



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

FROM: CME Clearing

SUBJECT: Performance Bond Requirements

DATE: Thursday, November 12, 2015

***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>***

***and subscribe to the Performance Bond Rates Advisory Notice listserver.***

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

**Friday, November 13, 2015.**

Current rates as of:

**Thursday, November 12, 2015.**

In this current advisory there are changes to the Short Option Minimum and/or the Volatility Scan Range. Below are descriptions of what each change affects:

The Short Option Minimum (SOM) is a charge that is applied only to portfolios concentrated in short options that do not generate a minimum margin requirement level when margins are calculated using the normal 16 SPAN scenarios. The SOM charge per short calls or short puts is a percentage of the outright margin on one underlying futures contract.

The volatility scan range is the change in implied volatility that is used in each of SPAN's 16 scenarios.

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Outright Rates</b>								
<b>AGRICULTURE - Outright Rates</b>								
<b>SUGAR 11 FUTURES NYMEX (YO)</b>								
YO	Spec		Increase	USD	770	700	886	805
YO	Hedge/Member		Increase	USD	700	700	805	805
<b>ELECTRICITY - Outright Rates</b>								
<b>PJM OFF-PEAK LMP FUT (JP)</b>								
JP	Spec	Mnths 12+	Increase	USD	1,755	1,595	1,980	1,800
JP	Hedge/Member	Mnths 12+	Increase	USD	1,595	1,595	1,800	1,800
<b>NATURAL GAS - Outright Rates</b>								
<b>SONAT BASIS FUT (SZ)</b>								
SZ	Spec	Mnth 2	Increase	USD	44	40	50	45
SZ	Hedge/Member	Mnth 2	Increase	USD	40	40	45	45
SZ	Spec	Mnths 8-14	Increase	USD	44	40	50	45
SZ	Hedge/Member	Mnths 8-14	Increase	USD	40	40	45	45
<b>SUMAS BASIS FUT (NK)</b>								
NK	Spec	Mnths 15-31	Increase	USD	385	350	440	400
NK	Hedge/Member	Mnths 15-31	Increase	USD	350	350	400	400

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
----	-----------	-------------	--------	-----	-----------------	---------------------	-------------	-----------------

### Outright Rates

#### NGL/PETROCHEMICALS - Outright Rates

##### ETHANE 5 DECIMAL (C0)

C0	Spec	Mths 4-12	Increase	USD	715	650	770	700
C0	Hedge/Member	Mths 4-12	Increase	USD	650	650	700	700

##### MT BELVIEU ETHYLENE IN-WELL(PCW) (MBE)

MBE	Spec	Month 1	Decrease	USD	3,850	3,500	3,190	2,900
MBE	Hedge/Member	Month 1	Decrease	USD	3,500	3,500	2,900	2,900
MBE	Spec	Months 2+	Decrease	USD	3,300	3,000	2,970	2,700
MBE	Hedge/Member	Months 2+	Decrease	USD	3,000	3,000	2,700	2,700

##### MT. BELVIEU ETHYLENE(PCW) FIN FUT (MBN)

MBN	Spec	Mnth 1	Decrease	USD	4,400	4,000	3,520	3,200
MBN	Hedge/Member	Mnth 1	Decrease	USD	4,000	4,000	3,200	3,200
MBN	Spec	Mnths 2+	Decrease	USD	3,850	3,500	3,300	3,000
MBN	Hedge/Member	Mnths 2+	Decrease	USD	3,500	3,500	3,000	3,000

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
----	-----------	-------------	--------	-----	--------------------	------------------------	-------------	--------------------

### Outright Rates

#### PETROLEUM CRACKS AND SPREADS - Outright Rates

##### ARGS GSOLNE E-BOB OXY BARGES NWE CK (EOB)

EOB	Spec	Mnth 1	Decrease	USD	26,206	23,824	21,075	19,159
EOB	Hedge/Member	Mnth 1	Decrease	USD	23,824	23,824	19,159	19,159
EOB	Spec	Mnth 2-6	Decrease	USD	23,182	21,075	18,326	16,660
EOB	Hedge/Member	Mnth 2-6	Decrease	USD	21,075	21,075	16,660	16,660
EOB	Spec	Mnths 7-16	Decrease	USD	10,721	9,746	8,705	7,914
EOB	Hedge/Member	Mnths 7-16	Decrease	USD	9,746	9,746	7,914	7,914
EOB	Spec	Mnths 17+	Decrease	USD	26,573	24,157	16,035	14,578
EOB	Hedge/Member	Mnths 17+	Decrease	USD	24,157	24,157	14,578	14,578

##### CHI ULSD (PLATTS) VS. NY HRBR ULSD (5C)

5C	Spec	Mnth 1	Increase	USD	5,500	5,000	6,600	6,000
5C	Hedge/Member	Mnth 1	Increase	USD	5,000	5,000	6,000	6,000

##### EAST/WEST FUEL OIL SPREAD FUT (EW)

EW	Spec	Mth 1	Increase	USD	11,154	10,140	13,200	12,000
EW	Hedge/Member	Mth 1	Increase	USD	10,140	10,140	12,000	12,000

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Outright Rates</b>								
<b>EURO 3.5% FUEL OIL SPREAD (FK)</b>								
FK	Spec	Mnth 1	Decrease	USD	5,500	5,000	4,950	4,500
FK	Hedge/Member	Mnth 1	Decrease	USD	5,000	5,000	4,500	4,500
FK	Spec	Mnth 2	Decrease	USD	2,750	2,500	2,475	2,250
FK	Hedge/Member	Mnth 2	Decrease	USD	2,500	2,500	2,250	2,250
FK	Spec	Mnths 3-11	Decrease	USD	1,683	1,530	1,430	1,300
FK	Hedge/Member	Mnths 3-11	Decrease	USD	1,530	1,530	1,300	1,300
<b>EURO DIESEL 10PPM VS. ICE (ET)</b>								
ET	Spec	Mnth 2	Increase	USD	2,200	2,000	2,420	2,200
ET	Hedge/Member	Mnth 2	Increase	USD	2,000	2,000	2,200	2,200
<b>EUROPEAN NAPHTHA CRACK SPREAD FUT (EN)</b>								
EN	Spec	Mnth 1	Decrease	USD	2,750	2,500	2,475	2,250
EN	Hedge/Member	Mnth 1	Decrease	USD	2,500	2,500	2,250	2,250
EN	Spec	Mnth 5+	Decrease	USD	1,485	1,350	1,337	1,215
EN	Hedge/Member	Mnth 5+	Decrease	USD	1,350	1,350	1,215	1,215
EN	Spec	Mnths 2-4	Decrease	USD	1,485	1,350	1,337	1,215
EN	Hedge/Member	Mnths 2-4	Decrease	USD	1,350	1,350	1,215	1,215
<b>FAME BIO ARGUS RDM RED VS ICE GAS (FBT)</b>								
FBT	Spec	Mth 1	Increase	USD	3,300	3,000	3,850	3,500
FBT	Hedge/Member	Mth 1	Increase	USD	3,000	3,000	3,500	3,500
FBT	Spec	Mth 2+	Increase	USD	3,300	3,000	3,850	3,500
FBT	Hedge/Member	Mth 2+	Increase	USD	3,000	3,000	3,500	3,500
<b>GAS EURO-BOB OXY (ARG) CRACK (7K)</b>								
7K	Spec	Mnth 1	Decrease	USD	3,146	2,860	2,530	2,300
7K	Hedge/Member	Mnth 1	Decrease	USD	2,860	2,860	2,300	2,300
7K	Spec	Mnth 2-6	Decrease	USD	2,783	2,530	2,200	2,000
7K	Hedge/Member	Mnth 2-6	Decrease	USD	2,530	2,530	2,000	2,000
7K	Spec	Mnths 7-16	Decrease	USD	1,287	1,170	1,045	950
7K	Hedge/Member	Mnths 7-16	Decrease	USD	1,170	1,170	950	950
7K	Spec	Mnths 17+	Decrease	USD	3,190	2,900	1,925	1,750
7K	Hedge/Member	Mnths 17+	Decrease	USD	2,900	2,900	1,750	1,750
<b>GASOIL 0.1 RDAM BRGS V. ICE (WQ)</b>								
WQ	Spec	Mnth 1	Increase	USD	3,388	3,080	3,740	3,400
WQ	Hedge/Member	Mnth 1	Increase	USD	3,080	3,080	3,400	3,400
WQ	Spec	Mnths 2-5	Increase	USD	3,328	3,025	3,630	3,300
WQ	Hedge/Member	Mnths 2-5	Increase	USD	3,025	3,025	3,300	3,300

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Outright Rates</b>								
<b>GLFCST JET PLATTS UP/DN FUT (ME)</b>								
ME	Spec	Mnth 1	Decrease	USD	3,080	2,800	2,530	2,300
ME	Hedge/Member	Mnth 1	Decrease	USD	2,800	2,800	2,300	2,300
ME	Spec	Mnth 2	Decrease	USD	1,650	1,500	1,320	1,200
ME	Hedge/Member	Mnth 2	Decrease	USD	1,500	1,500	1,200	1,200
<b>GRP THREE SUB-OCT GS (PLT) VS RBOB (A8)</b>								
A8	Spec	Mnths 2-4	Increase	USD	2,277	2,070	2,530	2,300
A8	Hedge/Member	Mnths 2-4	Increase	USD	2,070	2,070	2,300	2,300
<b>GULF CO NO6 FUELOIL 3% V. EURO 3.5% (GCU)</b>								
GCU	Spec	Mnth 1	Increase	USD	880	800	1,100	1,000
GCU	Hedge/Member	Mnth 1	Increase	USD	800	800	1,000	1,000
<b>GULF COAST CBOB GAS A2 VS RBOB SRRD (CRB)</b>								
CRB	Spec	Mnth 1	Increase	USD	4,840	4,400	5,808	5,280
CRB	Hedge/Member	Mnth 1	Increase	USD	4,400	4,400	5,280	5,280
<b>GULF COAST NO.6 FUEL OIL CRACK FUT (MG)</b>								
MG	Spec	Mnth 1-3	Decrease	USD	2,079	1,890	1,870	1,700
MG	Hedge/Member	Mnth 1-3	Decrease	USD	1,890	1,890	1,700	1,700
<b>LA CARBOB GASOLINE(OPIS)FUT (JL)</b>								
JL	Spec	Mths 2+	Increase	USD	6,600	6,000	7,920	7,200
JL	Hedge/Member	Mths 2+	Increase	USD	6,000	6,000	7,200	7,200
<b>MINI 380CST VS 3.5% FUEL OIL FUT (MSB)</b>								
MSB	Spec	Mnth 1	Increase	USD	770	700	924	840
MSB	Hedge/Member	Mnth 1	Increase	USD	700	700	840	840
<b>MINI EAST-WEST FUEL OIL FUTURES (MEW)</b>								
MEW	Spec	Mth 1	Increase	USD	1,115	1,014	1,320	1,200
MEW	Hedge/Member	Mth 1	Increase	USD	1,014	1,014	1,200	1,200
<b>MINI EUR DIESEL10PPM VS ICE GS FUT (MUD)</b>								
MUD	Spec	Mnth 2	Increase	USD	220	200	242	220
MUD	Hedge/Member	Mnth 2	Increase	USD	200	200	220	220
<b>MINI GSOIL .1 PLTTTS VS ICE GSOIL FU (MGB)</b>								
MGB	Spec	Mnth 1	Increase	USD	339	308	374	340
MGB	Hedge/Member	Mnth 1	Increase	USD	308	308	340	340
MGB	Spec	Mnths 2-5	Increase	USD	333	303	363	330
MGB	Hedge/Member	Mnths 2-5	Increase	USD	303	303	330	330

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Outright Rates</b>								
<b>NAPHTHA (PLTS) CARGES CIF NWE CRACK (NOB)</b>								
NOB	Spec	Mnth 1	Decrease	USD	24,475	22,250	22,028	20,025
NOB	Hedge/Member	Mnth 1	Decrease	USD	22,250	22,250	20,025	20,025
NOB	Spec	Mnth 5+	Decrease	USD	13,217	12,015	11,895	10,814
NOB	Hedge/Member	Mnth 5+	Decrease	USD	12,015	12,015	10,814	10,814
NOB	Spec	Mnths 2-4	Decrease	USD	13,217	12,015	11,895	10,814
NOB	Hedge/Member	Mnths 2-4	Decrease	USD	12,015	12,015	10,814	10,814
<b>NEW YORK FUEL OIL 1% V. EURO 1% FO (NYF)</b>								
NYF	Spec	Mnth 1	Increase	USD	2,046	1,860	2,475	2,250
NYF	Hedge/Member	Mnth 1	Increase	USD	1,860	1,860	2,250	2,250
<b>NY ULSD VS. NY HRBR ULSD FUT (7Y)</b>								
7Y	Spec	Mnth 1	Increase	USD	1,760	1,600	2,090	1,900
7Y	Hedge/Member	Mnth 1	Increase	USD	1,600	1,600	1,900	1,900
<b>RBOB UP-DOWN CALENDAR FUT (RV)</b>								
RV	Spec	Mnth 1	Increase	USD	1,980	1,800	2,310	2,100
RV	Hedge/Member	Mnth 1	Increase	USD	1,800	1,800	2,100	2,100
<b>SING 380 FUEL OIL VS FUEL OIL ROTDM (EVC)</b>								
EVC	Spec	Mnth 1	Increase	USD	7,700	7,000	9,240	8,400
EVC	Hedge/Member	Mnth 1	Increase	USD	7,000	7,000	8,400	8,400
<b>SINGAPORE FUEL OIL SPREAD FUT (SD)</b>								
SD	Spec	Mnths 1	Increase	USD	9,680	8,800	10,670	9,700
SD	Hedge/Member	Mnths 1	Increase	USD	8,800	8,800	9,700	9,700
<b>SINGAPORE JET KERO GASOIL FUT (RK)</b>								
RK	Spec	Mnth 3+	Decrease	USD	561	510	506	460
RK	Hedge/Member	Mnth 3+	Decrease	USD	510	510	460	460

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Outright Rates</b>								
<b>REFINED PRODUCTS - Outright Rates</b>								
<b>DALY EURO 3.5% FOIL BRGES FOB RDAM (FOR)</b>								
FOR	Spec		Decrease	USD	4,400	4,000	3,740	3,400
FOR	Hedge/Member		Decrease	USD	4,000	4,000	3,400	3,400
<b>EUROPE JET KERO NWE CALFUT (UJ)</b>								
UJ	Spec	Mths 1	Decrease	USD	55,000	50,000	48,400	44,000
UJ	Hedge/Member	Mths 1	Decrease	USD	50,000	50,000	44,000	44,000
UJ	Spec	Mths 2-6	Decrease	USD	55,000	50,000	48,400	44,000
UJ	Hedge/Member	Mths 2-6	Decrease	USD	50,000	50,000	44,000	44,000
UJ	Spec	Mnths 7+	Decrease	USD	44,000	40,000	37,400	34,000
UJ	Hedge/Member	Mnths 7+	Decrease	USD	40,000	40,000	34,000	34,000
<b>EUROPEAN GASOIL ICE FUTURE (7F)</b>								
7F	Spec	Mnth 1	Decrease	USD	3,410	3,100	308	280
7F	Hedge/Member	Mnth 1	Decrease	USD	3,100	3,100	280	280
7F	Spec	Mnths 2-6	Decrease	USD	3,300	3,000	2,970	2,700
7F	Hedge/Member	Mnths 2-6	Decrease	USD	3,000	3,000	2,700	2,700
7F	Spec	Mnths 7-11	Decrease	USD	3,190	2,900	2,860	2,600
7F	Hedge/Member	Mnths 7-11	Decrease	USD	2,900	2,900	2,600	2,600
7F	Spec	Mnths 12+	Decrease	USD	3,025	2,750	2,695	2,450
7F	Hedge/Member	Mnths 12+	Decrease	USD	2,750	2,750	2,450	2,450
<b>EUROPEAN GASOIL ICE TAS FUTURE (7FT)</b>								
7FT	Spec	Mnth 1	Decrease	USD	3,410	3,100	308	280
7FT	Hedge/Member	Mnth 1	Decrease	USD	3,100	3,100	280	280
7FT	Spec	Mnths 2-6	Decrease	USD	3,300	3,000	2,970	2,700
7FT	Hedge/Member	Mnths 2-6	Decrease	USD	3,000	3,000	2,700	2,700
7FT	Spec	Mnths 7-11	Decrease	USD	3,190	2,900	2,860	2,600
7FT	Hedge/Member	Mnths 7-11	Decrease	USD	2,900	2,900	2,600	2,600
7FT	Spec	Mnths 12+	Decrease	USD	3,025	2,750	2,695	2,450
7FT	Hedge/Member	Mnths 12+	Decrease	USD	2,750	2,750	2,450	2,450
<b>GASOIL BULLET FUT (BG)</b>								
BG	Spec	Mnth 1	Decrease	USD	34,100	31,000	30,800	28,000
BG	Hedge/Member	Mnth 1	Decrease	USD	31,000	31,000	28,800	28,000
BG	Spec	Mnths 2-6	Decrease	USD	33,000	30,000	29,700	27,000
BG	Hedge/Member	Mnths 2-6	Decrease	USD	30,000	30,000	27,000	27,000
BG	Spec	Mnths 7-11	Decrease	USD	31,900	29,000	28,600	26,000
BG	Hedge/Member	Mnths 7-11	Decrease	USD	29,000	29,000	26,000	26,000
BG	Spec	Mnths 12+	Decrease	USD	30,250	27,500	26,950	24,500
BG	Hedge/Member	Mnths 12+	Decrease	USD	27,500	27,500	24,500	24,500



## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Outright Rates</b>								
<b>GULF COAST JET FUEL CLNDR FUT (GE)</b>								
GE	Spec	Mnth 1	Decrease	USD	6,600	6,000	6,050	5,500
GE	Hedge/Member	Mnth 1	Decrease	USD	6,000	6,000	5,500	5,500
GE	Spec	Mnths 2-6	Decrease	USD	6,600	6,000	6,050	5,500
GE	Hedge/Member	Mnths 2-6	Decrease	USD	6,000	6,000	5,500	5,500
GE	Spec	Mnths 7+	Decrease	USD	6,600	6,000	6,050	5,500
GE	Hedge/Member	Mnths 7+	Decrease	USD	6,000	6,000	5,500	5,500
<b>GULF COAST NO.6 FUEL OIL 3.0%S FUT (MF)</b>								
MF	Spec	Mnth 1	Decrease	USD	5,170	4,700	4,840	4,400
MF	Hedge/Member	Mnth 1	Decrease	USD	4,700	4,700	4,400	4,400
MF	Spec	Mnths 2-6	Decrease	USD	5,170	4,700	4,840	4,400
MF	Hedge/Member	Mnths 2-6	Decrease	USD	4,700	4,700	4,400	4,400
MF	Spec	Mnths 7+	Decrease	USD	4,840	4,400	4,510	4,100
MF	Hedge/Member	Mnths 7+	Decrease	USD	4,400	4,400	4,100	4,100
<b>JAPAN C&amp;F NAPHTHA FUT (JA)</b>								
JA	Spec	Mnth 1	Decrease	USD	60,500	55,000	52,800	48,000
JA	Hedge/Member	Mnth 1	Decrease	USD	55,000	55,000	48,000	48,000
JA	Spec	Mnths 2-6	Decrease	USD	60,500	55,000	52,800	48,000
JA	Hedge/Member	Mnths 2-6	Decrease	USD	55,000	55,000	48,000	48,000
JA	Spec	Mnths 7+	Decrease	USD	60,500	55,000	52,800	48,000
JA	Hedge/Member	Mnths 7+	Decrease	USD	55,000	55,000	48,000	48,000
<b>MIN JAPAN C&amp;F NAPHTHA PLATTS FUT (MJN)</b>								
MJN	Spec	Mnth 1	Decrease	USD	6,050	5,500	5,280	4,800
MJN	Hedge/Member	Mnth 1	Decrease	USD	5,500	5,500	4,800	4,800
MJN	Spec	Mnths 2-6	Decrease	USD	6,050	5,500	5,280	4,800
MJN	Hedge/Member	Mnths 2-6	Decrease	USD	5,500	5,500	4,800	4,800
MJN	Spec	Mnths 7+	Decrease	USD	6,050	5,500	5,280	4,800
MJN	Hedge/Member	Mnths 7+	Decrease	USD	5,500	5,500	4,800	4,800
<b>MINI SINGAPORE 380CST FUEL OIL FUT (MTS)</b>								
MTS	Spec	Mnths 2-6	Decrease	USD	3,894	3,540	3,751	3,410
MTS	Hedge/Member	Mnths 2-6	Decrease	USD	3,540	3,540	3,410	3,410
MTS	Spec	Mnths 7+	Decrease	USD	3,762	3,420	3,619	3,290
MTS	Hedge/Member	Mnths 7+	Decrease	USD	3,420	3,420	3,290	3,290

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
----	-----------	-------------	--------	-----	-----------------	---------------------	-------------	-----------------

### Outright Rates

#### MINI SINGAPORE GASOIL PLATS FUTURES (MSG)

MSG	Spec	Mnth 1	Decrease	USD	550	500	440	400
MSG	Hedge/Member	Mnth 1	Decrease	USD	500	500	400	400
MSG	Spec	Mnths 2-6	Decrease	USD	545	495	435	395
MSG	Hedge/Member	Mnths 2-6	Decrease	USD	495	495	395	395
MSG	Spec	Mnths 7+	Decrease	USD	528	480	418	380
MSG	Hedge/Member	Mnths 7+	Decrease	USD	480	480	380	380

#### MOGAS92 UNLEADED (PLATTS) FUT (1N)

1N	Spec	Mnths 2+	Decrease	USD	6,380	5,800	5,830	5,300
1N	Hedge/Member	Mnths 2+	Decrease	USD	5,800	5,800	5,300	5,300
1N	Spec	Mnth 1	Decrease	USD	6,380	5,800	5,830	5,300
1N	Hedge/Member	Mnth 1	Decrease	USD	5,800	5,800	5,300	5,300

#### SINGAPORE 380CST FUEL OIL FUT (SE)

SE	Spec	Mnths 2-6	Decrease	USD	38,940	35,400	37,510	34,100
SE	Hedge/Member	Mnths 2-6	Decrease	USD	35,400	35,400	34,100	34,100
SE	Spec	Mnths 7+	Decrease	USD	37,620	34,200	36,190	32,900
SE	Hedge/Member	Mnths 7+	Decrease	USD	34,200	34,200	32,900	32,900

#### SINGAPORE GASOIL FUT (SG)

SG	Spec	Mnth 1	Decrease	USD	5,500	5,000	4,400	4,000
SG	Hedge/Member	Mnth 1	Decrease	USD	5,000	5,000	4,000	4,000
SG	Spec	Mnths 2-6	Decrease	USD	5,445	4,950	4,345	3,950
SG	Hedge/Member	Mnths 2-6	Decrease	USD	4,950	4,950	3,950	3,950
SG	Spec	Mnths 7+	Decrease	USD	5,280	4,800	4,180	3,800
SG	Hedge/Member	Mnths 7+	Decrease	USD	4,800	4,800	3,800	3,800

#### SINGAPORE JET KEROSENE FUT (KS)

KS	Spec	Mnth 1	Decrease	USD	5,720	5,200	4,620	4,200
KS	Hedge/Member	Mnth 1	Decrease	USD	5,200	5,200	4,200	4,200
KS	Spec	Mnths 2-6	Decrease	USD	5,720	5,200	4,620	4,200
KS	Hedge/Member	Mnths 2-6	Decrease	USD	5,200	5,200	4,200	4,200
KS	Spec	Mnths 7+	Decrease	USD	5,720	5,200	4,620	4,200
KS	Hedge/Member	Mnths 7+	Decrease	USD	5,200	5,200	4,200	4,200

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
----	-----------	-------------	--------	-----	-----------------	---------------------	-------------	-----------------

### Outright Rates

#### SYNTHETIC GASOIL BULLET FUT (SBG)

SBG	Spec	Mnth 1	Decrease	USD	34,100	31,000	30,800	28,000
SBG	Hedge/Member	Mnth 1	Decrease	USD	31,000	31,000	28,000	28,000
SBG	Spec	Mnths 2-6	Decrease	USD	33,000	30,000	29,700	27,000
SBG	Hedge/Member	Mnths 2-6	Decrease	USD	30,000	30,000	27,000	27,000
SBG	Spec	Mnths 7-11	Decrease	USD	31,900	29,000	28,600	26,000
SBG	Hedge/Member	Mnths 7-11	Decrease	USD	29,000	29,000	26,000	26,000
SBG	Spec	Mnths 12+	Decrease	USD	30,250	27,500	26,950	24,500
SBG	Hedge/Member	Mnths 12+	Decrease	USD	27,500	27,500	24,500	24,500

#### WEATHER - Outright Rates

#### H0 LAS VEGAS HDD FUTURES (H0)

H0	Spec		Increase	USD	9%	8%	11%	10%
H0	Hedge/Member		Increase	USD	8%	8%	10%	10%

#### H6 PHILADELPHIA HDD FUTURES (H6)

H6	Spec		Increase	USD	13%	12%	15%	14%
H6	Hedge/Member		Increase	USD	12%	12%	14%	14%

#### SACRAMENTO MONTHLY HDD FUTURES (HS)

HS	Spec		Increase	USD	7%	6%	10%	9%
HS	Hedge/Member		Increase	USD	6%	6%	9%	9%

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
----	-----------	-------------	--------	-----	-----------------	---------------------	-------------	-----------------

### Intra Spreads

#### AGRICULTURE - Intra Spreads

##### Rough Rice (CBOT) (14) - Tier 1 vs Tier 2 (ROUGH RICE FUTURES)

14	Spec		Increase	USD	550	500	715	650
14	Hedge/Member		Increase	USD	500	500	650	650

#### COAL - Intra Spreads

##### Eastern Rail CSX Coal Swap Futures - All Months (EASTERN RAIL DELIVERY CSX COAL FUT)

QX	Spec		Increase	USD	1,045	950	1,100	1,000
QX	Hedge/Member		Increase	USD	950	950	1,000	1,000

#### ELECTRICITY - Intra Spreads

##### NYISO ZONE A 5MW DAY AHEAD OFF PEAK - All Months (NYISO ZONE A 5MW D AH O PK)

K4	Spec		Increase	USD	13	12	15	14
K4	Hedge/Member		Increase	USD	12	12	14	14

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
----	-----------	-------------	--------	-----	-----------------	---------------------	-------------	-----------------

### Intra Spreads

#### FX - Intra Spreads

##### **Euro FX (EC) - Contracts 1-4 vs. 1-4 (E-MICRO EUR/USD FUTURES)**

M6E	Spec		Increase	USD	8	7	9	8
M6E	Hedge/Member		Increase	USD	7	7	8	8

##### **Euro FX (EC) - Contracts 1-4 vs. 1-4 (E-MINI EURO FX FUTURE)**

E7	Spec		Increase	USD	39	35	44	40
E7	Hedge/Member		Increase	USD	35	35	40	40

##### **Euro FX (EC) - Contracts 1-4 vs. 1-4 (EURO FUTURE)**

EC	Spec		Increase	USD	77	70	88	80
EC	Hedge/Member		Increase	USD	70	70	80	80

#### NATURAL GAS - Intra Spreads

##### **Houston Ship Channel Basis Swap (Platts IFERC) - All Months (HOUSTON SHIP CHANNEL BASIS FUT)**

NH	Spec		Increase	USD	127	115	165	150
NH	Hedge/Member		Increase	USD	115	115	150	150

##### **NORTH NAT GAS VENTURA, IOWA (PF) - All Months (VENTURA BASIS FUT)**

PF	Spec		Increase	USD	187	170	220	200
PF	Hedge/Member		Increase	USD	170	170	200	200

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
-----------	--------	-------	-----------------	---------------------	-------------	-----------------

**Inter-commodity Spread Rates**

**CRUDE OIL - Inter-commodity Spread Rates**

**BRENT (ICE) CALENDAR SWAP FUTURES (NY-CY - CME) vs EUROPEAN JET KEROSENE (PLATTS) CARGOES CIF NWE CALENDAR SWAP FUTURES (NY-UJ - CME)**

Spread Credit Rate	Increase	+8:-1	50%	50%	60%	60%
--------------------	----------	-------	-----	-----	-----	-----

**BRENT (ICE) CALENDAR SWAP FUTURES (NY-CY - CME) vs EUROPEAN JET KEROSENE (PLATTS) CARGOES CIF NWE CALENDAR SWAP FUTURES (NY-UJ - CME).**

Spread Credit Rate	Increase	+8:-1	50%	50%	60%	60%
--------------------	----------	-------	-----	-----	-----	-----

**BRENT CRUDE OIL LAST DAY FINANCIAL FUTURES (NY-BZ - CME) vs EUROPEAN JET KEROSENE (PLATTS) CARGOES CIF NWE CALENDAR SWAP FUTURES (NY-UJ - CME)**

Spread Credit Rate	Increase	+8:-1	50%	50%	60%	60%
--------------------	----------	-------	-----	-----	-----	-----

**BRENT CRUDE OIL PENULTIMATE FINANCIAL FUTURES (NY-BB - CME) vs EUROPEAN JET KEROSENE (PLATTS) CARGOES CIF NWE CALENDAR SWAP FUTURES (NY-UJ - CME)**

Spread Credit Rate	Increase	+8:-1	50%	50%	60%	60%
--------------------	----------	-------	-----	-----	-----	-----

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Inter-commodity Spread Rates</b>						
<b>ELECTRICITY - Inter-commodity Spread Rates</b>						
<b>HENRY HUB NATURAL GAS FUTURES (NY-NG - CME) vs NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME)</b>						
Spread Credit Rate	Increase	+1:-2	30%	30%	45%	45%
<b>ISO NEW ENGLAND INTERNAL HUB 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-H2 - CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME)</b>						
Spread Credit Rate	New	+202:-1			50%	50%
<b>ISO NEW ENGLAND INTERNAL HUB PEAK LOCATION MARGINAL PRICING [LMP] SWAP (NYM-NI - CME) vs NYISO ZONE A PEAK MONTHLY SWAP (NYM-KA - CME)</b>						
Spread Credit Rate	Increase	+1:-2	0%	0%	25%	25%
<b>ISO NEW ENGLAND RHODE ISLAND ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-U5 - CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME)</b>						
Spread Credit Rate	New	+202:-1			40%	40%
<b>ISO NEW ENGLAND RHODE ISLAND ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-U5 - CME) vs NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME)</b>						
Spread Credit Rate	New	+80:-1			40%	40%
<b>MIDWEST ISO CINERGY HUB 5 MW PEAK CAL REAL-TIME SWAP FUT (NY-H3- CME) vs PJM AEP DAYTON HUB PEAK CAL DA LMP SWAP FUT (NY-D7- CME)</b>						
Spread Credit Rate	Decrease	+1:-1	75%	75%	65%	65%
<b>NYISO ZONE A 5 MW OFF-PEAK CALENDAR-MONTH DA LBMP SWAP FUT (NY-K4-CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUT (NY-KB-CME)</b>						
Spread Credit Rate	Increase	+202:-1	35%	35%	80%	80%
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUT (NY-KB-CME) vs NYISO ZONE J OFF-PEAK LBMP SWAP FUT (NY-KK-CME)</b>						
Spread Credit Rate	Increase	+1:-1	0%	0%	35%	35%
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME) vs ISO NEW ENGLAND CONNECTICUT ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P3 - CME)</b>						
Spread Credit Rate	New	+1:-202			40%	40%
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME) vs ISO NEW ENGLAND NEW HAMPSHIRE ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-U3 - CME)</b>						
Spread Credit Rate	New	+1:-202			50%	50%
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME) vs MIDWEST ISO CINERGY HUB 5 MW PEAK CALENDAR-MONTH REAL-TIME SWAP FUTURES (NY-H3 - CME)</b>						
Spread Credit Rate	New	+1:-13			50%	50%
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME) vs MIDWEST ISO INDIANA HUB 5 MW OFF-PEAK CALENDAR-MONTH REAL-TIME SWAP FUTURES (NY-FTM - CME)</b>						
Spread Credit Rate	New	+1:-202			40%	40%
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME) vs MIDWEST ISO INDIANA HUB 5 MW PEAK CALENDAR-MONTH REAL-TIME SWAP FUTURES (NY-PTM - CME)</b>						
Spread Credit Rate	New	+1:-13			50%	50%

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Inter-commodity Spread Rates</b>						
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME) vs MIDWEST ISO MICHIGAN HUB 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD SWAP FUTURES (NY-HMO - CME)</b>						
Spread Credit Rate	New	+1:-202			40%	40%
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME) vs NYISO ZONE J PEAK LBMP SWAP FUTURES (NY-KJ - CME)</b>						
Spread Credit Rate	New	+1:-3			40%	40%
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME) vs PJM AEP DAYTON HUB OFF-PEAK LMP SWAP FUTURES (NY-VP - CME)</b>						
Spread Credit Rate	New	+1:-1			45%	45%
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME) vs PJM AEP DAYTON HUB PEAK CALENDAR-MONTH LMP SWAP FUTURES (NY-VM - CME)</b>						
Spread Credit Rate	New	+1:-1			45%	45%
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME) vs PJM COMED ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-D9 - CME)</b>						
Spread Credit Rate	New	+1:-202			45%	45%
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME) vs PJM JCPL ZONE PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-J2 - CME)</b>						
Spread Credit Rate	New	+1:-13			30%	30%
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME) vs PJM NORTHERN ILLINOIS HUB 5 MW PEAK CALENDAR-MONTH REAL-TIME LMP SWAP FUTURES (NY-B3 - CME)</b>						
Spread Credit Rate	New	+1:-13			50%	50%
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME) vs PJM NORTHERN ILLINOIS HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-L3 - CME)</b>						
Spread Credit Rate	New	+1:-202			45%	45%
<b>NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME) vs PJM NORTHERN ILLINOIS HUB PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-N3 - CME)</b>						
Spread Credit Rate	New	+1:-13			50%	50%
<b>NYISO ZONE A OFF-PEAK MONTHLY (NYM-KB - CME) vs ISO NEW ENGLAND OFF-PEAK LMP MONTHLY SWAP (NYM-KI - CME)</b>						
Spread Credit Rate	Increase	+1:-1	0%	0%	30%	30%
<b>NYISO ZONE A PEAK LBMP SWAP FUT (NY-KA- CME) vs PJM AEP DAYTON HUB PEAK CAL LMP SWAP FUT (NY-VM- CME)</b>						
Spread Credit Rate	Increase	+2:-1	45%	45%	60%	60%
<b>NYISO ZONE A PEAK LBMP SWAP FUT (NY-KA- CME) vs PJM COMED ZONE 5 MW PEAK CAL DA LMP SWAP FUT (NY-D8- CME)</b>						
Spread Credit Rate	Increase	+1:-5	45%	45%	60%	60%
<b>NYISO ZONE A PEAK LBMP SWAP FUT (NY-KA-CME) vs PJM APS ZONE PEAK CALENDAR-MONTH DA LMP SWAP FUT (NY-S4-CME)</b>						
Spread Credit Rate	Increase	+1:-5	50%	50%	65%	65%



## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Inter-commodity Spread Rates</b>						
<b>NYISO ZONE A PEAK LBMP SWAP FUT (NY-KA-CME) vs PJM BGE ZONE PEAK CALENDAR-MONTH DA LMP SWAP FUT (NY-E3-CME)</b>						
Spread Credit Rate	Increase	+1:-5	50%	50%	70%	70%
<b>NYISO ZONE A PEAK LBMP SWAP FUT (NY-KA-CME) vs PJM JCPL ZONE PEAK CALENDAR-MONTH DA LMP SWAP FUT (NY-J2-CME)</b>						
Spread Credit Rate	Increase	+1:-5	50%	50%	65%	65%
<b>NYISO ZONE A PEAK LBMP SWAP FUT (NY-KA-CME) vs PJM PPL ZONE PEAK CALENDAR-MONTH DA LMP SWAP FUT (NY-L5-CME)</b>						
Spread Credit Rate	Increase	+1:-5	50%	50%	65%	65%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs ISO NEW ENGLAND CONNECTICUT ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P3 - CME)</b>						
Spread Credit Rate	New	+1:-80			50%	50%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs ISO NEW ENGLAND INTERNAL HUB 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-H2 - CME)</b>						
Spread Credit Rate	New	+1:-80			50%	50%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs ISO NEW ENGLAND INTERNAL HUB 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-U6 - CME)</b>						
Spread Credit Rate	New	+1:-5			45%	45%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs ISO NEW ENGLAND INTERNAL HUB OFF-PEAK LMP SWAP FUTURES (NY-KI - CME)</b>						
Spread Credit Rate	New	+3:-1			50%	50%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs ISO NEW ENGLAND NEW HAMPSHIRE ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-U3 - CME)</b>						
Spread Credit Rate	New	+1:-80			50%	50%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs ISO NEW ENGLAND NORTH EAST MASSACHUSETTS ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P8 - CME)</b>						
Spread Credit Rate	New	+1:-80			50%	50%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs ISO NEW ENGLAND NORTH EAST MASSACHUSETTS ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P7 - CME)</b>						
Spread Credit Rate	New	+1:-5			55%	55%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs ISO NEW ENGLAND RHODE ISLAND ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-U4 - CME)</b>						
Spread Credit Rate	New	+1:-5			45%	45%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs ISO NEW ENGLAND SOUTH EAST MASSACHUSETTS ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-P5 - CME)</b>						
Spread Credit Rate	New	+1:-80			55%	55%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs MIDWEST ISO CINERGY HUB OFF-PEAK LMP SWAP FUTURES (NY-EJ - CME)</b>						
Spread Credit Rate	New	+3:-1			30%	30%

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Inter-commodity Spread Rates</b>						
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs MIDWEST ISO CINERGY HUB PEAK CALENDAR-MONTH LMP SWAP FUTURES (NY-EM - CME)</b>						
Spread Credit Rate	New	+1:-2			50%	50%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs MIDWEST ISO INDIANA HUB 5 MW OFF-PEAK CALENDAR-MONTH REAL-TIME SWAP FUTURES (NY-FTM - CME)</b>						
Spread Credit Rate	New	+1:-80			40%	40%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs MIDWEST ISO INDIANA HUB 5 MW PEAK CALENDAR-MONTH DAY-AHEAD SWAP FUTURES (NY-PDM - CME)</b>						
Spread Credit Rate	New	+1:-5			55%	55%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs MIDWEST ISO INDIANA HUB 5 MW PEAK CALENDAR-MONTH REAL-TIME SWAP FUTURES (NY-PTM - CME)</b>						
Spread Credit Rate	New	+1:-5			50%	50%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs MIDWEST ISO MICHIGAN HUB 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD SWAP FUTURES (NY-HMO - CME)</b>						
Spread Credit Rate	New	+1:-80			35%	35%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs MIDWEST ISO MICHIGAN HUB 5 MW PEAK CALENDAR-MONTH DAY-AHEAD SWAP FUTURES (NY-HMW - CME)</b>						
Spread Credit Rate	New	+1:-5			50%	50%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME)</b>						
Spread Credit Rate	New	+2:-1			55%	55%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs NYISO ZONE C 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LBMP SWAP FUTURES (NY-A3 - CME)</b>						
Spread Credit Rate	New	+1:-80			60%	60%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs ONTARIO OFF-PEAK CALENDAR-MONTH SWAP FUTURES (NY-OFM - CME)</b>						
Spread Credit Rate	New	+1:-80			40%	40%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs PJM AECO ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-X1 - CME)</b>						
Spread Credit Rate	New	+1:-80			55%	55%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs PJM AEP DAYTON HUB 5 MW OFF-PEAK CALENDAR-MONTH REAL-TIME LMP SWAP FUTURES (NY-V3 - CME)</b>						
Spread Credit Rate	New	+1:-80			45%	45%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs PJM AEP DAYTON HUB OFF-PEAK LMP SWAP FUTURES (NY-VP - CME)</b>						
Spread Credit Rate	New	+3:-1			40%	40%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs PJM BGE ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-R3 - CME)</b>						
Spread Credit Rate	New	+1:-80			55%	55%

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Inter-commodity Spread Rates</b>						
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs PJM COMED ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-D9 - CME)</b>						
Spread Credit Rate	New	+1:-80			40%	40%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs PJM NORTHERN ILLINOIS HUB 5 MW OFF-PEAK CALENDAR-MONTH REAL-TIME LMP SWAP FUTURES (NY-B6 - CME)</b>						
Spread Credit Rate	New	+1:-80			40%	40%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs PJM NORTHERN ILLINOIS HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-L3 - CME)</b>						
Spread Credit Rate	New	+1:-80			40%	40%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs PJM NORTHERN ILLINOIS HUB OFF-PEAK LMP SWAP FUTURES (NY-UO - CME)</b>						
Spread Credit Rate	New	+3:-1			35%	35%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs PJM OFF-PEAK CALENDAR-MONTH LMP SWAP FUTURES (NY-JP - CME)</b>						
Spread Credit Rate	New	+3:-1			50%	50%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs PJM PECO ZONE 5 MW OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-4P - CME)</b>						
Spread Credit Rate	New	+1:-80			55%	55%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs PJM PPL ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-F5 - CME)</b>						
Spread Credit Rate	New	+1:-80			55%	55%
<b>NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME) vs PJM WESTERN HUB OFF-PEAK CALENDAR-MONTH REAL-TIME LMP SWAP FUTURES (NY-N9 - CME)</b>						
Spread Credit Rate	New	+1:-80			50%	50%
<b>NYISO ZONE A PEAK MONTHLY SWAP (NYM-KA - CME) vs NYISO ZONE G PEAK MONTHLY SWAP (NYM-KG - CME)</b>						
Spread Credit Rate	Increase	+1:-1	35%	35%	70%	70%
<b>NYISO ZONE A PEAK MONTHLY SWAP (NYM-KA - CME) vs NYISO ZONE J PEAK MONTHLY SWAP (NYM-KJ - CME)</b>						
Spread Credit Rate	Increase	+1:-1	35%	35%	65%	65%
<b>NYISO ZONE C 5 MW OFF-PEAK CALENDAR-MONTH DA LBMP SWAP FUT (NY-A3-CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUT (NY-KB-CME)</b>						
Spread Credit Rate	Increase	+188:-1	35%	35%	65%	65%
<b>NYISO ZONE E 5 MW OFF-PEAK CALENDAR-MONTH DA LBMP SWAP FUT (NY-58-CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUT (NY-KB-CME)</b>						
Spread Credit Rate	Increase	+188:-1	30%	30%	60%	60%
<b>NYISO ZONE E 5 MW OFF-PEAK CALENDAR-MONTH DA LBMP SWAP FUT (NY-58-CME) vs NYISO ZONE A PEAK LBMP SWAP FUT (NY-KA-CME)</b>						
Spread Credit Rate	Increase	+80:-1	30%	30%	50%	50%
<b>NYISO ZONE G PEAK LBMP SWAP FUTURES (NY-KG - CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME)</b>						
Spread Credit Rate	New	+3:-1			45%	45%

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Inter-commodity Spread Rates</b>						
<b>ONTARIO OFF-PEAK CALENDAR-MONTH SWAP FUTURES (NY-OFM - CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME)</b>						
Spread Credit Rate	Increase	+194:-1	0%	0%	50%	50%
<b>ONTARIO PEAK CALENDAR-MONTH SWAP FUTURES (NY-OPM - CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME)</b>						
Spread Credit Rate	Increase	+12:-1	35%	35%	50%	50%
<b>ONTARIO PEAK CALENDAR-MONTH SWAP FUTURES (NY-OPM - CME) vs NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME)</b>						
Spread Credit Rate	Increase	+5:-1	0%	0%	50%	50%
<b>ONTARIO PEAK CALENDAR-MONTH SWAP FUTURES (NY-OPM - CME) vs ONTARIO OFF-PEAK CALENDAR-MONTH SWAP FUTURES (NY-OFM - CME)</b>						
Spread Credit Rate	New	-1:+16			70%	70%
<b>PJM AECO ZONE PEAK CALENDAR-MONTH DA LMP SWAP FUT (NY-Y1-CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUT (NY-KB-CME)</b>						
Spread Credit Rate	Increase	+12:-1	30%	30%	60%	60%
<b>PJM AECO ZONE PEAK CALENDAR-MONTH DA LMP SWAP FUT (NY-Y1-CME) vs NYISO ZONE A PEAK LBMP SWAP FUT (NY-KA-CME)</b>						
Spread Credit Rate	Increase	+5:-1	50%	50%	70%	70%
<b>PJM BGE ZONE OFF-PEAK CAL DA LMP SWAP FUT (NY-R3- CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUT (NY-KB- CME)</b>						
Spread Credit Rate	Increase	+202:-1	40%	40%	60%	60%
<b>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)</b>						
Spread Credit Rate	Decrease	+1:-1	80%	80%	70%	70%
<b>PJM COMED ZONE 5 MW PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-D8 - CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME)</b>						
Spread Credit Rate	New	+13:-1			50%	50%
<b>PJM JCPL ZONE OFF-PEAK CAL DA LMP SWAP FUT (NY-F2- CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUT (NY-KB- CME)</b>						
Spread Credit Rate	Increase	+202:-1	40%	40%	65%	65%
<b>PJM JCPL ZONE OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-F2 - CME) vs NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME)</b>						
Spread Credit Rate	New	+1:-80			55%	55%
<b>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)</b>						
Spread Credit Rate	Decrease	+1:-1	85%	85%	70%	70%
<b>PJM NORTHERN ILLINOIS HUB 5 MW OFF-PEAK CAL REAL-TIME LMP SWAP FUT (NY-B6- CME) vs PJM NORTHERN ILLINOIS HUB OFF-PEAK LMP SWAP FUT (NY-UO- CME)</b>						
Spread Credit Rate	Decrease	+168:-1	85%	85%	65%	65%

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Inter-commodity Spread Rates</b>						
<b>PJM NORTHERN ILLINOIS HUB 5 MW OFF-PEAK CALENDAR-MONTH REAL-TIME LMP SWAP FUTURES (NY-B6 - CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME)</b>						
Spread Credit Rate	New	+202:-1			45%	45%
<b>PJM NORTHERN ILLINOIS HUB 5 MW PEAK CAL REAL-TIME LMP SWAP FUT (NY-B3- CME) vs PJM AEP DAYTON HUB PEAK CAL DA LMP SWAP FUT (NY-D7- CME)</b>						
Spread Credit Rate	Decrease	+1:-1	75%	75%	60%	60%
<b>PJM NORTHERN ILLINOIS HUB OFF-PEAK CAL DA LMP SWAP FUT (NY-L3- CME) vs PJM NORTHERN ILLINOIS HUB OFF-PEAK LMP SWAP FUT (NY-UO- CME)</b>						
Spread Credit Rate	Decrease	+168:-1	85%	85%	65%	65%
<b>PJM NORTHERN ILLINOIS HUB PEAK CAL DA LMP SWAP FUT (NY-N3- CME) vs NYISO ZONE A PEAK LBMP SWAP FUT (NY-KA- CME)</b>						
Spread Credit Rate	Increase	+5:-1	45%	45%	60%	60%
<b>PJM NORTHERN ILLINOIS HUB PEAK CAL LMP SWAP FUT (NY-V3- CME) vs PJM AEP DAYTON HUB OFF-PEAK LMP SWAP FUT (NY-VP- CME)</b>						
Spread Credit Rate	Decrease	+202:-1	85%	85%	75%	75%
<b>PJM NORTHERN ILLINOIS HUB PEAK CAL LMP SWAP FUT (NY-V3- CME) vs PJM AEP DAYTON HUB PEAK CAL DA LMP SWAP FUT (NY-D7- CME)</b>						
Spread Credit Rate	Decrease	+16:-1	65%	65%	55%	55%
<b>PJM OFF-PEAK LMP SWAP (NYM-JP - CME) vs NYISO ZONE A OFF-PEAK MONTHLY (NYM-KB - CME)</b>						
Spread Credit Rate	Increase	+1:-1	0%	0%	50%	50%
<b>PJM PEAK CALENDAR-MONTH LMP SWAP FUT (NY-JM-CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUT (NY-KB-CME)</b>						
Spread Credit Rate	Increase	+1:-1	30%	30%	50%	50%
<b>PJM PECO ZONE 5 MW OFF-PEAK CAL DA LMP SWAP FUT (NY-4P- CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUT (NY-KB- CME)</b>						
Spread Credit Rate	Increase	+202:-1	40%	40%	55%	55%
<b>PJM PPL ZONE OFF-PEAK CAL DA LMP SWAP FUT (NY-F5- CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUT (NY-KB- CME)</b>						
Spread Credit Rate	Increase	+202:-1	40%	40%	65%	65%
<b>PJM WESTERN HUB OFF-PEAK CAL DA LMP SWAP FUT (NY-E4- CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUT (NY-KB- CME)</b>						
Spread Credit Rate	Increase	+202:-1	40%	40%	60%	60%
<b>PJM WESTERN HUB OFF-PEAK CALENDAR-MONTH DAY-AHEAD LMP SWAP FUTURES (NY-E4 - CME) vs NYISO ZONE A PEAK LBMP SWAP FUTURES (NY-KA - CME)</b>						
Spread Credit Rate	New	+80:-1			50%	50%
<b>PJM WESTERN HUB OFF-PEAK CALENDAR-MONTH REAL-TIME LMP SWAP FUTURES (NY-N9 - CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUTURES (NY-KB - CME)</b>						
Spread Credit Rate	New	+202:-1			60%	60%

## 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 DA LMP SWAP FUT (NY-J4-CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUT (NY-KB-CME)**

Spread Credit Rate	Increase	+12:-1	35%	35%	60%	60%
--------------------	----------	--------	-----	-----	-----	-----

#### **PJM WESTERN HUB PEAK CALENDAR-MONTH RT LMP SWAP FUT (NY-L1-CME) vs NYISO ZONE A OFF-PEAK LBMP SWAP FUT (NY-KB-CME)**

Spread Credit Rate	Increase	+12:-1	35%	35%	50%	50%
--------------------	----------	--------	-----	-----	-----	-----

### **INTEREST RATES - Inter-commodity Spread Rates**

#### **10 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (N1U - CME) vs 10-YEAR T-NOTE (21 - CME)**

Spread Credit Rate	Increase	+1:-1	70%	70%	75%	75%
--------------------	----------	-------	-----	-----	-----	-----

#### **10YR DELIVERABLE SWAP FUTURE vs 30YR DELIVERABLE SWAP FUTURE**

Spread Credit Rate	Increase	+5:-3	50%	50%	75%	75%
--------------------	----------	-------	-----	-----	-----	-----

#### **5YR TREASURY vs 10YR DELIVERABLE SWAP FUTURE**

Spread Credit Rate	Decrease	+2:-3	70%	70%	60%	60%
--------------------	----------	-------	-----	-----	-----	-----

### **NATURAL GAS - Inter-commodity Spread Rates**

#### **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	30%	30%	45%	45%
--------------------	----------	-------	-----	-----	-----	-----

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
-----------	--------	-------	-----------------	---------------------	-------------	-----------------

**Inter-commodity Spread Rates**

**REFINED PRODUCTS - Inter-commodity Spread Rates**

**BRENT (ICE) CALENDAR SWAP FUTURES (NY-CY - CME) vs EUROPEAN JET KEROSENE (PLATTS) CARGOES CIF NWE CALENDAR SWAP FUTURES (NY-UJ - CME)**

Spread Credit Rate	Increase	+8:-1	50%	50%	60%	60%
--------------------	----------	-------	-----	-----	-----	-----

**BRENT (ICE) CALENDAR SWAP FUTURES (NY-CY - CME) vs EUROPEAN JET KEROSENE (PLATTS) CARGOES CIF NWE CALENDAR SWAP FUTURES (NY-UJ - CME).**

Spread Credit Rate	Increase	+8:-1	50%	50%	60%	60%
--------------------	----------	-------	-----	-----	-----	-----

**BRENT CRUDE OIL LAST DAY FINANCIAL FUTURES (NY-BZ - CME) vs EUROPEAN JET KEROSENE (PLATTS) CARGOES CIF NWE CALENDAR SWAP FUTURES (NY-UJ - CME)**

Spread Credit Rate	Increase	+8:-1	50%	50%	60%	60%
--------------------	----------	-------	-----	-----	-----	-----

**BRENT CRUDE OIL PENULTIMATE FINANCIAL FUTURES (NY-BB - CME) vs EUROPEAN JET KEROSENE (PLATTS) CARGOES CIF NWE CALENDAR SWAP FUTURES (NY-UJ - CME)**

Spread Credit Rate	Increase	+8:-1	50%	50%	60%	60%
--------------------	----------	-------	-----	-----	-----	-----