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Regulatory Treatment of Purchased Power: Pass Through or Profit Center? Give Away or Value Creation?

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Harvard Electric Policy Group – Chicago, Illinois

Outline of Presentation

Context: factors affecting today's topic on power procurement

The policy goal(s) of resource procurement

Thinking about the risks – types and means to allocate

Options for regulatory treatment of purchased power

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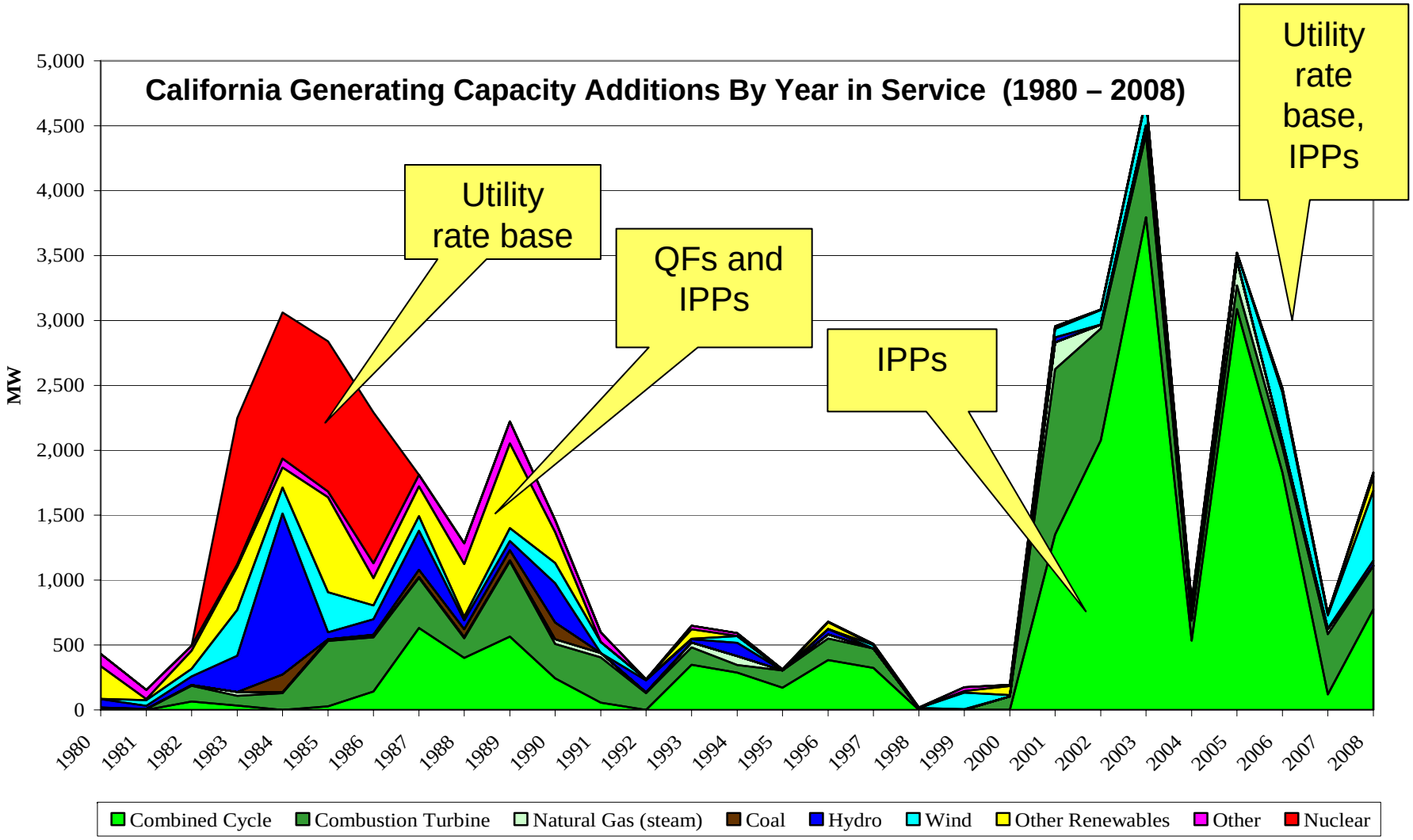
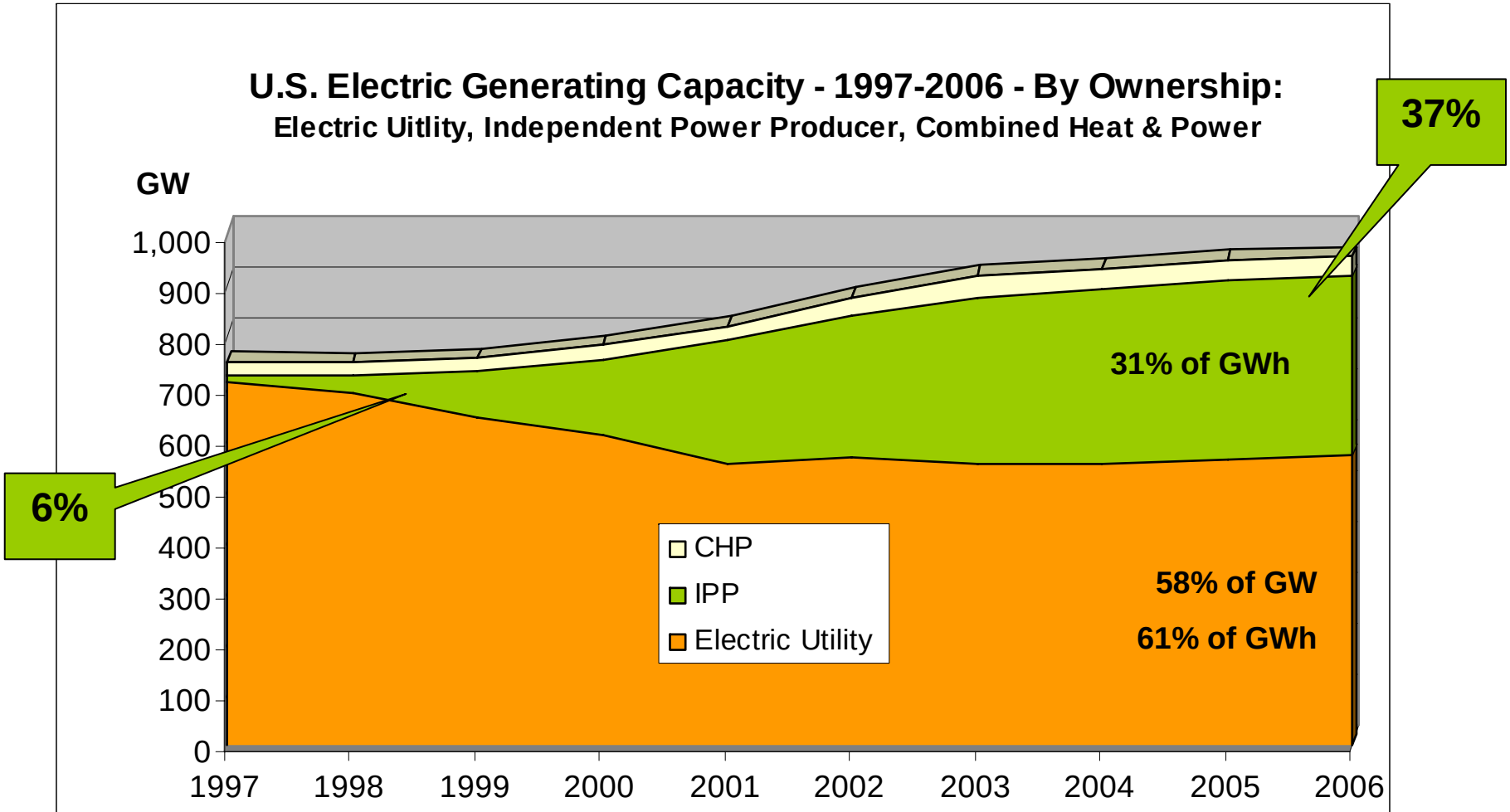
Context:
Past eras of utility and IPP capacity additions



Source: PLATTS

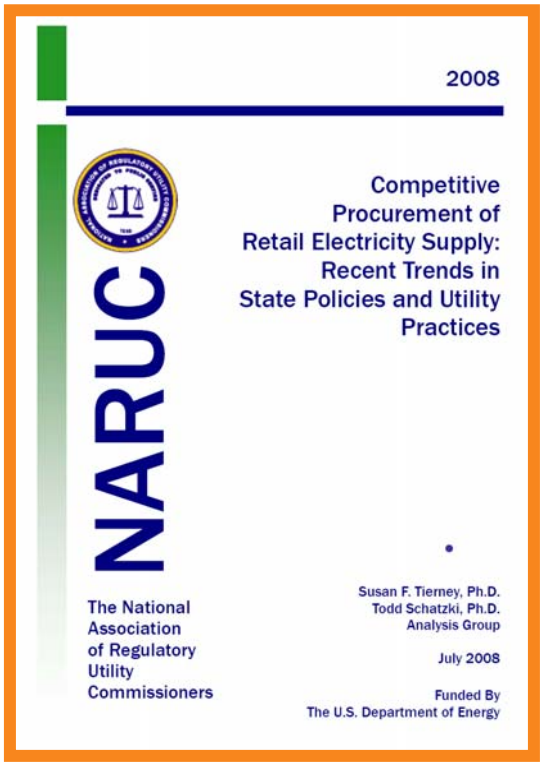
Context
Mixed Generation Sector – Utility and IPP Ownership



EIA, Form 860 Data, http://www.eia.doe.gov/cneaf/electricity/epa/existing_capacity_state.xls; http://www.eia.doe.gov/cneaf/electricity/epm/epmxlfile1_2.xls; http://www.eia.doe.gov/cneaf/electricity/epm/epmxlfile1_3.xls

Context: Analysis Group Study – Recent Trends in Competitive Procurements

- Analysis Group performed study for NARUC/FERC/DOE on current state and utility policies and practices for competitive procurements of supply for retail customers.
- Focus of study:
  - States with relatively formal (rule-based) approaches to competitive procurements
  - States using competitive procurements for incremental resource selection or for supply for "full requirements service" customers
- Study presented to NARUC Competitive Procurement Collaborative in July 2008.



Context:
Observations re: Utilities' Use of Competitive Procurements

Many states and utilities are using competitive procurements for various purposes:

- **Identifying "best" incremental supply (e.g., where utility has obligation to provide generation for most retail customers)**
- **Obtaining "full requirements" supply for basic-service customers (e.g., where retail choice exists and utility is not fully in the generation business)**
- **Arranging for "renewable energy credits" (e.g., the utility has a Renewable Portfolio Standard obligation)**
- **Procurement of "special" resources (e.g., under states with hybrid structures, special policy requirements)**

Selection may be based on price alone, or on array of Price and non-price factors (thus introducing utility judgment)

Context:
Observations re: Utilities' Use of Competitive Procurements

Actions flowing from utility procurements (generally):

- **Are likely to involve a contract – e.g., for**
  - **Full-requirements supply**
  - **PPA for capacity, and/or energy, and/or ancillary services**
  - **PPA for standardized commodity with liquidated damages**
  - **Renewable energy credits, alternative energy credits**
  - **Turn-key and/or EPC contract to build a new power plant**
  - **Purchase of services (e.g., pension fund manager, installation of energy equipment devices, auditor, tree-trimming)**
  - **Purchase of goods (e.g., fuel, trucks, paper, copper wire)**
- **May or may not involve "utility investment"**
  - **That is, eligible for recovery of return on capital in regulated rates**

Context:
Electric Industry Faces Large Investment & Resource Challenges

Demand-side measures and strategies

- e.g., EE, solar, DG

Generation capacity additions

- E.g., wind, NGCC, IGCC, CT, nuclear, CCS

Pollution control investments

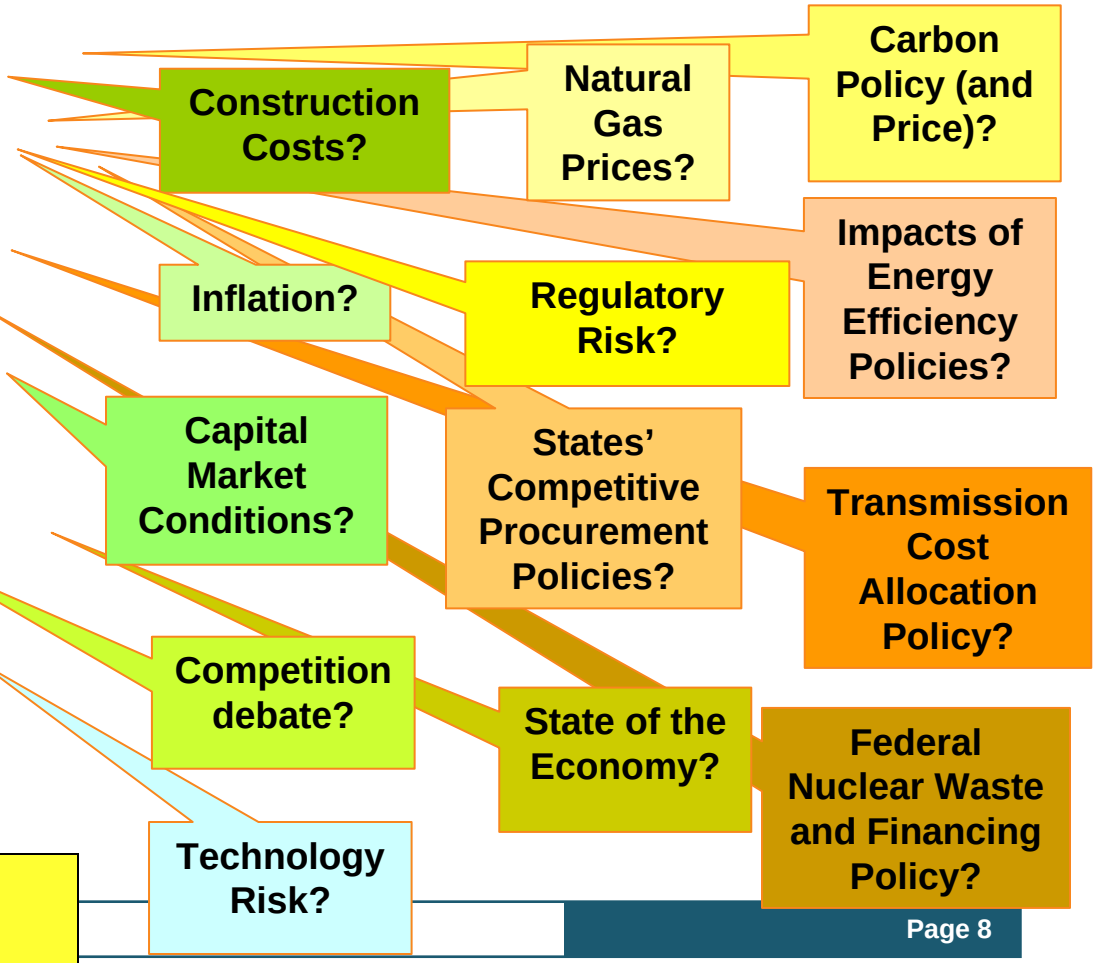
- e.g, post-CAIR, CO2

Transmission & Distribution

- Reliability & economic upgrades,
- Smart grid
- Aging infrastructure

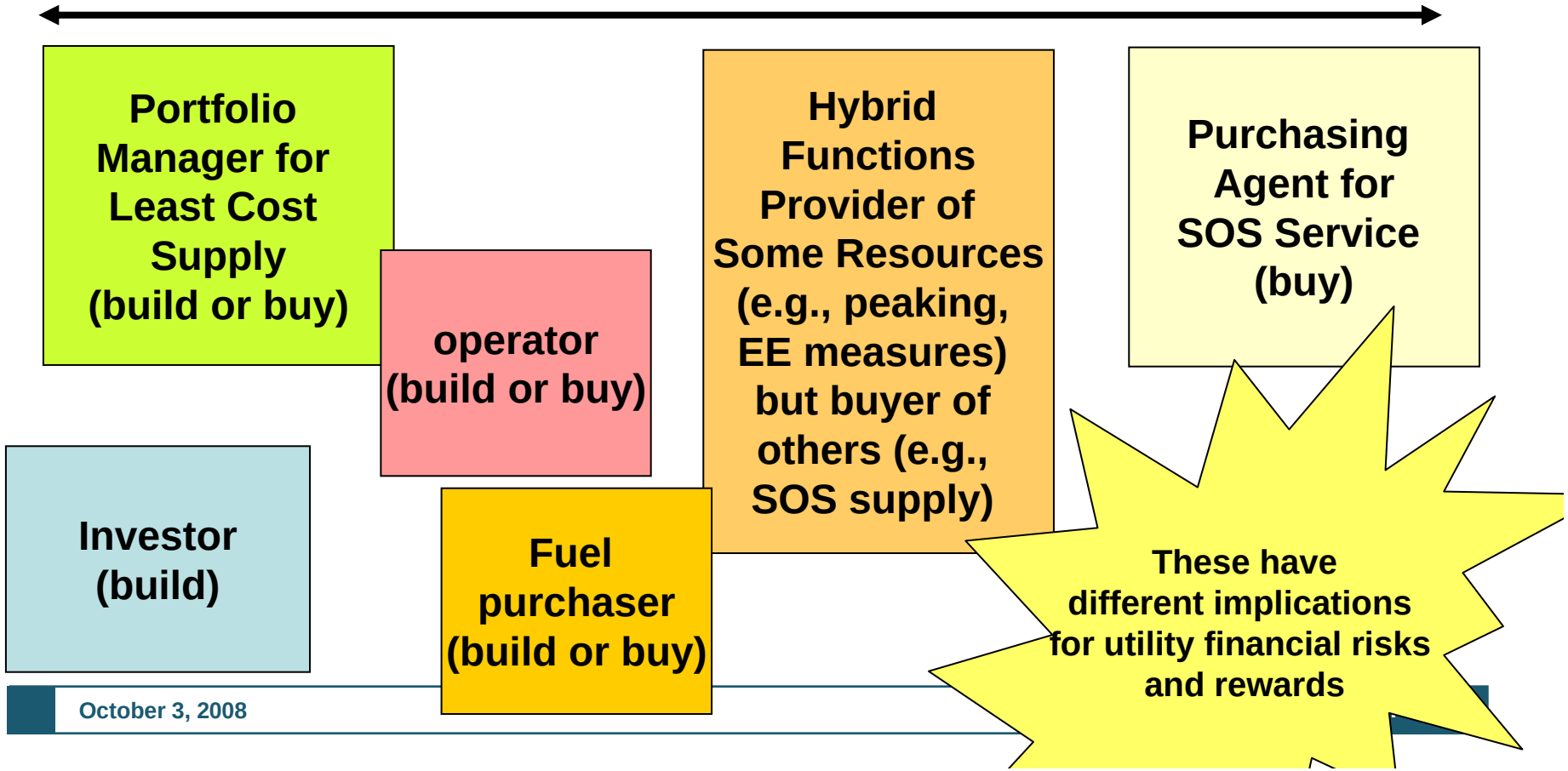
Industry should have incentives to minimize inevitable cost increases

Wide array of significant uncertainties



Context:
Procurement Processes – & the Utility's Role(s)

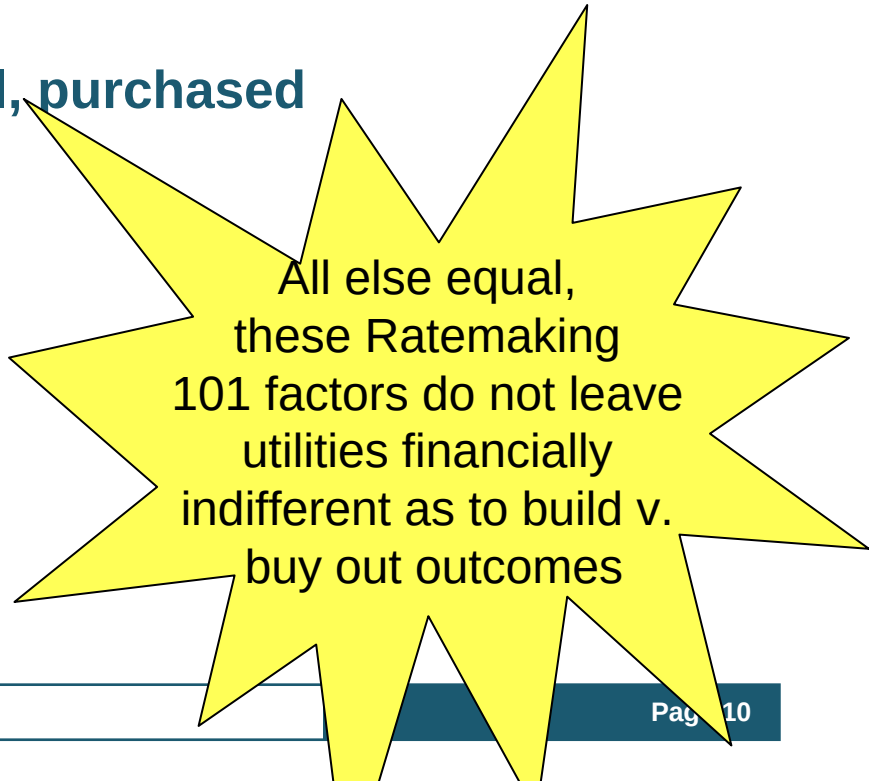
The electric distribution utility's role(s) in generation (and EE) vary across the states and for different parts of their business – with different responsibilities, risks, and so forth.



Context:
Ratemaking 101: Build versus Buy – 1

The ratemaking norm: Cost of service rate regulation

- **Earnings on prudent investment that has been allowed in rate base**
  - **recovery of and on capital**
- **No earnings on expenses: E.g., fuel, purchased power, operating expenses**
  - **Recovery of reasonable costs of providing service in test year**
  - **Pass-through of certain costs (e.g., fuel, PPAs)**



Context:
Ratemaking 101: Build versus Buy – 1

Variants on standard ratemaking models

Performance-base ratemaking

- **Provide upside/downside opportunity to create value for consumers and shareholders through productivity and efficiency gains**

Tailored financial carrots

- **Energy efficiency – shared savings, shared savings based on earnings amount equivalent to power plant investment, bonus rate of return, capitalization of expenditures, percentage of avoided cost**
- **Transmission investments – incentive rate of return (or accelerated depreciation) for particular investments**

PPPs for power and efficiency resources: How they look depends upon where one sits….

For example:

The utility:

Trade-offs between:

- **Public service obligations** (e.g., provide electricity service to customers consistent with reliability, economic and environment goals)
- **Shareholder obligations** (e.g., to produce profits and earnings growth; to attract capital commensurate with risk; to deploy capital so as to create value for investors; to meet business obligations; to maintain healthy balance sheet)

Utility & Shareholders:
May view PPA as lost opportunity for earnings, constraint on balance sheet, way to manage capital commitments and mitigate regulatory risk

Power (or EE) Supplier
May view PPA as establishing the obligations, enabling investment, & allocating risk & reward

Utility ratings agencies:
May view PPA obligations as debt on balance sheet

Investors & Lenders
View the PPA as the only way to realize the deal, since the utility's balance sheet and franchise are the focus of risk mitigation

Consumers:
May be happy when costs are lower than current market outlook, unhappy in the opposite situation

The courts
May view the PPA as legally binding, subject to disputes over grey areas

Regulator
May view PPA as: providing the "best" deal for ratepayers; but limiting regulators' degrees of freedom in the future if prices rise below contract terms; may not view PPA as debt for ratemaking purposes

Power Purchases: How they look depends upon where one sits

The utility considering offers for power (and efficiency resource) supply from 3rd parties is supposed to….

- evaluate the offers from the ratepayers' revenue requirement point of view.
- compare all options – from 3rd parties, affiliates, own investment options – on equal footing, without the exercise of "improper self-dealing."
- ignore – or not take into account – direct financial implications of these options for shareholder earnings' growth, rate base erosion, etc.

Yet the utility cannot help but be concerned that ….

- ratings agencies may treat PPA obligations as debt on utility balance sheets, worsening credit ratings at an already challenging period
- potential loss of opportunity for earnings

Guarding against improper self-dealing in these circumstances – A main task in competitive procurement processes

Many competitive procurement practices for 3rd- party supply are designed to mitigate improper self-dealing – e.g.,

- **Fair and objective product specification, model contract, credit and collateral requirements, bidder eligibility requirements**
- **Fair and transparent evaluation criteria – especially any non-price factors**
- **Independent monitor to oversee the design and implementation of the procurement**
- **Regulatory care to act so as to maintain integrity of the process**

Challenges in evaluating 3rd party offers and utility proposals: Economic & Financial Risks

Different "deal structure" can impact distribution of financial risks between power supplier(s), the utility, and customers – and complicate identifying "best" offers for customers.

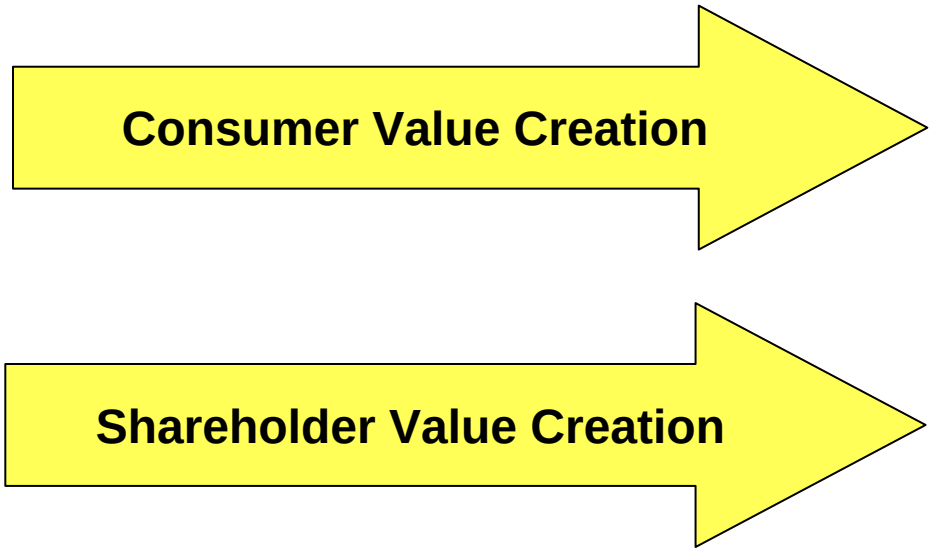
- **Notable challenges exist when comparing PPA-based offers against a potential ratebase utility investment. Classic differences can arise in:**
  - treatment of fuel costs (fuel adjustment clause? Indexed prices?),
  - change in law provisions (carbon controls?),
  - O&M costs (project-specific?),
  - performance collars (availability targets?

Offer evaluations should aim to account for the allocation of all risks, but doing so complicates evaluations:

- **Many uncertainties are difficult to quantity.**
- **Commissions may not want to (or cannot) hold the utility to the same deal as 3rd parties**

Other strategies to meet electric service goals?

How to structure regulation to create incentives for alignment of:

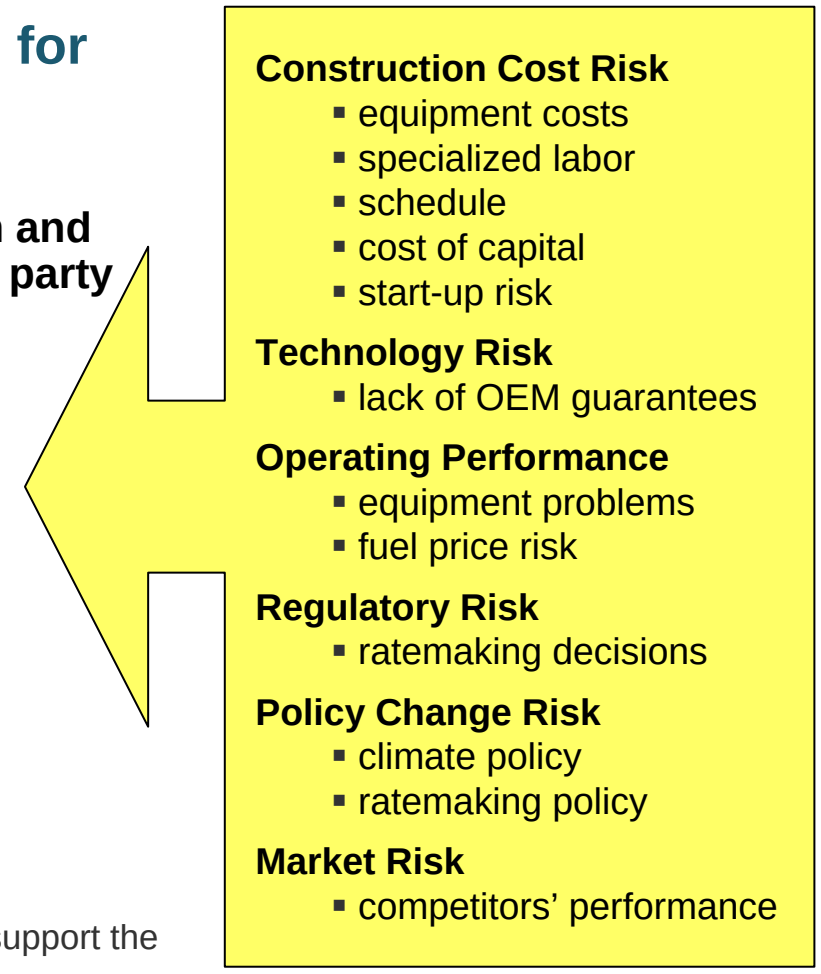


Goal of Electric Service:
Provision of reliable electricity at reasonable prices, consistent with public policy goals (e.g., with regard to environmental impacts, universal service, service quality, etc.)

Challenges for upcoming resource investments/procurements

Need to create appropriate incentives for addressing risk:

- **Making economical resource investments (supply-side and demand-side, generation and transmission) – whether the utility or a 3rd party**
- **Delivering clean, reliable, efficient electric resource with appropriate sharing of risk:**
  - Equipment vendors
  - EPC contractors
  - Investors
  - Owners
  - Operators
  - Utility
  - Customer
- **Minimizing undue regulatory risk**
  - Align regulators' own procedures and actions to support the development of a competitive response.



New Technologies: Special urgency, special challenges

- **New technologies introduce new challenges**
  - **Advanced coal (IGCC with CCS) – technical issues, scale hurdles, siting risks, geological performance, cost**
  - **Nuclear – capital cost and development risks, labor and equipment availability, technology risks, siting (political) risks, back-end waste storage issues**
  - **Wind – system integration, "chicken and egg" transmission**
  - **Energy efficiency – achievable potential; performance risk at new scale; trained workers**
  - **Solar – manufacturing costs; installation costs**
  - **Biofuels – policy change on "carbon neutrality"**

For all:

- ***capital market risk***
- ***policy risk (carbon, PTC, loan guarantees)***
- ***technology risk***
- ***risk of failure to innovate new policies***

Options for Regulatory Treatment of Purchased Power

Challenge for the industry in the years ahead:

- **Designing – and sticking to – innovative regulatory approaches are needed to better align the utility's financial interest (creating shareholder value) with the customer's economic interests**

Options for Regulatory Treatment of Purchased Power – Consider…..

- **Continue to rely on competitive processes where they can deliver value to consumers –**
  - **Use them to mitigate and assign risks – between supplier/utility, utility/customer**

Options for Regulatory Treatment of Purchased Power – Consider…..

Reward utilities for value created for customers, not just capital expended

- **Share savings created by well-designed PPAs – with sharing among supplier, utility, customer**
  - Ex: California's earnings opportunities tied to performance in delivering energy efficiency; based on (a) shared savings, (b) lost opportunity
- **Applicability to power purchasing/portfolio management: innovative compensation arrangements – not limited to return on rate base investment**
  - Ex: NStar case – sharing savings from litigation on RMR charges

Options for Regulatory Treatment of Purchased Power – Consider….

- **Address issues of PPA impacts in utility rate cases – not through adjustments that penalize 3rd party offers in procurements themselves**
  - **PPAs' effects – if any – on capital structure**
  - **Rate of return bonus for appropriate contracting, resource procurements**
  - **Ex: Nevada ROE bonus for performance on energy efficiency**

Options for Regulatory Treatment of Purchased Power – Consider….

- **Use contracting principles in structuring utilities' proposals**
  - **Apples-to-apples proposals from utilities and from 3rd parties (e.g., fuel, capital additions, cost commitments)**
  - **Pre-approval "regulatory contract" - Performance contracting (in effect, a regulatory contract with the utility**

Options for Regulatory Treatment of Purchased Power – Consider….

- **POLR procurements: compensate for the utility's role in carrying out its responsibilities as portfolio manager or other related functions**
  - **Recognition that balance sheet risk may warrant additional compensation in ROE determinations in rate case proceedings (e.g., choice of comparables; ROE in the upper range for good performance as procurement manager)**

Final word: is this a give away, or value creation?

Electric industry is facing enormous capital-requirement challenges ahead:

- **Challenges exist in generation, transmission, distribution, efficiency:**
  - Need to de-carbonize the generation mix, address aging infrastructure
  - Need to modernize grid communications, invest in transmission for renewables
  - Need to deploy all cost-effective energy efficiency, customer-side resources
- **Capital challenges loom large for the industry – even after the current crisis**
  - Utility franchise-based balance sheets will be called upon to support their own and others' private investments
  - Utility has valuable role in portfolio management – not typically recognized financially in ratemaking decisions
- **Need to rely on competition to discipline costs wherever possible**
- **Need to align utility financial interest with value creation for customers**
  - Use regulation to create financial incentives for best results – whether from 3rd party supply, utility investment, customer installations
- **The industry needs to innovate on regulatory incentives as well as technology.**

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