



22-193

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

FROM: CME Clearing

SUBJECT: Performance Bond Requirements

DATE: Thursday, May 12, 2022

***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. Please email any questions to [Clearing.RiskManagement@cmegroup.com](mailto:Clearing.RiskManagement@cmegroup.com).

The rates will be effective after the close of business on

**Friday, May 13, 2022.**

Current rates as of:

**Thursday, May 12, 2022.**

# SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
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## Outright Rates

### ELECTRICITY - Outright Rates

#### NEPOOL INTR HUB 5MW D AH O PK (H2)

H2	Non-HRP	Mnth 1	Increase	USD	75	75	85	85
H2	HRP	Mnth 1	Increase	USD	83	75	94	85
H2	Non-HRP	Mnth 2	Increase	USD	70	70	80	80
H2	HRP	Mnth 2	Increase	USD	77	70	88	80
H2	Non-HRP	Mnths 3-4	Increase	USD	65	65	75	75
H2	HRP	Mnths 3-4	Increase	USD	72	65	83	75

#### NEPOOL INTR HUB 5MW D AH PK (U6)

U6	Non-HRP	Month 1	Increase	USD	1,600	1,600	1,900	1,900
U6	HRP	Month 1	Increase	USD	1,760	1,600	2,090	1,900
U6	Non-HRP	Month 2	Increase	USD	1,500	1,500	1,800	1,800
U6	HRP	Month 2	Increase	USD	1,650	1,500	1,980	1,800
U6	Non-HRP	Mnths 3-5	Increase	USD	1,400	1,400	1,700	1,700
U6	HRP	Mnths 3-5	Increase	USD	1,540	1,400	1,870	1,700

#### NYISO ZONE G 5MW D AH PK (T3)

T3	Non-HRP	Mnth 1	Increase	USD	1,550	1,550	1,900	1,900
T3	HRP	Mnth 1	Increase	USD	1,705	1,550	2,090	1,900
T3	Non-HRP	Mnth 2	Increase	USD	1,500	1,500	1,850	1,850
T3	HRP	Mnth 2	Increase	USD	1,650	1,500	2,035	1,850
T3	Non-HRP	Mnths 3-4	Increase	USD	1,450	1,450	1,800	1,800
T3	HRP	Mnths 3-4	Increase	USD	1,595	1,450	1,980	1,800
T3	Non-HRP	Mnths 5-11	Increase	USD	900	900	1,200	1,200
T3	HRP	Mnths 5-11	Increase	USD	990	900	1,320	1,200

#### PJM AD HUB 5MW REAL TIME O PK (V3)

V3	Non-HRP	Mnth 1	Increase	USD	80	80	100	100
V3	HRP	Mnth 1	Increase	USD	88	80	110	100
V3	Non-HRP	Mnth 2	Increase	USD	75	75	95	95
V3	HRP	Mnth 2	Increase	USD	83	75	105	95
V3	Non-HRP	Mnths 3-4	Increase	USD	70	70	90	90

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Outright Rates</b>								
V3	HRP	Mnths 3-4	Increase	USD	77	70	99	90
V3	Non-HRP	Mnths 5-11	Increase	USD	50	50	70	70
V3	HRP	Mnths 5-11	Increase	USD	55	50	77	70
<b>PJM AD HUB 5MW REAL TIME PK (Z9)</b>								
Z9	Non-HRP	Mnth 1	Increase	USD	1,700	1,700	2,300	2,300
Z9	HRP	Mnth 1	Increase	USD	1,870	1,700	2,530	2,300
Z9	Non-HRP	Mnth 2	Increase	USD	1,650	1,650	2,250	2,250
Z9	HRP	Mnth 2	Increase	USD	1,815	1,650	2,475	2,250
Z9	Non-HRP	Mnths 3-4	Increase	USD	1,600	1,600	2,200	2,200
Z9	HRP	Mnths 3-4	Increase	USD	1,760	1,600	2,420	2,200
Z9	Non-HRP	Mnths 5-11	Increase	USD	900	900	1,300	1,300
Z9	HRP	Mnths 5-11	Increase	USD	990	900	1,430	1,300
<b>PJM AEP-DAYTON HUB RT PK CALDAY 5MW (VD)</b>								
VD	Non-HRP	Days 7-15	Increase	USD	3,000	3,000	3,500	3,500
VD	HRP	Days 7-15	Increase	USD	3,300	3,000	3,850	3,500
VD	Non-HRP	Days 16+	Increase	USD	2,000	2,000	2,500	2,500
VD	HRP	Days 16+	Increase	USD	2,200	2,000	2,750	2,500
<b>PJM DAYTON DA OFF-PEAK (R7)</b>								
R7	Non-HRP	Mnth 1	Increase	USD	81	81	101	101
R7	HRP	Mnth 1	Increase	USD	89	81	111	101
R7	Non-HRP	Mnth 2	Increase	USD	76	76	96	96
R7	HRP	Mnth 2	Increase	USD	84	76	106	96
R7	Non-HRP	Mnths 3-4	Increase	USD	71	71	91	91
R7	HRP	Mnths 3-4	Increase	USD	78	71	100	91
R7	Non-HRP	Mnth 5-11	Increase	USD	51	51	71	71
R7	HRP	Mnth 5-11	Increase	USD	56	51	78	71
<b>PJM DAYTON DA PEAK (D7)</b>								
D7	Non-HRP	Mnth 1	Increase	USD	1,715	1,715	2,315	2,315
D7	HRP	Mnth 1	Increase	USD	1,887	1,715	2,547	2,315
D7	Non-HRP	Mnth 2	Increase	USD	1,685	1,685	2,285	2,285
D7	HRP	Mnth 2	Increase	USD	1,854	1,685	2,514	2,285
D7	Non-HRP	Mnths 3-4	Increase	USD	1,610	1,610	2,210	2,210
D7	HRP	Mnths 3-4	Increase	USD	1,771	1,610	2,431	2,210
D7	Non-HRP	Mnths 5-11	Increase	USD	910	910	1,310	1,310
D7	HRP	Mnths 5-11	Increase	USD	1,001	910	1,441	1,310

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

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### Outright Rates

#### PJM WES HUB PEAK CAL MON REAL TIME (L1)

L1	Non-HRP	Mth 1	Increase	USD	1,800	1,800	2,500	2,500
L1	HRP	Mth 1	Increase	USD	1,980	1,800	2,750	2,500
L1	Non-HRP	Mnth 2	Increase	USD	1,750	1,750	2,450	2,450
L1	HRP	Mnth 2	Increase	USD	1,925	1,750	2,695	2,450
L1	Non-HRP	Mnths 3-5	Increase	USD	1,700	1,700	2,400	2,400
L1	HRP	Mnths 3-5	Increase	USD	1,870	1,700	2,640	2,400
L1	Non-HRP	Mnths 6-11	Increase	USD	1,450	1,450	1,800	1,800
L1	HRP	Mnths 6-11	Increase	USD	1,595	1,450	1,980	1,800
L1	Non-HRP	Mnths 12	Increase	USD	650	650	800	800
L1	HRP	Mnths 12	Increase	USD	715	650	880	800

#### PJM WES HUB PEAK LMP 50 MW (4S)

4S	Non-HRP	Mth 1	Increase	USD	18,000	18,000	25,000	25,000
4S	HRP	Mth 1	Increase	USD	19,800	18,000	27,500	25,000
4S	Non-HRP	Mnth 2	Increase	USD	17,500	17,500	24,500	24,500
4S	HRP	Mnth 2	Increase	USD	19,250	17,500	26,950	24,500
4S	Non-HRP	Mnths 3-5	Increase	USD	17,000	17,000	24,000	24,000
4S	HRP	Mnths 3-5	Increase	USD	18,700	17,000	26,400	24,000
4S	Non-HRP	Mnths 6-11	Increase	USD	14,500	14,500	18,000	18,000
4S	HRP	Mnths 6-11	Increase	USD	15,950	14,500	19,800	18,000
4S	Non-HRP	Mnths 12	Increase	USD	6,500	6,500	8,000	8,000
4S	HRP	Mnths 12	Increase	USD	7,150	6,500	8,800	8,000

#### PJM WESTH DA OFF-PEAK (E4)

E4	Non-HRP	Mnth 1	Increase	USD	96	96	116	116
E4	HRP	Mnth 1	Increase	USD	106	96	128	116
E4	Non-HRP	Mnth 2	Increase	USD	76	76	96	96
E4	HRP	Mnth 2	Increase	USD	84	76	106	96
E4	Non-HRP	Mnths 3-4	Increase	USD	71	71	91	91
E4	HRP	Mnths 3-4	Increase	USD	78	71	100	91
E4	Non-HRP	Mnths 5-11	Increase	USD	56	56	71	71
E4	HRP	Mnths 5-11	Increase	USD	62	56	78	71

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Outright Rates</b>								
<b>PJM WESTH RT OFF-PEAK (N9)</b>								
N9	Non-HRP	Mnth 1	Increase	USD	95	95	115	115
N9	HRP	Mnth 1	Increase	USD	105	95	127	115
N9	Non-HRP	Mnth 2	Increase	USD	75	75	95	95
N9	HRP	Mnth 2	Increase	USD	83	75	105	95
N9	Non-HRP	Mnths 3-4	Increase	USD	70	70	90	90
N9	HRP	Mnths 3-4	Increase	USD	77	70	99	90
N9	Non-HRP	Mnths 5-11	Increase	USD	55	55	70	70
N9	HRP	Mnths 5-11	Increase	USD	61	55	77	70
<b>PJM WESTHDA PEAK (J4)</b>								
J4	Non-HRP	Mnth 1	Increase	USD	1,830	1,830	2,530	2,530
J4	HRP	Mnth 1	Increase	USD	2,013	1,830	2,783	2,530
J4	Non-HRP	Mnth 2	Increase	USD	1,765	1,765	2,465	2,465
J4	HRP	Mnth 2	Increase	USD	1,942	1,765	2,712	2,465
J4	Non-HRP	Mnths 3-5	Increase	USD	1,710	1,710	2,410	2,410
J4	HRP	Mnths 3-5	Increase	USD	1,881	1,710	2,651	2,410
J4	Non-HRP	Mnths 6-11	Increase	USD	1,460	1,460	1,810	1,810
J4	HRP	Mnths 6-11	Increase	USD	1,606	1,460	1,991	1,810
J4	Non-HRP	Mnths 12+	Increase	USD	660	660	810	810
J4	HRP	Mnths 12+	Increase	USD	726	660	891	810

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

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<b>Outright Rates</b>								
<b>EQUITY INDEX - Outright Rates</b>								
<b>ADJ INT RATE RUSS 2000 TOT RET (A2R)</b>								
A2R	Non-HRP	Month 1	Decrease	USD	6,000	6,000	5,500	5,500
A2R	HRP	Month 1	Decrease	USD	6,600	6,000	6,050	5,500
A2R	Non-HRP	Months 2+	Decrease	USD	6,000	6,000	5,500	5,500
A2R	HRP	Months 2+	Decrease	USD	6,600	6,000	6,050	5,500
<b>ADJ INT RATE RUSS 2000 TOT RET MKR (A2M)</b>								
A2M	Non-HRP	Month 1	Decrease	USD	6,000	6,000	5,500	5,500
A2M	HRP	Month 1	Decrease	USD	6,600	6,000	6,050	5,500
A2M	Non-HRP	Months 2+	Decrease	USD	6,000	6,000	5,500	5,500
A2M	HRP	Months 2+	Decrease	USD	6,600	6,000	6,050	5,500
<b>BTIC ADJ INT RATE RUSS 2000 TOT RET (A2T)</b>								
A2T	Non-HRP	Month 1	Decrease	USD	6,000	6,000	5,500	5,500
A2T	HRP	Month 1	Decrease	USD	6,600	6,000	6,050	5,500
A2T	Non-HRP	Months 2+	Decrease	USD	6,000	6,000	5,500	5,500
A2T	HRP	Months 2+	Decrease	USD	6,600	6,000	6,050	5,500
<b>BTIC ON EMINI RUSSELL 2000 INDEX FU (RLT)</b>								
RLT	Non-HRP	Month 1	Decrease	USD	6,000	6,000	5,500	5,500
RLT	HRP	Month 1	Decrease	USD	6,600	6,000	6,050	5,500
RLT	Non-HRP	Months 2+	Decrease	USD	6,000	6,000	5,500	5,500
RLT	HRP	Months 2+	Decrease	USD	6,600	6,000	6,050	5,500
<b>BTIC ON RUSS 2000 TOT RETURN FUT (R2T)</b>								
R2T	Non-HRP	Month 1	Decrease	USD	6,000	6,000	5,500	5,500
R2T	HRP	Month 1	Decrease	USD	6,600	6,000	6,050	5,500
R2T	Non-HRP	Months 2+	Decrease	USD	6,000	6,000	5,500	5,500
R2T	HRP	Months 2+	Decrease	USD	6,600	6,000	6,050	5,500
<b>BTIC USD-DENOMINATED IBOVESPA INDEX (IBB)</b>								
IBB	Non-HRP		Increase	USD	16,400	16,400	19,240	19,240
IBB	HRP		Increase	USD	18,040	16,400	21,164	19,240
<b>E-MINI RUSSELL 2000 FUTURES TACO MA (TQ1)</b>								
TQ1	Non-HRP	Month 1	Decrease	USD	6,000	6,000	5,500	5,500
TQ1	HRP	Month 1	Decrease	USD	6,600	6,000	6,050	5,500
TQ1	Non-HRP	Months 2+	Decrease	USD	6,000	6,000	5,500	5,500
TQ1	HRP	Months 2+	Decrease	USD	6,600	6,000	6,050	5,500

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

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<b>Outright Rates</b>								
<b>EMINI RUSSELL 2000 INDEX FUTURES (RTY)</b>								
RTY	Non-HRP	Month 1	Decrease	USD	6,000	6,000	5,500	5,500
RTY	HRP	Month 1	Decrease	USD	6,600	6,000	6,050	5,500
RTY	Non-HRP	Months 2+	Decrease	USD	6,000	6,000	5,500	5,500
RTY	HRP	Months 2+	Decrease	USD	6,600	6,000	6,050	5,500
<b>MICRO E-MINI RUSSELL 2000 INDEX FUT (M2K)</b>								
M2K	Non-HRP	Month 1	Decrease	USD	600	600	550	550
M2K	HRP	Month 1	Decrease	USD	660	600	605	550
M2K	Non-HRP	Months 2+	Decrease	USD	600	600	550	550
M2K	HRP	Months 2+	Decrease	USD	660	600	605	550
<b>RUSS 2000 TOT RETURN INDEX MARKER (R2M)</b>								
R2M	Non-HRP	Month 1	Decrease	USD	6,000	6,000	5,500	5,500
R2M	HRP	Month 1	Decrease	USD	6,600	6,000	6,050	5,500
R2M	Non-HRP	Months 2+	Decrease	USD	6,000	6,000	5,500	5,500
R2M	HRP	Months 2+	Decrease	USD	6,600	6,000	6,050	5,500
<b>RUSSELL 2000 TOTAL RETURN INDEX FUT (R2R)</b>								
R2R	Non-HRP	Month 1	Decrease	USD	6,000	6,000	5,500	5,500
R2R	HRP	Month 1	Decrease	USD	6,600	6,000	6,050	5,500
R2R	Non-HRP	Months 2+	Decrease	USD	6,000	6,000	5,500	5,500
R2R	HRP	Months 2+	Decrease	USD	6,600	6,000	6,050	5,500
<b>TACO ON E-MINI RUSSEL 2000 FUTURES (RTQ)</b>								
RTQ	Non-HRP	Month 1	Decrease	USD	6,000	6,000	5,500	5,500
RTQ	HRP	Month 1	Decrease	USD	6,600	6,000	6,050	5,500
RTQ	Non-HRP	Months 2+	Decrease	USD	6,000	6,000	5,500	5,500
RTQ	HRP	Months 2+	Decrease	USD	6,600	6,000	6,050	5,500
<b>USD-DENOMINATED IBOVESPA INDEX (IBV)</b>								
IBV	Non-HRP		Increase	USD	16,400	16,400	19,240	19,240
IBV	HRP		Increase	USD	18,040	16,400	21,164	19,240

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

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### Outright Rates

#### FX - Outright Rates

##### CZECH KORUNA/EURO CROSS RATE FUT (K)

K	Non-HRP		Increase	EUR	3,500	3,500	4,000	4,000
K	HRP		Increase	EUR	3,850	3,500	4,400	4,000

##### RU RUSSIAN RUBLE FUTURES (RU)

RU	Non-HRP	Contracts 1-12	Increase	USD	5,300	5,300	6,100	6,100
RU	HRP	Contracts 1-12	Increase	USD	5,830	5,300	6,710	6,100
RU	Non-HRP	Contracts 13-16	Increase	USD	5,300	5,300	6,100	6,100
RU	HRP	Contracts 13-16	Increase	USD	5,830	5,300	6,710	6,100
RU	Non-HRP	Contracts 17-20	Increase	USD	5,300	5,300	6,100	6,100
RU	HRP	Contracts 17-20	Increase	USD	5,830	5,300	6,710	6,100
RU	Non-HRP	Contracts 21+	Increase	USD	5,300	5,300	6,100	6,100
RU	HRP	Contracts 21+	Increase	USD	5,830	5,300	6,710	6,100

##### SFJY FUTURES (SJ)

SJ	Non-HRP		Increase	JPY	880,000	880,000	1,000,000	1,000,000
SJ	HRP		Increase	JPY	968,000	880,000	1,100,000	1,000,000

#### NGL/PETROCHEMICALS - Outright Rates

##### PGP POLYMER GRD PROPYLENE CAL FUT (PGP)

PGP	Non-HRP	Mth 1	Decrease	USD	7,600	7,600	6,700	6,700
PGP	HRP	Mth 1	Decrease	USD	8,360	7,600	7,370	6,700
PGP	Non-HRP	Mth 2+	Decrease	USD	7,500	7,500	6,500	6,500
PGP	HRP	Mth 2+	Decrease	USD	8,250	7,500	7,150	6,500

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

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### Outright Rates

#### PETROLEUM CRACKS AND SPREADS - Outright Rates

##### NY BUCKEYE JET FUEL V. NY HR BALMO (JTB)

JTB	Non-HRP		Increase	USD	6,500	6,500	9,750	9,750
JTB	HRP		Increase	USD	7,150	6,500	10,725	9,750

##### NY BUCKEYE JET FUEL VS NY HARB ULSD (JET)

JET	Non-HRP	Mnth 1	Increase	USD	8,755	8,755	12,250	12,250
JET	HRP	Mnth 1	Increase	USD	9,631	8,755	13,475	12,250
JET	Non-HRP	Mnth 2	Increase	USD	8,750	8,750	10,000	10,000
JET	HRP	Mnth 2	Increase	USD	9,625	8,750	11,000	10,000

##### NY ULSD VS. NY HRBR ULSD FUT (7Y)

7Y	Non-HRP	Mnth 1	Increase	USD	2,800	2,800	4,000	4,000
7Y	HRP	Mnth 1	Increase	USD	3,080	2,800	4,400	4,000
7Y	Non-HRP	Mnth 2	Increase	USD	2,750	2,750	3,400	3,400
7Y	HRP	Mnth 2	Increase	USD	3,025	2,750	3,740	3,400

##### SINGAPORE GASOIL VS ICE (GA)

GA	Non-HRP	Mnth 1	Increase	USD	2,900	2,900	3,400	3,400
GA	HRP	Mnth 1	Increase	USD	3,190	2,900	3,740	3,400

#### WEATHER - Outright Rates

##### K5 DALLAS CDD FUTURES (K5)

K5	Non-HRP	Month 1	Increase	USD	10%	10%	15%	15%
K5	HRP	Month 1	Increase	USD	11%	10%	17%	15%

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

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<b>Intra Spreads</b>								
<b>CRUDE OIL SPREADS - Intra Spreads</b>								
<b>Mnths 1 vs 2 (EDMONTON LIGHT SWEET NE2 MONTHLY)</b>								
LSW	Non-HRP		New	USD			1,000	1,000
LSW	HRP		New	USD			1,100	1,000
<b>Mnths 1-2 vs 3+ (EDMONTON LIGHT SWEET NE2 MONTHLY)</b>								
LSW	Non-HRP		New	USD			1,200	1,200
LSW	HRP		New	USD			1,320	1,200
<b>Mnths 3+ vs 3+ (EDMONTON LIGHT SWEET NE2 MONTHLY)</b>								
LSW	Non-HRP		New	USD			1,000	1,000
LSW	HRP		New	USD			1,100	1,000
<b>Relperiod 2 vs 3+ (EDMONTON LIGHT SWEET NE2 MONTHLY)</b>								
LSW	Non-HRP		New	USD			900	900
LSW	HRP		New	USD			990	900
<b>Western Canadian Select Oil (Net Energy) Monthly Index Futures - All Months (HARDISTY W CANADIAN SELECT MONTHLY)</b>								
WCW	Non-HRP		Increase	USD	1,200	1,200	1,500	1,500
WCW	HRP		Increase	USD	1,320	1,200	1,650	1,500

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<b>Intra Spreads</b>								
<b>ELECTRICITY - Intra Spreads</b>								
<b>NEPOOL INTER HUB 5MW DAY AHEAD PEAK - All Months (NEPOOL INTR HUB 5MW D AH PK)</b>								
U6	Non-HRP		Increase	USD	675	675	750	750
U6	HRP		Increase	USD	743	675	825	750
<b>NYISO Zone G Peak Monthly Swap - All Months (NYISO ZONE G 5MW D AH PK)</b>								
T3	Non-HRP		Increase	USD	900	900	1,150	1,150
T3	HRP		Increase	USD	990	900	1,265	1,150
<b>PJM AD HUB 5MW REAL TIME PEAK - All Months (PJM AD HUB 5MW REAL TIME PK)</b>								
Z9	Non-HRP		Increase	USD	700	700	900	900
Z9	HRP		Increase	USD	770	700	990	900
<b>PJM Financially Settled Daily Futures Peak - Tier 1 vs Tier 3 (PJM DAILY)</b>								
JD	Non-HRP		Increase	USD	3,000	3,000	3,500	3,500
JD	HRP		Increase	USD	3,300	3,000	3,850	3,500
<b>PJM Financially Settled Daily Futures Peak - Tier 2 vs Tier 3 (PJM DAILY)</b>								
JD	Non-HRP		Increase	USD	3,000	3,000	3,500	3,500
JD	HRP		Increase	USD	3,300	3,000	3,850	3,500
<b>PJM Financially Settled Daily Futures Peak - Tier 3 vs Tier 3 (PJM DAILY)</b>								
JD	Non-HRP		Increase	USD	3,000	3,000	3,500	3,500
JD	HRP		Increase	USD	3,300	3,000	3,850	3,500
<b>PJM Western Hub Off-Peak Calendar-Month Real-Time LMP - All Months (PJM WESTH RT OFF-PEAK)</b>								
N9	Non-HRP		Increase	USD	40	40	55	55
N9	HRP		Increase	USD	44	40	61	55
<b>PJM Western Hub Peak Calendar-Month Real-Time LMP - All Months (PJM WES HUB PEAK CAL MON REAL TIME)</b>								
L1	Non-HRP		Increase	USD	900	900	1,100	1,100
L1	HRP		Increase	USD	990	900	1,210	1,100
<b>PJM Western Hub Peak Calendar-Month Real-Time LMP - All Months (PJM WES HUB PEAK LMP 50 MW)</b>								
4S	Non-HRP		Increase	USD	9,000	9,000	11,000	11,000
4S	HRP		Increase	USD	9,900	9,000	12,100	11,000

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Intra Spreads</b>								
<b>FX - Intra Spreads</b>								
<b>Euro FX (EC) - Contracts 1-6 vs. 1-6 (E-MINI EURO FX FUTURE)</b>								
E7	Non-HRP		Increase	USD	50	50	65	65
E7	HRP		Increase	USD	55	50	72	65
<b>Euro FX (EC) - Contracts 1-6 vs. 1-6 (EURO FUTURE)</b>								
EC	Non-HRP		Increase	USD	100	100	130	130
EC	HRP		Increase	USD	110	100	143	130
<b>Euro FX (EC) - Contracts 1-6 vs. 1-6 (MICRO EUR/USD FUTURES)</b>								
M6E	Non-HRP		Increase	USD	10	10	13	13
M6E	HRP		Increase	USD	11	10	14	13

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Intra Spreads</b>								
<b>INTEREST RATES - Intra Spreads</b>								
<b>LIT Tier 1 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		Decrease	USD	60	60	30	30
LIT	HRP		Decrease	USD	66	60	33	30
<b>LIT Tier 1 vs Tier 2 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		New	USD			20	20
LIT	HRP		New	USD			22	20
<b>LIT Tier 1 vs Tier 3 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		New	USD			30	30
LIT	HRP		New	USD			33	30
<b>LIT Tier 1 vs Tier 4 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		New	USD			55	55
LIT	HRP		New	USD			61	55
<b>LIT Tier 1 vs Tier 5 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		New	USD			70	70
LIT	HRP		New	USD			77	70
<b>LIT Tier 2 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		New	USD			20	20
LIT	HRP		New	USD			22	20
<b>LIT Tier 2 vs Tier 3 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		New	USD			20	20
LIT	HRP		New	USD			22	20
<b>LIT Tier 2 vs Tier 4 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		New	USD			30	30
LIT	HRP		New	USD			33	30
<b>LIT Tier 2 vs Tier 5 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		New	USD			70	70
LIT	HRP		New	USD			77	70
<b>LIT Tier 3 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		New	USD			20	20
LIT	HRP		New	USD			22	20
<b>LIT Tier 3 vs Tier 4 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		New	USD			20	20
LIT	HRP		New	USD			22	20

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Intra Spreads</b>								
<b>LIT Tier 3 vs Tier 5 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		New	USD			50	50
LIT	HRP		New	USD			55	50
<b>LIT Tier 4 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		New	USD			30	30
LIT	HRP		New	USD			33	30
<b>LIT Tier 4 vs Tier 5 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		New	USD			20	20
LIT	HRP		New	USD			22	20
<b>LIT Tier 5 (2-YEAR ERIS SWAP FUTURE)</b>								
LIT	Non-HRP		New	USD			60	60
LIT	HRP		New	USD			66	60
<b>NGL/PETROCHEMICALS - Intra Spreads</b>								
<b>PGP Polymer Grade Propylene (PCW) Calendar Swap Futures - All Months (PGP POLYMER GRD PROPYLENE CAL FUT)</b>								
PGP	Non-HRP		Decrease	USD	6,500	6,500	6,000	6,000
PGP	HRP		Decrease	USD	7,150	6,500	6,600	6,000

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Inter-commodity Spread Rates</b>						
<b>CRUDE OIL - Inter-commodity Spread Rates</b>						
<b>BRENT CRUDE OIL LAST DAY FINANCIAL FUTURES (NY-BZ - CME) vs JAPAN C&amp;F NAPHTHA (PLATTS) SWAP FUTURES (NY-JA - CME)</b>						
Spread Credit Rate	Decrease	+9:-1	86%	86%	83%	83%
Spread Credit Rate	Decrease	+9:-1	85%	85%	82%	82%
<b>LIGHT SWEET CRUDE OIL FUTURES (NY-CL - CME) vs ARGUS PROPANE (SAUDI ARAMCO) SWAP FUTURES (NY-9N - CME)</b>						
Spread Credit Rate	Decrease	+12:-1	70%	70%	64%	64%
<b>LIGHT SWEET CRUDE OIL FUTURES (NY-CL, CS, WS) vs ARGUS PROPANE FAR EAST INDEX SWAP FUTURES (NY-7E - CME)</b>						
Spread Credit Rate	Decrease	+12:-1	65%	65%	60%	60%
<b>LIGHT SWEET CRUDE OIL FUTURES (NY-CL, CS, WS) vs EUROPEAN PROPANE CIF ARA (ARGUS) SWAP FUTURES (NY-PS - CME)</b>						
Spread Credit Rate	Decrease	+12:-1	65%	65%	60%	60%
<b>LIGHT SWEET CRUDE OIL FUTURES (NY-CL, CS, WS) vs JAPAN C&amp;F NAPHTHA (Platts) SWAP FUTURES (NY-JA)</b>						
Spread Credit Rate	Decrease	+9:-1	88%	88%	85%	85%
<b>MONT BELVIEU NATURAL GASOLINE 5 DECIMALS (OPIS) SWAP FUTURES (NY-7Q - CME) vs LIGHT SWEET CRUDE OIL FUTURES (NY-CL, CS, WS)</b>						
Spread Credit Rate	Decrease	+1:-1	87%	87%	84%	84%
<b>ELECTRICITY - Inter-commodity Spread Rates</b>						
<b>PJM AEP DAYTON HUB 5MW PEAK CALENDAR-MONTH REAL-TIME LMP SWAP FUTURES (NY-Z9 - CME) vs HENRY HUB NATURAL GAS FUTURES (NY-NG - CME)</b>						
Spread Credit Rate	Decrease	-11:+1	70%	70%	60%	60%
<b>PJM NORTHERN ILLINOIS HUB PEAK CAL LMP SWAP FUT (NY-V3- CME) vs PJM AEP DAYTON HUB 5MW PEAK CAL REAL-TIME LMP SWAP FUT (NY-Z9- CME)</b>						
Spread Credit Rate	Decrease	+16:-1	80%	80%	75%	75%
<b>PJM NORTHERN ILLINOIS HUB PEAK CAL LMP SWAP FUT (NY-V3- CME) vs PJM WESTERN HUB PEAK CAL REAL-TIME LMP SWAP FUT (NY-L1- CME)</b>						
Spread Credit Rate	Decrease	+16:-1	80%	80%	75%	75%
<b>PJM WESTERN HUB PEAK CALENDAR-MONTH REAL-TIME LMP SWAP FUTURES (NY-L1 - CME) vs HENRY HUB NATURAL GAS FUTURES (NY-NG - CME)</b>						
Spread Credit Rate	Decrease	-11:+1	75%	75%	70%	70%
<b>PJM WESTERN HUB PEAK CALENDAR-MONTH RT LMP SWAP FUT (NY-L1-CME) vs ISO NE INTERNAL HUB 5 MW PEAK CALENDAR-MONTH DA LMP SWAP FUT (NY-U6-CME)</b>						
Spread Credit Rate	Decrease	+1:-1	70%	70%	65%	65%
<b>PJM WESTERN HUB PEAK CALENDAR-MONTH RT LMP SWAP FUT (NY-L1-CME) vs NYISO ZONE G PEAK LBMP SWAP FUT (NY-KG-CME)</b>						
Spread Credit Rate	Decrease	+1:-1	65%	65%	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>INTEREST RATES - Inter-commodity Spread Rates</b>						
<b>10 Year Treasury Note (21) vs. Eurodollar (ED) Tier 01</b>						
Spread Credit Rate	Increase	+2:-5	40%	40%	55%	55%
<b>10 Year Treasury Note (21) vs. Eurodollar (ED) Tier 02</b>						
Spread Credit Rate	Increase	+2:-5	50%	50%	70%	70%
<b>10 Year Treasury Note (21) vs. Eurodollar (ED) Tier 03</b>						
Spread Credit Rate	Increase	+2:-5	50%	50%	80%	80%
<b>10 Year Treasury Note (21) vs. Eurodollar (ED) Tier 04</b>						
Spread Credit Rate	Increase	+2:-5	60%	60%	85%	85%
<b>10 Year Treasury Note (21) vs. Eurodollar (ED) Tier 05 [contracts 17-20]</b>						
Spread Credit Rate	Increase	+2:-5	60%	60%	85%	85%
<b>10 Year Treasury Note (21) vs. Eurodollar (ED) Tier 06 [contracts 21-24]</b>						
Spread Credit Rate	Increase	+2:-5	70%	70%	80%	80%
<b>10 Year Treasury Note (21) vs. Eurodollar (ED) Tier 07 [contracts 25-28]</b>						
Spread Credit Rate	Increase	+2:-5	70%	70%	80%	80%
<b>10 Year Treasury Note (21) vs. Eurodollar (ED) Tier 08 [contracts 29-32]</b>						
Spread Credit Rate	Increase	+2:-5	65%	65%	75%	75%
<b>10 Year Treasury Note (21) vs. Eurodollar (ED) Tier 09 [contracts 33-36]</b>						
Spread Credit Rate	Increase	+2:-5	65%	65%	75%	75%
<b>10 Year Treasury Note (21) vs. Eurodollar (ED) Tier 10 [contracts 37-40]</b>						
Spread Credit Rate	Increase	+2:-5	65%	65%	70%	70%
<b>10 Year Treasury Note (21) vs. Eurodollar (ED) Tier 11 [contracts 41-44]</b>						
Spread Credit Rate	Increase	+2:-5	65%	65%	70%	70%
<b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 01</b>						
Spread Credit Rate	Increase	+2:-3	40%	40%	70%	70%
<b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 02</b>						
Spread Credit Rate	Increase	+2:-3	60%	60%	80%	80%
<b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 03</b>						
Spread Credit Rate	Increase	+2:-3	70%	70%	80%	80%
<b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 04</b>						
Spread Credit Rate	Increase	+2:-3	55%	55%	75%	75%
<b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 05</b>						
Spread Credit Rate	Increase	+2:-3	50%	50%	70%	70%

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Inter-commodity Spread Rates</b>						
<b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 06</b>						
Spread Credit Rate	Increase	+2:-3	50%	50%	65%	65%
<b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 07</b>						
Spread Credit Rate	Increase	+2:-3	45%	45%	65%	65%
<b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 08</b>						
Spread Credit Rate	Increase	+2:-3	35%	35%	60%	60%
<b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 09</b>						
Spread Credit Rate	Increase	+2:-3	35%	35%	55%	55%
<b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 10</b>						
Spread Credit Rate	Increase	+2:-3	30%	30%	55%	55%
<b>2 Year Treasury Note (26) vs. Eurodollar (ED) Tier 11</b>						
Spread Credit Rate	Increase	+2:-3	25%	25%	55%	55%
<b>2YR ERIS INTEREST RATE SWAP FUTURE (LIT - CME) Tier 3 vs 2-YEAR ERIS SOFR SWAP FUTURES (YIT - CME)</b>						
Spread Credit Rate	Increase	+1:-1	60%	60%	70%	70%
<b>2YR ERIS INTEREST RATE SWAP FUTURE (LIT - CME) Tier 4 vs 2-YEAR ERIS SOFR SWAP FUTURE (YIT - CME)</b>						
Spread Credit Rate	Increase	+1:-1	75%	75%	85%	85%
<b>2YR ERIS INTEREST RATE SWAP FUTURE (LIT - CME) Tier 5 vs 2-YEAR ERIS SOFR SWAP FUTURE (YIT - CME)</b>						
Spread Credit Rate	Increase	+1:-1	85%	85%	95%	95%
<b>3 MONTH SOFR (SR3 - CME) Tier 1 vs 10 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (N1U - CME)</b>						
Spread Credit Rate	New	+3:-1			30%	30%
<b>3 MONTH SOFR (SR3 - CME) Tier 10 vs 10 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (N1U - CME)</b>						
Spread Credit Rate	New	+3:-1			70%	70%
<b>3 MONTH SOFR (SR3 - CME) Tier 11 vs 10 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (N1U - CME)</b>						
Spread Credit Rate	New	+3:-1			70%	70%
<b>3 MONTH SOFR (SR3 - CME) Tier 2 vs 10 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (N1U - CME)</b>						
Spread Credit Rate	New	+3:-1			35%	35%
<b>3 MONTH SOFR (SR3 - CME) Tier 3 vs 10 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (N1U - CME)</b>						
Spread Credit Rate	New	+3:-1			50%	50%
<b>3 MONTH SOFR (SR3 - CME) Tier 4 vs 10 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (N1U - CME)</b>						
Spread Credit Rate	New	+3:-1			65%	65%
<b>3 MONTH SOFR (SR3 - CME) Tier 5 vs 10 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (N1U - CME)</b>						
Spread Credit Rate	New	+3:-1			70%	70%
<b>3 MONTH SOFR (SR3 - CME) Tier 6 vs 10 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (N1U - CME)</b>						
Spread Credit Rate	New	+3:-1			70%	70%

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Inter-commodity Spread Rates</b>						
<b>3 MONTH SOFR (SR3 - CME) Tier 7 vs 10 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (N1U - CME)</b>						
Spread Credit Rate	New	+3:-1			70%	70%
<b>3 MONTH SOFR (SR3 - CME) Tier 8 vs 10 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (N1U - CME)</b>						
Spread Credit Rate	New	+3:-1			70%	70%
<b>3 MONTH SOFR (SR3 - CME) Tier 9 vs 10 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (N1U - CME)</b>						
Spread Credit Rate	New	+3:-1			70%	70%
<b>3M SOFR FUTURES (SR3 - CME) Month 1 vs 2-YEAR T-NOTE (26 - CME) All Months</b>						
Spread Credit Rate	Increase	+3:-2	30%	30%	70%	70%
<b>3M SOFR FUTURES (SR3 - CME) Month 2 vs 2-YEAR T-NOTE (26 - CME) All Months</b>						
Spread Credit Rate	Increase	+3:-2	50%	50%	85%	85%
<b>3M SOFR FUTURES (SR3 - CME) Month 3 vs 2-YEAR T-NOTE (26 - CME) All Months</b>						
Spread Credit Rate	Increase	+3:-2	60%	60%	80%	80%
<b>3M SOFR FUTURES (SR3 - CME) Months 4-5 vs 2-YEAR T-NOTE (26 - CME) All Months</b>						
Spread Credit Rate	Increase	+3:-2	65%	65%	75%	75%
<b>3M SOFR FUTURES (SR3 - CME) Months 6-8 vs 2-YEAR T-NOTE (26 - CME) All Months</b>						
Spread Credit Rate	Increase	+3:-2	65%	65%	70%	70%
<b>3M SOFR FUTURES (SR3 - CME) Tier 1 vs 10-YEAR T-NOTE (21 - CME) All Months</b>						
Spread Credit Rate	New	+3:-1			65%	65%
<b>3M SOFR FUTURES (SR3 - CME) Tier 2 vs 10-YEAR T-NOTE (21 - CME) All Months</b>						
Spread Credit Rate	New	+3:-1			70%	70%
<b>3M SOFR FUTURES (SR3 - CME) Tier 3 vs 10-YEAR T-NOTE (21 - CME) All Months</b>						
Spread Credit Rate	Increase	+3:-1	50%	50%	75%	75%
<b>3M SOFR FUTURES (SR3 - CME) Tier 4 vs 10-YEAR T-NOTE (21 - CME) All Months</b>						
Spread Credit Rate	Increase	+3:-1	55%	55%	85%	85%
<b>3M SOFR FUTURES (SR3 - CME) Tier 5 vs 10-YEAR T-NOTE (21 - CME) All Months</b>						
Spread Credit Rate	Increase	+3:-1	55%	55%	85%	85%
<b>3M SOFR FUTURES (SR3 - CME) Tier 6 vs 10-YEAR T-NOTE (21 - CME) All Months</b>						
Spread Credit Rate	Increase	+3:-1	55%	55%	85%	85%
<b>3M SOFR FUTURES (SR3 - CME) Tier 7 vs 10-YEAR T-NOTE (21 - CME) All Months</b>						
Spread Credit Rate	Increase	+3:-1	55%	55%	65%	65%
<b>3-MONTH SOFR (SR3 - CME) Tier 1 vs 5 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (F1U - CME)</b>						
Spread Credit Rate	New	+5:-3			50%	50%
<b>3-MONTH SOFR (SR3 - CME) Tier 10 vs 5 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (F1U - CME)</b>						
Spread Credit Rate	New	+5:-3			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>3-MONTH SOFR (SR3 - CME) Tier 11 vs 5 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (F1U - CME)</b>						
Spread Credit Rate	New	+5:-3			60%	60%
<b>3-MONTH SOFR (SR3 - CME) Tier 2 vs 5 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (F1U - CME)</b>						
Spread Credit Rate	New	+5:-3			55%	55%
<b>3-MONTH SOFR (SR3 - CME) Tier 3 vs 5 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (F1U - CME)</b>						
Spread Credit Rate	New	+5:-3			70%	70%
<b>3-MONTH SOFR (SR3 - CME) Tier 4 vs 5 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (F1U - CME)</b>						
Spread Credit Rate	New	+5:-3			80%	80%
<b>3-MONTH SOFR (SR3 - CME) Tier 5 vs 5 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (F1U - CME)</b>						
Spread Credit Rate	New	+5:-3			80%	80%
<b>3-MONTH SOFR (SR3 - CME) Tier 6 vs 5 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (F1U - CME)</b>						
Spread Credit Rate	New	+5:-3			75%	75%
<b>3-MONTH SOFR (SR3 - CME) Tier 7 vs 5 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (F1U - CME)</b>						
Spread Credit Rate	New	+5:-3			70%	70%
<b>3-MONTH SOFR (SR3 - CME) Tier 8 vs 5 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (F1U - CME)</b>						
Spread Credit Rate	New	+5:-3			60%	60%
<b>3-MONTH SOFR (SR3 - CME) Tier 9 vs 5 YEAR INTEREST RATE SWAP DELIVERABLE FUTURE (F1U - CME)</b>						
Spread Credit Rate	New	+5:-3			60%	60%
<b>3-YEAR ERIS SOFR SWAP FUTURE (YIC - CME) vs 3-YEAR ERIS INTEREST RATE SWAP FUTURE (LIC - CME)</b>						
Spread Credit Rate	Increase	+1:-1	85%	85%	95%	95%
<b>4-YEAR ERIS SOFR SWAP FUTURE (YID - CME) vs 4-YEAR ERIS INTEREST RATE SWAP FUTURE (LID - CME)</b>						
Spread Credit Rate	Increase	+1:-1	85%	85%	95%	95%
<b>5-YEAR ERIS SOFR SWAP FUTURE (YIW - CME) vs 5-YEAR ERIS INTEREST RATE SWAP FUTURE (LIW - CME)</b>						
Spread Credit Rate	Increase	+1:-1	85%	85%	95%	95%
<b>7-YEAR ERIS SOFR SWAP FUTURE (YIB - CME) vs 7-YEAR ERIS INTEREST RATE SWAP FUTURE (LIB - CME)</b>						
Spread Credit Rate	Increase	+1:-1	85%	85%	95%	95%
<b>NATURAL GAS - Inter-commodity Spread Rates</b>						
<b>PJM AEP DAYTON HUB 5MW PEAK CALENDAR-MONTH REAL-TIME LMP SWAP FUTURES (NY-Z9 - CME) vs HENRY HUB NATURAL GAS FUTURES (NY-NG - CME)</b>						
Spread Credit Rate	Decrease	-11:+1	70%	70%	60%	60%
<b>PJM WESTERN HUB PEAK CALENDAR-MONTH REAL-TIME LMP SWAP FUTURES (NY-L1 - CME) vs HENRY HUB NATURAL GAS FUTURES (NY-NG - CME)</b>						
Spread Credit Rate	Decrease	-11:+1	75%	75%	70%	70%

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Inter-commodity Spread Rates</b>						
<b>NGL/PETROCHEMICALS - Inter-commodity Spread Rates</b>						
<b>ARGUS PROPANE FAR EAST INDEX SWAP FUTURES (NY-7E - CME) vs GULF COAST NO. 6 FUEL OIL 3.0% (PLATTS) SWAP FUTURES (NY-MF - CME)</b>						
Spread Credit Rate	Decrease	+1:-12	60%	60%	55%	55%
<b>CONWAY NATURAL GASOLINE (OPIS) SWAP FUTURES (NY-8L - CME) vs CONWAY PROPANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-8K - CME)</b>						
Spread Credit Rate	Decrease	+1:-1	60%	60%	54%	54%
<b>CONWAY NATURAL GASOLINE (OPIS) SWAP FUTURES (NY-8L - CME) vs MONT BELVIEU ISO-BUTANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-8I - CME)</b>						
Spread Credit Rate	Decrease	+1:-1	60%	60%	56%	56%
<b>CONWAY NATURAL GASOLINE (OPIS) SWAP FUTURES (NY-8L - CME) vs MONT BELVIEU NORMAL BUTANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-D0 - CME)</b>						
Spread Credit Rate	Decrease	+1:-1	65%	65%	57%	57%
<b>GASOLINE EURO-BOB OXY (ARGUS) NWE BARGES SWAP FUTURES (NY-7H) vs. MONT BELVIEU NORMAL BUTANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-D0)</b>						
Spread Credit Rate	Decrease	+3:-25	65%	65%	60%	60%
Spread Credit Rate	Decrease	+3:-25	64%	64%	59%	59%
<b>LIGHT SWEET CRUDE OIL FUTURES (NY-CL - CME) vs ARGUS PROPANE (SAUDI ARAMCO) SWAP FUTURES (NY-9N - CME)</b>						
Spread Credit Rate	Decrease	+12:-1	70%	70%	64%	64%
<b>LIGHT SWEET CRUDE OIL FUTURES (NY-CL, CS, WS) vs ARGUS PROPANE FAR EAST INDEX SWAP FUTURES (NY-7E - CME)</b>						
Spread Credit Rate	Decrease	+12:-1	65%	65%	60%	60%
<b>LIGHT SWEET CRUDE OIL FUTURES (NY-CL, CS, WS) vs EUROPEAN PROPANE CIF ARA (ARGUS) SWAP FUTURES (NY-PS - CME)</b>						
Spread Credit Rate	Decrease	+12:-1	65%	65%	60%	60%
<b>MONT BELVIEU ISO-BUTANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-8I) vs. GULF COAST NO. 6 FUEL OIL 3.0% (PLATTS) SWAP FUTURES (NY-MF)</b>						
Spread Credit Rate	Decrease	+1:-1	60%	60%	55%	55%
<b>MONT BELVIEU ISO-BUTANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-8I) vs. SINGAPORE FUEL OIL 380 CST (PLATTS) SWAP FUTURES (NY-SE)</b>						
Spread Credit Rate	Decrease	+19:-3	55%	55%	50%	50%
<b>MONT BELVIEU LDH PROPANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-B0 - CME) vs CONWAY NATURAL GASOLINE (OPIS) SWAP FUTURES (NY-8L - CME)</b>						
Spread Credit Rate	Decrease	+1:-1	65%	65%	55%	55%
<b>MONT BELVIEU LDH PROPANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-B0 - CME) vs MONT BELVIEU NATURAL GASOLINE 5 DECIMALS (OPIS) SWAP FUTURES (NY-7Q - CME)</b>						
Spread Credit Rate	Decrease	+1:-1	65%	65%	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>MONT BELVIEU NATURAL GASOLINE 5 DECIMALS (OPIS) SWAP FUTURES (NY-7Q - CME) vs GULF COAST NO. 6 FUEL OIL 3.0% (PLATTS) SWAP FUTURES (NY-MF - CME)</b>						
Spread Credit Rate	Decrease	+1:-1	85%	85%	82%	82%
<b>MONT BELVIEU NATURAL GASOLINE 5 DECIMALS (OPIS) SWAP FUTURES (NY-7Q - CME) vs LIGHT SWEET CRUDE OIL FUTURES (NY-CL, CS, WS)</b>						
Spread Credit Rate	Decrease	+1:-1	87%	87%	84%	84%
<b>MONT BELVIEU NORMAL BUTANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-D0 - CME) vs RBOB GASOLINE FUTURES (NY-RB, RL, RT)</b>						
Spread Credit Rate	Decrease	+1:-1	70%	70%	64%	64%
<b>PROPANE NON-LDH MONT BELVIEU (OPIS) SWAP FUTURES (NY-1R - CME) vs CONWAY NATURAL GASOLINE (OPIS) SWAP FUTURES (NY-8L - CME)</b>						
Spread Credit Rate	Decrease	+1:-1	65%	65%	60%	60%
<b>PROPANE NON-LDH MONT BELVIEU (OPIS) SWAP FUTURES (NY-1R - CME) vs EUROPEAN 3.5% FUEL OIL (PLATTS) BARGES FOB RDAM CALENDAR SWAP FUTURES (NY-UV - CME)</b>						
Spread Credit Rate	Decrease	+19:-3	60%	60%	55%	55%
<b>PROPANE NON-LDH MONT BELVIEU (OPIS) SWAP FUTURES (NY-1R - CME) vs SINGAPORE FUEL OIL 380 CST (PLATTS) SWAP FUTURES (NY-SE - CME)</b>						
Spread Credit Rate	Decrease	+19:-3	65%	65%	55%	55%
<b>SINGAPORE FUEL OIL 380 CST (PLATTS) SWAP FUTURES (NY-SE - CME) vs CONWAY PROPANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-8K - CME)</b>						
Spread Credit Rate	Decrease	+3:-19	50%	50%	44%	44%
<b>SINGAPORE FUEL OIL 380 CST (PLATTS) SWAP FUTURES (NY-SE - CME) vs MONT BELVIEU NORMAL BUTANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-D0 - CME)</b>						
Spread Credit Rate	Decrease	+3:-19	65%	65%	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>REFINED PRODUCTS - Inter-commodity Spread Rates</b>						
<b>ARGUS PROPANE FAR EAST INDEX SWAP FUTURES (NY-7E - CME) vs GULF COAST NO. 6 FUEL OIL 3.0% (PLATTS) SWAP FUTURES (NY-MF - CME)</b>						
Spread Credit Rate	Decrease	+1:-12	60%	60%	55%	55%
<b>BRENT CRUDE OIL LAST DAY FINANCIAL FUTURES (NY-BZ - CME) vs JAPAN C&amp;F NAPHTHA (PLATTS) SWAP FUTURES (NY-JA - CME)</b>						
Spread Credit Rate	Decrease	+9:-1	86%	86%	83%	83%
Spread Credit Rate	Decrease	+9:-1	85%	85%	82%	82%
<b>GASOLINE EURO-BOB OXY (ARGUS) NWE BARGES SWAP FUTURES (NY-7H) vs. MONT BELVIEU NORMAL BUTANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-D0)</b>						
Spread Credit Rate	Decrease	+3:-25	65%	65%	60%	60%
Spread Credit Rate	Decrease	+3:-25	64%	64%	59%	59%
<b>JAPAN C&amp;F NAPHTHA (PLATTS) SWAP FUTURES (NY-JA - CME) vs NEW YORK HARBOR RESIDUAL FUEL 1.0% (PLATTS) SWAP FUTURES (NY-MM - CME)</b>						
Spread Credit Rate	Decrease	+1:-9	83%	83%	81%	81%
<b>LIGHT SWEET CRUDE OIL FUTURES (NY-CL, CS, WS) vs JAPAN C&amp;F NAPHTHA (Platts) SWAP FUTURES (NY-JA)</b>						
Spread Credit Rate	Decrease	+9:-1	88%	88%	85%	85%
<b>MONT BELVIEU ISO-BUTANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-8I) vs. GULF COAST NO. 6 FUEL OIL 3.0% (PLATTS) SWAP FUTURES (NY-MF)</b>						
Spread Credit Rate	Decrease	+1:-1	60%	60%	55%	55%
<b>MONT BELVIEU ISO-BUTANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-8I) vs. SINGAPORE FUEL OIL 380 CST (PLATTS) SWAP FUTURES (NY-SE)</b>						
Spread Credit Rate	Decrease	+19:-3	55%	55%	50%	50%
<b>MONT BELVIEU NATURAL GASOLINE 5 DECIMALS (OPIS) SWAP FUTURES (NY-7Q - CME) vs GULF COAST NO. 6 FUEL OIL 3.0% (PLATTS) SWAP FUTURES (NY-MF - CME)</b>						
Spread Credit Rate	Decrease	+1:-1	85%	85%	82%	82%
<b>MONT BELVIEU NORMAL BUTANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-D0 - CME) vs RBOB GASOLINE FUTURES (NY-RB, RL, RT)</b>						
Spread Credit Rate	Decrease	+1:-1	70%	70%	64%	64%
<b>PROPANE NON-LDH MONT BELVIEU (OPIS) SWAP FUTURES (NY-1R - CME) vs EUROPEAN 3.5% FUEL OIL (PLATTS) BARGES FOB RDAM CALENDAR SWAP FUTURES (NY-UV - CME)</b>						
Spread Credit Rate	Decrease	+19:-3	60%	60%	55%	55%
<b>PROPANE NON-LDH MONT BELVIEU (OPIS) SWAP FUTURES (NY-1R - CME) vs SINGAPORE FUEL OIL 380 CST (PLATTS) SWAP FUTURES (NY-SE - CME)</b>						
Spread Credit Rate	Decrease	+19:-3	65%	65%	55%	55%
<b>RBOB GASOLINE FUTURES (NY-RB - CME) vs SINGAPORE FUEL OIL 380 CST (PLATTS) SWAP FUTURES (NY-SE - CME)</b>						
Spread Credit Rate	Decrease	+19:-3	37%	37%	25%	25%

## SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
<b>Inter-commodity Spread Rates</b>						
<b>SINGAPORE FUEL OIL 380 CST (PLATTS) SWAP FUTURES (NY-SE - CME) vs CONWAY PROPANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-8K - CME)</b>						
Spread Credit Rate	Decrease	+3:-19	50%	50%	44%	44%
<b>SINGAPORE FUEL OIL 380 CST (PLATTS) SWAP FUTURES (NY-SE - CME) vs MONT BELVIEU NORMAL BUTANE 5 DECIMALS (OPIS) SWAP FUTURES (NY-D0 - CME)</b>						
Spread Credit Rate	Decrease	+3:-19	65%	65%	60%	60%