

810**Invoice****Functional Group=IN**

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</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>
010	ST	Transaction Set Header	M	1		
020	BIG	Beginning Segment for Invoice	M	1		
030	NTE	Note/Special Instruction	O	100		
050	REF	Reference Identification	O	12		
LOOP ID - N1					200	
070	N1	Name	O	1		
080	N2	Additional Name Information	O	2		
090	N3	Address Information	O	2		
100	N4	Geographic Location	O	1		
120	PER	Administrative Communications Contact	O	3		
130	ITD	Terms of Sale/Deferred Terms of Sale	O	>1		
212	BAL	Balance Detail	O	>1		

Detail:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>
LOOP ID - IT1					200000	
010	IT1	Baseline Item Data (Invoice)	O	1000		
040	TXI	Tax Information	O	10		
059	MEA	Measurements	O	40		
120	REF	Reference Identification	O	>1		
150	DTM	Date/Time Reference	O	10		
LOOP ID - SAC					25	
180	SAC	Service, Promotion, Allowance, or Charge Information	O	1		
LOOP ID - N1					200	
240	N1	Name	O	1		
250	N2	Additional Name Information	O	2		
260	N3	Address Information	O	2		
270	N4	Geographic Location	O	1		

Summary:

<u>Pos</u>	<u>Id</u>	<u>Segment Name</u>	<u>Req</u>	<u>Max Use</u>	<u>Repeat</u>	<u>Notes</u>
010	TDS	Total Monetary Value Summary	M	1		
070	CTT	Transaction Totals	O	1		N3/070
080	SE	Transaction Set Trailer	M	1		

Notes:

3/070 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.

ST Transaction Set Header

Pos: 010	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 2

To indicate the start of a transaction set and to assign a control number

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
ST01	143	Transaction Set Identifier Code Description: Code uniquely identifying a Transaction Set	M	ID	3/3
		<u>Code</u> <u>Name</u> 810 Invoice			
ST02	329	Transaction Set Control Number Description: 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

User Note 1:

ST*810*0004

BIG Beginning Segment for Invoice

Pos: 020	Max: 1
Heading - Mandatory	
Loop: N/A	Elements: 5

To indicate the beginning of an invoice transaction set and transmit identifying numbers and dates

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>						
BIG01	373	Date Description: Date expressed as CCYYMMDD	M	DT	8/8						
BIG02	76	Invoice Number Description: Identifying number assigned by issuer User Note 1: <i>Invoice Number is Account number plus date</i>	M	AN	1/22						
BIG04	324	Purchase Order Number Description: Identifying number for Purchase Order assigned by the orderer/purchaser User Note 1: <i>Value 'UTILITY'</i>	O	AN	1/22						
BIG07	640	Transaction Type Code Description: Code specifying the type of transaction <table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>FB</td> <td>Final Bill</td> </tr> <tr> <td>PR</td> <td>Product (or Service)</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	FB	Final Bill	PR	Product (or Service)	O	ID	2/2
<u>Code</u>	<u>Name</u>										
FB	Final Bill										
PR	Product (or Service)										
BIG08	353	Transaction Set Purpose Code Description: Code identifying purpose of transaction set <table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>00</td> <td>Original</td> </tr> <tr> <td>CO</td> <td>Corrected</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	00	Original	CO	Corrected	O	ID	2/2
<u>Code</u>	<u>Name</u>										
00	Original										
CO	Corrected										

Comments:

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

User Note 1:

BIG*20050316*1010101010120050316**UTILITY***PR*00

NTE Note/Special Instruction

Pos: 030	Max: 100
Heading - Optional	
Loop: N/A	Elements: 2

To transmit information in a free-form format, if necessary, for comment or special instruction

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
NTE01	363	Note Reference Code Description: Code identifying the functional area or purpose for which the note applies	O	ID	3/3
		Code Name ADD Additional Information			
NTE02	352	Description Description: A free-form description to clarify the related data elements and their content	M	AN	1/80

Comments:

1. The NTE segment permits free-form information/data which, under ANSI X12 standard implementations, is not machine processable. The use of the NTE segment should therefore be avoided, if at all possible, in an automated environment.

REF Reference Identification

Pos: 050	Max: 12
Heading - Optional	
Loop: N/A	Elements: 2

To specify identifying information

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
REF01	128	Reference Identification Qualifier	M	ID	2/3

Description: Code qualifying the Reference Identification

<u>Code</u>	<u>Name</u>
12	Billing Account Description: Account number under which billing is rendered (AEP account number)
45	Old Account Number Description: Identifies accounts being changed
TJ	Federal Taxpayer's Identification Number
ZZ	Mutually Defined Description:

User Note 1:
Z1 - Revenue Class
Z2 - Avg daily Electric Cost
Z3- Number of billing days

REF02	127	Reference Identification	X	AN	1/30
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Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier

User Note 1:
*REF*45*131313131*
*REF*12*10101010101*
*REF*TJ*212121212*
*REF*Z1*212*
*REF*Z2*213.64*
*REF*Z3*31*

N1

Name

Pos: 070	Max: 1
Heading - Optional	
Loop: N1	Elements: 4

To identify a party by type of organization, name, and code

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>												
N101	98	Entity Identifier Code Description: Code identifying an organizational entity, a physical location, property or an individual	M	ID	2/3												
		<table border="0"> <tr> <td><u>Code</u></td> <td><u>Name</u></td> </tr> <tr> <td>8R</td> <td>Consumer Service Provider (CSP) Customer</td> </tr> <tr> <td>BT</td> <td>Bill-to-Party</td> </tr> <tr> <td></td> <td>Description: Used when directly billing the end use customer</td> </tr> <tr> <td>RE</td> <td>Party to receive commercial invoice remittance</td> </tr> </table>	<u>Code</u>	<u>Name</u>	8R	Consumer Service Provider (CSP) Customer	BT	Bill-to-Party		Description: Used when directly billing the end use customer	RE	Party to receive commercial invoice remittance					
<u>Code</u>	<u>Name</u>																
8R	Consumer Service Provider (CSP) Customer																
BT	Bill-to-Party																
	Description: Used when directly billing the end use customer																
RE	Party to receive commercial invoice remittance																
N102	93	Name Description: Free-form name	X	AN	1/60												
N103	66	Identification Code Qualifier Description: Code designating the system/method of code structure used for Identification Code (67)	X	ID	1/2												
		<table border="0"> <tr> <td><u>Code</u></td> <td><u>Name</u></td> </tr> <tr> <td>9</td> <td>D-U-N-S+4, D-U-N-S Number with Four Character Suffix</td> </tr> <tr> <td>91</td> <td>Assigned by Seller or Seller's Agent</td> </tr> <tr> <td>92</td> <td>Assigned by Buyer or Buyer's Agent</td> </tr> <tr> <td colspan="2">User Note 1:</td> </tr> <tr> <td colspan="2"><i>Partners Store number. Used with qualifier BT</i></td> </tr> </table>	<u>Code</u>	<u>Name</u>	9	D-U-N-S+4, D-U-N-S Number with Four Character Suffix	91	Assigned by Seller or Seller's Agent	92	Assigned by Buyer or Buyer's Agent	User Note 1:		<i>Partners Store number. Used with qualifier BT</i>				
<u>Code</u>	<u>Name</u>																
9	D-U-N-S+4, D-U-N-S Number with Four Character Suffix																
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92	Assigned by Buyer or Buyer's Agent																
User Note 1:																	
<i>Partners Store number. Used with qualifier BT</i>																	
N104	67	Identification Code Description: Code identifying a party or other code	X	AN	2/80												

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.

User Note 1:

N1*RE*AMERICAN ELECTRIC POWER*91*006979868
 N1*BT*NAME1*92*111
 N1*8R*NAME2*92*111

N2

Additional Name Information

Pos: 080	Max: 2
Heading - Optional	
Loop: N1	Elements: 2

To specify additional names or those longer than 35 characters in length

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
N201	93	Name Description: Free-form name	M	AN	1/60
N202	93	Name Description: Free-form name	O	AN	1/60

N3

Address Information

Pos: 090	Max: 2
Heading - Optional	
Loop: N1	Elements: 2

To specify the location of the named party

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
N301	166	Address Information Description: Address information	M	AN	1/55
N302	166	Address Information Description: Address information	O	AN	1/55

User Note 1:

N3*PO BOX 24002

N4 Geographic Location

Pos: 100	Max: 1
Heading - Optional	
Loop: N1	Elements: 3

To specify the geographic place of the named party

Element Summary:

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

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.

User Note 1:

N4*CANTON*OH*447014002

PER

Administrative Communications Contact

Pos: 120	Max: 3
Heading - Optional	
Loop: N1	Elements: 4

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>				
PER01	366	Contact Function Code Description: Code identifying the major duty or responsibility of the person or group named	M	ID	2/2				
		<table border="0"> <tr> <td><u>Code</u></td> <td><u>Name</u></td> </tr> <tr> <td>CR</td> <td>Customer Relations</td> </tr> </table>	<u>Code</u>	<u>Name</u>	CR	Customer Relations			
<u>Code</u>	<u>Name</u>								
CR	Customer Relations								
PER02	93	Name Description: Free-form name	O	AN	1/60				
PER03	365	Communication Number Qualifier Description: Code identifying the type of communication number	X	ID	2/2				
		<table border="0"> <tr> <td><u>Code</u></td> <td><u>Name</u></td> </tr> <tr> <td>TE</td> <td>Telephone</td> </tr> </table>	<u>Code</u>	<u>Name</u>	TE	Telephone			
<u>Code</u>	<u>Name</u>								
TE	Telephone								
PER04	364	Communication Number Description: Complete communications number including country or area code when applicable	X	AN	1/80				

User Note 1:

PER*CR*CUSTOMER SERVICE*TE*1-800-555-1212

ITD

Terms of Sale/Deferred Terms of Sale

Pos: 130	Max: >1
Heading - Optional	
Loop: N/A	Elements: 1

To specify terms of sale

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
ITD06	446	Terms Net Due Date	O	DT	8/8

Description: Date when total invoice amount becomes due expressed in format CCYYMMDD

User Note 1:

ITD*****20050322

BAL Balance Detail

Pos: 212	Max: >1
Heading - Optional	
Loop: N/A	Elements: 3

To identify the specific monetary balances associated with a particular account

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>														
BAL01	951	Balance Type Code Description: Code indicating the type of balance	M	ID	1/2														
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>M</td> <td>Current Month</td> </tr> <tr> <td>P</td> <td>Previous Month</td> </tr> <tr> <td></td> <td>Description: Balance of previous period charges prior to applying payments and adjustments for the previous period billing</td> </tr> <tr> <td>Y</td> <td>Year to Date</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	M	Current Month	P	Previous Month		Description: Balance of previous period charges prior to applying payments and adjustments for the previous period billing	Y	Year to Date							
<u>Code</u>	<u>Name</u>																		
M	Current Month																		
P	Previous Month																		
	Description: Balance of previous period charges prior to applying payments and adjustments for the previous period billing																		
Y	Year to Date																		
BAL02	522	Amount Qualifier Code Description: Code to qualify amount	M	ID	1/3														
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>J9</td> <td>Beginning Balance</td> </tr> <tr> <td>PB</td> <td>Billed Amount</td> </tr> <tr> <td></td> <td>Description: Total amount due on the period bill</td> </tr> <tr> <td>TP</td> <td>Total payment amount</td> </tr> <tr> <td></td> <td>User Note 1: <i>last payment received in the billing period (not-cumulative payments since last billing)</i></td> </tr> <tr> <td>YB</td> <td>Actual Unpaid Principal Balance</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	J9	Beginning Balance	PB	Billed Amount		Description: Total amount due on the period bill	TP	Total payment amount		User Note 1: <i>last payment received in the billing period (not-cumulative payments since last billing)</i>	YB	Actual Unpaid Principal Balance			
<u>Code</u>	<u>Name</u>																		
J9	Beginning Balance																		
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	Description: Total amount due on the period bill																		
TP	Total payment amount																		
	User Note 1: <i>last payment received in the billing period (not-cumulative payments since last billing)</i>																		
YB	Actual Unpaid Principal Balance																		
BAL03	782	Monetary Amount Description: Monetary amount	M	R	1/18														

User Note 1:

BAL *P*TP*-6578.04
 BAL *P*PB*6578.04
 BAL *M*YB*6622.79
 BAL *M*PB*6622.79
 BAL *M*J9*0.00

IT1

Baseline Item Data (Invoice)

Pos: 010	Max: 1000
Detail - Optional	
Loop: IT1	Elements: 7

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>				
IT101	350	Assigned Identification Description: Alphanumeric characters assigned for differentiation within a transaction set User Note 1: <i>Line item counter</i>	O	AN	1/20				
IT106	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) <table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>SV</td> <td>Service Rendered</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	SV	Service Rendered	X	ID	2/2
<u>Code</u>	<u>Name</u>								
SV	Service Rendered								
IT107	234	Product/Service ID Description: Identifying number for a product or service User Note 1: <i>'Electric'</i>	X	AN	1/48				
IT108	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) <table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>C3</td> <td>Classification</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	C3	Classification	X	ID	2/2
<u>Code</u>	<u>Name</u>								
C3	Classification								
IT109	234	Product/Service ID Description: Identifying number for a product or service User Note 1: <i>Examples:</i> <i>ACCOUNT</i> <i>METER</i> <i>RATE</i>	X	AN	1/48				
IT110	235	Product/Service ID Qualifier Description: Code identifying the type/source of the descriptive number used in Product/Service ID (234) <table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>MB</td> <td>Measurement Type Code</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	MB	Measurement Type Code	X	ID	2/2
<u>Code</u>	<u>Name</u>								
MB	Measurement Type Code								
IT111	234	Product/Service ID Description: Identifying number for a product or service User Note 1: <i>Example: TOU</i>	X	AN	1/48				

User Note 1:

```
IT1*1*****SV*ELECTRIC*C3*ACCOUNT
IT1*2*****SV*ELECTRIC*C3*RATE
IT1*3*****SV*ELECTRIC*C3*METER*MB*TOU
```

TXI Tax Information

Pos: 040	Max: 10
Detail - Optional	
Loop: IT1	Elements: 3

To specify tax information

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>														
TXI01	963	Tax Type Code Description: Code specifying the type of tax	M	ID	2/2														
		<table border="0"> <tr> <td><u>Code</u></td> <td><u>Name</u></td> </tr> <tr> <td>AT</td> <td>Assessment</td> </tr> <tr> <td>FR</td> <td>Franchise Tax</td> </tr> <tr> <td></td> <td>Description: Tax imposed by municipality for the right to provide service</td> </tr> <tr> <td>LO</td> <td>Local Tax</td> </tr> <tr> <td></td> <td>Description: Tax imposed on a local level</td> </tr> <tr> <td>ST</td> <td>State Sales Tax</td> </tr> </table>	<u>Code</u>	<u>Name</u>	AT	Assessment	FR	Franchise Tax		Description: Tax imposed by municipality for the right to provide service	LO	Local Tax		Description: Tax imposed on a local level	ST	State Sales Tax			
<u>Code</u>	<u>Name</u>																		
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FR	Franchise Tax																		
	Description: Tax imposed by municipality for the right to provide service																		
LO	Local Tax																		
	Description: Tax imposed on a local level																		
ST	State Sales Tax																		
TXI02	782	Monetary Amount Description: Monetary amount	X	R	1/18														
TXI07	662	Relationship Code Description: Code indicating the relationship between entities	O	ID	1/1														
		<table border="0"> <tr> <td><u>Code</u></td> <td><u>Name</u></td> </tr> <tr> <td>A</td> <td>Add</td> </tr> <tr> <td>O</td> <td>Information Only</td> </tr> <tr> <td></td> <td>Description: Charges which relate to but may not be included in or added to the unit price of the SLN. (i.e., compute WATS calculation based upon usage amounts)</td> </tr> </table>	<u>Code</u>	<u>Name</u>	A	Add	O	Information Only		Description: Charges which relate to but may not be included in or added to the unit price of the SLN. (i.e., compute WATS calculation based upon usage amounts)									
<u>Code</u>	<u>Name</u>																		
A	Add																		
O	Information Only																		
	Description: Charges which relate to but may not be included in or added to the unit price of the SLN. (i.e., compute WATS calculation based upon usage amounts)																		

User Note 1:

Taxes only apply when IT109 = Rate
TXI[FR]566.75[[[A

MEA Measurements

Pos: 059	Max: 40
Detail - Optional	
Loop: IT1	Elements: 7

To specify physical measurements or counts, including dimensions, tolerances, variances, and weights(See Figures Appendix for example of use of C001)

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>																		
MEA01	737	Measurement Reference ID Code Description: Code identifying the broad category to which a measurement applies	O	ID	2/2																		
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>AA</td> <td>Meter reading-beginning actual/ending actual</td> </tr> <tr> <td>AE</td> <td>Meter reading-beginning actual/ending estimated</td> </tr> <tr> <td>AR</td> <td>Annual Result</td> </tr> <tr> <td>AV</td> <td>Average Reading</td> </tr> <tr> <td>BR</td> <td>Billed History</td> </tr> <tr> <td>EA</td> <td>Meter reading-beginning estimated/ending actual</td> </tr> <tr> <td>EE</td> <td>Meter reading-beginning estimated/ending estimated</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	AA	Meter reading-beginning actual/ending actual	AE	Meter reading-beginning actual/ending estimated	AR	Annual Result	AV	Average Reading	BR	Billed History	EA	Meter reading-beginning estimated/ending actual	EE	Meter reading-beginning estimated/ending estimated					
<u>Code</u>	<u>Name</u>																						
AA	Meter reading-beginning actual/ending actual																						
AE	Meter reading-beginning actual/ending estimated																						
AR	Annual Result																						
AV	Average Reading																						
BR	Billed History																						
EA	Meter reading-beginning estimated/ending actual																						
EE	Meter reading-beginning estimated/ending estimated																						
MEA02	738	Measurement Qualifier Description: Code identifying a specific product or process characteristic to which a measurement applies	O	ID	1/3																		
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>MU</td> <td>Multiplier</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	MU	Multiplier																	
<u>Code</u>	<u>Name</u>																						
MU	Multiplier																						
MEA03	739	Measurement Value Description: The value of the measurement User Note 1: <i>Meter Multiplier</i>	X	R	1/20																		
MEA04	C001	Composite Unit of Measure Description: To identify a composite unit of measure	X	Comp																			
	355	Unit or Basis for Measurement Code Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	M	ID	2/2																		
		<table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> <th><u>Description</u></th> </tr> </thead> <tbody> <tr> <td>K1</td> <td>Kilowatt Demand</td> <td>Description: Represents potential power load measured at predetermined intervals</td> </tr> <tr> <td>K2</td> <td>Kilovolt Amperes Reactive Demand</td> <td>Description: Reactive power that must be supplied for specific types of customer's equipment; billable when kilowatt demand usage meets or exceeds a defined parameter</td> </tr> <tr> <td>K3</td> <td>Kilovolt Amperes Reactive Hour</td> <td>Description: Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters</td> </tr> <tr> <td>K4</td> <td>Kilovolt Amperes</td> <td></td> </tr> <tr> <td>KH</td> <td>Kilowatt Hour</td> <td></td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	<u>Description</u>	K1	Kilowatt Demand	Description: Represents potential power load measured at predetermined intervals	K2	Kilovolt Amperes Reactive Demand	Description: Reactive power that must be supplied for specific types of customer's equipment; billable when kilowatt demand usage meets or exceeds a defined parameter	K3	Kilovolt Amperes Reactive Hour	Description: Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters	K4	Kilovolt Amperes		KH	Kilowatt Hour				
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K4	Kilovolt Amperes																						
KH	Kilowatt Hour																						
MEA05	740	Range Minimum Description: The value specifying the minimum of the measurement range User Note 1: <i>Beginning reading</i>	X	R	1/20																		
MEA06	741	Range Maximum Description: The value specifying the maximum of the measurement range	X	R	1/20																		

User Note 1: *Ending reading or demand reading for Demand meter*

MEA07 935

Measurement Significance Code

O ID 2/2

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

<u>Code</u>	<u>Name</u>
22	Actual
41	Off Peak
42	On Peak
51	Total

User Note 1:

*Measurements only apply with IT109 = Meter
 History MEA01 = BR apply only with IT110 = Account
 MEA*BR**161400*KH**200402*22
 -
 MEA*AA*MU*600*KH*1104*1308
 MEA*AA*MU*600*K1*0*0.544
 MEA*AA*MU*600*K3*2334*2484*

REF Reference Identification

Pos: 120	Max: >1
Detail - Optional	
Loop: IT1	Elements: 3

To specify identifying information

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
REF01	128	Reference Identification Qualifier Description: Code qualifying the Reference Identification User Note 1: <i>When REF01 is QQ, valid value for REF02 is U- Unmetered</i>	M	ID	2/3
		Code Name			
		06 System Number User Note 1: <i>Service delivery number</i>			
		MG Meter Number			
		NH Rate Card Number			
		QQ Unit Number User Note 1: <i>Used to qualify unmetered usage, I.E number of outdoor lights</i>			
REF02	127	Reference Identification Description: Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier User Note 1: <i>When REF01 = QQ, REF02 will = U</i>	X	AN	1/30
REF03	352	Description Description: A free-form description to clarify the related data elements and their content User Note 1: <i>When REF01 = QQ, REF03 will be the number of unmetered units. When REF01 = NH, REF03 will be a free-form tariff description</i>	X	AN	1/80

User Note 1:

RATE
REF*NH*123*General Service
REF*06*00112233445566
REF*QQ*U*3

Meter
REF*MG*33445566

DTM Date/Time Reference

Pos: 150	Max: 10
Detail - Optional	
Loop: IT1	Elements: 3

To specify pertinent dates and times

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>						
DTM01	374	Date/Time Qualifier Description: Code specifying type of date or time, or both date and time	M	ID	3/3						
		<table border="0"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>150</td> <td>Service Period Start</td> </tr> <tr> <td>151</td> <td>Service Period End</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	150	Service Period Start	151	Service Period End			
<u>Code</u>	<u>Name</u>										
150	Service Period Start										
151	Service Period End										
DTM05	1250	Date Time Period Format Qualifier Description: Code indicating the date format, time format, or date and time format	X	ID	2/3						
		<table border="0"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>D8</td> <td>Date Expressed in Format CCYYMMDD</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	D8	Date Expressed in Format CCYYMMDD					
<u>Code</u>	<u>Name</u>										
D8	Date Expressed in Format CCYYMMDD										
DTM06	1251	Date Time Period Description: Expression of a date, a time, or range of dates, times or dates and times	X	AN	1/35						

User Note 1:

Dates only apply when IT109 = Rate

DTM*150*20050129
DTM*151*20050228

SAC Service, Promotion, Allowance, or Charge Information

Pos: 180	Max: 1
Detail - Optional	
Loop: SAC	Elements: 7

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>								
SAC01	248	Allowance or Charge Indicator Description: Code which indicates an allowance or charge for the service specified <table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Allowance</td> </tr> <tr> <td>C</td> <td>Charge</td> </tr> <tr> <td>N</td> <td>No Allowance or Charge</td> </tr> </tbody> </table> User Note 1: <i>The amount in SAC05 should be ignored when summing the invoice total.</i>	<u>Code</u>	<u>Name</u>	A	Allowance	C	Charge	N	No Allowance or Charge	M	ID	1/1
<u>Code</u>	<u>Name</u>												
A	Allowance												
C	Charge												
N	No Allowance or Charge												
SAC03	559	Agency Qualifier Code Description: Code identifying the agency assigning the code values <table border="1"> <thead> <tr> <th><u>Code</u></th> <th><u>Name</u></th> </tr> </thead> <tbody> <tr> <td>EU</td> <td>Electric Utilities</td> </tr> </tbody> </table>	<u>Code</u>	<u>Name</u>	EU	Electric Utilities	X	ID	2/2				
<u>Code</u>	<u>Name</u>												
EU	Electric Utilities												
SAC04	1301	Agency Service, Promotion, Allowance, or Charge Code Description: Agency maintained code identifying the service, promotion, allowance, or charge User Note 1: 'ADJ000' - Adjustments 'BAS000' - See SAC15 'BAS001' - Service Charges 'BAS002' - Rate Billing 'CRE000' - See SAC15 'CRE011' - Service Guarantee Credit 'DAB000' - See SAC15 'DAB001' - Deposit 'DAB002' - Deposit interest 'DAB003' - Deposit applied 'DAB004' - Deposit reduction 'DIS001' - Distribution Charge 'DMD000' - Demand Charge see SAC15 'DSC000' - See SAC15 'ENC000' - Energy Charge see SAC15 'ENC001' - On-Peak charge 'ENC003' - Off-Peak charge 'FUE000' - See SAC15 'FUE001' - Fuel Rate 'GEN000' - See SAC15 'GEN001' - Generation Charge 'LPC001' - Delinquent Payment Charge 'MSC000' - See SAC15 'MSC022' - Transition 'PRB002' - Previous Account Balance 'SUR000' - Surcharge 'TRN000' - See SAC15 'TRN001' - Transmission Charge 'TRN013' - OATT Transmission 'TRN014' - Retail Transmission	X	AN	1/10								

'TRN015' - Retail + OATT Transmission

SAC05	610	Amount Description: Monetary amount	O	N2	1/15
SAC09	355	Unit or Basis for Measurement Code Description: Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken	X	ID	2/2
		Code Name			
		K1 Kilowatt Demand Description: Represents potential power load measured at predetermined intervals			
		K2 Kilovolt Amperes Reactive Demand Description: Reactive power that must be supplied for specific types of customer's equipment; billable when kilowatt demand usage meets or exceeds a defined parameter			
		K3 Kilovolt Amperes Reactive Hour Description: Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters			
		K4 Kilovolt Amperes Description: Measure of electrical power			
		KH Kilowatt Hour			
SAC10	380	Quantity Description: Numeric value of quantity	X	R	1/15
SAC15	352	Description Description: A free-form description to clarify the related data elements and their content	X	AN	1/80

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.

User Note 1:

Account
SAC[A][EU][PRB002[-58651[#####]PREVIOUS ACCOUNT BALANCE
SAC[N][EU][ADJ000[-58651[#####]Adjustment

Rate
SAC*C**EU*BAS001*2400*****SERVICE CHARGE
SAC*C**EU*SUR000*438*****DEMAND SIDE MANAG.
SAC*A**EU*CRE000*-5290*****NET MERGER SAVINGS
SAC*C**EU*GEN001*445997*****GENERATION CHARGE
SAC*C**EU*TRN001*34715*****TRANSMISSION CHARGE
SAC*C**EU*DIS001*151607*****DISTRIBUTION CHARGE
SAC*C**EU*MSC022*27560*****TRANSITION CHARGE
SAC*C**EU*DMD000*****K1*326.4*****BILL ONPK KW
SAC*C**EU*ENC000*****KH*122400.0*****BILLED KWH
SAC*C**EU*ENC000*****K3*-90000*****BILLED KVARH

N1

Name

Pos: 240	Max: 1
Detail - Optional	
Loop: N1	Elements: 2

To identify a party by type of organization, name, and code

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
N101	98	Entity Identifier Code Description: Code identifying an organizational entity, a physical location, property or an individual User Note 1: <i>Metering Location - Account loop</i>	M	ID	2/3
		Code Name 8R Consumer Service Provider (CSP) Customer User Note 1: <i>Rate loop only</i>			
		MQ Metering Location			
N102	93	Name Description: Free-form name	X	AN	1/60

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.

N2

Additional Name Information

Pos: 250	Max: 2
Detail - Optional	
Loop: N1	Elements: 2

To specify additional names or those longer than 35 characters in length

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
N201	93	Name Description: Free-form name	M	AN	1/60
N202	93	Name Description: Free-form name	O	AN	1/60

N3

Address Information

Pos: 260	Max: 2
Detail - Optional	
Loop: N1	Elements: 2

To specify the location of the named party

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
N301	166	Address Information Description: Address information	M	AN	1/55
N302	166	Address Information Description: Address information	O	AN	1/55

N4 Geographic Location

Pos: 270	Max: 1
Detail - Optional	
Loop: N1	Elements: 3

To specify the geographic place of the named party

Element Summary:

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

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.

TDS Total Monetary Value Summary

Pos: 010	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 1

To specify the total invoice discounts and amounts

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
TDS01	610	Amount	M	N2	1/15

Description: Monetary amount

User Note 1: *Total amount of invoice*

User Note 1:

*TDS*662555*

CTT Transaction Totals

Pos: 070	Max: 1
Summary - Optional	
Loop: N/A	Elements: 1

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

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
CTT01	354	Number of Line Items	M	N0	1/6

Description: Total number of line items in the transaction set

User Note 1: *Number of IT1 segments.*

Comments:

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

User Note 1:

*CTT*3*

SE Transaction Set Trailer

Pos: 080	Max: 1
Summary - Mandatory	
Loop: N/A	Elements: 2

To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)

Element Summary:

<u>Ref</u>	<u>Id</u>	<u>Element Name</u>	<u>Req</u>	<u>Type</u>	<u>Min/Max</u>
SE01	96	Number of Included Segments Description: Total number of segments included in a transaction set including ST and SE segments	M	NO	1/10
SE02	329	Transaction Set Control Number Description: 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

Comments:

1. SE is the last segment of each transaction set.