Ohio
Electric

Implementation
Guideline

For

Electronic Data Interchange

TRANSACTION SET

867
UsageVer/Rel 004010

Summary of Changes

Version 1.0.0 May 1, 2001	Initial Release
Version 1.5.0 May 1, 2001	• Add DTM segment for document due date into the 867 per Change Control 11. • Change position of N1 loop for Scheduling Coordinator from position 040 to position 080 per Change Control 17. • Correct two typos in the 867 IG (The REF*PR and the QTY segments in the PL loop contain a gray box. In the gray box it lists the type of 867 (HI, HU, IU, MU). These two segments have a typo and list HU twice.) per Change Control 20. • Remove the Summary pages (usually pages 2 and 3) from the implementation guides. These pages are automatically created by Foresight, but the last round of changes to the documents was done in Word and has not been updated in Foresight per Change Control 22.
Version 2.0.0 December 31, 2001	• Added note to MEA01 elements in the 867 for Duke Energy Ohio to allow for them to send only current reading (and not previous reading) for all units of measure, not just demand per Change Control 27
Version 2.1.0 June 30, 2002	▪ Added note to N1~8R segment to show AP validates on first 4 characters of customer name per change control 48. ▪ Added text to title on N1 pages to show which N1 per change control 50 ▪ Updated REF~Q5 gray boxes to show SDID per change control 51
Version 2.2.0 October 1, 2005	▪ Added REF~NH and REF~PR to the BD loop per Change Control 53 ▪ Change the CO0101 in the QTY segment under the PTD*SU loop to remove the requirement to send the K1, K2, and K4 values per change control 61. ▪ Added TOU values to the PTD Summary Loop for the 867 Historical Usage transaction for FirstEnergy Corp. use only per change control 63.
Version 2.3.0 March 9, 2010	▪ During 3/3/10 meeting, the OSPO Data Working Group reviewed & confirmed EDI change controls up to and including CC67. All changes in the v2.2.0 redline were accepted and v2.3.0 created as the new baseline for Ohio.
Version 2.4.0 February 14, 2012	▪ Added PTD*FG loop, QTY*KC, and QTY*KZ segments as per EDI Change Control 69. • Incorporated AEP's administrative changes as per EDI Change Control 70. • Incorporated Duke Energy Ohio's administrative changes as per EDI Change Control 72. ▪ Remove BD loop as per EDI Change Control 75 • Incorporated First Energy's administrative changes as per EDI Change Control 81. • Added DTM*649 as optional when BPT01=01 as per EDI Change Control 83. • Added DTM*150/151 to SU loop pos 210 for HU as per EDI Change Control 84.
Version 2.5.0 February 15, 2013	• Incorporated LDC Rate Class, LDC Profile Description, and LDC Meter Cycle for HU as per EDI Change Control 82. Change effective NLT 6/30/12 for AEP, DP&L, and FE. Duke Energy Ohio NLT 12/31/2012. • Incorporated Service Voltage and Loss Factor to the 867HU as per EDI Change Control 91. Change Effective 5/25/2012 for First Energy companies only, not used by other EDUs. • Incorporated administrative changes to notes section and BPT04 as per EDI Change Control 97. No effective date necessary, change is admin only.
Version 2.6.0 March 24, 2014	• Incorporate Change Control 103 Update (add net meter indicator & qualifiers) • Incorporate Change Control 104 (clarify 867IU BO/PM looping for on/off peak) • Incorporate Change Control 105 & 114 (REFLF & REFSV required for AEP & FE) • Incorporate Change Control 108 (add effective date ranges to PLC & NSPL values) • Incorporate Change Control 110 (TOU reporting in 867HU) • Incorporate Change Control 111 (Add REFNH, REFLO, REFBF & REFPR to FG loop) • Incorporate Change Control 112 (add net meter qualifiers for FE in HU and IU) • Incorporate Change Control 115 (add meter number for PM loop for HI) • Incorporate Change Control 117 (clarify AEP practice for HU/HI handling)

Summary of Changes

Version 2.6.1
February 13, 2015

- Incorporate Change Control 120 (DP&L support of 867HI)
- Incorporate Change Control 122 (correct Duke 867MU notes)
- Incorporate Change Control 123 (add Duke net meter data reporting)
- Incorporate Change Control 124 (correct FE net meter QTY01 in PL loop)

Version 2.6.2
February 11, 2016

- Incorporate Change Control 127 (AEP OH Net Meter Reporting)
- Incorporate Change Control 131 (PM loop optional in 867IU Cancel)
- Incorporate Change Control 137v2 (Duke Energy Ohio use of PTD*SU in 867HU)

Version 2.6.3
February, 2017

- Incorporated Change Control 140 (Add the REF*MG to the PTD*PM loop in the 867IU transaction as a Required field)
- Incorporated Change Control 142 (Remove comment from Notes and BPT04 C1 related to Duke identifying whether an account has interval data available. Duke to make changes to their system to identify the summary historical usage as DD regardless of whether the account has interval data available. Also fix typo in graybox of X5)
- Incorporated Change Control 146 (Update the 867 for monthly usage only to add new codes (71, 76, 85, 97) to the MEA07 in the SU and PL loops and C04002 in the REF*IX for AEP only for AEP's TOU Market Transition)
- Incorporated Change Control 151 (Update the DTM04 value in the PTD*PM loop to show the correct value of "ES" for Eastern Standard Time)

Definitions:

The following acronyms are used throughout this 867 Guideline.

HI – Historical Interval. The HI will be sent in response to an 814 HI request. This will be historical usage for an account that has an interval meter.

HU – Historical Usage. The HU will be sent in response to an 814 HU request. This will be historical usage for an account that has non-interval metered or unmetered services.

MU – Monthly Usage. The MU will be sent monthly (may be sent bi-monthly for customers on bi-monthly billing) for any account that has non-interval metered or unmetered services. This is the usage that will be used to calculate the 810 in Consolidated Billing

IU – Interval Usage. The IU will be sent monthly for any account that has an interval meter. This is the usage that will be used to calculate the 810 in Consolidated Billing

867 Looping

The looping in the 867 is directly related to the service being requested by the CRES, the type of service on the account, and the type of 867 being sent. The indicator for the type of 867 being sent is shown in the BPT04 element.

Historical Usage (867HU and 867HIU):

AEP

AEP supports both 867HU and 867HIU via EDI. In the event the CRES requests Historical Interval (HI) usage for an account without historical interval history present, AEP will accept the request, send REF*1P with HIU (Historical Interval Unavailable) and provide the CRES with 867 Historical Usage transaction set.

In the 867HU, AEP sends the PTD*FG loop and a PTD*PL loop for each meter/unit of measure/time of use/net meter channel (consumption- usage delivered & generation – usage received). For unmetered services, the PTD*FG and PTD*BC loops are sent. In the 867HIU, AEP sends the PTD*FG and a PTD*PM loop for each meter/unit of measure. For net metering in the 867HIU, AEP sends single PM loop reporting net usage delivered (consumption), if interval read is net negative (usage received / generation) reports 0KH, no 87/9H qualifiers are sent in 867HIU.

DPL

DPL supports both 867HU and 867HIU via EDI. If a CRES requests interval detail on a non-interval account, DPL will reject with a reject code of HIU (INVALID REQUEST FOR USAGE). The CRES may re-submit the request as 814HU and DPL will provide summary level 867HU data.

In the 867HU, DPL sends the PTD*FG loop and a PTD*PL loop for each meter/unit of measure/time of use. For unmetered services, the PTD*FG and PTD*BC loops are sent. In the 867HIU, DPL sends the PTD*FG loop and a PTD*PM loop for each meter/unit of measure.

Duke Energy Ohio

Duke Energy Ohio supports both 867HU and 867HIU via EDI. If a CRES requests interval detail on a non-interval account, Duke will reject with a reject code of M76 (Interval Meter). The CRES may re-submit the request as 814HU and Duke will provide summary level 867HU data.

In the 867HU, Duke sends the PTD*FG loop, a PTD*SU loop, and a PTD*PL loop for each meter/unit of measure. In the 867HIU, Duke sends the PTD*FG loop, a PTD*BO loop and a PTD*PM loop for each meter/unit of measure. For unmetered services, the PTD*FG and PTD*BC loops are sent.

FirstEnergy

FirstEnergy does not support 867 Historical Interval usage in Ohio. If a CRES requests HI, the request would be accepted with a REF*1P code of SNP (SERVICE NOT PROVIDED) and no 867 historical usage will be provided. The CRES may re-submit the request as 814HU and FirstEnergy will provide summary level 867HU data.

In the 867HU, FirstEnergy sends the PTD*FG loop and a PTD*SU loop for each unit of measure/time of use. For unmetered services, the PTD*FG and PTD*BC loops are sent.

Monthly Usage (867MU and 867IU):

AEP

In the 867MU, for metered services AEP sends the PTD*SU loop and a PTD*PL loop for each meter/unit of measure. For unmetered services AEP sends a PTD*BC loop. In the 867IU, AEP sends a PTD*BO and a PTD*PM loop for each meter/unit of measure if the BPT04 = C1. If the BPT04 = X5, only the PTD*BO loop is sent for each meter/unit of measure.

DPL

In the 867MU, for metered services, DPL sends the PTD*SU loop and a PTD*PL loop for each meter/unit of measure. For unmetered services, DPL sends a PTD*BC loop. In the 867IU, DPL sends a PTD*BO and a PTD*PM loop for each meter/unit of measure if the BPT04 = C1. If the BPT04 = X5, only the PTD*BO loop is sent for each meter/unit of measure.

Duke Energy Ohio

In the 867MU, Duke sends a single PTD*BB and PTD*SU loop for each account and a PTD*PL loop for each meter/unit of measure. For unmetered services, Duke sends a single PTD*BB for each account and PTD*BC loop for each unmetered service. In the 867IU, Duke sends a single PTD*BB for each account, and a PTD*BO and a PTD*PM loop for each meter/unit of measure if the BPT04 = C1. If the BPT04 = X5, only the PTD*BB will be sent for the account and a PTD*BO loop is sent for each meter/unit of measure.

Duke Energy Ohio – Billing for Net Metering – Net Consumption

For any month where the customer consumes more electricity than they generate, Duke Energy Ohio will reduce the generation from consumption and report net consumption in the SU loop. A supplier's billed consumption for a month where the customer is a net consumer is the net of consumption less generation.

Duke Energy Ohio – Billing for Net Metering – Net Generation

For any month where the customer generates more electricity than they consume, Duke Energy Ohio will credit the customer's account for the net generation in the SU loop. A supplier's billed consumption for a month where the customer is a net generator is zero.

FirstEnergy

In the 867MU, FirstEnergy sends the PTD*SU loop and a PTD*PL loop for each meter/unit of measure. For unmetered services, FirstEnergy sends a PTD*BC loop. In the 867IU, FirstEnergy sends a PTD*BO and a PTD*PM loop for each meter/unit of measure if the BPT04 = C1. If the BPT04 = X5, only the PTD*BO loop is sent for each meter/unit of measure.

867 Product Transfer and Resale Report

Introduction:

This Draft Standard for Trial Use contains the format and establishes the data contents of the Product Transfer and Resale Report Transaction Set (867) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to: (1) report information about product that has been transferred from one location to another; (2) report sales of product from one or more locations to an end customer; or (3) report sales of a product from one or more locations to an end customer, and demand beyond actual sales (lost orders). Report may be issued by either buyer or seller.

Transaction Set Notes

1.   The N1 loop is used to identify the transaction sender and receiver.

Segment:	**ST** Transaction Set Header				

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:
Notes: Required
ST~867~000000001

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	ST01	143	**Transaction Set Identifier Code**	M	ID 3/3

Code uniquely identifying a Transaction Set

867 Product Transfer and Resale Report

	Ref. Des.	Data Element	Name	Attributes	
M	ST02	329	**Transaction Set Control Number**	M	AN 4/9

Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set

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:			
Notes:	If BPT01 = '01' (Cancellation), then an original 867 must be sent as soon as corrected data is available, if there is any replacement/corrected data.		

Required

BPT~00~199902010001~19990131~DD

BPT~00~199902010001~19990131~DD~~~F

BPT~01~199902020001~19990131~DD~~~~~1999020100001

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	BPT01	353	**Transaction Set Purpose Code**	**M ID 2/2**

Code identifying purpose of transaction set

00	Original	
	Conveys original readings for the account being reported.	
01	Cancellation	
	Readings previously reported for the account are to be ignored.	
52	Response to Historical Inquiry	
	Response to a request for historical meter reading	

	Ref. Des.	Data Element	Name	Attributes
M	BPT02	127	**Reference Identification**	**O AN 1/30**

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

A unique transaction identification number assigned by the originator of this transaction. This number must be unique over time.

This code will be used as a cross reference to the 810 billing document, and for billing parties that make the other party whole, it will also be cross referenced on the 820.

Transaction Reference numbers will only contain uppercase letters (A to Z) and digits (0 to 9). Note that punctuation (spaces, dashes, etc.) must be excluded.

	Ref. Des.	Data Element	Name	Attributes
M	BPT03	373	**Date**	**M DT 8/8**

Date expressed as CCYYMMDD

The transaction creation date - the date that the data was processed by the sender's application system.

	Ref. Des.	Data Element	Name	Attributes
M	BPT04	755	**Report Type Code**	**O ID 2/2**

Code indicating the title or contents of a document, report or supporting item

C1	Cost Data Summary	
	Indicates transaction is an Interval Data transaction. This will be used when supplier is receiving both summary and detail interval data on an account with only interval meters.	

			DD	Distributor Inventory Report	
				Indicates transaction is a monthly metered or unmetered transaction (no interval meters in the transaction).	
			DR	Datalog Report	
				Indicates transaction contains some combination of Interval, Monthly, and/or Unmetered Data. (Duke Energy Ohio ONLY)	
			X5	Restricted Report	
				Indicates transaction contains summary data (at the meter level), but there are interval meters on the account	
C	**BPT07**	**306**	**Action Code**		**O ID 1/2**

Code indicating type of action

Conditional, Required if final usage reading.

			F	Final	
				Final meter read data being sent for this customer. The customer account is final with the EDU or the customer switched to a new CRES.	
C	**BPT09**	**127**	**Reference Identification**		**O AN 1/30**

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

When BPT01 = 01 (cancel), this element is required and contains the transaction identification number from BPT02 of the transaction that is being cancelled.
Conditional: Required if this is a cancel (BPT01 = 01)

	Segment:	**DTM** Date/Time Reference		
	Position:	050		
	Loop:			
	Level:	Heading		
	Usage:	Optional		
	Max Use:	10		
	Purpose:	To specify pertinent dates and times		
	Syntax Notes:	1 At least one of DTM02 DTM03 or DTM05 is required.		
		2 If DTM04 is present, then DTM03 is required.		
		3 If either DTM05 or DTM06 is present, then the other is required.		
Semantic Notes:				
Comments:				
	Notes:	Required for LDC Consolidated Bill Ready, not used for Dual Billing or LDC Consolidated Rate Ready		
		Optional in the Usage Cancel transaction (BPT01=01).		
	Examples:	DTM*649*19990131*2359		

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	DTM01	374	**Date/Time Qualifier** Code specifying type of date or time, or both date and time	M	ID 3/3
			649 Document Due		
			The date that the non-billing party must provide the 810 transaction back to the billing party.		
M	DTM02	373	**Date** Date expressed as CCYYMMDD	X	DT 8/8
M	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		

Segment:		**N1** Name (8S - EDU)		
Position:		080		
Loop:		N1 Optional		
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.		

<table>
<tr><td>Notes:</td><td>Required</td></tr>
<tr><td></td><td>N1~8S~EDU COMPANY~1~007909411~~41</td></tr>
</table>

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	N101	98	**Entity Identifier Code**	M	ID 2/3
			Code identifying an organizational entity, a physical location, property or an individual		
			8S Consumer Service Provider (CSP)		
			EDU		
M	N102	93	**Name**	X	AN 1/60
			Free-form name		
			EDU Name		
M	N103	66	**Identification Code Qualifier**	X	ID 1/2
			Code designating the system/method of code structure used for Identification Code (67)		
			1 D-U-N-S Number, Dun & Bradstreet		
			9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix		
M	N104	67	**Identification Code**	X	AN 2/80
			Code identifying a party or other code		
			EDU D-U-N-S Number or D-U-N-S + 4 Number		
M	N106	98	**Entity Identifier Code**	O	ID 2/3
			Code identifying an organizational entity, a physical location, property or an individual		
			40 Receiver		
			41 Submitter		

Segment: # N1 Name (SJ - CRES)

Position:	080
Loop:	N1 Optional
Level:	Heading
Usage:	Optional
Max Use:	1
Purpose:	To identify a party by type of organization, name, and code
Syntax Notes:	1 At least one of N102 or N103 is required.
	2 If either N103 or N104 is present, then the other is required.
Semantic Notes:	
Comments:	1 This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.
	2 N105 and N106 further define the type of entity in N101.
Notes:	Required
	N1~SJ~CRES COMPANY~9~007909422CRES~~40
	N1~SJ~CRES COMPANY~1~007909422~~40

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
M	N101	98	**Entity Identifier Code**	M	ID 2/3

Code identifying an organizational entity, a physical location, property or an individual

    SJ   Service Provider

    CRES

	Ref. Des.	Data Element	Name		Attributes
M	N102	93	**Name**	X	AN 1/60

Free-form name

CRES Name

	Ref. Des.	Data Element	Name		Attributes
M	N103	66	**Identification Code Qualifier**	X	ID 1/2

Code designating the system/method of code structure used for Identification Code (67)

    1   D-U-N-S Number, Dun & Bradstreet

    9   D-U-N-S+4, D-U-N-S Number with Four Character Suffix

	Ref. Des.	Data Element	Name		Attributes
M	N104	67	**Identification Code**	X	AN 2/80

Code identifying a party or other code

CRES D-U-N-S Number or D-U-N-S + 4 Number

	Ref. Des.	Data Element	Name		Attributes
M	N106	98	**Entity Identifier Code**	O	ID 2/3

Code identifying an organizational entity, a physical location, property or an individual

    40   Receiver

    41   Submitter

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

Notes: Required when a CRES is using more than one Scheduling Coordinator (Not used by AEP)

N1~RS~SCHEDULING COORDINATOR~1~006193212S

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	N101	98	**Entity Identifier Code**	M	ID 2/3

Code identifying an organizational entity, a physical location, property or an individual

RS	Receiving Facility Scheduler	
	Scheduling Coordinator	

	Ref. Des.	Data Element	Name	Attributes	
M	N102	93	**Name**	X	AN 1/60

Free-form name

Name of Scheduling Coordinator

	Ref. Des.	Data Element	Name	Attributes	
M	N103	66	**Identification Code Qualifier**	X	ID 1/2

Code designating the system/method of code structure used for Identification Code (67)

1	D-U-N-S Number, Dun & Bradstreet
9	D-U-N-S+4, D-U-N-S Number with Four Character Suffix

	Ref. Des.	Data Element	Name	Attributes	
M	N104	67	**Identification Code**	X	AN 2/80

Code identifying a party or other code

Scheduling Coordinator D-U-N-S Number or D-U-N-S + 4 Number

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

Notes continued:

N1~8R~CUSTOMER NAME
N1~8R~CUSTOMER NAME~92~STORE 7813

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
M	N101	98	**Entity Identifier Code**	M	ID 2/3

Code identifying an organizational entity, a physical location, property or an individual

    8R   Consumer Service Provider (CSP) Customer

Customer

	Ref. Des.	Data Element	Name		Attributes
M	N102	93	**Name**	X	AN 1/60

Free-form name

Customer Name as documented in the sender's application system.

	Ref. Des.	Data Element	Name		Attributes
C	N103	66	**Identification Code Qualifier**	X	ID 1/2

Code designating the system/method of code structure used for Identification Code (67)

Condition: Required if available

    92   Assigned by Buyer or Buyer's Agent

	Ref. Des.	Data Element	Name		Attributes
C	N104	67	**Identification Code**	X	AN 2/80

Code identifying a party or other code

Store Number

Condition: Required if available

Segment:		**REF** Reference Identification (CRES Account Number)		

Position: 120
Loop: N1 Optional
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:
Notes:
Account numbers will only contain uppercase letters (A to Z) and Digits (0 - 9). Note that punctuation (spaces, dashes, etc.) must be excluded, and leading and trailing zeros that are part of the account number must be present.
Required if previously sent on the Enrollment or Change.

REF~11~1394959

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	REF01	128	**Reference Identification Qualifier**	M	ID 2/3
			Code qualifying the Reference Identification		
			11 Account Number		
			CRES assigned customer account number		
M	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		
			CRES customer account number		

	Segment:	**REF** Reference Identification (EDU Account Number)
	Position:	120
	Loop:	N1　　Optional
	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:	

Notes: Account numbers will only contain uppercase letters (A to Z) and Digits (0 - 9). Note that punctuation (spaces, dashes, etc.) must be excluded, and leading and trailing zeros that are part of the account number must be present.

Conditional - Required for all utilities except AEP, which will use Service Delivery Identification Number.

REF~12~1239485790

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	REF01	128	**Reference Identification Qualifier**	M	ID 2/3
			Code qualifying the Reference Identification		
			12　　　　　Billing Account		
			EDU Account Number		
M	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		
			EDU Account Number		

Segment:	**REF** Reference Identification (Previous EDU Account Number)			
Position:	120			
Loop:	N1 Optional			
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:				

Notes: Account numbers will only contain uppercase letters (A to Z) and Digits (0 - 9). Note that punctuation (spaces, dashes, etc.) must be excluded, and leading and trailing zeros that are part of the account number must be present.

Condition: Required if the account number has changed in the last 60 days. Required for all utilities except AEP, which will use Service Delivery Identification Number. (Not used by AEP)

REF~45~939581900

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	REF01	128	**Reference Identification Qualifier**	M	ID 2/3
			Code qualifying the Reference Identification		
			45 Old Account Number		
			EDU's Previous Account Number		
M	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		
			EDU Previous Account Number		

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

Segment: **REF** Reference Identification (Billing Type)
Position: 120
Loop: N1   Optional
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:
Notes:

HI: Not Used
HU: Not Used
IU: Required
MU: Required
REF~BLT~LDC

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	REF01	128	**Reference Identification Qualifier**	M	ID 2/3

Code qualifying the Reference Identification

		BLT	Billing Type

Identifies whether the bill is consolidated by the EDU (LDC) or CRES (ESP), or whether each party will render their own bill. See REF02 for valid values.

	Ref. Des.	Data Element	Name	Attributes	
M	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

		DUAL	Dual Billing

Each party bills the customer for its portion

		ESP	Energy Supplier Consolidated Billing

The CRES bills the customer.

		LDC	Utility Consolidated Billing

The EDU bills the customer

	Segment:	**REF** Reference Identification (Party Calculating Charges)

Segment: **REF** Reference Identification (Party Calculating Charges)
Position: 120
Loop: N1   Optional
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:
Notes: HI: Not Used
HU: Not Used
IU: Required
MU: Required
REF~PC~LDC

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	REF01	128	**Reference Identification Qualifier**	M	ID 2/3
			Code qualifying the Reference Identification		
			PC Production Code		
			Identifies the party that is to calculate the charges on the bill		
M	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		
			DUAL Each Party calculates its portion of the bill		
			ESP The CRES calculates charges for each party		
			LDC The EDU calculates charges for each party		

Segment:		**REF** Reference Identification (Q5 = SDID Number)	
Position:	120		
Loop:	N1	Optional	
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:			

Notes: SDID numbers will only contain uppercase letters (A to Z) and Digits (0 - 9). Note that punctuation (spaces, dashes, etc.) must be excluded, and leading and trailing zeros that are part of the SDID number must be present.

Required if customer is in AEP service territory. Maximum use of 1 per transaction

REF~Q5~9876543245678DCH

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	REF01	128	Reference Identification Qualifier	M	ID 2/3

Code qualifying the Reference Identification

  Q5   Property Control Number

AEP assigned Service Delivery Identification Number

	Ref. Des.	Data Element	Name	Attributes	
M	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

AEP assigned Service Delivery Identification Number

Segment:	**PTD** Product Transfer and Resale Detail (BB=Billed Summary)
Position:	010
Loop:	**PTD** **Mandatory**
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:	HI: Not Used
	HU: Not Used
	IU: Required for Duke Energy OH only
	MU: Required for Duke Energy OH only
	For IU/MU: Any Transformer Loss Factor (MEA~~CO) the KH value in the QTY02 of the BB loop should be representative of the Transformer Loss Factor being applied. No adjustments should be made to the KH values in the QTY02 in the SU, BO, PL or PM loops.
	One Monthly Billed Summary PTD loop is required for every account reporting kWh & k1 (if applicable) units of measure.
	PTD~BB

Data Element Summary

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

Segment:		**DTM** Date/Time Reference (Service Period Start)			
Position:		020			
Loop:		**PTD** **Mandatory**			
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:		HI: Not Used			
		HU: Not Used			
		IU: Required			
		MU: Required			
		DTM~150~19990101			

Data Element Summary

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

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

Segment: **DTM** Date/Time Reference (Service Period End)
Position: 020
Loop: **PTD**   **Mandatory**
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: HI: Not Used
         HU: Not Used
         IU: Required
         MU: Required
         DTM~151~19990131

Data Element Summary

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

Segment: # QTY Quantity (Billed Kilowatt Hours)
Position: 110
Loop: QTY Optional
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify quantity information
Syntax Notes: 1 At least one of QTY02 or QTY04 is required.
2 Only one of QTY02 or QTY04 may be present.
Semantic Notes: 1 QTY04 is used when the quantity is non-numeric.
Comments:
Notes:
> Billed kWh
> HI: Not Used
> HU: Not Used
> IU: Required
> MU: Required
> QTY~D1~22348~KH

Data Element Summary

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

	Segment:	**QTY** Quantity (Billed Demand)
	Position:	110
	Loop:	QTY Optional
	Level:	Detail
	Usage:	Optional
	Max Use:	1
	Purpose:	To specify quantity information
	Syntax Notes:	1 At least one of QTY02 or QTY04 is required.
		2 Only one of QTY02 or QTY04 may be present.
	Semantic Notes:	1 QTY04 is used when the quantity is non-numeric.
	Comments:	
	Notes:	Billed Demand - Required if account measures Demand (KW). This must be sent even if Billed (derived) demand is equal to measured demand.
		HI: Not Used
		HU: Not Used
		IU: Required as per above note
		MU: Required as per above note
		QTY~D1~223~K1

Data Element Summary

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

Segment:		**QTY** Quantity (Measured Demand)			

Position: 110
Loop: QTY   Optional
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify quantity information
Syntax Notes: 1   At least one of QTY02 or QTY04 is required.
              2   Only one of QTY02 or QTY04 may be present.
Semantic Notes: 1   QTY04 is used when the quantity is non-numeric.
Comments:
Notes: Measured Demand - Required if account measures Demand (KW).
          HI: Not Used
          HU: Not Used
          IU: Required as per above note
          MU: Required as per above note
          QTY~QD~223~K1

Data Element Summary

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

		PTD Product Transfer and Resale Detail (Non-Interval Metered Services
Segment:		Summary)
Position:	010	
Loop:	**PTD** **Mandatory**	
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: HI: Not Used
HU: Required for FE only since reporting at account level, otherwise not used
IU: Required for FirstEnergy when BPT04 = X5, otherwise not used.
MU: Required if there are metered services on the account

A summary loop will be provided for each type of consumption (unit of measure) for all meters on the account. Usage for all meters on the same tariff rate will be summed in this loop. For MU/IU – Data is obtained from the metering system.
PTD~SU

Data Element Summary

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

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

Position: 020
Loop: PTD   **Mandatory**
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: HI: Not Used
                HU: Not Used
                IU: Required for FirstEnergy when BPT04 = X5, otherwise not used.
                MU: Required if there are metered services on the account
                DTM~150~19990101

Data Element Summary

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

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

Segment: **DTM** Date/Time Reference (Service Period End)
Position: 020
Loop: **PTD** **Mandatory**
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: HI: Not Used
HU: Not Used
IU: Required for FirstEnergy when BPT04 = X5, otherwise not used.
MU: Required if there are metered services on the account
DTM~151~19990131

Data Element Summary

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

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

Notes:
There will be one QTY loop for each of the QTY03 Units of Measurement listed below that are measured on this account.

Sending values for K1, K2, and K4 is optional. The summing of these units of measure does not give a valid number and should not be used for billing. If these values are sent, they should only be used to validate the detail PTD loops.

HI: Not Used

HU: Required for First Energy only, otherwise not used

IU: Required for FirstEnergy when BPT04 = X5, otherwise not used.

MU: Required if there are metered services on the account

QTY~QD~22348~KH

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
M	QTY01	673	**Quantity Qualifier**		M	ID 2/2

Code specifying the type of quantity

KA	Estimated	
	Quantity is estimated	
QD	Quantity Delivered	
	Quantity is actual	
87	Actual Quantity Received (Net Metering)	
	Used when the net generation quantity received is actual. (FirstEnergy & Duke Energy Ohio Only)	
9H	Estimated Quantity Received (Net Metering)	
	Used when the net generation quantity received is estimated. (FirstEnergy & Duke Energy Ohio Only)	

M	QTY02	380	**Quantity**		X	R 1/15

Numeric value of quantity

M	QTY03	C001	**Composite Unit of Measure**		O	

To identify a composite unit of measure (See Figures Appendix for examples of use)

Note this is a composite data element, populate C00101

M	C00101	355	**Unit or Basis for Measurement Code**		M	ID 2/2

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

K1	Kilowatt Demand	
	kW - Represents potential power load measured at predetermined intervals. Sending K1 value is optional.	
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. Sending K2 value is optional.	
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 - Kilovolt Amperes. Sending K4 value is optional.
	KH	Kilowatt Hour
		kWh - Kilowatt Hours

Segment:		**MEA**	Measurements (Readings & Time of Use)	
Position:		160		
Loop:		QTY	Optional	
Level:		Detail		
Usage:		Optional		
Max Use:		40		

Segment: **MEA** Measurements (Readings & Time of Use)
Position: 160
Loop: QTY   Optional
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.
HI: Not Used
HU: Required for First Energy only, otherwise not used
IU: Required for FirstEnergy when BPT04 = X5, otherwise not used.
MU: Optional for AEP. May be sent by AEP for TOU Market Transition program
MEA~~PRQ~772~KH~~~42
MEA~~PRQ~12799~K1~~~51

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	MEA02	738	**Measurement Qualifier**	O	ID 1/3

Code identifying a specific product or process characteristic to which a measurement applies
    PRQ   Product Reportable Quantity

M	MEA03	739	**Measurement Value**	X	R 1/20

The value of the measurement

Represents quantity of consumption delivered for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors, excluding Power Factor.

M	MEA04	C001	**Composite Unit of Measure**	X	

To identify a composite unit of measure (See Figures Appendix for examples of use)

M	C00101	355	**Unit or Basis for Measurement Code**	M	ID 2/2

Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken
    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 - Kilovolt Amperes		
		KH		Kilowatt Hour		
				kWh - Kilowatt Hour		
C	**MEA07**	**935**	**Measurement Significance Code**		**O**	**ID 2/2**

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

NOTE: Other codes (as identified by UIG) can be used to identify quantities measured by the meter, but should not be used to identify tariffed/calculated measurements.
Condition: If time of use meter, this must be sent

41	Off Peak
42	On Peak
43	Intermediate Peak
	Shoulder
51	Totalizer
	Total
71	Low
	(AEP Only)
76	Medium
	(AEP Only)
85	High
	(AEP Only)
97	Maximum
	(AEP Only)

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

Segment: **DTM** Date/Time Reference (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:
HI: Not Used
HU: Required if sending SU loop in 867HU, otherwise not used
IU: Not Used
MU: Not Used
DTM~150~19990101

Data Element Summary

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

Segment:		**DTM** Date/Time Reference (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:

HI: Not Used
HU: Required if sending SU loop in 867HU, otherwise not used
IU: Not Used
MU: Not Used
DTM~151~19990131

Data Element Summary

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

Segment:	**PTD** Product Transfer and Resale Detail (Non-Interval Metered Services Detail)	
Position:	010	
Loop:	PTD Mandatory	
Level:	Detail	
Usage:	Optional	
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:	HI: Not Used	

HU: Required if there are metered services on the account. First Energy does not use, see PTD*SU loop. AEP will send separate PL loops (same meter number) for net metered customers as delivered/consumption (QTY01 = QD or KA) usage & received/generation (QTY01 = 87 or 9H) usage

IU: Not Used

MU: Required if there are metered services on the account One PTD loop is required for each meter and/or for each unit of measure on the account.

PTD~PL

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
M	PTD01	521	**Product Transfer Type Code**	M	ID 2/2

Code identifying the type of product transfer

PL   Property Level Movement/Sale

		DTM Date/Time Reference (Service Period Start)
Segment:		
Position:	020	
Loop:	PTD	Mandatory
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:		HI: Not Used

HI: Not Used
HU: Not Used
IU: Not Used
MU: Required if there are metered services on the account, unless a Meter Exchange Date (DTM~514) is substituted for this code.
DTM~150~19990101

Data Element Summary

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

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

Segment: **DTM** Date/Time Reference (Service Period End)
Position: 020
Loop: PTD   Mandatory
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: HI: Not Used
HU: Not Used
IU: Not Used
MU: Required if there are metered services on the account, unless a Meter Exchange Date (DTM~514) is substituted for this code.
DTM~151~19990131

Data Element Summary

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

Segment:	**DTM** Date/Time Reference (Meter Exchange Date)			
Position:	020			
Loop:	PTD	Mandatory		
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:	HI: Not Used			

HI: Not Used
HU: Not Used
IU: Not Used
MU: Required when a meter is exchanged.
Date Range in the first PTD is shown as:
  DTM~150~19990201
  DTM~514~19990214

Date Range in the second PTD is shown as:
  DTM~514~19990214
  DTM~151~19990228

Data Element Summary

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

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

Notes:
HI: Not Used
HU: Conditional: if Time of Use (TOU) is being sent, the REF~IX must be sent to distinguish the different TOUs.
IU: Not Used
MU: Required for meters with dials
REF~IX~6.0~KHMON
REF~IX~5.1~KHMON~TU^41
REF~IX~4.2~K1MON~TU^43

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	REF01	128	**Reference Identification Qualifier**	M	ID 2/3

Code qualifying the Reference Identification

| | IX | | Item Number |

Number of dials on the meter displayed as X.Y. The notation X.Y means that the meter has X dials to the left of the decimal point and Y dials to the right.

	Ref. Des.	Data Element	Name	Attributes	
M	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

Number of Dials

	Ref. Des.	Data Element	Name	Attributes	
M	REF03	352	**Description**	X	AN 1/80

A free-form description to clarify the related data elements and their content

Meter Type. See Meter Type (REF~MT) on 814 Enrollment for valid codes. "COMBO" is not a valid code for this element.

	Ref. Des.	Data Element	Name	Attributes	
C	REF04	C040	**Reference Identifier**	O	

To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier

Note this is a composite data element. Populate C04001 and C04002.
Condition: if this is a time of use meter, this must be sent

	Ref. Des.	Data Element	Name	Attributes	
C	C04001	128	**Reference Identification Qualifier**	C	ID 2/3

Code qualifying the Reference Identification

Condition: if this is a time of use meter, this must be sent

| | TU | | Trial Location Code |

Time of Use

	Ref. Des.	Data Element	Name	Attributes	
C	C04002	127	**Reference Identification**	C	AN 1/30

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

NOTE: Other codes (as identified by UIG) can be used to identify quantities measured by the meter, but should not be used to identify tariffed/calculated measurements.
Condition: if this is a time of use meter, this must be sent

| | 41 | | Off Peak |

42	On Peak
43	Intermediate Peak
	Shoulder
51	Totalizer
	Total
71	Low
	(AEP Only)
76	Medium
	(AEP Only)
85	High
	(AEP Only)
97	Maximum
	(AEP Only)

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

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

HI: Not Used
HU: Not Used
IU: Not Used
MU: Required if there are metered services on the account
REF~JH~A

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
M	REF01	128	**Reference Identification Qualifier**	M	ID 2/3

Code qualifying the Reference Identification

    JH   Tag

                Meter Role

M	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

    A   Additive

                This consumption contributed to the summarized total (do nothing)

    I   Ignore

                This consumption did not contribute to the summarized total (do nothing)

    S   Subtractive

                This consumption must be subtracted from the summarized total

Segment:		**REF** Reference Identification (Meter Number)			

Segment: **REF** Reference Identification (Meter Number)
Position: 030
Loop: PTD   Mandatory
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: HI: Not Used
            HU: Required if there are metered services on the account
            IU: Not Used
            MU: Required if there are metered services on the account
            REF~MG~2222277S

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	REF01	128	**Reference Identification Qualifier**	M	ID 2/3
			Code qualifying the Reference Identification		
			MG Meter Number		
M	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		
			Meter Number		

Segment:		**REF** Reference Identification (Meter Type)		

Segment: **REF** Reference Identification (Meter Type)
Position: 030
Loop: PTD Mandatory
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes: 1 At least one of REF02 or REF03 is required.
2 If either C04003 or C04004 is present, then the other is required.
3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes: 1 REF04 contains data relating to the value cited in REF02.
Comments:
Notes: HI: Not Used
HU: Required if there are metered services on the account
IU: Not Used
MU: Required if there are metered services on the account
REF~MT~KHMON

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
M	REF01	128	Reference Identification Qualifier	M	ID 2/3

Code qualifying the Reference Identification

MT Meter Ticket Number

Meter Type

	Ref. Des.	Data Element	Name		Attributes
M	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

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 reported by the metering agent. Valid values can be a combination of the following values:

Type of Consumption
  K1 Kilowatt Demand (kW)
  K2 Kilovolt Amperes Reactive Demand (kVAR)
  K3 Kilovolt Amperes Reactive Hour (kVARh)
  K4 Kilovolt Amperes (kVA)
  KH Kilowatt Hour (kWh)

Metering Interval Reported for Billing Purposes
  nnn Number of minutes from 001 to 999
  ANN Annual
  BIA Bi-annual
  BIM Bi-monthly
  DAY Daily
  MON Monthly
  QTR Quarterly
  TOU Time of Use

For Example:
  KHMON Kilowatt Hours Per Month
  K1015 Kilowatt Demand per 15 minute interval
"COMBO" cannot be used in this segment.

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:

Notes:

HI: Not Used

HU: Required for DP&L and Duke Energy Ohio. In the event there are multiple rate classes under an account, the PTD~PL/BC will be looped for each rate class. (AEP & FE sends in PTD~FG loop)

IU: Not Used

MU: Not Used

REF~LO~GS

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	
		LO	Load Planning Number	
			Load profile	
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	

Segment:	**REF** Reference Identification (EDU Rate Code)	
Position:	030	
Loop:	PTD Mandatory	
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:	HI: Not Used	

HI: Not Used
HU: Required for DP&L and Duke Energy Ohio. In the event there are multiple rate classes under an account, the PTD~PL/BC will be looped for each rate class. (AEP & FE sends in PTD~FG loop)
IU: Not Used
MU: Required if there are metered services on the account
REF~NH~RES

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	REF01	128	**Reference Identification Qualifier**	M	ID 2/3
			Code qualifying the Reference Identification		
			NH Rate Card Number		
			EDU Rate Code or tariff		
M	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		
			EDU Rate Code or tariff		

Segment:		**REF** Reference Identification (EDU Rate Subclass)			

Segment: **REF** Reference Identification (EDU Rate Subclass)
Position: 030
Loop: PTD   Mandatory
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: HI: Not Used
HU: Conditional – send if there are metered services on the account and if it is stored in the EDU system
IU: Not Used
MU: Conditional – send if there are metered services on the account and if it is stored in the EDU system
REF~PR~HEAT
REF~PR~WHA

<div align="center">Data Element Summary</div>

	Ref. Des.	Data Element	Name		Attributes	
M	REF01	128	**Reference Identification Qualifier**		M	ID 2/3
			Code qualifying the Reference Identification			
			PR	Price Quote Number		
			EDU Rate Subclass or Revenue Class - Used to provide further classification of a rate.			
M	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			
			EDU Rate Subclass or Revenue Class			

Segment:	**QTY** Quantity
Position:	110
Loop:	QTY Optional
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: If a meter measures total usage, as well as on-peak and off-peak, there will be three QTY loops sent within one PTD01 = PM loop. The MEA segment that follows each QTY will specify which time of use the QTY applies to.
HI: Not Used
HU: Required if there are metered services on the account. NOTE: AEP will send separate PL loops (same meter number) for net metered customers as delivered / consumption (QTY01 = QD or KA) usage & received/generation (QTY01 = 87 or 9H) usage
IU: Not Used
MU: Required if there are metered services on the account
QTY~QD~22348~KH

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	QTY01	673	**Quantity Qualifier**	M	ID 2/2

Code specifying the type of quantity

KA	Estimated	
	Quantity is estimated	
QD	Quantity Delivered	
	Quantity is actual	
87	Actual Quantity Received (Net Metering)	
	Used when the net generation quantity received is actual. (AEP Ohio, Duke Energy Ohio & First Energy Only)	
9H	Estimated Quantity Received (Net Metering)	
	Used when the net generation quantity received is estimated. (AEP Ohio, Duke Energy Ohio & First Energy Only)	

M	QTY02	380	**Quantity**	X	R 1/15

Numeric value of quantity

M	QTY03	C001	**Composite Unit of Measure**	O	

To identify a composite unit of measure (See Figures Appendix for examples of use)

Note this is a composite data element, populate C00101

M	C00101	355	**Unit or Basis for Measurement Code**	M	ID 2/2

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

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 - Kilovolt Amperes
	KH	Kilowatt Hour
		kWh - Kilowatt Hour

Segment:	**MEA** Measurements (Readings & Time of Use)		
Position:	160		
Loop:	QTY	Optional	
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.
		HI: Not Used
		HU: Not Used
		IU: Not Used
		MU: Required if there are metered services on the account
		MEA~AA~PRQ~772~KH~10500~11272~42
		MEA~AF~PRQ~12799~K1~~12799~51

Data Element Summary

Ref. Des.	Data Element	Name	Attributes	
M	MEA01	737	**Measurement Reference ID Code**	O ID 2/2
			Code identifying the broad category to which a measurement applies	
			AA Meter reading-beginning actual/ending actual	
			AE Meter reading-beginning actual/ending estimated	
			AF Actual Total	
			Recommended for demand because demand usually has only 1 reading. This code will also be used by Duke Energy Ohio if previous reading is not being supplied for units of measure other than demand.	
			EA Meter reading-beginning estimated/ending actual	
			EE Meter reading-beginning estimated/ending estimated	
M	MEA02	738	**Measurement Qualifier**	O ID 1/3
			Code identifying a specific product or process characteristic to which a measurement applies	
			PRQ Product Reportable Quantity	
M	MEA03	739	**Measurement Value**	X R 1/20
			The value of the measurement	
			Represents quantity of consumption delivered for service period. Contains the difference in the meter readings (or as measured by the meter) multiplied by various factors, excluding Power Factor.	
M	MEA04	C001	**Composite Unit of Measure**	X
			To identify a composite unit of measure (See Figures Appendix for examples of use)	
M	C00101	355	**Unit or Basis for Measurement Code**	M ID 2/2
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	
			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 - Kilovolt Amperes				
		KH	Kilowatt Hour				
			kWh - Kilowatt Hour				

C MEA05 740 Range Minimum   X   R 1/20

The value specifying the minimum of the measurement range

Beginning Reading

Required unless MEA01 = AF

M MEA06 741 Range Maximum   X   R 1/20

The value specifying the maximum of the measurement range

Ending reading or single reading (demand).

C MEA07 935 Measurement Significance Code   O   ID 2/2

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

NOTE: Other codes (as identified by UIG) can be used to identify quantities measured by the meter, but should not be used to identify tariffed/calculated measurements.
Condition: If time of use meter, this must be sent

41	Off Peak	
42	On Peak	
43	Intermediate Peak	
	Shoulder	
51	Totalizer	
	Total	
71	Low	
	(AEP Only)	
76	Medium	
	(AEP Only)	
85	High	
	(AEP Only)	
97	Maximum	
	(AEP Only)	

Segment:	**MEA** Measurements (Meter Multiplier)			
Position:	160			
Loop:	QTY	Optional		
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:
> If no meter multiplier, then populate with "1"
>
> HI: Not Used
> HU: Not Used
> IU: Not Used
> MU: Required if there are metered services on the account
> MEA~~MU~1

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	MEA02	738	**Measurement Qualifier**	O	ID 1/3
			Code identifying a specific product or process characteristic to which a measurement applies		
			MU Multiplier		
			Meter Multiplier (Ending Reading - Beginning Reading) * Meter Multiplier = Billed Usage		
M	MEA03	739	**Measurement Value**	X	R 1/20
			The value of the measurement		
			Meter Multiplier		

Segment:		**MEA** Measurements (Power Factor)			
Position:		160			
Loop:		QTY	Optional		
Level:		Detail			
Usage:		Optional			
Max Use:		40			

Segment: **MEA** Measurements (Power Factor)

Position: 160

Loop: QTY   Optional

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: HI: Not Used

HU: Not Used

IU: Not Used

MU: Required if there are metered services on the account and it is available

MEA~~ZA~.95

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
M	MEA02	738	**Measurement Qualifier**		O ID 1/3
			Code identifying a specific product or process characteristic to which a measurement applies		
			ZA	Power Factor	
				Relationship between watts and volt - amperes necessary to supply electric load	
M	MEA03	739	**Measurement Value**		X R 1/20
			The value of the measurement		
			Power Factor		

Segment:		**MEA** Measurements (Transformer Loss Factor)		
Position:		160		
Loop:		QTY	Optional	
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: HI: Not Used

HU: Not Used

IU: Not Used

MU: Required if there are metered services on the account and the transformer loss is not measured by the meter

MEA~~CO~1.02

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	MEA02	738	**Measurement Qualifier**	O	ID 1/3
			Code identifying a specific product or process characteristic to which a measurement applies		
			CO Core Loss		
			Transformer Loss Factor		
M	MEA03	739	**Measurement Value**	X	R 1/20
			The value of the measurement		
			Transformer Loss Factor		

				Segment:	**DTM** Date/Time Reference

Segment: **DTM** Date/Time Reference
Position: 210
Loop: QTY   Optional
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: HI: Not Used
          HU: Required if there are metered services on the account
          IU: Not Used
          MU: Not Used
          DTM~150~19990219

Data Element Summary

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

			Segment:	**DTM** Date/Time Reference

Segment: **DTM** Date/Time Reference
Position: 210
Loop: QTY   Optional
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: HI: Not Used
HU: Required if there are metered services on the account
IU: Not Used
MU: Not Used
DTM~151~19990322

Data Element Summary

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

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

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

Position: 010

Loop: PTD   Optional

Level: Detail

Usage: Optional

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: HI: Duke Energy Ohio may send the PTD~BO loop on 867HIU transactions, otherwise not used
HU: Not Used
IU: Required, First Energy does not use when BPT04 = X5. Note for IU: If EDU is reporting separate on/off peak PTD~BO loops, only one PTD~PM loop should be sent.
MU: Not Used
One PTD loop is required for each meter or for each unit of measure on the account.
PTD~BO

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
M	PTD01	521	**Product Transfer Type Code**		**M**	**ID 2/2**
			Code identifying the type of product transfer			
		BO	Designated Items			
			Provides Summary information for each interval meter or unit of measure.			

Segment: **DTM** Date/Time Reference (Service Period Start)
Position: 020
Loop: PTD   Optional
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: HI: Not Used
HU: Not Used
IU: Required
MU: Not Used
DTM~150~19990101

Data Element Summary

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

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

Segment: **DTM** Date/Time Reference (Service Period End)
Position: 020
Loop: PTD   Optional
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: HI: Not Used
HU: Not Used
IU: Required
MU: Not Used
DTM~151~19990131

Data Element Summary

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

Segment:		**REF** Reference Identification (Number of Dials)				

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

> HI: Not Used
> HU: Not Used
> IU: Required
> MU: Not Used
> REF~IX~6.0~KHMON
> REF~IX~4.2~K1MON~TU^43

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
M	REF01	128	**Reference Identification Qualifier**		M	ID 2/3
			Code qualifying the Reference Identification			
		IX	Item Number			
			Number of dials on the meter displayed as X.Y. The notation X.Y means that the meter has X dials to the left of the decimal point and Y dials to the right.			
M	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			
			Number of Dials			
M	REF03	352	**Description**		X	AN 1/80
			A free-form description to clarify the related data elements and their content			
			Meter Type. See Meter Type (REF~MT) on 814 Enrollment for valid codes. "COMBO" is not a valid code for this element.			
C	REF04	C040	**Reference Identifier**		O	
			To identify one or more reference numbers or identification numbers as specified by the Reference Qualifier			
			Note this is a composite data element. Populate C04001 and C04002.			
			Condition: if this is a time of use meter, this must be sent			
C	C04001	128	**Reference Identification Qualifier**		C	ID 2/3
			Code qualifying the Reference Identification			
			Condition: if this is a time of use meter, this must be sent			
		TU	Trial Location Code			
			Time of Use			
C	C04002	127	**Reference Identification**		C	AN 1/30
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier			
			Condition: if this is a time of use meter, this must be sent			
		41	Off Peak			
		42	On Peak			
		43	Intermediate Peak			
			Shoulder			
		51	Totalizer			
			Total			

Segment:	**REF** Reference Identification (Meter Role)
Position:	030
Loop:	PTD Optional
Level:	Detail
Usage:	Optional
Max Use:	20
Purpose:	To specify identifying information

Syntax Notes:
    1   At least one of REF02 or REF03 is required.
    2   If either C04003 or C04004 is present, then the other is required.
    3   If either C04005 or C04006 is present, then the other is required.

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

Comments:

Notes:
HI: Not Used
HU: Not Used
IU: Required
MU: Not Used
REF~JH~A

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
M	REF01	128	**Reference Identification Qualifier**	M	ID 2/3

Code qualifying the Reference Identification

JH	Tag

Meter Role

	Ref. Des.	Data Element	Name		Attributes
M	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

A   Additive

This consumption contributed to the summarized total (do nothing)

I   Ignore

This consumption did not contribute to the summarized total (do nothing)

S   Subtractive

This consumption must be subtracted from the summarized total

			Segment:	**REF** Reference Identification (Meter Number)

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

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

Comments:

Notes: Meter 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.
HI: Not Used
HU: Not Used
IU: Required
MU: Not Used
REF~MG~2222277S

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
M	REF01	128	**Reference Identification Qualifier**	M	ID 2/3
			Code qualifying the Reference Identification		
			MG Meter Number		
M	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		
			Meter Number		

Segment:	**REF** Reference Identification (Meter Type)
Position:	030
Loop:	PTD Optional
Level:	Detail
Usage:	Optional
Max Use:	20
Purpose:	To specify identifying information
Syntax Notes:	1 At least one of REF02 or REF03 is required.
	2 If either C04003 or C04004 is present, then the other is required.
	3 If either C04005 or C04006 is present, then the other is required.
Semantic Notes:	1 REF04 contains data relating to the value cited in REF02.
Comments:	
Notes:	HI: Not Used
	HU: Not Used
	IU: Required
	MU: Not Used
	REF~MT~KHMON

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
M	REF01	128	**Reference Identification Qualifier**		M	ID 2/3
			Code qualifying the Reference Identification			
			MT	Meter Ticket Number		
				Meter Type		
M	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

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 reported by the metering agent. Valid values can be a combination of the following values:

Type of Consumption
  K1 Kilowatt Demand (kW)
  K2 Kilovolt Amperes Reactive Demand (kVAR)
  K3 Kilovolt Amperes Reactive Hour (kVARh)
  K4 Kilovolt Amperes (kVA)
  KH Kilowatt Hour (kWh)

Metering Interval Reported for Billing Purposes
  nnn Number of minutes from 001 to 999
  ANN Annual
  BIA Bi-annual
  BIM Bi-monthly
  DAY Daily
  MON Monthly
  QTR Quarterly
  TOU Time of Use

For Example:
  KHMON Kilowatt Hours Per Month
  K1015 Kilowatt Demand per 15 minute interval
"COMBO" cannot be used in this segment.

			Segment:	**QTY** Quantity	

Segment: **QTY** Quantity
Position: 110
Loop: QTY Optional
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:

HI: Not Used
HU: Not Used
IU: Required
MU: Not Used
QTY~QD~22348~KH

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	QTY01	673	**Quantity Qualifier**	M	ID 2/2

Code specifying the type of quantity

	KA	Estimated	
		Quantity is estimated	
	QD	Quantity Delivered	
		Quantity is actual	
	87	Actual Quantity Received (Net Metering)	
		Used when the net generation quantity received is actual. (Duke Energy Ohio Only)	
	9H	Estimated Quantity Received (Net Metering)	
		Used when the net generation quantity received is estimated. (Duke Energy Ohio Only)	

M	QTY02	380	**Quantity**	X	R 1/15

Numeric value of quantity

M	QTY03	C001	**Composite Unit of Measure**	O	

To identify a composite unit of measure (See Figures Appendix for examples of use)

Note this is a composite data element, populate C00101

M	C00101	355	**Unit or Basis for Measurement Code**	M	ID 2/2

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

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 - Kilovolt Amperes	
KH	Kilowatt Hour	
	kWh - Kilowatt Hour	

Segment:		# MEA Measurements (Meter Reads)		

Segment: # MEA Measurements (Meter Reads)

Position: 160
Loop: QTY   Optional
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:
HI: Not Used
HU: Not Used
IU: Conditional: Send if interval meter has associated monthly begin/end readings.
MU: Not Used
MEA~AF~~~KH~02500~04000~51

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
M MEA01	737	**Measurement Reference ID Code**	O ID 2/2

Code identifying the broad category to which a measurement applies

AA	Meter reading-beginning actual/ending actual	
AE	Meter reading-beginning actual/ending estimated	
AF	Actual Total	

Recommended for demand because demand usually has only 1 reading. This code will also be used by Duke Energy Ohio if previous reading is not being supplied for units of measure other than demand.

EA	Meter reading-beginning estimated/ending actual	
EE	Meter reading-beginning estimated/ending estimated	

Ref. Des.	Data Element	Name	Attributes
M MEA04	C001	**Composite Unit of Measure**	X

To identify a composite unit of measure (See Figures Appendix for examples of use)

Ref. Des.	Data Element	Name	Attributes
M C00101	355	**Unit or Basis for Measurement Code**	M ID 2/2

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

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 - Kilovolt Amperes		
	KH		Kilowatt Hour		
			kWh - Kilowatt Hour		
C	**MEA05**	**740**	**Range Minimum**	**X**	**R 1/20**

The value specifying the minimum of the measurement range

Beginning Reading if applicable

Condition: Required unless MEA01 = "AF"

M	**MEA06**	**741**	**Range Maximum**	**X**	**R 1/20**

The value specifying the maximum of the measurement range

Ending reading or single reading

Segment: # MEA Measurements (Meter Multiplier)

Position: 160
Loop: QTY   Optional
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: If no meter multiplier, then populate with "1".

HI: Not Used
HU: Not Used
IU: Required
MU: Not Used
MEA~~MU~1

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	MEA02	738	Measurement Qualifier	O	ID 1/3

Code identifying a specific product or process characteristic to which a measurement applies

     MU   Multiplier

Meter Multiplier

(Ending Reading - Beginning Reading) * Meter Multiplier = Billed Usage

	Ref. Des.	Data Element	Name	Attributes	
M	MEA03	739	Measurement Value	X	R 1/20

The value of the measurement

Meter Multiplier

Segment:	**MEA** Measurements (Power Factor)			
Position:	160			
Loop:	QTY	Optional		
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:
HI: Not Used
HU: Not Used
IU: Required if available
MU: Not Used
MEA~~ZA~.95

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	MEA02	738	**Measurement Qualifier**	O ID 1/3
			Code identifying a specific product or process characteristic to which a measurement applies	
			ZA Power Factor	
			Relationship between watts and volt - amperes necessary to supply electric load	
M	MEA03	739	**Measurement Value**	X R 1/20
			The value of the measurement	
			Power Factor	

| | | | | Segment: | **MEA** Measurements (Transformer Loss Factor) |

Segment: **MEA** Measurements (Transformer Loss Factor)
Position: 160
Loop: QTY   Optional
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:
HI: Not Used
HU: Not Used
IU: Required when the transformer loss is not measured by the meter
MU: Not Used
MEA~~CO~1.02

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	MEA02	738	Measurement Qualifier	O	ID 1/3
			Code identifying a specific product or process characteristic to which a measurement applies		
			CO Core Loss		
			Transformer Loss Factor		
M	MEA03	739	Measurement Value	X	R 1/20
			The value of the measurement		
			Transformer Loss Factor		

Segment:	**PTD** Product Transfer and Resale Detail (Interval Meter Services Detail)			

Segment: **PTD** Product Transfer and Resale Detail (Interval Meter Services Detail)
Position: 010
Loop: PTD   Mandatory
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: HI: Required
HU: Not Used
IU: Required if the CRES requests detail interval information on the Enrollment or Change. One PTD loop is required for each meter and/or each unit of measure on the account.
Note for IU: If EDU is reporting separate on/off peak PTD~BO loops, only one PTD~PM loop should be sent. PTD~PM loop is optional when BPT01 = 01 (867IU Cancel)
MU: Not Used.
PTD~PM

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
M	PTD01	521	**Product Transfer Type Code**	**M ID 2/2**

Code identifying the type of product transfer

    PM   Physical Meter Information

              Provides detail information for each interval meter or unit of measure.

Segment:		**REF** Reference Identification (Meter Number)				

Segment: **REF** Reference Identification (Meter Number)
Position: 030
Loop: PTD Mandatory
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: HI: Required
HU: Not Used
IU: Required
MU: Not Used
REF~MG~2222277S

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	REF01	128	**Reference Identification Qualifier**	M	ID 2/3
			Code qualifying the Reference Identification		
			MG Meter Number		
M	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		
			Meter Number		

Segment:	**QTY** Quantity
Position:	110
Loop:	QTY Optional
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:	HI: Required

> HI: Required
> HU: Not Used
> IU: Required if CRES requests detail interval information on the Enrollment or Change
> MU: Not Used
> QTY~QD~22348

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	QTY01	673	**Quantity Qualifier**	M	ID 2/2

Code specifying the type of quantity

KA	Estimated	
	Quantity is estimated	
QD	Quantity Delivered	
	Quantity is actual	
87	Actual Quantity Received (Net Metering)	
	Used when the net generation quantity received is actual. FirstEnergy & Duke Energy Ohio Only)	
9H	Estimated Quantity Received (Net Metering)	
	Used when the net generation quantity received is estimated. (FirstEnergy & Duke Energy Ohio Only)	

	Ref. Des.	Data Element	Name	Attributes	
M	QTY02	380	**Quantity**	X	R 1/15

Numeric value of quantity

	Ref. Des.	Data Element	Name	Attributes	
M	QTY03	C001	**Composite Unit of Measure**	O	

To identify a composite unit of measure (See Appendix for examples of use)

Note this is a composite data element, populate C00101

	Ref. Des.	Data Element	Name	Attributes	
M	C00101	355	**Unit or Basis for Measurement Code**	M	ID 2/2

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

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 - Kilovolt Amperes	
KH	Kilowatt Hour	
	kWh - Kilowatt Hour	

	Segment:	**DTM** Date/Time Reference (Interval End Time)

Segment: **DTM** Date/Time Reference (Interval End Time)
Position: 210
Loop: QTY   Optional
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: HI: Required
HU: Not Used
IU: Required if the CRES requests detail interval information on the Enrollment or Change
MU: Not Used
DTM~194~19990115~1500~ET
DTM~194~19990115~1500~ES
DTM~194~19990629~2315~ED

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
M	DTM01	374	**Date/Time Qualifier**	M	ID 3/3

Code specifying type of date or time, or both date and time

194   Period End

The date/time of the end of the interval

M	DTM02	373	**Date**	X	DT 8/8

Date expressed as CCYYMMDD

M	DTM03	337	**Time**	X	TM 4/8

Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)

HHMM, where H = Hours and M = Minutes in Eastern Prevailing Time (ET). For this transaction, since X12 does not allow 2400 for time, 2359 will be used to indicate midnight. For example, midnight between October 15th and October 16th will be reflected as 2359 of October 15th.

M	DTM04	623	**Time Code**	O	ID 2/2

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

ED   Eastern Daylight Time (Duke Energy OH and FirstEnergy only)
ES   Eastern Standard Time (Duke Energy OH and FirstEnergy Only)
ET   Eastern Time

Segment:		**PTD** Product Transfer and Resale Detail (Unmetered Services)		
Position:		010		
Loop:		PTD Mandatory		
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:		HI: Not Used		

Notes:
HI: Not Used
HU: Conditional – at least one of the PTD~BC loop must be sent if there are unmetered services on the account
IU: Not Used
MU: Conditional – at least one of the PTD~BC loop must be sent if there are unmetered services on the account
PTD~BC
PTD~BD

Data Element Summary

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

Segment:		**DTM** Date/Time Reference (Service Period Start)			
Position:		020			
Loop:		PTD	Mandatory		
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:		HI: Not Used			

Notes:

HI: Not Used
HU: Required
IU: Not Used
MU: Required if there are unmetered service on the account
DTM~150~19990101

Data Element Summary

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

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

Segment: **DTM** Date/Time Reference (Service Period End)
Position: 020
Loop: PTD   Mandatory
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: HI: Not Used
HU: Required
IU: Not Used
MU: Required if there are unmetered service on the account
DTM~151~19990131

Data Element Summary

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

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:
Notes:
HI: Not Used
HU: Required for DP&L and Duke Energy Ohio. In the event there are multiple rate classes under an account, the PTD~PL/BC will be looped for each rate class. (AEP & FE sends in PTD~FG loop)
IU: Not Used
MU: Not Used
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 (EDU Rate Code)

Segment: **REF** Reference Identification (EDU Rate Code)
Position: 030
Loop: PTD   Mandatory
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: HI: Not Used
HU: Required for DP&L and Duke Energy Ohio. In the event there are multiple rate classes under an account, the PTD~PL/BC will be looped for each rate class. (AEP & FE sends in PTD~FG loop)

IU: Not Used
MU: Required if there are metered services on the account
REF~NH~RES

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
M	REF01	128	**Reference Identification Qualifier**		M	ID 2/3
			Code qualifying the Reference Identification			
			NH Rate Card Number			
			EDU Rate Code or tariff			
M	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			
			EDU Rate Code or tariff			

	Segment:	**REF** Reference Identification (EDU Rate Subclass)
	Position:	030
	Loop:	PTD Mandatory
	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: HI: Not Used
HU: Conditional – send if there are metered services on the account and if it is stored in the EDU system
IU: Not Used
MU: Conditional – send if there are metered services on the account and if it is stored in the EDU system
REF~PR~HEAT
REF~PR~WHA

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
M	REF01	128	**Reference Identification Qualifier**	M	ID 2/3
			Code qualifying the Reference Identification		
			PR Price Quote Number		
			EDU Rate Subclass or Revenue Class - Used to provide further classification of a rate.		
M	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		
			EDU Rate Subclass or Revenue Class		

		Segment:	**REF** Reference Identification (Product Type)

Segment: **REF** Reference Identification (Product Type)
Position: 030
Loop: PTD   Mandatory
Level: Detail
Usage: Optional
Max Use: 20
Purpose: To specify identifying information
Syntax Notes: 1   At least one of REF02 or REF03 is required.
      2   If either C04003 or C04004 is present, then the other is required.
      3   If either C04005 or C04006 is present, then the other is required.
Semantic Notes: 1   REF04 contains data relating to the value cited in REF02.
Comments:
Notes: HI: Not Used
HU: Required
IU: Not Used
MU: Required if there are unmetered service on the account
REF~PRT~LIGHT

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
M	REF01	128	**Reference Identification Qualifier**	M	ID 2/3
			Code qualifying the Reference Identification		
			PRT Product Type		
			EDU Defined Unmetered Service Type		
M	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 describes the type of device that this measurement loop references (for instance, a specific wattage of an outdoor light). The valid codes will be defined on each EDU Web Site.		

			Segment:	**QTY** Quantity		

Segment: **QTY** Quantity
Position: 110
Loop: QTY Optional
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:

> HI: Not Used
> HU: Required
> IU: Not Used
> MU: Required if there are unmetered service on the account
> QTY~QD~22348~KH

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes	
M	QTY01	673	**Quantity Qualifier**		M	ID 2/2
			Code specifying the type of quantity			
			QD	Quantity Delivered		
			Quantity is actual			
			Whether unmetered services are estimated, calculated, or actual, they will be coded as actual.			
M	QTY02	380	**Quantity**		X	R 1/15
			Numeric value of quantity			
			This represents the consumption quantity per device			
M	QTY03	C001	**Composite Unit of Measure**		O	
			To identify a composite unit of measure (See Figures Appendix for examples of use)			
			Note this is a composite data element, populate C00101			
M	C00101	355	**Unit or Basis for Measurement Code**		M	ID 2/2
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken			
			EA	Each		
			Ea			
			KH	Kilowatt Hour		
			kWh			

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:	HI: Required for PJM Customers; otherwise not used		
	HU: Required for PJM Customers; otherwise not used		
	IU: Not Used		
	MU: Not Used		
	This PTD Loop will be used to provide Scheduling Determinants, such as the Capacity Contribution (a.k.a. Load Responsibility) and Transmission Contribution for PJM customers.		
Examples:	PTD*FG		

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	PTD01	521	**Product Transfer Type Code**	M ID 2/2
			Code identifying the type of product transfer	
		FG	Flowing Gas Information	
			Scheduling Determinants: This loop will provide information required by PJM.	

	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:
Notes: HI: Required
HU: Required
IU: Not Used
MU: Not Used
REF~BF~15

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
			BF LDC Bill Cycle	
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 (KY=Special Meter Configuration)	
Position:	030	
Loop:	PTD	
Level:	Detail	
Usage:	Optional	
Max Use:	20	
Purpose:	To specify identifying information	
Syntax Notes:	1 At least one of REF02 or REF03 is required.	
	2 If either C04003 or C04004 is present, then the other is required.	
	3 If either C04005 or C04006 is present, then the other is required.	
Semantic Notes:	1 REF04 contains data relating to the value cited in REF02.	

Comments:

Notes: HI: Required for AEP Ohio when net meter is present on an account (will be required if/when FirstEnergy implements HI)

HU: Required for AEP Ohio & First Energy when net meter is present on an account

IU: Not Used

MU: Not Used

REF~KY~NETMETER

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		
		KY	Site Specific Procedures, Terms, and Conditions Special Meter Configuration		
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		
		NETMETER	Net metering present		

	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:

Notes:

HI: Required if available
HU: Required for AEP and First Energy (DP&L and Duke send in PTD~PL/BC loops)
IU: Not Used
MU: Not Used
REF~LO~GS

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		
			LO Load Planning Number		
			Load profile		
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		

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:	
Notes:	HI: Required
	HU: Required for AEP and First Energy (DP&L and Duke send in PTD~PL/BC loops)
	IU: Not Used
	MU: Not Used
	REF~NH~GS1

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes	
Must Use	REF01	128	**Reference Identification Qualifier**	M	ID 2/3
			Code qualifying the Reference Identification		
			NH LDC Rate Code		
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		

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:	
Notes:	HI: Required for First Energy companies (if/when HI supported) & AEP Ohio; optional for DP&L and Duke Energy Ohio
	HU: Required for First Energy companies & AEP Ohio; optional for DP&L and Duke Energy Ohio IU: Not Used
	MU: Not Used
	REF~LF~2

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		
			LF Load Planning Number		
			Loss Factor		
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		

			Segment:	**REF** Reference Identification (PR = EDU Rate Subclass)

Segment: **REF** Reference Identification (PR = EDU Rate Subclass)
Position: 030
Loop: PTD   Mandatory
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: HI: Conditional – send if there are metered services on the account if it is stored in the EDU system
HU: Conditional – send if there are metered services on the account and if it is stored in the EDU system
IU: Not Used
MU: Not Used
REF~PR~HEAT
REF~PR~WHA

Data Element Summary

	Ref. Des.	Data Element	Name		Attributes
M	REF01	128	**Reference Identification Qualifier**		**M ID 2/3**
			Code qualifying the Reference Identification		
			PR Price Quote Number		
			EDU Rate Subclass or Revenue Class - Used to provide further classification of a rate.		
M	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		
			EDU Rate Subclass or Revenue Class		

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:		
Notes:	HI: Required for First Energy companies (if/when HI supported) & AEP Ohio; optional for DP&L and Duke Energy	
	HU: Required for First Energy companies & AEP Ohio; optional for DP&L and Duke Energy Ohio	
	IU: Not Used	
	MU: Not Used	
	REF~SV~SECONDARY	

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		
		SV	Service Charge Number		
			Service Voltage		
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		
			PRIMARY		
			SECONDARY		
			Actual service voltage transmission value (Ex: 34.5kV)		

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:	HI: Required for PJM Customers; otherwise not used
	HU: Required for PJM Customers; otherwise not used
	IU: Not Used
	MU: Not Used
	Each QTY/MEA/DTM loop conveys consumption information about one metering period. The value provided is at the Account or Service Delivery Identifier Number level for AEP.
	Zero values may be sent if the EDU is, in fact, stating that there is no contribution for this customer's account
Example:	QTY*KC*752*K1

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	QTY01	673	**Quantity Qualifier**	M ID 2/2
			Code specifying the type of quantity	
			KC Net Quantity Decrease	
			Peak Load Contribution, (a.k.a. Capacity Contribution, 5CP, or Load Responsibility): Peak load contributions provided to PJM for Installed Capacity calculation (coincident with PJM Peak).	
Must Use	QTY02	380	**Quantity**	X R 1/15
			Numeric value of quantity	
Must Use	QTY03	355	**Unit or Basis for Measurement Code**	M ID 2/2
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	
			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:		

Notes:
HI: Required for PJM Customers; otherwise not used
HU: Required for PJM Customers; otherwise not used
IU: Not Used
MU: Not Used

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 EDUs change the PLC effective June 1st. Once the EDUs are aware of what the next effective PLC will be (typically in December) they should begin providing it on transactions.

For example, in February 2014 the PLC values would be reported as:
QTY*KC*476*K1
DTM*007****RD8*20130601-20140531
QTY*KC*450*K1
DTM*007****RD8*20140601-20150531

Whereas in September 2014 the PLC value would include only one loop because the following year's PLC is undetermined:
QTY*KC*450*K1
DTM*007****RD8*20140601-20140531

Ohio EDU Implementation of this segment as per EDI CC 108:
AEP – 3Q 2014
DP&L and Duke Energy Ohio – by 12/31/14
FirstEnergy - TBD

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:	HI: Required for PJM Customers; otherwise not used		
	HU: Required for PJM Customers; otherwise not used		
	IU: Not Used		
	MU: Not Used		
	Each QTY/MEA/DTM loop conveys consumption information about one metering interval. The value provided is at the Account or Service Delivery Identifier Number level for AEP		
	Zero values may be sent if the EDU is, in fact, stating that there is no contribution for this customer's account.		
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 (a.k.a. Transmission Contribution or 1CP): 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:	
Notes:	HI: Required for PJM Customers; otherwise not used
	HU: Required for PJM Customers; otherwise not used
	IU: Not Used
	MU: Not Used

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*20130101-20131231
QTY*KZ*450*K1
DTM*007****RD8*20140101-20141231

Or just one:
QTY*KZ*450*K1
DTM*007****RD8*20140101-20141231

Ohio EDU Implementation of this segment as per EDI CC 108:
AEP – 3Q 2014
DP&L and Duke Energy Ohio – by 12/31/14
FirstEnergy - TBD

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.
      Notes: Required

SE~28~000000001

Data Element Summary

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

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Case No(s). 18-0338-EL-EDI

Summary: Application EDI Implementation Guideline for Ohio - 867
Usage electronically filed by Mr. Joseph D Lindsay on behalf of Ohio EDI Working Group