

En Banc Utility Business Model of the Future

October 8, 2013 CPUC Auditorium 1pm – 5pm





Objective & Key Takeaways

- I. On October 8th Market Experts and Utility CEOs will discuss the state of the market and the challenges ahead.
 - What are the challenges and opportunities that are being presented in this period of significant disruptions?
 - What , if any, changes to the current utility business model are warranted?
 - Alternatively, is this just progression of time and evolution of technology that every industry goes through?
- II. This presentation will give you context for the issues that will be discussed throughout the October 8th en banc.
- III. This presentation is using the work of PG&E, SCE, and SDG&E.





Historical Context: Federal & State Energy Policy

- Federal and state energy policy are significant drivers of change over last 30 years
- Federal and state policies have expanded energy market participants
- California utilities continue to have the obligation to serve (since 1910)

Key Historical Federal Policy

- 1978 Public Utility Regulatory Policies Act (PURPA)
 > Opened Wholesale Markets to Non-utilities
- 1992 Energy Policy Act of 1992
 - FERC orders transmission owners to carry power for other wholesale parties (1996 - Leads to FERC Order 888/889)
- 2010 FERC Order 1000
 Allows competitive new transmission

Key Historical State Policy

- 1996 AB 1890
 - Authorizes the CA ISO, requires CA Utilities to divest most of their gas-fired generation and required them to purchase power from CA Power Exchange markets.
- 2001 AB1X direct access suspended

levels by 2020

- 2006 AB 32 (Global Warming Solutions Act of 2006)
 > Requires reduction of CA's GHG emissions to 1990
- 2010 Senate Bill 695 (Ratepayer Protection Act)
 Re-instate direct access via phase in plan



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Potential issues in the future

- *Infrastructure Investments*: How will infrastructure investments occur in the future and be paid for?
- *Generation*: How will electricity be produced and delivered in an increasingly decarbonized system? Central station or distributed generation?
- Energy Markets: What will the wholesale energy markets of the future look like?
- **T&D**: Who will coordinate, plan, design, and build the transmission and distribution system network in the future?
- Reliability: Who will ultimately be responsible for reliability?
- Customer: How will changes in the utility business model impact the consumer?
- **Utility Business Model**: How quickly will the transition from traditional utility business model to something different occur?
 - Will the transition be incremental or sudden?
 - Given the regulatory uncertainty regarding recovery and rates, how can the regulatory environment evolve to allow the utility to make investments and be more innovative?
 - What is the future vehicle to achieving policy objectives if the utility business model changes?





Potential business models in 2030

"Wires & Meters Operator"

- Focus on ownership and operation of distribution networks
- Provider of reliability, standby, and power quality services
- Limited energy procurement for customers – provider of last resort
- Open, standards-based architecture supporting integration of distributed resources and micro-grid operations
- Will not depend on the volumetric sales of energy

"Enhanced Status Quo"

- · Similar to today's world
- Continue procurement functions
- Primary focus on wires, including transmission – with structural changes as defined in "Wires Company" scenario
- Selected customer focused services under regulated rates and standards, primarily offered for large commercial and industrial customers
- Current rate structure issues are resolved

"Energy Service Utility"

- Utilities provide a wide range of services, including behind the customer's side of the meter
- Utilities directly compete with unregulated market players
- New performance based incentive mechanisms that is aligned with customers' changing needs and values and reflects the changed utility risk profile



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