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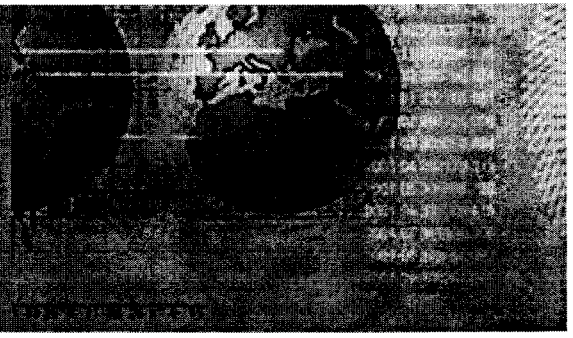
Procurement for Default Service



Objectives and Practices

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How Markets Work℠

What Do Utilities Procure and Why?

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- **Utilities can be engaged in various types of procurement**
  - New plants
  - Portfolio of power contracts
  - Contract to serve load
- **Utilities in states that have restructured their electricity industry typically procure supply to serve load of standard offer ("default") customers**
  - Utilities divested or transferred generation; regional system operator to ensure full access to transmission system
  - Utilities provide distribution and customer services under cost-based regulation
- **Procurement is typically through a competitive process under regulatory oversight (CT, ME, MA, IL, NJ, DE, MD, PA)**

Procurement Matters: Procurement Costs Are an Order of Magnitude Greater than Earnings

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Utilities may pay 5-10¢/kWh for power – distribution rates are on the order of 3¢/kWh, equity return at most 0.5¢/kWh

Not fully recovering purchased costs could result in losses and even bankruptcy

- Each year, **New Jersey** electric distribution companies procure one-third of the load of residential and smaller commercial customers for a three-year contract. In 2006, the value of the transaction was approximately: $8.2B
- **Maryland** utilities procure supply for various categories of customers on a one-year and two-year basis. Last year, BG&E procured $4.6B worth of contracts
- This year, an auction was held to procure supply for ComEd's and the Ameren **Illinois** Utilities' default customers. Approximately $17B of supply was purchased through the auction

Procurement Can Be Designed to Meet a Variety of Policy Objectives

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- Obtain reliable supply at market prices
- Foster demand response by ensuring that every customer sees a market price
- Protect smaller customers from the volatility of short-term market fluctuations
- Have the utility exit the supply function and be a wires-only company
- Bring the benefits of competition in the wholesale market sector to the smaller retail customer
- Get the best (default) price for customers
- Foster a vibrant retail electric sector by obtaining a (default) price that gives customers an incentive to shop

Some of the objectives may be to an extent mutually exclusive; the importance of each objective is likely debated in every state

There Are Other Objectives As Well From The Utility's Standpoint

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- To ensure maximum likelihood of cost recovery
- Minimize deferred balances – recovery of deferred balances is not always guaranteed
- To have a process that meets FERC standards for affiliate participation
- To provide a framework that can be used for procurement in a changing world

Different objectives may mean different practices: a different bidding process, a different contract, a different structure for regulatory oversight

Different Objectives May Mean Selecting Different Types of Service

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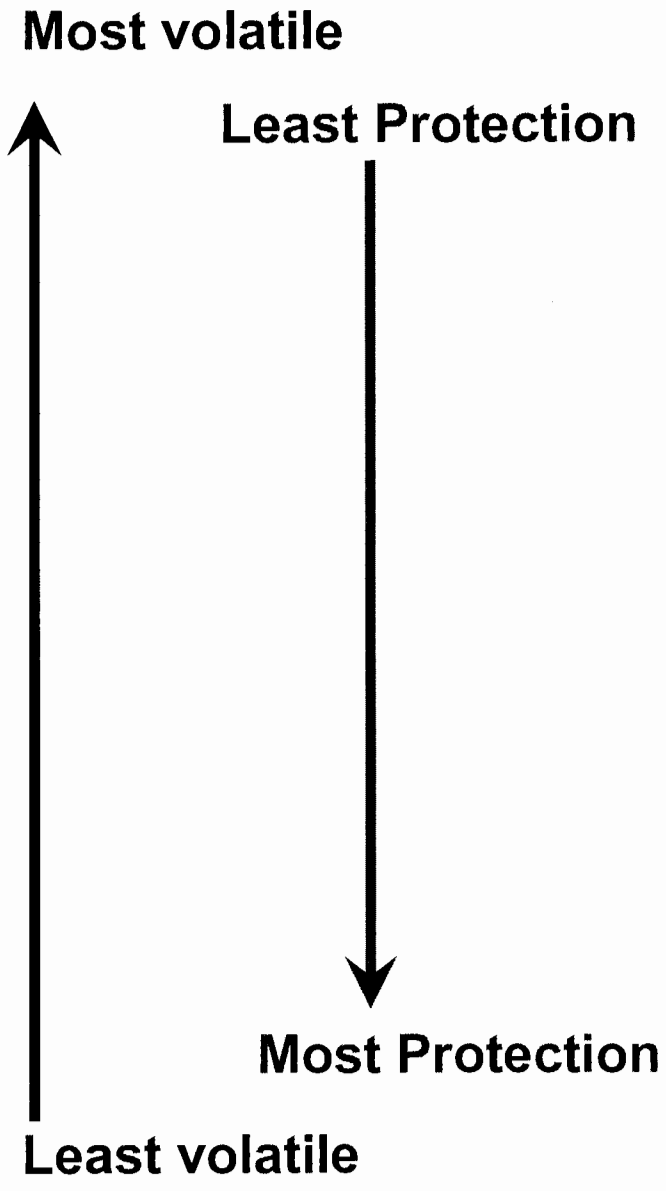
Type 1: Last Resort (Spot Market)

Type 2: Short Term Service (Monthly/Seasonal)

Type 3: Stable Service (Annual or laddered)

Type 4: Long Term Service (Long term contracts)



The Two Extremes Both Can Work But For Different Objectives

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Type 1: Last Resort (Spot Market)

- Customers have **incentive to contract** for a retail supplier – not necessarily because of the level of price but because of the variability
- Fosters retail sector at expense of smaller customers
- Works well for **large customers** able to manage price risks

Type 4: Long Term (Long term contracts)

- **Protects customers** from fluctuations of short term markets – and medium and longer term markets
- Interferes with the wholesale market
- Utility in portfolio management business risks **stranded costs**

The Two Services "In-Between" Are Both Feasible But Different

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The choice depends entirely on policy objectives

Type 2: Short Term Service (Monthly/Seasonal)

- Customers have more **incentive to contract** for a retail supplier because of variability
- But **smaller customers** are exposed to volatility that they cannot necessarily manage
- Customers must keep informed

Type 3: Stable Service (Annual or laddered)

- Customers have less **incentive to contract** for a retail supplier because the price is more stable
- Should provide a **better price** and smooth out volatility
- The price is still a **market price**

A Majority of States Use Intermediate Approaches

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Type 1: Spot

- NJ for large customers only
- IL for interim supply only

Type 2: Monthly/Seasonal

- Some utilities in NY for all customers
- Some New England states, but full requirements version

Type 3: Laddered/Annual

- NJ for most customers
- DE, MD, CT, DC and some New England states
- IL for almost all customers

Type 4: Portfolio Management

- NV
- CA

New York Has a Different Approach than Most Retail Choice States

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- Limited uniformity across utilities
- Procurement is not requirements-type product with risk passed on to customers
- Utilities in market buying a variety of power products at a variety of times
- Limited value placed on pre-established rate levels

Two of These Types of Service Require the Utility to Actively Hedge

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- **Portfolio management – long term**
  - involves a variety of decisions on the part of the utility on length of contract, fuel type, build versus buy
  - Requires the utility to hedge by ensuring adequate capacity, acquiring diverse fuel portfolio, and perhaps placing fuel hedges
- **Monthly and seasonal hedging**
  - Short term acquisition strategy requires decision on spot/hedge mix and type and timing of hedges
  - Requires the utility to make ongoing power market purchase decisions

Hedging Exposes Utilities to *Ex Post* Evaluation of Decisions

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- Regulators may see hedging as a way to reduce total costs and the price to customers
- Evaluating the *actual results* of a hedge (rather than its price stabilization effects
  - regulators evaluate a utility's ability to predict the future of the energy markets
- A few Commissions have disallowed significant amounts where, with hindsight, they have determined that particular types of hedges not chosen *could* have produced lower total costs.

Keeping the rules for hedging clear and agreeing on standard of review essential for system to be workable

California Formalized a Risk Metric for Medium Term Hedging

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- Utilities manage portfolios including term purchases and owned generation and are expected to hedge power and fuel to achieve an objective that there is less than an x% probability that costs will not be y% above forecast for the next year
- This requires stochastic modeling of spot prices, fuel prices, load and other factors
- Given observed historical data a set of hedges (non unique) could be identified that achieved such a goal; the expected cost and the cost variance can also be identified
- Utilities would implement such portfolios, but recover actual costs
- It is not feasible to implement this approach over the long term
- California has very limited retail choice

Nevada Selects a Strategy Based on Risk Analysis

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- Evaluation criteria applied to Nevada Power's Supply Plan for 2003
  - The recommended option balances various metrics such as risk, price, and plan feasibility

	Cost to Serve		Value at Risk	Reliability	
Portfolio	$/MWh	$M	$M	% of Peak Capacity Need Covered	% of Peak Capacity In-Region
All Spot	41.4	733	142	62	41
Baseload Capacity	47.9	850	73	100	72
Peaking Capacity	**42.9**	**760-770**	**49**	**100**	**72**
Firm Energy	43.6	774	33	100	50

	Commercially Viability		Financial Implications		
Portfolio	Excess Power Sales ($M)	Execution Difficulty	Cash for Annual Gas Hedge ($M)	Collateral for Spot Purchases ($M)	Potential MTM Exposure ($M)
All Spot	3	Low	-	16	-
Baseload Capacity	155	Moderate	-30	1	80
Peaking Capacity	**23**	**Moderate**	**-25**	**6**	**34**
Firm Energy	114	High	-5	6	155

RECOMMENDED OPTION

Source: Nevada Power 2003-2005 Energy Supply Plan Exhibit 29 PUCN Docket 03-1037

But Why Should Utilities Hedge?

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Why should utilities be put in the position of predicting the future of energy markets and of taking positions in commodity markets?

- Portfolio management services are available through a competitive option
  - Wholesale market participants can compete to provide full-requirements service putting together their own portfolio and offering price-risk management
- The competitive alternative can reasonably be presumed to be more efficient and result in better prices in the long run
- A competitive alternative is likely to be better for customers when it is available
- A competitive alternative does not raise stranded cost issues

Procuring Full-Requirements Service Gets Hedging in the Hands of the Competitive Market

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- **Many different entities are potential suppliers**: energy traders and marketers, generation owners, and financial players
- Suppliers assemble products for their bid in **region-wide markets**:
  - Forward power purchases and options in the over the counter markets
  - Spot electricity from ISO market
  - Capacity credits from ISO and bilateral markets
  - Ancillary services and firm transmission rights from ISO
- The competition of many entities, **in and out of the state**, is brought to bear on the auction results

Many States Have Taken This Route: NJ, MD, DE, DC, IL,...

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New Jersey has the longest track record

Elements of the process contribute to on-going success

- **Product design**
  - Full-requirements
- **Bid format**
  - Multi-round process with dynamic information feedback
- **Contingency plan**
  - Supply not procured through the auction procured at spot
- **Regulatory Involvement**
  - Board oversees but does not run the procurement process

Prices Come Down to Market Levels Through Many Bidding Rounds

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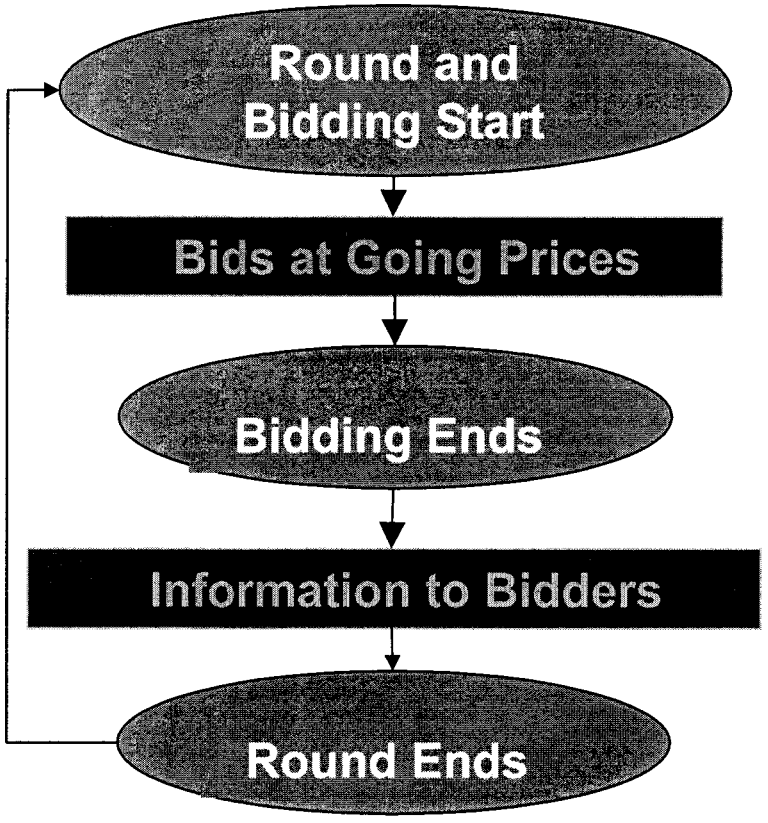

Bids are the number of tranches that bidders are willing to serve at the going prices for the round for a particular EDC

Bidders get prices for next round and prepare their next bids

Price for an EDC "ticks" down if the number of tranches bid is greater than what is needed

Suppliers bid from their regular place of business. Suppliers submit their bids through the internet each round.

Auction Clearing Prices are Translated Through a Prism into Customer Retail Rates

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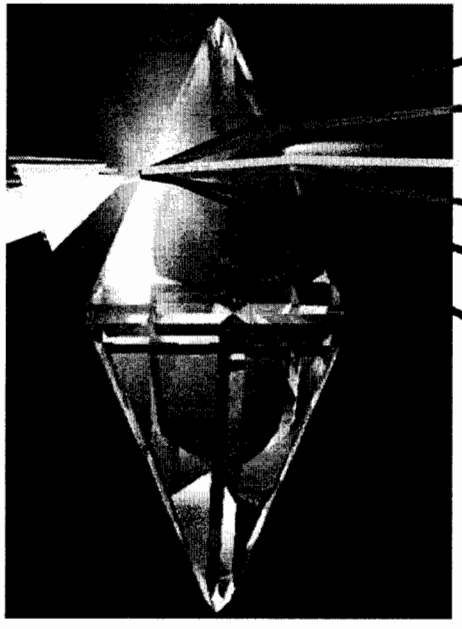
Auction Clearing Prices

Prices from last 3 Auctions



Retail Rates

- Residential
- Residential-Heating
- Government
- General Lighting
- Smaller Commercial
- Street Lighting

BPU Oversees the Process and is Continuously Involved

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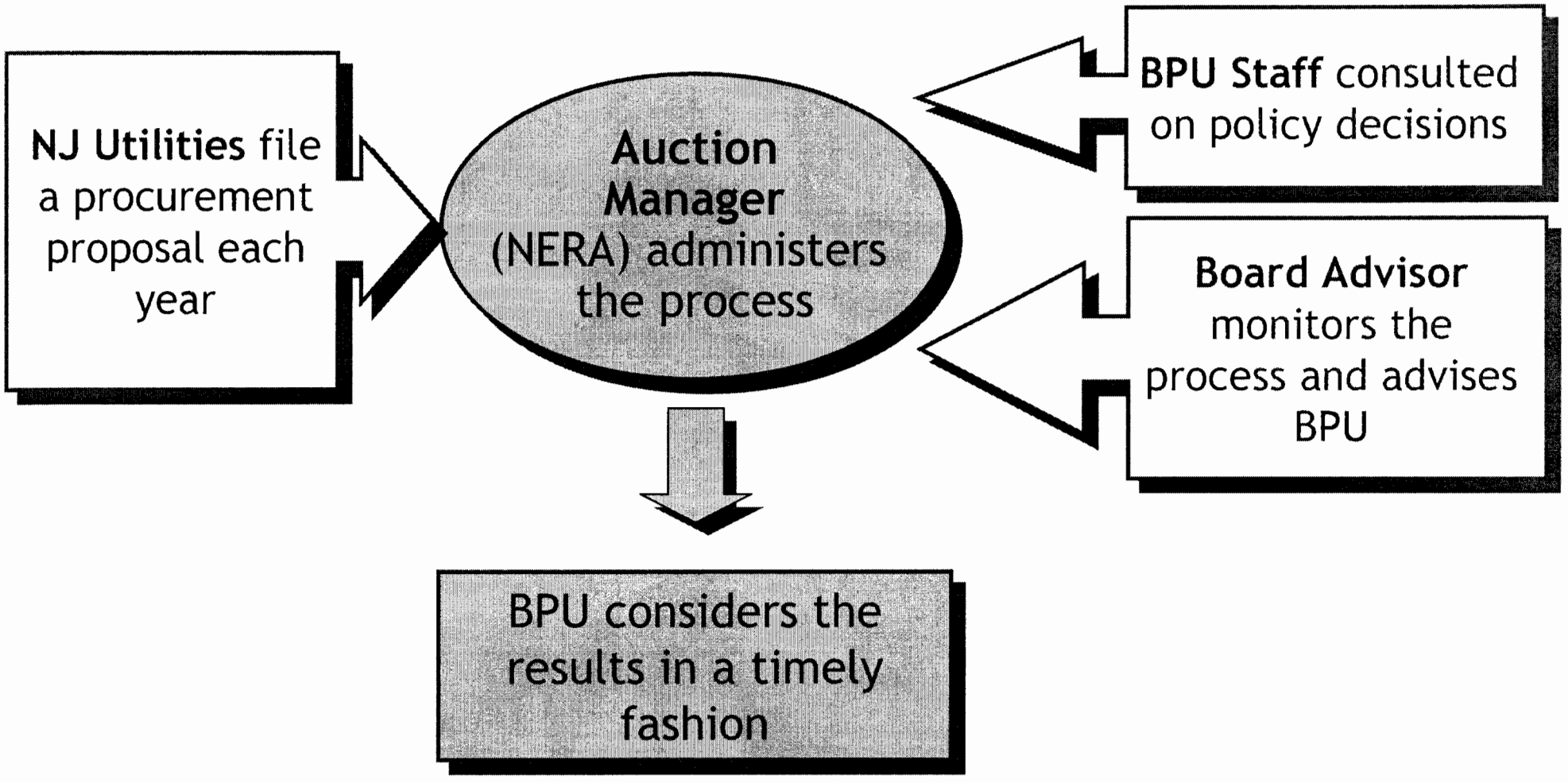

Many Entities Win

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- Past auction winners include Morgan Stanley, J.P. Morgan, Florida Power and Light, and Consolidated Edison

	2002	2003	2004	2005	2006
Winners	15	15	12	7	10
Bidders	Over 20				Over 15

- **Competition means**
  - Market-based rates for customers
  - Diversity in the supplier pool as further protection for customers

Auction Clearing Prices in New Jersey Have Tracked Regional Power Markets

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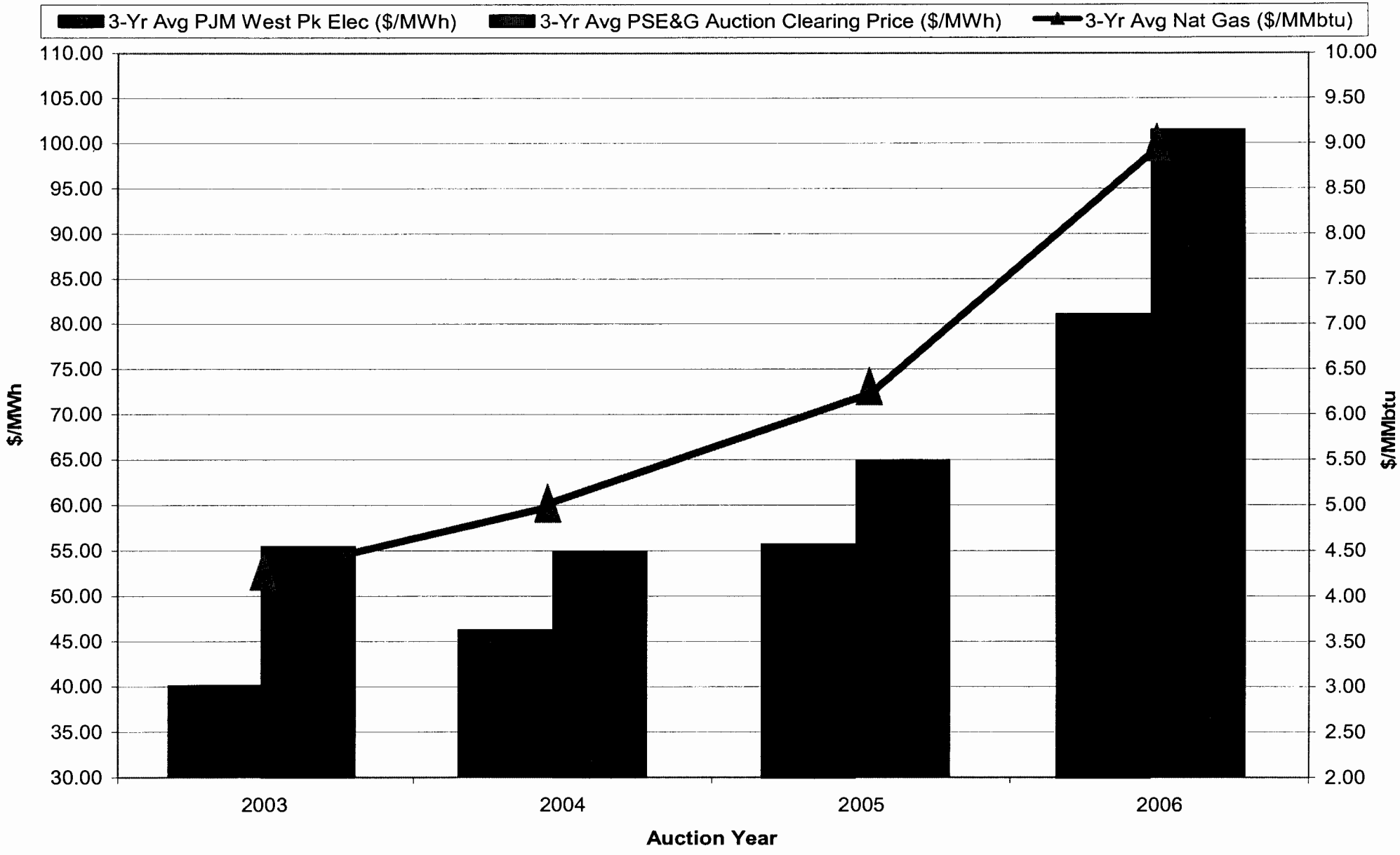

Summary of Observations

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- Procurement and hedging approach is appropriately objective-driven and different methods suit different objectives
- Mainstream approach in states with retail choice and well functioning wholesale markets is a full-requirements approach with a three-year horizon and suppliers assuming all volume and price risks
- This approach reflects placing a high value on customers knowing rates and accessing wholesale markets at a reasonable cost
- Both auctions and RFPs have been used to implement this approach, and auctions have been well received by suppliers and regulators
- The approach is a logical step in market evolution as it brings competitive discipline to portfolio acquisition and price-risk management and provides customers direct access to wholesale markets
- Retail development is permitted to develop at its own pace when it can add value beyond that from a wholesale procurement

Leonard Van Ryn

Wed Oct 18 17:04:37 EDT 2006

Commodity Supply Service to Residential and Small C/I Customers

Case 06-M-1017

Technical Conference

October 20, 2006

NYSEG RGE AND

Topics

- Customer Rate Options
- Legacy Agreements
- Commodity Cost Elements

NYSEG AND RGE

Rate Options

- NYSEG/RG&E offer various rate options and allow customers to choose the rate option that best meets their specific needs.
- These rate options consist of a fixed delivery charge, a transition charge, a company provided fixed or variable commodity charge or an ESCO provided commodity charge.
- All rate options are partially hedged through the transition charge by their allocated share of the companies' legacy supplies.
- Fixed Price Option (FPO)
  - Fixes the overall rate customers pay for electricity.
- Variable Price Option (VPO)
  - Commodity and transition charges vary with market.

Rate Options cont'd

- Default Supply Option (DSO) - NYSEG Only
  - A product of NYSEG's latest rate case, commodity and transition charges vary with market, supplemental hedges may be taken by the company to reduce price variability for residential and small C/I customers. NYSEG has not yet determined the appropriate level of supplemental hedges.
- ESCO Price Option (EPO)
  - Commodity price set by ESCO of customer's choice, variable transition charge.
- ESCO Option with Supply Adjustment (EOSA)
  - FPO rate with a retail access credit. Commodity price set by ESCO of customer's choice.
- Mandatory Hourly Pricing
  - Commodity and transition charges vary with market.

2007 Legacy Hedge Percentages

- NYSEG
  - 42% On-peak
  - 48% Off-peak
  - Loss of NYPA creates about a 20% reduction in overall hedge percentage for residential customers.
- RG&E
  - 90% On-peak
  - Fully hedged off-peak
  - Loss of NYPA creates about a 30% reduction in overall hedge percentage for residential customers.

Commodity Charge Cost Elements

- Energy
  - Losses
  - Congestion
  - Basis
  - Adjustment for Time of Use Rates
- Capacity