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.

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 one-year 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.

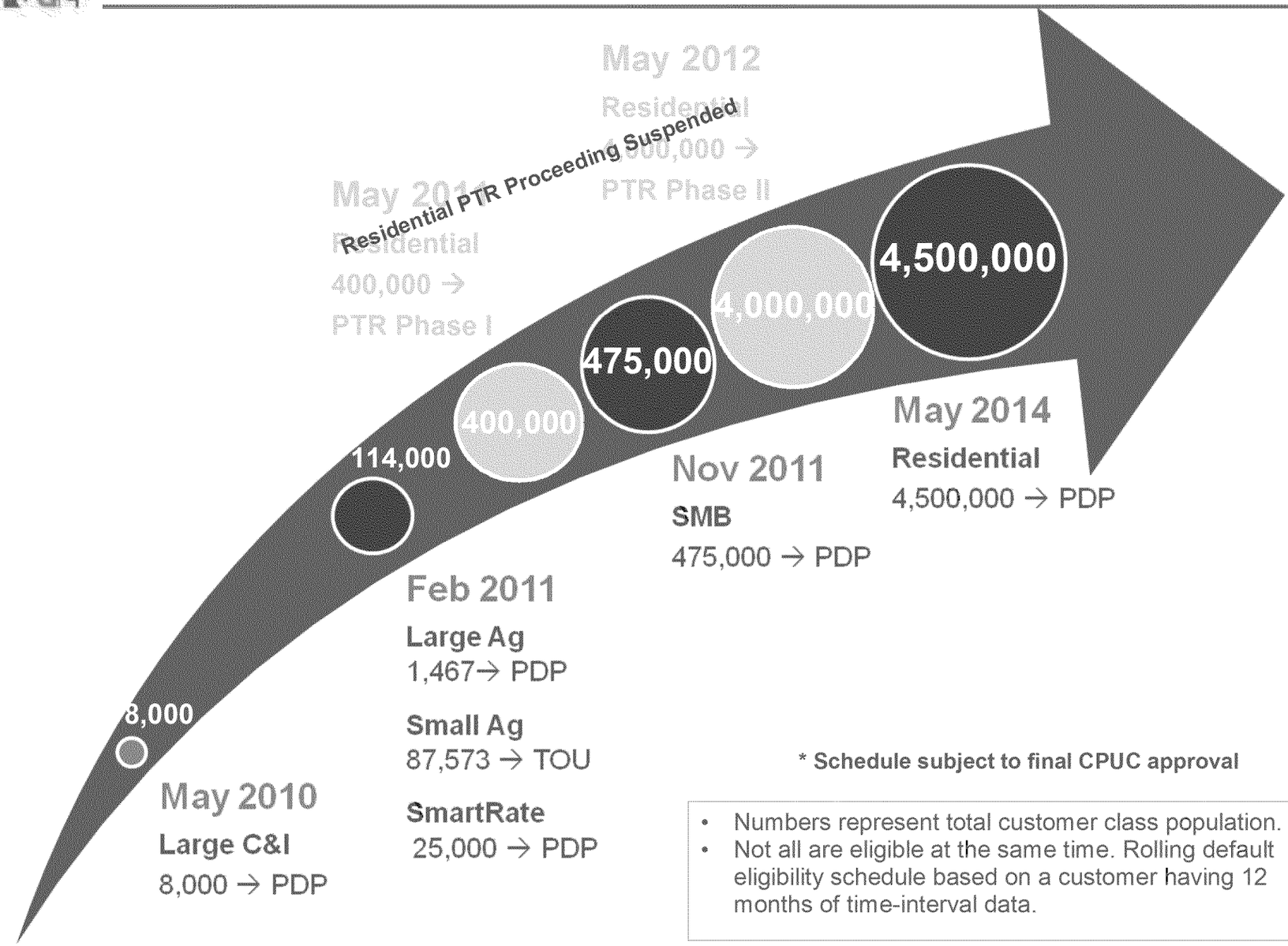
This is not the introduction of just one, but rather two rates concurrently:

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.

- Peak Day Pricing (PDP): 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.
- Peak Time Rebate (PTR): credit/incentive model that provides credit for voluntary participation on Event days.

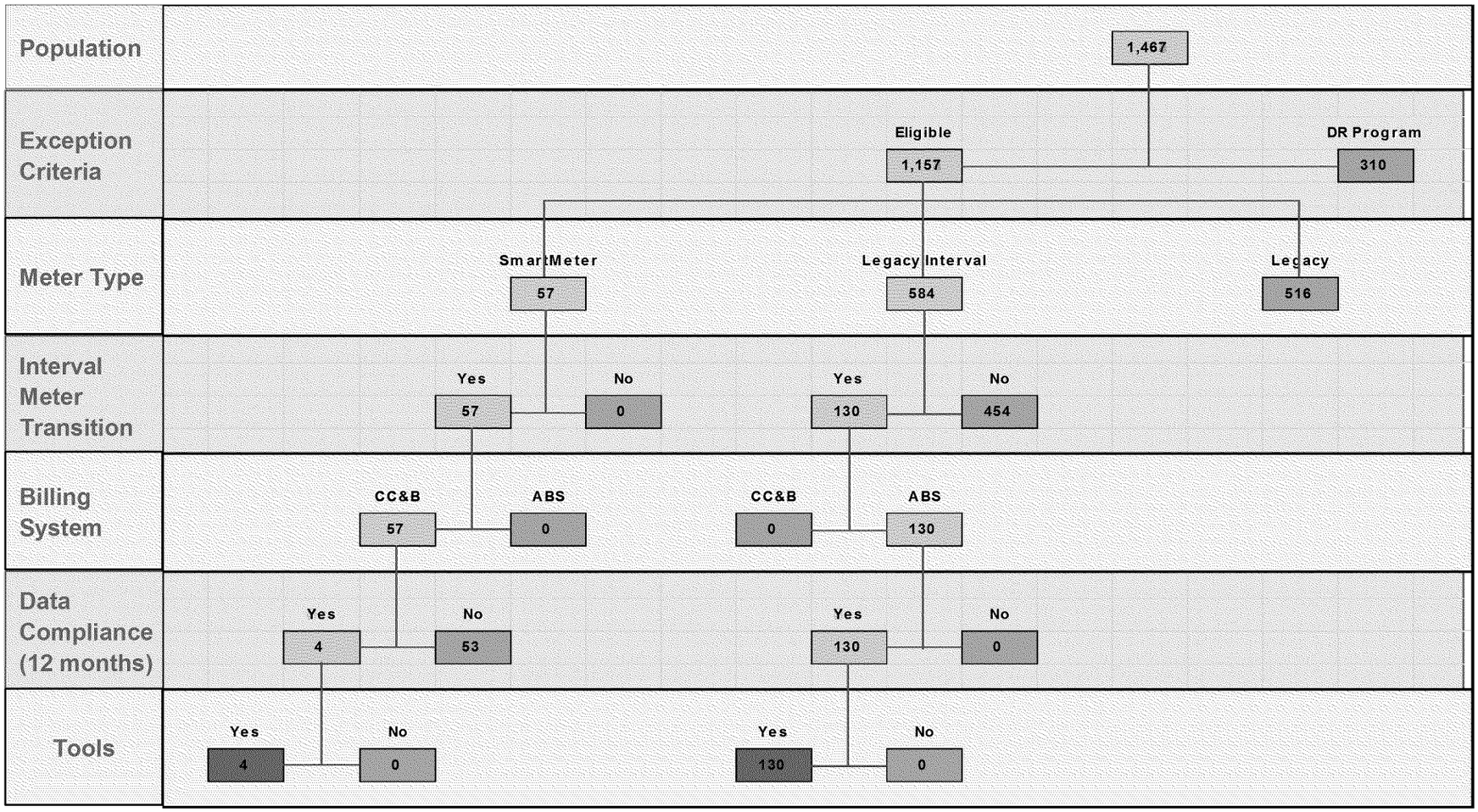
Dynamic Pricing Transition is Accelerating



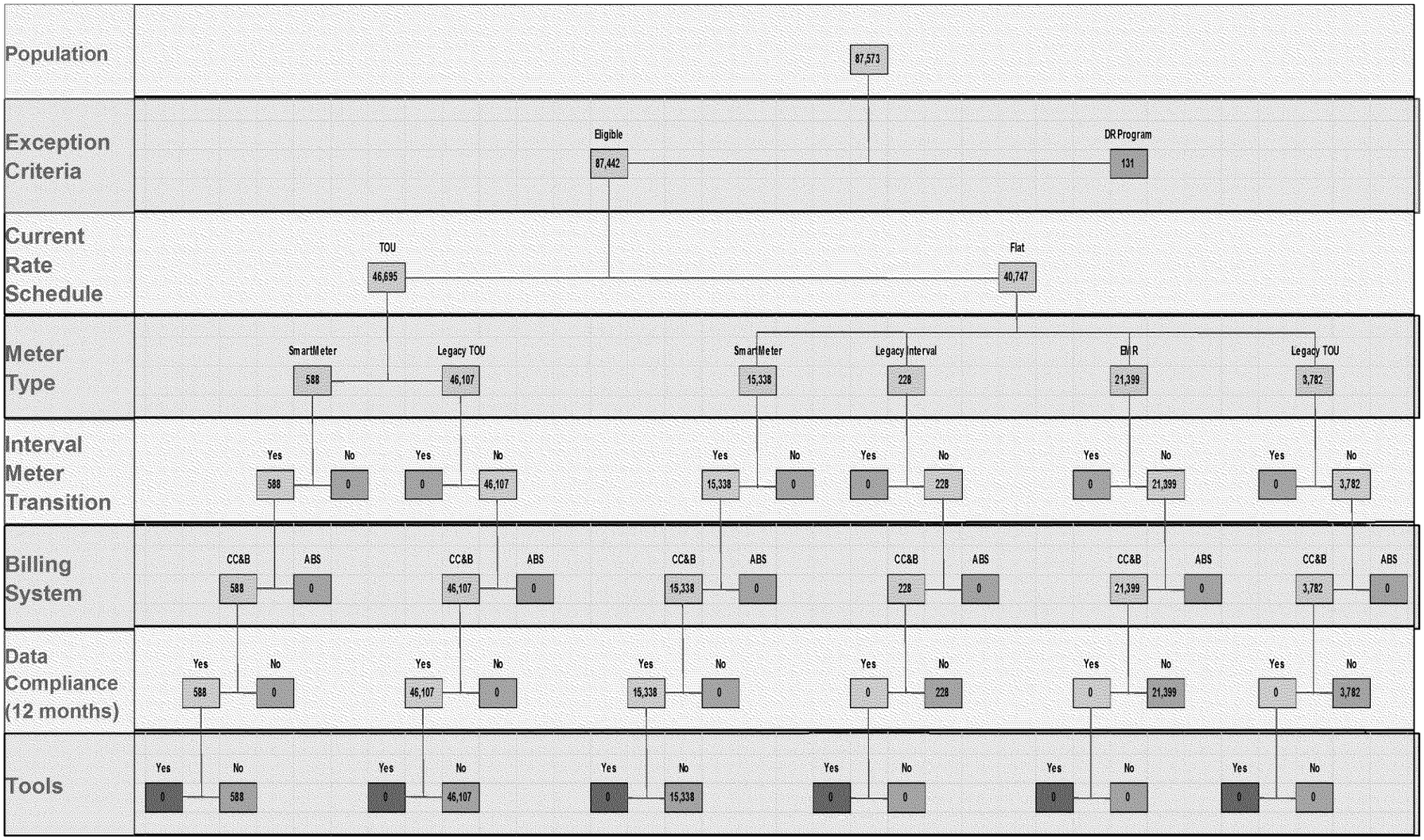
*** Schedule subject to final CPUC approval**

- Numbers represent total customer class population.
- Not all are eligible at the same time. Rolling default eligibility schedule based on a customer having 12 months of time-interval data.

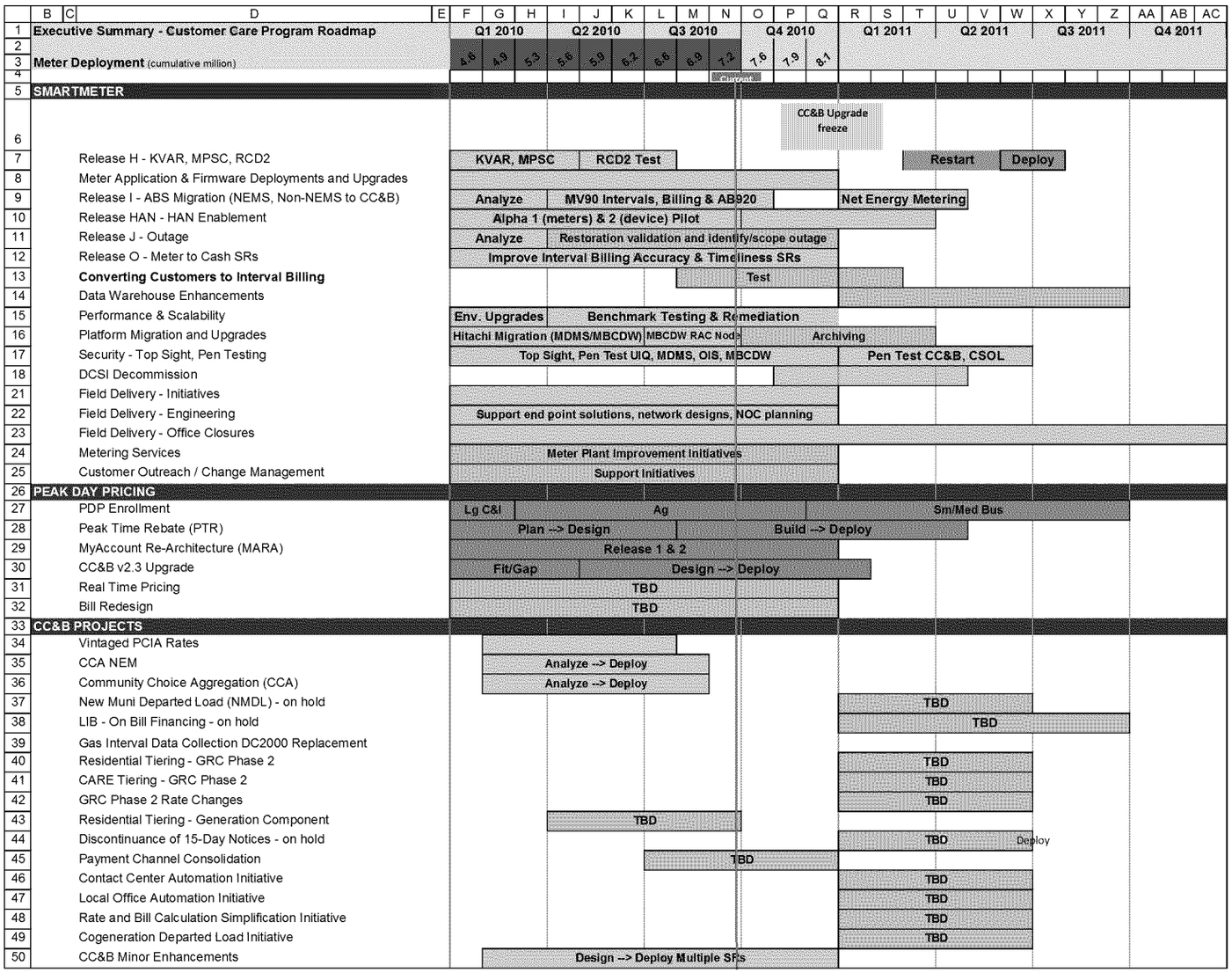
Large Ag Default Eligibility (as of Feb 2011)



Small Ag Default Eligibility (as of Feb 2011)



Customer Care IT Projects "In Flight"



My Account Redesign – Future State Technology

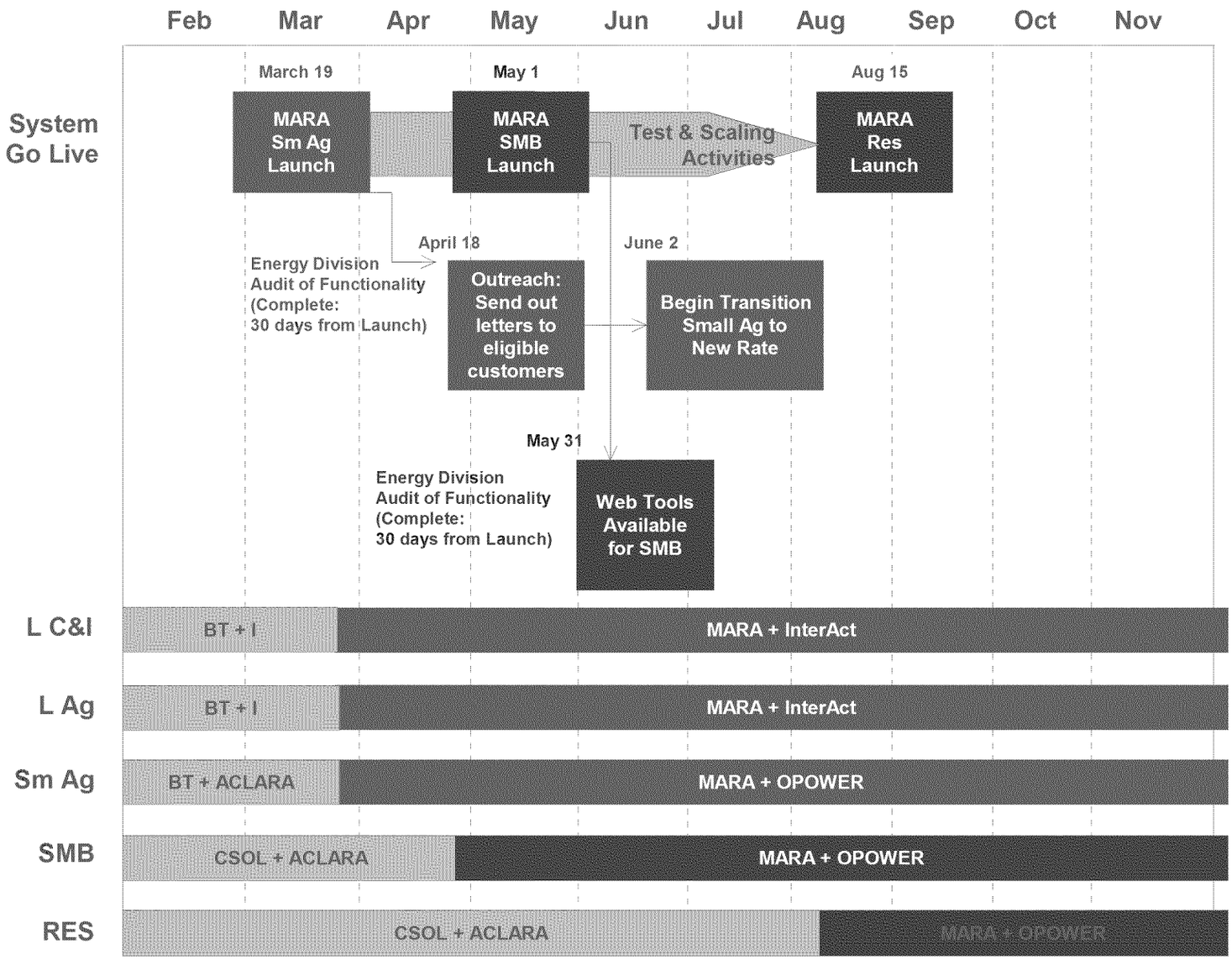
The MARA project is similar in scope and scale to an enterprise-class system implementation due to its business and technology footprints and associated impacts

- 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

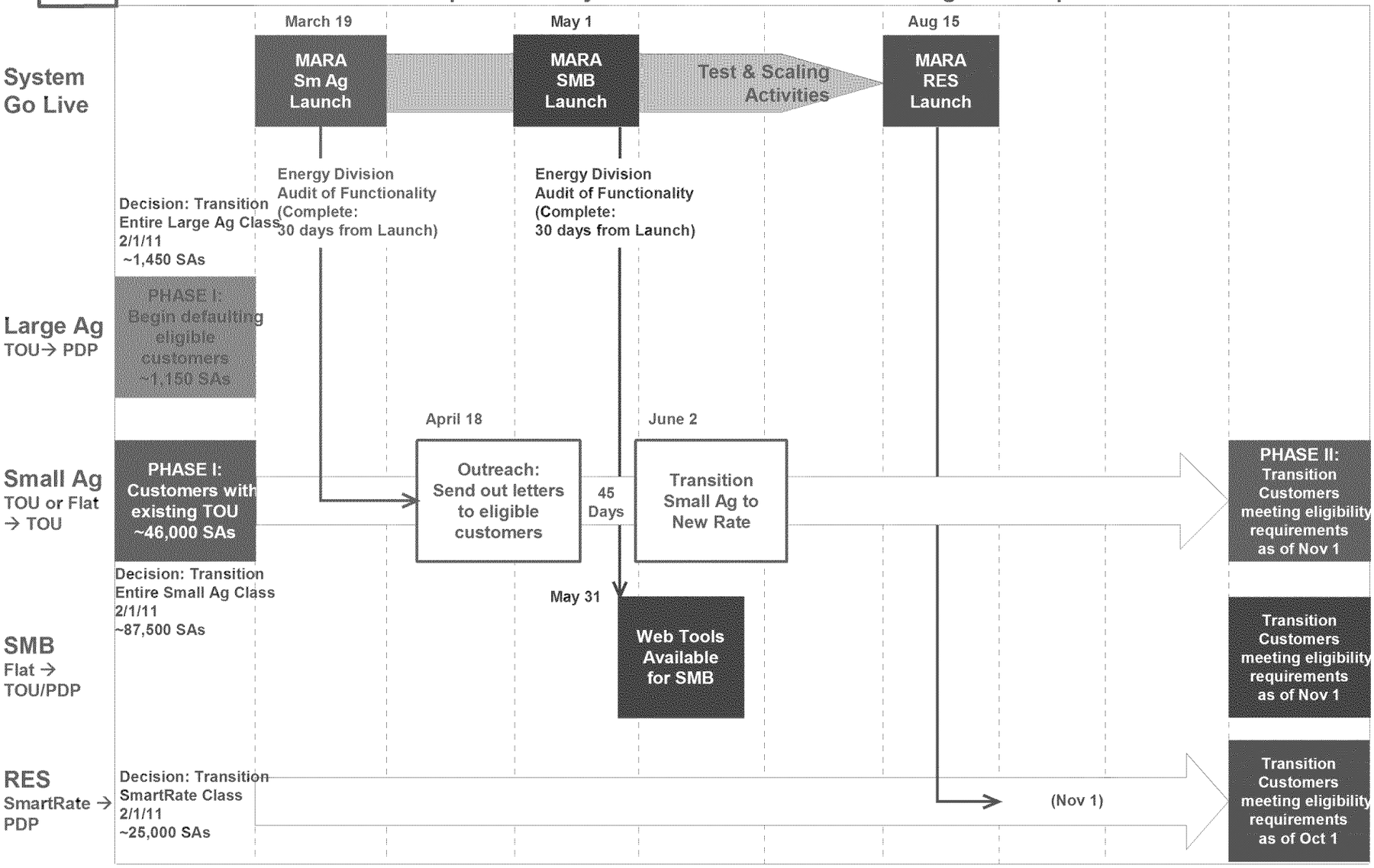
To meet the objectives of the future state platform, a number of key technology enablers are required to be implemented:

- 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

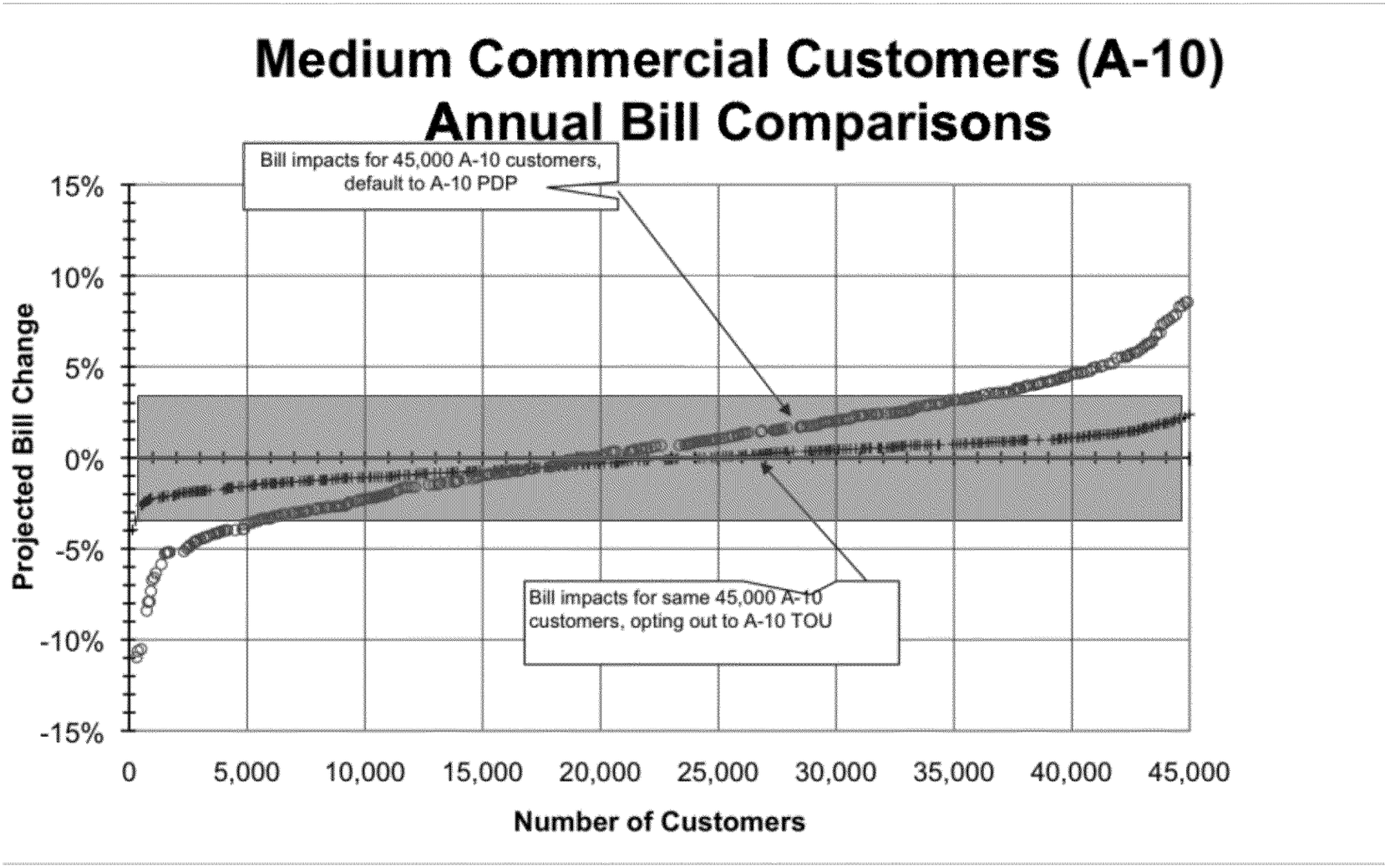


MARA System Readiness Implications for February 2011 Default



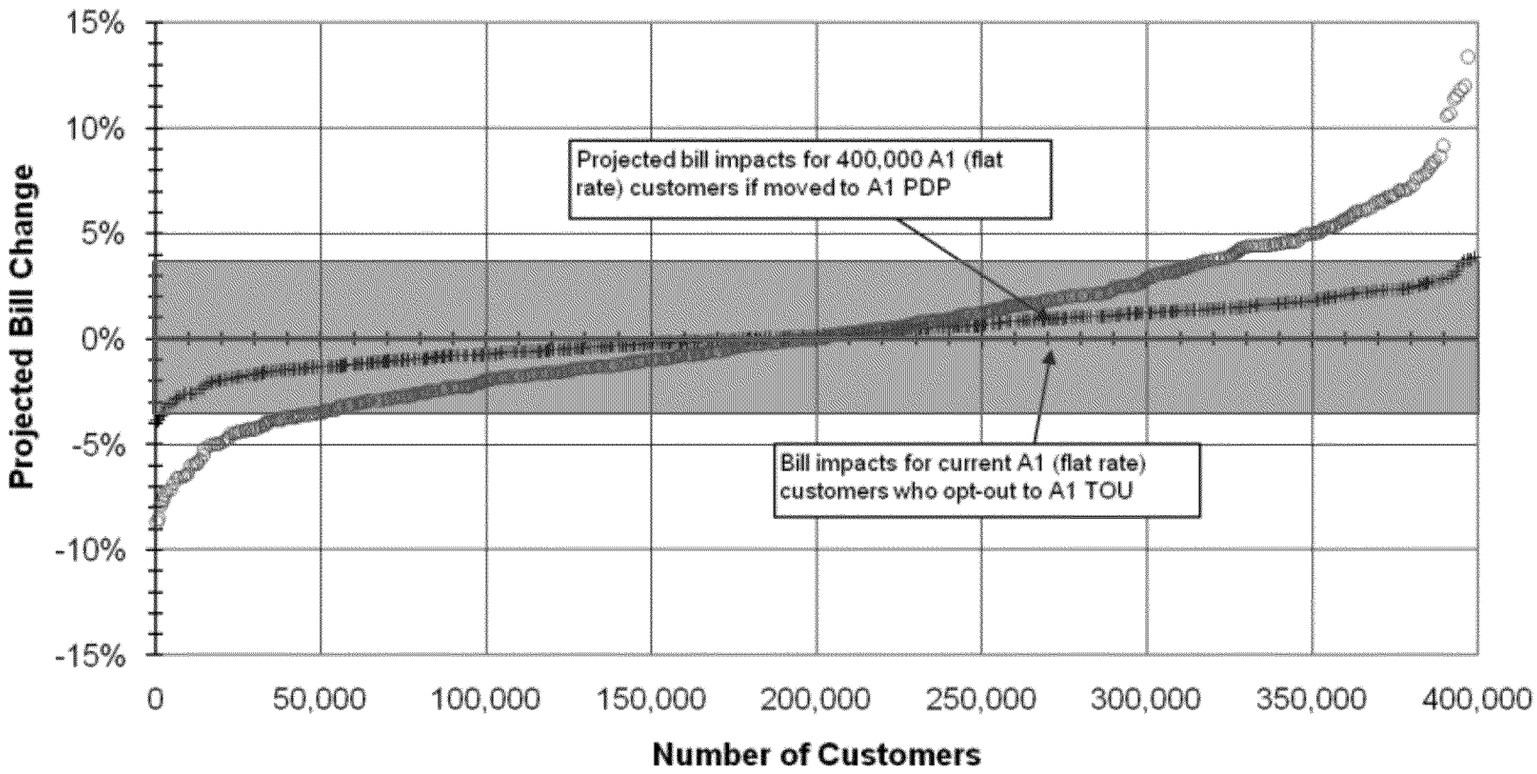
Appendix

Customer Impact Analysis – Annual View

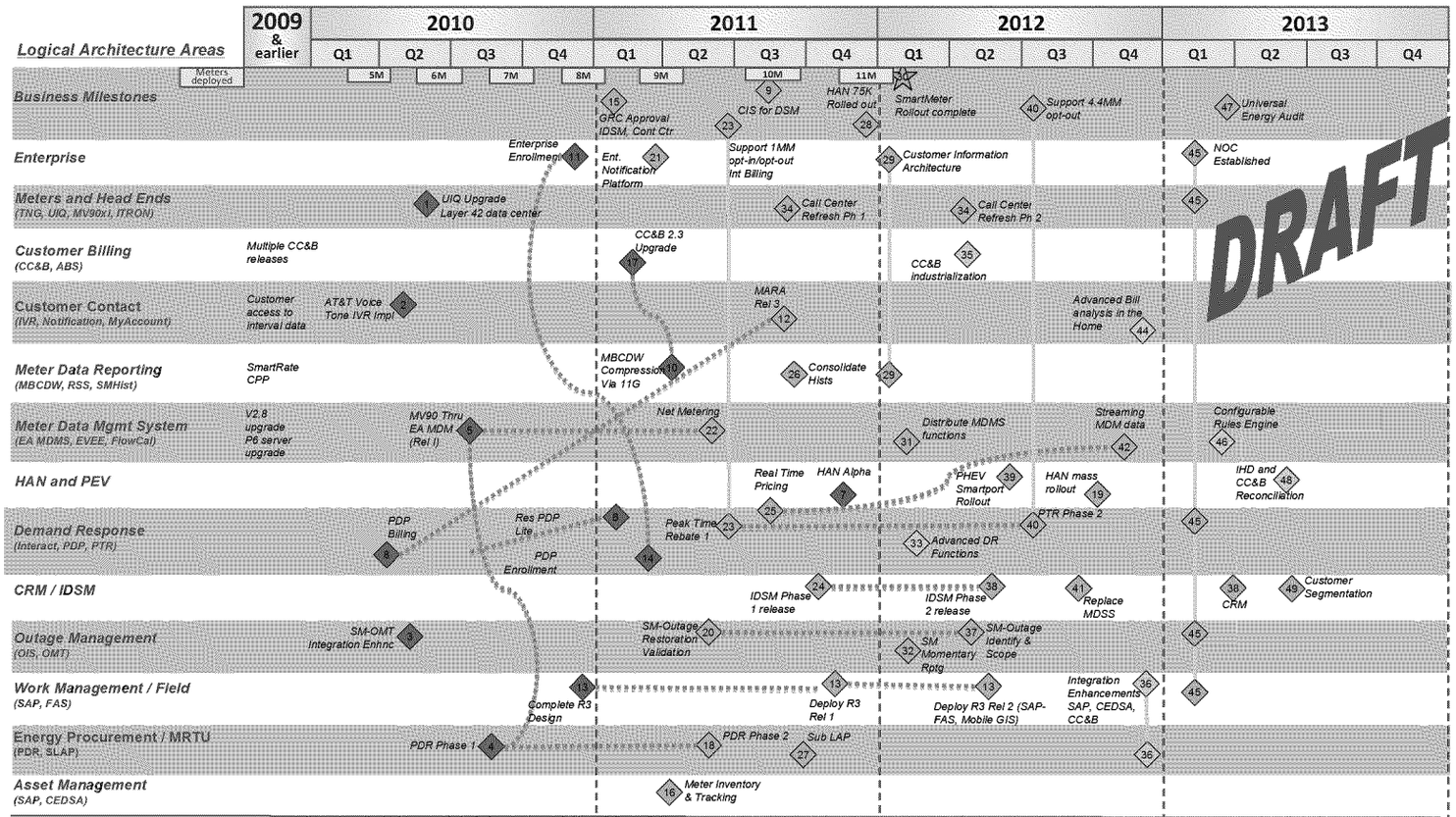


*A-10 is a business rate, flat with no tier structure.

Customer Impact Analysis – Annual View



Customer Care Technology Roadmap



Capability Descriptions

1. UIQ scalable to 6 million meters
2. Increase in call volume capabilities
3. Enhanced view of SmartMeter restorations in OMT/ODT
4. Ability to sell DR in market
5. Consolidate and standardize VEE process
6. Pilot of Home Area Networking capabilities
7. Enhance MyAccount capabilities for customers
8. Enterprise enrollment solution
9. Enhance web experience with Electronic Bill Presentment / Payment
10. Complete design of Mobile R3
11. Simplify access to energy information
12. Define strategy for improving DSM capabilities
13. Improve capacity and reliability of MBCDW
14. GRC approval for Customer by Design Program
15. Improve meter inventory & tracking capabilities
16. Provide enhanced CC&B functions
17. Ability to sell DR to market for additional cust.
18. HAN deployment available for all customers
19. Automated validation of outage restorations
20. Consolidate solution for outbound notifications to customers, employees and third parties
21. Improve billing for customers with micro-generation
22. Bill credit for peak time demand response
23. Improve cust. relationship for CIS and DSM functions
24. Real time pricing demand response
25. Consolidate meter consumption rptg. sources
26. Submit/forecast data to ISO by segments
27. HAN rolled out to 75K customers
28. Cust. data warehouse, op data store, & master data mgmt
29. SmartMeter Rollout Complete
30. Move non-MDM functions out from MDMS
31. Momentary outage reporting with SM meter event logs
32. Advanced demand response functions
33. Refresh of call center tech. and enable home agents
34. Industrialization of CC&B
35. Improve integration with asset mgmt systems
36. Deploy Mobile R3 with adv functionality
37. Ident. and scoping of outages with SmartMeter
38. Enhance cust. relationship management
39. Rollout of PHEV Smartport capability
40. Enhanced Peak time demand response capabilities
41. Replace MDSS
42. Streaming of meter reads from field to MDM
43. CSR / Cust. able to complete bill analysis
44. Establish a network operations center for management of real-time SmartMeter and SmartGrid traffic
45. Configurable MDM to meet multiple business needs
46. Ability to provide energy audits to customers
47. Reconciliation of in-home devices in CC&B
48. Improved targeting of customer (sales, mktg, billing, etc.)

Legend

- = Milestone / Driver
- = Unconfirmed date
- = Recommendation
- = Link between milestones
- = Dependency

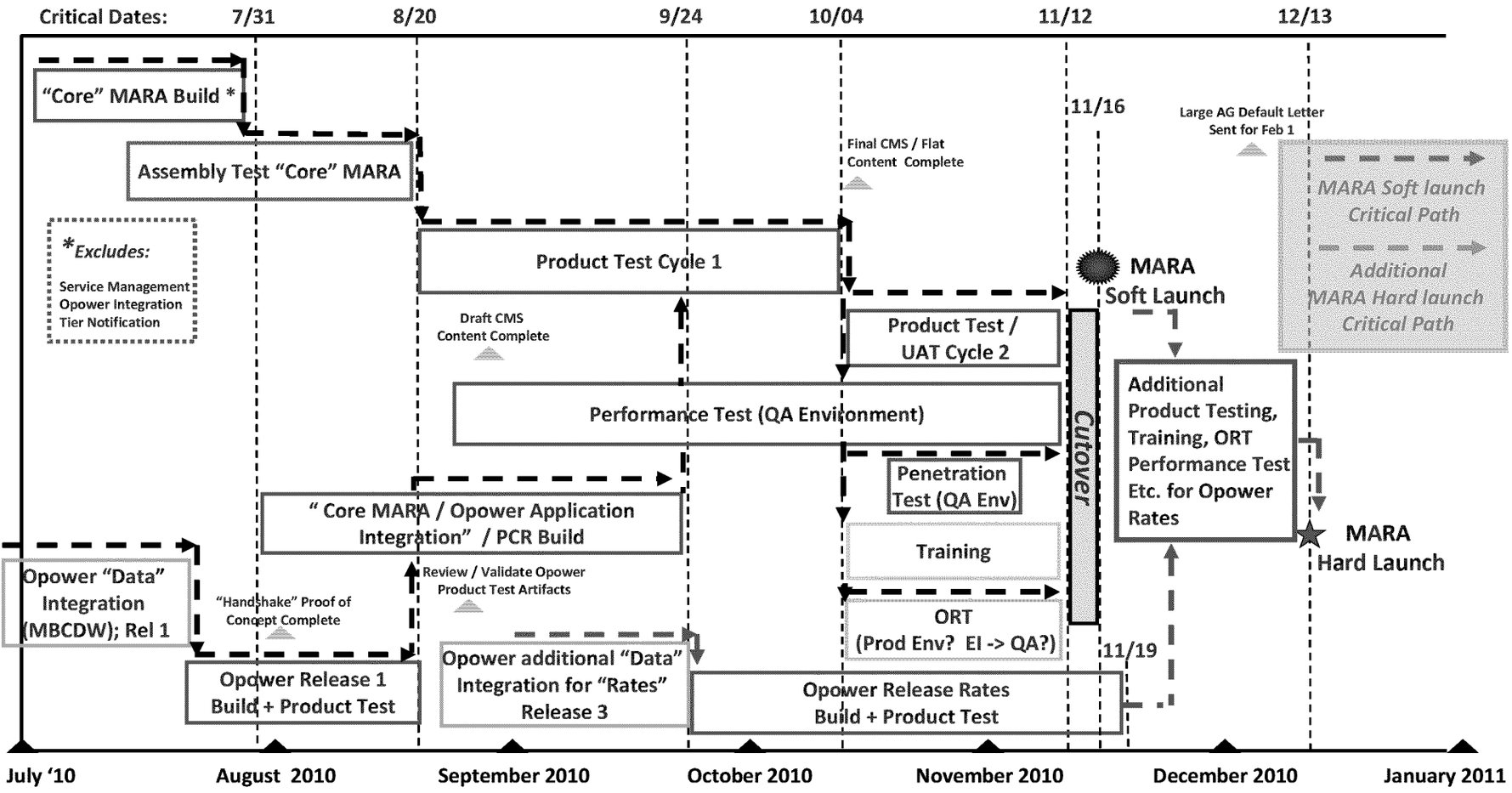
MARA – Current and Future State

Current State
- Separate/Federated infrastructure and applications for business and residential customers
- Remnants of older web technologies which is O&M intensive due to technology limitations at the time
- Both platforms have been continuously updated to provide incremental customer functionality
- No seamless integration between residential and business accounts
- Manually intensive web content management
- Older technologies cause disjointed user experience and unable to provide easy access to desired information by the customer
- No re-usability of any infrastructure and application assets

Future State
- Consolidated single platform for residential and business customers
- Easy access to desired information by customers with refined user experience
- Flexible web platform
- Scalable and Extendable with seamless integration of data and information across multiple sources
- Drive re-usability of infrastructure and application assets

Objectives Driving Future State
- Enhance customer self-service
- Enhance user experience including security and privacy
- Drive more customers engagement through the web (Lowest cost channel for customers)
- ***Interactive rates and energy management for all customers***
- Personalized content delivery
- Rapid implementation of web site updates
- Platform for web 2.0

MARA Timeline- November 2010 Soft Launch



MARA Timeline- March 2011 Soft Launch