



11-281

TO: Clearing Member Firms
Chief Financial Officers
Back Office Managers
Margin Managers

FROM: CME Clearing

SUBJECT: Performance Bond Requirements

DATE: Thursday, August 11, 2011

To receive advanced notification of Performance Bond (margin) changes, through our free automated mailing list, go to

<http://www.cmegroup.com/newsletter/web2lead/web2sf-old.html>

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As per the normal review of market volatility to ensure adequate collateral coverage, the Chicago Mercantile Exchange Inc., Clearing House Risk Management staff approved the performance bond requirements for the following products listed below.

The rates will be effective after the close of business on

Monday, August 15, 2011.

Current rates as of:

Thursday, August 11, 2011.

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Intra Spreads								
NATURAL GAS - Intra Spreads								
Henry Hub Natural Gas (NG, NN, HP) - Tier 4 vs. Tier 5 (E-MINI NATURAL GAS FUTURES)								
QG	Spec		Decrease	USD	506	375	338	250
QG	Hedge/Member		Decrease	USD	375	375	250	250
Henry Hub Natural Gas (NG, NN, HP) - Tier 4 vs. Tier 5 (HENRY HUB PENULTIMATE)								
NP	Spec		Decrease	USD	506	375	338	250
NP	Hedge/Member		Decrease	USD	375	375	250	250
Henry Hub Natural Gas (NG, NN, HP) - Tier 4 vs. Tier 5 (HENRY HUB SWAP TRADE AT SETTLEMENT)								
NNT	Spec		Decrease	USD	506	375	338	250
NNT	Hedge/Member		Decrease	USD	375	375	250	250
Henry Hub Natural Gas (NG, NN, HP) - Tier 4 vs. Tier 5 (HENRY HUB SWAP)								
NN	Spec		Decrease	USD	506	375	338	250
NN	Hedge/Member		Decrease	USD	375	375	250	250
Henry Hub Natural Gas (NG, NN, HP) - Tier 4 vs. Tier 5 (NATURAL GAS HENRY HUB FUTURE)								
NG	Spec		Decrease	USD	2,025	1,500	1,350	1,000
NG	Hedge/Member		Decrease	USD	1,500	1,500	1,000	1,000
Henry Hub Natural Gas (NG, NN, HP) - Tier 4 vs. Tier 5 (NATURAL GAS TRADE AT SETTLEMENT)								
NGT	Spec		Decrease	USD	2,025	1,500	1,350	1,000
NGT	Hedge/Member		Decrease	USD	1,500	1,500	1,000	1,000
Henry Hub Natural Gas (NG, NN, HP) - Tier 4 vs. Tier 5 (NYMEX NATURAL GAS (H.HUB LTD) FUT)								
HH	Spec		Decrease	USD	2,025	1,500	1,350	1,000
HH	Hedge/Member		Decrease	USD	1,500	1,500	1,000	1,000
Henry Hub Natural Gas (NG, NN, HP) - Tier 4 vs. Tier 5 (NYMEX NATURAL GAS FUTURES)								
HP	Spec		Decrease	USD	2,025	1,500	1,350	1,000
HP	Hedge/Member		Decrease	USD	1,500	1,500	1,000	1,000
Henry Hub Natural Gas (NG, NN, HP) - Tier 5 vs. Tier 6 (E-MINI NATURAL GAS FUTURES)								
QG	Spec		Decrease	USD	422	313	253	188
QG	Hedge/Member		Decrease	USD	313	313	188	188
Henry Hub Natural Gas (NG, NN, HP) - Tier 5 vs. Tier 6 (HENRY HUB PENULTIMATE)								
NP	Spec		Decrease	USD	422	313	253	188
NP	Hedge/Member		Decrease	USD	313	313	188	188
Henry Hub Natural Gas (NG, NN, HP) - Tier 5 vs. Tier 6 (HENRY HUB SWAP TRADE AT SETTLEMENT)								
NNT	Spec		Decrease	USD	422	313	253	188
NNT	Hedge/Member		Decrease	USD	313	313	188	188
Henry Hub Natural Gas (NG, NN, HP) - Tier 5 vs. Tier 6 (HENRY HUB SWAP)								

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Intra Spreads								
NN	Spec		Decrease	USD	422	313	253	188
NN	Hedge/Member		Decrease	USD	313	313	188	188
Henry Hub Natural Gas (NG, NN, HP) - Tier 5 vs. Tier 6 (NATURAL GAS HENRY HUB FUTURE)								
NG	Spec		Decrease	USD	1,688	1,250	1,013	750
NG	Hedge/Member		Decrease	USD	1,250	1,250	750	750
Henry Hub Natural Gas (NG, NN, HP) - Tier 5 vs. Tier 6 (NATURAL GAS TRADE AT SETTLEMENT)								
NGT	Spec		Decrease	USD	1,688	1,250	1,013	750
NGT	Hedge/Member		Decrease	USD	1,250	1,250	750	750
Henry Hub Natural Gas (NG, NN, HP) - Tier 5 vs. Tier 6 (NYMEX NATURAL GAS (H.HUB LTD) FUT)								
HH	Spec		Decrease	USD	1,688	1,250	1,013	750
HH	Hedge/Member		Decrease	USD	1,250	1,250	750	750
Henry Hub Natural Gas (NG, NN, HP) - Tier 5 vs. Tier 6 (NYMEX NATURAL GAS FUTURES)								
HP	Spec		Decrease	USD	1,688	1,250	1,013	750
HP	Hedge/Member		Decrease	USD	1,250	1,250	750	750
Henry Hub Natural Gas (NG, NN, HP) - Tier 8 vs. Tier 9 (E-MINI NATURAL GAS FUTURES)								
QG	Spec		Increase	USD	270	200	439	325
QG	Hedge/Member		Increase	USD	200	200	325	325
Henry Hub Natural Gas (NG, NN, HP) - Tier 8 vs. Tier 9 (HENRY HUB PENULTIMATE)								
NP	Spec		Increase	USD	270	200	439	325
NP	Hedge/Member		Increase	USD	200	200	325	325
Henry Hub Natural Gas (NG, NN, HP) - Tier 8 vs. Tier 9 (HENRY HUB SWAP TRADE AT SETTLEMENT)								
NNT	Spec		Increase	USD	270	200	439	325
NNT	Hedge/Member		Increase	USD	200	200	325	325
Henry Hub Natural Gas (NG, NN, HP) - Tier 8 vs. Tier 9 (HENRY HUB SWAP)								
NN	Spec		Increase	USD	270	200	439	325
NN	Hedge/Member		Increase	USD	200	200	325	325
Henry Hub Natural Gas (NG, NN, HP) - Tier 8 vs. Tier 9 (NATURAL GAS HENRY HUB FUTURE)								
NG	Spec		Increase	USD	1,080	800	1,755	1,300
NG	Hedge/Member		Increase	USD	800	800	1,300	1,300
Henry Hub Natural Gas (NG, NN, HP) - Tier 8 vs. Tier 9 (NATURAL GAS TRADE AT SETTLEMENT)								
NGT	Spec		Increase	USD	1,080	800	1,755	1,300
NGT	Hedge/Member		Increase	USD	800	800	1,300	1,300
Henry Hub Natural Gas (NG, NN, HP) - Tier 8 vs. Tier 9 (NYMEX NATURAL GAS (H.HUB LTD) FUT)								
HH	Spec		Increase	USD	1,080	800	1,755	1,300
HH	Hedge/Member		Increase	USD	800	800	1,300	1,300

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Intra Spreads								
Henry Hub Natural Gas (NG, NN, HP) - Tier 8 vs. Tier 9 (NYMEX NATURAL GAS FUTURES)								
HP	Spec		Increase	USD	1,080	800	1,755	1,300
HP	Hedge/Member		Increase	USD	800	800	1,300	1,300
Henry Hub Natural Gas (NG, NN, HP) - Tier 9 vs. Tier 9 (E-MINI NATURAL GAS FUTURES)								
QG	Spec		Increase	USD	506	375	675	500
QG	Hedge/Member		Increase	USD	375	375	500	500
Henry Hub Natural Gas (NG, NN, HP) - Tier 9 vs. Tier 9 (HENRY HUB PENULTIMATE)								
NP	Spec		Increase	USD	506	375	675	500
NP	Hedge/Member		Increase	USD	375	375	500	500
Henry Hub Natural Gas (NG, NN, HP) - Tier 9 vs. Tier 9 (HENRY HUB SWAP TRADE AT SETTLEMENT)								
NNT	Spec		Increase	USD	506	375	675	500
NNT	Hedge/Member		Increase	USD	375	375	500	500
Henry Hub Natural Gas (NG, NN, HP) - Tier 9 vs. Tier 9 (HENRY HUB SWAP)								
NN	Spec		Increase	USD	506	375	675	500
NN	Hedge/Member		Increase	USD	375	375	500	500
Henry Hub Natural Gas (NG, NN, HP) - Tier 9 vs. Tier 9 (NATURAL GAS HENRY HUB FUTURE)								
NG	Spec		Increase	USD	2,025	1,500	2,700	2,000
NG	Hedge/Member		Increase	USD	1,500	1,500	2,000	2,000
Henry Hub Natural Gas (NG, NN, HP) - Tier 9 vs. Tier 9 (NATURAL GAS TRADE AT SETTLEMENT)								
NGT	Spec		Increase	USD	2,025	1,500	2,700	2,000
NGT	Hedge/Member		Increase	USD	1,500	1,500	2,000	2,000
Henry Hub Natural Gas (NG, NN, HP) - Tier 9 vs. Tier 9 (NYMEX NATURAL GAS (H.HUB LTD) FUT)								
HH	Spec		Increase	USD	2,025	1,500	2,700	2,000
HH	Hedge/Member		Increase	USD	1,500	1,500	2,000	2,000
Henry Hub Natural Gas (NG, NN, HP) - Tier 9 vs. Tier 9 (NYMEX NATURAL GAS FUTURES)								
HP	Spec		Increase	USD	2,025	1,500	2,700	2,000
HP	Hedge/Member		Increase	USD	1,500	1,500	2,000	2,000

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Intra Spreads								
PETROLEUM CRACKS AND SPREADS - Intra Spreads								
1% Fuel Oil NWE Crack Spread Swap - All Months (1% FOIL(PLTS) CARGOES FOB NWE CRACK)								
FVB	Spec		Increase	USD	2,445	2,223	4,890	4,445
FVB	Hedge/Member		Increase	USD	2,223	2,223	4,445	4,445
1% Fuel Oil NWE Crack Spread Swap - All Months (FUEL OIL NWE CRACK VS. ICE)								
FI	Spec		Increase	USD	385	350	770	700
FI	Hedge/Member		Increase	USD	350	350	700	700
3.5% Fuel Oil FOB MED Crack Spread Swap - All Months (EURO 3.5% FUEL OIL M CRK)								
FL	Spec		Increase	USD	220	200	440	400
FL	Hedge/Member		Increase	USD	200	200	400	400
3.5% Fuel Oil Rdam Crack Swap Futures - All Months (3.5% F OIL(PLTS) BRGES FOB RDM CRCK)								
BOB	Spec		Increase	USD	2,445	2,223	4,890	4,445
BOB	Hedge/Member		Increase	USD	2,223	2,223	4,445	4,445
3.5% Fuel Oil Rdam Crack Swap Futures - All Months (FUEL OIL CRACK VS. ICE)								
FO	Spec		Increase	USD	385	350	770	700
FO	Hedge/Member		Increase	USD	350	350	700	700
ARGUS LLS VS. WTI (ARGUS) TRADE MONTH SWAP FUTURES - All Months (ARGUS LLS VS. WTI (ARG) TRD M)								
E5	Spec		Increase	USD	220	200	440	400
E5	Hedge/Member		Increase	USD	200	200	400	400
Dated-to-Frontline Brent Swap - Tier 1 vs. Tier 2 (DATED TO FRONTLINE BRENT CLNDR SWAP)								
FY	Spec		Increase	USD	0	0	110	100
FY	Hedge/Member		Increase	USD	0	0	100	100
Dated-to-Frontline Brent Swap - Tier 1 vs. Tier 3 (DATED TO FRONTLINE BRENT CLNDR SWAP)								
FY	Spec		Increase	USD	0	0	110	100
FY	Hedge/Member		Increase	USD	0	0	100	100
Dated-to-Frontline Brent Swap - Tier 2 vs. Tier 2 (DATED TO FRONTLINE BRENT CLNDR SWAP)								
FY	Spec		Increase	USD	55	50	110	100
FY	Hedge/Member		Increase	USD	50	50	100	100
Dated-to-Frontline Brent Swap - Tier 2 vs. Tier 3 (DATED TO FRONTLINE BRENT CLNDR SWAP)								
FY	Spec		Increase	USD	110	100	220	200
FY	Hedge/Member		Increase	USD	100	100	200	200
Dubai Brent Swap - Tier 2 vs. Tier 4 (ICE BRENT DUBAI SWAP)								
DB	Spec		Increase	USD	220	200	605	550
DB	Hedge/Member		Increase	USD	200	200	550	550

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Intra Spreads								
Dubai Brent Swap - Tier 3 vs. Tier 4 (ICE BRENT DUBAI SWAP)								
DB	Spec		Increase	USD	220	200	385	350
DB	Hedge/Member		Increase	USD	200	200	350	350
East/West Fuel Oil Spread Swap - Tier 2 vs Tier 2 (EAST/WEST FUEL OIL SPREAD SWAP)								
EW	Spec		Increase	USD	1,100	1,000	1,650	1,500
EW	Hedge/Member		Increase	USD	1,000	1,000	1,500	1,500
European Gasoil 10PPM Rdam Barges v. Gasoil Futures Swap - All Months (EURO DIESEL 10PPM VS. ICE)								
ET	Spec		Increase	USD	165	150	330	300
ET	Hedge/Member		Increase	USD	150	150	300	300
European Gasoil 10PPM Rdam Barges v. Gasoil Futures Swap - All Months (MINI EUR DIESEL10PPM VS ICE GS SWAP)								
MUD	Spec		Increase	USD	17	15	33	30
MUD	Hedge/Member		Increase	USD	15	15	30	30
European Jet CIF NWE v. Gasoil Futures Swap - Tier 2 vs. Tier 3 (JET CIF NWE VS ICE)								
JC	Spec		Increase	USD	110	100	550	500
JC	Hedge/Member		Increase	USD	100	100	500	500
European Jet CIF NWE v. Gasoil Futures Swap - Tier 2 vs. Tier 3 (MIN JETKERO CRGOS CIF NWE VS GASOIL)								
MJC	Spec		Increase	USD	11	10	55	50
MJC	Hedge/Member		Increase	USD	10	10	50	50
European Jet CIF NWE v. Gasoil Futures Swap - Tier 3 vs. Tier 3 (JET CIF NWE VS ICE)								
JC	Spec		Increase	USD	1,320	1,200	2,200	2,000
JC	Hedge/Member		Increase	USD	1,200	1,200	2,000	2,000
European Jet CIF NWE v. Gasoil Futures Swap - Tier 3 vs. Tier 3 (MIN JETKERO CRGOS CIF NWE VS GASOIL)								
MJC	Spec		Increase	USD	132	120	220	200
MJC	Hedge/Member		Increase	USD	120	120	200	200
European Jet Rdam Barges vs. Gasoil Futures Swap -Tier 2 vs. Tier 3 (JET BARGES VS. ICE GASOIL SWAP)								
JR	Spec		Increase	USD	110	100	550	500
JR	Hedge/Member		Increase	USD	100	100	500	500
European Jet Rdam Barges vs. Gasoil Futures Swap -Tier 2 vs. Tier 3 (MIN JET KERO BRGES FOB RDAM VS GSL)								
MJB	Spec		Increase	USD	11	10	55	50
MJB	Hedge/Member		Increase	USD	10	10	50	50
European Jet Rdam Barges vs. Gasoil Futures Swap -Tier 3 vs. Tier 3 (JET BARGES VS. ICE GASOIL SWAP)								
JR	Spec		Increase	USD	1,540	1,400	1,980	1,800
JR	Hedge/Member		Increase	USD	1,400	1,400	1,800	1,800

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CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Intra Spreads								
European Jet Rdam Barges vs. Gasoil Futures Swap -Tier 3 vs. Tier 3 (MIN JET KERO BRGES FOB RDAM VS GSL)								
MJB	Spec		Increase	USD	154	140	198	180
MJB	Hedge/Member		Increase	USD	140	140	180	180
European Naphtha Crack Spread - Tier 2 vs Tier 2 (EUROPEAN NAPHTHA CRACK SPREAD SWAP)								
EN	Spec		Increase	USD	275	250	550	500
EN	Hedge/Member		Increase	USD	250	250	500	500
European Naphtha Crack Spread - Tier 2 vs Tier 2 (NAPHTHA (PLTS) CARGES CIF NWE CRACK)								
NOB	Spec		Increase	USD	2,448	2,225	4,895	4,450
NOB	Hedge/Member		Increase	USD	2,225	2,225	4,450	4,450
GULF COAST JET VS. NYMEX #2 HEA (ME) - Tier 3 vs. 3 (GULF COAST JET VS NYM 2 HO SPRD SWP)								
ME	Spec		Increase	USD	28	25	550	500
ME	Hedge/Member		Increase	USD	25	25	500	500
Heating Oil Arb Swap: NYMEX HO v. Rdam Gasoil - All Months (HEATING OIL VS. ICE GASOIL)								
HA	Spec		Increase	USD	220	200	440	400
HA	Hedge/Member		Increase	USD	200	200	400	400
HEATING OIL CRACK SPREAD SWAP FUTURES - Tier 3 vs. Tier 3 (NYH NO. 2 CRACK SPREAD CAL SWAP)								
HK	Spec		Increase	USD	550	500	825	750
HK	Hedge/Member		Increase	USD	500	500	750	750
High-Low Sulfur Fuel Oil Spread Swap - Tier 2 vs. Tier 3 (FUELOIL SWAP:CARGOES VS.BARGES)								
FS	Spec		Increase	USD	0	0	1,100	1,000
FS	Hedge/Member		Increase	USD	0	0	1,000	1,000
High-Low Sulfur Fuel Oil Spread Swap - Tier 3 vs. Tier 3 (FUELOIL SWAP:CARGOES VS.BARGES)								
FS	Spec		Increase	USD	1,100	1,000	2,200	2,000
FS	Hedge/Member		Increase	USD	1,000	1,000	2,000	2,000
LLS (Argus) vs. WTI Spread Calendar Swap - All Months (LLS (ARGUS) V WTI SWAP)								
WJ	Spec		Increase	USD	220	200	440	400
WJ	Hedge/Member		Increase	USD	200	200	400	400
Los Angeles CARBOB (OPIS) Spread Swap - All Months (LA CARBOB GASOLINE(OPIS)SWAP)								
JL	Spec		Increase	USD	528	480	880	800
JL	Hedge/Member		Increase	USD	480	480	800	800
Mars (Argus) vs. WTI Spread Calendar Swap - All Months (MARS (ARGUS) V WTI SWAP)								
YX	Spec		Increase	USD	220	200	440	400
YX	Hedge/Member		Increase	USD	200	200	400	400

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Intra Spreads								
New York 1% Fuel Oil v. Gulf Coast 3% Fuel Oil Swap - All Months (NY1% V. GC3PREAD S)								
VR	Spec		Increase	USD	264	240	528	480
VR	Hedge/Member		Increase	USD	240	240	480	480
NY Harbor Residual Fuel Crack Swap - All Months (NY HARBOR RESIDUAL FUEL CRACK SWAP)								
ML	Spec		Increase	USD	528	480	770	700
ML	Hedge/Member		Increase	USD	480	480	700	700
RBOB Crack Spreads Swap - Tier 2 vs. Tier 4 (RBOB CRACK SPREAD)								
RM	Spec		Increase	USD	550	500	825	750
RM	Hedge/Member		Increase	USD	500	500	750	750
RBOB Crack Spreads Swap - Tier 3 vs. Tier 3 (RBOB CRACK SPREAD)								
RM	Spec		Increase	USD	550	500	825	750
RM	Hedge/Member		Increase	USD	500	500	750	750
RBOB Crack Spreads Swap - Tier 3 vs. Tier 4 (RBOB CRACK SPREAD)								
RM	Spec		Increase	USD	550	500	825	750
RM	Hedge/Member		Increase	USD	500	500	750	750
RBOB UP-DOWN CALENDAR SWAP CONTRACT (RV) - Tier 3 vs. 3 (RBOB UP-DOWN CALENDAR SWAP)								
RV	Spec		Increase	USD	55	50	275	250
RV	Hedge/Member		Increase	USD	50	50	250	250
RBOB vs. Heating Oil Swap - All Months (RBOB VS. HEATING OIL SWAP)								
RH	Spec		Increase	USD	528	480	770	700
RH	Hedge/Member		Increase	USD	480	480	700	700
Singapore Fuel Oil Spread Swap - Tier 2 vs Tier 2 (SINGAPORE FUEL OIL SPREAD SWAP)								
SD	Spec		Increase	USD	374	340	1,100	1,000
SD	Hedge/Member		Increase	USD	340	340	1,000	1,000
Singapore Fuel Oil Spread Swap - Tier 2 vs Tier 3 (SINGAPORE FUEL OIL SPREAD SWAP)								
SD	Spec		Increase	USD	110	100	550	500
SD	Hedge/Member		Increase	USD	100	100	500	500
SINGAPORE GASOIL (PLATTS) VS. ICE GASOIL SWAP FUTURES - Tier 2 vs. Tier 2 (SINGAPORE GASOIL VS ICE)								
GA	Spec		Increase	USD	220	200	385	350
GA	Hedge/Member		Increase	USD	200	200	350	350
UP DOWN GC ULSDVS. NMX HO SPREAD (LT) - Tier 1 vs. 2 (UP DOWN GC ULSD VS NMX HO SPRD)								
LT	Spec		Increase	USD	28	25	358	325
LT	Hedge/Member		Increase	USD	25	25	325	325

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Intra Spreads								
UP DOWN GC ULSDVS. NMX HO SPREAD (LT) - Tier 3 vs. 3 (UP DOWN GC ULSD VS NMX HO SPRD)								
LT	Spec		Increase	USD	28	25	385	350
LT	Hedge/Member		Increase	USD	25	25	350	350
USGC UNL87 CRACK SPREAD CALSWP (RU) - Tier 3 vs. 3 (USGC UNL 87 CRACK SPREAD CAL SWAP)								
RU	Spec		Increase	USD	55	50	275	250
RU	Hedge/Member		Increase	USD	50	50	250	250
WTI - Brent (ICE) Bullet Swap - All Months (WTI-BRENT BULLET SWAP)								
BY	Spec		Increase	USD	55	50	220	200
BY	Hedge/Member		Increase	USD	50	50	200	200
WTI - Brent (ICE) Calendar Swap - Tier 2 vs Tier 2 (WTI-BRENT CALENDAR SWAP)								
BK	Spec		Increase	USD	165	150	330	300
BK	Hedge/Member		Increase	USD	150	150	300	300
WTI - Brent (ICE) Calendar Swap - Tier 2 vs Tier 3 (WTI-BRENT CALENDAR SWAP)								
BK	Spec		Increase	USD	165	150	330	300
BK	Hedge/Member		Increase	USD	150	150	300	300
WTI - Brent (ICE) Calendar Swap - Tier 3 vs Tier 3 (WTI-BRENT CALENDAR SWAP)								
BK	Spec		Increase	USD	330	300	495	450
BK	Hedge/Member		Increase	USD	300	300	450	450
WTS (Argus) vs. WTI Spread Trade Month Swap - Tier 2 vs. Tier 3 (WTS (ARGUS) V WTI TRD MTH SWP)								
FH	Spec		Increase	USD	110	100	550	500
FH	Hedge/Member		Increase	USD	100	100	500	500
WTS (Argus) vs. WTI Spread Trade Month Swap - Tier 3 vs. Tier 3 (WTS (ARGUS) V WTI TRD MTH SWP)								
FH	Spec		Increase	USD	330	300	550	500
FH	Hedge/Member		Increase	USD	300	300	500	500

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
ELECTRICITY - Inter-commodity Spread Rates						
AEP DAYTON HUB PEAK MONTHLY (NYM-VM - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Decrease	+1:-1	65%	65%	60%	60%
CIN HUB 5MW DAY AHEAD PEAK (NYM-H5 - CME) vs PJM WESTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-J4 - CME)						
Spread Credit Rate	Increase	+1:-1	60%	60%	75%	75%
CIN HUB 5MW REAL TIME PEAK (NYM-H3 - CME) vs PJM WESTERN HUB PEAK CALENDAR-MONTH REAL-TIME LMP (NYM-L1 - CME)						
Spread Credit Rate	Increase	+1:-1	50%	50%	75%	75%
CINERGY HUB 5 MW OFF-PEAK CALENDAR-MONTH REAL-TIME SWAP (NYM-H4 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Increase	-194:+1	40%	40%	50%	50%
CINERGY HUB OFF-PEAK CALENDAR-MONTH LMP SWAP (NYM-EJ - CME) vs AEP-DAYTON HUB OFF-PEAK MONTHLY SWAP (NYM-VP - CME)						
Spread Credit Rate	Decrease	+1:-1	75%	75%	65%	65%
CINERGY HUB OFF-PEAK CALENDAR-MONTH LMP SWAP (NYM-EJ - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Increase	+1:-1	40%	40%	50%	50%
CINERGY HUB OFF-PEAK CALENDAR-MONTH LMP SWAP (NYM-EJ - CME) vs PJM OFF-PEAK LMP SWAP (NYM-JP - CME)						
Spread Credit Rate	Increase	+1:-1	55%	55%	65%	65%
CINERGY HUB PEAK (NYM-EM - CME) vs AEP-DAYTON HUB MONTHLY ELECTRICITY FUTURES - PEAK (NYM-VM - CME)						
Spread Credit Rate	Decrease	+1:-1	75%	75%	65%	65%
CINERGY HUB PEAK (NYM-EM - CME) vs PJM FINANCIALLY SETTLED MONTHLY FUTURES - PEAK (NYM-JM - CME)						
Spread Credit Rate	Increase	+1:-1	50%	50%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND CONNECTICUT ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P3 - CME)						
Spread Credit Rate	Increase	+1:-194	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND CONNECTICUT ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P2 - CME)						
Spread Credit Rate	Increase	+1:-11	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND MAINE ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-W2 - CME)						
Spread Credit Rate	Increase	+1:-194	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND MAINE ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P9 - CME)						
Spread Credit Rate	Increase	+1:-11	60%	60%	65%	65%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND NEW HAMPSHIRE ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-U3 - CME)						
Spread Credit Rate	Increase	+1:-194	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND NEW HAMPSHIRE ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-U2 - CME)						
Spread Credit Rate	Increase	+1:-11	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND NORTH EAST MASSACHUSETTS ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P8 - CME)						
Spread Credit Rate	Increase	+1:-194	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND NORTH EAST MASSACHUSETTS ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P7 - CME)						
Spread Credit Rate	Increase	+1:-11	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND SOUTH EAST MASSACHUSETTS ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P5 - CME)						
Spread Credit Rate	Increase	+1:-194	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND SOUTH EAST MASSACHUSETTS ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P4 - CME)						
Spread Credit Rate	Increase	+1:-11	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND WEST CENTRAL MASSACHUSETTS ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY AHEAD LMP SWAP FUTURES (NY-L9 - CME)						
Spread Credit Rate	Increase	+1:-194	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND WEST CENTRAL MASSACHUSETTS ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-R6 - CME)						
Spread Credit Rate	Increase	+1:-11	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs MIDWEST ISO CINERGY HUB 5MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD SWAP FUTURES (NY-K2 - CME)						
Spread Credit Rate	Increase	+1:-194	40%	40%	50%	50%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs MIDWEST ISO ILLINOIS HUB 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD SWAP FUTURES (NY-4R - CME)						
Spread Credit Rate	Increase	+1:-194	40%	40%	50%	50%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE A 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP FUTURES (NY-K4 - CME)						
Spread Credit Rate	Increase	+1:-194	45%	45%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME)						
Spread Credit Rate	Increase	+1:-1	45%	45%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME)						
Spread Credit Rate	Increase	+1:-2	55%	55%	65%	65%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE C 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP FUTURES (NY-A3 - CME)						
Spread Credit Rate	Increase	+1:-194	45%	45%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE F 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP FUTURES (NY-4M - CME)						
Spread Credit Rate	Increase	+1:-194	45%	45%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE G 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP FUTURES (NY-D2 - CME)						
Spread Credit Rate	Increase	+1:-194	45%	45%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE G OFF-PEAK LBMP SWAP FUTURES (NY-KH - CME)						
Spread Credit Rate	Increase	+1:-1	40%	40%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE J 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP FUTURES (NY-D4 - CME)						
Spread Credit Rate	Increase	+1:-194	45%	45%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE J OFF-PEAK LBMP SWAP FUTURES (NY-KK - CME)						
Spread Credit Rate	Increase	+1:-1	40%	40%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM AECO ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-Y1 - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	45%	45%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM AEP DAYTON HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-D7 - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	45%	45%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM APS ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-S4 - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	50%	50%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM BGE ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-E3 - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	50%	50%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM DUQUESNE ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-D5 - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	45%	45%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM JCPL ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-J2 - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	50%	50%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM PECO ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-4N - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	45%	45%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM PEPCO ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-R8 - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	50%	50%
ISO NEW ENGLAND INTERNAL HUB 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-H2 - CME) vs ISO NEW ENGLAND SOUTH EAST MASSACHUSETTS ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P5 - CME)						
Spread Credit Rate	Increase	+1:-1	85%	85%	90%	90%
ISO NEW ENGLAND INTERNAL HUB PEAK LOCATION MARGINAL PRICING [LMP] SWAP (NYM-NI - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Increase	+1:-1	60%	60%	65%	65%
ISO NEW ENGLAND INTERNAL HUB PEAK LOCATION MARGINAL PRICING [LMP] SWAP (NYM-NI - CME) vs NYISO ZONE A PEAK MONTHLY SWAP (NYM-KA - CME)						
Spread Credit Rate	Increase	+1:-1	45%	45%	75%	75%
ISO NEW ENGLAND OFF-PEAK LMP MONTHLY SWAP (NYM-KI - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Increase	+1:-1	60%	60%	65%	65%
MIDWEST ISO CINERGY HUB PEAK CALENDAR-MONTH LMP SWAP FUTURES (NY-EM - CME) vs MIDWEST ISO CINERGY HUB 5 MW PEAK CALENDAR-MONTH DAY-AHEAD SWAP FUTURES (NY-H5 - CME)						
Spread Credit Rate	Decrease	+1:-11	95%	95%	90%	90%
MIDWEST ISO ILLINOIS HUB 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-4R - CME) vs MISO CINERGY HUB 5 MW OFF-PEAK DAY-AHEAD SWAP (NYM-K2 - CME)						
Spread Credit Rate	Increase	+1:-1	85%	85%	90%	90%
MIDWEST ISO ILLINOIS HUB 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-4Q - CME) vs CINERGY HUB 5 MW PEAK CALENDAR-MONTH DAY-AHEAD SWAP (NYM-H5 - CME)						
Spread Credit Rate	Increase	+1:-1	85%	85%	90%	90%
NEPOOL INTER HUB 5MW DAY AHEAD OFF PEAK (NYM-H2 - CME) vs NEPOOL CONN 5MW DAY AHEAD OFF PEAK (NYM-P3 - CME)						
Spread Credit Rate	Increase	+1:-1	85%	85%	90%	90%
NEPOOL INTER HUB 5MW DAY AHEAD OFF PEAK (NYM-H2 - CME) vs NEPOOL MAINE 5MW DAY AHEAD OFF PEAK (NYM-W2 - CME)						
Spread Credit Rate	Increase	+1:-1	85%	85%	90%	90%
NEPOOL INTER HUB 5MW DAY AHEAD OFF PEAK (NYM-H2 - CME) vs NEPOOL NE MASS 5 MW DAY AHEAD OFF PEAK (NYM-P8 - CME)						
Spread Credit Rate	Increase	+1:-1	85%	85%	90%	90%
NEPOOL INTER HUB 5MW DAY AHEAD OFF PEAK (NYM-H2 - CME) vs NEPOOL NEW HAMPSHIRE 5MW DAY AHEAD OFF PEAK (NYM-U3 - CME)						
Spread Credit Rate	Increase	+1:-1	85%	85%	90%	90%
NEPOOL INTER HUB 5MW DAY AHEAD OFF PEAK (NYM-H2 - CME) vs NEPOOL W CENTRAL MASS 5 MW DAY AHEAD OFF PEAK (NYM-L9 - CME)						
Spread Credit Rate	Increase	+1:-1	85%	85%	90%	90%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
NEPOOL INTERNAL HUB 5 MW OFF-PEAK CALENDAR-MONTH DAY -AHEAD SWAP (NYM-H2 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Increase	+194:-1	60%	60%	65%	65%
NEPOOL INTERNAL HUB 5 MW PEAK CALENDAR-MONTH DAY AHEAD SWAP (NYM-U6 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Increase	+11:-1	60%	60%	65%	65%
NEPOOL INTERNAL HUB 5 MW PEAK CALENDAR-MONTH DAY AHEAD SWAP (NYM-U6 - CME) vs NEPOOL CONNECTICUT 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-P2 - CME)						
Spread Credit Rate	Increase	+1:-1	85%	85%	90%	90%
NEPOOL INTERNAL HUB 5 MW PEAK CALENDAR-MONTH DAY AHEAD SWAP (NYM-U6 - CME) vs NEPOOL MAINE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-P9 - CME)						
Spread Credit Rate	Increase	+1:-1	85%	85%	90%	90%
NEPOOL INTERNAL HUB 5 MW PEAK CALENDAR-MONTH DAY AHEAD SWAP (NYM-U6 - CME) vs NEPOOL NE MASS 5 PEAK MW DAY AHEAD CALENDAR-MONTH DAY-AHEAD SWAP (NYM-P7 - CME)						
Spread Credit Rate	Increase	+1:-1	85%	85%	90%	90%
NEPOOL INTERNAL HUB 5 MW PEAK CALENDAR-MONTH DAY AHEAD SWAP (NYM-U6 - CME) vs NEPOOL SE MASS 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-P4 - CME)						
Spread Credit Rate	Increase	+1:-1	85%	85%	90%	90%
NEPOOL INTERNAL HUB 5 MW PEAK CALENDAR-MONTH DAY AHEAD SWAP (NYM-U6 - CME) vs NEPOOL W CENTRAL MASS 5 MW PEAK CALENDAR-MONTH DAY-AHEAD SWAP (NYM-R6 - CME)						
Spread Credit Rate	Increase	+1:-1	85%	85%	90%	90%
NORTHERN ILLINOIS HUB PEAK MONTHLY SWAP (NYM-UM - CME) vs AEP DAYTON HUB PEAK MONTHLY (NYM-VM - CME)						
Spread Credit Rate	Increase	+1:-1	55%	55%	70%	70%
NYISO ZONE A 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP (NYM-K4 - CME) vs NYISO ZONE C 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP (NYM-A3 - CME)						
Spread Credit Rate	Increase	+1:-1	70%	70%	80%	80%
NYISO ZONE A 5MW DAY AHEAD OFF PEAK (NYM-K4 - CME) vs NYISO ZONE J 5MW DAY AHEAD OFF PEAK (NYM-D4 - CME)						
Spread Credit Rate	Increase	+1:-1	55%	55%	80%	80%
NYISO ZONE A OFF-PEAK MONTHLY (NYM-KB - CME) vs NYISO ZONE J OFF-PEAK MONTHLY SWAP (NYM-KK - CME)						
Spread Credit Rate	Increase	+1:-1	55%	55%	70%	70%
NYISO ZONE A PEAK MONTHLY SWAP (NYM-KA - CME) vs NYISO ZONE G PEAK MONTHLY SWAP (NYM-KG - CME)						
Spread Credit Rate	Increase	+1:-1	50%	50%	70%	70%
NYISO ZONE A PEAK MONTHLY SWAP (NYM-KA - CME) vs NYISO ZONE J PEAK MONTHLY SWAP (NYM-KJ - CME)						
Spread Credit Rate	Increase	+1:-1	50%	50%	60%	60%
NYISO ZONE F 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP FUTURES (NY-4M - CME) vs NYISO ZONE G 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP FUTURES (NY-D2 - CME)						
Spread Credit Rate	Increase	+1:-1	70%	70%	80%	80%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
NYISO ZONE G 5MW DAY AHEAD OFF PEAK (NYM-D2 - CME) vs NYISO ZONE A 5MW DAY AHEAD OFF PEAK (NYM-K4 - CME)						
Spread Credit Rate	Increase	+1:-1	70%	70%	80%	80%
NYISO ZONE G 5MW DAY AHEAD OFF PEAK (NYM-D2 - CME) vs NYISO ZONE J 5MW DAY AHEAD OFF PEAK (NYM-D4 - CME)						
Spread Credit Rate	Increase	+1:-1	70%	70%	80%	80%
NYISO ZONE G OFF-PEAK MONTHLY SWAP (NYM-KH - CME) vs NYISO ZONE J OFF-PEAK MONTHLY SWAP (NYM-KK - CME)						
Spread Credit Rate	Increase	+1:-1	70%	70%	80%	80%
NYISO ZONE G PEAK MONTHLY SWAP (NYM-KG - CME) vs NYISO ZONE C 5 MW PEAK CALENDAR-MONTH DAY-AHEAD SWAP (NYM-Q5 - CME)						
Spread Credit Rate	Increase	+1:-5	50%	50%	70%	70%
NYISO ZONE G PEAK MONTHLY SWAP (NYM-KG - CME) vs PJM WESTERN HUB PEAK CALENDAR-MONTH REAL-TIME LMP SWAP (NYM-L1 - CME)						
Spread Credit Rate	Increase	+1:-5	65%	65%	70%	70%
NYISO ZONE J 5MW DAY AHEAD OFF PEAK (NYM-D4 - CME) vs NYISO ZONE C 5 MW DAY AHEAD OFF PEAK (NYM-A3 - CME)						
Spread Credit Rate	Increase	+1:-1	55%	55%	80%	80%
NYISO ZONE J PEAK MONTHLY SWAP (NYM-KJ - CME) vs NYISO ZONE G PEAK MONTHLY SWAP (NYM-KG - CME)						
Spread Credit Rate	Increase	+1:-1	70%	70%	80%	80%
NYISO ZONE J PEAK MONTHLY SWAP (NYM-KJ - CME) vs PJM WESTERN HUB PEAK CALENDAR-MONTH REAL-TIME LMP SWAP (NYM-L1 - CME)						
Spread Credit Rate	Increase	+1:-5	65%	65%	70%	70%
ONTARIO OFF-PEAK CALENDAR-MONTH SWAP FUTURES (NY-OFM - CME) vs PJM OFF-PEAK CALENDAR-MONTH LMP SWAP FUTURES (NY-JP - CME)						
Spread Credit Rate	Decrease	+194:-1	50%	50%	35%	35%
PJM AD HUB 5 MW PEAK REAL-TIME LMP SWAP (NYM-Z9 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Decrease	-11:+1	65%	65%	45%	45%
PJM AD HUB 5 MW PEAK REAL-TIME LMP SWAP (NYM-Z9 - CME) vs PJM WESTERN HUB PEAK CALENDAR-MONTH REAL-TIME LMP SWAP (NYM-L1 - CME)						
Spread Credit Rate	Increase	+1:-1	55%	55%	70%	70%
PJM AEP DAYTON HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-R7 - CME) vs PJM AEP DAYTON HUB OFF-PEAK LMP SWAP FUTURES (NY-VP - CME)						
Spread Credit Rate	Decrease	+194:-1	95%	95%	90%	90%
PJM AEP DAYTON HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-D7 - CME) vs PJM DUQUESNE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-D5 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	90%	90%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
PJM COMED 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-D9 - CME) vs PJM NORTHERN ILLINOIS OFF-PEAK CALENDAR-MONTH DAY AHEAD SWAP (NYM-L3 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	90%	90%
PJM EASTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-E9 - CME) vs PJM JCPL ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-J2 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM EASTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-E9 - CME) vs PJM PSEG ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-L6 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM FINANCIALLY SETTLED MONTHLY FUTURES - PEAK (NYM-JM - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Decrease	+1:-1	65%	65%	45%	45%
PJM FINANCIALLY SETTLED MONTHLY FUTURES - PEAK (NYM-JM - CME) vs ISO NEW ENGLAND INTERNAL HUB LOCATION MARGINAL PRI (NYM-NI - CME)						
Spread Credit Rate	Increase	+1:-1	60%	60%	70%	70%
PJM FINANCIALLY SETTLED MONTHLY FUTURES - PEAK (NYM-JM - CME) vs NYISO ZONE A LBMP SWAP - PEAK (NYM-KA - CME)						
Spread Credit Rate	Increase	+1:-2	65%	65%	70%	70%
PJM FINANCIALLY SETTLED MONTHLY FUTURES - PEAK (NYM-JM - CME) vs NYISO ZONE G LBMP SWAP - PEAK (NYM-KG - CME)						
Spread Credit Rate	Increase	+1:-2	65%	65%	70%	70%
PJM FINANCIALLY SETTLED MONTHLY FUTURES - PEAK (NYM-JM - CME) vs NYISO ZONE J LBMP SWAP - PEAK (NYM-KJ - CME)						
Spread Credit Rate	Increase	+1:-2	65%	65%	70%	70%
PJM JCPL ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD LM (NYM-F2 - CME) vs PJM EASTERN HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD (NYM-F4 - CME)						
Spread Credit Rate	Increase	+1:-1	50%	50%	85%	85%
PJM JCPL ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD LM (NYM-F2 - CME) vs PJM PSEG ZONE OFF- PEAK CALENDAR-MONTH DAY-AHEAD L (NYM-W6 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM NI HUB 5 MW REAL TIME OFF-PEAK (NYM-B6 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Increase	+194:-1	45%	45%	60%	60%
PJM NI HUB 5 MW REAL TIME OFF-PEAK (NYM-B6 - CME) vs PJM COMED 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-D9 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM NI HUB 5MW REAL TIME PEAK (NYM-B3 - CME) vs PJM AD HUB 5MW REAL TIME PEAK (NYM-Z9 - CME)						
Spread Credit Rate	Increase	+1:-1	55%	55%	80%	80%
PJM NI HUB 5MW REAL TIME PEAK (NYM-B3 - CME) vs PJM WESTERN HUB PEAK CALENDAR-MONTH REAL-TIME LMP (NYM-L1 - CME)						
Spread Credit Rate	Increase	+1:-1	55%	55%	75%	75%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
PJM NORTHERN ILLINOIS HUB 5 MW PEAK REAL-TIME CALENDAR-MONTH LMP SWAP (NYM-B3 - CME) vs PJM COMED 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-D8 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM NORTHERN ILLINOIS HUB 5 MW PEAK REAL-TIME CALENDAR-MONTH LMP SWAP (NYM-B3 - CME) vs PJM NORTHERN ILLINOIS HUB PEAK CALENDAR-MONTH DAY-AHEAD SWAP (NYM-N3 - CME)						
Spread Credit Rate	Decrease	+1:-1	95%	95%	90%	90%
PJM NORTHERN ILLINOIS HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-L3 - CME) vs PJM NORTHERN ILLINOIS HUB OFF-PEAK LMP SWAP FUTURES (NY-UO - CME)						
Spread Credit Rate	Decrease	+194:-1	95%	95%	90%	90%
PJM NORTHERN ILLINOIS HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-N3 - CME) vs PJM NORTHERN ILLINOIS HUB PEAK CALENDAR-MONTH LMP SWAP FUTURES (NY-UM - CME)						
Spread Credit Rate	Decrease	+11:-1	95%	95%	80%	80%
PJM NORTHERN ILLINOIS OFF-PEAK CALENDAR-MONTH DAY AHEAD SWAP (NYM-L3 - CME) vs PJM AEP DAYTON HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-R7 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	80%	80%
PJM OFF-PEAK LMP SWAP (NYM-JP - CME) vs AEP-DAYTON HUB OFF-PEAK MONTHLY SWAP (NYM-VP - CME)						
Spread Credit Rate	Increase	+1:-1	50%	50%	60%	60%
PJM OFF-PEAK LMP SWAP (NYM-JP - CME) vs ISO NEW ENGLAND OFF-PEAK LMP MONTHLY SWAP (NYM-KI - CME)						
Spread Credit Rate	Increase	+1:-1	60%	60%	70%	70%
PJM OFF-PEAK LMP SWAP (NYM-JP - CME) vs NORTHERN ILLINOIS OFF-PEAK MONTHLY SWAP (NYM-UO - CME)						
Spread Credit Rate	Increase	+1:-1	50%	50%	60%	60%
PJM OFF-PEAK LMP SWAP (NYM-JP - CME) vs NYISO ZONE A OFF-PEAK MONTHLY (NYM-KB - CME)						
Spread Credit Rate	Increase	+1:-1	50%	50%	70%	70%
PJM OFF-PEAK LMP SWAP (NYM-JP - CME) vs NYISO ZONE G OFF-PEAK MONTHLY SWAP (NYM-KH - CME)						
Spread Credit Rate	Increase	+1:-1	50%	50%	70%	70%
PJM OFF-PEAK LMP SWAP (NYM-JP - CME) vs NYISO ZONE J OFF-PEAK MONTHLY SWAP (NYM-KK - CME)						
Spread Credit Rate	Decrease	+1:-1	75%	75%	70%	70%
PJM PEPSCO ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-Q8 - CME) vs PJM PSEG ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-W6 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM PEPSCO ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-R8 - CME) vs PJM PSEG ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-L6 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM PSEG ZONE OFF- PEAK CALENDAR-MONTH DAY-AHEAD L (NYM-W6 - CME) vs PJM EASTERN HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD (NYM-F4 - CME)						
Spread Credit Rate	Increase	+1:-1	50%	50%	85%	85%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
PJM PSEG ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-L6 - CME) vs PJM JCPL ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-J2 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM PSEG ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-L6 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Decrease	+11:-1	55%	55%	50%	50%
PJM WESTERN HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD (NYM-E4 - CME) vs PJM AECO ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD LM (NYM-X1 - CME)						
Spread Credit Rate	Increase	+1:-1	55%	55%	75%	75%
PJM WESTERN HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD (NYM-E4 - CME) vs PJM AEP DAYTON HUB OFF-PEAK CALENDAR-MONTH DAY-AHE (NYM-R7 - CME)						
Spread Credit Rate	Increase	+1:-1	55%	55%	70%	70%
PJM WESTERN HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD (NYM-E4 - CME) vs PJM APS ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-W4 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM WESTERN HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD (NYM-E4 - CME) vs PJM BGE ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-R3 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM WESTERN HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD (NYM-E4 - CME) vs PJM DPL ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-E8 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	90%	90%
PJM WESTERN HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD (NYM-E4 - CME) vs PJM EASTERN HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD (NYM-F4 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	90%	90%
PJM WESTERN HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD (NYM-E4 - CME) vs PJM JCPL ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD LM (NYM-F2 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	90%	90%
PJM WESTERN HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD (NYM-E4 - CME) vs PJM NORTHERN ILLINOIS OFF-PEAK CALENDAR-MONTH DAY- (NYM-L3 - CME)						
Spread Credit Rate	Increase	+1:-1	50%	50%	75%	75%
PJM WESTERN HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD (NYM-E4 - CME) vs PJM PEPCO ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD L (NYM-Q8 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM WESTERN HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD (NYM-E4 - CME) vs PJM PPL ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-F5 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	90%	90%
PJM WESTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-J4 - CME) vs PJM AECO ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-Y1 - CME)						
Spread Credit Rate	Increase	+1:-1	55%	55%	85%	85%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
PJM WESTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-J4 - CME) vs PJM AEP DAYTON HUB PEAK CALENDAR-MONTH DAY-AHEAD L (NYM-D7 - CME)						
Spread Credit Rate	Increase	+1:-1	55%	55%	75%	75%
PJM WESTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-J4 - CME) vs PJM APS ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-S4 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM WESTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-J4 - CME) vs PJM COM-ED 5MW DAY AHEAD PEAK (NYM-D8 - CME)						
Spread Credit Rate	Increase	+1:-1	55%	55%	75%	75%
PJM WESTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-J4 - CME) vs PJM EASTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-E9 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM WESTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-J4 - CME) vs PJM JCPL ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-J2 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM WESTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-J4 - CME) vs PJM NORTHERN ILLINOIS HUB PEAK CALENDAR-MONTH DAY- (NYM-N3 - CME)						
Spread Credit Rate	Increase	+1:-1	55%	55%	75%	75%
PJM WESTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-J4 - CME) vs PJM PEPSCO ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-R8 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM WESTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-J4 - CME) vs PJM PSEG ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-L6 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM WESTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-J4 - CME) vs PPL ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP (NYM-L5 - CME)						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
PJM WESTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-J4 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Decrease	-11:+1	60%	60%	45%	45%
PJM WESTERN HUB PEAK CALENDAR-MONTH REAL-TIME LMP SWAP (NYM-L1 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Decrease	+11:-1	65%	65%	50%	50%
PJM WESTERN HUB PEAK CALENDAR-MONTH REAL-TIME LMP SWAP FUTURES (NY-L1 - CME) vs ISO NEW ENGLAND INTERNAL HUB PEAK LMP SWAP FUTURES (NY-NI - CME)						
Spread Credit Rate	Increase	+1:-11	60%	60%	70%	70%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
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Inter-commodity Spread Rates

ENVIRONMENTAL - Inter-commodity Spread Rates

CERTIFIED CARBON EMISSION REDUCTION (CER) EURO (NYM-VA - CME) vs IN DELIVERY MONTH EUROPEAN UNION ALLOWANCE (EUA) (NYM-6T - CME)

Spread Credit Rate	Decrease	+1:-1	80%	80%	60%	60%
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EUROPEAN UNION CARBON EMISSIONS ALLOWANCE (EUA) (NYM-RC - CME) vs IN DELIVERY MONTH CERTIFIED EMISSION REDUCTION (CER) (NYM-6S - CME)

Spread Credit Rate	Decrease	+1:-1	80%	80%	70%	70%
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IN DELIVERY MONTH EUROPEAN UNION ALLOWANCE (EUA) (NYM-6T - CME) vs IN DELIVERY MONTH CERTIFIED EMISSION REDUCTION (CER) (NYM-6S - CME)

Spread Credit Rate	Decrease	+1:-1	80%	80%	60%	60%
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SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
NATURAL GAS - Inter-commodity Spread Rates						
AEP DAYTON HUB PEAK MONTHLY (NYM-VM - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Decrease	+1:-1	65%	65%	60%	60%
CINERGY HUB 5 MW OFF-PEAK CALENDAR-MONTH REAL-TIME SWAP (NYM-H4 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Increase	-194:+1	40%	40%	50%	50%
CINERGY HUB OFF-PEAK CALENDAR-MONTH LMP SWAP (NYM-EJ - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Increase	+1:-1	40%	40%	50%	50%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND CONNECTICUT ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P3 - CME)						
Spread Credit Rate	Increase	+1:-194	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND CONNECTICUT ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P2 - CME)						
Spread Credit Rate	Increase	+1:-11	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND MAINE ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-W2 - CME)						
Spread Credit Rate	Increase	+1:-194	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND MAINE ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P9 - CME)						
Spread Credit Rate	Increase	+1:-11	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND NEW HAMPSHIRE ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-U3 - CME)						
Spread Credit Rate	Increase	+1:-194	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND NEW HAMPSHIRE ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-U2 - CME)						
Spread Credit Rate	Increase	+1:-11	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND NORTH EAST MASSACHUSETTS ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P8 - CME)						
Spread Credit Rate	Increase	+1:-194	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND NORTH EAST MASSACHUSETTS ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P7 - CME)						
Spread Credit Rate	Increase	+1:-11	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND SOUTH EAST MASSACHUSETTS ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P5 - CME)						
Spread Credit Rate	Increase	+1:-194	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND SOUTH EAST MASSACHUSETTS ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P4 - CME)						
Spread Credit Rate	Increase	+1:-11	60%	60%	65%	65%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND WEST CENTRAL MASSACHUSETTS ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY AHEAD LMP SWAP FUTURES (NY-L9 - CME)						
Spread Credit Rate	Increase	+1:-194	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs ISO NEW ENGLAND WEST CENTRAL MASSACHUSETTS ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-R6 - CME)						
Spread Credit Rate	Increase	+1:-11	60%	60%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs MIDWEST ISO CINERGY HUB 5MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD SWAP FUTURES (NY-K2 - CME)						
Spread Credit Rate	Increase	+1:-194	40%	40%	50%	50%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs MIDWEST ISO ILLINOIS HUB 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD SWAP FUTURES (NY-4R - CME)						
Spread Credit Rate	Increase	+1:-194	40%	40%	50%	50%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE A 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP FUTURES (NY-K4 - CME)						
Spread Credit Rate	Increase	+1:-194	45%	45%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME)						
Spread Credit Rate	Increase	+1:-1	45%	45%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME)						
Spread Credit Rate	Increase	+1:-2	55%	55%	65%	65%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE C 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP FUTURES (NY-A3 - CME)						
Spread Credit Rate	Increase	+1:-194	45%	45%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE F 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP FUTURES (NY-4M - CME)						
Spread Credit Rate	Increase	+1:-194	45%	45%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE G 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP FUTURES (NY-D2 - CME)						
Spread Credit Rate	Increase	+1:-194	45%	45%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE G OFF-PEAK LBMP SWAP FUTURES (NY-KH - CME)						
Spread Credit Rate	Increase	+1:-1	40%	40%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE J 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP FUTURES (NY-D4 - CME)						
Spread Credit Rate	Increase	+1:-194	45%	45%	55%	55%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE J OFF-PEAK LBMP SWAP FUTURES (NY-KK - CME)						
Spread Credit Rate	Increase	+1:-1	40%	40%	55%	55%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM AECO ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-Y1 - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	45%	45%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM AEP DAYTON HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-D7 - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	45%	45%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM APS ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-S4 - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	50%	50%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM BGE ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-E3 - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	50%	50%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM DUQUESNE ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-D5 - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	45%	45%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM JCPL ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-J2 - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	50%	50%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM PECO ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-4N - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	45%	45%
HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs PJM PEPCO ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-R8 - CME)						
Spread Credit Rate	Decrease	+1:-11	60%	60%	50%	50%
ISO NEW ENGLAND INTERNAL HUB PEAK LOCATION MARGINAL PRICING [LMP] SWAP (NYM-NI - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Increase	+1:-1	60%	60%	65%	65%
ISO NEW ENGLAND OFF-PEAK LMP MONTHLY SWAP (NYM-KI - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Increase	+1:-1	60%	60%	65%	65%
NEPOOL INTERNAL HUB 5 MW OFF-PEAK CALENDAR-MONTH DAY -AHEAD SWAP (NYM-H2 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Increase	+194:-1	60%	60%	65%	65%
NEPOOL INTERNAL HUB 5 MW PEAK CALENDAR-MONTH DAY AHEAD SWAP (NYM-U6 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Increase	+11:-1	60%	60%	65%	65%
PJM AD HUB 5 MW PEAK REAL-TIME LMP SWAP (NYM-Z9 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Decrease	-11:+1	65%	65%	45%	45%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
PJM FINANCIALLY SETTLED MONTHLY FUTURES - PEAK (NYM-JM - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Decrease	+1:-1	65%	65%	45%	45%
PJM NI HUB 5 MW REAL TIME OFF-PEAK (NYM-B6 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Increase	+194:-1	45%	45%	60%	60%
PJM PSEG ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-L6 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Decrease	+11:-1	55%	55%	50%	50%
PJM WESTERN HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP (NYM-J4 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Decrease	-11:+1	60%	60%	45%	45%
PJM WESTERN HUB PEAK CALENDAR-MONTH REAL-TIME LMP SWAP (NYM-L1 - CME) vs HENRY HUB NATURAL GAS (NYM-NG, NN, HP)						
Spread Credit Rate	Decrease	+11:-1	65%	65%	50%	50%