Pennsylvania
New Jersey
Delaware
Maryland

Implementation Guideline

For

Electronic Data Interchange

TRANSACTION SET

867

Historical Interval Usage

Ver/Rel 004010

Table of Contents

	Summary of Changes
March 15, 2008 Version 0.1D	Initial Release for PSEG NJ Change Control.
August 20, 2008 Version 0.1.5D	Incorporate changes for PA
October 2, 2008 Version 0.1.6D	Remove PECO from PA Notes section
August 8, 2009 Version 0.1.7D	Incorporate PA Change Control 056 (PPL field use)
January 24, 2010 Version 1.0	This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and Delaware.
November 4, 2010 Version 1.0.1D	Incorporated PA Change Control 065 (REF*LF and REF*SV) Incorporated PA Change Control 066 (FE HI Implementation) Incorporated PA Change Control 068 (PECO HI Implementation) Incorporated PA Change Control 073 (Update terminology of AMTKC to PLC and AMTKZ to NSPL)
February 28, 2011 Version 2.0	This transaction is a new FINAL version for Pennsylvania, New Jersey, Maryland, and Delaware.
February 16, 2012 Version 2.01	Incorporated PA Change Control 075 (Update UOM codes in QTY03) Incorporated PA Change Control 077 (Add QTY01 Codes) Incorporated PA Change Control 078 (REF*11) Incorporated PA Change Control 080 (Clarify K1 in SU loop) Incorporated PA Change Control 082 (Add/update QTY01 Codes) Incorporated PA Change Control 085 (REF*KY) Incorporated PA Change Control 090 (REF03 in REF*KY) Incorporated PA Change Control 093 (admin updates)
March 8, 2013	• Moving to v6.0 to align versions across all transaction sets • Cleaned up references to Allegheny and APS throughout document • Incorporate PA Change Control 087 (add DTM segments to be used with QTY*KC and QTY*KZ to denote current and future values) • Incorporate PA Change Control 095 (REF03 in REF*KY) • Incorporate PA Change Control 101 (remove AMT*LD from request; rescinds CC 58) • Incorporate PA Change Control 102 (increase REF*BF length in Data Dictionary) • Incorporate PA Change Control 103 (uniform net metering consumption reporting) • Incorporate MD Change Control 015 (add 867HI support for Maryland)
March 17, 2014 Version 6.1	• Incorporate PA Change Control 109 (clarify use in PTD*BQ gray box) • Incorporate PA Change Control 110 (clarify notes section for PECO • Incorporate PA Change Control 114 (add REF*PR to PTD*FG & PTD*RT loops) • Incorporate PA Change Control 115 (add PTD*RT loop for PECO) • Incorporate MD Change Control 026 (PHI new CIS; changes to HU/HI) • Incorporate MD Change Control 028 (BGE support of 867IU) • Incorporate MD Change Control 029 (uniform net meter data reporting) • Incorporate MD Change Control 030 (Net Meter Indicator in REF*KY) • Incorporate NJ Change Control Electric 019 (ACE new CIS: changes to 867HU/HI) • Incorporate NJ Change Control Electric 031 (RECO removal from IG) • Incorporate NJ Change Control Electric 032 (PSE&G admin updates)
March 14, 2017 Version 6.2	• Incorporate PA Change Control 131 (Add DTM328 to identify data increment change) • Incorporate PA Change Control 133v3 (Uniform Daylight Savings Time Reporting) • Incorporate NJ Change Control Electric 039 (Uniform Daylight Savings Time Reporting) • Incorporate MD Change Control 043 (Future PLC value/date for Potomac Edison) • Incorporate MD Change Control 045 (Aggregate Net Metering family identifier REF*AN) • Incorporate MD Change Control 046 (Uniform Daylight Savings Time Reporting) • Update Delaware Notes to say see Delmarva MD for applicability

General Notes

Use

- Historical Usage will be provided to an ESP upon Request. The request will be made using the 814E documents.
- Historical Usage can be requested for an entity that is already a customer of the ESP
- Historical Usage can be requested for any customer that has not restricted the release of their historical usage. This is state dependent, some states allow this scenario, and others do not.
- The Historical Usage Transaction Set is sent by the LDC only one time per ESP request. No corrections or changes will be transmitted. The Historical Usage data is correct for the point in time that is it requested. Subsequent adjustments to Historical Usage will not be transmitted to the ESP.
    - If providing history totalized for an account, use "SU"/"BQ" (Summary) in PTD01, else if providing history by meter, use "BO"/"PM" (Physical Meter) in PTD01.

LDC Definitions:

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

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

ESP Definitions:

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

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

Renewable Energy Provider Definition:

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

- GPM – Green Power Marketer (New Jersey)

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

Daylight Savings Time (DST) Reporting

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

Spring Daylight Savings Time

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

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

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

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

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

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

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

Example of Spring DST Change with 15-minute interval increments…

QTY~QD~239.76~KH
DTM~582~20150308~0145~ES
QTY~QD~302.4~KH
DTM~582~20150308~0200~ES
QTY~QD~248.76~KH
DTM~582~20150308~0315~ED
QTY~QD~241.56~KH
DTM~582~20150308~0330~ED

Fall Daylight Savings Time

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

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

QTY*QD*54.87*KH
DTM*582*20151101*0100*ED
QTY*QD*55.62*KH
DTM*582*20151101*0200*ED
QTY*QD*54.71*KH
DTM*582*20151101*0200*ES
QTY*QD*53.46*KH
DTM*582*20151101*0300*ES

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

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

QTY~QD~18.9~KH
DTM~582~20151101~0100~ED
QTY~QD~18.63~KH
DTM~582~20151101~0130~ED
QTY~QD~19.17~KH
DTM~582~20151101~0200~ED
QTY~QD~19.44~KH
DTM~582~20151101~0130~ES
QTY~QD~19.575~KH

DTM~582~20151101~0200~ES
QTY~QD~19.17~KH
DTM~582~20151101~0230~ES

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

Example of Fall DST Change with 15-minute interval increments…

QTY~QD~18.63~KH
DTM~582~20151101~0115~ED
QTY~QD~19.17~KH
DTM~582~20151101~0130~ED
QTY~QD~19.44~KH
DTM~582~20151101~0145~ED
QTY~QD~19.575~KH
DTM~582~20151101~0200~ED
QTY~QD~19.17~KH
DTM~582~20151101~0115~ES
QTY~QD~18.9~KH
DTM~582~20151101~0130~ES
QTY~QD~20.115~KH
DTM~582~20151101~0145~ES
QTY~QD~18.36~KH
DTM~582~20151101~0200~ES
QTY~QD~18.765~KH

Pennsylvania Notes

Use

- Transaction is conditional in Pennsylvania. PUC order dated 12/5/2012, Docket # M-2009-2092655, Page 13 requires "all EDCs covered by the smart meter mandates to install the capability to share a minimum of 12 months of historical interval account level or meter level usage via EDI."
- The EDC will provide interval detail at the lowest recorded level. The EGS will not be able to request a specific interval level.
- EDC support of 867HI:
  - Duquesne – Supports; utilizes account summary loops (SU & BQ)
  - First Energy (ME,PE,PP, & WPP)– Supports; utilizes account summary loops (SU & BQ)
  - PECO – Supports; utilizes account summary loops (SU & BQ) for MV90 metered accounts and single rate AMI metered accounts. For AMI customers with more than one rate (service point), utilizes rate loops (RT & BQ).
  - PPL EU – Supports; utilizes account summary loops (SU & BQ)
  - UGI – Does not support
- The Pennsylvania default is 12 months of Historical Interval Usage, the following EDCs offer more than 12 months…
  - PECO – default is 24 months

Implementation Information

- PECO – For any HIU in which the data precedes December 2010, PECO is required to force the QTY*01 segment to "actual" because actual versus estimate data is not available for dates preceding December 2010.
- PECO – For will implement a new "Rate" (RT) loop that will mimic the existing SU loop structure with the exception of the loop name (RT instead of SU). PECO will implement the RT loop such that a transaction will contain one RT loop for each rate (aka service point) included in the transaction. If the associated account is associated with two rates, then PECO will include two RT loops. Historical interval usage will therefore be provided at the rate level.

Requirements for uniform support of Net Metered Customers:

Account Level – both the SU and BQ loops are sent. Supported by DLCO, FE, PECO, and PPL. N/A to UGI as they do not have Interval Metered accounts.

- SU (Account Services Summary) Loop –reports consumption summarized/totalized for account by unit of measure for net metered customers. Individual intervals are not reported in the PTD*SU loop.
  1. When the customer's consumption is greater than generation for a given service period, 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 for a given service period, the KH will be reported as net generation (actual = 87 or estimated = 9H) with the total consumption subtracted from total generation).
  3. In either scenario, the QTY02 will never be signed negative.

- BQ (Account Services Detail) Loop – reports consumption provided by meter summed to the account level by unit of measure. This will be looped for each month for which the history is being reported.
  1. The QTY02 will report the net KH for ALL metered services being summed to the account level for the given reporting period.
  2. When the net KH for a given report period is generation, the QTY01 will be either '87' or '9H' to denote net generation.
  3. When the net KH for a given report period is consumption, the QYT01 will be one of the six valid consumption quantity qualifiers.

Meter Level – none of the PA EDCs are reporting Historical Interval usage at the meter level in the EDI 867HI EDEWG may add requirements/examples should any EDC wish to send meter level consumption history in the 867HI.

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

Maryland Notes

Use

- Maryland EDI Change Control 15 added support of the EDI 867 Historical Interval usage transaction for Maryland. As of 1/28/13 the exact utility implementation dates and looping have yet to be completely finalized:
- Delmarva / PEPCO – will support in new CIS at the account level. For non-EDI HI requests, the supplier should contact supplier support.
- BGE – support of 867HI went live for AMI/Smart meter accounts only on 1/16/2014.
  - Supports only 500 requests per day; excess will be carried over to following day.
- Potomac Edison – support of 867HI estimated for 3Q/4Q 2013 and will be at the account level only.

Requirements for uniform support of Net Metered Customers:

- Maryland EDI Change Control 029 adopted uniform net meter data reporting for Maryland. Utility support as of January 24, 2014…
  - BGE – est. 3Q 2014
  - PHI (Delmarva & PEPCO) – with new CIS
  - Potomac Edison (FE) – 4Q 2014 (MU/HU) & 1Q 2014 (IU/HIU)

- Account Level – both the SU and BQ loops are sent. Supported by BGE, Potomac Edison (FE), & PHI companies (Delmarva MD & PEPCO MD).

- SU (Account Services Summary) Loop –reports consumption summarized/totalized for account by unit of measure for net metered customers. Individual intervals are not reported in the PTD*SU loop.
  1. When the customer's consumption is greater than generation for a given service period, 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 for a given service period, the KH will be reported as net generation (actual = 87 or estimated = 9H) with the total consumption subtracted from total generation).
  3. In either scenario, the QTY02 will never be signed negative.

- BQ (Account Services Detail) Loop – reports consumption provided by meter summed to the account level by unit of measure. This will be looped for each month for which the history is being reported.
  1. The QTY02 will report the net KH for ALL metered services being summed to the account level for the given reporting period.
  2. When the net KH for a given report period is generation, the QTY01 will be either '87' or '9H' to denote net generation.
  3. When the net KH for a given report period is consumption, the QYT01 will be one of the six valid consumption quantity qualifiers.

Meter Level – none of the MD Electric Companies are reporting Historical Interval usage at the meter level in the EDI 867HI.

New Jersey Notes

Use

- Transaction is optional in New Jersey.

- **Atlantic City Electric** – effective with new CIS, ACE will support the EDI 867 Historical Interval Usage transaction summarized to the ACCOUNT level using the SU, BQ and FG loops. ACE will process Historical Usage requests as follows:

LIN05	Scenario	REF1P Code	867 Action
LIN05 = HU	HU available on non-interval account	No REF1P sent	867HU sent
LIN05 = HU	HU not available	REF1P = HUU	No 867 sent
LIN05 = HI	HI available	No REF1P sent	867HI sent
LIN05 = HI	Neither historical interval detail or summary data available	REF1P = HIU	No 867 sent
LIN05 = HI	HI data unavailable BUT summary HU data is available	No REF1P sent	867HU sent
LIN05 = HI	HI request on non-interval account	No REF1P sent	867HU sent

Delaware Notes

Use

- See Delmarva MD under Maryland notes

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:	
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

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

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	**M ID 2/3**
			12 Billing Account LDC assigned account number for end use customer.	
Must Use	**REF02**	**127**	**Reference Identification**	**X AN 1/30**
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	

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 Historical Usage
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		
			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		
	210	DTM	Date/Time Reference	O	10		

Summary:

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

Transaction Set Notes

Data Dictionary for 867 Historical Interval Usage

Appl Field	*Field Name*	*Description*	*EDI Element*	*Loop / Related EDI Qualifier*	*Data Type*
1	Purpose Code	Transaction Set Purpose	BPT01 = **52**		X(2)
2	Transaction Reference Number	Unique Number identifying this transaction.	BPT02		X(30)
3	System Date	Date this transaction was generated from sender's system	BPT03		9(8)
4	Report Type Code	Code to identify this transaction contains detailed usage information	BPT04 = **DD**	BPT01 = **52**	X(2)
5	LDC Name	LDC's Name	N102	N1: N101 = **8S**	X(60)
6	LDC Duns	LDC's DUNS Number or DUNS+4 Number	N104	N1: N101 = **8S** N103 = **1** or **9**	X(13)
7	ESP Name	ESP's Name	N102	N1: N101 = **SJ**	X(60)
8	ESP Duns	ESP's DUNS Number or DUNS+4 Number	N104	N1: N101 = **SJ** N103 = **1** or **9**	X(13)
8.3	Renewable Energy Provider Name	Renewable Energy Provider 's Name	N102	N1: N101 = **G7**	X(60)
8.4	Renewable Energy Provider Duns	Renewable Energy Provider 's DUNS Number or DUNS+4 Number	N104	N1: N101 = **G7** N103 = **1** or **9**	X(13)
9	Customer Name	Customer Name	N102	N1: N101 = **8R**	X(60)
10	ESP Account Number	ESP Customer Account Number	REF02	N1: N101 = **8R** REF01 = **11**	X(30)
11	LDC Account Number	LDC Customer Account Number	REF02	N1: N101 = **8R** REF01 = **12**	X(30)
12	Old Account Number	Previous LDC Customer Account Number	REF02	N1: N101 = **8R** REF01 = **45**	X(30)
	PTD Loop for Historical Interval Usage Summarized by Account (PTD01 = SU)				
A PTD Loop will be provided for each type of consumption measured for y meter (PTD01 = SU) in addition to the detail PTD loop for the meter and the PTD loop that provides Scheduling Determinants when appropriate					
13	Loop Identification	Indicates if usage is provided totalized or by meter.	PTD01 = **SU**		X(2)
14.2	Service Period Start	Start date of the period for which these readings are provided	DTM02	DTM01 = **150**	X(8)
14.5	Service Period End	End date of the period for which these readings are provided	DTM02	DTM01 = **151**	X(8)
16.2	Quantity Qualifier	Represents whether the quantity is actual or estimated: **KA** = Estimated Quantity Delivered **QD** = Actual Quantity Delivered **87** = Actual Quantity Received (Net Meter) **9H** = Estimated Quantity Received (Net Meter)	QTY01		X(2)
16.4	Quantity Delivered	Represents quantity of consumption delivered for billing period.	QTY02	QTY01	9(15)
16.6	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during billing period.	QTY03		X(2)

PTD Loop for Historical Usage that is Summarized/Totalized by Rate (PTD01 = RT)

A PTD Loop will be provided for each type of consumption measured for the overall account (PTD01=SU) or by meter (PTD01 = PM) or by rate (PTD01=RT) in addition to the PTD loop that provides Scheduling Determinants when appropriate

17.1	Loop Identification	Indicates if usage is provided totalized or by meter.	PTD01 = **RT**		X(2)
17.2	Profile Group	A code for the Load Profile used for this rate. Differs by LDC. Codes posted on LDC's Web site.	REF02	PTD: REF01= **LO**	X(30)
17.3	LDC Rate Code	Code indicating the rate a customer is being charged by LDC per tariff. Codes posted on LDC's Web site	REF02	PTD: REF01= **NH**	X(30)
17.4	LDC Rate Sub-class	Code to provide further classification of LDC Rate Code	REF02	PTD: REF01= **PR**	X(30)
17.4	Quantity Qualifier	Represents whether the quantity is actual or estimated: **KA** = Estimated Quantity Delivered **QD** = Actual Quantity Delivered **87** = Actual Quantity Received (Net Meter) **9H** = Estimated Quantity Received (Net Meter)	QTY01		X(2)
17.5	Quantity Delivered	Represents quantity of consumption delivered for billing period.	QTY02	QTY01	9(15)
17.6	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during billing period.	QTY03		X(2)
17.7	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)
17.8	Unit of Measure	Unit of measure for readings.	MEA04		X(2)
17.9	Measurement Significance Code	Code used to benchmark, qualify, or further define a measurement value.	MEA07		X(2)
17.10	Service Period Start	Start date of the period for which these readings are provided	DTM02	QTY: DTM01 = **150**	X(8)
17.11	Service Period End	End date of the period for which these readings are provided	DTM02	QTY: DTM01 = **151**	X(8)

PTD Loop for Historical Interval Usage that is provided at Account Level (PTD01 = BQ)

A PTD Loop will be provided for each type of consumption measured (PTD01 = BQ) in addition to the PTD loop that provides Scheduling Determinants when appropriate

21	Loop Identification	Indicates if usage is provided totalized or by meter.	PTD01 = **BQ**		X(2)
22.1	Service Period Begin Date	Start date of the service period or start date of the changed in meter.	DTM02	DTM01 = **150**	9(8)
22.3	Service Period End Date	End date of the service period or end date of the changed out meter.	DTM02	DTM01 = **151**	9(8)
23	Change Interval Data Increment	Date when the change in the interval data increment occurs	DTM02	DTM01 = **328**	9(8)

24	Meter Type	Code indicating type of consumption measured & interval at which measurements are taken.	REF02	PTD: REF01 = **MT**	X(5)
25	Quantity Qualifier	Represents whether the quantity is actual or estimated: **17 =** Incomplete Quantity Delivered **19 =** Incomplete Quantity Received (Net Meter) **20** = Unavailable **87** = Actual Quantity Received (Net Meter) **96** = Non-Billable Quantity **9H** = Estimated Quantity Received (Net Meter) **KA** = Estimated Quantity Delivered **QD** = Actual Quantity Delivered	QTY01		X(2)
27	Quantity Delivered	Represents quantity of consumption delivered for billing period.	QTY02	QTY01	9(15)
28	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during billing period.	QTY03		X(2)
29	Report Period Date/Time	The date/time of the end of the interval.	DTM02 (CCYYMMDD) and DTM03 (HHMM)	QTY: DTM01 = **582**	DTM02= 9(8) and DTM03= 9(4)
29.1	Time Code	The time code must accurately provide the time zone when the daylight savings time starts and ends if the meter is adjusted for daylight savings time. **ED** = Eastern Daylight Time **ES** = Eastern Standard Time	DTM04		X(2)
PTD Loop for Scheduling Determinants (PTD01 = FG)					
This PTD provides Scheduling Determinants when appropriate					
30	Loop Identification	Indicates if usage is provided totalized or by meter.	PTD01 = **FG**		X(2)
31	Loss Factor	Loss Factor	REF02	PTD:REF01=**LF**	X(30)
32	Profile Group	A code for the Load Profile used for this customer. Differs by LDC. Codes posted on LDC's Web site.	REF02	PTD: REF01= **LO**	X(30)
33	LDC Rate Code	Code indicating the rate a customer is being charged by LDC per tariff. Codes posted on LDC's Web site	REF02	PTD: REF01= **NH**	X(30)
34	LDC Rate Sub-Class	Code to provide further classification of LDC Rate Code	REF02	PTD: REF01= **PR**	X(30)
35	LDC Billing Cycle	LDC Cycle on which the bill will be rendered	REF02	PTD: REF01= **BF**	X(4)
36	Service Voltage	Service voltage	REF02	NM1:REF01=**SV**	X(30)

37	Special Meter Configuration Code	Used to convey there's a special meter present on the account. For example, Net Metering	REF02	PTD: REF01 = **KY**	X(3)
37.1	Special Meter Configuration Information	PPLEU-used to report the max K1 (demand) the special meter supports	REF03	PTD: RF01 = **KY**	X(80)
38	Aggregate Net Energy Meter Role	The role of the customer account in the Aggregate Net Energy Meter family	REF02	PTD: REF01= **AN**	X(30)
39	Peak Load Contribution (PLC)	Peak load contributions provided to PJM for Installed Capacity calculation (coincident with PJM Peak).	QTY02	PTD: QTY01 = **KC**	9(15)
40	Unit of Measure	Indicates unit of measurement for quantity of consumption delivered during billing period.	QTY03 = **K1**	PTD: QTY01 = **QD**	X(2)
41	Network Service Peak Load	Customer's peak load contribution provided to PJM for the Transmission Service calculation (coincident with LDC peak).	QTY02	PTD: QTY01 = **KZ**	9(15)
42	Quantity Delivered Unit of Measurement	Indicates unit of measurement for quantity of consumption delivered during billing period.	QTY03 = **K1**	PTD: QTY01 = **QD**	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:	Optional
DE Use:	Not Used
MD Use:	Same as PA; see Notes section for utility support
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:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	BPT*52*2008070112300001*20080701*C1

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**
			52 Response to Historical Inquiry Response to a request for historical meter reading.		
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 should be unique over all time.		
Must Use	**BPT03**	**373**	**Date** Date (CCYYMMDD)	**M**	**DT 8/8**
			The transaction creation date – the date that the data was processed by the application system.		
Must Use	**BPT04**	**755**	**Report Type Code** Code indicating the title or contents of a document, report or supporting item	**O**	**ID 2/2**
			C1 Cost Data Summary Interval Data		

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:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
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:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	N1*SJ*ESP COMPANY*9*007909422ESP1

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 if sent and for Renewable Energy program, see New Jersey Notes section for utility support
DE Use:	N/A
MD Use:	N/A
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.
PA Use:	Required
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	Same as PA; see Notes section for utility support
MD Use:	Same as PA; see Notes section for utility support
Example:	N1*8R*JANE DOE

Data Element Summary

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

Segment:	**REF** **Reference Identification (11=ESP Account Number)**
Position:	120
Loop:	N1
Level:	Heading
Usage:	Optional
Max Use:	12
Purpose:	To specify identifying information
Syntax Notes:	**1** At least one of REF02 or REF03 is required. **2** If either C04003 or C04004 is present, then the other is required. **3** If either C04005 or C04006 is present, then the other is required.
Semantic Notes:	**1** REF04 contains data relating to the value cited in REF02.
Comments:	
PA Use:	Optional if it was previously provided on an 814 to the LDC and the ESP is the supplier of record.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	Same as PA; see Notes section for utility support
MD Use:	Same as PA; see Notes section for utility support
Example:	REF*11*8645835

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 end use customer.	**M**	**ID 2/3**
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X**	**AN 1/30**

Segment:	**REF** **Reference Identification (12=LDC Account Number)**
Position:	120
Loop:	N1
Level:	Heading
Usage:	Optional
Max Use:	12
Purpose:	To specify identifying information
Syntax Notes:	**1** At least one of REF02 or REF03 is required. **2** If either C04003 or C04004 is present, then the other is required. **3** If either C04005 or C04006 is present, then the other is required.
Semantic Notes:	**1** REF04 contains data relating to the value cited in REF02.
Comments:	
PA Use:	Required
NJ Use:	Same as PA; see Notes section for utility support- 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.
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	REF*12*519703123457

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification 12 Billing Account LDC-assigned account number for 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 (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 changed in the last 60 days.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	REF*45*451105687500

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 LDC's previous 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: **PTD** **Product Transfer and Resale Detail (SU= Interval Summary-Account)**
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:	This PTD Loop will be used when providing Historical Interval Usage by account. The PTD*SU Loop sums the intervals for the month by unit of measure for each bill period. Demand is optional in the PTD*SU loop. Individual intervals are not reported in the PTD*SU Loop. One PTD*SU loop is required for each unit of measure for each bill period.
PA Use:	Required if sending HI summed to the account level
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Examples:	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 Designated Items Account Services Summary	

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:	Each QTY/MEA/DTM loop conveys consumption information about one interval.
PA Use:	Required if providing Historical Usage by Account; otherwise, not used. Each QTY/MEA/DTM loop conveys consumption information about one bill period. Note: For an interval account, this provides the net total usage for the bill period.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	QTY*QD*5210*KH

Data Element Summary

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

Segment: **DTM** **Date/Time Reference (150=Service Period Start)**
Position: 210
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the beginning of the date range for this account for this billing period.
PA Use:	Required.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	DTM*150*20080101

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: 210
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	This date reflects the end of the date range for this account for this billing period.
PA Use:	Required.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	DTM*151*20080131

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:	**PTD** **Product Transfer and Resale Detail (RT=Rate)**
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:	
PA Use:	Required if providing Historical Usage summarized/totalized by rate. PECO will send for AMI metered accounts with more than one rate (service point) Note: Different rates may have different bill periods.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not Used
Examples:	PTD*RT

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**
			RT Rate Consumption Summarized/Totalized for Rate.	

Segment: **REF** **Reference Identification (LO=Load Profile)**
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 PJM participants using this loop
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not Used
Example:	REF*LO*GS

Data Element Summary

	Ref. Des.	Data Element	Name	X12 Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification LO Load Planning Number Load profile	**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:	Required for PJM participants using this loop
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not Used
Example:	REF*NH*GS1

Data Element Summary

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

Segment: **REF** **Reference Identification (PR=LDC Rate Sub-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:	Conditional: If maintained by utility, must be sent for each meter that is used for billing purposes. This segment must also be sent when account has UNMETERED services available for generation service.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not Used
Example:	REF*PR*123

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**
			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: **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:	Each QTY/MEA/DTM loop conveys consumption information about one metering period.
PA Use:	Required
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not Used
Example:	QTY*QD*5210*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**
			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:	Optional field for time of use other than totalizer (MEA07=51). Optional for time of use equal to totalizer (MEA07=51) if that is the only time of use on the account.
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not Used
Examples:	MEA**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	**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		
Must Use	**MEA07**	**935**	**Measurement Significance Code**		**O**	**ID 2/2**
			Code used to benchmark, qualify or further define a measurement value			
			41	Off Peak		
			42	On Peak		
			43	Intermediate		
			51	Total		
				Totalizer		
			66	Shoulder		

Segment: **DTM** **Date/Time Reference (150=Service Period Date)**
Position: 210
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes:
1 At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

PA Use:	Required
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not Used
Example:	DTM*150*19990630

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

PA Use:	Required
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not Used
Example:	DTM*151*19990701

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:	**PTD** **Product Transfer and Resale Detail (BQ=Account Services Detail)**
Position:	010
Loop:	PTD
Level:	Detail
Usage:	Mandatory
Max Use:	1
Purpose:	To indicate the start of detail information relating to the transfer/resale of a product and provide identifying data
Syntax Notes:	**1** If either PTD02 or PTD03 is present, then the other is required. **2** If either PTD04 or PTD05 is present, then the other is required.
Semantic Notes:	
Comments:	
Notes:	This PTD Loop will be used when providing Historical Interval Usage by account. There must be one loop for each unit of measurement.
PA Use:	Required if sending HI summed to the account level. **Note**: One loop for kWh is required, all other unit of measure loops are optional.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see notes section for utility support
Examples:	PTD*BQ

Data Element Summary

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

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 account for this billing period.
PA Use:	Required.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	DTM*150*20080101

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 account for this billing period.
PA Use:	Required.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	DTM*151*20080131

Data Element Summary

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

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

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

Data Element Summary

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

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

PA Use:	Required if providing Historical Interval Usage by account; otherwise, not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	REF*MT*KH060

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**
			MT Meter Type	
			Billing Data Types and Interval Frequencies	
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**
			When REF01 is MT, the meter type is expressed as a five-character field. The first two characters are the type of consumption, the last three characters are the metering interval. "COMBO" is used for a meter that records more than one measurement. Valid values can be a combination of the following values:	

Type of Consumption

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

Metering Interval

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

For Example:

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

Other Valid Codes

COMBO This code is used to indicate that the meter has multiple measurements, e.g., one meter that measures both kWh and Demand. (NOTE: The code of COMBO is no longer valid in Pennsylvania as per PA CC 131)

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:	Each QTY/MEA/DTM loop conveys consumption information about one metering interval.
PA Use:	Required if providing Historical Interval Usage by account; otherwise, not used. Note: For a net metered account, the "net usage" is provided.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	QTY*QD*5210*KH

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity		**M ID 2/2**
			17	Incomplete Quantity Delivered Used when multi-metered account rolled up and at least one of the meters is not available.	
			19	Incomplete Quantity Received (Net Metering) Used when multi-metered account rolled up, at least one of the meters is not available and the total is net generation.	
			20	Unavailable Used when meter data is not available to fill the intervals.	
			87	Actual Quantity Received (Net Metering) Used when the net generation quantity received is actual.	
			96	Non-Billable Quantity Indicates this quantity and interval are outside of the actual bill period	
			9H	Estimated Quantity Received (Net Metering) Used when the net generation quantity received is estimated.	
			KA	Estimated Quantity Delivered Used when the quantity delivered is an estimated quantity.	
			QD	Actual Quantity Delivered Used when the quantity delivered is an actual quantity.	
Must Use	**QTY02**	**380**	**Quantity** Numeric value of quantity		**X R 1/15**
Must Use	**QTY03**	**355**	**Unit or Basis for Measurement Code** Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		**M ID 2/2**
			K1	Kilowatt Demand (KW)	

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

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

Notes:	End date and time of the period for which the quantity is provided. Time will include zone. Each interval must be explicitly labeled with the date and time.
PA Use:	Required.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	DTM*582*20080115*1500*ED

Data Element Summary

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

Segment:	**PTD** **Product Transfer and Resale Detail (BO= Interval 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:	This PTD Loop will be used when providing Historical Interval Usage by meter. The PTD*BO Loops sum the intervals for the month by unit of measure for each meter. In the PTD*BO consumption across intervals and across the same unit of measure is summarized at the meter level by meter cycle reporting period. Demand is never reported in the PTD*BO Loop. Individual intervals are not reported in the PTD01=BO Loop. One PTD*BO loop is required for each meter for each unit of measure. There will be on PTD*BO loop for each month.
PA Use:	Optional - Required if providing Historical Interval Usage by Meter; otherwise, not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Examples:	PTD*BO***MG*87876567

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	**PTD01**	**521**	**Product Transfer Type Code** Code identifying the type of product transfer BO Designated Items Meter Services Interval Summary	**M**	**ID 2/2**
Must Use	**PTD04**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification MG Meter Number	**X**	**ID 2/3**
Must Use	**PTD05**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Meter Number Meter numbers will contain only uppercase letters (A to Z) and digits (0 to 9). Note that punctuation (spaces, dashes, etc.) must be excluded, and significant leading and trailing zeros that are part of the meter number must be present.	**X**	**AN 1/30**

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. Required, unless a "DTM*514" is substituted for this code.
PA Use:	Optional - Required if providing Historical Interval Usage by Meter; otherwise, not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	DTM*150*20080101

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. Required, unless a "DTM*514" is substituted for this code.
PA Use:	Optional - Required if providing Historical Interval Usage by Meter; otherwise, not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	DTM*151*20080131

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. Required when a meter is changed and the meter agent does not change.
PA Use:	Optional - Required if providing Historical Interval Usage by Meter; otherwise, not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	Date Range in the first PTD is shown as: DTM*150*20080201 DTM*514*20080214 Date Range in the second PTD is shown as: DTM*514*20080214 DTM*151*20080228

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: **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:	Each QTY/MEA/DTM loop conveys consumption information about one metering interval.
PA Use:	Optional - Required if providing Historical Interval Usage by Meter; otherwise, not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	QTY*QD*5210*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**
			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	

Segment:	**PTD** **Product Transfer and Resale Detail (PM=Meter 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:	This PTD Loop will be used when providing Historical Interval Usage by meter. There must be one loop for each unit of measurement for each meter.
PA Use:	Optional - Required if providing Historical Interval Usage by Meter; otherwise, not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Examples:	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	**M ID 2/2**
			PM Physical Meter Information Consumption Provided by Meter by unit of measure.	

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:	Optional - Required if providing Historical Interval Usage by Meter or unless a "DTM*514" is substituted for this code, otherwise not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	DTM*150*20080101

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:	Optional - Required if providing Historical Interval Usage by Meter or unless a "DTM*514" is substituted for this code, otherwise not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	DTM*151*20080131

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:	Optional - Required if providing Historical Interval Usage by Meter and when a meter is changed and the meter agent does not change, otherwise not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	Date Range in the first PTD is shown as: DTM*150*20080201 DTM*514*20080214 Date Range in the second PTD is shown as: DTM*514*20080214 DTM*151*20080228

Data Element Summary

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

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

PA Use:	Optional - Required if providing Historical Interval Usage by Meter; otherwise, not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	REF*MG*87876567

Data Element Summary

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

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

PA Use:	Optional - Required if providing Historical Interval Usage by Meter; otherwise, not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	REF*MT*KHMON

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**
			MT Meter Type Billing Data Types and Interval Frequencies	
Must Use	**REF02**	**127**	**Reference Identification** Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	**X AN 1/30**
			When REF01 is MT, the meter type is expressed as a five-character field. The first two characters are the type of consumption, the last three characters are the metering interval. "COMBO" is used for a meter that records more than one measurement. Valid values can be a combination of the following values:	

Type of Consumption

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

Metering Interval

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

For Example:

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

Other Valid Codes

COMBO This code is used to indicate that the meter has multiple measurements, e.g., one meter that measures both kWh and Demand.

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 - Required if providing Historical Interval Usage by Meter; otherwise, not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
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: **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:	Each QTY/MEA/DTM loop conveys consumption information about one metering interval.
PA Use:	Optional - Required if providing Historical Interval Usage by Meter; otherwise, not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	QTY*QD*5210*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**
			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	

Segment: **DTM** **Date/Time Reference (582=Report Report)**

Position: 210
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes: **1** At least one of DTM02 DTM03 or DTM05 is required.
4 If DTM04 is present, then DTM03 is required.
4 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

Notes:	End date and time of the period for which the quantity is provided. Time will include zone. Each interval must be explicitly labeled with the date and time.
PA Use:	Optional - Required if providing Historical Interval Usage by Meter; otherwise, not used.
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	DTM*582*20080115*1500*ED

Data Element Summary

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

Segment:	**PTD** **Product Transfer and Resale Detail (FG=Scheduling Determinants)**
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:	This PTD Loop will be used to provide Scheduling Determinants, such as the Capacity Obligation (a.k.a. Load Responsibility) and Transmission Obligation for PJM customers.
PA Use:	Required
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Examples:	PTD*FG

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**
			FG Flowing Gas Information Scheduling Determinants: This loop will provide information required by PJM.	

Segment: **REF** **Reference Identification (LF=Loss Factor)**
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 First Energy Companies; Optional for others
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	Not Used
MD Use:	Same as PA; see Notes section for utility support
Example:	REF*LF*2

Data Element Summary

	Ref. Des.	Data Element	Name		X12 Attributes	
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification		**M**	**ID 2/3**
			LF	Load Planning Number Loss Factor		
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 (LO=Load Profile)**
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 **Note**: PECO provides this field in the PTD*RT loop rather than in this loop for AMI metered accounts with more than one rate (service point).
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	REF*LO*GS

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**
			LO Load Planning Number Load profile	
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:	Required **Note**: PECO provides this field in the PTD*RT loop rather than in this loop for AMI metered accounts with more than one rate (service point).
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
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 Sub-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:	Conditional: If maintained by utility, must be sent for each meter that is used for billing purposes. This segment must also be sent when account has UNMETERED services available for generation service. **Note**: PECO provides this field in the PTD*RT loop rather than in this loop for AMI metered accounts with more than one rate (service point).
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Not Used
Example:	REF*PR*123

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification PR Price Quote Number LDC Rate Subclass – Used to provide further classification of a rate.	**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 (BF=LDC Bill Cycle)**
Position: 030
Loop: PTD
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes: **1** At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: **1** REF04 contains data relating to the value cited in REF02.
Comments:

PA Use:	Required
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	REF*BF*15

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification BF LDC Bill Cycle	**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 (SV=Service Voltage)**
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 First Energy Companies; Optional for others
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	Not Used
MD Use:	Same as PA; see Notes section for utility support
Example:	REF*SV*SECONDARY

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification SV Service Voltage	**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 PRIMARY SECONDARY Actual service voltage transmission value (Ex: 34.5kV)	**X AN 1/30**

Segment: **REF** **Reference Identification (KY=Special Meter Configuration)**
Position: **03**0
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 when special meter configuration is present on an account. PPLEU: supports First Energy & PECO: must support NLT 6/19/2013 Duquesne: will support NLT 1/31/2014
NJ Use:	Same as PA; see Notes section for utility support
DE Use:	Not Used
MD Use:	Same as PA BGE: est. 4Q 2014 PHI (Delmarva & PEPCO): with new CIS Potomac Edison (FE): in production
Example:	REF*KY* NSUN*0000026

Data Element Summary

	Ref. Des.	Data Element	Name	X12 Attributes
Must Use	**REF01**	**128**	**Reference Identification Qualifier** Code qualifying the Reference Identification KY Site Specific Procedures, Terms, and Conditions Special Meter Configuration	**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 ASUN Net Metering Solar AWIN Net Metering Wind AHYD Net Metering Hydro ABIO Net Metering Biomass AWST Net Metering Waste ACHP Net Metering Combined Heat and Power AMLT Net Metering Multiple Different Sources NSUN Non-Net Metering Solar NWIN Non-Net Metering Wind NHYD Non-Net Metering Hydro NBIO Non-Net Metering Biomass NWST Non-Net Metering Waste NCHP Non-Net Metering Combined Heat and Power NFOS Non-Net Metering Fossil Fuel NMLT Non-Net Metering Multiple Different Sources NETMETER Net Meter (Used for EDCs who will not report the specific type of net meter)	**X AN 1/30**
Optional	**REF03**	**352**	**Description** A free-form description to clarify the related data elements and their content	**X AN 1/80**

PPLEU: Used for the output rating of the generation equipment reporting in KW and reflects the maximum generation the equipment can produce at any one time

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

PA Use:	Not Used
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Conditional - Required when the customer account is part of an Aggregate Net Energy Meter family.
Example:	REF*AN* PARENTHOST

Data Element Summary

	Ref. Des.	Data Element	Name	X12 Attributes	
Must Use	**REF01**	**128**	**Reference Identification Qualifier**	**M**	**ID 2/3**
			Code qualifying the Reference Identification AN Aggregate Net Energy Meter Role The role of the customer account in the Aggregate Net Energy Meter family		
Must Use	**REF02**	**127**	**Reference Identification**	**X**	**AN 1/30**
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier PARENTHOST BGE & FE: Host Account with Generation PHI: Customer designated primary host (parent) with Generation PARENT BGE & FE: Not Used PHI: Host account with generation, not the primary CHILD Child account, may or may not have its own generation. NOTE - The REF*KY segment is used to notify the account has its own generation.		

Segment: **QTY** **Quantity (KC=Peak Load Contribution)**
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:	Each QTY/MEA/DTM loop conveys consumption information about one metering period.
PA Use:	Required - The QTY/DTM loop may be sent twice depending on the time of year the Historical Usage is being provided. (PLC is effective June 1 - May 31) One iteration will show the current PLC and a second iteration will show the PLC that will be effective in the period defined in the DTM segment. Currently the PA EDCs change the PLC effective June 1st. Once the EDCs are aware of what the next effective PLC will be (typically in December) they should begin providing it on transactions. For example, in February 2010 the PLC values would be reported as: QTY*KC*476*K1 DTM*007****RD8*20090601-20100531 QTY*KC*450*K1 DTM*007****RD8*20100601-20110531 Whereas in September 2010 the PLC value would include only one loop because the following year's PLC is undetermined: QTY*KC*450*K1 DTM*007****RD8*20100601-20110531
NJ Use:	Required for PJM participants; see Notes section for utility support. This will be the Peak Load Contribution in effect when the transaction is requested. **NJ Note:** PSE&G sends Capacity Obligation to PJM.
DE Use:	N/A
MD Use:	Required for PJM participants; see Notes section for utility support. This will be the Peak Load Contribution in effect when the transaction is requested. Potomac Edison – follows PA use of effective dates where Future Peak Load Contribution is sent when calculated and available.
Example:	QTY*KC*752*K1

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity	**M ID 2/2**
			KC Net Quantity Decrease Peak Load Contribution: Peak load contributions provided to PJM for Installed Capacity calculation (coincident with PJM Peak).	
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	

Represents potential power load measured at predetermined intervals

Segment: **DTM** **Date/Time Reference (007=PLC Effective Date)**
Position: 210
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes: **1** At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

PA Use:	Required for PJM Participants The QTY/DTM loop may be sent twice depending on the time of year the Historical Usage is being provided. (PLC is effective June 1 - May 31) One iteration will show the current PLC and a second iteration will show the PLC that will be effective in the period defined in the DTM segment. Currently the PA EDCs change the PLC effective June 1st. Once the EDCs are aware of what the next effective PLC will be (typically in December) they should begin providing it on transactions. For example, in February 2010 the PLC values would be reported as: QTY*KC*476*K1 DTM*007****RD8*20090601-20100531 QTY*KC*450*K1 DTM*007****RD8*20100601-20110531 Whereas in September 2010 the PLC value would include only one loop because the following year's PLC is undetermined: QTY*KC*450*K1 DTM*007****RD8*20100601-20110531
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	Required for Potomac Edison. Optional for other MD LDCs. See PA Notes for implementation.
Example:	DTM*007****RD8*20070601-20080531

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**
			007	Effective PLC Effective Date		
Must Use	**DTM05**	**1250**	**Date/Time Period Format Qualifier** Code indicating the date format, time format, or date and time format		**X**	**ID 2/3**
			RD8	Range of Dates Expressed in Format CCYYMMDD-CCYYMMDD		
Must Use	**DTM06**	**1251**	**Date/Time Period** Expressed as CCYYMMDD-CCYYMMDD		X	**AN 1/35**

Segment: **QTY** **Quantity (KZ=Network Service Peak Load)**
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:	Each QTY/MEA/DTM loop conveys consumption information about one metering interval.
PA Use:	Required - The QTY/DTM loop may be sent twice when the Utility is providing both the current NSPL and the NSPL that will be effective for a subsequent period. This will occur for short period of time between when the future value is sent via the 814C and the actual date the future value takes effect. For example, you may receive either two loops: QTY*KZ*476*K1 DTM*007****RD8*20100101-20101231 QTY*KZ*450*K1 DTM*007****RD8*20110101-20111231 Or just one: QTY*KZ*450*K1 DTM*007****RD8*20110101-20111231
NJ Use:	Required for PJM participants; see Notes section for utility support. This will be the Network Service Peak Load in effect when the transaction is requested. **NJ Note:** PSE&G sends Capacity Obligation to PJM.
DE Use:	N/A
MD Use:	Required for PJM participants, see Notes section for utility support. This will be the Network Service Peak Load in effect when the transaction is requested. Potomac Edison – follows PA use where Future Network Service Peak Load is sent when calculated and available.
Example:	QTY*KZ*752*K1

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	**QTY01**	**673**	**Quantity Qualifier** Code specifying the type of quantity	**M ID 2/2**
			KZ Corrective Action Requests - Written Network Service Peak Load: Customer's peak load contribution provided to PJM for the Transmission Service calculation (coincident with LDC peak).	
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 Represents potential power load measured at predetermined intervals	

Segment: **DTM** **Date/Time Reference (007=NSPL Effective Date)**
Position: 210
Loop: QTY
Level: Detail
Usage: Optional
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes: **1** At least one of DTM02 DTM03 or DTM05 is required.
2 If DTM04 is present, then DTM03 is required.
3 If either DTM05 or DTM06 is present, then the other is required.
Semantic Notes:
Comments:

PA Use:	Required for PJM Participants NSPL is for January 1 - December 31 The QTY/DTM loop may be sent twice when the Utility is providing both the current NSPL and the NSPL that will be effective for a subsequent period. This will occur for short period of time between when the future value is sent via the 814C and the effective date of the future value. For example, you may receive either two loops: QTY*KZ*476*K1 DTM*007****RD8*20100101-20101231 QTY*KZ*450*K1 DTM*007****RD8*20110101-20111231 Or just one: QTY*KZ*450*K1 DTM*007****RD8*20110101-20111231
NJ Use:	Not Used
DE Use:	Not Used
MD Use:	This will be the Network Service Peak Load in effect when the transaction is requested. Potomac Edison – follows PA use where Future Network Service Peak Load is sent when calculated and available.
Example:	DTM*007****RD8*20070601-20080531

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**
			007	Effective NSPL Effective Date		
Must Use	**DTM05**	**1250**	**Date/Time Period Format Qualifier** Code indicating the date format, time format, or date and time format		**X**	**ID 2/3**
			RD8	Range of Dates Expressed in Format CCYYMMDD-CCYYMMDD		
Must Use	**DTM06**	**1251**	**Date/Time Period** Expressed as CCYYMMDD-CCYYMMDD		X	**AN 1/35**

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:	Same as PA; see Notes section for utility support
DE Use:	N/A
MD Use:	Same as PA; see Notes section for utility support
Example:	SE*23*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**

Example: Historical Interval Usage by Account

Heading:

BPT*52*2008070112300001*20080701*C1	Transaction Set Purpose Code: **52**, *Response to Historical Inquiry* Reference Identification: **2008070112300001,** Transaction Date: **20080701,** Report Type Code: **C1**, *Interval Usage*
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*JANE DOE	Customer name
REF*12*519703123457	LDC Account Number
REF*45*451105687500	Old LDC Account Number

Detail:

Segment Contents	**Element Description**
PTD*SU	Summary Loop for kwh (QTY, DTM, DTM for each month)
QTY*QD*52110*KH	Quantity (kwh)
DTM*150*20080529	Service Period Start
DTM*151*20080630	Service Period End
QTY*QD*34510*KH	Quantity (kwh)
DTM*150*20080701	Service Period Start
DTM*151*20080731	Service Period End

PTD*BQ	Summary loop for energy (one for each month)
DTM*150*20080529	Service Period Start
DTM*151*20080630	Service Period End
REF*MT*KH060	Meter Type
QTY*QD*112*KH	Consumption
DTM*582*20080529*0100*ED	End date and time of the period for which the quantity is provided.
QTY*QD*128*KH	Consumption
DTM*582*20080529*0200*ED	End date and time of the period for which the quantity is provided.
QTY*QD*216*KH	Consumption
DTM*582*20080529*0300*ED	End date and time of the period for which the quantity is provided.
…. . .Continued on until the end of the period specified below	
QTY*QD*789*KH	Consumption
DTM*582*20080630*2300*ED	End date and time of the period for which the quantity is provided.
QTY*QD*730*KH	Consumption
DTM*582*20080630*2359*ED	End date and time of the period for which the quantity is provided.
PTD*BQ	Summary loop for energy (one for each month)
DTM*150*20080701	Service Period Start
DTM*151*20080731	Service Period End
REF*MT*KH060	Meter Type
QTY*87*102*KH	Consumption – **Example shows net generation of 102 kwh**
DTM*582*20080701*0100*ED	End date and time of the period for which the quantity is provided.
QTY*QD*233*KH	Consumption
DTM*582*20080701*0200*ED	End date and time of the period for which the quantity is provided.
QTY*QD*416*KH	Consumption
DTM*582*20080701*0300*ED	End date and time of the period for which the quantity is provided.
…. . .Continued on until the end of the period specified below	
QTY*QD*781*KH	Consumption
DTM*582*20080731*2300*ED	End date and time of the period for which the quantity is provided.
QTY*QD*700*KH	Consumption
DTM*582*20080731*2359*ED	End date and time of the period for which the quantity is provided.

PTD*FG	Scheduling Determinants Loop
REF*BF*01	Bill Cycle
REF*KY*ASUN	Special Meter Configuration (PPL sends, other PA EDCs implementing in 2013/14)
REF*LF*2	Loss Factor (FE Only; optional others)
REF*LO*RS	Load Profile [Optional segment]
REF*NH*RESNH	LDC Rate Code
REF*PR*RESNH7187	LDC Rate Sub-Class
REF*SV*SECONDARY	Service Voltage (FE Only; optional others)
QTY*KC*752*K1	Peak Load Contribution
QTY*KZ*752*K1	Network Service Peak Load

Example: Historical Interval Usage by Meter

Currently no utilities support HI by meter.

Example: Pennsylvania & Maryland Net Metering / Customer Generation

Historical Interval Usage Summarized by Account – with Net Metering

BPT*52*2012070112300001*20120701*C1	Transaction Set Purpose Code: **52**, *Response to Historical Inquiry* Reference Identification: **2012070112300001,** Transaction Date: **20120701,** Report Type Code: **C1**, *Interval Usage*
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*JANE DOE	Customer name
REF*12*519703123457	LDC Account Number
REF*45*451105687500	Old LDC Account Number
PTD*SU	Summary Loop for kwh (QTY, DTM, DTM for each month)
QTY*QD*52110*KH	**Net Consumption Quantity** (kwh)
DTM*150*20120529	Service Period Start
DTM*151*20120630	Service Period End
QTY*87*34510*KH	**Net Generation Quantity** (kwh)
DTM*150*20120701	Service Period Start
DTM*151*20120731	Service Period End
PTD*BQ	Summary loop for KH (one for each month)
DTM*150*20120529	Service Period Start
DTM*151*20120630	Service Period End
REF*MT*KH060	Meter Type
QTY*QD*112*KH	Consumption
DTM*582*20120529*0100*ED	End date and time of the period for which the quantity is provided.
QTY*87*128*KH	**Generation**
DTM*582*20120529*0200*ED	End date and time of the period for which the quantity is provided.
QTY*QD*216*KH	Consumption
DTM*582*20120529*0300*ED	End date and time of the period for which the quantity is provided.
…. . .Continued on until the end of the period specified below	
QTY*QD*789*KH	Consumption
DTM*582*20120630*2300*ED	End date and time of the period for which the quantity is provided.
QTY*QD*730*KH	Consumption
DTM*582*20120630*2359*ED	End date and time of the period for which the quantity is provided.
PTD*BQ	Summary loop for KH (one for each month)
DTM*150*20120701	Service Period Start
DTM*151*20120731	Service Period End

REF*MT*KH060	Meter Type
QTY*QD*102*KH	Consumption
DTM*582*20120701*0100*ED	End date and time of the period for which the quantity is provided.
QTY*87*233*KH	**Generation**
DTM*582*20120701*0200*ED	End date and time of the period for which the quantity is provided.
QTY*QD*416*KH	Consumption
DTM*582*20120701*0300*ED	End date and time of the period for which the quantity is provided.
…. . .Continued on until the end of the period specified below	
QTY*QD*781*KH	Consumption
DTM*582*20120731*2300*ED	End date and time of the period for which the quantity is provided.
QTY*QD*700*KH	Consumption
DTM*582*20120731*2359*ED	End date and time of the period for which the quantity is provided.
PTD*FG	Scheduling Determinants Loop
REF*BF*01	Bill Cycle
REF*KY*ASUN	Special Meter Configuration (PPL sends, other PA EDCs implementing in 2013/14)
REF*LF*2	Loss Factor (FE Only; optional others)
REF*LO*RS	Load Profile
REF*NH*RESNH	LDC Rate Code
REF*PR*RESNH7187	LDC Rate Sub-Class
REF*SV*SECONDARY	Service Voltage (FE Only; optional others)
QTY*KC*752*K1	Peak Load Contribution
QTY*KZ*752*K1	Network Service Peak Load

Example: Pennsylvania 867 Historical Interval Usage - Multiple interval data increments in same service period. (ACCOUNT Level)

Interval Increment Change on 6/5/2008

BPT*52*2008070112300001*20080701*C1	Transaction Set Purpose Code: **52**, *Response to Historical Inquiry* Reference Identification: **2008070112300001,** Transaction Date: **20080701,** Report Type Code: **C1**, *Interval Usage*
N1*8S*LDC COMPANY*1*007909411	LDC Company
N1*SJ*ESP COMPANY*9*007909422ESP1	ESP Company
N1*8R*JANE DOE	Customer name
REF*12*519703123457	LDC Account Number
REF*45*451105687500	Old LDC Account Number
PTD*SU	Summary Loop for kwh (QTY, DTM, DTM for each month)
QTY*QD*52110*KH	Quantity (kwh)
DTM*150*20080529	Service Period Start
DTM*151*20080630	Service Period End
QTY*QD*34510*KH	Quantity (kwh)
DTM*150*20080701	Service Period Start
DTM*151*20080731	Service Period End
PTD*BQ	Summary loop for interval readings (one for each month or interval increment)
DTM*150*20080529	Service Period Start
DTM*328*20080605	**Interval Increment Change Date**
REF*MT*KH060	**Meter Type (Interval Increment)**
QTY*QD*112*KH	Consumption
DTM*582*20080529*0100*ED	End date and time of the period for which the quantity is provided.
QTY*QD*128*KH	Consumption
DTM*582*20080529*0200*ED	End date and time of the period for which the quantity is provided.
QTY*QD*216*KH	Consumption
DTM*582*20080529*0300*ED	End date and time of the period for which the quantity is provided.
…. . .Continued on until the end of the period specified below	

QTY*QD*789*KH	Consumption
DTM*582*20080605*1000*ED	End date and time of the period for which the quantity is provided.
QTY*QD*730*KH	Consumption
DTM*582*20080605*1100*ED	End date and time of the period for which the quantity is provided.
PTD*BQ	Summary loop for interval readings (one for each month or interval increment)
DTM*328*20080605	**Interval Increment Change Date**
DTM*151*20080630	Service Period End
REF*MT*KH030	**Meter Type (Interval Increment)**
QTY*QD*112*KH	Consumption
DTM*582*20080605*1130*ED	End date and time of the period for which the quantity is provided.
QTY*QD*128*KH	Consumption
DTM*582*20080605*1200*ED	End date and time of the period for which the quantity is provided.
QTY*QD*216*KH	Consumption
DTM*582*20080605*1230*ED	End date and time of the period for which the quantity is provided.
…. . .Continued on until the end of the period specified below	
QTY*QD*789*KH	Consumption
DTM*582*20080630*2330*ED	End date and time of the period for which the quantity is provided.
QTY*QD*730*KH	Consumption
DTM*582*20080630*2359*ED	End date and time of the period for which the quantity is provided.
PTD*BQ	Summary loop for interval readings
DTM*150*20080701	Service Period Start
DTM*151*20080731	Service Period End
REF*MT*KH030	Meter Type
QTY*QD*102*KH	Consumption
DTM*582*20080701*0030*ED	End date and time of the period for which the quantity is provided.
QTY*QD*233*KH	Consumption
DTM*582*20080701*0100*ED	End date and time of the period for which the quantity is provided.
QTY*QD*416*KH	Consumption
DTM*582*20080701*0130*ED	End date and time of the period for which the quantity is provided.
…. . .Continued on until the end of the period specified below	
QTY*QD*781*KH	Consumption
DTM*582*20080731*2330*ED	End date and time of the period for which the quantity is provided.
QTY*QD*700*KH	Consumption
DTM*582*20080731*2359*ED	End date and time of the period for which the quantity is provided.
PTD*FG	Scheduling Determinants Loop
REF*BF*01	Bill Cycle
REF*LF*2	Loss Factor (FE Only; optional others)
REF*LO*RS	Load Profile [Optional segment]
REF*NH*RESNH	LDC Rate Code
REF*PR*RESNH7187	LDC Rate Sub-Class
REF*SV*SECONDARY	Service Voltage (FE Only; optional others)
QTY*KC*752*K1	Peak Load Contribution
QTY*KZ*752*K1	Network Service Peak Load