

PRL Design Recommendations

Prepared for:

New York ISO

Business Issues Committee

Prepared by:

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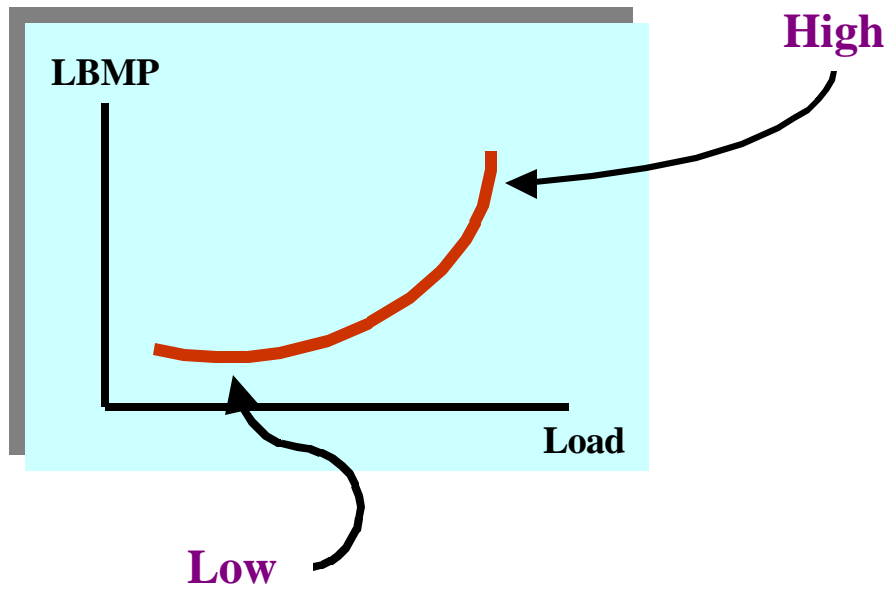
January 18, 2001

Why Facilitate PRL Access to the DAM?

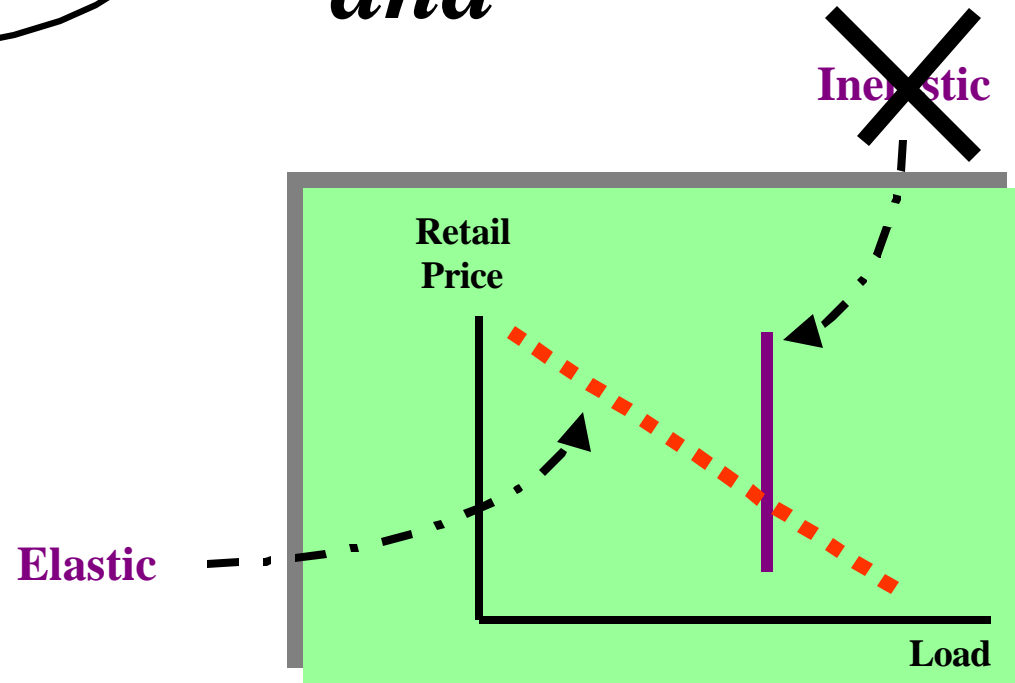
- X NYISO is in a unique position to facilitate retail transactions at prices that reflect DAM/RTP prices**
- X More transactions among NYS Market Participants provide liquidity and promote efficiency**
- X Prevention is the best medicine**
- X A Little PLR goes a long way**

When are PRL Programs Effective?

Supply Flexibility

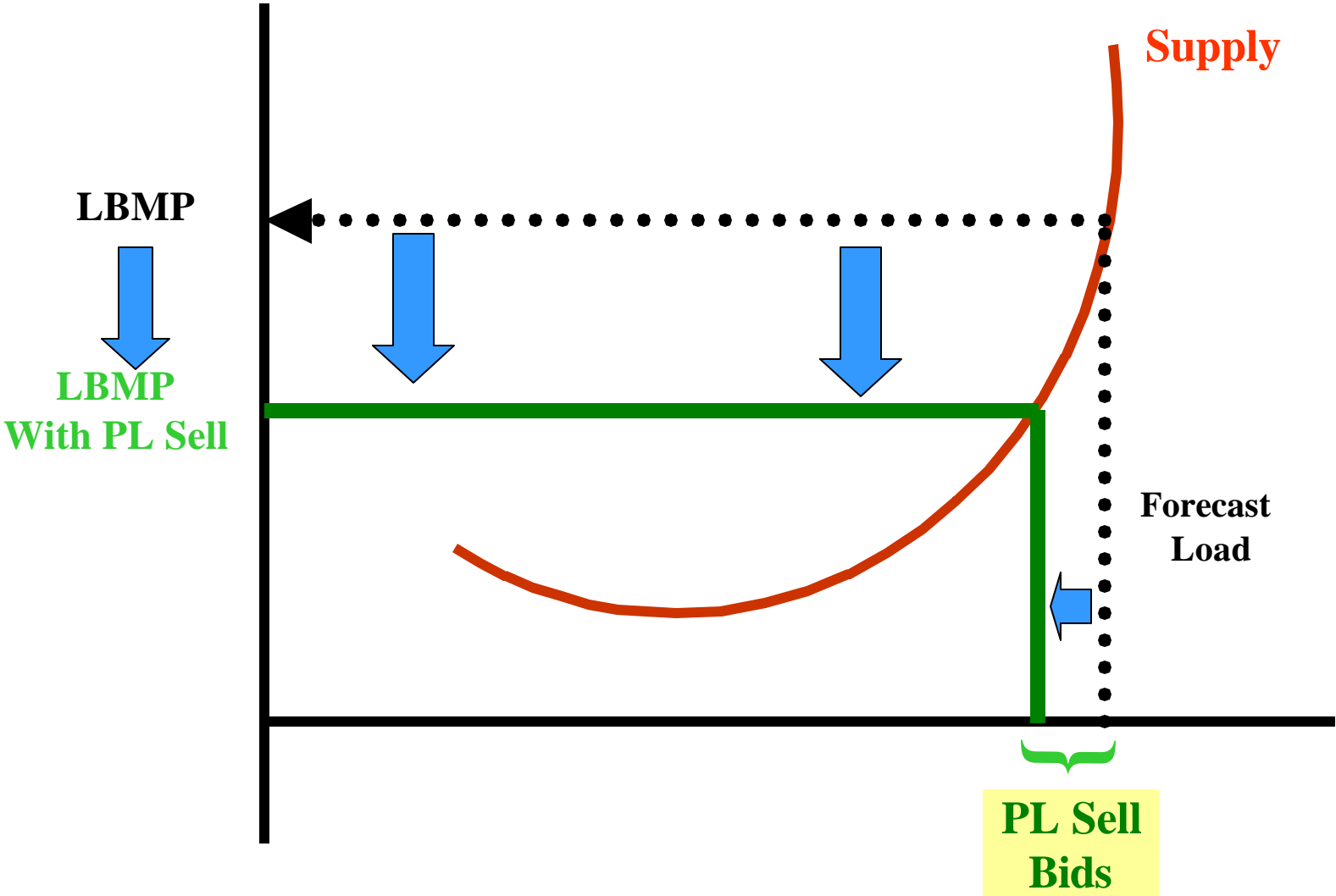


and



Demand Elasticity

PRL Impact on High Prices



Priceline

NYISO market provisions that allow customers to realize the value of their load management capabilities by taking corresponding positions in the NYISO DAM market

- ★ **NYISO establishes consistent, fair, and transparent wholesale market access procedures**
- ★ **LSEs establish retail pricing products that reflect value of LM to their retail portfolio**
- ★ **Customers decide when and how much market exposure they are willing to undertake**

Priceline *Buy* and *Sell*

Priceline *Buy*

Allows customers to bid

- day-ahead
- *for supplemental energy*
- at specified times and amounts
- at prices that reflect electricity's marginal contribution to their business operations.

Priceline *Sell*

Allows customers to bid

- day-ahead
- *to curtail energy usage*
- at specified times and amounts
- at prices that reflect the inconvenience associated with shifting operations.

NYISO through its DAM operations determines whether or not the bids are incorporated into the next day's operating schedule

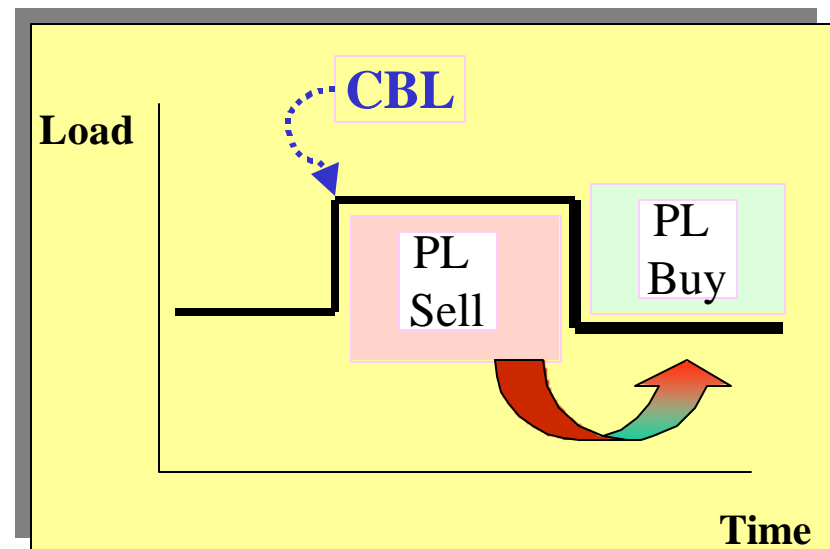
Key Features

...*customers bid*...the customer sets the price

...for *supplemental energy*... *curtail energy usage*... and alters its typical usage pattern established under its LSE service agreement

Customer Baseline Load

an hourly profile that reflects the customer's typical usage under its LSE electricity agreement



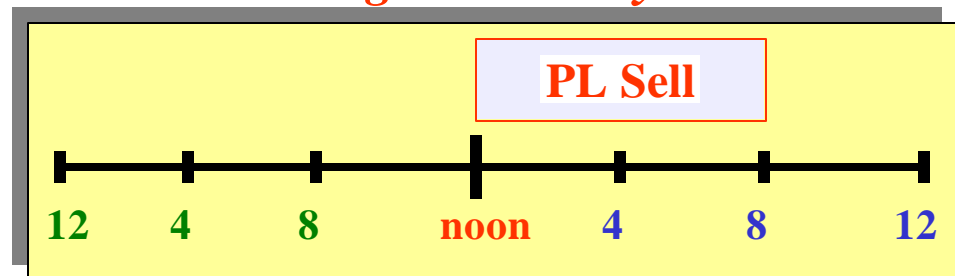
Key Features

...*at specified times and amounts*...the customer specifies the hours during which it is willing to manage its loads against NYISO market prices.

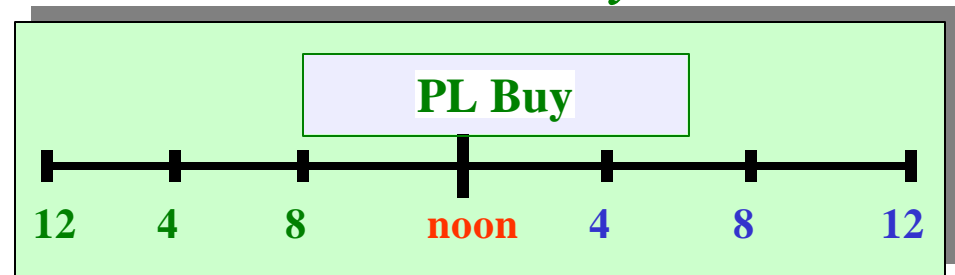
Bid Strips

- strike price (\$/MWH)
- bid load amount (MW)
- number of consecutive hours

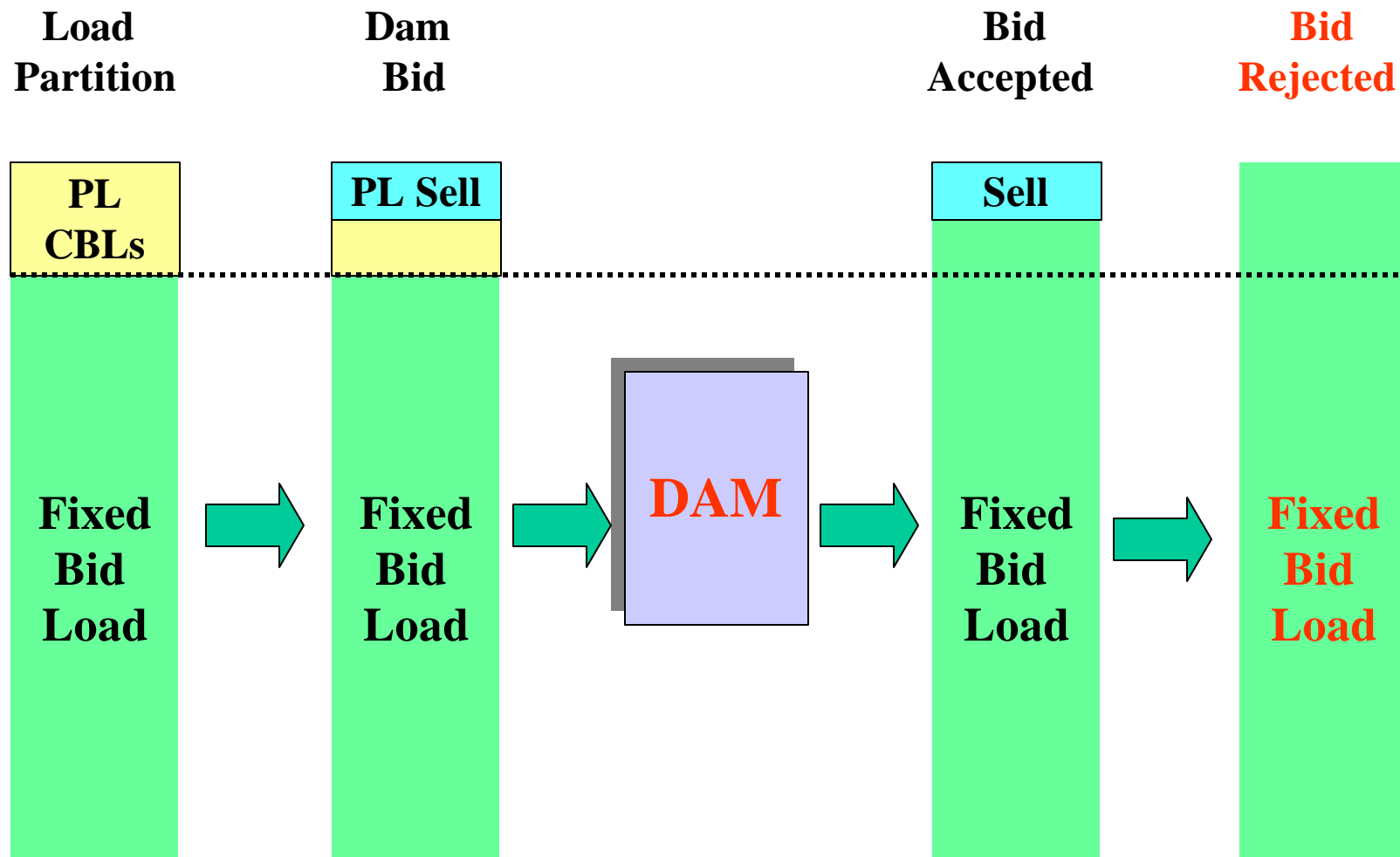
High-Price Day



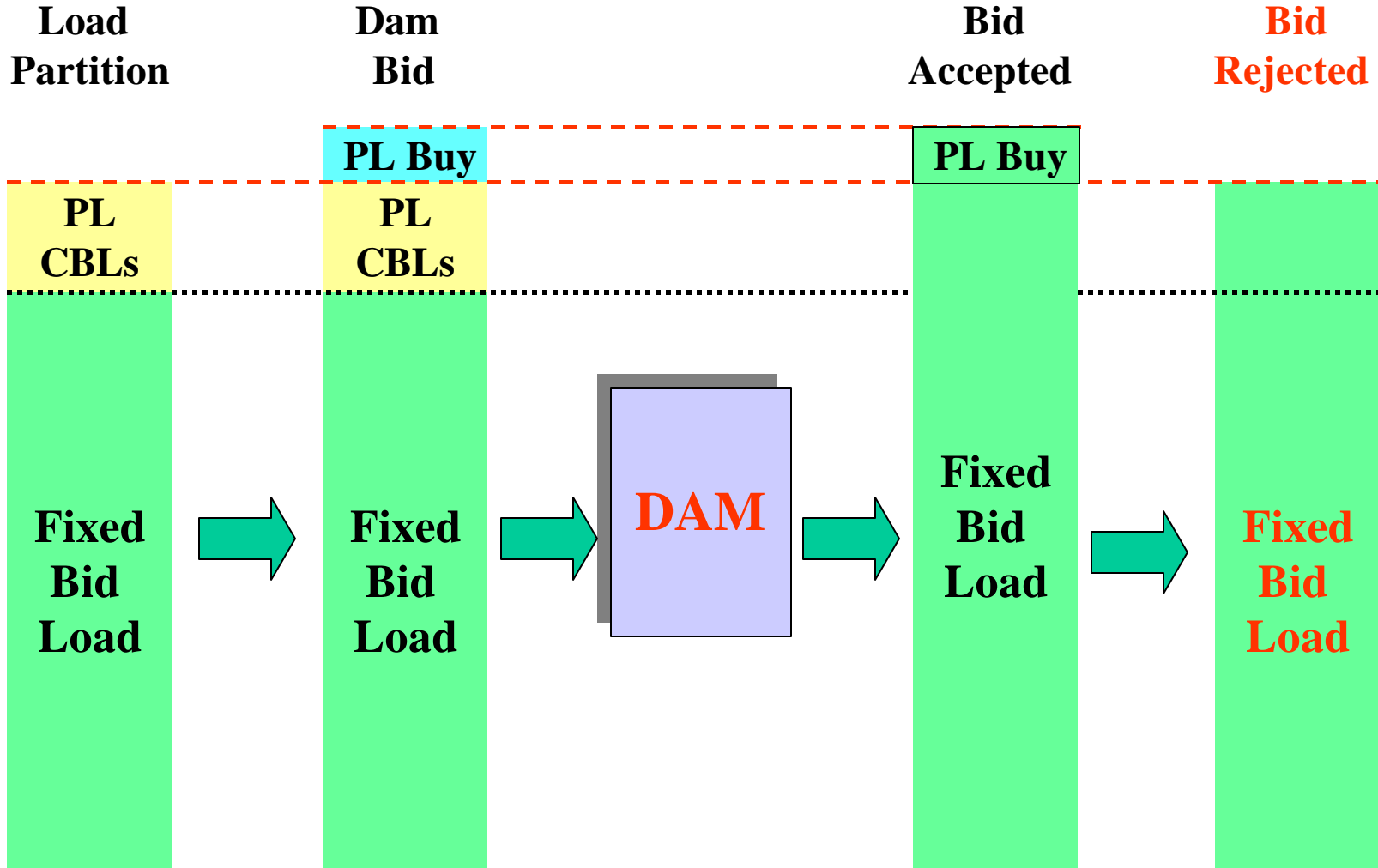
Low-Price Day



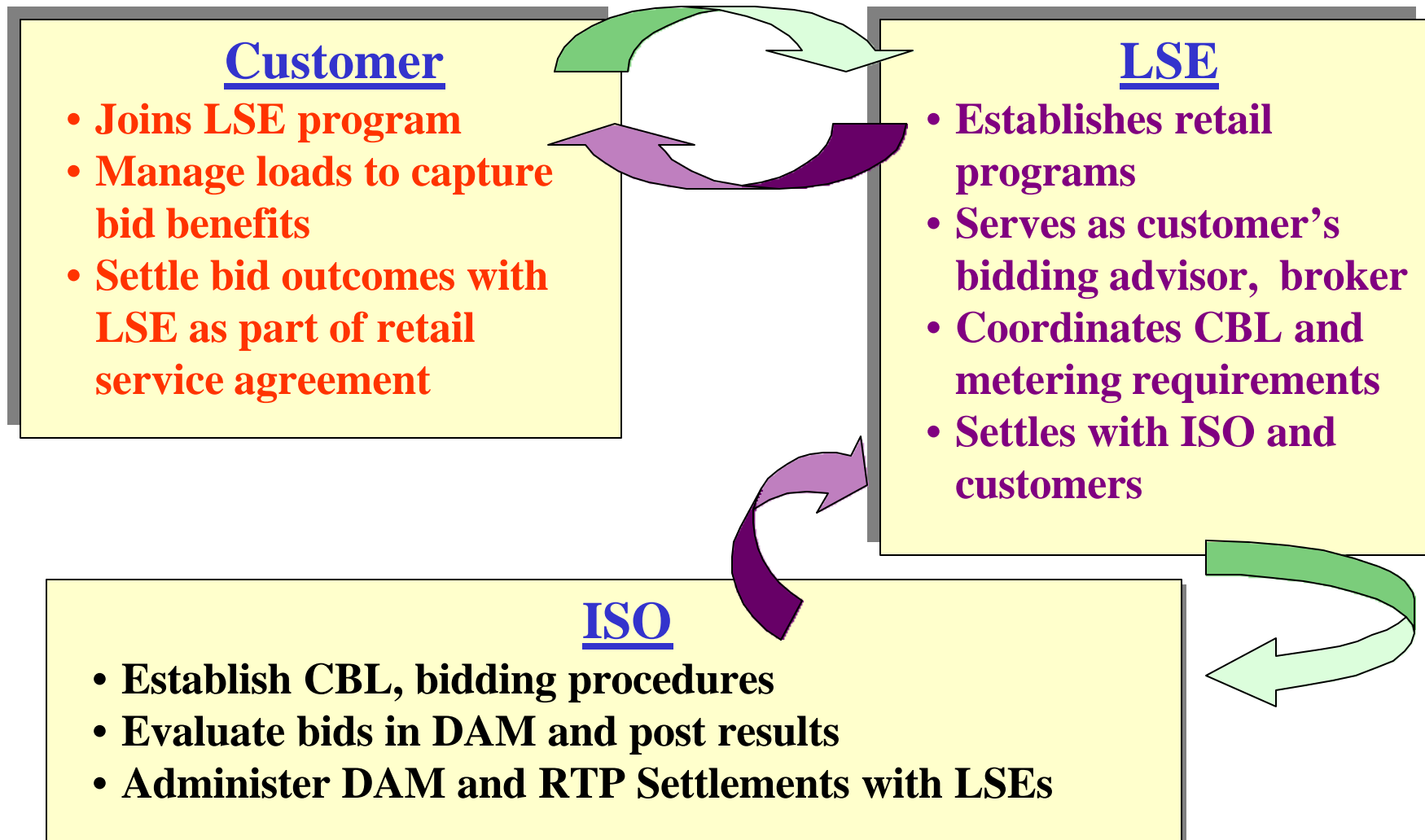
Priceline *Sell* Bidding by LSE



Priceline *Buy* Bidding by LSE



Responsibilities



Benefits

Customers

- More choices in how they buy electricity
- Realize benefits from load management capabilities

LSE

- Greater retail portfolio liquidity and leverage
- Diversity in retail offerings

ISO

- Increased market efficiency
- Solvent for extreme price volatility

All Market Participants
More robust, efficient, and stable
electricity markets

PL Sell Example

Compliance

LSE Market Situation	
150	MW Fixed Bid Load
50	MW Priceline Sell Load
\$500	\$/MW DAM Price --No PL Sell
PL Sell Bid	
50	MW Load
4	Hours, noon - 4:00 p.m.
\$250	/MW Strike Price
90%	Payout to customer
Customer Benefit	
\$45,000	Payout
LSE Benefit	
(\$45,000)	Payout to customer
\$75,000	Savings on DAM FBL
\$5,000	Transaction Fee
\$35,000	Net savings

PL Sell results in reduction in DAM LBMP

LSE savings from reduction in DAM LBMP

PL Sell Example

Non-compliance

LSE Market Situation	
150	MW Fixed Bid Load
50	MW Priceline Sell Load
\$500	\$/MW DAM Price --No PL Sell
\$250	\$/MW RTP Price during strip period
PL Sell Bid	
50	MW Load
4	Hours, noon - 4:00 p.m.
\$250	/MW Strike Price
90%	Payout to customer
50%	Compliance rate
Customer Benefit	
\$45,000	Payout
(\$25,000)	Non-compliance cost
\$20,000	Net
LSE Benefit	
(\$45,000)	Payout to customer
\$75,000	Savings on DAM FBL
\$5,000	Transaction Fee
\$35,000	Net DAM savings
\$25,000	RTP Cost
(\$25,000)	Non-compliance revenue
\$35,000	Net Program Savings

Customer is charged RTP LBMP for non-compliance energy.