

## Dynamic Pricing-System & Operational Readiness

# **Significant Impact on Our Customers**

- The transition to dynamic pricing represents the largest change to how our customers are billed for their energy use since their first bill was issued.
  - All business customer classes, who have not already done so, will be defaulted onto time-varying pricing.
  - Most customers' new rates will include an additional event-driven Peak-Day Pricing (PDP) adder for the 9-15 hottest days of the year. Small Ag will not be defaulted onto the PDP rate.
  - All residential customers will also be defaulted onto Peak-Day Pricing.
- Significantly changes the status quo and creates "Winners" and "Losers" with significant bill increases for customers in warmer climate zones.
- On a monthly basis, introduces potential for large bill volatility, which creates cash-flow issues for customers.
- PG&E will be the first major IOU to roll out this type of pricing on such scale with little history for such rates.

We are defaulting customers to this radically new rate structure at a time when our customer satisfaction is low and our customers are already hurting from the economy.

## Many Potential Benefits

- In response to the Energy Crisis of 2000-2001, California policy regarding implementation of SmartMeters was driven by the desire, to implement time-varying rates to align the wholesale and retail price of electricity more broadly across the customer base.
- The goal for both PG&E and for the CPUC is to better align individual customer interests with those of California's economy, environment, and energy infrastructure.
- Potential Benefits of PDP/Dynamic Pricing include:
  - Reduced overall cost of energy supply
  - Greater stabilization of the energy grid
  - Reduced power interruptions
  - Reduced demand for power plant load capacity during high demand periods
  - Reduced greenhouse gases
  - Potential for customers to reduce energy costs and enhance control of energy usage (put SmartMeter to use)
  - Opportunity to create partner relationship with customers as their advisor

The default of our customers to this new rate creates a unique opportunity for us to standardize, simplify and rationalize our overall rate structure and to streamline our 300+ current rates.

# PRAFE Dynamic Pricing Components

- In total there are currently several regulatory proceedings dealing with dynamic pricing in addition to the two dynamic pricing decisions.
- One of these decisions orders PG&E to implement default Dynamic Pricing and TOU rates for all customers with a defined timetable and specific rate design guidelines:
  - Time of Use (TOU) rates with additional Peak Day Pricing Event incremental overlay rate.
  - Decision provides for a form of Bill Protection not protection in traditional sense, but rather, a oneyear guarantee that a customer's bill will be the lesser of the default PDP and the opt-out TOU.
  - All customer classes must default to this rate. Trigger is when customers accumulate 12 months of interval data (post transition) at their latest premise.

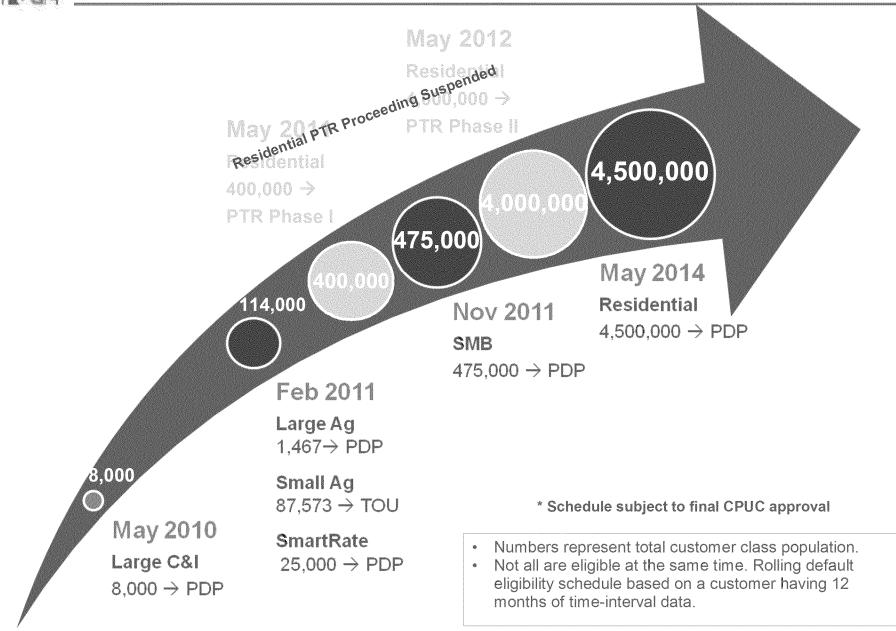
#### This is not the introduction of just one, but rather two rates concurrently:

**Time of Use (TOU)** = charge customers based on when they use power; begin to more closely align retail rates to actual cost (fully loaded) of energy (focus: M-F, May-Oct)

**Critical Peak Pricing (CPP)** = incremental adder or credit on top of TOU to further link retail rates to the cost of energy on the most costly days.

- <u>Peak Day Pricing (PDP)</u>: adder on top of TOU rate that places a significant cost premium for use during key hours on 9-15 Event days. Current rate calls for additional \$0.50-\$1,.20 per kWh.
- <u>Peak Time Rebate (PTR)</u>: credit/incentive model that provides credit for voluntary participation on Event days.

## **PRGE** Dynamic Pricing Transition is Accelerating





## PGSE Large Ag Default Eligibility (as of Feb 2011)

Population			1,4	67
Exception Criteria			Eligible	DR Program 310
Meter Type		Smar Meter 57	Legacy Interval	Legacy 516
Interval Meter Transition	Environment of the second s	es No 7 0	Yes No 130 454	
Billing System	CC&B	ABS	CC&B ABS	
Data Compliance (12 months)		lo 3	Yes No	
Tools	Yes No		Yes No 130 0	



# PGGE Small Ag Default Eligibility (as of Feb 2011)

Population		87,5	73	
Exception Criteria		Bigble 87.442	DR Program	
Current Rate Schedule	TOU 46,695		Fiat 40,747	
Meter Type	SmartWeter Legacy TOU	Smar Meter 15,338	Legacy Interval BIR 21,399	Legacy TOU 3,782
Interval Meter Transition	Yes No Yes No 588 0 0 46,107	Yes No Ye 15,338 0 0		Yes No 0 3,782
Billing System	CC&B ABS CC&B ABS	CC&B ABS	CC&B ABS CC&B 21,399	ABS CC&B ABS
Data Compliance (12 months)	Yes No Yes No 588 0 46,107 0	Yes No Ye 15,338 0		Yes No 0 3,782
Tools	Yes No Yes No 0 588 0 46,107	Yes No Yes 0 15,338 0	No Yes No	Yes No

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## The MARA project is similar in scope and scale to an enterprise-class system implementation due to its business and technology footprints and associated impacts

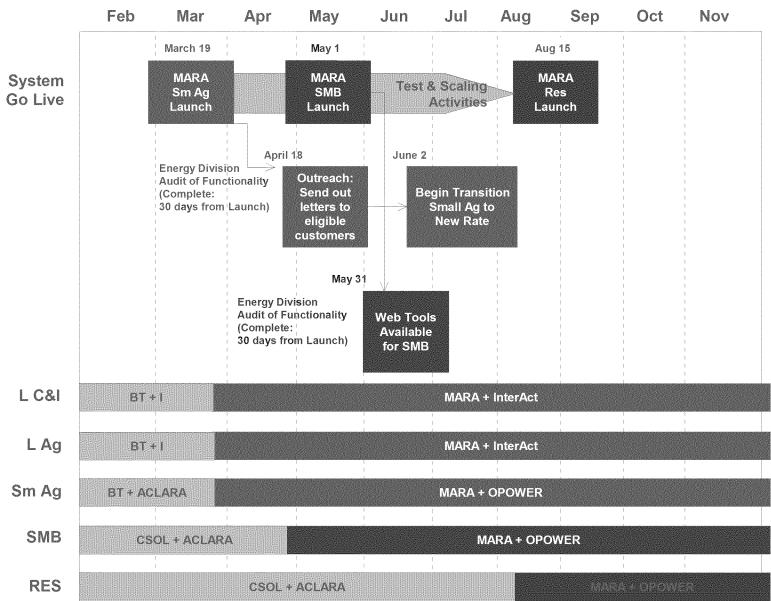
- Requires complete rewrite/revamp of the current customer-information application
- Given the complexity,tangential internet/intranet functionality was packaged within the MARA delivery model to capitalize on SME, PM and testing synergies

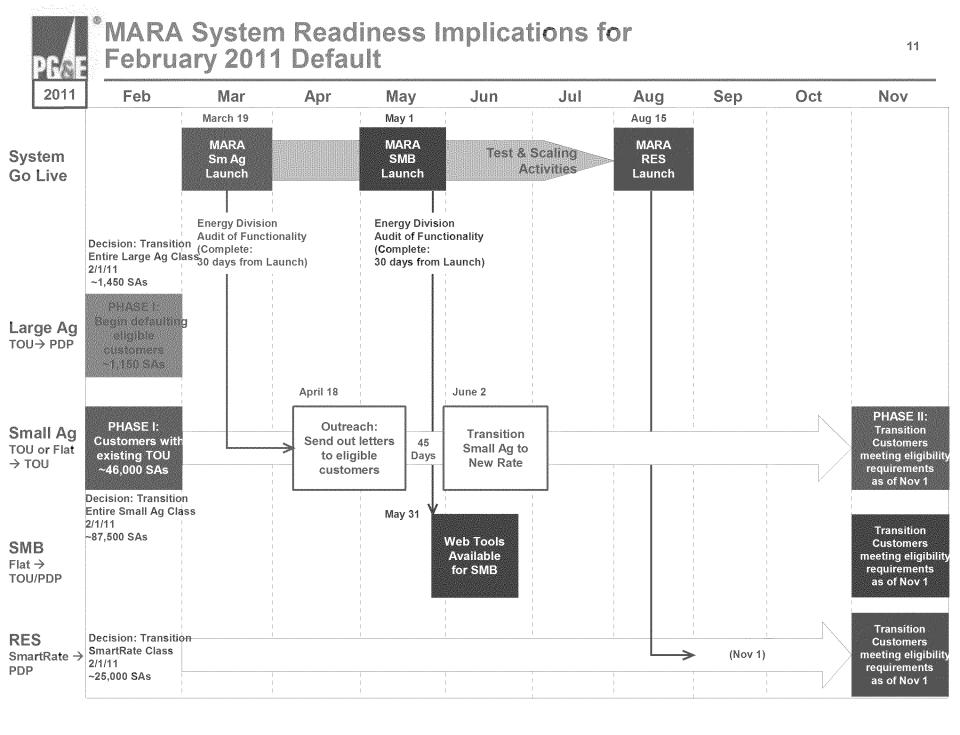
## To meet the objectives of the future state platform, a number of key technology enablers are required to be implemented:

- WebLogic Portal Platform
  - To enable deployment of streamlined user interface as portlets
  - To enable enhanced self service
- WebLogic Enterprise Integration Platform
  - To enable re-usable integration of data across multiple sources to be presented to the user interface
- CA Siteminder
  - To enable secure access with authentication and authorization of users
  - To enable CSR support on the web for user assistance
- Oracle Database
  - To enable flexible data organization, management and access to all users
- Infrastructure Deployment
  - Servers/physical infrastructure
  - Scalability and Reliability for projected number of users and transactions
- · Re-architecture of the user experience
  - Bottoms-up revamp of user interface and user experience through re-designed page flows
- · Re-architecture of the data services
  - Bottoms-up revamp of all data services (Interfaces from multiple systems to pull data)



#### **MARA System Go Live Schedule**

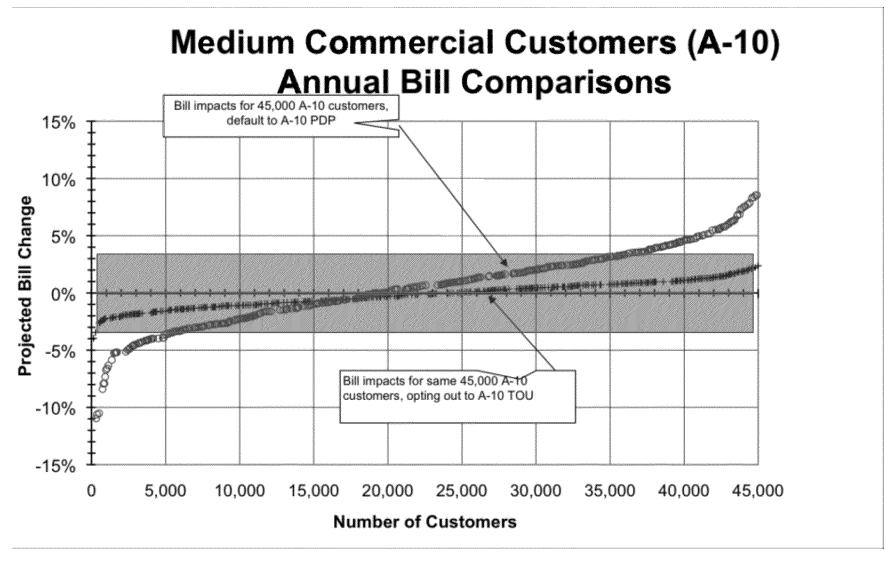






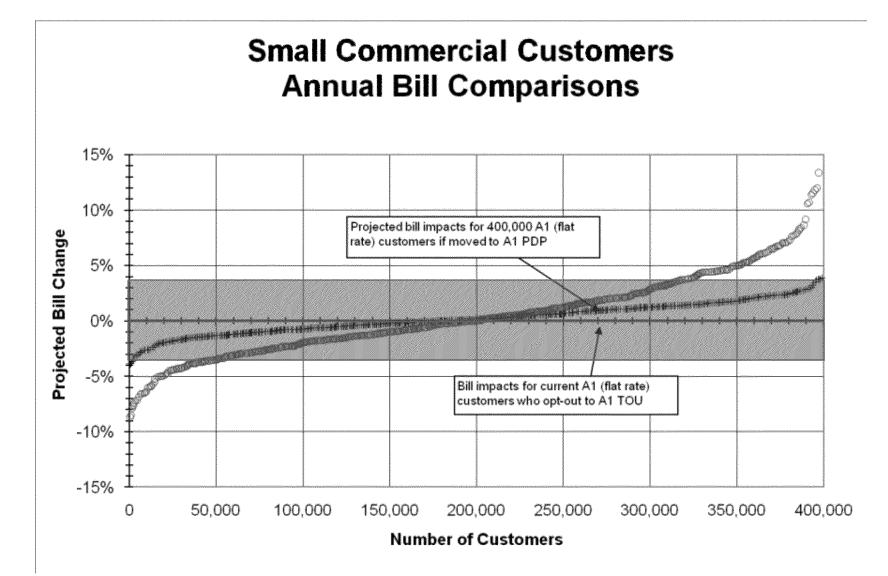
## Appendix

Customer Impact Analysis – Annual View <sup>13</sup>



\*A-10 is a business rate, flat with no tier structure.





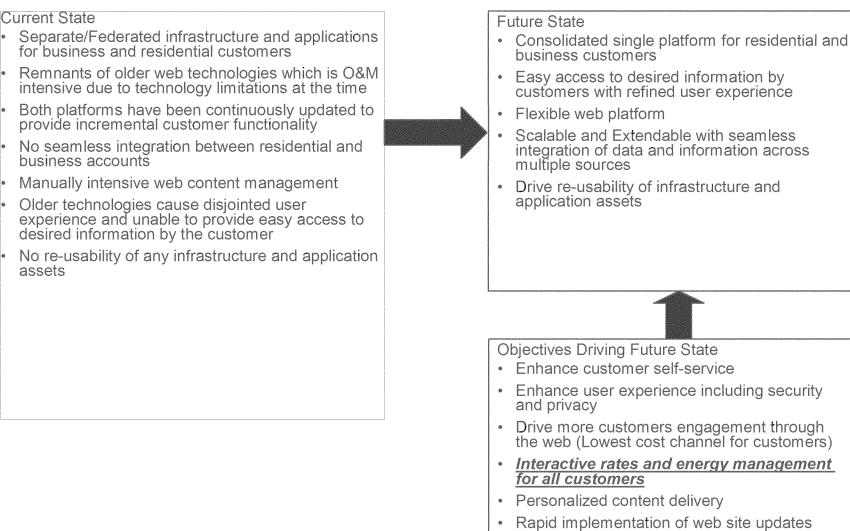


## PGS: Customer Care Technology Roadmap

	2009 2010	2011	2012	2013			
Logical Architecture Areas	& Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4			
Business Milestones	<u>SM</u> <u>GM</u> <u>7M</u> <u>8M</u>	9M         10M         11M           1 (15)         3         HAN 75K           6RC Approval         CIS for DSM         Rolled out           DSM Cont Ctr         23         28	Support 4.4MM	Universal Energy Audit			
Enterprise	Enterprise Enrollime gr	Ent. Support 1 MM opt-in/opt-out Notification int Billing	Customer Information Architecture	NOC Established			
Meters and Head Ends (TNG, UIQ, MV90x1, ITRON)	UIQ Upgrade Layer 42 data center	Call Center Refresh Ph 1	Call Center Refresh Ph 2				
Customer Billing (CC&B, ABS)	Multiple CC&B releases	CC&B 2.3 Upgrade	CC&B Industrialization	* nRAF			
Customer Contact (IVR, Notification, MyAccount)	Customer AT&T Voce access to Tone IVR Impl	MARA Rei3	Advanced Bill analysis in the Home 44				
Meter Data Reporting (MBCDW, RSS, SMHist)	SmartRate CPP	MBCDW Compression Via 11G Kate And					
Meter Data Mgmt System (EA MDMS, EVEE, PlowCal)	V2.8 MV90 Thru upgrade EA MDM 5 server (Ref I) upgrade	Net Metering	Distribute MDMS MDM data	r Confgurable Rules Engine 46			
HAN and PEV	**************************************	Real Time HAN Alpha Pricing	HAN mass Smartport Rollout	IHD and CC&B 48 Reconciliation			
Demand Response (Interact, PDP, PTR)	PDP Res PDP Billing Lite PDP Enrollment	Peak Time 23	Advanced DR Functions				
CRM / IDSM		IDSM Phase 11 IDSM Phase	IDSM Phase MDSS	Castomer CRM Segmentation			
Outage Management (OIS, OMT)	SM-OMT	SM-Outage Restoration Validation	37 SM-Outage Identify & 32 Momentary Scope Rom	49			
Work Management / Field (SAP, FAS)	Complete R3 Design	Deploy R3 Rel 1	Integration 36 Enhancements Deploy R3 Rel 2 (SAP- SAP, CEDSA, FAS, Mobile G(S) CC&B	45			
Energy Procurement / MRTU (PDR, SLAP)	PDR Phase 1	PDR Phase 2 Sub LAP	36				
Asset Management (SAP, CEDSA)		Meter Inventory	1 1 1				
Capability Descriptions	UIQ scalable to 6 million meters Increase in call volume capabilities Enhanced view of SmartMeter restorations in OMT/ODT Ability to sell DR in market Consolidate and standardize VEE process Pilot of Home Area Networking capabilities Enhance MyAccount capabilities for customers	Define strategy for improving DSM capabilities     Improve capacity and reliability of MBCDW     GR approval for Customer by Design Program     Improve meter inventory & tracking capabilities     Provide enhanced CC&B functions     Provide enhanced CC&B functions     Ability to sell DR to market for additional cust.     HAN deployment available for all customers	Cut: data warehouse, op data store, & master data mgmt SmartMeter Rollout Complete Move non-MDM functions out from MDMS Momentary outage reporting with SM meter event logs Advanced demand response functions Referste fo call center tech. and enable home agents industrialization of CC&b.	Establish a network operations center for management of real-time SmorthVeter and SmartGird traffic Configurable MOM to meet multiple business needs Ability to provide energy audits to customers Reconciliation of in-home devices in CC&B improved targeting of customer (sales, mktg. billing, etc.)			
<ul> <li>Weistone / Driver</li> <li>Unconfirmed date</li> <li>Recommendation</li> <li>Link between milestones</li> <li>2 # # = Dependency</li> </ul>	Miestone / Driver     Miestone / Driver     Monofilmed date     Recommendation     Link between milestones     Complete design of Mobile R3		Improve integration with asset mgmt systems Deploy Mobile R3 with adv functionality Itlent. and scoping of outages with SmartMeter Enhance cust. relationship management Rollout of PHEV Smartport capability Enhanced Peak time demand response capabilities Replace MOSS Streaming of meter reads from field to MDM CSR / Cust. able to complete bill analysis				



### MARA – Current and Future State



• Platform for web 2.0



