

Default Allocation (WMS)

Amendment to Option 4b

NOVEMBER 18, 2009

DC ENERGY
QUANTITATIVE TRADING

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Default Allocation

– Proposal for Amendment of Option 4b –

- **Underlying assumption in 4b: all participants share in all defaults**
- **What constitutes a ‘fair’ default allocation?**
 - Participants should have similar capacity to withstand the impact of default allocation
 - No allocation will ever be perfectly fair; however, we need to reach a reasonable level
 - E.g., equal allocations to all members would be particularly unfair to small members
 - Similarly, MWh allocation is particularly unfair to participants transacting congestion
- **Proposal: amend Option 4b to discount MWh associated with congestion by a factor “Y” to be determined**
 - Initial proposal set $Y = 1$ (I.e. identical to Option 4b)
 - Remand to MCWG to determine value of Y
- **Should ‘riskier’ participants bear a larger portion of default?**
 - Riskier participants should have higher collateral requirements
- **Are CRRs riskier?**
 - Not if properly collateralized
 - With ERCOT rules, PJM default would have been covered by collateral

Agenda

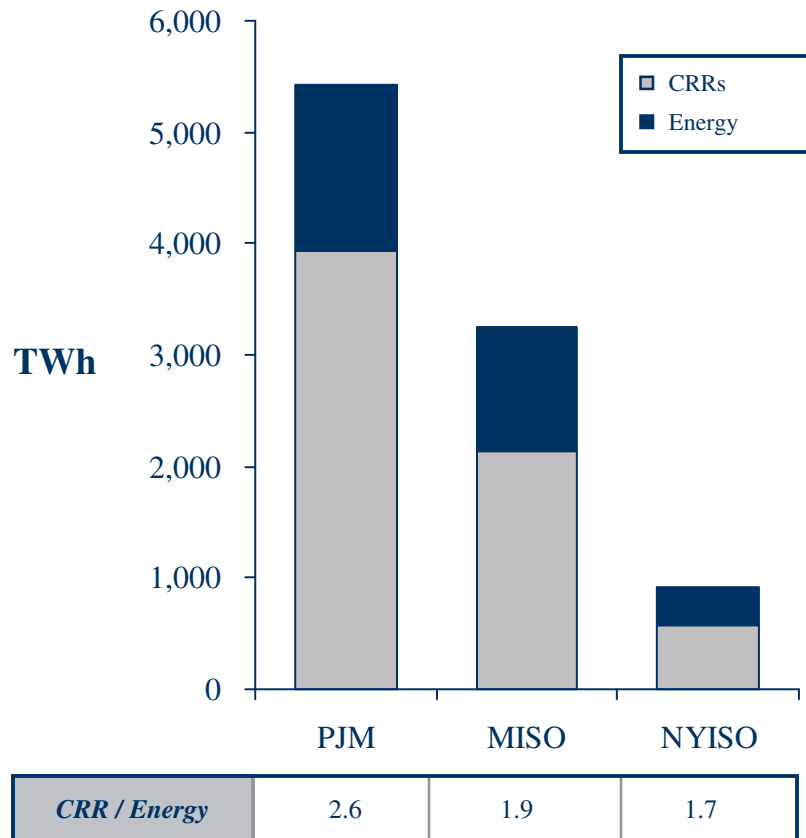
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- **Default allocation**
 - **Credit requirements**

An allocation based on MWh would lead to the bulk of defaults being allocated to CRRs, despite those CRRs accounting for less than a twentieth of economic activity

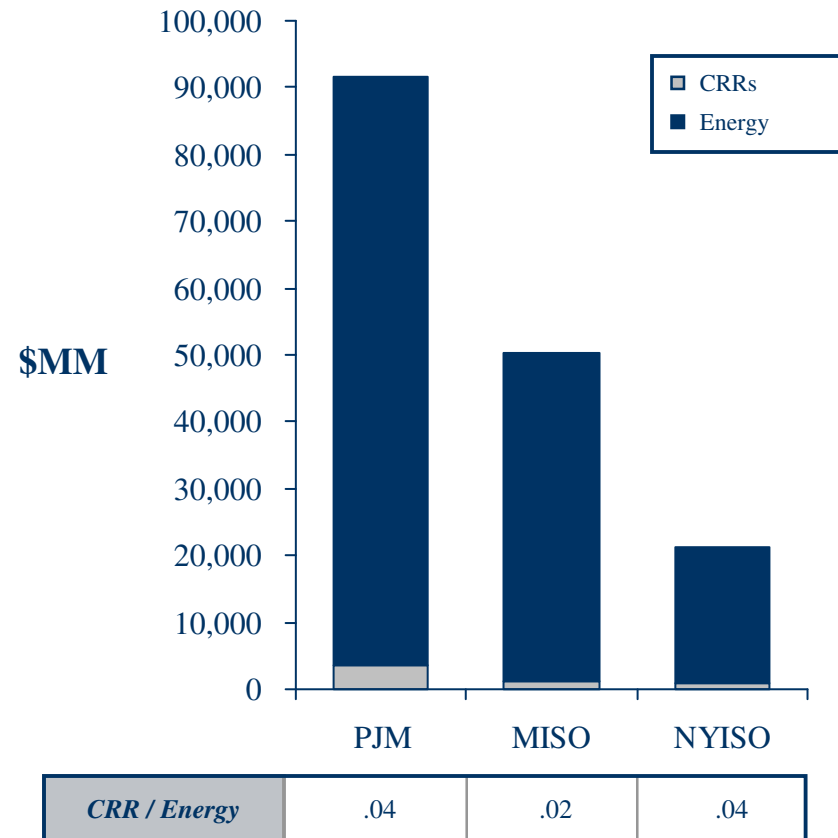
CRR Equivalents Vs Energy

– Dollar and MWh comparison 8/2007 through 8/2009 –

Volume Basis



Dollar Basis



Note: Simplifying assumptions: Energy calculated using actual loads and the energy component of LMP, CRR equivalent settlements are net values, all CRRs except for NYISO where only annual, six month, and monthlies included

Source: PJM, NYISO, MISO, compiled by DC Energy

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Proposal is to amend option 4(b) by allowing for a reduction factor Y to be applied to congestion components; initial proposal is to have Y = 1

Amendment to Proposal 4(b) – Changes in Green –

Amendment to Option 4(b)

- 180 days after the default, ERCOT would allocate default amount using, for the calendar month (currently) 90 days before the date on which ERCOT issues the Uplift Invoice and for each non-defaulting QSE and CRR Account Holder, the following (all amounts are in MWh):
- Maximum of
 - RTM: Sum over all Settlement Points: its Adjusted Metered Load; OR
 - RTM: Sum over all Settlement Points: its Metered Generation (excluding energy from RMR Resources); OR
 - RTM: Sum of all Energy Trades where the QSE is the Buyer; OR
 - RTM: Sum of all Energy Trades where the QSE is the Seller; OR
 - DAM: Sum of all its Energy Offers (Three-part Supply Offers and Energy-Only Offers) cleared in the DAM; OR
 - DAM: Sum of all its Energy Bids cleared in the DAM; OR
 - DAM: (Sum of all its RT PTP Obligations purchased in the DAM) x Y; OR
 - CRR: (Sum of all its CRRs for that month sold in CRR Auctions plus cleared in the DAM plus its PTP Options clearing in RTM) x Y; OR
 - CRR: (Sum of all its CRRs for that month allocated or purchased in CRR Auctions) x Y

Notes

- Initial proposal Y = 1
- MCWG to review

October 30, 2009

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The only difference between Option 4b and the proposed amendment is that congestion line items are multiplied by the scaling factor “Y”

Default Allocation

– Proposal for Amendment of Option 4b –

QSE Description	REP buying all its energy from ERCOT RTM	REP buying all its energy bilaterally submitting Energy Trades & Self-Schedules	REP buying all its energy from ERCOT DAM	Load with 50% Generation and CRR and buying rest in DAM	Gen & Load QSE fully hedging with CRRs and clearing everything in DAM	QSE fully hedging with CRRs and clearing everything in RTM w/Self-Schedules	Typical Gen & Load QSE - 30% DAM, 25% RTM, 70% CRR	Generation Only QSE selling 30% in DAM & all bilaterally at Resource Node	Financial Player in CRR and DAM	Financial Player - CRR market only (buy in Annual Auction & sell in Monthly Auction)	Approximately Seven times Typical Gen & Load QSE - 30% DAM, 25% RTM, 70% CRR	System Total - sum of all QSEs
RTM: Sum of Generation	-	-	-	1,000,000	2,000,000	2,000,000	2,000,000	2,000,000	-	-	19,000,000	
RTM: Sum of Load	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	-	-	-	14,000,000	
RTM: Sum of Energy Trade sells	-	-	-	-	-	-	-	2,000,000	-	-	-	
RTM: Sum of Energy Trade buys	-	2,000,000	-	-	-	-	-	-	-	-	-	
DAM: Sum of Energy Sales	-	-	-	-	2,000,000	-	600,000	600,000	2,000,000	-	7,200,000	
DAM: Sum of Energy Purchases	-	-	2,000,000	1,000,000	2,000,000	-	600,000	600,000	2,000,000	-	4,200,000	
DAM: Sum of RT PTP Obligation	-	-	-	-	-	200,000	140,000	-	-	-	980,000	
CRR: Sum of CRR Sales in DAM & CRR	-	-	-	100,000	200,000	200,000	140,000	-	200,000	200,000	980,000	
CRR: Sum of CRR Purchases in CRR	-	-	-	-	200,000	200,000	140,000	-	200,000	200,000	980,000	
Maximum MWh	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	200,000	19,000,000	37,200,000
Total MWh for Allocation Option 4(b)	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	200,000	19,000,000	37,200,000
Percentage Option 4(b)	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%	5.38%	0.54%	51.08%	100.00%
Default dollar Allocation Option 4(b)	1,075,269	1,075,269	1,075,269	1,075,269	1,075,269	1,075,269	1,075,269	1,075,269	1,075,269	107,927	10,215,054	20,000,000
RTM: Sum of Generation	-	-	-	1,000,000	2,000,000	2,000,000	2,000,000	2,000,000	-	-	19,000,000	
RTM: Sum of Load	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	-	-	-	14,000,000	
RTM: Sum of Energy Trade sells	-	-	-	-	-	-	-	2,000,000	-	-	-	
RTM: Sum of Energy Trade buys	-	2,000,000	-	-	-	-	-	-	-	-	-	
DAM: Sum of Energy Sales	-	-	-	-	2,000,000	-	600,000	600,000	2,000,000	-	7,200,000	
DAM: Sum of Energy Purchases	-	-	2,000,000	1,000,000	2,000,000	-	600,000	600,000	2,000,000	-	4,200,000	
DAM: Sum of RT PTP Obligation	-	-	-	-	-	2,000,000	1,400,000	-	-	-	9,800,000	
CRR: Sum of CRR Sales in DAM&CRR	-	-	-	-	2,000,000	2,000,000	1,400,000	-	2,000,000	2,000,000	9,800,000	
CRR: Sum of CRR Purchases in CRR	-	-	-	1,000,000	2,000,000	2,000,000	1,400,000	-	2,000,000	2,000,000	9,800,000	
Maximum MWh	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	19,000,000	39,000,000
Total MWh for Allocation Option 4(b)	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	19,000,000	39,000,000
Percentage Option 4(b)	5.13%	5.13%	5.13%	5.13%	5.13%	5.13%	5.13%	5.13%	5.13%	5.13%	48.72%	100.00%
Default dollar Allocation Option 4(b)	1,025,641	1,025,641	1,025,641	1,025,641	1,025,641	1,025,641	1,025,641	1,025,641	1,025,641	1,025,641	9,743,590	20,000,000

Y = 1/10

Y = 1
(Opt. 4b)

Source: MCWG Default allocation model, DC Energy

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Default Allocation

– Next Steps –

- **WMS vote to approve or reject amendment**
- **If approved, remand to MCWG to assess value of Y**
- **Dramatically unfair default allocations are both:**
 - DANGEROUS: Risk of cascading default if small participant stuck with large allocation
 - INEFFICIENT: Reduced participation, less liquid markets (broader bid/asks, fewer participants, fewer transactions), lower auction revenues

Agenda

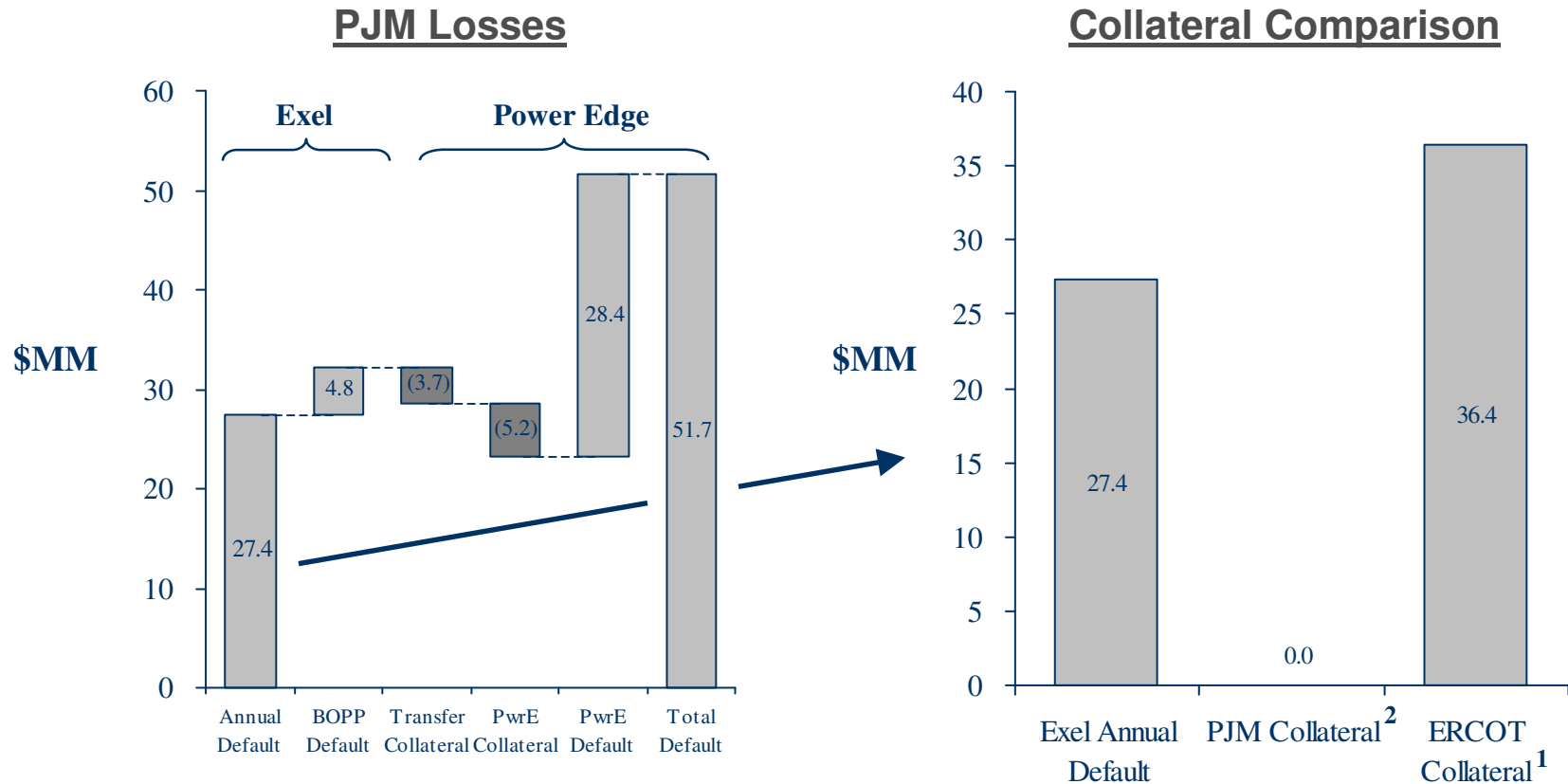
- **Default allocation**



- **Credit requirements**

In the annual auction, Exel acquired a position that led to a \$27MM default while posting no collateral whatsoever; in ERCOT they would have posted \$36MM

PJM 07/08 Default and Collateral Comparison



¹ ACPE component of CRR obligation calculation

² PJM requested collateral from Exel after they awarded the position to Exel

Note: ERCOT Collateral is calculated net of the abs(auction price) component for negative CRRs for comparability – PJM does not pay auction revenues until month is settled

Source: PJM, FERC “Order Denying Complaint in Part” 4/2/09 in EL08-44-000, DC Energy

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