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
- 2006 - AB 32 (Global Warming Solutions Act of 2006)
  - Requires reduction of CA's GHG emissions to 1990 levels by 2020
- 2010 - Senate Bill 695 (Ratepayer Protection Act)
  - Re-instate direct access via phase in plan

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

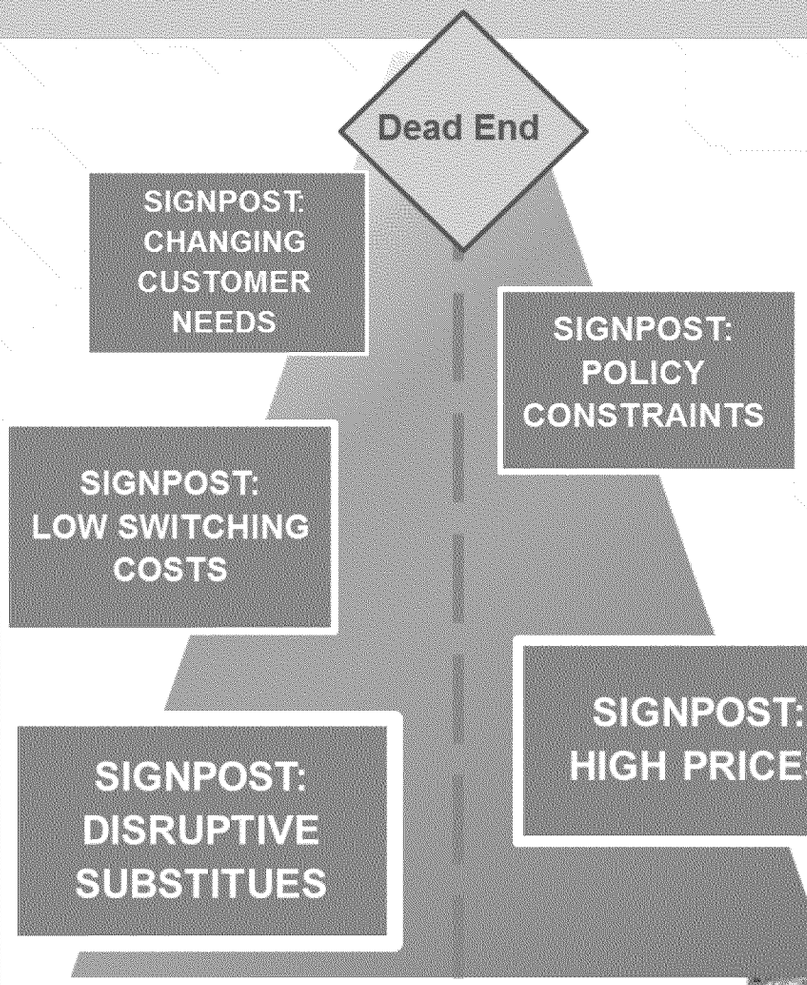
"Enhanced Status Quo"

- 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

Other Industries – Lessons Learned



What went wrong?

- Lack of ability to adapt to a profound market shift *(USPS, Kodak)*
- Constrained by existing or previous government mandates/regulation *(USPS, Airlines)*
- Did not invest across enough developing technologies or services *(USPS, Kodak)*
- Lack of focus on providing optimal customer service facilitates customer departures (*Airlines, USPS)*