host's Off Peak applied) = 100 kWh billed
On Peak +1000 kWh (1000 kWh from Host's On Peak applied) = 0 kWh
Int Peak +800 kWh (800 kWh from Host's Int Peak applied) = 0 kWh

Notes:

1. Applies TOU generation using the "waterfall" method. Off Peak to Off Peak, On Peak to On Peak & Intermediate Peak to Intermediate Peak.

2. For TOU Parent, excess generation from an individual peak period transfers to ParentHost's available generation.

ParentHost Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*800*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*500*KH	Consumption - Off Peak
MEA*AA*PRQ*500*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*1500*KH	Consumption - On Peak
MEA*AA*PRQ*1500*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*600*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*600*KH*0*0*43	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*600*KH	Generation - Off Peak
MEA*AA*PRQ*600*KH*0*0*41	Total generation, with begin/end readings
QTY*87*3000*KH	Generation - On Peak
MEA*AA*PRQ*3000*KH*0*0*42	Total generation, with begin/end readings
QTY*87*800*KH	Generation - Intermediate Peak
MEA*AA*PRQ*800*KH*0*0*43	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period

DTM*151*20160504	End period
QTY***QH***500*KH	Starting Bank
MEA*AA*PRQ*500*KH***41	Starting Bank – Off Peak
QTY*QH*1000*KH	Starting Bank
MEA*AA*PRQ*1000*KH***42	Starting Bank – On Peak
QTY*QH*800*KH	Starting Bank
MEA*AA*PRQ*800*KH***43	Starting Bank – Intermediate Peak
QTY***79***0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY***79***0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY***79***0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY***7***7*100*KH	Generation Transferred In – From Parent
MEA*AF*PRQ*100*KH***41	Generation Transferred In – Off Peak
QTY***7***7*500*KH	Generation Transferred In – From Parent
MEA*AF*PRQ*500*KH***42	Generation Transferred In – On Peak
QTY***7***7*200*KH	Generation Transferred In – From Parent
MEA*AF*PRQ*200*KH***43	Generation Transferred In – Intermediate Peak
QTY*78*700*KH	Generation Transferred Out
MEA*AF*PRQ*700*KH***41	Generation Transferred Out – Off Peak
QTY*78*1000*KH	Generation Transferred Out
MEA*AF*PRQ*1000*KH***42	Generation Transferred Out – On Peak
QTY*78*800*KH	Generation Transferred Out
MEA*AF*PRQ*800*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QE*0*KH	Ending Bank
MEA*AA*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*2000*KH	Ending Bank
MEA*AA*PRQ*2000*KH***42	Ending Bank – On Peak
QTY*QE*400*KH	Ending Bank
MEA*AA*PRQ*400*KH***43	Ending Bank – Intermediate Peak

Parent #1 (Net Meter)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH

PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*800*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*400*KH	Consumption - Off Peak
MEA*AA*PRQ*400*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*100*KH	Consumption - On Peak
MEA*AA*PRQ*100*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*200*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*200*KH*0*0*43	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*500*KH	Generation - Off Peak
MEA*AA*PRQ*500*KH*0*0*41	Total generation, with begin/end readings
QTY*87*1100*KH	Generation - On Peak
MEA*AA*PRQ*1100*KH*0*0*42	Total generation, with begin/end readings
QTY*87*400*KH	Generation - Intermediate Peak
MEA*AA*PRQ*400*KH*0*0*43	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*0*KH	Generation Transferred In – From ParentHost
MEA*AF*PRQ*0*KH***41	Generation Transferred In – Off Peak
QTY*77*0*KH	Generation Transferred In – From ParentHost
MEA*AF*PRQ*0*KH***42	Generation Transferred In – On Peak
QTY*77*0*KH	Generation Transferred In – From ParentHost

MEA*AF*PRQ*0*KH***43	Generation Transferred In – Intermediate Peak
QTY*78*100*KH	Generation Transferred Out – To ParentHost
MEA*AF*PRQ*100*KH***41	Generation Transferred Out – Off Peak
QTY*78*500*KH	Generation Transferred Out – To ParentHost
MEA*AF*PRQ*500*KH***42	Generation Transferred Out – On Peak
QTY*78*200*KH	Generation Transferred Out – To ParentHost
MEA*AF*PRQ*200*KH***43	Generation Transferred Out – Intermediate Peak

Child #1 (TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*100*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*2600*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*800*KH	Consumption - Off Peak
MEA*AA*PRQ*800*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*1000*KH	Consumption - On Peak
MEA*AA*PRQ*1000*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*800*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*800*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*700*KH	Generation Transferred In
MEA*AF*PRQ*700*KH***41	Generation Transferred In – Off Peak
QTY*77*1000*KH	Generation Transferred In

MEA*AF*PRQ*1000*KH***42	Generation Transferred In – On Peak
QTY*77*800*KH	Generation Transferred In
MEA*AF*PRQ*800*KH***43	Generation Transferred In – Intermediate Peak

PHI Scenario F - ParentHost is TOU, Parent #1 is TOU, Parent #2 is non-TOU, Child #1 is TOU, Child #2 is non-*TOU* ***(only PHI uses Parent accounts)***

Parent Host Account
Starting Bank = -2300 kWh
Off Peak -500 kWh
On Peak -1000 kWh
Int Peak -800 kWh

Current usage for 04/05/16 to 05/04/16 = -800 kWh, 0 kWh Billed
Off Peak -100 kWh
On Peak -1500 kWh
Int Peak -200 kWh

Transferred In (from Parent #1 & Parent #2) = -1000 kWh
-800 kWh from Off Peak (from Parent #2)
-200 kWh from On Peak (from Parent #1)
0 kWh from Int Peak

Excess generation for family = -5100 kWh (sum of Starting Bank, Current Period Excess & transferred in from Parent)
-1400 kWh from Off Peak
-2700 kWh from On Peak
-1000 kWh from Int Peak

Transferred Out = -5100 kWh
-1400 kWh from Off Peak
-2700 kWh from On Peak
-1000 kWh from Int Peak

Ending Bank = 0 kWh
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Parent Account #1: TOU w/Net Meter (does not utilize starting or ending bank, all excess transfers out to ParentHost)
Current usage for 04/05/16 to 05/04/16 = 300 kWh, -300 applied from ParentHost, -200 transferred out = 0 kWh billed
Off Peak +100 kWh (100 kWh from Host's Off Peak applied) = 0 kWh
On Peak -200 kWh (200 kWh transferred out to Host, see below) = 0 kWh
Int Peak +200 kWh (200 kWh from Host's Int Peak applied) = 0 kWh

Transferred Out (to ParentHost into Generation available for family) = -200 kWh
0 kWh from Off Peak
-200 kWh from On Peak
0 kWh from Int Peak

Parent Account #2: non-TOU w/Net Meter (does not utilize starting or ending bank, all excess transfers out to ParentHost)
Current usage for 04/05/16 to 05/04/16 = -800 kWh, 0 kWh Billed
-800 kWh
Transferred Out (to ParentHost into Generation available for family) = -800 kWh
-800 kWh

Child #1 (TOU)
Current usage for 04/05/16 to 05/04/16, 2600 kWh, -2600 kWh applied from ParentHost = 0 kWh billed

Off Peak +800 kWh (800 kWh from Host's Off Peak applied) = 0 kWh
On Peak +1000 kWh (1000 kWh from Host's On Peak applied) = 0 kWh
Int Peak +800 kWh (800 kWh from Host's Int Peak applied) = 0 kWh

Child #2 (NON-TOU)
Current usage for 04/05/16 to 05/04/16 is 4000 kWh, -1700 kWh applied from ParentHost's On Peak, 0 kWh applied from ParentHost's Int Peak, -500 kWh applied from ParentHost's Off Peak = 1800 kWh billed

Notes:

1. Applies TOU generation using the "waterfall" method. Off Peak to Off Peak, On Peak to On Peak & Intermediate Peak to Intermediate Peak.
2. For TOU Parent, excess generation from an individual peak period transfers to ParentHost's individual peak
3. For non-TOU Parent, excess generation transfers to TOU ParentHost's Off Peak level
4. When applying TOU excess generation to a non-TOU account will use the On Peak energy first, followed by the Intermediate Peak and finally the Off-Peak.

ParentHost Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*800*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*500*KH	Consumption - Off Peak
MEA*AA*PRQ*500*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*1500*KH	Consumption - On Peak
MEA*AA*PRQ*1500*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*600*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*600*KH*0*0*43	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number

REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*600*KH	Generation - Off Peak
MEA*AA*PRQ*600*KH*0*0*41	Total generation, with begin/end readings
QTY*87*3000*KH	Generation - On Peak
MEA*AA*PRQ*3000*KH*0*0*42	Total generation, with begin/end readings
QTY*87*800*KH	Generation - Intermediate Peak
MEA*AA*PRQ*800*KH*0*0*43	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***500*KH	Starting Bank
MEA*AA*PRQ*500*KH***41	Starting Bank – Off Peak
QTY***QH***1000*KH	Starting Bank
MEA*AA*PRQ*1000*KH***42	Starting Bank – On Peak
QTY***QH***800*KH	Starting Bank
MEA*AA*PRQ*800*KH***43	Starting Bank – Intermediate Peak
QTY***79***0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY***79***0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY***79***0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY***77***800*KH	Generation Transferred In – From Parent
MEA*AF*PRQ*800*KH***41	Generation Transferred In – Off Peak
QTY***77***200*KH	Generation Transferred In – From Parent
MEA*AF*PRQ*200*KH***42	Generation Transferred In – On Peak
QTY***77***0*KH	Generation Transferred In – From Parent
MEA*AF*PRQ*0*KH***43	Generation Transferred In – Intermediate Peak
QTY*78*1400*KH	Generation Transferred Out
MEA*AF*PRQ*1400*KH***41	Generation Transferred Out – Off Peak
QTY*78*2700*KH	Generation Transferred Out
MEA*AF*PRQ*2700*KH***42	Generation Transferred Out – On Peak
QTY*78*1000*KH	Generation Transferred Out
MEA*AF*PRQ*1000*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QE*0*KH	Ending Bank
MEA*AA*PRQ*0*KH***41	Ending Bank – Off Peak

QTY*QE*0*KH	Ending Bank
MEA*AA*PRQ*0*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AA*PRQ*0*KH***43	Ending Bank – Intermediate Peak

Parent #1 (TOU w/Net Meter)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*300*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*400*KH	Consumption - Off Peak
MEA*AA*PRQ*400*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*900*KH	Consumption - On Peak
MEA*AA*PRQ*900*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*600*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*600*KH*0*0*43	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*300*KH	Generation - Off Peak
MEA*AA*PRQ*300*KH*0*0*41	Total generation, with begin/end readings
QTY*87*1100*KH	Generation - On Peak
MEA*AA*PRQ*1100*KH*0*0*42	Total generation, with begin/end readings

QTY*87*400*KH	Generation - Intermediate Peak
MEA*AA*PRQ*400*KH*0*0*43	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*100*KH	Generation Transferred In – From ParentHost
MEA*AF*PRQ*100*KH***41	Generation Transferred In – Off Peak
QTY*77*0*KH	Generation Transferred In – From ParentHost
MEA*AF*PRQ*0*KH***42	Generation Transferred In – On Peak
QTY*77*200*KH	Generation Transferred In – From ParentHost
MEA*AF*PRQ*200*KH***43	Generation Transferred In – Intermediate Peak
QTY*78*0*KH	Generation Transferred Out - To ParentHost
MEA*AF*PRQ*0*KH***41	Generation Transferred Out – Off Peak
QTY*78*200*KH	Generation Transferred Out - To ParentHost
MEA*AF*PRQ*200*KH***42	Generation Transferred Out – On Peak
QTY*78*0*KH	Generation Transferred Out - To ParentHost
MEA*AF*PRQ*0*KH***43	Generation Transferred Out – Intermediate Peak

Parent #2 (non-TOU w/Net Meter)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*800*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*500*KH	Consumption - Totalized
MEA*AA*PRQ*500*KH*0*0*51	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period

REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*1300*KH	Generation - Totalized
MEA*AA*PRQ*300*KH*0*0*51	Total generation, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*800*KH	Generation Transferred In – From ParentHost
MEA*AF*PRQ*800*KH***51	Generation Transferred Out – Totalized
QTY*78*800*KH	Generation Transferred Out – To ParentHost
MEA*AF*PRQ*800*KH***51	Generation Transferred Out – Totalized

Child #1 (TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*2600*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*800*KH	Consumption - Off Peak
MEA*AA*PRQ*800*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*1000*KH	Consumption - On Peak
MEA*AA*PRQ*1000*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*800*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*800*KH*0*0*43	Total consumption, with begin/end readings

PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*800*KH	Generation Transferred In
MEA*AF*PRQ*800*KH***41	Generation Transferred In – Off Peak
QTY*77*1000*KH	Generation Transferred In
MEA*AF*PRQ*1000*KH***42	Generation Transferred In – On Peak
QTY*77*800*KH	Generation Transferred In
MEA*AF*PRQ*800*KH***43	Generation Transferred In – Intermediate Peak

Child #2 (Non-TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*1800*KH	Monthly billed KH
PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*QD*4000*KH	Measured Net Consumption
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*400*KH	Consumption
MEA*AA*PRQ*400*KH*20000*20810*51	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*77*2200*KH	Generation Transferred In
MEA*AF*PRQ*2200*KH***51	Generation Transferred In – Total Non TOU

PHI/PE Scenario G - ParentHost True-up Event. Host has excess generation and needs a True-up. (Showing ParentHost accounts only)

Parent Host Account – True Up Event
Starting Bank = -1200 kWh
Off Peak -300 kWh
On Peak -500 kWh
Int Peak -400 kWh

Current usage for 04/05/16 to 05/04/16 = -225 kWh, 0 kWh Billed
Off Peak -50 kWh
On Peak -100 kWh
Int Peak -75 kWh

Excess generation for family = -1425 kWh
-350 kWh from Off Peak
-600 kWh from On Peak
-475 kWh from Int Peak

Transferred Out = -700 kWh
-200 kWh from Off Peak
-300 kWh from On Peak
-200 kWh from Int Peak

True-Up amounts for Host (cashed out to customer) = -725 kWh
Off Peak -150 kWh
On Peak -300 kWh
Int Peak -275 kWh

Ending Bank = 0 kWh
Off Peak 0 kWh
On Peak 0 kWh
Int Peak 0 kWh

Notes:
1. Applies TOU generation using the "waterfall" method. Off Peak to Off Peak, On Peak to On Peak & Intermediate Peak to Intermediate Peak.
2. For TOU Parent, excess generation from an individual peak period transfers to ParentHost's available generation.
3. During True-Up for TOU, if one TOU peak contains excess generation passed in QTY*QB, all TOU peaks must be sent even when 0 kWh.
4. During True-Up event, if there is nothing to True-up, the QTY*QB will NOT be sent.

Proposed EDI Transactions

Parent Account (Net Meter TOU)

PTD*BB	Monthly Billed Summary Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*D1*0*KH	Monthly billed KH

PTD*SU	Metered services Summary loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY*87*225*KH	Calculated net KH
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*A	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*QD*300*KH	Consumption - Off Peak
MEA*AA*PRQ*300*KH*0*0*41	Total consumption, with begin/end readings
QTY*QD*1000*KH	Consumption - On Peak
MEA*AA*PRQ*1000*KH*0*0*42	Total consumption, with begin/end readings
QTY*QD*275*KH	Consumption - Intermediate Peak
MEA*AA*PRQ*275*KH*0*0*43	Total consumption, with begin/end readings
PTD*PM	Meter detail loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
REF*MG*11111111	Meter Number
REF*JH*S	Meter Role
REF*IX*5.0	Number of dials or digits
QTY*87*350*KH	Generation - Off Peak
MEA*AA*PRQ*350*KH*0*0*41	Total generation, with begin/end readings
QTY*87*1100*KH	Generation - On Peak
MEA*AA*PRQ*1100*KH*0*0*42	Total consumption, with begin/end readings
QTY*87*350*KH	Generation - Intermediate Peak
MEA*AA*PRQ*350*KH*0*0*43	Total consumption, with begin/end readings
PTD*BJ	Generation Transferred Loop
DTM*150*20160405	Start period
DTM*151*20160504	End period
QTY***QH***300*KH	Starting Bank
MEA*AA*PRQ*300*KH***41	Starting Bank – Off Peak
QTY*QH*500*KH	Starting Bank
MEA*AA*PRQ*500*KH***42	Starting Bank – On Peak
QTY*QH*400*KH	Starting Bank
MEA*AA*PRQ*400*KH***43	Starting Bank – Intermediate Peak
QTY***79***0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***41	Self-generation Applied From Starting Bank to Off Peak
QTY***79***0*KH	Self-generation Applied From Starting Bank

MEA*AF*PRQ*0*KH***42	Self-generation Applied From Starting Bank to On Peak
QTY***79***0*KH	Self-generation Applied From Starting Bank
MEA*AF*PRQ*0*KH***43	Self-generation Applied From Starting Bank to Intermediate Peak
QTY*78*200*KH	Generation Transferred Out
MEA*AF*PRQ*200*KH***41	Generation Transferred Out – Off Peak
QTY*78*300*KH	Generation Transferred Out
MEA*AF*PRQ*300*KH***42	Generation Transferred Out – On Peak
QTY*78*200*KH	Generation Transferred Out
MEA*AF*PRQ*200*KH***43	Generation Transferred Out – Intermediate Peak
QTY*QB*150*KH	True-Up
MEA*AF*PRQ*150*KH***41	True-Up – Off Peak
QTY*QB*300*KH	True-Up
MEA*AF*PRQ*300*KH***42	True-Up – On Peak
QTY*QB*275*KH	True-Up
MEA*AF*PRQ*275*KH***43	True-Up – Intermediate Peak
QTY*QE*0*KH	Ending Bank
MEA*AA*PRQ*0*KH***41	Ending Bank – Off Peak
QTY*QE*0*KH	Ending Bank
MEA*AA*PRQ*0*KH***42	Ending Bank – On Peak
QTY*QE*0*KH	Ending Bank
MEA*AA*PRQ*0*KH***43	Ending Bank – Intermediate Peak