

**Portland General Electric  
Invoice  
ANSI X12 810 4010  
Customer Commercial Invoice**

Version 1.0  
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**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:**

	<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>
	005	ISA	Interchange Control Header	O	1		
	008	GS	Functional Group Header	O	1		
M	010	ST	Transaction Set Header	M	1		
M	020	BIG	Beginning Segment for Invoice	M	1		
			LOOP ID - N1			200	
	070	N1	Name	O	1		
	090	N3	Address Information	O	2		
	100	N4	Geographic Location	O	1		
	120	PER	Administrative Communications Contact	O	3		
			LOOP ID - N1			1	
	128	N1	Name	O	1		
	129	N2	Additional Name Information	O	1		
	130	N3	Address Information	O	1		
	130	N4	Geographic Location	O	1		
	130	ITD	Terms of Sale/Deferred Terms of Sale	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 - IT1			200000	
	010	IT1	Baseline Item Data (Invoice)	O	1		
	059	MEA	Measurements	O	40		
	120	REF	Reference Identification	O	>1		
	150	DTM	Date/Time Reference	O	10		
			LOOP ID - SLN			1000	
	200	SLN	Subline Item Detail	O	1		
	230	SAC	Service, Promotion, Allowance, or Charge Information	O	25		
			LOOP ID - N1			200	
	240	N1	Name	O	1		
	260	N3	Address Information	O	2		
	270	N4	Geographic Location	O	1		

**Summary:**

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

## Transaction Set Notes

1. 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:** 005

**Loop:**

**Level:** Heading

**Usage:** Optional

**Max Use:** 1

**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. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	ISA01	I01	<b>Authorization Information Qualifier</b> Code to identify the type of information in the Authorization Information Refer to 004010 Data Element Dictionary for acceptable code values.	M ID 2/2
M	ISA02	I02	<b>Authorization Information</b> Information used for additional identification or authorization of the interchange sender or the data in the interchange; the type of information is set by the Authorization Information Qualifier (I01)	M AN 10/10
M	ISA03	I03	<b>Security Information Qualifier</b> Code to identify the type of information in the Security Information Refer to 004010 Data Element Dictionary for acceptable code values.	M ID 2/2
M	ISA04	I04	<b>Security Information</b> This is used for identifying the security information about the interchange sender or the data in the interchange; the type of information is set by the Security Information Qualifier (I03)	M AN 10/10
M	ISA05	I05	<b>Interchange ID Qualifier</b> Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified Refer to 004010 Data Element Dictionary for acceptable code values.	M ID 2/2
M	ISA06	I06	<b>Interchange Sender ID</b> Identification code published by the sender for other parties to use as the receiver ID to route data to them; the sender always codes this value in the sender ID element	M AN 15/15
M	ISA07	I05	<b>Interchange ID Qualifier</b> Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified Refer to 004010 Data Element Dictionary for acceptable code values.	M ID 2/2
M	ISA08	I07	<b>Interchange Receiver ID</b> Identification code published by the receiver of the data; When sending, it is used by the sender as their sending ID, thus other parties sending to them will use this as a receiving ID to route data to them	M AN 15/15
M	ISA09	I08	<b>Interchange Date</b> Date of the interchange	M DT 6/6
M	ISA10	I09	<b>Interchange Time</b> Time of the interchange	M TM 4/4
M	ISA11	I10	<b>Interchange Control Standards Identifier</b> Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer Refer to 004010 Data Element Dictionary for acceptable code values.	M ID 1/1
M	ISA12	I11	<b>Interchange Control Version Number</b>	M ID 5/5

			This version number covers the interchange control segments Refer to 004010 Data Element Dictionary for acceptable code values.	
<b>M</b>	<b>ISA13</b>	<b>I12</b>	<b>Interchange Control Number</b>	<b>M NO 9/9</b>
			A control number assigned by the interchange sender	
<b>M</b>	<b>ISA14</b>	<b>I13</b>	<b>Acknowledgment Requested</b>	<b>M ID 1/1</b>
			Code sent by the sender to request an interchange acknowledgment (TA1)	
			Refer to 004010 Data Element Dictionary for acceptable code values.	
<b>M</b>	<b>ISA15</b>	<b>I14</b>	<b>Usage Indicator</b>	<b>M ID 1/1</b>
			Code to indicate whether data enclosed by this interchange envelope is test, production or information	
			Refer to 004010 Data Element Dictionary for acceptable code values.	
<b>M</b>	<b>ISA16</b>	<b>I15</b>	<b>Component Element Separator</b>	<b>M AN 1/1</b>
			Type is not applicable; the component element separator is a delimiter and not a data element; this field provides the delimiter used to separate component data elements within a composite data structure; this value must be different than the data element separator and the segment terminator	

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

**Position:** 008

**Loop:**

**Level:** Heading

**Usage:** Optional

**Max Use:** 1

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

**Syntax Notes:**

**Semantic Notes:**

- 1 GS04 is the group date.
- 2 GS05 is the group time.
- 3 The data interchange control number GS06 in this header must be identical to the same data element in the associated functional group trailer, GE02.

**Comments:**

- 1 A functional group of related transaction sets, within the scope of X12 standards, consists of a collection of similar transaction sets enclosed by a functional group header and a functional group trailer.

#### Data Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	GS01	479	<b>Functional Identifier Code</b> Code identifying a group of application related transaction sets Refer to 004010 Data Element Dictionary for acceptable code values.	M ID 2/2
M	GS02	142	<b>Application Sender's Code</b> Code identifying party sending transmission; codes agreed to by trading partners	M AN 2/15
M	GS03	124	<b>Application Receiver's Code</b> Code identifying party receiving transmission; codes agreed to by trading partners	M AN 2/15
M	GS04	373	<b>Date</b> Date expressed as CCYYMMDD	M DT 8/8
M	GS05	337	<b>Time</b> 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)	M TM 4/8
M	GS06	28	<b>Group Control Number</b> Assigned number originated and maintained by the sender	M NO 1/9
M	GS07	455	<b>Responsible Agency Code</b> Code used in conjunction with Data Element 480 to identify the issuer of the standard Refer to 004010 Data Element Dictionary for acceptable code values.	M ID 1/2
M	GS08	480	<b>Version / Release / Industry Identifier Code</b> Code indicating the version, release, subrelease, and industry identifier of the EDI standard being used, including the GS and GE segments; if code in DE455 in GS segment is X, then in DE 480 positions 1-3 are the version number; positions 4-6 are the release and subrelease, level of the version; and positions 7-12 are the industry or trade association identifiers (optionally assigned by user); if code in DE455 in GS segment is T, then other formats are allowed Refer to 004010 Data Element Dictionary for acceptable code values.	M AN 1/12

**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:**

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	ST01	143	Transaction Set Identifier Code Code uniquely identifying a Transaction Set Refer to 004010 Data Element Dictionary for acceptable code values.	M ID 3/3
M	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:** **BIG** Beginning Segment for Invoice

**Position:** 020

**Loop:**

**Level:** Heading

**Usage:** Mandatory

**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.
- 2 BIG10 indicates the consolidated invoice number. When BIG07 contains code CI, BIG10 is not used.

**Comments:**

- 1 BIG07 is used only to further define the type of invoice when needed.

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	BIG01	373	<b>Date</b> Date expressed as CCYYMMDD	M DT 8/8
M	BIG02	76	<b>Invoice Number</b> Identifying number assigned by issuer	M AN 1/22
	BIG04	324	<b>Purchase Order Number</b> UTILITY	O AN 1/22
	BIG07	640	<b>Transaction Type Code</b> Code specifying the type of transaction PR Product (or Service)	O ID 2/2
	BIG08	353	<b>Transaction Set Purpose Code</b> Code identifying purpose of transaction set 00 Original	O ID 2/2

**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.

#### Data Element Summary

M	Ref.	Data			Attributes
	<u>Des.</u>	<u>Element</u>	<u>Name</u>		
	N101	98	<b>Entity Identifier Code</b>		<b>M ID 2/3</b>
			Code identifying an organizational entity, a physical location, property or an individual		
			RE Party to receive commercial invoice remittance		
	N102	93	<b>Name</b>		<b>X AN 1/60</b>
			PGE		
	N103	66	<b>Identification Code Qualifier</b>		<b>X ID 1/2</b>
			Code designating the system/method of code structure used for Identification Code (67)		
			9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix		
	N104	67	<b>Identification Code</b>		<b>X AN 2/80</b>
			972084438		

**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**

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
	<u>Des.</u>	<u>Element</u>		
M	N301	166	Address Information PO BOX 4438	M AN 1/55

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

**Position:** 100

**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>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
N401	19	City Name	O AN 2/30
		PORTLAND	
N402	156	State or Province Code	O ID 2/2
		OR	
N403	116	Postal Code	O ID 3/15
		972084438	

**Segment:** **PER** Administrative Communications Contact

**Position:** 120

**Loop:** N1 Optional

**Level:** Heading

**Usage:** Optional

**Max Use:** 3

**Purpose:** To identify a person or office to whom administrative communications should be directed

**Syntax Notes:** 1 If either PER03 or PER04 is present, then the other is required.

**Semantic Notes:**

**Comments:**

**Data Element Summary**

M	Ref.	Data	Name	Attributes
	<u>Des.</u>	<u>Element</u>		
	PER01	366	<b>Contact Function Code</b> Code identifying the major duty or responsibility of the person or group named CR Customer Relations	M ID 2/2
	PER03	365	<b>Communication Number Qualifier</b> Code identifying the type of communication number TE Telephone	X ID 2/2
	PER04	364	<b>Communication Number</b> 18005428818	X AN 1/80

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

**Position:** 128

**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.

#### Data Element Summary

M	Ref.	Data	Name	Attributes	
	<u>Des.</u>	<u>Element</u>		M	ID 2/3
	N101	98	<b>Entity Identifier Code</b>		
			Code identifying an organizational entity, a physical location, property or an individual		
			BT Bill-to-Party		
	N102	93	<b>Name</b>	X	AN 1/60
			Free-form name		
	N103	66	<b>Identification Code Qualifier</b>	X	ID 1/2
			Code designating the system/method of code structure used for Identification Code (67)		
			91 Assigned by Seller or Seller's Agent		
	N104	67	<b>Identification Code</b>	X	AN 2/80
			Code identifying a party or other code		

**Segment:** **N2** Additional Name Information

**Position:** 129

**Loop:** N1 Optional

**Level:** Heading

**Usage:** Optional

**Max Use:** 1

**Purpose:** To specify additional names or those longer than 35 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>	<u>Name</u>	
M	N201	93	Name Free-form name	M AN 1/60

**Segment:** **N3** Address Information

**Position:** 130

**Loop:** N1 Optional

**Level:** Heading

**Usage:** Optional

**Max Use:** 1

**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>		
M	N301	166	Address Information Address information	M AN 1/55



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

**Position:** 130

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

**Segment:** **ITD** **Terms of Sale/Deferred Terms of Sale**  
**Position:** 130  
**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 ITD07 or ITD09 is required and either ITD10 or ITD11 is required; if the code in ITD01 is "05", then ITD06 or ITD07 is required.

Data Element Summary			
Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
ITD01	336	<b>Terms Type Code</b>	O ID 2/2
		Code identifying type of payment terms	
		05 Discount Not Applicable	
ITD02	333	<b>Terms Basis Date Code</b>	O ID 1/2
		Code identifying the beginning of the terms period	
		4 Specified Date	
ITD06	446	<b>Terms Net Due Date</b>	O DT 8/8
		Date when total invoice amount becomes due expressed in format CCYYMMDD	

**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.

**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</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
IT101	350	<b>Assigned Identification</b> Alphanumeric characters assigned for differentiation within a transaction set  BTC001 is KWH and KW BTC002 is KWH BTC003 is KWH, KW and KVAR	O AN 1/20
IT102	358	<b>Quantity Invoiced</b> 0	X R 1/10
IT103	355	<b>Unit or Basis for Measurement Code</b> Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken KH Kilowatt Hour	X ID 2/2
IT104	212	<b>Unit Price</b> 0	X R 1/17
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	234	<b>Product/Service ID</b> ELECTRIC	X AN 1/48

**Segment:** **MEA** **Measurements**

**Position:** 059

**Loop:** IT1 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.

**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**

Ref.	Data	Name	Attributes
Des.	Element		
MEA01	737	<b>Measurement Reference ID Code</b>	<b>O ID 2/2</b>
		Code identifying the broad category to which a measurement applies	
		AA Meter reading-beginning actual/ending actual	
		BD Billed Dimensions	
		EE Meter reading-beginning estimated/ending estimated	
MEA02	738	<b>Measurement Qualifier</b>	<b>O ID 1/3</b>
		Code identifying a specific product or process characteristic to which a measurement applies	
		MU Multiplier	
MEA03	739	<b>Measurement Value</b>	<b>X R 1/20</b>
		The value of the measurement	
MEA04	C001	<b>Composite Unit of Measure</b>	<b>X</b>
		To identify a composite unit of measure (See Figures Appendix for examples of use)	
M	C00101	<b>Unit or Basis for Measurement Code</b>	<b>M ID 2/2</b>
	355	Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	
		EA Each	
		KH Kilowatt Hour	
MEA05	740	<b>Range Minimum</b>	<b>X R 1/20</b>
		The value specifying the minimum of the measurement range	
MEA06	741	<b>Range Maximum</b>	<b>X R 1/20</b>
		The value specifying the maximum of the measurement range	

**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.  
**Semantic Notes:**  
**Comments:**

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	REF01	128	<b>Reference Identification Qualifier</b>	<b>M ID 2/3</b>
			Code qualifying the Reference Identification	
			AA Accounts Receivable Statement Number	
			LU Location Number	
			MG Meter Number	
			RB Rate code number	
	REF02	127	<b>Reference Identification</b>	<b>X AN 1/30</b>
			Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	

**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.

**Semantic Notes:**

**Comments:**

#### Data Element Summary

M	Ref.	Data			Attributes
	<u>Des.</u>	<u>Element</u>	<u>Name</u>		
	DTM01	374	Date/Time Qualifier		M ID 3/3
			Code specifying type of date or time, or both date and time		
			186	Invoice Period Start	
				When the billing period covered by an invoice begins	
			187	Invoice Period End	
				When the billing period covered by an invoice ends	
			514	Transferred	
	DTM02	373	Date		X DT 8/8
			Date expressed as CCYYMMDD		

**Segment:** **SLN Subline Item Detail**

**Position:** 200

**Loop:** SLN Optional

**Level:** Detail

**Usage:** Optional

**Max Use:** 1

**Purpose:** To specify product subline detail item data

**Syntax Notes:**

**Semantic Notes:**

- 1 SLN01 is the identifying number for the subline item.
- 2 SLN02 is the identifying number for the subline level. The subline level is analogous to the level code used in a bill of materials.
- 3 SLN03 is the configuration code indicating the relationship of the subline item to the baseline item.

**Comments:**

- 1 See the Data Element Dictionary for a complete list of IDs.
- 2 SLN01 is related to (but not necessarily equivalent to) the baseline item number. Example: 1.1 or 1A might be used as a subline number to relate to baseline number 1.

**Data Element Summary**

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	SLN01	350	<b>Assigned Identification</b> Alphanumeric characters assigned for differentiation within a transaction set	<b>M AN 1/20</b>
	SLN02	350	<b>Assigned Identification</b> Alphanumeric characters assigned for differentiation within a transaction set	<b>O AN 1/20</b>
M	SLN03	662	<b>Relationship Code</b> Code indicating the relationship between entities A Add	<b>M ID 1/1</b>

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

**Position:** 230

**Loop:** SLN Optional

**Level:** Detail

**Usage:** Optional

**Max Use:** 25

**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 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 SAC10 and SAC11 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity. SAC10 and SAC11 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

M	Ref.	Data	Name		Attributes	
	Des.	Element				
	SAC01	248	<b>Allowance or Charge Indicator</b>		M	ID 1/1
			Code which indicates an allowance or charge for the service specified			
			C	Charge		
			A	Allowance		
	SAC03	559	<b>Agency Qualifier Code</b>		X	ID 2/2
			Code identifying the agency assigning the code values			
			EU	Electric Utilities		
	SAC04	1301	<b>Agency Service, Promotion, Allowance, or Charge Code</b>		X	AN 1/10
			Agency maintained code identifying the service, promotion, allowance, or charge			
			Refer Appendix-A for Charge codes			
	SAC05	610	<b>Amount</b>		O	N2 1/15
			Monetary amount			
	SAC09	355	<b>Unit or Basis for Measurement Code</b>		X	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		
			KH	Kilowatt Hour		
	SAC10	380	<b>Quantity</b>		X	R 1/15
			Numeric value of quantity			
	SAC15	352	<b>Description</b>		X	AN 1/80
			A free-form description to clarify the related data elements and their content			



**Segment:** **N1** Name  
**Position:** 240  
**Loop:** N1 Optional  
**Level:** Detail  
**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.  
**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				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	N101	98	Entity Identifier Code	M ID 2/3
			Code identifying an organizational entity, a physical location, property or an individual	
			MQ Metering Location	
	N102	93	Name	X AN 1/60
			OCCUPANT	

**Segment:** **N3** Address Information

**Position:** 260

**Loop:** N1 Optional

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

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

**Position:** 270

**Loop:** N1 Optional

**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**

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

**Segment:** **TDS** Total Monetary Value Summary  
**Position:** 010  
**Loop:**  
**Level:** Summary  
**Usage:** Mandatory  
**Max Use:** 1  
**Purpose:** To specify the total invoice discounts and amounts  
**Syntax Notes:**  
**Semantic Notes:** 1 TDS01 is the total amount of invoice (including charges, less allowances) before terms discount (if discount is applicable).  
**Comments:**

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	TDS01	610	Amount Monetary amount	M N2 1/15

**Segment:** **TXI** Tax Information  
**Position:** 020  
**Loop:**  
**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.  
**Semantic Notes:** 1 TXI02 is the monetary amount of the tax.  
**Comments:**

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	TXI01	963	<b>Tax Type Code</b>	M ID 2/2
			Code specifying the type of tax	
			CA City Tax Service Tax imposed by City	
			CT County Tax	
	TXI02	782	<b>Monetary Amount</b>	X R 1/18
			Monetary amount	

**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 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 SAC10 and SAC11 is the quantity basis when the allowance or charge quantity is different from the purchase order or invoice quantity. SAC10 and SAC11 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

M	Ref.	Data	Name		Attributes	
	Des.	Element				
	SAC01	248	<b>Allowance or Charge Indicator</b>		M	ID 1/1
			Code which indicates an allowance or charge for the service specified			
			C	Charge		
			A	Allowance		
	SAC03	559	<b>Agency Qualifier Code</b>		X	ID 2/2
			Code identifying the agency assigning the code values			
			EU	Electric Utilities		
	SAC04	1301	<b>Agency Service, Promotion, Allowance, or Charge Code</b>		X	AN 1/10
			Agency maintained code identifying the service, promotion, allowance, or charge			
			Refer Appendix-A for Charge codes			
	SAC05	610	<b>Amount</b>		O	N2 1/15
			Monetary amount			
	SAC09	355	<b>Unit or Basis for Measurement Code</b>		X	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		
	SAC10	380	<b>Quantity</b>		X	R 1/15
			Numeric value of quantity			
	SAC15	352	<b>Description</b>		X	AN 1/80
			A free-form description to clarify the related data elements and their content			

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

Data Element Summary				
	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	CTT01	354	Number of Line Items	M N0 1/6
			Total number of line items in the transaction set	

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



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

**Position:** 090

**Loop:**

**Level:** Summary

**Usage:** Optional

**Max Use:** 1

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

**Syntax Notes:**

**Semantic Notes:** 1 The data interchange control number GE02 in this trailer must be identical to the same data element in the associated functional group header, GS06.

**Comments:** 1 The use of identical data interchange control numbers in the associated functional group header and trailer is designed to maximize functional group integrity. The control number is the same as that used in the corresponding header.

**Data Element Summary**

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	GE01	97	<b>Number of Transaction Sets Included</b> Total number of transaction sets included in the functional group or interchange (transmission) group terminated by the trailer containing this data element	<b>M</b> <b>N0</b> 1/6
M	GE02	28	<b>Group Control Number</b> Assigned number originated and maintained by the sender	<b>M</b> <b>N0</b> 1/9

**Segment:** **IEA** Interchange Control Trailer  
**Position:** 100  
**Loop:**  
**Level:** Summary  
**Usage:** Optional  
**Max Use:** 1  
**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>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	IEA01	I16	<b>Number of Included Functional Groups</b> A count of the number of functional groups included in an interchange	<b>M N0 1/5</b>
M	IEA02	I12	<b>Interchange Control Number</b> A control number assigned by the interchange sender	<b>M N0 9/9</b>

# APPENDIX - A

SAC04	SAC09	SAC15
ODL001	EA	%M Charge for %C Light/s
ODL001	EA	%M Charge for %C Pole/s
ADJ000	KH	102 - Regional Power Act Exchange Credit
ADJ000	KH	102 RPA Exchange Credit (%Q kWh x %I)
ADJ000	KH	105 - Regulatory Adjustments
ADJ000	KH	105 Regulatory Adjustments (%Q kWh x %I)
ADJ000	KH	109 - Energy Efficiency Funding Adjustment
ADJ000	KH	109 Energy Efficiency Funding Adj (%Q kWh x %I)
ADJ000	KH	110 - Energy Efficiency Customer Service
ADJ000	KH	110 Energy Efficiency Customer Svc (%Q kWh x %I)
ADJ000	KH	122 - Renewable Resources Automatic Adjustment Clause
ADJ000	KH	122 - Renewable Resources Automatic Adjustment Clause - Standard
ADJ000	KH	122 Renewable Resource Adjustment (%Q kWh x %I)
ADJ000	KH	123 - Decoupling Adjustment
ADJ000	KH	123 - Decoupling Adjustment - Standard
ADJ000	KH	123 Decoupling Adjustment (%Q kWh x %I)
ADJ000	KH	125 Annual Power Cost Update (%Q kWh x %I)
ADJ000	KH	126 - Annual Power Cost Variance Mechanism
ADJ000	KH	126 Power Cost Variance Mechanism (%Q kWh x %I)
ADJ000	KH	128 - Annual Short-Term Transition Adjustment
ADJ000	KH	128 - Short-Term Transition Adjustment
ADJ000	KH	128 Short-Term Transition Adjust (%Q kWh x %I)
ADJ000	KH	129 Long Term Transition Cost Adj.
ADJ000	KH	129 Long Term Transition Cost Adj. (%Q kWh x %I)
ADJ000	KH	135 Demand Response (%Q kWh x %I)
ADJ000	KH	137 - Customer-Owned Solar Payment Option Cost Recovery Mechanism
ADJ000	KH	137 Solar Payment Option Cost Recov (%Q kWh x %I)
ADJ000	KH	143 - Spent Fuel Adjustment
ADJ000	KH	143 Spent Fuel Adjustment (%Q kWh x %I)
ADJ000	KH	145 - Boardman Power Plant Decommissioning Adjustment
ADJ000	KH	145 Boardman Decommissioning Adj (%Q kWh x %I)
ADJ000	KH	146 - Colstrip Power Plant Life Adjustment
ADJ000	KH	146 Colstrip Power Plant Oper. Life Adj (%Q kWh x %I)
ADJ000	KH	149 - Environmental Remediation Cost Recovery Adjustment
ADJ000	KH	149 Environmental Remediation Cost Recovery Adj(%Q kWh x %I)
ENC003	KH	Average Melded Price - Off Peak kWh
ENC039	KH	Average Melded Price - On Peak kWh

SMD015	EA	Basic Charge
MSC001	EA	Bill Factor Price
MSC000	KH	Calculate Net Usage Volumetric Charges
ODL001	EA	Charge for %C Light/s
ODL001	EA	Charge for %C Pole/s
MSC000	KH	Clean Wind (sm) Green Tags (%Q kWh x %I)
MSC001	EA	Clean Wind Monthly Charge
MSC001	EA	Collection Agency Commission (Rate = %V)
DMD001	K1	Demand Charge %Q
DMD001	K1	Demand Charge %Q KW
DMD001	K1	Demand Charge (%Q KW x %I)
DIS001	K1	Distribution Charge (%Q x %I)
DIS000	KH	Distribution Charge (%Q kWh x %I)
DIS001	K1	Distribution Charge (%Q x %I)
DIS001	K1	Distribution Charge Facility Capacity (%Q KW x %I)
MSC001	EA	EIS Miscellaneous Monthly Fee
MSC001	EA	Employee Discount
ENC001	KH	Energy Charge (%Q kWh x %I)
ENC003	KH	Energy Off-Peak Usage
ENC039	KH	Energy On-Peak Usage
ENC001	KH	Energy Use Charge (%Q kWh x %I)
MSC000	KH	Excess kWh Credit
ENC001	KH	First Block Adjustment (%Q kWh x %I)
MSC001	EA	Green Future Solar
MSC000	KH	Green Source (%Q kWh x %I)
MSC000	KH	Green Source (%Q x %I)
MSC000	KH	Green Source (sm) (%Q kWh x %I)
MSC000	KH	Green Source (sm) (%Q kWh x %I)
MSC001	EA	Habitat Support Charge
SUR07	EA	Low Income Assistance
MSC001	EA	Meter Rental
ENC000	KH	Mid-Peak Usage (%Q kWh x %I)
MSC000	KH	Net Usage Volumetric Charges
MSC001	EA	Net VIR Payment
MSC001	EA	Non-Network Meter Read
DMD006	K1	Off-Peak Demand (%Q KW x %I)
ENC003	KH	Off-Peak Usage (%Q kWh x %I)
ENC003	KH	Off-Peak Usage of (%Q kWh x %I)
ENC003	KH	Off-Peak Usage of (%Q x %I)
DMD007	K1	On-Peak Demand (%Q KW x %I)
ENC039	KH	On-Peak Usage (%Q kWh x %I)
ENC039	KH	On-Peak Usage of (%Q kWh x %I)
MSC024	EA	Public Purpose Charge (%I)
DMD004	K2	Reactive Demand Charge (%Q x %I) Billed KVAR (Reactive Demand of %K Actual KVAR)
RRR003	EA	Sandy UG Conversion Refund

MSC001	EA	Solar Customer Charge
MSC000	KH	Solar Energy Adjustment Credit
MSC001	EA	Subtotal - Adjusting Schedules
MSC001	EA	Subtotal - Employee Discount
MSC001	EA	Subtotal - Energy Charge
MSC001	EA	Subtotal - Energy Charges
MSC001	EA	Subtotal - Light & Pole Charges
MSC001	EA	Subtotal - Other Charges/Credits
MSC001	EA	Subtotal - Renewable Programs
MSC001	EA	Subtotal - Taxes and Fees
ENC001	KH	System Usage Charge
ENC001	KH	System Usage Charge (%Q kWh x %I)
ENC001	KH	System Usage Charge (%Q kWh)
ENC000	KH	Three Period Mid-Peak Usage (%Q kWh x %I)
ENC000	KH	Three Period Off-Peak Usage (%Q kWh x %I)
ENC000	KH	Three Period On-Peak Usage (%Q kWh x %I)
MSC001	EA	Total Gross Amount
MSC001	EA	Total Usage Volumetric Charges
TRN001	K1	Transmission Charge (%Q KW %I)
TRN001	K1	Transmission Charge (%Q KW x %I)
TRN000	KH	Transmission Charge (%Q kWh x %I)
TRN001	K1	Transmission Charge (%Q x %I)
ENC003	KH	Two Period Off-Peak Usage (%Q kWh x %I)
ENC003	KH	Two Period On-Peak Usage (%Q kWh x %I)
DMD001	K1	Wheeling Charge %Q
MSC001	EA	Additional Charge (with rate)
MSC001	EA	Additional Charge
DCS001	EA	After Hours Connection Charge
DCS001	EA	After Hours Connection Charge at Non Meter Base
ADJ002	EA	Area Light Charge Correction
MSC001	EA	Amount Transferred to Bankruptcy
ADJ002	EA	Budget Plan Correction
MSC001	EA	Budget Plan Ended
MSC001	EA	Retirement of capital credits
ADJ002	EA	Charitable Balance Adjustment
MSC001	EA	Change on Effective Date Fee
MSC001	EA	Change principal amount of loan
DCS001	EA	Connection Charge at Non-Meter Base
ADJ002	EA	Bill Correction
ADJ002	EA	Community Solar Adjustment
DCS001	EA	Connection Charge
MSC001	EA	Customer Courtesy Credit
MSC001	EA	ESS Meter Test Charge
MSC001	EA	Deposit Interest Applied
DAB003	EA	Deposit Applied

MSC001	EA	Payment Agreement Down Payment
ADJ002	EA	Time Payment Arrangement Correction
MSC001	EA	Drop Fee
MSC001	EA	ESS Bills All - Billing Credit
MSC001	EA	EDI Testing Fee
MSC001	EA	EIS Training
MSC001	EA	EIS Set Up Fee
ADJ002	EA	Electric Charge Correction
MSC001	EA	Enrollment
MSC001	EA	Usage Recovery Charge
MSC001	EA	ESS Registration Fee
MSC001	EA	Electric vehicle charge event
MSC001	EA	Field Service Charge
MSC001	EA	Appliance repair service charge
MSC001	EA	Historical Usage Request Fee
LPC001	EA	Late Payment Charge
MSC001	EA	Monthly SPO Voucher
MSC001	EA	Meter Tamper Charge
MSC001	EA	Meter Test Charge
MSC001	EA	Meter Verification Fee
MSC001	EA	Wind Net Metering Charge
MSC001	EA	Net Metering Transfer
MSC001	EA	NEST Rush Hour Rewards
ADJ002	EA	Net Transfer Adjustment
RTC001	EA	Non-Sufficient Funds Fee
CRE001	EA	Non-sufficient Funds Fee Reversal
MSC001	EA	Payment Arrangement Balance Unpaid
CRE001	EA	Penalty Fee Reversal
ADJ002	EA	Prepaid current balance adjusted
MSC001	EA	Prepaid payment request
MSC001	EA	Pulse Meter Fee
MSC001	EA	Program Rebate
MSC001	EA	Credit Balance Refund
MSC001	EA	Relocation Fee
ADJ002	EA	Renewable Charge Correction
MSC001	EA	Renewables Self Direction Refund
MSC001	EA	Credit balance to be refunded by check (1099)
MSC001	EA	Prepay Automatic Payment Current=0
MSC001	EA	Overpayment
MSC001	EA	Payment Returned
MSC001	EA	Solar Payment Option Refund
ADJ002	EA	Real Time Pricing Correction
CRE001	EA	Returned Payment Fee Reversal
MSC001	EA	Membership fee
MSC001	EA	Membership fee

ADJ002	EA	SPO Credit Adjustment
ADJ002	EA	Street Light Charge Correction
MSC001	EA	Switch Supplier Charge
ADJ002	EA	Net True-Up Adjustment
ADJ002	EA	SPO True-Up Adjustment (215)
ADJ002	EA	SPO True-Up Adjustment (216)
MSC001	EA	Unauthorized Connection Charge
MSC001	EA	Transfer Amount
MSC001	EA	A/R transfer to service provider