

RHODE ISLAND Electronic Business Transactions Standard

For

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

TRANSACTION SET

810

Usage and Billing Invoice

Ver/Rel 004010

Outbound to Energy Supplier

August 2, 1999

Summary of Changes

Initial Release – Version 99.1

810 Usage and Billing Invoice

Purpose

This Rhode Island EBT Implementation Standard contains the format and establishes the data contents of the Usage and Billing Transaction Set (810) as prescribed by the EBT for use within the context of an Electronic Data Interchange (EDI) environment. The transaction set will be used to provide a detailed statement of usage and billing charges due for utility services for a customer account.

Notes

This Implementation Guideline was designed to address the business processes that occur between a local distribution utility (LDC) and a third-party energy service provider (ESP) in a deregulated, alternative energy supply environment.

The principal parties involved in this Transaction Set 810 implementation are:

- The utility (Code 8S) which provides services to the end use customer on behalf of the ESP
- The ESP (Code SJ) which supplies energy to the end use customer
- The end use customer (Code 8R)

The primary processes addressed by this Transaction Set 810 are:

- Advising the ESP of metered consumption by the customer
- Advising the ESP of amounts billed by the utility on the ESP's behalf

810 Invoice

Best Practices

Global Best Practices

Use of Text Segments

- The note (NTE) segment should 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 NTE Segment

- There are occasions when the utility is required by law or regulation to include messages or notices in all invoices. Under these circumstances, the NTE segment should be used.

Use of the IT1 Segment

- An IT1 loop is used to accumulate all consumption and charge detail for a single meter or service. Each meter or service will be detailed in a separate IT1 loop. Narragansett Electric's account structure allows for only one service per account number. Therefore, the Supplier will receive a separate 810 usage or usage and billing transaction per customer account.

- Each 810 usage or usage and billing transaction can have a maximum of two IT1 Loops. The first IT1 Loop will contain the ACCOUNT level charge/credit information that is not attributed to the specific meter or service and will have the literal 'ACCOUNT' in the IT109 field. The second IT1 Loop will contain the usage information for the account and will have either the literal 'METER' or 'UNMET' in the IT109 field.

(Note: Each 810 Transaction Set will have a maximum of two IT1 Segments).

Use of the MEA Segment

- The MEA segment is used to convey consumption readings for one metering period.

Definitions for MEA07 Measurement Significance Codes

- The metering characteristics of the utility industry require measurement definitions in addition to those found in Data Element 935, *Measurement Significance Code*. The UIG has submitted data maintenance (DM) requests to have these additional definitions added to DE 935 in a future version of the X12 standards. In order to provide these measurement definitions for version 4010 implementations, the UIG has provided UIG-specific definitions for valid DE 935 codes. To assist application developers, who may wish to include the requested future codes in their application logic, the list of non-standard definitions found in MEA07 includes references to the requested codes.

Use of the PID Segment

- The PID segment is used to convey required messages that apply to a particular service only.

Use of the Detail IT1/REF Segment, Position 120

- This segment is used only when the IT1 loop is used to present account information. Trading partners using the meter model (where an IT1 conveys meter charges and usage) should provide the account reference information in the Header REF, position 050.

Use of the SLN Segment

- The IT1/SLN segment is used to overcome the limitation on the number of IT1/SAC loops. In some environments, more than 25 separate charges or allowances are associated with one IT1. Use of the SLN segment provides for a maximum of 1,000 individual SAC and TXI iterations. If and when the 810 are revised to permit more than 25 IT1/SAC loops, this 810 Guideline will be revised to remove the SLN segment.

Values in Element SAC01 and SAC05

· Previous editions of this guideline stated that the amount shown in SAC05 will always be positive and that the code used in SAC01 will indicate whether to add or subtract the SAC05 amount to or from the TDS. As a result of a clarification provided by X12F, it has been determined that the above statement is incorrect; future versions of the UIG guidelines will no longer contain the above statement. The code used in SAC01 does not indicate the sign of the amount in SAC05. The amount shown in SAC05 may be either positive or negative; if negative, the minus sign, “ - “, must be transmitted. Trading partners who have implemented the former guidance regarding SAC01 and SAC05 may continue to follow that guidance or may elect to revise their implementation to conform to the current guidance. New implementations should follow the guidance contained herein.

810 Invoice

Functional Group ID=**IN**

Introduction:

This Standard 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>
Must Use	010	ST	Transaction Set Header	M	1		
Must Use	020	BIG	Beginning Segment for Invoice	M	1		
Must Use	050	REF	Reference Identification	O	12		
LOOP ID - N1						200	
Must Use	070	N1	Name	O	1		
Must Use	140	DTM	Date/Time Reference - Billing Date	O	10		

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	
Must Use	010	IT1	Baseline Item Data (Invoice)	O	1		
	040	TXI	Tax Information	O	10		
	059	MEA	Measurements	O	40		
	120	REF	Reference Identification	O	>1		
Must Use	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		

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>
Must Use	010	TDS	Total Monetary Value Summary	M	1		
	070	CTT	Transaction Totals	O	1		n1
Must Use	080	SE	Transaction Set Trailer	M	1		

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.

810 Invoice

RHODE ISLAND SEGMENT DETAIL GUIDE

Functional Group ID=**IN**

Introduction:

This Standard 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>
Must Use	010	ST	Transaction Set Header	M	1		
Must Use	020	BIG	Beginning Segment for Invoice	M	1		
Must Use	050	REF	Reference Identification - Activity Code	O	1		
Must Use	050	REF	Reference Identification - Billing Option	O	1		
	050	REF	Reference Identification - Billing Cycle	O	1		
LOOP ID - N1 - Distribution						200	
Must Use	070	N1	Name - Distribution Company	O	1		
LOOP ID - N1 - Supplier						200	
Must Use	070	N1	Name - Supplier	O	1		
Must Use	140	DTM	Date/Time Reference - Billing Date	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 - Account Info Loop						200000	
Must Use	010	IT1	Baseline Item Data	O	1		
	040	TXI	Tax Information - Current Sales Tax	O	1		
Must Use	040	TXI	Tax Information - RI Gross Earnings Tax	O	1		
	040	TXI	Tax Information - RI Earnings Tax Credit	O	1		
Must Use	120	REF	Reference Identification - Distribution company Account Number	O	1		
Must Use	120	REF	Reference Identification - Supplier Account Number	O	1		
LOOP ID - SLN - Supplier Arrears						1000	
	200	SLN	Subline Item Detail - Supplier Arrears	O	1		
	230	SAC	Service, Promotion, Allowance, or Charge Information - Supplier Arrears	O	1		
LOOP ID - SLN - Arrears Interest						1000	
	200	SLN	Subline Item Detail - Arrears Interest	O	1		
	230	SAC	Service, Promotion, Allowance, or Charge Information - Arrears Interest	O	1		
LOOP ID - IT1 - Meter Info Loop						200000	
Must Use	010	IT1	Baseline Item Data	O	1		
	059	MEA	Measurements - Total Non TOU	O	1		
	059	MEA	Measurements - Demand Value	O	1		
	059	MEA	Measurements - Peak kWh	O	1		

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059	MEA	Measurements - Peak kW	O	1	
059	MEA	Measurements - Peak kVA	O	1	
059	MEA	Measurements - Off Peak kWh	O	1	
059	MEA	Measurements - Off Peak kW	O	1	
059	MEA	Measurements - Off Peak kVA	O	1	
059	MEA	Measurements - Shoulder kWh	O	1	
059	MEA	Measurements - Shoulder kW	O	1	
059	MEA	Measurements - Shoulder kVA	O	1	
059	MEA	Measurements - Number Non-Metered Units	O	1	
120	REF	Reference Identification - Type of Service	O	1	
120	REF	Reference Identification - Service Identifier	O	1	
120	REF	Reference Identification - Supplier Rate Code	O	1	
120	REF	Reference Identification - Pricing Structure	O	1	
120	REF	Reference Identification - Primary Metering	O	1	
Must Use	150	DTM	Date/Time Reference - Previous Read Date	O	1
Must Use	150	DTM	Date/Time Reference - Current Read Date	O	1
LOOP ID – SLN – Non TOU (Time of Use)				1000	
200	SLN	Subline Item Detail - Non TOU Service	O	1	
230	SAC	Service, Promotion, Allowance, or Charge Information - Non TOU Service	O	1	
LOOP ID – SLN – Current Peak				1000	
200	SLN	Subline Item Detail - Current Peak	O	1	
230	SAC	Service, Promotion, Allowance, or Charge Information - Current Peak	O	1	
LOOP ID – SLN – Current Off-Peak				1000	
200	SLN	Subline Item Detail - Current Off-Peak	O	1	
230	SAC	Service, Promotion, Allowance, or Charge Information - Current Off-Peak	O	1	
LOOP ID – SLN – Current Shoulder				1000	
200	SLN	Subline Item Detail - Current Shoulder	O	1	
230	SAC	Service, Promotion, Allowance, or Charge Information - Current Shoulder	O	1	
LOOP ID – SLN – Current Demand				1000	
200	SLN	Subline Item Detail - Current Demand	O	1	
230	SAC	Service, Promotion, Allowance, or Charge Information - Current Demand	O	1	
LOOP ID – SLN – Current Customer Charge				1000	
200	SLN	Subline Item Detail - Current Customer Charge	O	1	
230	SAC	Service, Promotion, Allowance, or Charge Information - Current Customer Charge	O	1	

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>
Must Use	010	TDS	Total Monetary Value Summary	M	1		
	070	CTT	Transaction Totals	O	1		n1
Must Use	080	SE	Transaction Set Trailer	M	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: **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
Notes: 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).

RI Use: Required
Example: ST*810*0000000001\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	ST01	143	Transaction Set Identifier Code Code uniquely identifying a Transaction Set	M ID 3/3
		810	Invoice Usage & Billing Advice	
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: **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

RI Use: Required
Example: BIG*19990721*1*****PR\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	BIG01	373	Date Date expressed as CCYYMMDD Document creation date	M DT 8/8
Must Use	BIG02	76	Invoice Number Identifying number assigned by issuer The distribution company will send a unique reference identifier for each BIG segment within each "ST" transaction set.	M AN 1/22
Must Use	BIG07	640	Transaction Type Code Code specifying the type of transaction BD Statement of Balance Due PR Product (or Service) Indicates that this is the original transmission of this document.	O ID 2/2

Segment: **REF** Reference Identification - Activity Code
Position: 050
Loop:
Level: Heading
Usage: Optional (Must Use)
Max Use: 1
Purpose: To specify identifying information

RI Use: Required
Example: REF*BE*03\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification	M ID 2/3
			BE Business Activity Activity Code Indicates the characteristics of the usage or usage and billing being reported to the Supplier.	
	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
			Activity Code: 00 = Normal On Cycle Bill 01 = Cancellation 02 = Manual Bill 03 = Final Bill 04 = Off Cycle Bill 05 = No Bill 06 = Estimated On Cycle Bill 07 = Estimated Off Cycle Bill 08 = Late Read/Late Booked	

Segment: **REF** Reference Identification - Billing Option
Position: 050
Loop:
Level: Heading
Usage: Optional (Must Use)
Max Use: 1
Purpose: To specify identifying information

RI Use: Required
Example: REF*BLT*LDC\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification	M ID 2/3
			BLT	Billing Type
				Identifies whether the bill is consolidated by the LDC or whether each party will prepare their own bill. See REF02 for valid values.
	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
			LDC	The distribution company bills the customer for both the distribution company and supplier charges. (Complete Billing)
			DUAL	The distribution company and the supplier bill the customer their own charges with separate bills. (Passthrough Billing)

Segment: **REF** Reference Identification - Billing Cycle
Position: 050
Loop:
Level: Heading
Usage: Optional
Max Use: 1
Purpose: To specify identifying information

RI Use: **Optional**
Example: REF*BF*06\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification	M ID 2/3
			BF Billing Center Identification Billing Cycle. The cycle number when the billing will be prepared.	
	REF02	127	Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier The Billing cycle number (01-21) is required when a Billing Option REF segment record is used indicating that the Distribution Company is responsible for billing both distribution and generation to the end use customer. (REF01 = 'BLT' and REF02 = 'LDC')	X AN 1/30

Segment: **N1** Name - Distribution Company
Position: 070
Loop: N1 Optional (Must Use)
Level: Heading
Usage: Optional (Must Use)
Max Use: 1
Purpose: To identify a party by type of organization, name, and code

RI Use: Required
Example: N1*8S**1*001193655\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	N101	98	Entity Identifier Code Code identifying an organizational entity, a physical location, property or an individual	M ID 2/3
		8S	Consumer Service Provider (CSP) Distribution Company	
	N102	93	Name Free-form name Distribution Company Name (Text)	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	
	N104	67	Identification Code Code identifying a party or other code Distribution Company D-U-N-S Number	X AN 2/80

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Segment: **N1** Name - Supplier
Position: 070
Loop: N1 Optional (Must Use)
Level: Heading
Usage: Optional (Must Use)
Max Use: 1
Purpose: To identify a party by type of organization, name, and code

RI Use: Required
Example: N1*SJ**050020622\

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	M ID 2/3
		SJ Service Provider Supplier	
	N102	93 Name Free-form name Supplier Name (Text)	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	
	N104	67 Identification Code Code identifying a party or other code Supplier D-U-N-S Number	X AN 2/80

Segment: **DTM** Date/Time Reference - Billing Date
Position: 140
Loop:
Level: Heading
Usage: Optional (Must Use)
Max Use: 1
Purpose: To specify pertinent dates and times

RI Use: Required
Example: DTM*434****D8*19990721\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	DTM01	374	Date/Time Qualifier Code specifying type of date or time, or both date and time	M ID 3/3
		434	Statement Used to identify the date the billing document was created.	
	DTM05	1250	Date Time Period Format Qualifier Code indicating the date format, time format, or date and time format	X ID 2/3
		D8	Date Expressed in Format CCYYMMDD	
	DTM06	1251	Date Time Period Expression of a date, a time, or range of dates, times or dates and times	X AN 1/35
			Billing Date	

Segment: **IT1** **Baseline Item Data**
Position: 010
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional (Must Use)
Max Use: 1
Purpose: To specify the basic and most frequently used line item data for the invoice and related transactions

Notes: The typical usage of the IT1 entails including all usage and charges attributed to one meter; in this case, the IT1 loop is qualified with "METER" in the IT108/IT109 pair. In the case where some charges are not attributed to a specific meter, for example, basic customer charge or late payment charge the IT1 loop is qualified with "ACCOUNT" in the IT108/IT109 pair. An 810 invoice may contain both "METER" and "ACCOUNT" IT1 loops.

A Meter IT1 loop can be mapped differently, depending on whether Time-of-Use (TOU) or straight meter measurement is employed. With a TOU measurement, multiple MEA segments will convey the usage, with the MEA07 in each MEA providing the TOU classification. The IT1 loop for a non-TOU or straight meter measurement will contain a single MEA segment with no MEA07.

RI Use: **Required**
Example: IT1*1*****SV*ELECTRIC*C3*ACCOUNT\

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
IT101	350	Assigned Identification Alphanumeric characters assigned for differentiation within a transaction set Sequential number used for the IT1 loop, line item counter	O AN 1/20
IT106	235	Product/Service ID Qualifier Code identifying the type/source of the descriptive number used in Product/Service ID (234) SV Service Rendered	X ID 2/2
IT107	234	Product/Service ID Identifying number for a product or service ELECTRIC	X AN 1/48
IT108	235	Product/Service ID Qualifier Code identifying the type/source of the descriptive number used in Product/Service ID (234) C3 Classification Not a significant code. X12 standards require a valid qualifier be selected in order to place a value in the IT109 field.	X ID 2/2
IT109	234	Product/Service ID Identifying number for a product or service ACCOUNT Indicates that this IT1 loop will contain ACCOUNT level charge/credit information that is not attributed to the specific meter or service.	X AN 1/48

Segment: **TXI** Tax Information - Current Sales Tax
Position: 040
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify tax information
Notes: Taxes included in this position are based on level indicated in IT109 for determining tax charges applicability.

RI Use: Optional
Example: TXI*SU*.75*****A\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	TXI01	963	Tax Type Code Code specifying the type of tax SU Sales and Use Tax RI State Sales and Use Tax	M ID 2/2
	TXI02	782	Monetary Amount Monetary amount Current Sales Tax Amount	X R 1/18
	TXI07	662	Relationship Code Code indicating the relationship between entities A Add The amount in TXI02 should be added when summing the invoice total.	O ID 1/1

Segment: **TXI** Tax Information - RI Gross Earnings Tax
Position: 040
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional (Must Use)
Max Use: 1
Purpose: To specify tax information
Notes: Taxes included in this position are based on level indicated in IT109 for determining tax charges applicability.

RI Use: Optional
Example: TXI*GR*2.25*****A\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	TXI01	963	Tax Type Code Code specifying the type of tax GR Gross Receipts Tax RI Gross Earnings Tax	M ID 2/2
	TXI02	782	Monetary Amount Monetary amount Gross Earnings Tax Amount	X R 1/18
	TXI07	662	Relationship Code Code indicating the relationship between entities A Add The amount in TXI02 should be added when summing the invoice total.	O ID 1/1

Segment: **TXI** Tax Information - RI Earnings Tax Credit
Position: 040
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify tax information
Notes: Taxes included in this position are based on level indicated in IT109 for determining tax charges applicability.

RI Use: Optional
Example: TXI*GR*-3.25*****A\

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
Must Use TXI01	963	Tax Type Code Code specifying the type of tax GR Gross Receipts Tax RI Earnings Tax Credit	M ID 2/2
TXI02	782	Monetary Amount Monetary amount Earnings Tax Credit Amount	X R 1/18
TXI07	662	Relationship Code Code indicating the relationship between entities A Add The amount in TXI02 should be added when summing the invoice total.	O ID 1/1

Segment: **REF** Reference Identification - Distribution company Account Number
Position: 120
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional (Must Use)
Max Use: 1
Purpose: To specify identifying information

RI Use: Required
Example: REF*12*D05312284000\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification	M ID 2/3
		12	Billing Account Distribution Company - Identifies this segment as Distribution Company account number	
	REF02	127	Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Distribution Company - assigned account number for end use customer.	X AN 1/30

Segment: **REF** Reference Identification - Supplier Account Number
Position: 120
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional (Must Use)
Max Use: 1
Purpose: To specify identifying information

RI Use: Required
Example: REF*11*S00000000011\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification	M ID 2/3
			11 Account Number Supplier - Identifies this segment as Supplier account 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
			Supplier's assigned account number for end use customer.	

Segment: **SLN** Subline Item Detail - Supplier Arrears
Position: 200
Loop: SLN Optional
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify product subline detail item data

Notes:
 The IT1/SLN segment is used to overcome a limitation of 25 IT1/SAC loops.
 Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: Optional
Example: SLN*1**A\

Data Element Summary

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

Segment: **SAC** Service, Promotion, Allowance, or Charge Information - Supplier
Arrears
Position: 230
Loop: SLN Optional
Level: Detail
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
Notes: Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: Optional
Example: SAC*C**EU*PRB001*500\

Data Element Summary

Ref.	Data			Attributes
<u>Des.</u>	<u>Element</u>	<u>Name</u>		
Must Use	SAC01	248	Allowance or Charge Indicator Code which indicates an allowance or charge for the service specified	M ID 1/1
		C	Charge The amount in SAC05 should be added when summing the invoice total.	
	SAC03	559	Agency Qualifier Code Code identifying the agency assigning the code values	X ID 2/2
		EU	Electric Utilities Note: When approved by the UIG, 'EU' will change to "UT". Recommendation: Plan for both codes when mapping.	
Must Use	SAC04	1301	Agency Service, Promotion, Allowance, or Charge Code Agency maintained code identifying the service, promotion, allowance, or charge	X AN 1/10
		PRB001	Past Due Balance Amount owed from previous month(s) billings.	
Must Use	SAC05	610	Amount Monetary amount This is a signed data element. Negative numbers must include the minus " - " sign. I.e. -12345 See Document Specific Best Practices Note at the beginning of this guide.	O N2 1/15

Segment: **SLN** Subline Item Detail - Arrears Interest

Position: 200

Loop: SLN Optional

Level: Detail

Usage: Optional

Max Use: 1

Purpose: To specify product subline detail item data

Notes: The IT1/SLN segment is used to overcome a limitation of 25 IT1/SAC loops.

Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: **Optional**

Example: SLN*2**A\

Data Element Summary

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

Segment: **SAC** Service, Promotion, Allowance, or Charge Information - Arrears
Interest
Position: 230
Loop: SLN Optional
Level: Detail
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
Notes: Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: Optional
Example: SAC*C**EU*LPC001*500\

Data Element Summary

Ref.	Data			Attributes
<u>Des.</u>	<u>Element</u>	<u>Name</u>		
Must Use	SAC01	248	Allowance or Charge Indicator Code which indicates an allowance or charge for the service specified	M ID 1/1
		C	Charge The amount in SAC05 should be added when summing the invoice total.	
	SAC03	559	Agency Qualifier Code Code identifying the agency assigning the code values	X ID 2/2
		EU	Electric Utilities Note: When approved by the UIG, 'EU' will change to "UT". Recommendation: Plan for both codes when mapping.	
Must Use	SAC04	1301	Agency Service, Promotion, Allowance, or Charge Code Agency maintained code identifying the service, promotion, allowance, or charge	X AN 1/10
		LPC001	Late Payment Charge Charge assessed on all unpaid past due balances at time of billing.	
Must Use	SAC05	610	Amount Monetary amount	O N2 1/15
			This is a signed data element. Negative numbers must include the minus " - " sign. I.e. -12345 See Document Specific Best Practices Note at the beginning of this guide.	

Segment: **IT1** **Baseline Item Data**

Position: 010

Loop: IT1 Optional (Must Use)

Level: Detail

Usage: Optional (Must Use)

Max Use: 1

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

Notes: The typical usage of the IT1 entails including all usage and charges attributed to one meter; in this case, the IT1 loop is qualified with "METER" in the IT108/IT109 pair. In the case where some charges are not attributed to a specific meter, for example, basic customer charge or late payment charge the IT1 loop is qualified with "ACCOUNT" in the IT108/IT109 pair. An 810 invoice may contain both "METER" and "ACCOUNT" IT1 loops.

A Meter IT1 loop can be mapped differently, depending on whether Time-of-Use (TOU) or straight meter measurement is employed. With a TOU measurement, multiple MEA segments will convey the usage, with the MEA07 in each MEA providing the TOU classification. The IT1 loop for a non-TOU or straight meter measurement will contain a single MEA segment with no MEA07.

RI Use: **Required**

Example: IT1*2*****SV*ELECTRIC*C3*METER*MB*NT*EQ*NR\

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
IT101	350	Assigned Identification	O AN 1/20
		Alphanumeric characters assigned for differentiation within a transaction set	
		Sequential number used for the IT1 loop, line item counter	
IT106	235	Product/Service ID Qualifier	X ID 2/2
		Code identifying the type/source of the descriptive number used in Product/Service ID (234)	
		SV Service Rendered	
IT107	234	Product/Service ID	X AN 1/48
		Identifying number for a product or service	
		ELECTRIC	
IT108	235	Product/Service ID Qualifier	X ID 2/2
		Code identifying the type/source of the descriptive number used in Product/Service ID (234)	
		C3 Classification	
		Not a significant code. X12 standards require a valid qualifier be selected in order to place a value in the IT109 field.	
IT109	234	Product/Service ID	X AN 1/48
		Identifying number for a product or service	
		METER Metered Service Information	
		UNMET Unmetered Service Information	
IT110	235	Product/Service ID Qualifier	X ID 2/2
		Code identifying the type/source of the descriptive number used in Product/Service ID (234)	
		IT110 and IT111 are used only if IT109 = METER	
		MB Measurement Type Code	
IT111	234	Product/Service ID	X AN 1/48
		Identifying number for a product or service	
		NT Non - Time of Use Measurement	

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		TOU	Time of Use Measurement	
IT112	235	Product/Service ID Qualifier		X ID 2/2
		Code identifying the type/source of the descriptive number used in Product/Service ID (234)		
		IT112 and IT113 are used to indicate that consumption will be provided but the actual meter readings will not be provided.		
		EQ	Equipment Type	
IT113	234	Product/Service ID		X AN 1/48
		Identifying number for a product or service		
		NR = No reads will be presented		

Segment: **MEA** Measurements - Total Non TOU
Position: 059
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)

RI Use: **Optional**
Example: MEA ***750*KH***51\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	MEA03	739	Measurement Value The value of the measurement Actual usage or Demand Value	X R 1/20
	MEA04	C001	Composite Unit of Measure To identify a composite unit of measure (See Figures Appendix for examples of use)	X
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
			KH Kilowatt Hour	
Must Use	MEA07	935	Measurement Significance Code Code used to benchmark, qualify or further define a measurement value	O ID 2/2
			51 Total Total kWh energy consumption for the period.	

Segment: **MEA** Measurements - Demand Value
Position: 059
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)

RI Use: Optional
Example: MEA***750*K1***62\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	MEA03	739	Measurement Value The value of the measurement Actual usage or Demand Value	X R 1/20
	MEA04	C001	Composite Unit of Measure To identify a composite unit of measure (See Figures Appendix for examples of use)	X
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
		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.	
Must Use	MEA07	935	Measurement Significance Code Code used to benchmark, qualify or further define a measurement value	O ID 2/2
		62	Current	

Segment: **MEA** Measurements - Peak kWh
Position: 059
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)

RI Use: **Optional**
Example: MEA***28750*KH***42\

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	MEA03	739	Measurement Value The value of the measurement Actual usage or Demand Value	X R 1/20
	MEA04	C001	Composite Unit of Measure To identify a composite unit of measure (See Figures Appendix for examples of use)	X
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 KH Kilowatt Hour	M ID 2/2
Must Use	MEA07	935	Measurement Significance Code Code used to benchmark, qualify or further define a measurement value 42 On Peak Total kWh energy consumption for the peak period, as defined in the distribution company rates & tariffs.	O ID 2/2

Segment: **MEA** Measurements - Peak kW
Position: 059
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)

RI Use: **Optional**
Example: MEA***25.1*K1***42\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	MEA03	739	Measurement Value The value of the measurement Actual usage or Demand Value	X R 1/20
	MEA04	C001	Composite Unit of Measure To identify a composite unit of measure (See Figures Appendix for examples of use)	X
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 K1 Kilowatt Demand	M ID 2/2
	MEA07	935	Measurement Significance Code Code used to benchmark, qualify or further define a measurement value 42 On Peak Kilowatt demand during on-peak period, as defined in the distribution company rates & tariffs.	O ID 2/2

Segment: **MEA** Measurements - Peak kVA
Position: 059
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)

RI Use: **Optional**
Example: MEA***50.1*K2***42\

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
Must Use MEA03	739	Measurement Value The value of the measurement Actual usage or Demand Value	X R 1/20
MEA04	C001	Composite Unit of Measure To identify a composite unit of measure (See Figures Appendix for examples of use)	X
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 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.	M ID 2/2
Must Use MEA07	935	Measurement Significance Code Code used to benchmark, qualify or further define a measurement value 42 On Peak Kilovolt amperes reactive demand during on-peak period, as defined in distribution company rates & tariffs.	O ID 2/2

Segment: **MEA** Measurements - Off-peak kWh
Position: 059
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)

RI Use: Optional
Example: MEA***6250*KH***41\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	MEA03	739	Measurement Value The value of the measurement Actual usage or Demand Value	X R 1/20
	MEA04	C001	Composite Unit of Measure To identify a composite unit of measure (See Figures Appendix for examples of use)	X
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
			KH Kilowatt Hour	
Must Use	MEA07	935	Measurement Significance Code Code used to benchmark, qualify or further define a measurement value	O ID 2/2
			41 Off Peak Total kWh energy consumption for the off-peak period, as defined in the distribution company rates & tariffs.	

Segment: **MEA** Measurements - Off-peak kW
Position: 059
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)

RI Use: **Optional**
Example: MEA***15.5*K1***41\

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	MEA03	739	Measurement Value The value of the measurement Actual usage or Demand Value	X R 1/20
	MEA04	C001	Composite Unit of Measure To identify a composite unit of measure (See Figures Appendix for examples of use)	X
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
Must Use	MEA07	935	Measurement Significance Code Code used to benchmark, qualify or further define a measurement value	O ID 2/2
		41	Off Peak Kilowatt demand during off-peak period, as defined in the distribution company rates & tariffs.	

Segment: **MEA** Measurements - Off-peak kVA
Position: 059
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)

RI Use: Optional
Example: MEA***30.2*K2***41\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	MEA03	739	Measurement Value The value of the measurement Actual usage or Demand Value	X R 1/20
	MEA04	C001	Composite Unit of Measure To identify a composite unit of measure (See Figures Appendix for examples of use)	X
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
Must Use	MEA07	935	K2 Kilovolt Amperes Reactive Demand Measurement Significance Code Code used to benchmark, qualify or further define a measurement value 41 Off Peak Kilovolt amperes reactive demand during off-peak period, as defined in distribution company rates & tariffs.	O ID 2/2

Segment: **MEA** Measurements - Shoulder kWh
Position: 059
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)

RI Use: **Optional**
Example: MEA***750*KH***66\

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	MEA03	739	Measurement Value The value of the measurement Actual usage or Demand Value	X R 1/20
	MEA04	C001	Composite Unit of Measure To identify a composite unit of measure (See Figures Appendix for examples of use)	X
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
			KH Kilowatt Hour	
Must Use	MEA07	935	Measurement Significance Code Code used to benchmark, qualify or further define a measurement value	O ID 2/2
			66 Sales Total kWh energy consumption for the shoulder period, as defined in the distribution company rates & tariffs.	

Segment: **MEA** Measurements - Shoulder kW
Position: 059
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)

RI Use: **Optional**
Example: MEA***750*K1***66\

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	MEA03	739	Measurement Value The value of the measurement Actual usage or Demand Value	X R 1/20
	MEA04	C001	Composite Unit of Measure To identify a composite unit of measure (See Figures Appendix for examples of use)	X
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
		K1	Kilowatt Demand Represents potential power load measured at predetermined intervals.	
Must Use	MEA07	935	Measurement Significance Code Code used to benchmark, qualify or further define a measurement value	O ID 2/2
		66	Sales Kilowatt demand during shoulder period, as defined in the distribution company rates & tariffs.	

Segment: **MEA** Measurements - Shoulder kVA
Position: 059
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)

RI Use: **Optional**
Example: MEA***750*K2***66\

Data Element Summary

	Ref. Des.	Data Element	Name	Attributes
Must Use	MEA03	739	Measurement Value The value of the measurement Actual usage or Demand Value	X R 1/20
	MEA04	C001	Composite Unit of Measure To identify a composite unit of measure (See Figures Appendix for examples of use)	X
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 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.	M ID 2/2
Must Use	MEA07	935	Measurement Significance Code Code used to benchmark, qualify or further define a measurement value 66 Sales Kilovolt amperes reactive demand during shoulder period, as defined in distribution company rates & tariffs.	O ID 2/2

Segment: **MEA** Measurements - Number Non-Metered Units
Position: 059
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)

RI Use: **Optional**
Example: MEA*BC**600*UN\

Data Element Summary

Ref.	Data	Name	Attributes
<u>Des.</u>	<u>Element</u>		
MEA01	737	Measurement Reference ID Code Code identifying the broad category to which a measurement applies	O ID 2/2
		BC Billed Actual Non-Metered unit identifier.	
MEA03	739	Measurement Value The value of the measurement	X R 1/20
		Number of Non-Metered Units	
MEA04	C001	Composite Unit of Measure To identify a composite unit of measure (See Figures Appendix for examples of use)	X
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
		UN Unit	

Segment: **REF** Reference Identification - Type of Service
Position: 120
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify identifying information

RI Use: **Optional**
Example: REF*PRT*A\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification	M ID 2/3
			PRT Product Type Identifies the type of service being provided	
	REF02	127	Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Used to identify the means by which service is provided to the customer. It may also identify the type of metering installed or the type of unmetered service being provided to the customer. Values are: A = Apply to All Services C = Combined Service (multiple meters billed as a Summary) D = Metered Service Demand & kWh E = Metered Service kWh F = Metered Service TOU - Off Peak H = Controlled Hot Water L = Lighting Service N = Non-Metered Service O = Metered Service TOU - On Peak T = Metered Service TOU	X AN 1/30

Segment: **REF** Reference Identification - Service Identifier
Position: 120
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify identifying information

Notes: Some systems offer multiple types of services to a particular account. This Reference Segment is used in conjunction with the Type of Service Reference Segment to identify the specific service referenced by the transaction. Typically it contains a meter number or other designation depending on the type of service.

RI Use: Optional
Example: REF*MG*999999\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification MG Meter Number	M ID 2/3
			Identifies a specific service.	
	REF02	127	Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier The reference identification could be a meter number or other service code or number, used in the Distribution Company systems to identify this particular device or service.	X AN 1/30

Segment: **REF** Reference Identification - Supplier Rate Code
Position: 120
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify identifying information

RI Use: **Optional**
Example: REF*RB*R16\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification	M ID 2/3
			RB Rate code number Identifies the Suppliers rate class	
	REF02	127	Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Supplier's Rate Class Code. Used for complete billing. Codes must be defined by Supplier and programmed by the Distribution Company prior to billing.	X AN 1/30

Segment: **REF** Reference Identification - Pricing Structure
Position: 120
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify identifying information

RI Use: Optional
Example: REF*PR*000001\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification	M ID 2/3
			PR Price Quote Number Identifies a unit pricing category under a supplier rate code for the customer.	
	REF02	127	Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Unit pricing category code. Used for complete billing. Codes must be defined by Supplier and programmed by Distribution Company prior to billing.	X AN 1/30

Segment: **REF** Reference Identification - Primary Metering
Position: 120
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify identifying information
Notes: This Reference segment is used to tell the Supplier if the Distribution Company provides service to the Customer at primary voltage.

RI Use: Optional
Example: REF*QY*Y\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification QY Service Performed Code Identifies if the customer is serviced with primary voltage or not	M ID 2/3
	REF02	127	Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Primary Metering Indicator Options are: Y = Primary Metering N = No Primary Metering Space = No Primary Metering	X AN 1/30

Segment: **DTM** Date/Time Reference - Previous Read Date

Position: 150

Loop: IT1 Optional (Must Use)

Level: Detail

Usage: Optional (Must Use)

Max Use: 1

Purpose: To specify pertinent dates and times

Notes: This segment is required for all services.
The date the metered usage amount was determined for the previous billing period.
It is also the start date for the current period.

RI Use: Required

Example: DTM*150**** D8*19990621\

Data Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
	<u>Des.</u>	<u>Element</u>		
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	
	DTM05	1250	Date Time Period Format Qualifier Code indicating the date format, time format, or date and time format	X ID 2/3
		D8	Date Expressed in Format CCYYMMDD	
	DTM06	1251	Date Time Period Expression of a date, a time, or range of dates, times or dates and times	X AN 1/35
			Date meter was previously read.	

Segment: **DTM** Date/Time Reference - Current Read Date
Position: 150
Loop: IT1 Optional (Must Use)
Level: Detail
Usage: Optional (Must Use)
Max Use: 1
Purpose: To specify pertinent dates and times
Notes: The date the metered usage amount was determined for the current billing period.
 It is also the end date for the period.

RI Use: Required
Example: DTM*151***D8*19990721\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	DTM01	374	Date/Time Qualifier Code specifying type of date or time, or both date and time	M ID 3/3
			151 Service Period End	
	DTM05	1250	Date Time Period Format Qualifier Code indicating the date format, time format, or date and time format	X ID 2/3
			D8 Date Expressed in Format CCYYMMDD	
	DTM06	1251	Date Time Period Expression of a date, a time, or range of dates, times or dates and times	X AN 1/35
			Date meter was read.	

Segment: **SLN** Subline Item Detail - Non TOU Service

Position: 200

Loop: SLN Optional

Level: Detail

Usage: Optional

Max Use: 1

Purpose: To specify product subline detail item data

Notes: The IT1/SLN segment is used to overcome a limitation of 25 IT1/SAC loops.

Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: **Optional**

Example: SLN*3**A\

Data Element Summary

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

Segment: **SAC** Service, Promotion, Allowance, or Charge Information - Non TOU
Service
Position: 230
Loop: SLN Optional
Level: Detail
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
Notes: Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: **Optional**
Example: SAC*C**EU*ENC001*5034\

Data Element Summary

Ref.	Data			Attributes
Des.	Element	Name		
Must Use	SAC01	248	Allowance or Charge Indicator Code which indicates an allowance or charge for the service specified	M ID 1/1
		C	Charge The amount in SAC05 should be added when summing the invoice total.	
	SAC03	559	Agency Qualifier Code Code identifying the agency assigning the code values	X ID 2/2
		EU	Electric Utilities Note: When approved by the UIG, 'EU' will change to "UT". Recommendation: Plan for both codes when mapping.	
Must Use	SAC04	1301	Agency Service, Promotion, Allowance, or Charge Code Agency maintained code identifying the service, promotion, allowance, or charge	X AN 1/10
		ECN001	Energy Charges Charges for energy used.	
Must Use	SAC05	610	Amount Monetary amount	O N2 1/15
			This is a signed data element. Negative numbers must include the minus " - " sign. I.e. -12345 See Document Specific Best Practices Note at the beginning of this guide.	

Segment: **SLN** Subline Item Detail - Current Peak
Position: 200
Loop: SLN Optional
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify product subline detail item data
Notes: The IT1/SLN segment is used to overcome a limitation of 25 IT1/SAC loops.
 Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: **Optional**
Example: SLN*4**A\

Data Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
Must Use	SLN01	350	Assigned Identification Alphanumeric characters assigned for differentiation within a transaction set Sequential SLN loop counting number.	M AN 1/20
Must Use	SLN03	662	Relationship Code Code indicating the relationship between entities A Add	M ID 1/1

Segment: **SAC** Service, Promotion, Allowance, or Charge Information - Current Peak

Position: 230

Loop: SLN Optional

Level: Detail

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

Notes: Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: Optional

Example: SAC*C**EU*ENC037*1205\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	SAC01	248	Allowance or Charge Indicator Code which indicates an allowance or charge for the service specified C Charge The amount in SAC05 should be added when summing the invoice total.	M ID 1/1
	SAC03	559	Agency Qualifier Code Code identifying the agency assigning the code values EU Electric Utilities Note: When approved by the UIG, 'EU' will change to "UT". Recommendation: Plan for both codes when mapping.	X ID 2/2
Must Use	SAC04	1301	Agency Service, Promotion, Allowance, or Charge Code Agency maintained code identifying the service, promotion, allowance, or charge ENC037 Peak Charge Charge for energy used during on peak hours.	X AN 1/10
Must Use	SAC05	610	Amount Monetary amount This is a signed data element. Negative numbers must include the minus " - " sign. I.e. -12345 See Document Specific Best Practices Note at the beginning of this guide.	O N2 1/15

Segment: **SLN** Subline Item Detail - Current Off-Peak

Position: 200

Loop: SLN Optional

Level: Detail

Usage: Optional

Max Use: 1

Purpose: To specify product subline detail item data

Notes: The IT1/SLN segment is used to overcome a limitation of 25 IT1/SAC loops.

Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: **Optional**

Example: SLN*5**A\

Data Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
Must Use	SLN01	350	Assigned Identification Alphanumeric characters assigned for differentiation within a transaction set	M AN 1/20
			Sequential SLN loop counting number.	
Must Use	SLN03	662	Relationship Code Code indicating the relationship between entities	M ID 1/1
			A	Add

Segment: **SAC** Service, Promotion, Allowance, or Charge Information - Current Off-Peak

Position: 230

Loop: SLN Optional

Level: Detail

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

Notes: Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: Optional

Example: SAC*C**EU*ENC003*5000\

Data Element Summary

Ref.	Data			Attributes
<u>Des.</u>	<u>Element</u>	<u>Name</u>		
Must Use	SAC01	248	Allowance or Charge Indicator Code which indicates an allowance or charge for the service specified	M ID 1/1
		C	Charge The amount in SAC05 should be added when summing the invoice total.	
	SAC03	559	Agency Qualifier Code Code identifying the agency assigning the code values	X ID 2/2
		EU	Electric Utilities Note: When approved by the UIG, 'EU' will change to "UT". Recommendation: Plan for both codes when mapping.	
Must Use	SAC04	1301	Agency Service, Promotion, Allowance, or Charge Code Agency maintained code identifying the service, promotion, allowance, or charge	X AN 1/10
		ENC003	Off Peak Charge Charge for energy used during off peak hours.	
Must Use	SAC05	610	Amount Monetary amount	O N2 1/15
			This is a signed data element. Negative numbers must include the minus " - " sign. I.e. -12345 See Document Specific Best Practices Note at the beginning of this guide.	

Segment: **SLN** Subline Item Detail - Current Shoulder
Position: 200
Loop: SLN Optional
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify product subline detail item data
Notes: The IT1/SLN segment is used to overcome a limitation of 25 IT1/SAC loops.

Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: Optional
Example: SLN*6**A\

Data Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	SLN01	350	Assigned Identification	Alphanumeric characters assigned for differentiation within a transaction set	M AN 1/20
				Sequential SLN loop counting number.	
Must Use	SLN03	662	Relationship Code	Code indicating the relationship between entities	M ID 1/1
			A	Add	

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

Shoulder

Position: 230

Loop: SLN Optional

Level: Detail

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

Notes: Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: Optional

Example: SAC*C**EU*END038*400\

Data Element Summary

Ref.	Data			Attributes
<u>Des.</u>	<u>Element</u>	<u>Name</u>		
Must Use	SAC01	248	Allowance or Charge Indicator Code which indicates an allowance or charge for the service specified	M ID 1/1
		C	Charge The amount in SAC05 should be added when summing the invoice total.	
	SAC03	559	Agency Qualifier Code Code identifying the agency assigning the code values	X ID 2/2
		EU	Electric Utilities Note: When approved by the UIG, 'EU' will change to "UT". Recommendation: Plan for both codes when mapping.	
Must Use	SAC04	1301	Agency Service, Promotion, Allowance, or Charge Code Agency maintained code identifying the service, promotion, allowance, or charge	X AN 1/10
		ENC038	Shoulder Charge	
Must Use	SAC05	610	Amount Monetary amount	O N2 1/15
			This is a signed data element. Negative numbers must include the minus " - " sign. I.e. -12345 See Document Specific Best Practices Note at the beginning of this guide.	

Segment: **SLN** Subline Item Detail - Current Demand
Position: 200
Loop: SLN Optional
Level: Detail
Usage: Optional
Max Use: 1
Purpose: To specify product subline detail item data
Notes: The IT1/SLN segment is used to overcome a limitation of 25 IT1/SAC loops.

Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: Optional
Example: SLN*7**A\

Data Element Summary

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

Segment: **SAC** Service, Promotion, Allowance, or Charge Information - Current
Demand
Position: 230
Loop: SLN Optional
Level: Detail
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
Notes: Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: Optional
Example: SAC*C**EU*DMD001*450\

Data Element Summary

Ref.	Data			
<u>Des.</u>	<u>Element</u>	<u>Name</u>		<u>Attributes</u>
Must Use	SAC01	248	Allowance or Charge Indicator Code which indicates an allowance or charge for the service specified	M ID 1/1
		C	Charge The amount in SAC05 should be added when summing the invoice total.	
	SAC03	559	Agency Qualifier Code Code identifying the agency assigning the code values	X ID 2/2
		EU	Electric Utilities Note: When approved by the UIG, 'EU' will change to "UT". Recommendation: Plan for both codes when mapping.	
Must Use	SAC04	1301	Agency Service, Promotion, Allowance, or Charge Code Agency maintained code identifying the service, promotion, allowance, or charge	X AN 1/10
		DMD001	Demand Charge Billing demand taken each month as the highest interval(s) registration.	
Must Use	SAC05	610	Amount Monetary amount	O N2 1/15
			This is a signed data element. Negative numbers must include the minus " - " sign. I.e. -12345 See Document Specific Best Practices Note at the beginning of this guide.	

Segment: **SLN** Subline Item Detail - Current Customer Charge

Position: 200

Loop: SLN Optional

Level: Detail

Usage: Optional

Max Use: 1

Purpose: To specify product subline detail item data

Notes: The IT1/SLN segment is used to overcome a limitation of 25 IT1/SAC loops.

Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: **Optional**

Example: SLN*8**A\

Data Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
Must Use	SLN01	350	Assigned Identification Alphanumeric characters assigned for differentiation within a transaction set Sequential SLN loop counting number.	M AN 1/20
Must Use	SLN03	662	Relationship Code Code indicating the relationship between entities A Add	M ID 1/1

Segment: **SAC** Service, Promotion, Allowance, or Charge Information - Current
Customer Charge

Position: 230
Loop: SLN Optional
Level: Detail
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

Notes: Each SLN loop will contain only one SAC. Multiple charges/allowances require multiple SLN loops.

RI Use: **Optional**
Example: SAC*C**EU*BAS001*1500\

Data Element Summary

Ref.	Data			Attributes
<u>Des.</u>	<u>Element</u>	<u>Name</u>		
Must Use	SAC01	248	Allowance or Charge Indicator Code which indicates an allowance or charge for the service specified	M ID 1/1
		C	Charge The amount in SAC05 should be added when summing the invoice total.	
	SAC03	559	Agency Qualifier Code Code identifying the agency assigning the code values	X ID 2/2
		EU	Electric Utilities Note: When approved by the UIG, 'EU' will change to "UT". Recommendation: Plan for both codes when mapping.	
Must Use	SAC04	1301	Agency Service, Promotion, Allowance, or Charge Code Agency maintained code identifying the service, promotion, allowance, or charge	X AN 1/10
		BAS001	Basic Customer Administrative Charge Charge associated with the monthly cost of maintaining, reading, etc. Customers Account.	
Must Use	SAC05	610	Amount Monetary amount	O N2 1/15
			This is a signed data element. Negative numbers must include the minus " - " sign. I.e. -12345 See Document Specific Best Practices Note at the beginning of this guide.	

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

Notes: TDS01 is the total amount due for this invoice and must equal the algebraic sum of the amounts in the TXI02 and SAC05 segments. If this amount is negative, send the minus sign.

RI Use: Required
Example: TDS*14564\

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
Must Use	TDS01	610	Amount Monetary amount	M N2 1/15
Total billed dollar amount for suppliers				

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

RI Use: Required
Example: CTT*2\

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	M N0 1/6
			Total number of line items in the transaction set	
			The number of IT1 segments in this 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)

RI Use: Required
Example: SE*0000000052*000000001\

Data Element Summary

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