

Tampa Electric Company

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# EDI Implementation Guide

Transaction Set  
810 - Utility to Customer  
Version 4 010.1

May 7, 2009

## Summary of Changes

August 24, 2001

Version 1.0 - Initial Release 810 v. 4010

May 07, 2009

Version 1.0 – Initial Release 810 v. 4010.1

**Introduction:**

This draft standard for trial use contains the format and establishes the data contents of the Invoice Transaction Set (810) for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set can be used to provide for customary and established business and industry practice relative to the billing for goods and services provided.

**Heading:**

	Pos.	Seg. ID	Name	Req. File	Max. Use	Loop Repeat	Notes and Comments
		ISA	Interchange Control Header	M			
		GS	Functional Group Header	M	>1		
M	010	ST	Transaction Set Header	M			
M	020	BIG	Beginning Segment for Invoice	M			
	050	REF	Reference Identification	O	12		
						LOOP ID - N1	200
	070	N1	Name	O			
	080	N2	Additional Name Information	O	2		
	090	N3	Address Information	O	2		
	100	N4	Geographic Location	O			
	130	ITD	Terms of Sale/Deferred Terms of Sale	O	>1		
	212	BAL	Balance Detail	O	>1		
	214	PAM	Period Amount	O	>1		
						POP ID- N9	
	240	N9	Reference Identification	O			
	250	MSG	Message Text	O	10		

**Detail:**

	Pos. Nil	Seg. ID	Name	Req. Des.	Max. Use	Loop Repeat	Notes and Comments
						LOOP ID - IT1	200000
	010	IT1	Baseline Item Data (Invoice)	O			<b>A</b>
	059	MBA	Measurements	O	40		
	120	REF	Reference Identification	O	>1		
	150	DTM	Date/Time Reference	O	10		
	230	SAC	Service, Promotion, Allowance, or Charge Information	O	25		
						LOOP ID - N 1	200
	240	N1	Name	O	1		
	260	N3	Address Information	O	2		
	270	N4	Geographic Location	O	1		

**Summary:**

**Group ID=IN**

	<b>Pos. No</b>	<b>Seg. ID</b>	<b>Name</b>	<b>Req. It.</b>	<b>Max. Itse</b>	<b>Loop Repeat</b>	<b>Notes and Comments</b>
M	010	TDS	Total Monetary Value Summary	M	1		
			LOOP ID - SAC			25	
	040	SAC	Service, Promotion, Allowance, or Charge Information	0			
	050	TXI	Tax Information	0	10		
	070	CTT	Transaction Totals	O			n1
M	080	SE	Transaction Set Trailer	M			
		GE	Functional Group Trailer	M	>1		
		TEA	Interchange Control Trailer	M			

**Transaction Set Notes**

Number of line items (CTT01) is the accumulation of the number of IT1 segments. If used, hash total (CTT02) is the sum of the value of quantities invoiced (IT102) for each IT1 segment.

Segment: **ISA** Interchange Control Header

Position:

Loop:

Level:

Usage: Max Use:

Purpose: To start and identify an interchange of zero or more functional groups and interchange-related control segments.

Syntax Notes:

Semantic Notes:

Comments:

Data Element Summary

<u>Ref.</u>	<u>Data</u>			<u>Name</u>
<u>Des.</u>	<u>Element</u>			
<u>Attributes</u>				
ISA01	I01 Authorization Qualifier	Information		M ID 2/2
ISA02	I02 Authorization	Information		M AN 10/10
ISA03	I03 Security	Information	Qualifier	M ID 2/2
ISA04	I04 Security	Information		M AN 10/10
ISA05	I05 Interchange DUNS	ID Qualifier		M ID 2/2 01
ISA06	I06 Interchange	Sender	IDM AN 15/15 006924286E for Production	
ISA07	I05 Interchange	ID Qualifier	006924286ET for Test	M ID 2/2
ISA08	I07 Interchange	Receiver	ID	M AN 15/15
ISA09	I08 Interchange	Date		M DT 6/6
ISA10	I09 Interchange	Time		M TM 4/4
ISA11	110 Interchange Identifier	Control	Standards	M ID 1 / 1
ISA12	I11 Interchange Number 00401	Control	Version	M ID 5/5
ISA13	112 Interchange	Control	Number	M NO 9/9

<b>ISA14</b>	<b>I13</b>	<b>Acknowledgement</b>		
		1	<b>Requested</b>	<b>M ID 1 / 1</b>
<b>ISA15</b>	<b>I14</b>	<b>Usage Indicator</b>		
		T for Test		M ID 1 / 1
		P for Production		
<b>ISA16</b>	<b>I15</b>	<b>Component</b>	<b>Element</b>	
			<b>Separator</b>	<b>M AN 1 / 1</b>

**Segment:** **GS** Functional **Group Header**

**Position:**

**Loop:**

**Level:**

**Usage:**

**Max Use:**

**Purpose:** To indicate the beginning of a functional group and to provide control information.

**Syntax Notes:**

**Semantic Notes:**

**Comments:**

### Data Element Summary

<u>Ref.</u>	<u>Data</u>			<u>Name</u>
	<b>Des• Element</b>			<b>M ID 2/2 M AN</b>
<b>GS01</b>	<b>479 Functional</b>	<b>Identifier</b>	<b>Code</b>	<b>2/15</b>
<b>GS02</b>	<b>142 Application</b>	<b>Sender's</b>	<b>Code</b>	
	006924286E for Production			
	006924286ET for Test			
<b>GS03</b>	<b>124 Application</b>	<b>Receiver's</b>	<b>Code</b>	<b>M AN 2/15</b>
<b>GS04</b>	<b>373 Date</b>			<b>M DT 6/6 /Z</b>
				<b>M TM 4/8 /Z</b>
<b>GS05</b>	<b>337 Time</b>			<b>M NO 1/9 /Z</b>
				<b>M ID 1/2 M AN</b>
<b>GS06</b>	<b>28 Group Control Number</b>			<b>1 /1 2</b>
<b>GS07</b>	<b>455 Responsible</b>	<b>Agency</b>	<b>Code</b>	
	X-X12			
<b>GS08</b>	<b>480 Version/Release</b>	<b>Identifier</b>		
	<b>Code</b>			
	004010			

**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 (STO1) 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:**

**Data Element Summary**

	<u>Ref.</u>	<u>Data</u>			<u>Name</u>
	<u>Des.</u>	<u>Element</u>			
<b>M</b>	<b>STO1</b>	<b>143 Transaction</b>	<b>Set Identifier</b>	<b>Code</b>	<b>M ID 3/3</b>
			Code uniquely identifying a Transaction Set		
		<b>810</b>	Invoice		
<b>M</b>	<b>STO2</b>	<b>329 Transaction</b>	<b>Set Control Number</b>		<b>M AN 4/9</b>
			Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set		

**Segment:** B I G Beginning      **Segment**      for Invoice  
**Position:** 020  
**Loop:** Heading  
**Level:** Mandatory  
**Usage:** 1  
**Max Use:** 1  
**Purpose:** To indicate the beginning of an invoice transaction set and transmit identifying numbers and dates

**Syntax Notes:**  
**Semantic Notes:** 1 BIG01 is the invoice issue date.  
**Comments:** 1 BIG07 is used only to further define the type of invoice when needed.

**Data Element Summary Ref.**

	<u>Des. Element</u>	<u>Data</u>	<u>Name</u>
M	<b>BIG1</b>	<b>373 Date</b>	<b>M DT 8/8</b>
		Date expressed as CCYYMMDD	
M	<b>BIG3</b>	<b>7 6 Invoice Number</b>	<b>M AN 1/22</b>
		Identifying number assigned by issuer TECaccount number + invoice date expressed as CCYYMMDD	
	<b>BIG04</b>	<b>32 4 Purchase Order Number</b>	<b>0 AN 1/24</b>
		Utility	
	<b>BIG07</b>	<b>6 4 0 Transaction Type Code</b>	<b>0 ID 2/2</b>
		Code specifying the type of transaction FB Final Bill PR Product (or Service)	
	<b>BIG08</b>	<b>353 Transaction Set Purpose Code</b>	<b>0 ID 2/2</b>
		Code identifying purpose of transaction set 00 Original 07 Duplicate CO Corrected	

Segment: **REF** Reference Identification

Position: 050

Loop:

Level:

Usage: Heading

Max Use: Optional

Purpose: 12

Syntax Notes: To specify identifying information

1 At least one of REF02 or REF03 is required.

Semantic Notes: 2 If either C04003 or C04004 is present, then the other

is required.

Comments:

3 If either C04005 or C04006 is present, then the other 1

is required.  
REF02.

### Data Element Summary

Ref.	Data	Des. Element	Name
M	12 8	<b>Reference Identification Qualifier</b> Code qualifying the Reference Identification 12 Billing Account Account number under which billing is rendered Utility-assigned account number for the end use customer	<b>M ID 2/3</b>
	01	Original Invoice Number Vent when BIG08 = CO	
	12 7	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	<b>X AN 1/30 e</b>
	352	<b>Description</b> A free-form description to clarify the related data elements and their content	<b>X AN 1/8 0</b>
		<b>REF03</b>	

**Segment:** **N1 Name**

**Position:** 070

**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.

		<b>Data Element Summary</b>		<b>Name</b>
<b>Ref.</b>	<b>Data</b>			
<b>Des. Element</b>				
<b>Attributes</b>				
<b>M</b>	<b>N101</b>	<b>9 8</b>	<b>Entity Identifier Code</b> Code identifying an organizational entity, location, property or an individual BT Bill-to-Party  Used when directly billing the end use customer  RE Party to Receive Remittance Pampa Electric for N101 = RE	<b>M ID 2/3 a</b> physical
	<b>N102</b>	<b>93</b>	<b>Name</b> Free-form name	<b>X AN 1/60</b>
	<b>N103</b>	<b>6 6</b>	<b>Identification Code Qualifier</b> Code designating the system/method used for identification Code (67) 1 D-U-N-S Number, Dun & Bradstreet	<b>X ID 1 / 2</b> of code structure
	<b>N104</b>	<b>6 7</b>	<b>Identification Code</b> Code identifying a party or other code. DUNS Number	<b>X AN 2/80</b>

**Segment:** N 2 Additional Name Information

**Position:** 080

**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

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

**Segment:** N3 **Address Information**  
**Position:** 090  
**Loop:** N1 Optional  
**Level:** Heading  
**Usage:** Optional  
**Max Use:** 2  
**Purpose:** To specify the location of the named party

**Syntax Notes:**  
**Semantic Notes:**  
**Comments:**

**Data Element Summary Ref.**

	<u>Des. Element</u>	<u>Data</u>	<u>Name</u>
M	N301	166 <b>Address Information</b> Address information	M AN 1/55

**Segment: N4 Geographic Location**

**Position:** 10 0

**Loop:** N1 Optional

**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.</u>	<u>Data</u>	<u>Name</u>
<b>N401</b>	<b>1 9 City Name</b> Free-form text for city name	<input type="checkbox"/> AN 2/30
<b>N402</b>	<b>156 State or Province Code</b> Code (Standard State/Province) as defined by appropriate government agency	<input type="checkbox"/> ID 2/2
<b>N403</b>	<b>116 Postal Code</b> Code defining international postal zone code excluding punctuation and blanks (zip code for United States)	<input type="checkbox"/> ID 3/15
<b>N404</b>	<b>2 6 Country Code</b>	<input type="checkbox"/> ID 2/3 Code identifying the country

**Segment: ITD Terms of Sale/Deferred**

**Terms of Sale**

**Position:** 1 3 0

**Loop:**

**Level:** Heading

**Usage:** Optional

**Max Use:** >1

**Purpose:** To specify terms of sale

**Syntax Notes:**

**Semantic Notes:**

**Comments:** 1 If the code in ITD01 is "04", then ITDO7 or ITDO9 is required and either ITD10 or ITD11 is required; if the code in ITD01 is "05", then ITDO6 or ITDO7 is required.

<u>Ref.</u>	<u>Data</u>	<u>Data</u>	<u>Element</u>	<u>Summary</u>	<u>Name</u>
<b>Attributes</b>					
ITD01	33 6	Terms	Type Code		O ID 2/2
			05 Discount not applicable		
ITDO2	333	Terms	Basis Date Code		O ID
			4 Specified date		
ITDO6	44 6	Terms	Net Due Date		O DT 8/8
			Date when total invoice amount becomes due expressed in format CCYYMMDD		
			`Payment Due Date		

Segment: **B1~L** Balance Detail

Position: 2 1 2

Loop:

Level: Heading

Usage: Optional

Max Use: >1

Purpose: To identify the specific monetary balances associated with a particular account

Syntax Notes:

Semantic Notes:

Comments:

Data Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>
	<u>Des• Element</u>	<u>Balance Type Code</u>	<u>M ID _</u>
	<u>Attributes</u>		
M	BAL01 9 51	Code indicating the type of balance M	
		<b>P</b>	Billed, payment, and balance amounts shown in BAL03 are in this billing <b>period</b> . Previous Month Balance of previous period charges prior to applying payments and adjustments for the previous period billing filled, payment, and balance amounts shown in BAL03 are for the period prior <b>10</b> this billing period.
M	BAL02	<b>522 Amount Qualifier</b>	<b>M ID 1/3</b>
		Code to qualify amount	
		PB	Billed amount
		TP	Total payment amount *M*TP used to display total payment amounts made in this billing period. YB Actual Unpaid Principal Balance "BAL*P*YB is used to display the amounts the customer owed as a result of the previous bill, prior to applying payments and adjustments for the previous billing period. BAL*M*YB is used to display the customer's total outstanding balance. This is what the customer owes from previous billing periods plus the current billing charges.
M	BAL03 782	<b>Monetary Amount</b>	<b>M R 1/ 18</b>
		Monetary amount	

**Segment:** PAM Period Amount

**Position:** 214

**Loop:**

**Level:** Heading

**Usage:** Optional

**Max Use:** >1

**Purpose:** To indicate a quantity and/or amount for an identified period

**Syntax Notes:** 1 If any of PAM01 PAM02 or PAM03 is present, then all are required.

2 At least one of PAM02 PAM05 or PAM14 is required.

2 If either PAM06 or PAM07 is present, then the other is required.

2 If PAM07 is present, then at least one of PAM08 or PAM09 is required. 2 If

PAM07 is present, then PAM06 is required. 2 If PAM08 is present, then PAM07 is required.

**Semantic Notes:**

**Comments:**

**Notes:** This segment is used when historical consumption data must accompany the invoice.

### Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>
<u>Des.</u>	<u>Element</u>	
<u>Attributes</u>		
PAMO	6 7 3 Quantity Qualifier	X ID 2/ 2
1	Code specifying the type of quantity	
	9 9 Quantity used	
	Quantity of units used.	
PAMO	380 Quantity	X R 1/1 5
2	Numeric value of quantity	
M	PAMO 3 5 5 Unit or Basis for Measurement Code	M ID 2 /2
3	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. KH Kilowatt Hour	
PAMO	3 4 4 Unit of Time Period or Interval	X ID 2 / 2
6	Code indicating the time period or interval	
	AD Average Daily	
PAMO	37 4 Date/Time Qualifier	X ID 3 /3
7	Code specifying type of date or time, or both date and time	
	194 Period End Date	

**PAMO**

**373 Date**

**X DT 8/8 8**

Date expressed as CCYYMMDD

**Segment:** N9 **Reference Number**

**Position:** 240

**Loop:** N9

**Level:** Detail

**Usage:** Optional

**Max Use:** 1

**Purpose:** To transmit identifying numbers and descriptive information as specified by the reference number qualifier. At least one of N902 or N903 required.

**Syntax Notes:**

**Semantic Notes:**

**Comments:**

**Data Element Summary**

	<u>Ref.</u>	<u>Data</u>	
	<u>Des. Element</u>		
	<u>Attributes</u>		
M	N901	128	Reference Qualifier
	7z N903	369	Mutually Defined Description

**Name**



**Segment:** **MSG** Message Text

**Position:** 250

**Loop:** N9

**Level:** Detail

**Usage:** Optional

**Max Use:** 10

**Purpose:** To provide a free-form format that would allow the transmission of text information.

**Syntax Notes:**

**Semantic Notes:**

**Comments:**

### Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Element</u>	<u>Name</u>
<u>MSG01</u>	<u>933 Free-form</u>	<u>Message</u>	<u>Text</u>

M AN  
1/264

**Segment:** **IT1** **Baseline** **Item Data (Invoice)**

**Position:** 010

**Loop:** IT1 Optional

**Level:** Detail

**Usage:** Optional

**Max Use:** 1

**Purpose:** To specify the basic and most frequently used line item data for the invoice and related transactions

**Syntax Notes:** 1 If any of IT102 IT103 or IT104 is present, then all are required.  
 2 If either IT106 or IT107 is present, then the other is required.  
 2 If either IT108 or IT109 is present, then the other is required. 2 If either IT110 or IT111 is present, then the other is required.

**Semantic Notes:** 1 IT101 is the purchase order line item identification.

**Comments:** 1 Element 235/234 combinations should be interpreted to include products and/or services. See the Data Dictionary for a complete list of IDs.  
 2 IT106 through IT125 provide for ten different product/service IDs for each item. For example: Case, Color, Drawing No., U.P.C. No., ISBN No., Model No., or SKU.

**Data Element Summary**

<u>Ref.</u>	<u>Data</u>	<u>Name Assigned</u>
<u>Des. Element</u>		
<u>Attributes</u>	<u>Identification</u>	
IT101	350 Alphanumeric characters assigned for differentiation within a transaction set Line Item Counter	O AN 1/2 0
IT102	358 <b>Quantity Invoiced</b>	M R 1/10
IT103	355 <b>Unit of Basis for Measurement Code</b> EA Each KH Kilowatt Hour	M ID 2/2
IT104	212 <b>Unit Price</b>	M R 1/1 4
IT106	235 <b>Product/Service ID Qualifier</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234) SV Service Rendered	X ID 2 / 2
IT107	2 3 4 <b>Product/Service ID</b> Identifying number for a product or service Electric Billing for non-metered items Billing for non-energy items	X AN 1/4 8
IT108	2 3 5 <b>Product/Service ID Qualifier</b> Code identifying the type/source of the descriptive number used in Product/Service ID (234) C3 Classification	X ID 2 / 2
IT109	2 3 4 <b>Product/Service ID</b> Identifying number for a product or service Meter Unmet	X AN 1 / 4 8
IT110	235 <b>Product/Service ID Qualifier</b> Account	

Code identifying the type/source of the descriptive number used in Product/Service ID (234)  
IT 110 and IT111 are used only if IT 109 =METER  
MB Measurement Type Code

**IT111**

**2 3 4 Product/Service ID**

**X AN 1/48**

Identifying number for a product or service

NT =Non - Time of Use Measurement

TOU=Time of Use Measurement

**Segment:** **TXI Tax Information**

**Position:** 040

**Loop:** IT1 Optional

**Level:** Detail

**Usage:** Optional

**Max Use:** 10

**Purpose:** To specify tax information

- Syntax Notes:**
- 1 At least one of TXI02 TXI03 or TXI06 is required.
  - 2 If either TXI04 or TXI05 is present, then the other is required.
  - 3 If TXI08 is present, then TXI03 is required.

- Semantic Notes:**
- 1 TXI02 is the monetary amount of the tax.
  - 2 TXI03 is the tax percent expressed as a decimal.
  - 3 TXI07 is a code indicating the relationship of the price or amount to the associated segment.

**Comments:** **Data Element Summary**

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>
	<u>Des.</u>	<u>Element</u>	
	<u>Attributes</u>		
<b>M</b>	<b>TXI01</b>	<b>9 6 3 Tax Type Code</b>	<b>M ID 2 /2</b>
		Code specifying the type of tax	
		IS State and Local Sales Tax	
	<b>TXI02</b>	<b>782 Monetary Amount</b>	<b>X R 1/18</b>
		Monetary amount	

**Segment: WA Measurements**

**Position:** 0 5 9

**Loop:** IT1 Optional

**Level:** Detail

**Usage:** Optional

**Max Use:** 4 0

**Purpose:** To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of 0001)

**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.

**Data Element Summary**

<u>Ref.</u>	<u>Data</u>	<u>Name</u>
<u>Des.</u>	<u>Element</u>	
<u>Attributes</u>		
<b>MEA1</b>	7 37 <b>Measurement</b>	<b>Reference ID Code 0 ID 2 / 2</b>
	Code identifying the broad category to which a measurement applies	
	AA Meter Reading - Beginning actual/ending actual	
	AE Meter Reading - Beginning actual/ending estimated	
	AV Average Reading	
	EA Meter Reading - Beginning estimated/ending actual	
	FE Meter Reading - Beginning estimated/ending estimated	
	TI Time	
<b>MEA2</b>	<b>7 3 8 Measurement</b>	<b>Qualifier 0 ID 1/3</b>
	MU Multiplier	
	It was generally agreed that the meter multiplier should be shown in its own MEA segment.	
<b>MEA3</b>	<b>739 Measurement</b>	<b>Value A X R 1/20</b>
	The value of the measurement KWH Usage	
<b>MEA4</b>	<b>0001 Composite Unit of Measure</b>	<b>X</b>
	To identify a composite unit of measure (See Figures Appendix for examples)	
<b>M</b>	<b>00010 355 Unit or Basis for Measurement Code</b>	<b>M ID 2 / 2</b>
	Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	

DA Days  
 KH Kilowatt Hour  
 KI Kilowatt Demand  
 Represents potential power load measured at  
 predetermined intervals

**MEA05 740 Range Minimum X R 1/20**

The value specifying the minimum of the measurement range  
 Beginning Read

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

The value specifying the maximum the measurement  
 range  
 Ending Read

**MEA07 935 Measurement Significance Code O ID 2/2**

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

41 Off Peak  
 42 On Peak

**Segment:** REF Reference Identification

**Position:** 120

**Loop:** IT1 Optional

**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:**

**Comments:**

REF04 contains data relating to the value cited in REF02.

	<b>Ref. Des•</b>	<b>Data Element</b>	<b>Data</b>	<b>Element Name</b>	<b>Summary</b>
M	<b>REF01</b>	12 8	<b>Reference Qualifier</b> Code qualifying the Reference Identification MG Meter Number RG Rate Code Number		<b>M ID 2/3</b>
	<b>REF02</b>	127	<b>Reference Identification</b> Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	Identifies an Energy Service Provider Rate Class	<b>X AN 1/30</b>
	<b>REF03</b>	3 5 2	<b>Description</b>		<b>X AN 1/80</b>

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

**Position:** 150

**Loop:** IT1 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:**

**Data Element Summary**

<b>Ref.</b>	<b>Data</b>	<b>Name</b>
<b>Des.</b>	<b>Element</b>	
<b>M</b>	<b>DTM01 3 7 4 Date/Time</b>	<b>M ID 3 /3</b> or both date and time
		Code specifying type of date or time,
		186 Invoice Period Start
		187 634 <b>Date</b> Invoice Period End Next
		Meter Read Date
	<b>DTM02</b>	<b>X DT 8/8</b>
		Date expressed CCYYMMDD.

**Segment: SAC Service, Promotion, Allowance, or Charge Information**

**Position:** 2 30  
**Loop:** SLN Optional  
**Level:** Detail  
**Usage:** Optional

**Max Use:** 2 5

**Purpose:** To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance, or charge

- Syntax Notes:**
- 1 At least one of SAC02 or SAC03 is required.
  - 2 If either SAC03 or SAC04 is present, then the other is required.
  - 3 If either SAC06 or SAC07 is present, then the other is required.
  - 4 If either SAC09 or SAC10 is present, then the other is required.

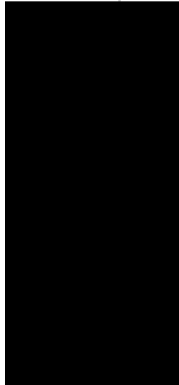
- Semantic Notes:**
- 1 If SAC01 is "A" or "C", then at least one of SAC05, SAC07, or SAC08 is required.
  - 2 SAC05 is the total amount for the service, promotion, allowance, or charge. If SAC05 is present with SAC07 or SAC08, then SAC05 takes precedence.
  - 3 SAC08 is the allowance or charge rate per unit.
  - 4 SAC10 and SAC11 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity. SAC10 and SAC 11 used together indicate a quantity range, which could be a dollar amount, that is applicable to service, promotion, allowance, or charge.

- Comments:**
- 1 SAC04 may be used to uniquely identify the service, promotion, allowance, or charge. In addition, it may be used in conjunction to further the code in SAC02.
  - 2 In some business applications, it is necessary to advise the trading partner of the actual dollar amount that a particular allowance, charge, or promotion was based on to reduce ambiguity. This amount is commonly referred to as "Dollar Basis Amount". It is represented in the SAC segment in SAC10 using the qualifier "DO" - Dollars in SAC09.

**Data Element Summary**

<b>Ref.</b>	<b>Data</b>	<b>Name</b>
<b>M</b>	<b>SAC01 2 4 8</b>	<b>Allowance or Charge Indicator</b>
		<b>M ID 1 / 1</b>
		Code which indicates an allowance or charge for the service specified
	A	Allowance
	C	Charge
<b>SAC03</b>	<b>55 9 Agency Qualifier</b>	<b>Code</b>
		<b>X ID 2/2</b>
		Code identifying the agency assigning the EU code values
<b>SAC04</b>	<b>13 01 Agency Service, Promotion, Allowance, or Charge Code</b>	<b>X AN 1 / 1 0</b>
		Electric Utilities
		Agency maintained code identifying the service, promotion, allowance, or charge
	BAS001	Basic Customer Charge
	CRE004	Transformer Credit
	DMD000	Demand Charge
		Go to SAC15 for Description
	DMD001	Demand Charge

ENO000	Energy Charge
	Go to SAC15 for Description
ENC001	Energy Charge
ENC035	Third Party Procurement Charge Fuel
FUE001	Adjustment
FUE002	Adjustment to On Peak Fuel
FUE003	Adjustment to Off Peak Fuel
GLM001	Interruptible Supply Demand Cr
GLM002	Power Supply Reservation Credit
ODL1	Lighting Services
ODL2	Lighting Services
PFA001	Power Factor Adjustment
SMD000	Sales/Merchandise
	Go to SAC15 for Description

<b>SAC05</b>	<b>610</b>	<b>Amount</b> Monetary amount The code used in SAC01 does not indicate amount in SAC05. The amount shown in either positive or negative; if negative, ", must be transmitted.	<b>0 N2 1/15</b> the sign of the SAC05 may be the minus sign, "-
<b>SAC06</b>	<b>3 7 8</b>	<b>Percent Qualifier</b> Z Mutually Defined	
<b>SAC07</b>	<b>3 3 2</b>	<b>Allowance or Charge Percent</b>	
<b>SAC08</b>	<b>1 1 8</b>	<b>Allowance or Charge Rate</b>	
<b>SAC09</b>	<b>3 5 5</b>	<b>Unit or Basis for Measurement Code</b> ZZ Mutually Defined	
<b>SAC10</b>	<b>3 8 0</b>	<b>Quantity</b>	
<b>SAC15</b>	<b>3 5 2</b>	<b>Description</b> A free-form description to clarify the related data elements and their content	<b>X AN 1/80</b>

**Segment:** N1 **Name**  
**Position:** 240  
**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:** Service Address

#### Data Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>
M	<b>N101</b>	<b>9 8 Entity Identifier Code</b>	<b>M ID 2/3 a</b>
		Code identifying an organizational entity, physical location, property, or an individual Metering location	
	<b>N102</b>	<b>93 Name</b>	<b>X AN 1/60</b>
		Free-form name	

**Segment:** N3 **Address Information**  
**Position:** 260  
**Loop:** N1 Optional  
**Level:** Heading  
**Usage:** Optional  
**Max Use:** 2  
**Purpose:** To specify the location of the names party

**Syntax Notes:**

**Semantic Notes:**

**Comments:**

**Notes:** Service Address

**Data Element Summary**

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

**Segment:** **N4 Geographic**                      **Location**

**Position:**    2 7 0

**Loop:**        N1        Optional

**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.

3 N402 is required only if city name (N401) is in the U.S. or Canada.

**Data Element Summary**

<b>Ref.</b>	<b>Data</b>	<b>Name</b>
<b>Des.</b>	<b>Element</b>	
<b>Attributes</b>		
<b>N401</b>	<b>1 9 City Name</b> Free-form text for city name	<input type="checkbox"/> <b>AN 2/30</b>
<b>N402</b>	<b>156 State or Province Code</b> Code (Standard State/Province) government agency Code defining international postal zone code excluding punctuation and blanks (zip code for United States)	<input type="checkbox"/> <b>ID 2/2</b> as defined by appropriate <input type="checkbox"/> <b>ID 3/15</b>
<b>N404</b>	<b>2 6 Country Code</b>	<input type="checkbox"/> <b>ID 2/3</b> Code identifying the country

**Segment:** TDS Total Monetary Value Summary 010

**Position:**

**Loop:** Summary

**Level:** Mandatory

**Usage:** 1

**Max Use:** To specify the total invoice discounts and amounts

**Purpose:**

**Syntax Notes:**

**Semantic Notes:**

- 1 TDS01 is the total amount of invoice (including charges, less allowances) before terms discount (if discount is applicable).
- 2 TDS2 indicates the amount upon which the terms discount amount is calculated.
- 3 TDS3 is the amount of invoice due if paid by terms discount due date (total invoice or installment amount less cash discount).

- 4 Comments: 1** TDS04 indicates the total amount of terms discount.  
TDS02 is required if the dollar value subject to discount is not equal to the dollar value of TDS01.

#### Data Element Summary Ref.

	Data		Name
	<u>Des. Element</u>		
	<u>Attributes</u>		
M	TDS01 610 Amount		
	Monetary amount		
	TDS02 39 0 Amount Subject to Terms Discount		
	Used for budget billing		

**Segment: SAC Service, Promotion, Allowance, or Charge Information**

**Position:** 040  
**Loop:** SAC Optional  
**Level:** Summary  
**Usage:** Optional

Max Use: 1

**Purpose:** To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance, or charge

- Syntax Notes:**
- 1 At least one of SAC02 or SAC03 is required.
  - 2 If either SAC03 or SAC04 is present, then the other is required.
  - 3 If either SAC06 or SAC07 is present, then the other is required.
  - 4 If either SAC09 or SAC10 is present, then the other is required.

- Semantic Notes:**
- 1 If SAC01 is "A" or "C", then at least one of SAC05, SAC07, or SAC08 is required.
  - 2 SAC05 is the total amount for the service, promotion, allowance, or charge. If SAC05 is present with SAC07 or SAC08, then SAC05 takes precedence.
  - 3 SAC08 is the allowance or charge rate per unit.
  - 4 SAC10 and SAC11 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity. SAC10 and SAC 11 used together indicate a quantity range, which could be a dollar amount. that is applicable to service, promotion, allowance, or charge.

- Comments:**
- 1 SAC04 may be used to uniquely identify the service, promotion, allowance, or charge. In addition, it may be used in conjunction to further the code in SAC02.
  - 2 In some business applications, it is necessary to advise the trading partner of the actual dollar amount that a particular allowance, charge, or promotion was based on to reduce ambiguity. This amount is commonly referred to as "Dollar Basis Amount". It is represented in the SAC segment in SAC10 using the qualifier "DO" - Dollars in SAC09.

Ref.	Data	Data Element Summary	Name
M	<b>SAC01 2 4 8</b>	<b>Allowance or Charge Indicator</b> Code which indicates an allowance or charge service specified A Allowance C Charge	M ID 1 / 1 for the
	<b>SAC03 55 9 Agency Qualifier</b>	<b>Code</b> EU	<b>X ID 2/2</b>
	<b>SAC04 13 01 Agency</b>	<b>Service, Promotion, Allowance, or Charge Code</b> Agency maintained code identifying the promotion, allowance, or charge ADJ000 Adjustment CRE000 Go to SAC15 for Description Credit DAB001 Go to SAC15 for Description Deposit	<b>X AN 1 / 1 0</b>



**Segment:** **TXI Tax Information**

**Position:** 050

**Loop:** SAC Optional

**Level:** Summary

**Usage:** Optional

**Max Use:** 10

**Purpose:** To specify tax information

- Syntax Notes:**
- 1 At least one of TXI02 TXI03 or TXI06 is required.
  - 2 If either TXI04 or TXI05 is present, then the other is required.
  - 3 If TXI08 is present, then TXI03 is required.

- Semantic Notes:**
- 1 TXI02 is the monetary amount of the tax.
  - 2 TXI03 is the tax percent expressed as a decimal.
  - 3 TXI07 is a code indicating the relationship of the price or amount to the associated segment.

**Comments:** **Data Element Summary**

	<b>Ref.</b>	<b>Data</b>	<b>Name</b>
	<b>Des.</b>	<b>Element</b>	
	<b>Attributes</b>		
<b>M</b>	<b>TXI01</b>	<b>9 6 3 Tax Type Code</b>	<b>M ID 2 /2</b>
		Code specifying the type of tax	
		GR Gross Receipts Tax	
		LS State and Local Sales Tax	
		MP Municipal Tax	
		ST State Sales Tax	
<b>TXI02</b>	<b>7 8 2 Monetary Amount</b>		<b>X R 1 /18</b>
		Monetary amount	

**Segment:** C T T Transaction Totals

**Position:** 070

**Loop:**

**Level:** Summary

**Usage:** Optional

**Max Use:** 1

**Purpose:** To transmit a hash total for a specific element in the transaction set

**Syntax Notes:** 1 If either CTT03 or CTT04 is present, then the other is required. is  
2 If either CTT05 or CTT06 is present, then the other required.

**Semantic Notes:**

**Comments:** 1 This segment is intended to provide hash totals to validate transaction completeness and correctness.

**Data Element Summary Ref.**

	<u>Data</u>		<u>Name</u>
	<u>Des. Element</u>		
	<u>Attributes</u>		
M	CTT01	3 5 4 Number of Line Items	M NO 1/6 set
		Total number of line items in the transaction	

**Segment:** SE Transaction Set Trailer  
**Position:** 080  
**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>Des. Element</u>	
		<u>Attributes</u>	
M	SE01	9 6 Number of Included Segments	M NO 1/10
		Total number of segments included in a transaction set including ST and SE segments	
M	SE02	3 2 9 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	

**Segment:** **GE** Functional      **Group Trailer**

**Position:**

**Loop:**

**Level:**


**Usage: Max Use:**

**Purpose:** To indicate the end of a functional group and to provide control information.

**Syntax Notes:**

**Semantic Notes:**

**Comments:**

<b>Data Element Summary Ref.</b>			<b>Name</b>
<b><u>Des. Attributes</u></b>	<b><u>Data Element</u></b>		
<b>GE01</b>	<b>97 Number of Transaction Included</b>	<b>Sets</b>	
<b>GE02</b>	<b>28 Group Control Number</b>		

**Segment: IEA Interchange                      Control                      Trailer**

**Position:**

**Loop:**

**Level:**

**Usage: Max Use:**

**Purpose:** To define the end of an interchange of zero or more functional groups and interchange-related control segments.

**Syntax Notes:**

**Semantic Notes:**

**Comments:**

**Data Element Summary**

<u>Ref.</u>	<u>Data</u>			<u>Name</u>
<u>Des. Element</u>				
<b>ISA01</b>	<b>I16 Number of Included Groups</b>		<b>Functional</b>	<b>M NO 1/5</b>
<b>ISA02</b>	<b>I12 Interchange</b>	<b>Control</b>	<b>Number</b>	<b>M NO 9/9</b>