Energy Buying 101/201
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Traditional Monopoly Utility: Vertically Integrated States

- Utilities’ rates must be approved by Public Service Commissions in these states.
- Prices, products (tariffs) and service options are only those offered exclusively by the utility.
- Lengthy process and litigation during PSC proceedings.

Utility has exclusive franchise to provide electricity to consumers. Utility owns all generation or buys power at wholesale for re-sale to consumers.

Consumers buy all services from the utility or can generate own power and pay utility for back-up supply.
Competitive Customer Choice: Retail Choice Jurisdictions

1. Distribution
Delivery of electricity from transmission to homes and businesses is regulated by the State.

2. Transmission
Bulk transfer of electricity from power plants is regulated by the Federal Energy Regulatory Commission (FERC).

3. Generation
Wholesale Power Producers compete to serve the load. Electricity from power plants is a competitive, non-monopoly business.

Utility

Customers contract with a competitive energy supplier at negotiated prices and terms that reflect market conditions.
Components of a Generation Price

- Ancillary Services
- Other (Supplier, agent, credit, admin, tax)
- Transmission
- Capacity
- Energy Portion (energy, basis, renewable)
Electric Competition by States

[Map showing states colored to indicate competitive and limited competitive markets]

- Blue: Competitive Market
- Green: Limited Competitive Market

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Map of US ISO/RTO Regions

US Map Legend
FERC ISO/RTO Regions
- California ISO (CAISO)
- Electric Reliability Council of Texas (ERCOT)
- Southwest Power Pool (SPP)
- Midcontinent ISO (MISO)
- PJM
- New York ISO (NYISO)
- New England ISO (ISO-NE)

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Procurement Strategy: Lowest Price Is Not Lowest Cost

Energy Cost = (Price x Quantity) Time
Energy Price Volatility

Historical Energy Pricing - October 2003 through October 2018
Energy Market Volatility

New England Historical Pricing - 3 Year Lookback

New Jersey Historical Pricing - 3 Year Lookback
Business Objectives + Risk Objectives = Optimum Product

- **Budget Volatility**
  - Low Risk
  - Medium Risk
  - High Risk

- **Opportunity Risk**
  - High Risk
  - Medium Risk
  - Low Risk

- **Products**
  - **Fixed Price**
  - **Blended Products**
  - **Index Price**
General Power Product Types

**Fixed or Secured Price***
- Fixed Point-in-Time Purchasing
- Regular Market Volatility

**Index Price**
- Fixed Point-in-Time Purchasing
- Regular Market Volatility

**Index + Block Solutions**
- Usage at Index Price
- Block Purchases

**Diversified Solutions**
- Flexible Purchasing
- Regular Market Volatility

*Graphs are for illustrative purposes only, not representative of real data*

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All Purchasing Strategies
Annual High, Low and Average Prices (2005–2017)

Average difference in purchasing strategies over 13 year period.

$22/MWh

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Buying Strategy Performance

Data Source: Constellation Whitepaper “A Study of Electricity Procurement Strategies: How Price, Index & Blended Strategies performed over 10 years of rising & falling power markets” (evaluated performance of six purchasing strategies over a 10-year period using a representative load profile for a typical commercial customer with 750 kw peak demand).

Past performance is not indicative of future results.

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All Purchasing Strategies
Thank You.

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