



Electronic Data Interchange Implementation Guide

TRANSACTION SET

810

Version 4010

Outbound Invoice

BUNDLED SERVICE

Last Revised – May 9, 2008

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77 Beale Street
San Francisco, CA 94177

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Summary of Changes

May 28, 1999	Initial Release 810 v.4010 Full Service
July 2, 1999	Corrections made to sub element codes in MEA07 to reflect consistency with UIG 810 v.4010.
Dec. 1, 1999	SAC15 Code List added to Guide.
Dec. 3, 1999	Addition to SAC15 – Revenue Cycle Service Credits (RCSC).
August 30, 2000	Addition to NTE Segment, ROU (PG&E’s rotating outage block number) Addition to DTM Segment, DTM02 (Date, expression of a date) Addition to TXI Segment, ET (Energy Tax), TX108 (CPUC Energy Tax) Addition to MEA Segment, Add to MEA07, 41 off peak, 42 on peak, 43 mid peak and 51 total
March 2, 2001	Addition to SAC15 Code List GEN000 (Generation), GEN001 (PGE Generation), SUR001 (Electric Emergency Procurement Surcharge), TPI002 (Third Party Initiated from Energy Service Provider)
Oct. 15, 2001	Added to N101, SJ; Energy Service Provider (ESP), Addition to SAC15 Code List , Added DSC000 for SAC04, and SAC15 text Discount on energy used.
November 12, 2002	Addition to REF01 added CR, LI and RU. Additional SAC15 Codes.
January 10, 2003	Addition to MEA07, added verbiage referring to SAC 15 Codes. Also, code changes to SAC Code List.
January 22, 2003	Code changes to SAC Code List.
February 3, 2003	Changed to VAN to INOVIS. Also, made change added codes IT102, IT103, IT104 and added Syntax note #1. Added note sample on SLN notes. Added TDS note sample.
March 11, 2003	Updated SAC Codes. Deleted the following codes, MSC022 – Competition Transition Charge, ENC001 – Electric Energy Charge, SUR000 – Energy Surcharges. Added the following codes, ENC001 – Generation, MSC026 – DWR Bond Charges
July 15, 2003	Change in contact person; add Barakah Bibb-Smith also change Data Segment Terminator ^. Removed NTE Segment; data previously represented in NTE01 is now located in the REF Segment in the ID- SLN loop. REF Segment, changed REF01 12, to read Energy Service Provider, added REF01 5B definition and ZZ definition.



Summary of Changes

October 1, 2003

N1 Segment, added N101 MQ – Service Address
 Removed BAL Segment, data previously represented in BAL Segment is now moved to SAC Segment in Summary Section.
 TXI Segment is not currently used by PG&E, data moved to the IT1 loop and summary section.
 PAM Segment will be moved to follow the IT1 Segment.
 REF Segment, added REF 01 codes, 45, 5B, CR, LI, RU, ZZ
 DTM Segment, DTM01 code 514, added notes.
 SLN Segment, added SLN 09 SV, SLN 10 PG&E date range.
 Added REF Segment.
 Updated SAC15 Code List to include ADJ0BC (Bill Correction)
 Added N1, N2, N3, N4 Segments in this section.
 Added SAC Segment in this section.

Updated contact names to include Travis Graumann and Roseann Mott
 Deleted old test samples and added new test samples to the 810 Tutorial that is posted on the EDI Website.
 Added code 07 – Duplicate to the BIG08 segment.
 Updated description in REF 01, ADB, UR, QQ also deleted REF01 codes 06, 11, LI, RU, and ZZ as they appear in the REF01 detail section. Updated description field for REF03 segment.
 Deleted N101 codes MQ and SJ.
 Updated description in REF 01, ADB, UR, QQ also deleted REF01 code 12, verbiage changed for the REF01 LU segment.
 Deleted Comment 2 from the SLN segment.
 Updated description in REF 01, ADB, UR, QQ also deleted REF01 codes 06, 11, LI, and RU as they appear in the REF01 detail section. Updated description for REF02 segment.
 Deleted Comment 3 from the SAC segment.
 Added GU, Gas Commodity to the SAC03 segment.
 Added SAC04 Codes: DAB001 (DEPOSIT), DSC009 (FERA DISCOUNT), ENC017 (DEMAND/KW SUMMER), ENC018 (DEMAND/KW WINTER), ENC035 (DWR BOND CHARGE), MSC000 (HORSE POWER), MSC040, MSC041(DWR POWER CHARGE), MSC042 (DA CRS), MSC043 (DA CRS OTHER)
 RRR002 (RATE REDUCTION REFUND UUT), RRR004 (EL PASO CAPACITY), RRR005 (EL PASO SETTLEMENT REFUND), RRR006 (RATE REDUCTION REFUND), SUR001 (ONGOING CTC REGULATORY ASSET)
 Deleted MSC000 (POWER FACTOR ADJUSTMENT).
 Deleted code MQ from the N101 Segment.
 Added GU, Gas Commodity to the SAC03 Segment.

March 1, 2005

Restructure Changes
 1. Addition of BAL Segments for (LZ) Late Payment Fee, Previous Balance (PJ) and Previous Payment (QZ) in the header section. These

Summary of Changes

2. amounts were previously located in the summary section as an SAC Segment after the TDS line.
3. Addition of INC Segment for Balance Payment Plan.
4. IT1 looping structure will be in the following order: Account (new), Premise (new), Service, Meter and Bill Detail. There may be multiple Bill Detail loops.
5. Addition of an Account loop
 - a. Addition of TXI Segments as information only. This data was previously in a SAC Segment at the Summary level after the TDS line.
 - i. TXI|HS| Gas PPP Surcharge (previously in an SLN Tax loop as a SAC Segment)
 - ii. TXI|UT| Utility Users Tax
 - iii. TXI|ET| Energy Commission Tax
 - b. Bill corrections as information only
6. Addition of a Premise loop
 - a. N1|MQ will now be N1|77. N1|77, N2, N3 and N4 will be located at the Premise loop (previously located just above the TDS line).
7. Service Loop
 - a. Removing two PAM Segments from this loop. The two Segments were previously used for presenting daily averages.
 - b. REF|LI (Customer Identifier) and REF|RJ (Rotating Outage Block message) will now be located here. The Rotating Outage Block message was previously in the REF|ZZ.
8. Meter Loop
 - a. The REF|LU (Descriptor) has been moved here.
 - b. New MEA01 codes BC for Billed Actual and BO for Meter Reading as Billed.
 - c. Total usage will be presented in the MEA07 as 51.
9. Bill Detail Loop
 - a. Addition of TXI Segments in this loop will be presented with a TXI07 code of A. You will need to add the amount in the TXI02 when summing the invoice total
 - i. TXI|HS| Gas PPP Surcharge (previously in an SLN Tax loop as a SAC Segment)
 - ii. TXI|UT| Utility Users Tax
 - iii. TXI|ET| Energy Commission Tax
 - b. Bill corrections
10. We will no longer be providing counters for the Account loop and all SLN loops. All SAC Segments that appeared after the TDS line have been moved. This includes; previous balance, payments and bill corrections. The SAC Code list has been modified.

March 22, 2006 Updated SAC code list - SAC04 = DMD032, SAC15 = Maximum Demand.

Invoice Best Practices

Global Best Practices

Use of Text Segments

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

Use of ZZ Qualifier

The use of data fields to transmit un-coded 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.

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 DUNS number, should be used to identify the trading partners. A trading partner may append a four-digit suffix to the DUNS number to uniquely identify a specific location within the entity; this number is referred to as a DUNS + 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 mandatory.

Document-Specific Best Practices

Use of the NTE Segment

Although the UIG recommends that the NTE segment be avoided, 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 detail for a single account or meter(s). Each meter will be detailed in a separate IT1 loop.

Use of the MEA Segment

The MEA segment is used to convey consumption readings for one metering period. It also conveys usage, demand multipliers and KVAR readings.

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 is revised to permit more than 25 IT1/SAC loops, this 810 Guideline will be revised to remove the SLN segment.

Values in Elements 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.

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Setup & Contact Information

810 Invoice Transaction Set – Full Service

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PACIFIC GAS AND ELECTRIC SET-UP AND CONTACT INFORMATION

Pacific Gas and Electric Communication ID:
(ISA Sender ID) 00691287702
Communications ID Qualifier:
(ISA Sender ID Qualifier) 09

Data Element Delimiter | (Hex Value 6A)
Data Segment Terminator ^ (Hex Value 5F)
Data Sub-Element Separator ~ (Hex Value A1)

Pacific Gas and Electric's Value Added Network: GXS, 1-800-334-2255

PG&E's Transmit and Receive time: Tuesday through Saturday at 8 a.m. - 12 p.m.

Pacific Gas and Electric's Contact:

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PG&E utilizes ANSI X12 version 004010 following the Utility Industry Guideline (UIG) for 004010. In some instances, code values from later versions of the standards have been incorporated. This document is subject to change based upon future UIG approved standards and regulatory mandates.

EDI Trading Partner Setup Form

Trade Partner Name: _____

PG&E Customer Name: _____

EDI Business Contact: _____ Phone: _____

FAX: _____ Internet Address: _____

EDI Technical Contact: _____ Phone: _____

FAX: _____ Internet Address: _____

Sender/Receiver ID: _____ ID Qualifier _____

Mailing Address: _____

Value Added Network: _____

Industry Standard/Version: _____

Supported Transaction Sets: _____

Value Added Service Bank: _____

Bank Transit Routing Number: _____

Bank Account Number: _____

NACHA Format: CTX/820 Y or N _____ Other _____

Mailing address you would like PG&E to use for all Regulatory mandated material:

810 Invoice

Functional Group ID=**IN**

Introduction:

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

Interchange Control Header:

Page	Position Number	Segment ID	Name	ANSI/UITG Required Description	PG&E Required Description	Maximum Usage	Loop Repeat	Notes and Comments
14	010	ISA	Interchange Control Header	M	M	1		
16	020	GS	Functional Group Header	M	M	1		

Heading:

Page	Position Number	Segment ID	Name	ANSI/UITG Required Description	PG&E Required Description	Maximum Usage	Loop Repeat	Notes and Comments
18	010	ST	Transaction Set Header	M	M	1		
19	020	BIG	Beginning Segment for Invoice	M	M	1		
20	050	REF	Reference Identification	O	O	12		
LOOP ID – N1							200	
21	070	N1	Name	O	M	1		
22	080	N2	Additional Name Information	O	M	2		
23	090	N3	Address Information	O	M	2		
24	100	N4	Geographic Location	O	M	1		
25	070	N1	Name	O	M	1		
26	130	ITD	Terms of Sale/Deferred Terms of Sale	O	M	>1		
27	140	DTM	Date/Time Reference	O	M	10		
28	212	BAL	Balance Detail	O	O	>1		New Segment
30	213	INC	Installment Information	O	O	1		New Segment

Detail:

Page	Position Number	Segment ID	Name	ANSI/UG Required Description	PG&E Required Description	Maximum Usage	Loop Repeat	Notes and Comments
LOOP ID - IT1 - Account						200000		
31	010	IT1	Baseline Item Data (Invoice)	O	M	1		
33	040	TXI	Tax Information	O	O	10		
LOOP ID - IT1 - Premise						200000		
36	010	IT1	Baseline Item Data (Invoice)	O	M	1		
38	240	N1	Name	O	M	1		
39	250	N2	Additional Name Information	O	M	2		
40	260	N3	Address Information	O	M	2		
41	270	N4	Geographic Location	O	M	1		
LOOP ID - IT1 - Service						200000		
42	010	IT1	Baseline Item Data (Invoice)	O	M	1		
44	055	PAM	Period Amount	O	M	>1		
45	120	REF	Reference Identification	O	O	>1		
LOOP ID - IT1 - Meter						200000		
47	010	IT1	Baseline Item Data (Invoice)	O	M	1		
48	059	MEA	Measurements	O	M	40		
50	120	REF	Reference Identification	O	O	>1		
LOOP ID - IT1 - Bill Detail						200000		
51	010	IT1	Baseline Item Data (Invoice)	O	M	1		
53	040	TXI	Tax Information	O	O	10		
54	120	REF	Reference Identification	O	O	>1		
55	150	DTM	Date/Time Reference	O	O	10		
LOOP ID - SLN						1000		
56	200	SLN	Subline Item Detail	O	M	1		
57	120	REF	Reference Identification	O	O	>1		
58	230	SAC	Service, Promotion, Allowance, or Charge Information	O	M	25		

Summary:

Page	Position Number	Segment ID	Name	ANSI/UG Required Description	PG&E Required Description	Maximum Usage	Loop Repeat	Notes and Comments
62	010	TDS	Total Monetary Value Summary	M	M	1		
63	070	CTT	Transaction Totals	O	M	1		
64	080	SE	Transaction Set Trailer	M	M	1		

Interchange Control Trailer:

Page	Position Number	Segment ID	Name	ANSI/UG Required Description	PG&E Required Description	Maximum Usage	Loop Repeat	Notes and Comments
65	030	GE	Functional Group Trailer	M	M	1		
66	040	IEA	Interchange Control Trailer	M	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: **ISA** Interchange Control Header
Position: 010
Loop:
Level:
Usage: Mandatory (PG&E Mandatory Segment)
Max Use: 1
Purpose: To start and identify an interchange of zero or more functional groups and interchange-related control segments

Syntax Notes:

Semantic Notes:

Comments:

Notes:

Ex:
ISA|00||00||01|043000261|ZZ|00691287702B|991015|0823|U|00401|000000333|0|P~^a

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	ISA01	I01	Authorization Information Qualifier Code to identify the type of information in the Authorization Information 00 No Authorization Information Present (No Meaningful Information in I02)	M ID 2/2
M	ISA02	I02	Authorization Information Information used for additional identification or authorization of the interchange sender or the data in the interchange; the type of information is set by the Authorization Information Qualifier (I01)	M AN 10/10
M	ISA03	I03	Security Information Qualifier Code to identify the type of information in the Security Information 00 No Security Information Present (No Meaningful Information in I04)	M ID 2/2
M	ISA04	I04	Security Information This is used for identifying the security information about the interchange sender or the data in the interchange; the type of information is set by the Security Information Qualifier (I03)	M AN 10/10
M	ISA05	I05	Interchange ID Qualifier Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified 01 Duns (Dun & Bradstreet)	M ID 2/2
M	ISA06	I06	Interchange Sender ID Identification code published by the sender for other parties to use as the receiver ID to route data to them; the sender always codes this value in the sender ID element	M AN 15/15
M	ISA07	I05	Interchange ID Qualifier Qualifier to designate the system/method of code structure used to designate the sender or receiver ID element being qualified ZZ Mutually Defined	M ID 2/2
M	ISA08	I07	Interchange Receiver ID Identification code published by the receiver of the data; When sending, it is used by the sender as their sending ID, thus other parties sending to them will use this as a receiving ID to route data to them	M AN 15/15
M	ISA09	I08	Interchange Date	M DT 6/6

			Date of the interchange	
M	ISA10	I09	Interchange Time Time of the interchange	M TM 4/4
M	ISA11	I10	Interchange Control Standards Identifier Code to identify the agency responsible for the control standard used by the message that is enclosed by the interchange header and trailer Refer to 004010 Data Element Dictionary for acceptable code values.	M ID 1/1
M	ISA12	I11	Interchange Control Version Number This version number covers the interchange control segments 00303 Draft Standard for Trial Use Approved for Publication by ASC X12 Procedures Review Board Through October 1992 00401 Draft Standards for Trial Use Approved for Publication by ASC X12 Procedures Review Board through October 1997 PG&E requires the use of version 4010.	M ID 5/5
M	ISA13	I12	Interchange Control Number A control number assigned by the interchange sender	M N0 9/9
M	ISA14	I13	Acknowledgment Requested Code sent by the sender to request an interchange acknowledgment (TA1) 0 No Acknowledgment Requested	M ID 1/1
M	ISA15	I14	Usage Indicator Code to indicate whether data enclosed by this interchange envelope is test, production or information Refer to 004010 Data Element Dictionary for acceptable code values.	M ID 1/1
M	ISA16	I15	Component Element Separator Type is not applicable; the component element separator is a delimiter and not a data element; this field provides the delimiter used to separate component data elements within a composite data structure; this value must be different than the data element separator and the segment terminator	M AN 1/1

Segment: **GS** Functional Group Header
Position: 020
Loop:
Level:
Usage: Mandatory (PG&E Mandatory Segment)
Max Use: 1
Purpose: To indicate the beginning of a functional group and to provide control information
Syntax Notes:
Semantic Notes:

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

Comments:

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

Notes: Ex: GS|RA|045000234|00491282205B|990715|130510|43|X|004010^a

Data Element Summary

Ref.	Data			
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>	
M	GS01	479	Functional Identifier Code	M ID 2/2
			Code identifying a group of application related transaction sets	
			FA Functional Acknowledgement (997)	
			GE General Request, Response or Confirmation (814)	
			IN Invoice Information (810,819)	
			MO Maintenance Service Order (650)	
			PT Product Transfer and Resale Report (867)	
			RA Payment Order/Remittance Advice (820)	
M	GS02	142	Application Sender's Code	M AN 2/15
			Code identifying party sending transmission; codes agreed to by trading partners	
M	GS03	124	Application Receiver's Code	M AN 2/15
			Code identifying party receiving transmission; codes agreed to by trading partners	
M	GS04	373	Date	M DT 8/8
			Date expressed as CCYYMMDD	
M	GS05	337	Time	M TM 4/8
			Time expressed in 24-hour clock time as follows: HHMM, or HHMMSS, or HHMMSSD, or HHMMSSDD, where H = hours (00-23), M = minutes (00-59), S = integer seconds (00-59) and DD = decimal seconds; decimal seconds are expressed as follows: D = tenths (0-9) and DD = hundredths (00-99)	
M	GS06	28	Group Control Number	M N0 1/9
			Assigned number originated and maintained by the sender	
M	GS07	455	Responsible Agency Code	M ID 1/2
			Code used in conjunction with Data Element 480 to identify the issuer of the standard	
			X Accredited Standards Committee X12	
M	GS08	480	Version / Release / Industry Identifier Code	M AN 1/12
			Code indicating the version, release, subrelease, and industry identifier of the	

EDI standard being used, including the GS and GE segments; if code in DE455 in GS segment is X, then in DE 480 positions 1-3 are the version

number; positions 4-6 are the release and sub release, level of the version; and positions 7-12 are the industry or trade association identifiers (optionally assigned by user); if code in DE455 in GS segment is T, then other formats are allowed

003030	Draft Standards Approved for Publication by ASC X12 Procedures Review Board Through October 1992
004010	Draft Standards Approved for Publication by ASC X12 Procedures Review Board through October 1997 PG&E requires the use of version 4010.

Segment: **ST** Transaction Set Header
Position: 010
Loop:
Level: Heading
Usage: Mandatory (PG&E Mandatory Segment)
Max Use: 1
Purpose: To indicate the start of a transaction set and to assign a control number
Syntax Notes:
Semantic Notes: 1 The transaction set identifier (ST01) is used by the translation routines of the interchange partners to select the appropriate transaction set definition (e.g., 810 selects the Invoice Transaction Set).
Comments:
Notes: Ex: ST*810*000000097^

Data Element Summary

	<u>Ref.</u> <u>Des.</u>	<u>Data</u> <u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	ST01	143	Transaction Set Identifier Code Code uniquely identifying a Transaction Set 810 Invoice	M ID 3/3
M	ST02	329	Transaction Set Control Number Identifying control number that must be unique within the transaction set functional group assigned by the originator for a transaction set	M AN 4/9

Segment: **BIG** Beginning Segment for Invoice
Position: 020
Loop:
Level: Heading
Usage: Mandatory (**PG&E Mandatory Segment**)
Max Use: 1
Purpose: To indicate the beginning of an invoice transaction set and transmit identifying numbers and dates

Syntax Notes:

Semantic Notes: 1 BIG01 is the invoice issue date.

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

Notes: Ex: BIG*19990420*ALL3049161990420*****PR*00^

Data Element Summary

Ref.	Data		Attributes
<u>Des.</u>	<u>Element</u>	<u>Name</u>	
M	BIG01	373 Date Date expressed as CCYYMMDD This will contain the Statement Date.	M DT 8/8
M	BIG02	76 Invoice Number Identifying number assigned by issuer The Utility will send a unique number.	M AN 1/22
	BIG07	640 Transaction Type Code Code specifying the type of transaction FB Final Bill PR Product (or Service)	O ID 2/2
	BIG08	353 Transaction Set Purpose Code Code identifying purpose of transaction set 00 Original 07 Duplicate	O ID 2/2

Segment: **REF** Reference Identification
Position: 050
Loop:
Level: Heading
Usage: Optional (PG&E Optional Segment)
Max Use: 12
Purpose: To specify identifying information
Syntax Notes: 1 At least one of REF02 or REF03 is required.
Semantic Notes:
Comments:
Notes: Ex: REF*12*ALL3049161^

Data Element Summary

Ref.	Data Element	Name	Attributes
M	REF01	128 Reference Identification Qualifier Code qualifying the Reference Identification	M ID 2/3
		12 Billing Account Account number under which billing is rendered Utility-assigned account number for the Energy Service Provider (Primary Key).	
		45 Old Account Number Identifies accounts being changed	
		46 Old Meter Number Identifies meters being removed	
		5B PG&E – SA-ID Service Agreement Identification	
		ADB Total Units	
		LI Line Item Identifier Customer Identifier	
		LU Location Number Service Descriptor	
		MG Meter Number	
		NH Rate Card Number Rate Schedule.	
		QQ FERA Units	
		RJ Rotating Outage	
		RU Route Number	
		UR CARE Units	
		ZZ Messages	
	REF02	127 Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Customer supplied Account Descriptive (Customer supplied information to PG&E that is desired in the invoice).	X AN 1/30
	REF03	352 Description A free-form description to clarify the related data elements and their content Currently not used by PG&E.	X AN 1/80

Segment: **N1** Name
Position: 070
Loop: N1 Optional
Level: Heading
Usage: Optional (**PG&E Mandatory Segment**)
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes:

- 1 At least one of N102 or N103 is required.
- 2 If either N103 or N104 is present, then the other is required.

Semantic Notes:
Comments:

- 1 This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.

Notes: Ex:
N1*8R*RANDY JACKSON^
N1*8S*PACIFIC GAS & ELECTRIC*9*00691287702^

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
M	N101	98 Entity Identifier Code Code identifying an organizational entity, a physical location, property or an individual 77 Service Location Service Address 8R Consumer Service Provider (CSP) Customer End use Customer. 8S Consumer Service Provider (CSP) Utility.	M ID 2/3
	N102	93 Name Free-form name Entity ID Code 8R = Customer Name Entity ID Code 8S = Utility Name	X AN 1/60
	N103	66 Identification Code Qualifier Code designating the system/method of code structure used for Identification Code (67) 1 D-U-N-S Number, Dun & Bradstreet 9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix	X ID 1/2
	N104	67 Identification Code Code identifying a party or other code	X AN 2/80

Segment: **N2** Additional Name Information
Position: 080
Loop: N1 Optional
Level: Heading
Usage: Optional (**PG&E Mandatory Segment**)
Max Use: 2
Purpose: To specify additional names or those longer than 35 characters in length
Syntax Notes:
Semantic Notes:
Comments:
Notes: Ex: N2*GENERAL SVCS DEPT^

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	N201	93 Name Free-form name To specify names or additional information that is required (i.e. ID numbers, etc.)	M AN 1/60
	N202	93 Name Free-form name	O AN 1/60

Segment: **N3** Address Information
Position: 090
Loop: N1 Optional
Level: Heading
Usage: Optional (PG&E Mandatory Segment)
Max Use: 2
Purpose: To specify the location of the named party
Syntax Notes:
Semantic Notes:
Comments:
Notes: Ex: N3*37 MAIN ST^

Data Element Summary

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

Segment: **N4 Geographic Location**
Position: 100
Loop: N1 Optional
Level: Heading
Usage: Optional (**PG&E Mandatory Segment**)
Max Use: 1
Purpose: To specify the geographic place of the named party
Syntax Notes:
Semantic Notes:
Comments:

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

Notes: Ex: N4*SAN JOSE*CA*93268^

Data Element Summary

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

Segment: **N1** Name
Position: 070
Loop: N1 Optional
Level: Heading
Usage: Optional (**PG&E Mandatory Segment**)
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes:

- 1 At least one of N102 or N103 is required.
- 2 If either N103 or N104 is present, then the other is required.

Semantic Notes:
Comments:

- 1 This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.

Notes:

Ex:
N1*8R*RANDY JACKSON^
N1*8S*PACIFIC GAS & ELECTRIC*9*00691287702^

Data Element Summary

Ref.	Data Element	Name	Attributes
M	N101	98 Entity Identifier Code Code identifying an organizational entity, a physical location, property or an individual 77 Service Location Service Address 8R Consumer Service Provider (CSP) Customer End use Customer. 8S Consumer Service Provider (CSP) Utility.	M ID 2/3
	N102	93 Name Free-form name Entity ID Code 8R = Customer Name Entity ID Code 8S = Utility Name	X AN 1/60
	N103	66 Identification Code Qualifier Code designating the system/method of code structure used for Identification Code (67) 1 D-U-N-S Number, Dun & Bradstreet 9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix	X ID 1/2
	N104	67 Identification Code Code identifying a party or other code	X AN 2/80

Segment: **ITD** Terms of Sale/Deferred Terms of Sale
Position: 130
Loop: N1 Optional
Level: Heading
Usage: Optional (PG&E Mandatory Segment)
Max Use: >1
Purpose: To specify terms of sale
Syntax Notes:
Semantic Notes:
Comments: 1 All PG&E bills are due upon presentation.
Notes: Ex: ITD*****19990520^

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
ITD06	446	Terms Net Due Date	O DT 8/8
		Date when total invoice amount becomes due expressed in format CCYYMMDD	
		Date of transmission (if applicable).	

Segment: **DTM** Date/Time Reference
Position: 140
Loop: N1 Optional
Level: Heading
Usage: Optional (**PG&E Mandatory Segment**)
Max Use: 10
Purpose: To specify pertinent dates and times
Syntax Notes: 1 At least one of DTM02 DTM03 or DTM05 is required.
 2 If either DTM05 or DTM06 is present, then the other is required.

Semantic Notes:
Comments: 1 These dates represent the Invoice Start and End Period dates.
Notes: Ex:
 DTM*186****D8*19990419^
 DTM*187****D8*19990519^

Data Element Summary

Ref.	Data Element	Name	Attributes
M	DTM01	374 Date/Time Qualifier	M ID 3/3
		Code specifying type of date or time, or both date and time	
		150 Service Period Start	Invoice period start date.
		151 Service Period End	Invoice period end date.
		186 Invoice Period Start	When the billing period covered by an invoice begins
		187 Invoice Period End	When the billing period covered by an invoice ends
		194 Period End	PG&E uses this field as the end date to calculate the MEA AV.
		514 Transferred	Exchanged meter read date. . Not used by PG&E
		733 Date of Last Payment Received	
		814 Payment Due Date	On some PG&E invoices an additional due date may be present. It will be populated here. All PG&E invoices are due and payable upon receipt.
	DTM02	373 Date	X DT 8/8
		Expression of a date, eight characters.	
	DTM05	1250 Date Time Period Format Qualifier	X ID 2/3
		Code indicating the date format, time format, or date and time format	
		D8 Date Expressed in Format CCYYMMDD	
	DTM06	1251 Date Time Period	X AN 1/35
		Expression of a date, a time, or range of dates, times or dates and times	

Segment: **BAL** Balance Detail
Position: 212
Loop: N1 Optional
Level: Heading:
Usage: Optional (PG&E Optional Segment)
Max Use: 1
Purpose: To identify the specific monetary balances associated with a particular account
Syntax Notes:
Semantic Notes:
Comments: Negative amounts are allowed to represent payments received
Notes: EX: BAL|P|PJ|859.89^a
BAL|P|QZ|-10.00^a
BAL|P|LZ|50.00^a

Data Element Summary

Ref.	Data			Attributes
<u>Des.</u>	<u>Element</u>	<u>Name</u>		
M	BAL01	951	Balance Type Code	M ID 1/2
			Code indicating the type of balance	
		M	Current Month	
			Billed, payment and balance amounts shown in BAL03 are in this billing period.	
			Not presently used by PG&E.	
		P	Previous Month	
			Balance of previous period charges prior to applying payments and adjustments for the previous period billing. PG&E currently uses this field.	
		Y	Year to Date	
			Deferred plan balance	
M	BAL02	522	Amount Qualifier Code	M ID 1/3
			Code to qualify amount	
		J9	Beginning Balance	
			BAL*M*J9 is used to display the amount the customer owed prior to the current billing with payments and adjustments applied.	
		LZ	Late Payment	
		PB	Billed Amount	
			Total amount due on the period bill. PG&E currently uses this field.	
		PJ	Previous Balance	
		QZ	Payment Amount	
			PG&E previous payment	
		TP	Total Payment Amount	
		YB	Actual Unpaid Principal Balance	
			BAL*P*YB is used to display the amount the customer owed as a result of the previous bill, prior to applying payments and adjustments for the previous billing period.	
			BAL*M*YB is used to display the customer's total outstanding balance. This is what the customer owes	

from previous billing periods plus the current billing charges.

BAL*Y*YB is used to display the customer's current outstanding budget balance.

M	BAL03	782	Monetary Amount	M R 1/18
			Monetary Amount	

Segment: **INC** Installment Information
Position: 213
Loop: N1 Optional
Level: Heading:
Usage: Optional (**PG&E Optional Segment**)
Max Use: 1
Purpose: To specify installment-billing arrangement
Syntax Notes:
Semantic Notes:

- 1 INC02 is the installment period (e.g., months).
- 2 INC03 is the total number of installments.
- 3 INC04 is the number of the current installment.
- 4 INC05 is the installment balance after the current installment is applied.

Comments:
Notes: EX: INC|04|MO|12|158|356.76^a

Data Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
	<u>Des.</u>	<u>Element</u>		
M	INC01	336	Terms Type Code Code identifying type of payment terms 04 Deferred Installment 32 Lease Agreement 36 Contract Basis Terms are based on a contract with customer.	M ID 2/2
M	INC02	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 MO Months	M ID 2/2
M	INC03	380	Quantity Numeric value of quantity	M R 1/15
M	INC04	380	Quantity Numeric value of quantity	M R 1/15
M	INC05	782	Monetary Amount Monetary amount	O R 1/18

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

- Syntax Notes:**
- 1 If any of IT102 IT103 or IT104 is present, then all are required.
 - 2 If either IT106 or IT107 is present, then the other is required.
 - 3 If either IT108 or IT109 is present, then the other is required.
 - 4 If either IT110 or IT111 is present, then the other is required.
 - 5 If either IT112 or IT113 is present, then the other is required.

Semantic Notes:

- Comments:**
- 1 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.
 - 2 A Meter IT1 loop can be mapped differently, depending on whether Time-Of-Use (TOU) or straight meter measurement is employed. With 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.

Notes:

Ex:
IT1*00001*****SV*MULTIPLE*C3*ACCOUNT^
IT1*00002*****SV*ELECTRIC*C3*METER*MB*NT^
IT1*00003*****SV*GAS^

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	IT101	350 Assigned Identification	M AN 1/20
		Alphanumeric characters assigned for differentiation within a transaction set Line item counter.	
	IT102	358 Quantity Invoiced	M R 1/10
		Number of units invoiced (supplier units)	
	IT103	355 Unit or Basis for Measurement Code	M ID 2/2
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken.	
		K1 Kilowatt Demand	
		Represents potential power load measured at predetermined intervals	
		K2 Kilovolt Amperes Reactive Demand	
		Reactive power that must be supplied for specific types of customer's equipment; billable when kilowatt demand usage meets or exceeds a defined parameter.	
		K3 Kilovolt Amperes Reactive Hour	
		Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters.	

		KH	Kilowatt Hour	
IT104	212	Unit Price		M R 1/14
		Price per unit of product, service, commodity, etc.		
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		
		Examples: ELECTRIC		
		GAS		
		MULTIPLE (Dual Commodity - Gas & 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	
IT109	234	Product/Service ID		X AN 1/48
		Identifying number for a product or service		
		ACCOUNT		
		PREMISE		
		METER		
		BILLDETAIL		
		UNMET	To designate Unmetered Service	
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		
		Examples: NT - Non-TOU Measurement		
		TOU - Time of Use Measurement		
		NM	Non-Metered Service	
		NT	Non-Time of Use Measurement	
		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)		
		When IT111 is 'TOU', IT112 and IT113 will further describe the type of TOU meter used.		
		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: **TXI Tax Information**
Position: 040
Loop: IT1 Optional
Level: Detail
Usage: Optional (PG&E Optional Segment)
Max Use: 10
Purpose: To specify tax information
Syntax Notes: 1 At least one of TXI02 TXI03 or TXI06 is required.
Semantic Notes: 1 TXI02 is the monetary amount of the tax.
 2 TXI03 is the tax percent expressed as a decimal.
Comments: 1 TXI is shown in Account Detail (not Meter Detail).
Notes: Ex: TXI*ET*.05**CD*CA*2*A

Data Element Summary

Ref.	Data Element	Name	Attributes
M	TXI01	963 Tax Type Code Code specifying the type of tax CA City Tax Service Tax imposed by City ET Energy Tax Energy Commission Tax HS Gas PPP Surcharge UT Utility User's Tax	M ID 2/2
	TXI02	782 Monetary Amount Monetary amount	X R 1/18
	TXI03	954 Percent Percentage expressed as a decimal e.g., 75% should be expressed as .75	X R 1/10
	TXI04	955 Tax Jurisdiction Code Qualifier CD – Customer Defined	X
	TXI05	956 Tax Jurisdiction Code CA - California	X
	TXI06	441 Tax Exempt Code Code identifying exemption status from sales and use tax 1 Yes (Tax Exempt) 2 No (Not Tax Exempt)	X ID 1/1
	TXI07	662 Relationship Code Code indicating the relationship between entities A Add	O ID 1/1

Segment: SAC Service, Promotion, Allowance, or Charge Information
Position: 180
Loop: IT1 Optional
Level: Detail
Usage: Optional (PG&E Optional Segment)
Max Use: 25
Purpose: To request or identify a service, promotion, allowance, or charge; to specify the amount or percentage for the service, promotion, allowance, or charge

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

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

- Comments:**
- 1 SAC04 may be used to uniquely identify the service, promotion, allowance, or charge. In addition, it may be used in conjunction to further the code in SAC02.
 - 2 Meter specific information for KH or Therms.

Notes:

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Ex:
SAC*A**EU*RRR000*-27980*****REROUTES CREDIT^
SAC*C**EU*SUR000*42*****ELECTRIC SURCHARGE^
SAC*C**EU*BAS001*22032****KH*2082*****TOTAL CHARGES ELECTRIC^
SAC*A**EU*DSC011*-2203*****LEGISLATED 10% REDUCTION^
SAC*N**EU*ENC001*6767***.0325*****ELECTRIC ENERGY CHARGE^
SAC*N**EU*GTC001*1192*****TRANSMISSION^
SAC*N**EU*DIS001*6347*****DISTRIBUTION^
SAC*N**EU*MSC0247*761*****PUBLIC PURPOSE PROGRAMS^
SAC*N**EU*MSC025*100*****NUCLEAR DECOMMISSIONING^
SAC*N**EU*MSC022*1945*****COMPETITIVE TRANSITION CHARGE -
CTC^
SAC*N**EU*MSC023*2717*****TRUST TRANSFER AMOUNT^
SAC*C**EU*ENC001*6818****TD*102*****TOTAL GAS CHARGES^

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Data Element Summary

Ref.	Data Element	Name	Attributes
M	SAC01	248 Allowance or Charge Indicator	M ID 1/1
		Code which indicates an allowance or charge for the service specified	
		A Allowance	
		C Charge	
		N No Allowance or Charge	
			The amount in SAC05 should be included when summing the invoice total.
			The amount in SAC05 should be ignored when summing the invoice total.
			Energy and tax charge information only.
	SAC03	559 Agency Qualifier Code	X ID 2/2
		Code identifying the agency assigning the code values	

		EU	Electric Utilities Use this code until the DM for "UT" code is approved.	
		GU	Gas Utilities Use this code until the DM for "UT" code is approved.	
SAC04	1301	Agency Service, Promotion, Allowance, or Charge Code		X AN 1/10
		Agency maintained code identifying the service, promotion, allowance, or charge		
		The Utility Industry Group maintains this code list. See the UIG website at http://www.uig.org or contact a UIG member for implementation details. The most current listing of codes will be available on the web site. When using Transfer Credit/Transfer Debit, use Code TRS000 (described in SAC15).		
SAC05	610	Amount		O N2 1/15
		Monetary amount		
		The recommendation for use in California is that this amount will contain the actual value (positive or negative).		
SAC06	378	Allowance/Charge Percent Qualifier		X ID 1/1
		Code indicating on what basis allowance or charge percent is calculated		
		Z	Mutually Defined Used for percent participation.	
SAC07	332	Percent		X R 1/6
		Percent expressed as a percent e.g., 75% should be expressed as 75.		
SAC08	118	Rate		O R 1/9
		Rate expressed in the standard monetary denomination for the currency specified		
SAC09	355	Unit or Basis for Measurement Code		X ID 2/2
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		
		K1	Kilowatt Demand Represents potential power load measured at predetermined intervals	
		K3	Kilovolt Amperes Reactive Hour Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters	
		KH	Kilowatt Hour	
		TD	Therms	
SAC10	380	Quantity		X R 1/15
		Numeric value of quantity Number of units invoiced.		
SAC15	352	Description		X AN 1/80
		A free-form description to clarify the related data elements and their content Detailed description of service, promotion, allowance, or charge. Code List on following page.		

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

- Syntax Notes:**
- 1 If any of IT102 IT103 or IT104 is present, then all are required.
 - 2 If either IT106 or IT107 is present, then the other is required.
 - 3 If either IT108 or IT109 is present, then the other is required.
 - 4 If either IT110 or IT111 is present, then the other is required.
 - 5 If either IT112 or IT113 is present, then the other is required.

- Semantic Notes:**
- Comments:**
- 1 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.
 - 2 A Meter IT1 loop can be mapped differently, depending on whether Time-Of-Use (TOU) or straight meter measurement is employed. With 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.

Notes: Ex:
IT1*00001*****SV*MULTIPLE*C3*ACCOUNT^
IT1*00002*****SV*ELECTRIC*C3*METER*MB*NT^
IT1*00003*****SV*GAS^

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	IT101	350 Assigned Identification	M AN 1/20
		Alphanumeric characters assigned for differentiation within a transaction set Line item counter.	
	IT102	358 Quantity Invoiced	M R 1/10
		Number of units invoiced (supplier units)	
	IT103	355 Unit or Basis for Measurement Code	M ID 2/2
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken.	
		K1 Kilowatt Demand	
		Represents potential power load measured at predetermined intervals	
		K2 Kilovolt Amperes Reactive Demand	
		Reactive power that must be supplied for specific types of customer's equipment; billable when kilowatt demand usage meets or exceeds a defined parameter.	
		K3 Kilovolt Amperes Reactive Hour	
		Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined	

			parameters.	
IT104	212	KH Unit Price	Kilowatt Hour	M R 1/14
		Price per unit of product, service, commodity, etc.		
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)		
IT107	234	SV Product/Service ID	Service Rendered	X AN 1/48
		Identifying number for a product or service		
		Examples: ELECTRIC GAS MULTIPLE (Dual Commodity - Gas & 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)		
IT109	234	C3 Product/Service ID	Classification	X AN 1/48
		Identifying number for a product or service		
		ACCOUNT PREMISE METER BILLDETAIL UNMET To designate Unmetered Service		
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		
IT111	234	MB Product/Service ID	Measurement Type Code	X AN 1/48
		Identifying number for a product or service		
		Examples: NT - Non-TOU Measurement TOU - Time of Use Measurement		
		NM Non-Metered Service NT Non-Time of Use Measurement 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)		
		When IT111 is 'TOU', IT112 and IT113 will further describe the type of TOU meter used.		
IT113	234	EQ Product/Service ID	Equipment Type	X AN 1/48
		Identifying number for a product or service		
		NR = No reads will be presented.		

Segment: **N1** Name
Position: 240
Loop: IT1 Optional
Level: Detail
Usage: Optional (**PG&E Mandatory Segment**)
Max Use: 1
Purpose: To identify a party by type of organization, name, and code
Syntax Notes: 1 At least one of N102 or N103 is required.
 2 If either N103 or N104 is present, then the other is required.
Semantic Notes:
Comments: 1 This segment, used alone, provides the most efficient method of providing organizational identification. To obtain this efficiency the "ID Code" (N104) must provide a key to the table maintained by the transaction processing party.

Notes: Ex:
 N1*8R*RANDY JACKSON^
 N1*8S*PACIFIC GAS & ELECTRIC*9*00691287702^

Data Element Summary

Ref.	Data Element	Name	Attributes
M	N101	98 Entity Identifier Code Code identifying an organizational entity, a physical location, property or an individual 77 Service Location Service Address 8R Consumer Service Provider (CSP) Customer End use Customer. 8S Consumer Service Provider (CSP) Utility.	M ID 2/3
	N102	93 Name Free-form name Entity ID Code 8R = Customer Name Entity ID Code 8S = Utility Name	X AN 1/60
	N103	66 Identification Code Qualifier Code designating the system/method of code structure used for Identification Code (67) 1 D-U-N-S Number, Dun & Bradstreet 9 D-U-N-S+4, D-U-N-S Number with Four Character Suffix	X ID 1/2
	N104	67 Identification Code Code identifying a party or other code	X AN 2/80

Segment: **N2 Additional Name Information**
Position: 250
Loop: IT1 Optional
Level: Detail
Usage: Optional (**PG&E Mandatory Segment**)
Max Use: 2
Purpose: To specify additional names or those longer than 35 characters in length
Syntax Notes:
Semantic Notes:
Comments:
Notes: Ex: N2*GENERAL SVCS DEPT^

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	N201	93 Name Free-form name To specify names or additional information that is required (i.e. ID numbers, etc.)	M AN 1/60
	N202	93 Name Free-form name	O AN 1/60

Segment: **N3** Address Information
Position: 260
Loop: IT1 Optional
Level: Detail
Usage: Optional (PG&E Mandatory Segment)
Max Use: 2
Purpose: To specify the location of the named party
Syntax Notes:
Semantic Notes:
Comments:
Notes: Ex: N3*37 MAIN ST^

Data Element Summary

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

Segment: **N4 Geographic Location**
Position: 270
Loop: IT1 Optional
Level: Detail
Usage: Optional (**PG&E Mandatory Segment**)
Max Use: 1
Purpose: To specify the geographic place of the named party
Syntax Notes:
Semantic Notes:
Comments:

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

Notes: Ex: N4*SAN JOSE*CA*93268^

Data Element Summary

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

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

- Syntax Notes:**
- 1 If any of IT102 IT103 or IT104 is present, then all are required.
 - 2 If either IT106 or IT107 is present, then the other is required.
 - 3 If either IT108 or IT109 is present, then the other is required.
 - 4 If either IT110 or IT111 is present, then the other is required.
 - 5 If either IT112 or IT113 is present, then the other is required.

Semantic Notes:

- Comments:**
- 1 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.
 - 2 A Meter IT1 loop can be mapped differently, depending on whether Time-Of-Use (TOU) or straight meter measurement is employed. With 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.

Notes:

Ex:
IT1*00001*****SV*MULTIPLE*C3*ACCOUNT^
IT1*00002*****SV*ELECTRIC*C3*METER*MB*NT^
IT1*00003*****SV*GAS^

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
IT101	350	Assigned Identification Alphanumeric characters assigned for differentiation within a transaction set Line item counter.	M AN 1/20
IT102	358	Quantity Invoiced Number of units invoiced (supplier units)	M R 1/10
IT103	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.	
		K3 Kilovolt Amperes Reactive Hour Represents actual electricity equivalent to kilowatt	

			hours; billable when usage meets or exceeds defined parameters.	
		KH	Kilowatt Hour	
IT104	212	Unit Price		M R 1/14
		Price per unit of product, service, commodity, etc.		
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		
		Examples: ELECTRIC		
		GAS		
		MULTIPLE (Dual Commodity - Gas & 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	
IT109	234	Product/Service ID		X AN 1/48
		Identifying number for a product or service		
		ACCOUNT		
		PREMISE		
		METER		
		BILLDETAIL		
		UNMET	To designate Unmetered Service	
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		
		Examples: NT - Non-TOU Measurement		
		TOU - Time of Use Measurement		
		NM	Non-Metered Service	
		NT	Non-Time of Use Measurement	
		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)		
		When IT111 is 'TOU', IT112 and IT113 will further describe the type of TOU meter used.		
		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:** **PAM** Period Amount
- Position:** 055
- Loop:** IT1 Optional
- Level:** Detail
- Usage:** Optional (**PG&E Mandatory Segment**)
- Max Use:** >1
- Purpose:** To indicate a quantity, and/or amount for an identified period
- Syntax Notes:**
- 1 If any of PAM01 PAM02 or PAM03 is present, then all are required.
 - 2 At least one of PAM02 PAM05 or PAM14 is required.
 - 3 If either PAM06 or PAM07 is present, then the other is required.
 - 4 If PAM07 is present, then at least one of PAM08 or PAM09 is required.
 - 5 If PAM07 is present, then PAM06 is required.
 - 6 If PAM08 is present, then PAM07 is required.
- Semantic Notes:**
- Comments:**
- 1 This segment is used when history consumption data must accompany the invoice. Total Days and Total KWH or Therms for the same period last year.

Notes:

Ex:
PAM*99*31*DA***PM*194*19980419^
PAM*99*1917*KH***PM*194*19980419^
PAM*99*75*TD***PM*194*19980419^

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
PAM01	673	Quantity Qualifier Code specifying the type of quantity 99 Quantity Used Quantity of units used	X ID 2/2
PAM02	380	Quantity Numeric value of quantity Days or Usage	X R 1/15
PAM03	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 DA Days KH Kilowatt Hour TD Therms	M ID 2/2
PAM06	344	Unit of Time Period or Interval Code indicating the time period or interval AD Average Daily MO Monthly PM Preceding 12 Months Same Period Last Year	X ID 2/2
PAM07	374	Date/Time Qualifier Code specifying type of date or time, or both date and time 194 Period End	X ID 3/3
PAM08	373	Date Date expressed as CCYYMMDD	X DT 8/8

Segment: **REF** Reference Identification
Position: 120
Loop: IT1 Optional
Level: Detail
Usage: Optional (PG&E Optional Segment)
Max Use: >1
Purpose: To specify identifying information
Syntax Notes: 1 At least one of REF02 or REF03 is required.
Semantic Notes:
Comments:

Notes:

Ex:
REF*MG*3065R3^
REF*NH*E19S V^

Data Element Summary

Ref.	Data Element	Name	Attributes
M	REF01	128 Reference Identification Qualifier	M ID 2/3
		Code qualifying the Reference Identification	
		12 Billing Account	
		Account number under which billing is rendered	
		Utility-assigned account number for the Energy Service Provider (Primary Key).	
		45 Old Account Number	
		Identifies accounts being changed	
		46 Old Meter Number	
		Identifies meters being removed	
		5B PG&E – SA-ID	
		Service Agreement Identification	
		ADB Total Units	
		LI Line Item Identifier	
		Customer Identifier	
		LU Location Number	
		Service Descriptor	
		MG Meter Number	
		NH Rate Card Number	
		Rate Schedule.	
		QQ FERA Units	
		RJ Rotating Outage	
		RU Route Number	
		UR CARE Units	
	REF02	127 Reference Identification	X AN 1/30
		Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	
		Meter Number or Account Number if unmetered Rate Code	
	REF03	352 Description	X AN 1/80
		A free-form description to clarify the related data elements and their content	

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

Syntax Notes:

- 1 If any of IT102 IT103 or IT104 is present, then all are required.
- 2 If either IT106 or IT107 is present, then the other is required.
- 3 If either IT108 or IT109 is present, then the other is required.
- 4 If either IT110 or IT111 is present, then the other is required.
- 5 If either IT112 or IT113 is present, then the other is required.

Semantic Notes:

Comments:

- 1 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.
- 2 A Meter IT1 loop can be mapped differently, depending on whether Time-Of-Use (TOU) or straight meter measurement is employed. With 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.

Notes:

Ex:
IT1*00001*****SV*MULTIPLE*C3*ACCOUNT^
IT1*00002*****SV*ELECTRIC*C3*METER*MB*NT^
IT1*00003*****SV*GAS^

Data Element Summary

Ref.	Data			Attributes
Des.	Element	Name		
M	IT101	350	Assigned Identification Alphanumeric characters assigned for differentiation within a transaction set Line item counter.	M AN 1/20
	IT102	358	Quantity Invoiced Number of units invoiced (supplier units)	M R 1/10
	IT103	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.	
		K3	Kilovolt Amperes Reactive Hour	

			Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters.	
		KH	Kilowatt Hour	
IT104	212	Unit Price		M R 1/14
		Price per unit of product, service, commodity, etc.		
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		
		Examples: ELECTRIC		
		GAS		
		MULTIPLE (Dual Commodity - Gas & 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	
IT109	234	Product/Service ID		X AN 1/48
		Identifying number for a product or service		
		ACCOUNT		
		PREMISE		
		METER		
		BILLDETAIL		
		UNMET	To designate Unmetered Service	
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		
		Examples: NT - Non-TOU Measurement		
		TOU - Time of Use Measurement		
		NM	Non-Metered Service	
		NT	Non-Time of Use Measurement	
		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)		
		When IT111 is 'TOU', IT112 and IT113 will further describe the type of TOU meter used.		
		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
Position:	059
Loop:	IT1 Optional
Level:	Detail
Usage:	Optional (PG&E Mandatory Segment)
Max Use:	40
Purpose:	To specify physical measurements or counts, including dimensions, tolerances, variances, and weights (See Figures Appendix for example of use of C001)
Syntax Notes:	<ol style="list-style-type: none"> 1 At least one of MEA03 MEA05 MEA06 or MEA08 is required. 2 If MEA05 is present, then MEA04 is required. 3 If MEA06 is present, then MEA04 is required. 4 If MEA07 is present, then at least one of MEA03 MEA05 or MEA06 is required. 5 Only one of MEA08 or MEA03 may be present.
Semantic Notes:	1 MEA04 defines the unit of measure for MEA03, MEA05, and MEA06.
Comments:	<ol style="list-style-type: none"> 1 When citing dimensional tolerances, any measurement requiring a sign (+ or -), or any measurement where a positive (+) value cannot be assumed, use MEA05 as the negative (-) value and MEA06 as the positive (+) value. 2 The MEA segment conveys both Reads and Usage.
Notes:	<p>Ex:</p> <p>MEA**MU*1^ (Multiplier Only)</p> <p>MEA*AA***KH*1519*1613^ (Reads)</p> <p>MEA*AA***KH*0*1760*50^ (TOU – Winter Mid Peak)</p> <p>MEA*AA***KH*0*2000*75^ (TOU – Winter Off Peak)</p> <p>MEA*AA***K1*0*20*50^ (Demand – Winter Mid Peak)</p> <p>MEA*AA***K1*0*17*75^ (Demand – Winter Off Peak)</p>

Data Element Summary

<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
<u>Des.</u>	<u>Element</u>		
MEA01	737	Measurement Reference ID Code	O ID 2/2
		Code identifying the broad category to which a measurement applies	
		AA Meter reading-beginning actual/ending actual	
		AE Meter reading-beginning actual/ending estimated	
		AV Average Reading	
		BC Billed Actual	
		BO Meter Reading as Billed	
		Used when billing charges are based on contractual agreements or pre-established usage and not on actual usage	
		EA Meter reading-beginning estimated/ending actual	
		EE Meter reading-beginning estimated/ending estimated	
MEA02	738	Measurement Qualifier	O ID 1/3
		Code identifying a specific product or process characteristic to which a measurement applies	
		Recommended for CA.	
		MU Multiplier	
		UG Usage	
MEA03	739	Measurement Value	X R 1/20
		The value of the measurement	

MEA04	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	
		K3 Kilovolt Amperes Reactive Hour Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters	
		KH Kilowatt Hour	
		TD Therms	
MEA05	740	Range Minimum The value specifying the minimum of the measurement range Beginning reading.	X R 1/20
MEA06	741	Range Maximum The value specifying the maximum of the measurement range Ending reading or single reading (e.g., demand).	X R 1/20
MEA07	935	Measurement Significance Code Code used to benchmark, qualify or further define a measurement value The UIG has made Data Maintenance Requests (DMs) for several codes. This document will be revised when the DMs are approved. Until then, the following non-standard code definitions will be used: Please note that PG&E uses these codes.	O ID 2/2
		41 – Off Peak	
		42 – On Peak	
		43 – Mid Peak	
		45 - Summer On Peak	
		49 - Winter On Peak	
		50 - Winter Mid Peak	
		51 - Total	
		73 - Summer Off Peak	
		74 - Summer Mid Peak	
		75 - Winter Off Peak	

Segment: **REF** Reference Identification
Position: 120
Loop: IT1 Optional
Level: Detail
Usage: Optional (PG&E Optional Segment)
Max Use: >1
Purpose: To specify identifying information
Syntax Notes: 1 At least one of REF02 or REF03 is required.
Semantic Notes:
Comments:
Notes:

Ex:
REF*MG*3065R3^
REF*NH*E19S V^

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
M REF01	128	Reference Identification Qualifier Code qualifying the Reference Identification	M ID 2/3
		12 Billing Account Account number under which billing is rendered Utility-assigned account number for the Energy Service Provider (Primary Key).	
		45 Old Account Number Identifies accounts being changed	
		46 Old Meter Number Identifies meters being removed	
		5B PG&E – SA-ID Service Agreement Identification	
		ADB Total Units	
		LI Line Item Identifier PG&E Customer Identifier	
		LU Location Number Identification number for the point where service is delivered to the customer. SPDI - Service Point Delivery Indicator for future use. When LU is used, SPDI number will be represented in REF03. Not currently used by PG&E	
		MG Meter Number	
		NH Rate Card Number Rate Schedule.	
		QQ FERA Units	
		RJ Rotating Outage	
		RU Route Number	
		UR CARE Units	
REF02	127	Reference Identification Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier Meter Number or Account Number if unmetered Rate Code	X AN 1/30
REF03	352	Description A free-form description to clarify the related data elements and their content	X AN 1/80

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

- Syntax Notes:**
- 1 If any of IT102 IT103 or IT104 is present, then all are required.
 - 2 If either IT106 or IT107 is present, then the other is required.
 - 3 If either IT108 or IT109 is present, then the other is required.
 - 4 If either IT110 or IT111 is present, then the other is required.
 - 5 If either IT112 or IT113 is present, then the other is required.

Semantic Notes:

- Comments:**
- 1 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.
 - 2 A Meter IT1 loop can be mapped differently, depending on whether Time-Of-Use (TOU) or straight meter measurement is employed. With 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.

Notes:

Ex:
IT1*00001*****SV*MULTIPLE*C3*ACCOUNT^
IT1*00002*****SV*ELECTRIC*C3*METER*MB*NT^
IT1*00003*****SV*GAS^

Data Element Summary

Ref.	Data		
<u>Des.</u>	<u>Element</u>	<u>Name</u>	<u>Attributes</u>
M	IT101	350	Assigned Identification Alphanumeric characters assigned for differentiation within a transaction set Line item counter. M AN 1/20
	IT102	358	Quantity Invoiced Number of units invoiced (supplier units) M R 1/10
	IT103	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.
		K3	Kilovolt Amperes Reactive Hour Represents actual electricity equivalent to kilowatt

			hours; billable when usage meets or exceeds defined parameters.	
		KH	Kilowatt Hour	
IT104	212	Unit Price		M R 1/14
		Price per unit of product, service, commodity, etc.		
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		
		Examples: ELECTRIC		
		GAS		
		MULTIPLE (Dual Commodity - Gas & 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	
IT109	234	Product/Service ID		X AN 1/48
		Identifying number for a product or service		
		ACCOUNT		
		PREMISE		
		METER		
		BILLDETAIL		
		UNMET	To designate Unmetered Service	
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		
		Examples: NT - Non-TOU Measurement		
		TOU - Time of Use Measurement		
		NM	Non-Metered Service	
		NT	Non-Time of Use Measurement	
		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)		
		When IT111 is 'TOU', IT112 and IT113 will further describe the type of TOU meter used.		
		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: **TXI Tax Information**
Position: 040
Loop: IT1 Optional
Level: Detail
Usage: Optional (**PG&E Optional Segment**)
Max Use: 10
Purpose: To specify tax information
Syntax Notes: 1 At least one of TXI02 TXI03 or TXI06 is required.
Semantic Notes: 1 TXI02 is the monetary amount of the tax.
 2 TXI03 is the tax percent expressed as a decimal.
Comments: 1 TXI is shown in Account Detail (not Meter Detail).
Notes: Ex: TXI*ET*.05**CD*CA*2*A

Data Element Summary

Ref.	Data		Attributes
<u>Des.</u>	<u>Element</u>	<u>Name</u>	
M	TXI01	963 Tax Type Code Code specifying the type of tax CA City Tax Service Tax imposed by City ET Energy Tax Energy Commission Tax HS Gas PPP Surcharge UT Utility User's Tax	M ID 2/2
	TXI02	782 Monetary Amount Monetary amount	X R 1/18
	TXI03	954 Percent Percentage expressed as a decimal e.g., 75% should be expressed as .75	X R 1/10
	TXI04	955 Tax Jurisdiction Code Qualifier CD – Customer Defined	X
	TXI05	956 Tax Jurisdiction Code CA - California	X
	TXI06	441 Tax Exempt Code Code identifying exemption status from sales and use tax 1 Yes (Tax Exempt) 2 No (Not Tax Exempt)	X ID 1/1
	TXI07	662 Relationship Code Code indicating the relationship between entities A Add	O ID 1/1

Segment: **REF** Reference Identification
Position: 120
Loop: IT1 Optional
Level: Detail
Usage: Optional (**PG&E Optional Segment**)
Max Use: >1
Purpose: To specify identifying information
Syntax Notes: 1 At least one of REF02 or REF03 is required.
Semantic Notes:
Comments:
Notes:

Ex:
REF*MG*3065R3^
REF*NH*E19S V^

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
M	REF01	128 Reference Identification Qualifier	M ID 2/3
		Code qualifying the Reference Identification	
		12 Billing Account	
		Account number under which billing is rendered	
		Utility-assigned account number for the Energy Service Provider (Primary Key).	
		45 Old Account Number	
		Identifies accounts being changed	
		46 Old Meter Number	
		Identifies meters being removed	
		5B PG&E – SA-ID	
		Service Agreement Identification	
		ADB Total Units	
		LI Line Item Identifier	
		PG&E Customer Identifier	
		LU Location Number	
		Identification number for the point where service is delivered to the customer.	
		SPDI - Service Point Delivery Indicator for future use.	
		When LU is used, SPDI number will be represented in REF03. Not currently used by PG&E	
		MG Meter Number	
		NH Rate Card Number	
		Rate Schedule.	
		QQ FERA Units	
		RJ Rotating Outage	
		RU Route Number	
		UR CARE Units	
	REF02	127 Reference Identification	X AN 1/30
		Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	
		Meter Number or Account Number if unmetered Rate Code	
	REF03	352 Description	X AN 1/80
		A free-form description to clarify the related data elements and their content	

Segment: **DTM** Date/Time Reference

Position: 150

Loop: IT1 Optional

Level: Detail

Usage: Optional (PG&E Optional Segment)

Max Use: 10

Purpose: To specify pertinent dates and times

Syntax Notes:

- 1 At least one of DTM02 DTM03 or DTM05 is required.
- 2 If DTM04 is present, then DTM03 is required.
- 3 If either DTM05 or DTM06 is present, then the other is required.

Semantic Notes:

Comments: 1 These dates represent the Start and End Period dates in the Account or Meter Loop.

Notes: Ex:
DTM*150****D8*19990423^
DTM*151****D8*19990521^

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
M	DTM01	374 Date/Time Qualifier	M ID 3/3
		Code specifying type of date or time, or both date and time	
		150 Service Period Start	Invoice period start date.
		151 Service Period End	Invoice period end date.
		186 Invoice Period Start	When the billing period covered by an invoice begins
		187 Invoice Period End	When the billing period covered by an invoice ends
		194 Period End	PG&E uses this field as the end date to calculate the MEA*AV.
		514 Transferred	Exchanged meter read date. . Not used by PG&E
		814 Payment Due Date	On some PG&E invoices an additional due date may be present. It will be populated here. All PG&E invoices are due and payable upon receipt.
	DTM02	373 Date	X DT 8/8
		Expression of a date, eight characters.	
	DTM05	1250 Date Time Period Format Qualifier	X ID 2/3
		Code indicating the date format, time format, or date and time format	
		D8 Date Expressed in Format CCYYMMDD	
	DTM06	1251 Date Time Period	X AN 1/35
		Expression of a date, a time, or range of dates, times or dates and times	

Segment: **SLN** Subline Item Detail
Position: 200
Loop: SLN Optional
Level: Detail
Usage: Optional (**PG&E Mandatory Segment**)
Max Use: 1
Purpose: To specify product subline detail item data
Syntax Notes:
Semantic Notes:

- 1 SLN01 is the identifying number for the subline item.
- 2 SLN03 is the configuration code indicating the relationship of the subline item to the baseline item.

Comments:

- 1 The IT1/SLN segment is used to overcome the limitation on the number of IT1/SAC loops.

Notes:

```
Ex:
SLN*CHG0000200003**A^ (Charge)
SLN*UNB0000200005**A^ (Unbundled)
SLN*BAS00002000010**A^ (Electric Baseline)
```

Data Element Summary

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

Segment: **REF** Reference Identification
Position: 120
Loop: IT1 Optional
Level: Detail
Usage: Optional (**PG&E Optional Segment**)
Max Use: >1
Purpose: To specify identifying information
Syntax Notes: 1 At least one of REF02 or REF03 is required.
Semantic Notes:
Comments:
Notes:

Ex:
REF*MG*3065R3^
REF*NH*E19S V^

Data Element Summary

Ref. Des.	Data Element	Name	Attributes
M	REF01	128	M ID 2/3
		Reference Identification Qualifier	
		Code qualifying the Reference Identification	
		12 Billing Account	
		Account number under which billing is rendered	
		Utility-assigned account number for the Energy Service Provider (Primary Key).	
		45 Old Account Number	
		Identifies accounts being changed	
		46 Old Meter Number	
		Identifies meters being removed	
		5B PG&E – SA-ID	
		Service Agreement Identification	
		ADB Total Units	
		LI Line Item Identifier	
		PG&E Customer Identifier	
		LU Location Number	
		Identification number for the point where service is delivered to the customer.	
		SPDI - Service Point Delivery Indicator for future use.	
		When LU is used, SPDI number will be represented in REF03. Not currently used by PG&E	
		MG Meter Number	
		NH Rate Card Number	
		Rate Schedule.	
		QQ FERA Units	
		RJ Rotating Outage	
		RU Route Number	
		UR CARE Units	
	REF02	127	X AN 1/30
		Reference Identification	
		Reference information as defined for a particular Transaction Set or as specified by the Reference Identification Qualifier	
		Meter Number or Account Number if unmetered Rate Code	
	REF03	352	X AN 1/80
		Description	
		A free-form description to clarify the related data elements and their content	

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

Position: 230
Loop: SLN Optional
Level: Detail

Usage: Optional (PG&E Mandatory Segment)

Max Use: 25

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

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

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

- Comments:**
- 1 SAC04 may be used to uniquely identify the service, promotion, allowance, or charge. In addition, it may be used in conjunction to further the code in SAC02.
 - 3 Meter specific information for KH or Therms.

Notes:

Ex:

```
SAC*A**EU*RRR000*-27980*****REROUTES CREDIT^
SAC*C**EU*SUR000*42*****ELECTRIC SURCHARGE^
SAC*C**EU*BAS001*22032****KH*2082*****TOTAL CHARGES ELECTRIC^
SAC*A**EU*DSC011*-2203*****LEGISLATED 10% REDUCTION^
SAC*N**EU*ENC001*6767***.0325*****ELECTRIC ENERGY CHARGE^
SAC*N**EU*GTC001*1192*****TRANSMISSION^
SAC*N**EU*DIS001*6347*****DISTRIBUTION^
SAC*N**EU*MSC0247*761*****PUBLIC PURPOSE PROGRAMS^
SAC*N**EU*MSC025*100*****NUCLEAR DECOMMISSIONING^
SAC*N**EU*MSC022*1945*****COMPETITIVE TRANSITION CHARGE -
CTC^
SAC*N**EU*MSC023*2717*****TRUST TRANSFER AMOUNT^
SAC*C**EU*ENC001*6818****TD*102*****TOTAL GAS CHARGES^
```

Data Element Summary

Ref.	Data			Attributes
Des.	Element	Name		
M	SAC01	248	Allowance or Charge Indicator	M ID 1/1
			Code which indicates an allowance or charge for the service specified	
		A	Allowance	
		C	Charge	
			The amount in SAC05 should be included when summing the invoice total.	
		N	No Allowance or Charge	
			The amount in SAC05 should be ignored when summing the invoice total.	
			Energy and tax charge information only.	
	SAC03	559	Agency Qualifier Code	X ID 2/2
			Code identifying the agency assigning the code values	

		EU	Electric Utilities Use this code until the DM for "UT" code is approved.	
		GU	Gas Utilities Use this code until the DM for "UT" code is approved.	
SAC04	1301	Agency Service, Promotion, Allowance, or Charge Code		X AN 1/10
		Agency maintained code identifying the service, promotion, allowance, or charge		
		The Utility Industry Group maintains this code list. See the UIG website at http://www.uig.org or contact a UIG member for implementation details. The most current listing of codes will be available on the web site. When using Transfer Credit/Transfer Debit, use Code TRS000 (described in SAC15).		
SAC05	610	Amount		O N2 1/15
		Monetary amount		
		The recommendation for use in California is that this amount will contain the actual value (positive or negative).		
SAC06	378	Allowance/Charge Percent Qualifier		X ID 1/1
		Code indicating on what basis allowance or charge percent is calculated		
		Z	Mutually Defined Used for percent participation.	
SAC07	332	Percent		X R 1/6
		Percent expressed as a percent e.g., 75% should be expressed as 75.		
SAC08	118	Rate		O R 1/9
		Rate expressed in the standard monetary denomination for the currency specified		
SAC09	355	Unit or Basis for Measurement Code		X ID 2/2
		Code specifying the units in which a value is being expressed, or manner in which a measurement has been taken		
		K1	Kilowatt Demand Represents potential power load measured at predetermined intervals	
		K3	Kilovolt Amperes Reactive Hour Represents actual electricity equivalent to kilowatt hours; billable when usage meets or exceeds defined parameters	
		KH	Kilowatt Hour	
		TD	Therms	
SAC10	380	Quantity		X R 1/15
		Numeric value of quantity Number of units invoiced.		
SAC15	352	Description		X AN 1/80
		A free-form description to clarify the related data elements and their content Detailed description of service, promotion, allowance, or charge. Code List on following page.		

SAC15 CODE LIST

SAC04	SAC15
ADJ000	VARIOUS DESCRIPTIONS FOR ADJUSTMENTS
ADJ000	TOTAL ENERGY ADJUSTMENTS
ADJ000	DA CRS ADJUSTMENT
ADJ000	GAS PPP SURCHARGE ADJUSTMENT
ADJ000	GAS PPP SURCHARGE CREDIT UUT ADJUSTMENT
ADJ0BC	TOTAL CORRECTIONS
ADJ0TA	CHARGES TRANSFERRED TO SERVICE PROVIDER
BAS000	BASELINE QUANTITY
BAS001	CUSTOMER CHARGE
CRE000	BASELINE CREDIT
CRE000	PROCUREMENT CREDIT
CRE005	EL PASO SETTLEMENT CREDIT
CRE014	DIRECT ACCESS CREDIT
CRE030	HEAT STORM BILL CREDIT
DAB001	DEPOSIT
DIS001	DISTRIBUTION
DMD011	SUMMER OFF-PEAK DEMAND
DMD012	SUMMER PEAK DEMAND
DMD013	SUMMER PATIAL PEAK DEMAND
DMD016	WINTER PEAK DEMAND
DMD017	WINTER PARTIAL PEAK DEMAND
DMD018	WINTER OFF-PEAK DEMAND
DMD024	BILLING DEMAND SUMMER
DMD025	BILLING DEMAND WINTER
DMD032	MAXIMUM DEMAND
DMD032	CREATED DEMAND
DMD034	SUMMER MAXIMUM DEMAND
DMD035	WINTER MAXIMUM DEMAND
DSC004	ECONOMIC STIMULUS RATE CREDIT
DSC005	CARE DISCOUNT
DSC009	FERA DISCOUNT
DSC010	DWELLING UNIT DISCOUNT
DSC011	LEGISLATED 10% REDUCTION
DSC013	VOLTAGE DISCOUNT
DSC016	20/20 SUMMER SAVINGS REBATE
DSC017	10/20 WINTER GAS SAVINGS REBATE
DSC020	10/20 PLUS PROGRAM CREDIT
ENC000	NET CHARGES
ENC000	CARE BASELINE USAGE
ENC000	ESP CHARGES
ENC000	TOTAL USAGE
ENC001	ELECTRIC CHARGES
ENC001	GAS CHARGES
ENC001	GENERATION
ENC004	SUMMER OFF-PEAK USAGE

SAC04	SAC15
ENC005	SUMMER PEAK USAGE
ENC006	SUMMER PARTIAL PEAK USAGE
ENC009	WINTER PEAK USAGE
ENC010	WINTER PARTIAL PEAK USAGE
ENC011	WINTER OFF-PEAK USAGE
ENC017	DEMAND/KW SUMMER
ENC018	DEMAND/KW WINTER
ENC021	TRANSITIONAL BUNDLED COMMODITY COST
ENC035	DWR BOND CHARGE
ENC036	ESP CHARGE
ENC037	BASELINE USAGE
ENC038	OVER BASELINE USAGE
ENC038	101 – 130% OF BASELINE
ENC038	131 – 200% OF BASELINE
ENC038	201 – 300% OF BASELINE
ENC038	OVER 300% OF BASELINE
GTC001	TRANSMISSION
MSC000	HORSE POWER
MSC000	WINTER RATE/KWH
MSC000	SUMMER RATE/KWH
MSC000	CARE OVER BASELINE USAGE
MSC000	MEDICAL BASELINE USAGE
MSC000	MSTR/SUB-METER DISCOUNT
MSC001	TARGET 2005 ADU
MSC001	CUMULATIVE CURRENT PERIOD'S ADU
MSC001	CUMULATIVE 10/20 REDUCTION/INCREASE %
MSC022	COMPETITION TRANSITION CHARGE (CTC)
MSC022	ONGOING CTC
MSC023	TRUST TRANSFER AMOUNT
MSC024	PUBLIC PURPOSE PROGRAMS
MSC025	NUCLEAR DECOMMISSIONING
MSC041	DWR POWER CHARGE
MSC042	CRS
MSC044	POWER CHARGE INDIFFERENCE ADJUSTMENT
MSC059	CALIFORNIA SOLAR INITIATIVE FERA EXEMPTION
MSC060	SMARTDAY CHARGES
MSC061	SMARTRATE CREDITS
MSC062	SMARTRATE PARTICIPATION CREDITS
PFA001	POWER FACTOR ADJUSTMENT
SER000	MINIMUM CHARGE
SMD016	METER CHARGE
SUR000	FRANCHISE FEE SURCHARGE
SUR000	ENERGY COST RECOVERY AMOUNT

Segment: **TDS** Total Monetary Value Summary
Position: 010
Loop:
Level: Summary
Usage: Mandatory (PG&E Mandatory Segment)
Max Use: 1
Purpose: To specify the total invoice discounts and amounts
Syntax Notes:
Semantic Notes: 1 TDS01 is the total amount of invoice (including charges, less allowances) before terms discount (if discount is applicable).
Comments: 1 This must equal the algebraic sum of the amounts in the TXI02 and SAC05 (A and C) amounts. TDS01 is the total amount due for this invoice. If this amount is negative send the minus sign.

Notes: Ex: TDS*41901^
TDS*13005833^a

Data Element Summary

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

Segment: **CTT** Transaction Totals
Position: 070
Loop:
Level: Summary
Usage: Optional (**PG&E Mandatory Segment**)
Max Use: 1
Purpose: To transmit a hash total for a specific element in the transaction set
Syntax Notes:
Semantic Notes:
Comments: 1 This segment is intended to provide hash totals to validate transaction completeness and correctness.
Notes: Ex: CTT*2^

Data Element Summary

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

Segment: **SE** Transaction Set Trailer
Position: 080
Loop:
Level: Summary
Usage: Mandatory (**PG&E Mandatory Segment**)
Max Use: 1
Purpose: To indicate the end of the transaction set and provide the count of the transmitted segments (including the beginning (ST) and ending (SE) segments)

Syntax Notes:

Semantic Notes:

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

Notes: Ex: SE*50*000000107^

Data Element Summary

	<u>Ref. Des.</u>	<u>Data Element</u>	<u>Name</u>	<u>Attributes</u>
M	SE01	96	Number of Included Segments Total number of segments included in a transaction set including ST and SE segments	M N0 1/10
M	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 Same as corresponding ST02.	M AN 4/9

Segment: **GE** Functional Group Trailer
Position: 030
Loop:
Level:
Usage: Mandatory (PG&E Mandatory Segment)
Max Use: 1
Purpose: To indicate the end of a functional group and to provide control information
Syntax Notes:
Semantic Notes: 1 The data interchange control number GE02 in this trailer must be identical to the same data element in the associated functional group header, GS06.
Comments: 1 The use of identical data interchange control numbers in the associated functional group header and trailer is designed to maximize functional group integrity. The control number is the same as that used in the corresponding header.
Notes: Ex: GE*1*43^a

Data Element Summary

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

Segment: **IEA** Interchange Control Trailer
Position: 040
Loop:
Level:
Usage: Mandatory (PG&E Mandatory Segment)
Max Use: 1
Purpose: To define the end of an interchange of zero or more functional groups and interchange-related control segments

Syntax Notes:

Semantic Notes:

Comments:

Notes: Ex: IEA*1*00000123^a

Data Element Summary

	<u>Ref.</u>	<u>Data</u>	<u>Name</u>	<u>Attributes</u>
	<u>Des.</u>	<u>Element</u>		
M	IEA01	I16	Number of Included Functional Groups A count of the number of functional groups included in an interchange	M N0 1/5
M	IEA02	I12	Interchange Control Number A control number assigned by the interchange sender	M N0 9/9