This document is provided to our customers as a tool to validate their EIM charges.

PGE is regularly updating their reports and documentation. This file will be subject to change as we determine best practices.

If prices are not provided they can be found on CAISO's OASIS page located at:
http://oasis.caiso.com/mrioasis/logon.do

How to use this document:
The following tabs show how to use the provided bill determinants to validate charges, separated by the different allocation types.
Please note that some charges are calculated hourly while others may be calculated in 5-minute intervals. Validation should be done at the lowest interval.
If an hourly value is provided, divide by 12 to calculate the 5-minute value.

Each customer will receive a Billing Statement and Billing Detail Statement. This example shows how to validate a charge for Measured Demand. Charge Code 4564 is used in this example from the Billing Statement Summary file.

Charge codes that use this allocation: 4564, 4575, 4989, 4999, 6478, 7070, 7071, 7077, 7078, 7081, 7087, 7088, 8989, 8999, 64770, 66780, 67740, 69850
Measured Demand: Includes (1) Metered Demand, plus (2) e-Tagged export volumes from the PGE BAA (excluding EIM Transfers).

TO VALIDATE HE1:
BILLING STATEMENT SUMMARY

Charges								
Charge Code	EIM_SC	Customer_ID	Operating_Date	Resource	Resource_Type	Settlement_Cycle	Settlement_Type	HE1
4564	PGEE	LSE1	OD 00/00/20XX	LSE1	LOAD	MARKET INITIAL 1	Daily	0.237737

Bill Determinants

	Bill Determinant	EIM_SC	Customer_ID	Operating_Date	Resource	Resource_Type	Settlement_Cycle	Settlement_Type
A	LSE Meter	PGEE	LSE1	OD 00/00/20XX	LSE1	LOAD	MARKET INITIAL 1	Daily
B	Measured Demand Ratio	PGEE	LSE1	OD 00/00/20XX	LSE1	LOAD	MARKET INITIAL 1	Daily
C	Measured Demand Ratio Denominator	PGEE		OD 00/00/20XX			MARKET INITIAL 1	Daily
D	4564 - GMC EIM Transaction Charge	PGEE		OD 00/00/20XX			MARKET INITIAL 1	Daily

Int001	Int002	Int003	Int004	Int005	Int006	Int007	Int008	Int009	Int010	Int011	Int012
-0.636333	-0.6363	-0.636333	-0.636333	-0.636333	-0.636333	-0.636333	-0.636333	-0.636333	-0.636333	-0.636333	-0.636333
0.001993	0.00205	0.002085	0.002085	0.002085	0.002085	0.002085	0.002085	0.002085	0.002085	0.002088	0.002094
-319.223003	-309.91	-305.2543	-305.254253	-305.2543	-305.254253	-305.254253	-305.254253	-305.254253	-305.254253	-304.785501	-303.848003
9.20453	7.45904	6.6007	9.72199	9.71927	9.7356	9.82225	9.81272	9.81817	10.01964	10.64673	11.92759

LSE1 CHARGE
LSE METER/MEASURED DEMAND RATIO DENOMINATOR = MEASURED DEMAND RATIO
MEASURED DEMAND RATIO * (4564 - GMC EIM TRANSACTION CHARGE) = YOUR CHARGE FOR THAT INTERVAL

SUM THE FIRST 12 INTERVALS TO GET THE TOTAL CHARGE FOR THAT HOUR

B = A/C	0.001993381	0.0021	0.002085	0.0020846	0.002085	0.0020846	0.0020846	0.0020846	0.0020846	0.0020846	0.002087806	0.002094248
B * D	0.018344628	0.0153	0.013762	0.020270349	0.020265	0.020298726	0.020479391	0.0204595	0.020470884	0.020890949	0.022230372	0.024976373

THIS SUM IS HE1 CHARGE	0.237761742

4564 FORMULA
4564 = D * B
where B = A/C

where A is the LSE meter value
B is the ratio of measured load
C is the total measured demand
D is the ISO charge to PGE

This example shows how to use your billing determinants file to validate Charge Code 6045, Over and Under Scheduling.

	Determinant Name	UOM	BA ID	RSRC ID	RSRC TYPE	Data Source	Daily Total	HE 1
A	BA_HRLY_EIM_BAA_APNODE_OVER_UNDER_SCHED_STLMT_CURRENT_AMOUNT_ALLOC_BY_BA	USD	PGEE					124,724.36512
B	BA_HRLY_6045_LSE_RATIO_NUMERATOR_ALLOC	CONST	PGEE	LSE1	LOAD			-0.64400
C	BA_HRLY_6045_LSE_RATIO_DENOMINATOR_ALLOC	CONST	PGEE					-2,251.17000
D	BA_HRLY_6045_LSE_RATIO_ALLOC	CONST	PGEE	LSE1	LOAD			0.00029
E	6045 Allocation - Over and Under Scheduling EIM Settlement	USD	PGEE	LSE1	LOAD			35.68052

D * A = E
D = B/C where;

A is the ISO charge to PGE
B is the LSE's share of the total offenders imbalance
C is the sum of offending LSEs imbalance
D is the offending LSE's ratio share of imbalance
E is the LSE's charge for that hour

This example shows how to validate a charge for Metered Demand. Charge Code 7076 is used in this example from the Bill Determinants File.

Charge Codes that use this Allocation Method: 6046 and 7076

Metered Demand: Metered load volumes in PGE's BAA

	Determinant Name	UOM	BA ID	RSRC_ID	RSRC TYPE	Data Source	Daily Total	HE1/IE5
A	7076 - Flexible Ramp Forecast Movement Allocation	USD	PGEE				2.71073	2.71073
B	Metered Demand Ratio	CONST	PGEE	LSE1	LOAD		0.005491	0.005491
C	Metered Demand Ratio Denominator	MWh	PGEE				-188.898163	-188.898163
D	7076 Allocation - Flexible Ramp Forecast Movement Allocation	USD	PGEE	LSE1	LOAD		0.014886	0.014886
E	LSE Meter	MWh	PGEE	LSE1	LOAD		-12.447996	-12.447996

7076 FORMULA

D = A * B

E/C = B

where A is the ISO charge to PGE

B is the ratio of metered load

C is the total metered load

D is the Allocation to LSE

E is the LSE meter value

This example shows how to use your billing determinants file to validate Charge Code 64750, Uninstructed Imbalance Energy.

	Determinant Name	UOM	BA ID	RSRC_ID	RSRC_TYPE	Data Source	HE1/IE5
A	64750 Allocation - Real Time Uninstructed Imbalance Energy EIM Settlement	USD	PGEE	LSE1	LOAD		-1.998269
B	BA_HRLY_LSE_INTERCHANGE_ALLOC	MWh	PGEE	LSE1	LOAD		9
C	LAP_HRLY_RTM_LMP_PRICE_ELAP_ALLOC	USD/MWh					22.04
D	BA_HRLY_LSE_METER_QTY_ALLOC	MWh	PGEE	LSE1	LOAD		-7.911996

64750 FORMULA
(-D - B) * C = A*12

where

A is the allocation to LSE

B is the hourly LSE schedule

C is the hourly LMP

D is the hourly LSE meter