

Utility Industry Group Implementation Guideline

for

Electronic **D**ata **I**nterchange

TRANSACTION SET

867

Product Transfer and Resale Report

Ver/Rel 003070

Meter Interval and Historical Usage Reporting

Summary of Changes

July 1, 1998

Initial release.

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867 Product Transfer and Resale Report

Introduction

The function of the Utility Industry Group is

To represent Electric, Gas, and Combination Utilities, their suppliers, their customers, and other interested parties as an Industry Action Group to the American National Standards Institute (ANSI) Accredited Standards Committee (ASC) X12, specifically in the standards-setting process, for their Electronic Data Interchange business needs.

To encourage, promote, and establish conventions for the use of ASC X12 standards as the "recommended" method of EDI. To develop and coordinate, as required, implementation guidelines and tools to promote the growth and timely implementation of Electronic Commerce/EDI within the industry.

To provide a forum for the exchange of ideas related to Electronic Commerce/EDI and its influence on the business needs of the industry.

The UIG will represent the Edison Electric Institute (EEI) and its members to facilitate implementation of Electronic Commerce/EDI in the Utility Industry.

Purpose

This Utility Industry Group (UIG) Implementation Guideline contains the format and establishes the data contents the Product Transfer and Resale Report Transaction Set (867) as adopted by the UIG for use within the context of an Electronic Data Interchange (EDI) environment.

Notes

This implementation of the transaction set is used by the utility industry in the deregulated, alternative energy supply environment to report the historical consumption of energy or the current interval consumption of energy by a customer account to the customer's energy service provider (ESP).

867 Product Transfer and Resale Report

Best Practices

Global Best Practices

Use of Text Segments

- The UIG recommends that the note (NTE) segment be avoided because this segment is not machine-readable. Other text segments, such as MSG and PID, may be used if their use will lead to machine processable information in subsequent applications.

Use of ZZ Qualifier

- The use of data fields to transmit uncoded or textual information should be avoided. This practice is usually associated with the use of the ZZ qualifier as a normal course of doing business.

997 - Functional Acknowledgment

- The purpose of the 997 is to verify receipt of a transmitted document only, not the acceptance of the document. For example, the acceptance of a purchase order (850) is accomplished through the use of the purchase order acknowledgment transaction (855).

Interchange Control Number

- A unique and sequential interchange control number should be used on every envelope that is transmitted to a trading partner. This approach will allow the receiver to audit the interchange for any duplicate or missing transmissions.

Use of Dun & Bradstreet (D-U-N-S) Number

- Dun & Bradstreet assigns a nine-digit identification number to every business entity. This number, known as the D-U-N-S number, should be used to identify the trading partners. A trading partner may append a four-digit suffix to the D-U-N-S number to uniquely identify a specific location within the entity; this number is referred to as a D-U-N-S + 4 number

Banking Transactions

- Guidelines that outline the use of transactions relating to interactions between a sender and the sender's financial institution are available from the Bankers EDI Council and the NACHA EDI Council. Other publications that address the use of financial payment transactions include Technical Report 1 (TR1) and Technical Report 2 (TR2); both of these publications are available from DISA.

Capitalization

- The use of all upper case (capital) letters is preferred over the use of mixed upper and lower case letters.

Document-Specific Best Practices

Use of The PTD Segment

- The PTD loop conveys consumption information for one meter or register over a number of metering intervals. Accounts that have multiple meters or registers require multiple PTD loops.

Use of The QTY Loop

- Each QTY/MEA/DTM loop conveys consumption information about one metering interval for the meter identified in the PTD/REF segment.
- Both the MEA and DTM segments must be sent with the first iteration of the QTY loop. The [MEA segment](#) must be sent to establish the initial measurement values and readings; for subsequent iterations of the QTY loop, the MEA segment need not be sent because the readings can be inferred by accumulating the QTY02 value. The [DTM segment](#) must be sent to establish the initial interval date and time; for subsequent iterations of the QTY loop, this segment need not be sent because the dates and times can be inferred from the metering interval identified in the meter type (REF01 = MT).

867 Product Transfer and Resale Report

Functional Group ID=**PT**

Heading

	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max. Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
Must Use	010	ST	Transaction Set Header	M	1		
Must Use	020	BPT	Beginning Segment for Product Transfer and Resale	M	1		
						LOOP ID - N1	5
Must Use	080	N1	Name	O	1		
	090	N2	Additional Name Information	O	2		
	100	N3	Address Information	O	2		
	110	N4	Geographic Location	O	1		
Must Use	120	REF	Reference Identification	O	12		
						LOOP ID - PER	>1
	130	PER	Administrative Communications Contact	O	1		

Detail

	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max. Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
						LOOP ID - PTD	>1
Must Use	010	PTD	Product Transfer and Resale Detail	M	1		
Must Use	030	REF	Reference Identification	O	20		
						LOOP ID - N1	5
Must Use	050	N1	Name	O	1		
	060	N2	Additional Name Information	O	2		
	070	N3	Address Information	O	2		
	080	N4	Geographic Location	O	1		
						LOOP ID - QTY	>1
Must Use	110	QTY	Quantity	O	1		
	160	MEA	Measurements	O	40		
	210	DTM	Date/Time Reference	O	10		

Summary

	<u>Pos. No.</u>	<u>Seg. ID</u>	<u>Name</u>	<u>Req. Des.</u>	<u>Max. Use</u>	<u>Loop Repeat</u>	<u>Notes and Comments</u>
						LOOP ID - CTT	1
	010	CTT	Transaction Totals	O	1		n1
Must Use	030	SE	Transaction Set Trailer	M	1		

Transaction Set Notes:

1. The number of line items (CTT01) is the accumulation of the number of PTD segments.

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) 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:

Data Element Summary

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

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

Data Element Summary

Must Use	Ref. Des.	Data Element	Name	Attributes
	BPT01	353	Transaction Set Purpose Code Code identifying purpose of transaction set	M ID 2/2
			00 Original Conveys original readings for the account being reported.	
			01 Cancellation Indicates that the readings previously reported for the account are to be ignored.	
			05 Replace Indicates that the readings previously cancelled for the account are being replaced.	
			07 Duplicate Indicates that this is a retransmission of previously furnished information.	
			52 Response to Historical Inquiry Response to a request for historical meter reading.	
			CO Corrected Indicates that the readings previously reported for the account are being corrected.	
	BPT02	127	Reference Identification 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.	O AN 1/30
Must Use	BPT03	373	Date Date (YYMMDD)	M DT 6/6
	BPT04	755	Report Type Code Code indicating the title or contents of a document, report or supporting item	O ID 2/2
			22 Functional Plan Usage model information for an aggregated customer class (load profile).	
			23 Contractual Plan Load template for an individual customer's usage within an aggregated customer class.	
			C1 Cost Data Summary Interval readings	

DD Distributor Inventory Report

Usage

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 or CO, this element should contain the transaction identification number from BPT02 of the transaction that is being cancelled or corrected.

Segment: **N1** Name
Position: 080
Loop: N1
Level: Heading:
Usage: Must Use
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.

Data Element Summary

Ref.	Data	Name	Attributes
<u>Des.</u>	<u>Element</u>		<u>M</u> <u>ID</u> <u>2/3</u>
Must Use	N101	98 Entity Identifier Code Code identifying an organizational entity, a physical location, property or an individual	
		8R Consumer Service Provider (CSP) Customer End use customer	
		8S Consumer Service Provider (CSP) Utility	
		AG Agent/Agency Metering Agent	
		SJ Service Provider Energy Service Provider	
	N102	93 Name Free-form name	X AN 1/60
	N103	66 Identification Code Qualifier Code designating the system/method of code structure used for Identification Code (67)	X ID 1/2
		1 D-U-N-S Number, Dun & Bradstreet	
		9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix	
		24 Employer's Identification Number	
		91 Assigned by Seller or Seller's Agent An identifier assigned by the Utility	
		92 Assigned by Buyer or Buyer's Agent An identifier assigned by the Energy Service Provider	
	N104	67 Identification Code Code identifying a party or other code	X AN 2/20

Segment: **N2** Additional Name Information
Position: 090
Loop: N1
Level: Heading:
Usage: Optional
Max Use: 2
Purpose: To specify additional names or those longer than 60 characters in length
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
	<u>Des.</u>	<u>Element</u>		
Must Use	N201	93	Name Free-form name	M AN 1/60
	N202	93	Name Free-form name	O AN 1/60

Segment: **N3** Address Information
Position: 100
Loop: N1
Level: Heading:
Usage: Optional
Max Use: 2
Purpose: To specify the location of the named party
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
	<u>Des.</u>	<u>Element</u>		
Must Use	N301	166	Address Information Address information	M AN 1/55
	N302	166	Address Information Address information	O AN 1/55

Segment: **N4** Geographic Location
Position: 110
Loop: N1
Level: Heading:
Usage: Optional
Max Use: 1
Purpose: To specify the geographic place of the named party
Syntax Notes:
Semantic Notes:
Comments:

- 1 A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.
- 2 N402 is required only if city name (N401) is in the U.S. or Canada.

Data Element Summary

<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
N401	19	City Name Free-form text for city name	O AN 2/30
N402	156	State or Province Code Code (Standard State/Province) as defined by appropriate government agency	O ID 2/2
N403	116	Postal Code Code defining international postal zone code excluding punctuation and blanks (zip code for United States)	O ID 3/15
N404	26	Country Code Code identifying the country	O ID 2/3

Segment: **REF** Reference Identification
Position: 120
Loop: N1
Level: Heading:
Usage: Must Use
Max Use: 12
Purpose: To specify identifying information
Syntax Notes: 1 At least one of REF02 or REF03 is required.
Semantic Notes:
Comments:
Notes: Required by the Utility Industry Group

Data Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
	<u>Des.</u>	<u>Element</u>		
Must Use	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification	M ID 2/3
			11 Account Number Energy Service Provider-assigned account number for the end use customer.	
			12 Billing Account Utility-assigned account number for the end use customer.	
			45 Old Account Number Previous utility-assigned account number for the end use customer.	
			CR Customer Reference Number	
	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: **PER Administrative Communications Contact**
Position: 130
Loop: PER
Level: Heading:
Usage: Optional
Max Use: 1
Purpose: To identify a person or office to which administrative communications should be directed

- Syntax Notes:**
- 1 If either PER03 or PER04 is present, then the other is required.
 - 2 If either PER05 or PER06 is present, then the other is required.
 - 3 If either PER07 or PER08 is present, then the other is required.

Semantic Notes:
Comments:

Data Element Summary

Ref.	Data Element	Name	Attributes
Must Use	PER01	366 Contact Function Code Code identifying the major duty or responsibility of the person or group named IC Information Contact	M ID 2/2
	PER02	93 Name Free-form name	O AN 1/60
	PER03	365 Communication Number Qualifier Code identifying the type of communication number EM Electronic Mail FX Facsimile TE Telephone	X ID 2/2
	PER04	364 Communication Number Complete communications number including country or area code when applicable	X AN 1/80
	PER05	365 Communication Number Qualifier Code identifying the type of communication number EM Electronic Mail FX Facsimile TE Telephone	X ID 2/2
	PER06	364 Communication Number Complete communications number including country or area code when applicable	X AN 1/80
	PER07	365 Communication Number Qualifier Code identifying the type of communication number EM Electronic Mail FX Facsimile TE Telephone	X ID 2/2
	PER08	364 Communication Number Complete communications number including country or area code when applicable	X AN 1/80

Segment: **PTD** Product Transfer and Resale Detail
Position: 010
Loop: PTD
Level: Detail:
Usage: Mandatory
Max Use: 1
Purpose: To indicate the start of detail information relating to the transfer/resale of a product and provide identifying data

Syntax Notes:
 1 If either PTD02 or PTD03 is present, then the other is required.
 2 If either PTD04 or PTD05 is present, then the other is required.

Semantic Notes:
Comments:

Notes: The PTD loop conveys consumption information for one meter or register over a number of metering intervals. Accounts that have multiple meters or registers require multiple PTD loops.

Data Element Summary

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

Segment: **REF** Reference Identification
Position: 030
Loop: PTD
Level: Detail:
Usage: Must Use
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:

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
		46 Old Meter Number Identifies meters being removed	
		IX Item Number Number of dials	
		LO Load Planning Number Load Profile	
		LU Location Number Identification number for the point where service is delivered to the customer.	
		MG Meter Number	
		MT Meter Ticket Number Meter Type. Used to identify the type of consumption measured by this meter and the interval between measurements. See REF02 for examples.	
		P5 Position Code Used to identify the position of this meter relative to other meters at this location.	
		YT Reporter Identification Automatic Meter Reading (AMR) device identification.	

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, expressed in the units of measure from Data Element 355. The three-character metering interval is expressed as one of the following values:

- Nnn* - number of minutes, from 001 to 999
- ANN - annual
- BIA - bi-annual
- BIM - bi-monthly
- DAY - daily
- MON - monthly
- QTR - quarterly

For example:

- KHMON represents kilowatt hours per month
- K1015 represents kilowatt demand per 15 minute interval
- K1060 represents kilowatt demand per hourly interval

Segment: **N1** Name
Position: 050
Loop: N1
Level: Detail:
Usage: Must Use
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.

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
Must Use N101	98	Entity Identifier Code Code identifying an organizational entity, a physical location, property or an individual MQ Metering Location	M ID 2/3
N102	93	Name Free-form name	X AN 1/60
N103	66	Identification Code Qualifier Code designating the system/method of code structure used for Identification Code (67) 92 Assigned by Buyer or Buyer's Agent An identifier assigned by the customer.	X ID 1/2
N104	67	Identification Code Code identifying a party or other code	X AN 2/20

Segment: **N2** Additional Name Information
Position: 060
Loop: N1
Level: Detail:
Usage: Optional
Max Use: 2
Purpose: To specify additional names or those longer than 60 characters in length
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
	<u>Des.</u>	<u>Element</u>		
Must Use	N201	93	Name Free-form name	M AN 1/60
	N202	93	Name Free-form name	O AN 1/60

Segment: **N3** Address Information
Position: 070
Loop: N1
Level: Detail:
Usage: Optional
Max Use: 2
Purpose: To specify the location of the named party
Syntax Notes:
Semantic Notes:
Comments:

Data Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	N301	166	Address Information Address information	M AN 1/55
	N302	166	Address Information Address information	O AN 1/55

Segment: **N4 Geographic Location**
Position: 080
Loop: N1
Level: Detail:
Usage: Optional
Max Use: 1
Purpose: To specify the geographic place of the named party
Syntax Notes:
Semantic Notes:
Comments:

- 1 A combination of either N401 through N404, or N405 and N406 may be adequate to specify a location.
- 2 N402 is required only if city name (N401) is in the U.S. or Canada.

Data Element Summary

<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
N401	19	City Name Free-form text for city name	O AN 2/30
N402	156	State or Province Code Code (Standard State/Province) as defined by appropriate government agency	O ID 2/2
N403	116	Postal Code Code defining international postal zone code excluding punctuation and blanks (zip code for United States)	O ID 3/15
N404	26	Country Code Code identifying the country	O ID 2/3

Segment: **QTY** Quantity
Position: 110
Loop: QTY
Level: Detail:
Usage: Must Use
Max Use: 1
Purpose: To specify quantity information
Syntax Notes: 1 At least one of QTY02 or QTY04 is required.
 2 Only one of QTY02 or QTY04 may be present.
Semantic Notes: 1 QTY04 is used when the quantity is non-numeric.
Comments:
Notes: Each QTY/MEA/DTM loop conveys consumption information about one metering interval.

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
		87 Quantity Received Received from the customer in a co-generation environment.	
		DY Days	
		QD Quantity Delivered	
	QTY02	380 Quantity Numeric value of quantity	X R 1/15
	QTY03	C001 Composite Unit of Measure To identify a composite unit of measure (See Figures Appendix for examples of use)	O
Must Use	C00101	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
		1N Count Indicates meter pulses	
		2I British Thermal Units (BTUs) Per Hour	
		70 Volt	
		99 Watt	
		BY British Thermal Unit (BTU)	
		BZ Million BTU's Decatherms	
		CF Cubic Feet	
		DA Days	
		EA Each	
		GA Gallon	
		HH Hundred Cubic Feet	
		HJ Horsepower	
		K1 Kilowatt Demand Represents potential power load measured at predetermined intervals	
		K2 Kilovolt Amperes Reactive Demand	

		Reactive power that must be supplied for specific types of customer's equipment; billable when kilowatt demand usage meets or exceeds a defined parameter
K3		Kilovolt Amperes Reactive Hour
		Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters
K4		Kilovolt Amperes
K5		Kilovolt Amperes Reactive
K7		Kilowatt
KH		Kilowatt Hour
LB		Pound
MO		Months
T1		Thousand pounds gross
T9		Thousand Kilowatt Hours
TD		Therms
TH		Thousand
TZ		Thousand Cubic Feet
UN		Unit
WK		Week
YR		Years

C00102	1018	Exponent	O	R 1/15
		Power to which a unit is raised		
C00103	649	Multiplier	O	R 1/10
		Value to be used as a multiplier to obtain a new value		

Segment: **MEA** Measurements
Position: 160
Loop: QTY
Level: Detail:
Usage: Optional
Max Use: 40
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)

- Syntax Notes:**
- 1 At least one of MEA03 MEA05 MEA06 or MEA08 is required.
 - 2 If MEA05 is present, then MEA04 is required.
 - 3 If MEA06 is present, then MEA04 is required.
 - 4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required.
 - 5 Only one of MEA08 or MEA03 may be present.

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

Comments: 1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value.

Notes: This segment must be sent with the first iteration of the QTY loop, to establish the initial measurement values and readings. For subsequent iterations of the QTY loop, this segment need not be sent because the readings can be inferred by accumulating the QTY02 value.

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
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
		AB	Average Balance
			Average or contract demand
		AE	Meter reading-beginning actual/ending estimated
		AF	Actual Total
		BC	Billed Actual
		BN	Billed Minimum
		BO	Meter Reading as Billed
			Used when billing charges are based on contractual agreements or pre-established usage and not on actual usage
		BR	Billed History
		CF	Conversion Factor
		DT	Dimensional Tolerance
		EA	Meter reading-beginning estimated/ending actual
		EE	Meter reading-beginning estimated/ending estimated
		R1	Opening Reading
		TI	Time
MEA02	738	Measurement Qualifier	O ID 1/3
		Code identifying a specific product or process characteristic to which a measurement applies	
		CJ	Cycle Time
		LN	Length

		MEF	Meter Factor		
		MU	Multiplier		
		MX	Maximum		
		PU	Pressure Base		
		RUD	Usage Deviation (Applies to Kilowatt Hours, Kilowatt Demand and Reactive Demand)		
		TC	Temperature		
		UG	Usage		
			Used when reporting partial-period usage prior to the first full-period reporting.		
		ZA	Power Factor		
			Relationship between watts and volt - amperes necessary to supply electric load		
	MEA03	739	Measurement Value	X	R 1/20
			The value of the measurement		
			Represents the meter constant when MEA02 equals "MU". When no multiplier is present, use a value of 1.		
	MEA04	C001	Composite Unit of Measure	X	
			To identify a composite unit of measure (See Figures Appendix for examples of use)		
Must Use	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		
		1N	Count		
			Indicates meter pulses		
		2I	British Thermal Units (BTUs) Per Hour		
		70	Volt		
		99	Watt		
		BY	British Thermal Unit (BTU)		
		BZ	Million BTU's		
		CF	Cubic Feet		
		DA	Days		
		EA	Each		
		GA	Gallon		
		HH	Hundred Cubic Feet		
		HJ	Horsepower		
		K1	Kilowatt Demand		
			Represents potential power load measured at predetermined intervals		
		K2	Kilovolt Amperes Reactive Demand		
			Reactive power that must be supplied for specific types of customer's equipment; billable when kilowatt demand usage meets or exceeds a defined parameter		
		K3	Kilovolt Amperes Reactive Hour		
			Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters		
		K4	Kilovolt Amperes		
		K5	Kilovolt Amperes Reactive		
		K7	Kilowatt		
		KH	Kilowatt Hour		

		LB	Pound		
		MO	Months		
		T1	Thousand pounds gross		
		T9	Thousand Kilowatt Hours		
		TD	Therms		
		TH	Thousand		
		TZ	Thousand Cubic Feet		
		UN	Unit		
		WK	Week		
		YR	Years		
	C00102	1018	Exponent	O	R 1/15
			Power to which a unit is raised		
	C00103	649	Multiplier	O	R 1/10
			Value to be used as a multiplier to obtain a new value		
	C00104	355	Unit or Basis for Measurement Code	O	ID 2/2
			Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		
		ZZ	Mutually Defined		
			Represents gas heating or billing factor		
	C00105	1018	Exponent	O	ID 2/2
			Power to which a unit is raised		
	C00106	649	Multiplier	O	ID 2/2
			Value to be used as a multiplier to obtain a new value		
Recomm	MEA05	740	Range Minimum	X	R 1/20
			The value specifying the minimum of the measurement range		
			Beginning reading		
Must Use	MEA06	741	Range Maximum	X	R 1/20
			The value specifying the maximum of the measurement range		
			Ending reading or single reading (e.g., demand).		
	MEA07	935	Measurement Significance Code	O	ID 2/2
			Code used to benchmark, qualify or further define a measurement value		
		10	Not equal to		
		22	Actual		
		31	Calculated		
		34	Ratchet		
			Highest previously attained value		
		39	Corrected		
		40	Uncorrected		
		41	Off Peak		
		42	On Peak		
		43	Intermediate		
		44	Average		
		46	Estimated		
		51	Total		
			Totalizer		
		62	Current		
		68	As Is		
			Indicates that the data is raw, no validation has been performed		
		88	Adjusted		

93 Previous

The UIG has made Data Maintenance Requests (DMs) for several additional codes. A new version of the 810 Guideline will be issued when the DMs are approved. Until then, the following non-standard definitions for the 3070 codes will be used.

Non-Standard 3070 Code Definitions	DM-Requested Codes
45 = Summer On Peak	AA
49 = Winter On Peak	AF
50 = Winter Mid Peak	AG
52 = Winter Super Off Peak	AJ
53 = Summer Day	AK
54 = Summer Night	AL
55 = Winter Day	AM
56 = Winter Night	AN
57 = Summer	AO
58 = Winter	AP
59 = Day	AQ
60 = Night	AR
63 = Peak-2	AS
64 = Peak-3	AT
65 = Peak-4	AU
66 = Shoulder	AV
67 = Non Time-Related Demand	AW
71 = Summer Super On Peak	AD
72 = Summer Super Off Peak	AE
73 = Summer Off Peak	AC
74 = Summer Mid Peak	AB
75 = Winter Off Peak	AH

Segment: **DTM** Date/Time Reference
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 DTM06 is required.
 2 If DTM04 is present, then DTM03 is required.
 3 If either DTM06 or DTM07 is present, then the other is required.

Semantic Notes:
Comments:

Notes: This segment must be sent with the first iteration of the QTY loop, to establish the initial interval date and time. For subsequent iterations of the QTY loop, this segment need not be sent because the dates and times can be inferred from the metering interval identified in the meter type (REF01 = MT).

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
		150 Service Period Start	
		151 Service Period End	
		319 Failed Meter failure date	
		514 Transferred Exchanged meter read date	
		634 Next Review Date Next meter read date	
		730 Reporting Cycle Date Period	
	DTM06	1250 Date Time Period Format Qualifier Code indicating the date format, time format, or date and time format	X ID 2/3
		D6 Date Expressed in Format YYMMDD	
		D8 Date Expressed in Format CCYYMMDD	
		DT Date and Time Expressed in Format CCYYMMDDHHMM	
		RD6 Range of Dates Expressed in Format YYMMDD-YYMMDD	
		RD8 Range of Dates Expressed in Format CCYYMMDD-CCYYMMDD A range of dates expressed in the format CCYYMMDD-CCYYMMDD where CCYY is the numerical expression of the century CC and year YY, MM is the numerical expression of the month within the year, and DD is the numerical expression of the day within the year; the first occurrence of CCYYMMDD is the beginning date and the second occurrence is the ending date	

Segment: **CTT** Transaction Totals
Position: 010
Loop: CTT
Level: Summary:
Usage: Optional
Max Use: 1
Purpose: To transmit a hash total for a specific element in the transaction set
Syntax Notes:
Semantic Notes:
Comments: 1 This segment is intended to provide hash totals to validate transaction completeness and correctness.

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	CTT01	354	Number of Line Items Total number of line items in the transaction set The accumulation of the number of PTD segments.	M NO 1/6

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.

Data Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
	<u>Des.</u>	<u>Element</u>		
Must Use	SE01	96	Number of Included Segments Total number of segments included in a transaction set including ST and SE segments	M NO 1/10
Must Use	SE02	329	Transaction Set Control Number Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	M AN 4/9

Example Transaction Data

Historical Usage

ST~867~00401

This is the start of an 867 transaction with a control number of 00401.

BPT~00~98003001~980608~DD

This is an original transaction. The reference number for this transaction is 98003001. The transaction was created on June 8, 1998. The transaction conveys historical usage.

N1~8S~UNIVERSAL ENERGY~1~22222222

The sending utility is Universal Energy. Their D-U-N-S number is 22222222.

N1~SJ~AMALGAMATED SUPPLY~1~33333333

The receiving energy service provider is Amalgamated Supply. Their D-U-N-S number is 33333333.

N1~8R~GLOBAL MANUFACTURING~1~44444444

The end use customer is Global Manufacturing. Their D-U-N-S number is 44444444.

REF~12~519703123456

The Universal Energy account number for this customer is 519703123456.

REF~11~8645834

The Amalgamated Supply account number for this customer is 8645834.

PTD~PM

This segment marks the beginning of the report for one meter.

REF~MG~87876565

The meter serial number is 87876565.

REF~MT~KHMON

The meter type is kilowatt-hour. The metering interval is monthly.

REF~IX~5

This meter has five dials.

REF~LU~438024

The identification number for the point where service is delivered to the customer is 438024.

N1~MQ~GLOBAL MANUFACTURING~92~PLANT 632

The metering location is Global Manufacturing's Plant 632.

N3~123 FOURTH AVE.

N4~ANYTOWN~ST~99999-1234

The Global Manufacturing plant is located at 123 Fourth Ave., Anytown, ST 99999-1234.

QTY~QD~1269~KH

The consumption for the first reported interval is 1269 kilowatt hours.

MEA~AA~MU~1~KH~7305~8574

The readings are actual. The meter multiplier is 1. The beginning reading was 7305, the ending reading was 8574.

DTM~150~D8~19980615

The beginning reading was taken on June 15, 1997

DTM~151~D8~19980716

The ending reading was taken on July 16, 1997

QTY~QD~1126~KH

The consumption for the second interval (ending mid-August 1997) is 1126 kilowatt hours.

QTY~QD~1312~KH

The consumption for the third interval (ending mid-September 1997) is 1312 kilowatt hours.

QTY~QD~1613~KH

The consumption for the fourth interval is 1613 kilowatt hours.

QTY~QD~1406~KH

The consumption for the fifth interval is 1406 kilowatt hours.

MEA~AE~MU~1~KH~12625~14031

The beginning meter reading for this interval was actual but the ending reading was estimated. The meter multiplier is 1. The actual beginning reading was 12625; the estimated ending reading was 14031.

QTY~QD~1140~KH

The consumption for the sixth interval is 1140 kilowatt hours.

MEA~AE~MU~1~KH~14031~15171

The beginning meter reading for this interval was estimated but the ending reading was actual. The meter multiplier is 1. The estimated beginning reading was 14031; the actual ending reading was 15171.

QTY~QD~1612~KH

The consumption for the seventh interval is 1612 kilowatt hours.

QTY~QD~1321~KH

The consumption for the eighth interval is 1321 kilowatt hours.

QTY~QD~1361~KH

The consumption for the ninth interval is 1361 kilowatt hours.

QTY~QD~1046~KH

The consumption for the tenth interval is 1046 kilowatt hours.

QTY~QD~1216~KH

The consumption for the eleventh interval is 1216 kilowatt hours.

QTY~QD~1312~KH

The consumption for the twelfth interval (ending mid-June 1998) is 1312 kilowatt hours.

CTT~1

SE~34~00401

There are thirty-four segments in the transaction. The control number is 00401.

Interval Reporting

ST~867~00402

This is the start of an 867 transaction with a control number of 00402.

BPT~00~98003002~980608~C1

This is an original transaction. The reference number for this transaction is 98003002. The transaction was created on June 8, 1998. The transaction conveys interval readings.

N1~8S~UNIVERSAL ENERGY~1~22222222

The sending utility is Universal Energy. Their D-U-N-S number is 22222222.

N1~SJ~AMALGAMATED SUPPLY~1~33333333

The receiving energy service provider is Amalgamated Supply. Their D-U-N-S number is 33333333.

N1~8R~GLOBAL MANUFACTURING~1~44444444

The end use customer is Global Manufacturing. Their D-U-N-S number is 44444444.

REF~12~519703123457

The Universal Energy account number for this customer is 519703123457.

REF~11~8645835

The Amalgamated Supply account number for this customer is 8645835.

PTD~PM

This segment marks the beginning of the report for one meter.

REF~MG~87876567

The meter serial number is 87876567.

REF~MT~K1015

The meter type is kilowatt demand. The metering interval is 15 minutes.

REF~LU~438023

The identification number for the point where service is delivered to the customer is 438023.

N1~MQ~GLOBAL MANUFACTURING~92~PLANT 362

The metering location is Global Manufacturing's Plant 362.

N3~1 BLEEKER ST.

N4~ANYTOWN~ST~99999-1234

The Global Manufacturing plant is located at 1 Bleeker St., Anytown, ST 99999-1234.

QTY~QD~25.7~K1

The demand for the first reported interval is 25.7 kilowatts.

MEA~AA~MU~1~K1~~25.7

The readings are actual. The meter multiplier is 1. The actual demand was 25.7 kilowatts.

DTM~151~~~~DT~1998060015

The reading for the first interval was taken at 12:15 a.m. on June 6, 1998

QTY~QD~26.1~K1

The demand for the second interval (ending at 12:30 a.m. on June 6, 1998) is 26.1 kilowatts.

QTY~QD~25.8~K1

The demand for the third interval (ending at 12:45 a.m. on June 6, 1998) is 25.8 kilowatts.

QTY~QD~25.7~K1

The demand for the fourth interval (ending at 1:00 a.m. on June 6, 1998) is 25.7 kilowatts.

QTY~QD~25.9~K1

The demand for the fifth interval (ending at 1:15 a.m. on June 6, 1998) is 25.9 kilowatts.

QTY~QD~25.4~K1

The demand for the sixth interval (ending at 1:30 a.m. on June 6, 1998) is 25.4 kilowatts.

[seventh through ninety-first intervals not shown]

QTY~QD~26.6~K1

The demand for the ninety-second interval (ending at 11:00 p.m. on June 6, 1998) is 26.6 kilowatts.

QTY~QD~26.3~K1

The demand for the ninety-third interval (ending at 11:15 p.m. on June 6, 1998) is 26.3 kilowatts.

QTY~QD~25.8~K1

The demand for the ninety-fourth interval (ending at 11:30 p.m. on June 6, 1998) is 25.8 kilowatts.

QTY~QD~25.7~K1

The demand for the ninety-fifth interval (ending at 11:45 p.m. on June 6, 1998) is 25.7 kilowatts.

QTY~QD~25.9~K1

The demand for the ninety-sixth interval (ending at 12:00 a.m. on June 7, 1998) is 25.9 kilowatts.

CTT~1

SE~114~00402

There are one hundred fourteen segments in the transaction. The control number is 00402.