

# Residential Rate OIR PG&E Rate Design Scenario Results Using the Bill Calculator Model

December 5 & 6, 2012

# **DRAFT**

	Summary	y of Rate Design :	Scenarios	
	Scenario I	Scenario II	Scenario III	Scenario IV
Customer Charge	\$20/month	\$10/month	\$5/month	\$5/month
TOU	None	On-peak/Part- peak price = Part- peak/Off-peak price = 1.50	None	On-peak/Part- peak price = Part- peak/Off-peak price = 1.50
Tiers	Flat, Volumetric	None	Two Tiers with 20% differential	None
Demand Differentiated Fixed Charge			Fixed charge with \$10/month for 3kW or above annual peak demand, \$5/month otherwise	Fixed charge with \$10/month for 3kW or above annual peak demand, \$5/month otherwise
CARE Discount	20%	20%	20%	20%
Revenue Requirement	А	pproximately same as	s 2011 GRC submissio	n.

Scenario - I

Customer Charge: \$20/month

Flat Volumetric Rate

		Resulti	ng Flat Rate		
		Forecast	% of	Jul-12	Flat Rate
Non-CARE_	Tier	Sales (GWh)	Sales	Rate	Rate
	1	11.59	61%	12.8	13.5
	2	2.20	12%	14.6	13.5
	3	2.92	15%	29.6	13.5
	4	1.47	8%	33.6	13.5
	5	0.79	4%	33.6	13.5
C	ust \$/Mo			0.0	20.0
F	ixed Cha	rge High Demand \$/	Mo.	-	0.0
F	ixed Cha	rge Low Demand \$/1	Лo.		0.0
N	lin Charg	e \$/Mo.		0.0	0.0
			% of	Jul-12	Flat Rate
CARE	Tier	Sales (GWh)	Sales	Rate	Rate
	1	7.05	69%	8.3	10.8
	2	1.10	11%	9.6	10.8
	3	1.30	13%	12.5	10.8
	4	0.53	5%	12.5	10.8
	5	0.24	2%	12.5	10.8
C	ust \$/Mo			0.0	16.0
F	ixed Cha	rge High Demand \$/	Mo.	0.0	0.0
F	ixed Cha	rge Low Demand \$/1	Лo.	0.0	0.0
	lin Charg	o MA2 o		0.0	0.0

#### **Scenario Description**

Scenario - I

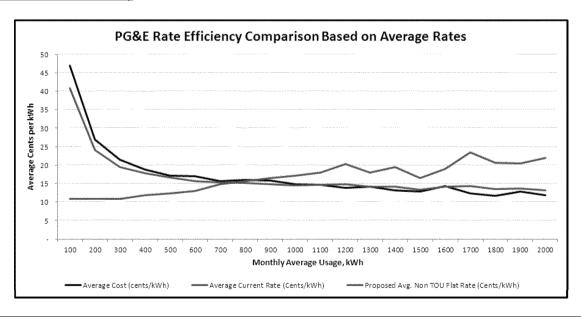
Customer Charge: \$20/month

Flat Volumetric Rate

#### Result-2a: Average Rate Impact Summary

	NON-CARE		
Baseline	Cost Base	Jul-12	Proposed Non-TOU
Region	Rate	Rate	Rate
Coast (Q, T, V)	15.9	18.3	18.
Hills (X)	16.5	18.1	17.
Inner Valley (S, P)	16.7	18.0	16.
Outer Valley (R, W, Y, Z)	16.8	17.9	16.
Non-CARE System	16.5	18.1	17.
	CARE		
Baseline	Cost Base	Jul-12	Proposed Non-TOU
Region	Rate	Rate	Rate
Coast (Q, T, V)	16.3	9.3	15.
Hills (X)	17.0	9.2	14.
Inner Valley (S, P)	17.1	9.3	13.
Outer Valley (R. W. Y. Z)	17.3	9.3	13.
CARE System	17.0	9.3	14.
e Design Measures	Cu	rrent Rate Levels	Non-TOU Rate
Residen	tial CARE Subsidy (SM) => \$	717,000,000	\$ 259,000,00
Residential CARE subsidy funded by nor	n-residential class (\$M) => \$	501,900,000	\$ 181,300,00
Effe	ctive CARE Discount % =>	4996	20
Percent o	f Fixed Costs Recovery =>	0%	22
Percent	Fixed Cost Not Recovered	22%	o

# **Result 2b: Rate Efficiency**

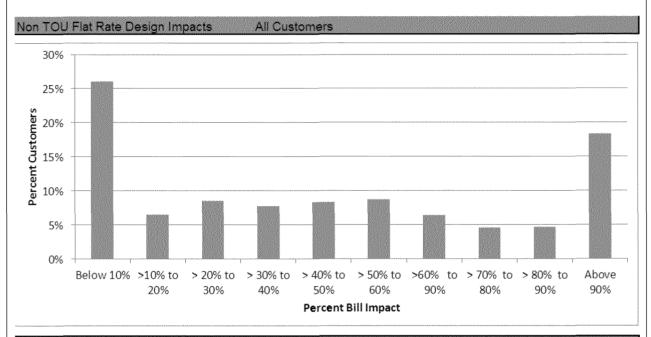


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Scenario - I

Customer Charge: \$20/month

Flat Volumetric Rate



Non TO	Ion TOUFlat Rate Design Impacts						All Customers					
Impact	Customer	Sustomer Average Aver		Average Ce	iverage Cents kWh		Monthly 5			Average Bill t	o Income Ratio	
Percent Range	Number	Percent	Monthly - kWh	LF	jul-12	Proposed	Change	Jul-12	Proposed	Change	Jul-12	Proposed
Below 10%	1,204,236	26%	876	15%	20.12	15.60	-22%	176.23	136.67	(39.55)	2.0%	1.5%
>10% to 20%	302,034	7%	649	15%	13.57	15.66	15%	88.04	101.55	13.51	1.0%	1.2%
> 20% to 30%	393,808	9%	628	15%	11.90	14.91	25%	74.71	93.59	18.88	1.1%	1.4%
> 30% to 40%	359,956	8%	548	14%	11.38	15.35	35%	62.39	84.16	21.78	1.0%	1.4%
> 40% to 50%	385,864	8%	464	13%	11.12	16.07	45%	51.60	74.57	22,96	0.9%	1.2%
50% to 60%	403,482	9%	428	13%	10.28	15.86	54%	44.02	67.93	23.91	0.9%	1.4%
>60% to 90%	298,390	6%	368	13%	9.95	16.38	65%	36.59	60.27	23.68	0.8%	1.3%
> 70% to 80%	210,750	5%	345	13%	9.28	16.18	74%	31.99	55.79	23.80	0.9%	1.5%
> 80% to 90%	216,696	5%	288	12%	9.42	17.38	85%	27.12	50.03	22.92	0.7%	1.3%
Above 90%	846,364	18%	167	11%	9,45	21.81	131%	15.78	36.43	20.65	0.4%	1.0%
Group Total	4,621,580	100%	527	14%	15.01	16.03	7%	79.03	84,39	5,36	1.3%	1.4%

# Scenario Description

Scenario - II

Customer Charge: \$10/month

Flat TOU with on-peak/part-peak price = part-peak/off-peak price = 1.5

	F	orecast	% of	
Non-CARE	Period Sale		Sales	Rate
	Summer On-Peak	1.99	10%	28.3
	Summer Part-Peak	2.35	12%	18.9
	Summmer Off-Peak	4.99	26%	12.6
	Winter Part-Peak	1.11	6%	13.2
	Winter Off-Peak	8,54	46%	13.2
Cus	st \$/Mo.			10.0
Fix	ed Charge High Demand \$/Mo.			0.0
Fixed 0	ed Charge Low Demand \$/Mo.			0.0
Min	Charge \$/Mo.			0.0
			% of	
CARE	Period Sale	s (GWh)	Sales	Rate
	Summer On-Peak	1.14	11%	22.7
	Summer Part-Peak	1.32	13%	15.1
	Summmer Off-Peak	2.79	27%	10.1
	Winter Part-Peak	0.57	6%	10.6
	Winter Off-Peak	4.41	43%	10.6
Cus	st S/Mo.			8.0
	st \$/Mo. ed Charge High Demand \$/Mo.			
Fix				8.0 0.0 0.0

# **Scenario Description**

Scenario - II

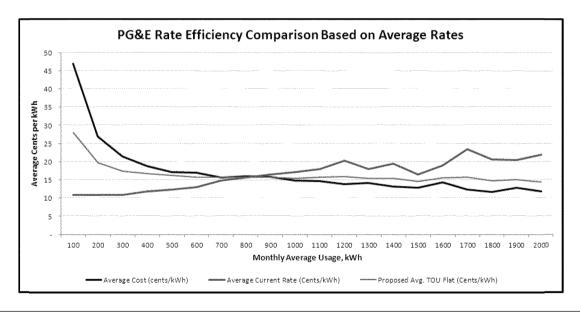
Customer Charge: \$10/month

Flat TOU with on-peak/part-peak price = part-peak/off-peak price = 1.5

# Result-2a: Average Rate Impact Summary

	NON-CARE	100 100 100	
Baseline	Cost Base	Jul-12	Proposed TOU
Region	Rate	Rate	Rate
Coast (Q, T, V)	15.9	18.3	17
Hills (X)	16.5	18.1	17
Inner Valley (S, P)	16.7	18.0	1.7
Outer Valley (R. W. Y, Z)	16.8	17.9	17
Non-CARE System	16.5	18.1	17
	CARE		
Baseline	Cost Base	Jul-12	Proposed TOU
Region	Rate	Rate	Rate
Coast (Q, T, V)	16.3	9.3	14
Hills (X)	17.0	9.2	14
Inner Valley (S, P)	17.1	9.3	1.3
Outer Valley (R. W, Y, Z)	17.3	9.3	14
CARE System	17.0	9.3	1.4
e Design Measures	Cur	rrent Rate Levels	TOU
Resider	itial CARE Subsidy (SM) => \$	717,000,000 s	247,000,00
Residential CARE subsidy funded by no	n-residential class (\$M) => \$	501,900,000 S	172,900,00
Eff	ective CARE Discount % =>	49%	20
Percent c	of Fixed Costs Recovery =>	0%	1.
Percent	Fixed Cost Not Recovered	22%	1.

#### Result 2b: Rate Efficiency

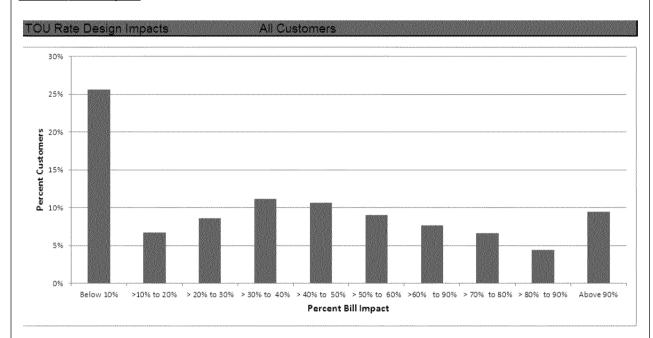


# **Scenario Description**

Scenario - II

Customer Charge: \$10/month

Flat TOU with on-peak/part-peak price = part-peak/off-peak price = 1.5



FOU Rate Design Impacts							All Customers					
Impact	Customer	istomer Average Average Cents/kWh		nts/kWh	%	Monthly \$	Monthly S			o Income Rati		
Percent Range	Number	Percent	Monthly - kWh	LF	Jul-12	Proposed	Change	3ul-12	Proposed	Change	Jul-12	Proposed
Below 10%	1,182,604	26%	859	15%	20.45	16.49	-19%	175.72	141.71	(34.01)	1.9%	1.6%
>10% to 20%	309,642	7%	611	14%	14.08	16.26	15%	86.09	99.38	13.29	1.0%	1.1%
> 20% to 30%	398,883	9%	589	14%	12.49	15.66	25%	73.52	92.20	18.67	1.0%	1.3%
30% to 40%	517,094	11%	547	14%	11.42	15.51	36%	62.51	84.90	22.39	0.9%	1.3%
40% to 50%	492,277	11%	426	13%	11.01	15.94	45%	46.89	67.90	21.01	0.9%	1.3%
50% to 60%	415,406	9%	434	13%	9.59	14.83	55%	41.60	64.33	22.74	0.9%	1.5%
60% to 90%	354,348	8%	366	14%	9.09	14.99	65%	33.31	54.89	21.59	0.9%	1.5%
70% to 80%	307,443	7%	290	12%	8.89	15.47	74%	25.76	44.80	19.04	0.7%	1.3%
80% to 90%	205,140	4%	223	13%	8.90	16.48	85%	19.87	36.78	16.91	0.6%	1.0%
Above 90%	438,743	9%	127	10%	8,94	19,25	115%	11.35	24,45	13.10	0.4%	0.8%
Group Total	4,621,580	100%	527	14%	15.01	16.05	7%	79.03	84.54	5.50	13%	1.4%

Scenario - III

Customer Charge: \$5/month Two Tiers with 20% differential

Fixed charge with \$10/month for 3kW or above annual peak demand, \$5/month otherwise

		Resultin	g 2-Tier Rate		
		Forecast	% of	Jul-12	2-Tier Rate
Non-CARE	Tier	Sales (GWh)	Sales	Rate	Rate
	1	11.59	61%	12.8	13.6
	2	2.20	12%	14.6	16.3
	3	2.92	15%	29.6	16.3
	4	1.47	8%	33.6	16.3
	5	0.79	4%	33.6	16.3
	Cust \$/M	lo.		0.0	5.0
	Fixed Ch	arge High Demand S/	Mo.		10.0
	Fixed Ch	arge Low Demand \$/I	Mo.		5.0
	Min Char	ge \$/Mo.		0.0	0.0
			% of	Jul-12	2-Tier Rate
CARE	Tier	Sales (GWh)	Sales	Rate	Rate
	1	7.05	69%	8.3	10.9
	2	1.10	11%	9.6	13.0
	3	1.30	13%	12.5	13.0
	4	0.53	5%	12.5	13.0
	5	0.24	2%	12.5	13.0
	Cust \$/M	a.		0.0	4.0
	Fixed Ch	arge High Demand \$/	Mo.	0.0	8.0
	Fixed Ch	arge Low Demand \$/I	VIo.	0.0	4.0
	Min Char	ge \$/Mo.		0.0	0.0

#### **Scenario Description**

Scenario - III

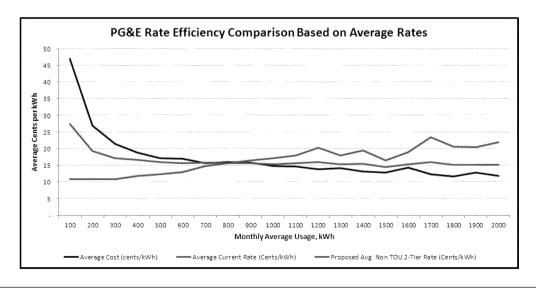
Customer Charge: \$5/month Two Tiers with 20% differential

Fixed charge with \$10/month for 3kW or above annual peak demand, \$5/month otherwise

#### **Result-2a: Average Rate Impact Summary**

	NON-CARE		
Baseline	Cost Base	Jul-12	Proposed Non-TOU
Region	Rate	Rate	Rate
Coast (Q, T, V)	15.9	18.3	18.0
Hills (X)	16.5	18.1	17.
Inner Valley (S. P)	16.7	18.0	16.
Outer Valley (R, W, Y, Z)	16.8	17.9	16.
Non-CARE System	16.5	18.1	17.
2 E E E E E E E E E E E E E E E E E E E	CARE		
Baseline	Cost Base	Jul-12	Proposed Non-TOU
Region	Rate	Rate	Rate
Coast (Q, T, V)	16.3	9,3	14.
Hills (X)	17.0	9.2	147
Inner Valley (S, P)	17.1	9.3	13.
Outer Valley (R, W, Y, Z)	17.3	9,3	13.
CARE System	17.0	9.3	13.
e Design Measures	Cu	rrent Rate Levels	Non-TOU Rate
Resider	itial CARE Subsidy (\$M) => \$.	717,000,000	\$ 271,000,00
tesidential CARE subsidy funded by no		501,900,000	\$ 189,700,00
Eff	ective CARE Discount % =>	49%	20
Percent o	of Fixed Costs Recovery =>	096	5
Percent	Fixed Cost Not Recovered	22%	17

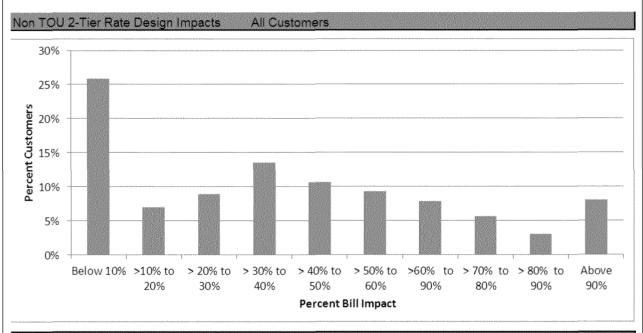
#### **Result 2b: Rate Efficiency**



Scenario - III

Customer Charge: \$5/month Two Tiers with 20% differential

Fixed charge with \$10/month for 3kW or above annual peak demand, \$5/month otherwise



Impact	Customer		Average		Average Ce	nts/kWh	1/6	Monthly \$			Average Bill to	income Ka
ercent Range	Number	Percent	Monthly - kWh	LF	Jul-12	Proposed	Change	Jul-12	Proposed	Change	Jul-12	Proposed
Below 10%	1,196,700	26%	847	15%	20.52	16.76	-18%	173.78	141.94	(31.84)	1.9%	1.6%
10% to 20%	325,272	7%	611	14%	14.14	16.26	15%	86.38	99.35	12.97	1.0%	1.1%
20% to 30%	410,179	9%	565	14%	12.61	15.79	25%	71.33	89.27	17.94	1.0%	1.2%
30% to 40%	626,690	14%	535	14%	11.20	15.10	35%	59,93	80.83	20.90	1.0%	1.3%
40% to 50%	494,337	11%	451	14%	10.28	14.90	45%	46.34	67.16	20.82	0.9%	1.3%
50% to 60%	431,329	9%	403	14%	9.38	14,50	55%	37.78	58.39	20.60	0.9%	1.4%
60% to 90%	363,319	8%	322	13%	9.04	14.89	65%	29.07	47.88	18.80	0.8%	1.4%
70% to 80%	259,430	6%	263	11%	8.84	15.39	74%	23.24	40.47	17.23	0.8%	1.3%
80% to 90%	140,425	3%	201	12%	8.85	16.34	85%	17.81	32.88	15.07	0.6%	1.2%
Above 90%	373,900	8%	118	9%	9,25	20.28	119%	10.90	23.92	13.02	0.3%	0.6%
Group Total	4 621 580	100%	527	14%	15.01	16.00	7%	79.03	84.23	5.20	1.3%	1.4%

Scenario - IV

Customer Charge: \$5/month

TOU

Fixed charge with \$10/month for 3kW or above annual peak demand, \$5/month otherwise

		Forecast	% of	
Non-CARE	Period Sal	es (GWh)	Sales	Rate
	Summer On-Peak	1.99	10%	26.9
	Summer Part-Peak	2.35	12%	18.0
	Summmer Off-Peak	4.99	26%	12.0
	Winter Part-Peak	1.11	6%	12.6
	Winter Off-Peak	8.54	46%	12.6
1	Cust \$/Mo.			5.0
1	Fixed Charge High Demand \$/Mo.			10.0
Fixed 0	Fixed Charge Low Demand \$/Mo.			5.0
100	Min Charge \$/Mo.			0.0
			% of	And the second second
CARE	Period Sal	es (GWh)	Sales	Rate
	Summer On-Peak	1,14	11%	21.5
	Summer Part-Peak	1.32	13%	14.4
	Summmer Off-Peak	2.79	27%	9.6
	Winter Part-Peak	0.57	6%	10.1
	Winter Off-Peak	4.41	43%	10.1
	Cust \$/Mo.			4.0
	Fixed Charge High Demand \$/Mo.			8.0
	Fixed Charge Low Demand \$/Mo.			4.0
	Min Charge \$/Mo.			0.0

#### **Scenario Description**

Scenario - IV

Customer Charge: \$5/month

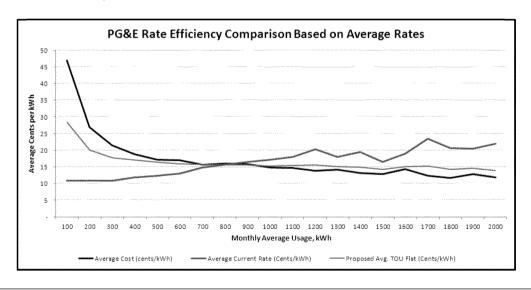
TOU

Fixed charge with \$10/month for 3kW or above annual peak demand, \$5/month otherwise

#### Result-2a: Average Rate Impact Summary

	NON-CARE		
Baseline	Cost Base	Jul-12	Proposed TOU
Region	Rate	Rate	Rate
Coast (Q, T, V)	15.9	18.3	17.
Hills (X)	16.5	18.1	17.
Inner Valley (S. P)	16.7	18.0	17.
Outer Valley (R, W, Y, Z)	16.8	17.9	17.
Non-CARE System	16.5	18.1	17.
	CARE		
Baseline	Cost Base	Jul-12	Proposed TOU
Region	Rate	Rate	Rate
Coast (Q, T, V)	16.3	9.3	14.
Hills (X)	17.0	9.2	14.
Inner Valley (S, P)	17.1	9.3	13.
Outer Valley (R, W, Y, Z)	17.3	9.3	13.
CARE System	17.0	9,3	14.
e Design Measures	Cur	rent Rate Levels	TOU
Residen	tial CARE Subsidy (SM) => \$	717,000,000 \$	247,000,00
Residential CARE subsidy funded by nor	n-residential class (\$M) => _\$	501,900,000 \$	172,900,00
Effe	ective CARE Discount % =>	49%	20
Percent c	of Fixed Costs Recovery =>	0%	
Percent	Fixed Cost Not Recovered	22%	17

#### **Result 2b: Rate Efficiency**



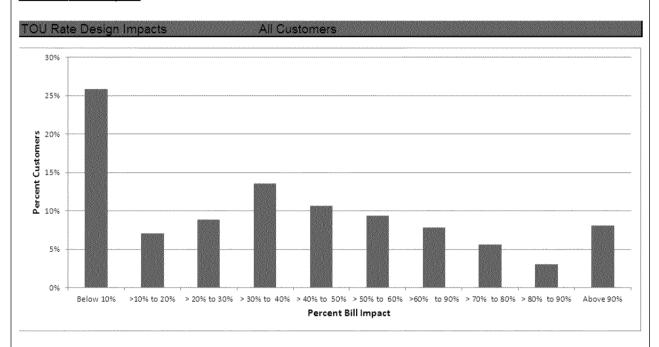
# **Scenario Description**

Scenario - IV

Customer Charge: \$5/month

TOU

Fixed charge with \$10/month for 3kW or above annual peak demand, \$5/month otherwise



TOU Rate Design Impacts					All Customers							
Impact Percent Range	Customer		Average		Average Cents/kWh		%	Monthly \$			Average Bill to Income Rati	
	Number	Percent	Monthly - kWh	LF	Jul-12	Proposed	Change	Jul-12	Proposed	Change	Jul-12	Proposed
Below 10%	1,196,700	26%	847	15%	20.52	16.38	-20%	173.78	138.73	(35.05)	1.9%	1.5%
>10% to 20%	325,272	7%	611	14%	14.14	16.38	16%	86,38	100.08	13.70	1.0%	1.1%
> 20% to 30%	410,179	9%	565	14%	12.61	15.98	27%	71.33	90.37	19.04	1.0%	1.2%
- 30% to 40%	626,690	14%	535	14%	11.20	15.39	37%	59.93	82.37	22,44	1.0%	1.4%
40% to 50%	494,337	11%	451	14%	10.28	15.31	49%	46.34	69.00	22.66	0.9%	1.4%
50% to 60%	431,329	9%	403	14%	9.38	15.05	60%	37.78	60.61	22,83	0.9%	1.5%
60% to 90%	363,319	8%	322	13%	9.04	15.49	71%	29.07	49.82	20.75	0.8%	1.4%
70% to 80%	259,430	6%	263	11%	8.84	16.06	82%	23.24	42.23	18.99	0.8%	1.4%
80% to 90%	140,425	3%	201	12%	8.85	17.10	93%	17.81	34.40	16.59	0.6%	1.2%
Above 90%	373,900	8%	118	9%	9,25	21.01	127%	10,90	24.78	13.87	0.3%	0.7%
Group Total	4 621 580	100%	527	14%	15.01	16.05	7%	79.03	84,53	5.50	1.5%	10.0001.4500