

EasyBid

A Market Simulation Project

Presented to NYISO PRLWG
By



Customers and their load: An uneasy relationship

- Customers ARE comfortable developing a realistic load curtailment plan, but ARE NOT comfortable valuing this curtailment plan in such a way to develop a bid strategy
 - Need to be educated on the value of their curtailments and the times when that value is most likely to be realized
- Customers ARE NOT interested in constantly watching energy prices to see when a curtailment might be warranted and profitable, but ARE interested in the simplicity of being told when to curtail
 - Need an easy way to translate economic load curtailments into event-driven response

NYSERDA Program: EasyBid Market Simulation

- *An easy way for customers to develop and review an economic-based load curtailment plan under risk-free but realistic conditions*
 - Develop a curtailment plan based on their capabilities
 - Use the curtailment plan to estimate the total costs to undertake this curtailment
 - Use the total cost to develop a bid strategy for guaranteeing ample revenue from a curtailment
 - Choose from a predetermined set of bid products (e.g. time period and required revenue) to simulate the market value and frequency of curtailments associated with this bid strategy
 - Review the viability of complying with the load curtailment plan when notified of an event

EasyBid: Develop Curtailment Plan

- **The Curtailment Workbook**
 - Distributed to all participants
 - Identifies specific areas where load curtailments are undertaken
 - Provides an estimate of the KW Reduction and Cost/KW Reduction for each item
- Participants indicate the expected number of items in each area that could be curtailed during a specific period of time as their **Curtailment Plan**

EasyBid: Develop Bid Strategy and Choose Bid Product

- The total cost to curtail during the time period specified is calculated based on the developed curtailment plan to generate a **Bid Strategy**
- Participants compare the **Bid Strategy** with the historical revenue and frequency of curtailments associated with different predetermined bid products
- Participants choose the bid product that best fits their **Bid Strategy**

EasyBid: Participate in Simulated Market Experience

- Each day, all bid products are compared against posted NYISO DAM LBMPs to see if they might have been scheduled
- Participants are notified of curtailment events when their chosen bid product would have been scheduled
- Demand Response Diary is provided for participants to estimate extent of compliance with their curtailment plan

EasyBid: Benefits for End-Use Customers

- Provides a risk-free, but realistic opportunity to learn how they can participate in the wholesale market on their own terms
- Assistance in developing a bid strategy based on an easy method for creating and assigning costs to a curtailment plan

EasyBid: Benefits for Curtailment Service Providers

- Gauge end-use customer support for time-varying rates and/or economic demand response programs
- Evaluate potential revenue that can be generated from offering an economic demand response program
- Assess the challenges and potential solutions associated with marketing such programs (i.e. aggregating bids, distributing payments, dealing with penalties)

EasyBid Simulation Pilot Schedule

- Two-phases:
 - Pilot – Summer 2004 to test concept & systems
 - Possible full-scale implementation – Spring & Summer 2005
- Registrations accepted beginning July 26, 2004
 - Daily notifications begin the next day
- Scheduled bid products by superzone available daily on-line
- Monthly reports issued between 5th and 10th of each month
 - All participants receive retroactive event scheduling information for each summer month
- Evaluation of pilot in October 2004
- Final pilot project report November 2004

Sample Reports

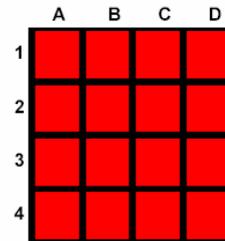
Daily Event Schedule

Each day, the Daily Event Schedule for all Superzones is available online in PDF format

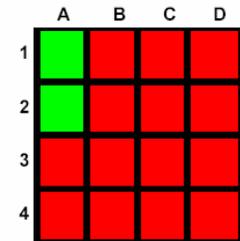
EasyBid Scheduled Simulation Bids

For Event Date: 7/6/2004

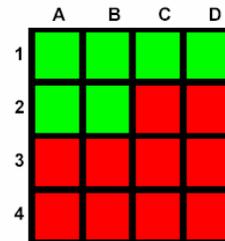
Upstate West



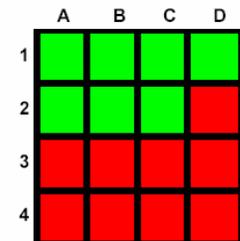
Hudson River



New York City



Long Island



Standard Products Key:

A = 12 Noon – 4 p.m.	1 = 7.5 ¢/kWh
B = 2 p.m. – 6 p.m.	2 = 12.5 ¢/kWh
C = 12 Noon – 6 p.m.	3 = 17.5 ¢/kWh
D = 9 a.m. – 5 p.m.	4 = 22.5 ¢/kWh

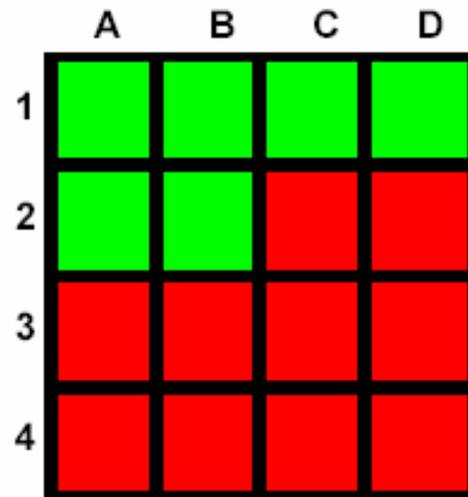
Scheduled Key: ■ = Scheduled
■ = Not Scheduled

SuperZone Key:

SuperZone	NYISO - Zone
Upstate West	= A, B, C, D E
Hudson River	= F, G, H, I
New York City	= J
Long Island	= K

Daily Event Schedule - Detail

New York City



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<u>SuperZone</u>	<u>NYISO - Zone</u>
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Monthly Event Detail - Customer

EasyBid Monthly Summary Report

Event Detail - September

Customer Name: APIR Industrial
Zone: Upstate West
Business Sector: Industrial

Bid Product: B3
Block: 2 PM - 6 PM
Minimum Event Revenue: \$228

Date	Scheduled (KW)	<u>Compliance Level</u>					
		0% Compliance		50% Compliance		100% Compliance	
		KW	Payment	KW	Payment	KW	Payment
9/1/2004	325	0	(\$102)	163	\$100	325	\$302
9/2/2004	325	0	(\$50)	163	\$121	325	\$292
9/8/2004	325	0	(\$124)	163	\$94	325	\$312

* Reported Compliance is based on participant's estimate of the level of compliance with scheduled curtailment

Bid Schedule Summary

Bid Schedule Summary: Upstate-West

July

	A	B	C	D
	12 Noon - 4 p.m.	2 p.m. - 6 p.m.	12 Noon - 6 p.m.	9 a.m. - 5 p.m.
1	3	3	3	3
2	2	1	1	1
3	1	1	0	1
4	1	0	0	0

August

	A	B	C	D
	12 Noon - 4 p.m.	2 p.m. - 6 p.m.	12 Noon - 6 p.m.	9 a.m. - 5 p.m.
1	3	3	3	3
2	2	1	1	1
3	0	1	1	1
4	0	1	0	0

Bid Product By Business Sector

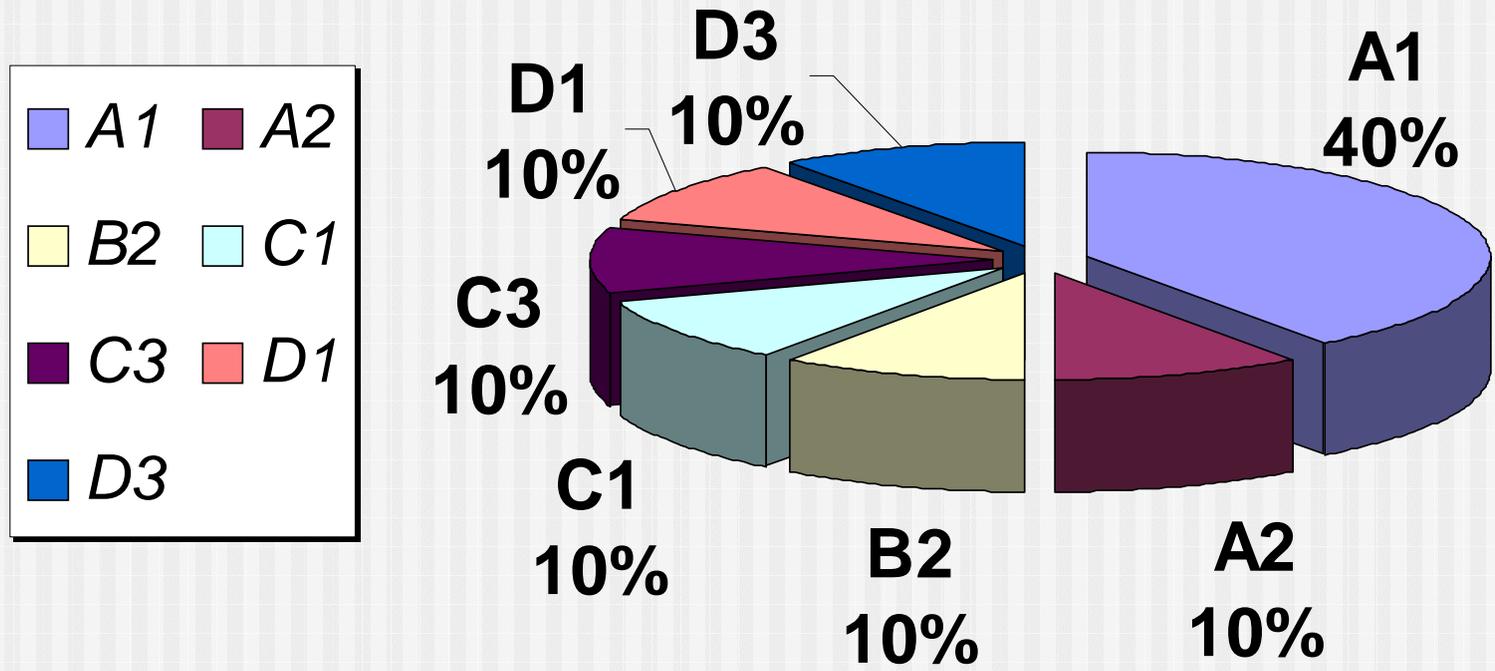
Business Sector

Bid Product	Commercial & Retail		Government & Education		Public Works
	Health Care		Industrial		
A1	57%	0%	29%	0%	14%
A2	25%	50%	25%	0%	0%
A3	0%	67%	0%	0%	33%
A4	0%	75%	25%	0%	0%
B1	0%	0%	0%	50%	50%
B2	25%	25%	0%	0%	50%
B3	0%	25%	50%	25%	0%
B4	0%	0%	0%	0%	0%
C1	20%	0%	40%	0%	40%
C2	0%	0%	100%	0%	0%
C3	17%	0%	0%	50%	33%
C4	0%	0%	50%	50%	0%
D1	50%	0%	0%	50%	0%
D2	0%	50%	0%	0%	50%
D3	50%	0%	0%	50%	0%
D4	0%	0%	0%	100%	0%

*Standard Products Key: A = 12 Noon – 4 p.m. 1 = \$75/MWh
 B = 2 p.m. – 6 p.m. 2 = \$125/MWh
 C = 12 Noon – 6 p.m. 3 = \$175/MWh
 D = 9 a.m. – 5 p.m. 4 = \$225/MWh

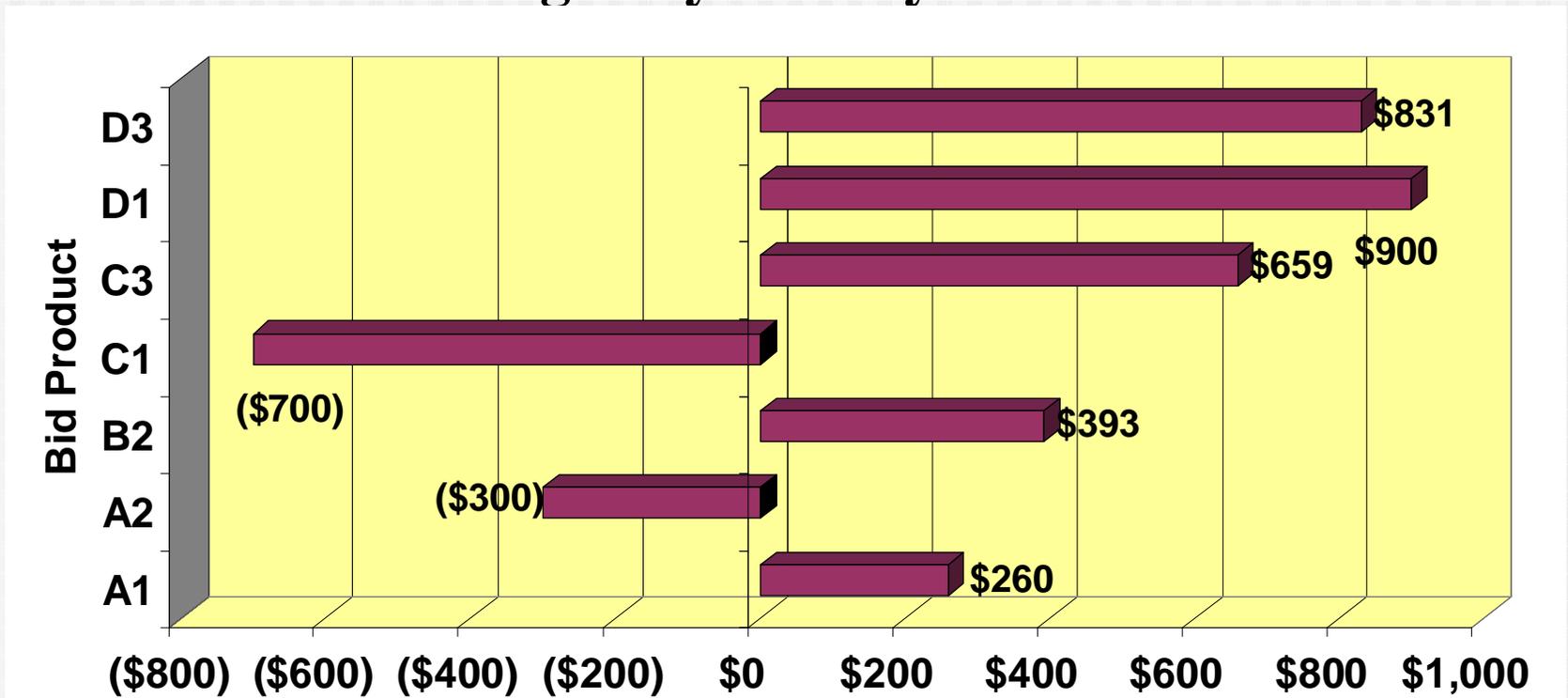
For Each Business Sector:

Participation by Bid Product



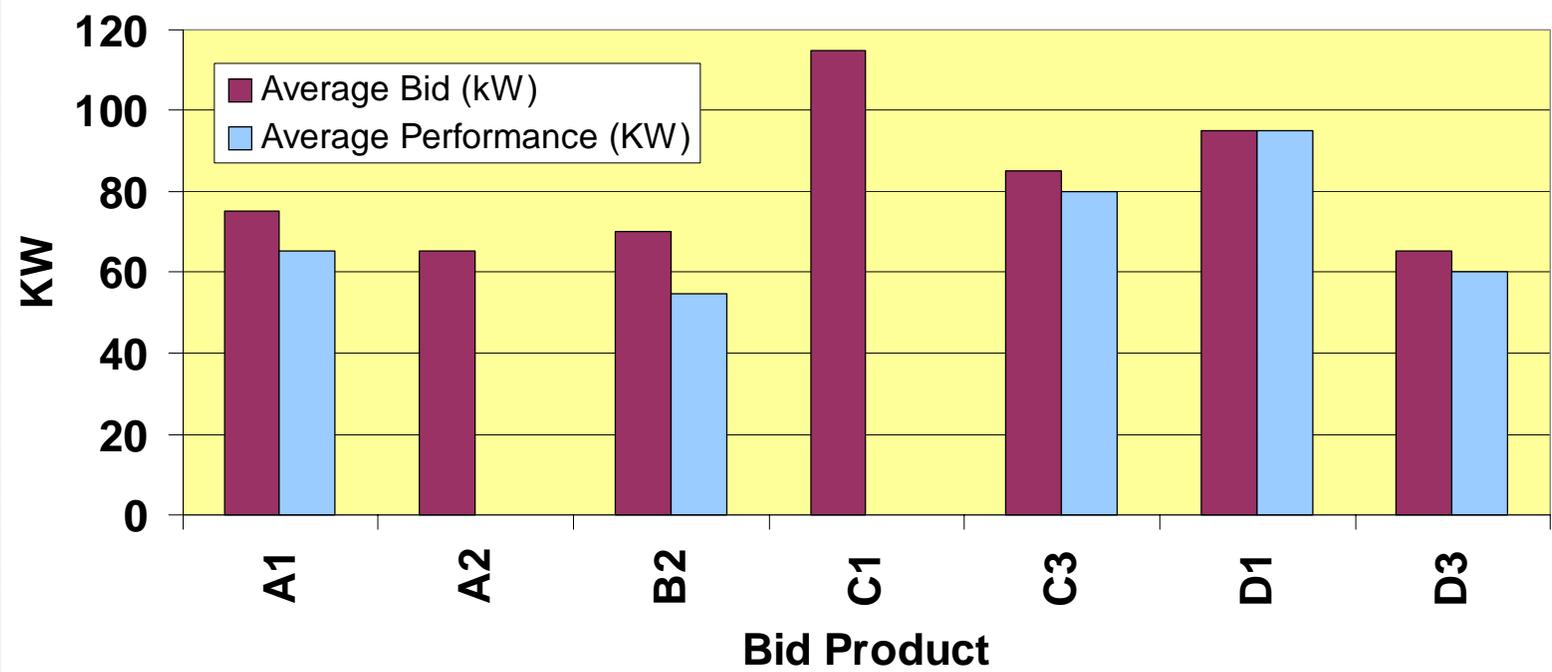
For Each Business Sector:

Average Payment by Bid Product



For Each Business Sector:

Average Bid and Performance by Bid Product



CSP Report – Customer Detail

EasyBid CSP Monthly Summary Report

Event Detail – September

Customer Name: APIR International
Zone: Upstate West
Business Sector: Industrial

Bid Product: B3
Block: 2 PM - 6 PM
Minimum Event Revenue: \$228

Date	Scheduled (KW)	<u>Compliance Level</u>					
		0% Compliance		50% Compliance		100% Compliance	
		KW	Payment	KW	Payment	KW	Payment
9/1/2004	325	0	(\$11)	163	\$231	325	\$471
9/2/2004	325	0	(\$26)	163	\$158	325	\$341
9/8/2004	325	0	(\$244)	163	\$149	325	\$540
Total			(\$281)		\$538		\$1,352

CSP Report – Event Settlement Detail

Event Summary (Scenario 1*): September

Date: 9/1/2004

Compliance Level	Customer			CSP	
	Performed Curtailment (KW)	Sold Curtailment (KW)	Curtailment Payment	Sold Curtailment (KW)	Curtailment Payment
0%	0	1,215	(\$43)	3,000	(\$105)
50%	608	1,215	\$860	3,000	\$797
100%	1,215	1,215	\$1,762	3,000	\$1,699

*** CSPs submit bids based on the 1 MW minimum bid threshold for each bid product. Settlements to the CSP are therefore based on this scheduled amount, not on customer's registered load reductions.**

CSP Report – Monthly Settlement Customer Summary

Monthly Customer Payment Summary

Customer Name	0% Compliance		50% Compliance		100% Compliance	
	Customer Payment	CSP Payment	Customer Payment	CSP Payment	Customer Payment	CSP Payment
APIR International	(\$281)	(\$694)	\$538	\$122	\$1,352	\$939
Star Depot #465	(\$182)	(\$449)	\$346	\$79	\$874	\$607
Lone Pine Mall	(\$564)	(\$1,417)	\$1,284	\$431	\$3,313	\$2,410
Total	(\$1,027)	(\$2,560)	(\$2,168)	\$632	\$5,539	\$3,956