



Relationship Between Wholesale and Retail Markets

- Two Offerings: SSO and CRES
 - Standard Service Offer (SSO) is the default option
 - Competitive Retail Electric Supplier (CRES)
competitive alternative to standard service
- Both retail constructs are derived from the wholesale market





Relationship Between Wholesale and Retail Markets

- Standard Service Offer (SSO)
 - Default service for non-shopping customers
 - Price based upon the results of competitive procurement auctions
- Competitive Retail Electric Supplier (CRES)
 - Independent marketers certified by Commission
 - Compete to attract customers from SSO
 - Flat-price offers for mass-market customers
 - Specific offers to larger commercial and industrial customers based on their unique energy needs (load profile) and cost of service
 - May own generation (or be affiliate)
 - May source energy from wholesale market





Relationship Between Wholesale and Retail Markets

- **Standard Service Offer (SSO) Auctions**
 - Suppliers compete for right to serve default load
 - Master Supply Agreement governs bidder requirements and product definition
 - Independent auction administrator
 - Bidders may own generation or obtain energy and capacity through wholesale market
- SSO Load is divided into identical units called “tranches”
 - Each tranche represents one percent (1%) of the actual hourly energy required for SSO load for the applicable delivery period as well as one percent (1%) of the PJM capacity requirement
 - No bidder may win more tranches than the load cap
The PUCO has ordered a load cap of 80%





Relationship Between Wholesale and Retail Markets

- Example of a Declining Clock Auction



Illustrative Bidding in the Clock Phase							
Round	Tranche Target	Announced Price (\$/MWh)	Number of Tranches Bid				
			BidderA	BidderB	BidderC	BidderD	Total
1	100	\$75.00	34	55	21	72	182
2	100	\$70.00	30	55	15	50	150
3	100	\$66.00	20	52	10	45	127
4	100	\$62.00	15	48	0	44	107
5	100	\$59.50	0	48	—	42	90



Multiple solicitations of various durations are blended together to mitigate wholesale price volatility



ESP	Auction Date	# Tranches to Procure	Load Cap	2010												2011												2012												2013												2014											
				9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12																				
ESP 2	October 2010	17	40	o									12 month Jun 2011 - May 2012																																																		
		17			24 month Jun 2011 - May 2013																																																										
		16			36 month Jun 2011 - May 2014																																																										
	January 2011	17	40	J									12 month Jun 2011 - May 2012																																																		
		17			24 month Jun 2011 - May 2013																																																										
		16			36 month Jun 2011 - May 2014																																																										
	October 2011	17	14											o			24 month Jun 2012 - May 2014																																														
	January 2012	17	14									J			24 month Jun 2012 - May 2014																																																





Relationship Between Wholesale and Retail Markets

- **Standard Service Offer (SSO) Auctions**

- If there are more tranches bid than the number of tranches needed at the current round price:

the price for a product ticks down for the next round

- After each round a bidder may be able to:
 - Withdraw some tranches
 - Switch bids between products
 - Both withdraw and switch
- Auction ends when # of bids = tranche target
- Sealed Bid Round for final true-up





Relationship Between Wholesale and Retail Markets

- **Standard Service Offer (SSO) Auctions**
 - Full Requirements Service
 - Suppliers bid to provide energy, capacity, transmission service, transmission ancillaries
 - Retail rates will be developed directly from the final prices
 - Reconciliation mechanism:
 - Ensures the distribution utility neither makes nor loses money related to the provision of SSO Generation Service

