#17-281

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

FROM: CME Clearing

SUBJECT: Performance Bond Requirements

DATE: Thursday, July 13, 2017

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, July 14, 2017.

Current rates as of:

Thursday, July 13, 2017.

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
Outright Rates								
ELECTRICITY - Outright Rates								
CAISO SP15 EZGNHUB5 PEAK CLN D (9Z)								
9Z	Spec	Days 1-6	Increase	USD	1,485	1,350	1,650	1,500
9Z	Hedge/Member	Days 1-6	Increase	USD	1,350	1,350	1,500	1,500
9Z	Spec	Days 7-14	Increase	USD	1,100	1,000	1,540	1,400
9Z	Hedge/Member	Days 7-14	Increase	USD	1,000	1,000	1,400	1,400
9Z	Spec	Days 15+	Increase	USD	1,100	1,000	1,540	1,400
9Z	Hedge/Member	Days 15+	Increase	USD	1,000	1,000	1,400	1,400
ERIS Standards - Outright Rates								
10-YR INT RATE SWAP SEC COUPON (ZC9210)								
ZC9210	Spec	Months 1-6	Decrease	USD	1,980	1,800	1,705	1,550
ZC9210	Hedge/Member	Months 1-6	Decrease	USD	1,800	1,800	1,550	1,550
ZC9210	Spec	Months 7 - 13	Decrease	USD	2,090	1,900	1,815	1,650
ZC9210	Hedge/Member	Months 7 - 13	Decrease	USD	1,900	1,900	1,650	1,650
ZC9210	Spec	Months 14 - 19	Decrease	USD	2,310	2,100	1,980	1,800
ZC9210	Hedge/Member	Months 14 - 19	Decrease	USD	2,100	2,100	1,800	1,800
ZC9210	Spec	Months 20+	Decrease	USD	2,310	2,100	1,980	1,800
ZC9210	Hedge/Member	Months 20+	Decrease	USD	2,100	2,100	1,800	1,800
30-YR INT RATE SWAP SEC COUPON (ZD9230)								
ZD9230	Spec	Months 1-6	Decrease	USD	4,620	4,200	4,400	4,000
ZD9230	Hedge/Member	Months 1-6	Decrease	USD	4,200	4,200	4,000	4,000
ZD9230	Spec	Months 7-13	Decrease	USD	4,950	4,500	4,400	4,000
ZD9230	Hedge/Member	Months 7-13	Decrease	USD	4,500	4,500	4,000	4,000
ZD9230	Spec	Months 14-19	Decrease	USD	5,170	4,700	4,620	4,200
ZD9230	Hedge/Member	Months 14-19	Decrease	USD	4,700	4,700	4,200	4,200
ZD9230	Spec	Months 20 +	Decrease	USD	5,170	4,700	4,620	4,200
ZD9230	Hedge/Member	Months 20 +	Decrease	USD	4,700	4,700	4,200	4,200
ERIS 12-YR INT RATE SWAP (ZD9112)								
ZD9112	Spec	Contracts 1-4	Decrease	USD	2,145	1,950	1,925	1,750
ZD9112	Hedge/Member	Contracts 1-4	Decrease	USD	1,950	1,950	1,750	1,750
ZD9112	Spec	Contracts 5-8	Decrease	USD	2,145	1,950	1,925	1,750
ZD9112	Hedge/Member	Contracts 5-8	Decrease	USD	1,950	1,950	1,750	1,750
ZD9112	Spec	Contracts 9+	Decrease	USD	2,145	1,950	1,925	1,750
ZD9112	Hedge/Member	Contracts 9+	Decrease	USD	1,950	1,950	1,750	1,750
ERIS 12-YR INT RATE SWAP SEC COUPON (ZD9212)								
ZD9212	Spec	Months 1-7	Decrease	USD	2,255	2,050	2,035	1,850
ZD9212	Hedge/Member	Months 1-7	Decrease	USD	2,050	2,050	1,850	1,850

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Outright Rates								
ZD9212	Spec	Months 8-14	Decrease	USD	2,475	2,250	2,200	2,000
ZD9212	Hedge/Member	Months 8-14	Decrease	USD	2,250	2,250	2,000	2,000
ZD9212	Spec	Months 15 - 19	Decrease	USD	2,695	2,450	2,420	2,200
ZD9212	Hedge/Member	Months 15 - 19	Decrease	USD	2,450	2,450	2,200	2,200
ZD9212	Spec	Months 20+	Decrease	USD	2,695	2,450	2,420	2,200
ZD9212	Hedge/Member	Months 20+	Decrease	USD	2,450	2,450	2,200	2,200
ERIS 15-YR INT RATE SWAP (ZD9115)								
ZD9115	Spec	Contracts 1-4	Decrease	USD	2,585	2,350	2,310	2,100
ZD9115	Hedge/Member	Contracts 1-4	Decrease	USD	2,350	2,350	2,100	2,100
ZD9115	Spec	Contracts 5-8	Decrease	USD	2,585	2,350	2,310	2,100
ZD9115	Hedge/Member	Contracts 5-8	Decrease	USD	2,350	2,350	2,100	2,100
ZD9115	Spec	Contracts 9+	Decrease	USD	2,585	2,350	2,310	2,100
ZD9115	Hedge/Member	Contracts 9+	Decrease	USD	2,350	2,350	2,100	2,100
ERIS 15-YR INT RATE SWAP SEC COUPON (ZD9215)								
ZD9215	Spec	Months 1-7	Decrease	USD	2,695	2,450	2,420	2,200
ZD9215	Hedge/Member	Months 1-7	Decrease	USD	2,450	2,450	2,200	2,200
ZD9215	Spec	Months 8-14	Decrease	USD	2,915	2,650	2,640	2,400
ZD9215	Hedge/Member	Months 8-14	Decrease	USD	2,650	2,650	2,400	2,400
ZD9215	Spec	Months 15 - 19	Decrease	USD	3,135	2,850	2,860	2,600
ZD9215	Hedge/Member	Months 15 - 19	Decrease	USD	2,850	2,850	2,600	2,600
ZD9215	Spec	Months 20 +	Decrease	USD	3,135	2,850	2,860	2,600
ZD9215	Hedge/Member	Months 20 +	Decrease	USD	2,850	2,850	2,600	2,600
ERIS 20-YR INT RATE SWAP (ZD9120)								
ZD9120	Spec	Contracts 1-4	Decrease	USD	3,630	3,300	3,300	3,000
ZD9120	Hedge/Member	Contracts 1-4	Decrease	USD	3,300	3,300	3,000	3,000
ZD9120	Spec	Contracts 5-8	Decrease	USD	3,630	3,300	3,300	3,000
ZD9120	Hedge/Member	Contracts 5-8	Decrease	USD	3,300	3,300	3,000	3,000
ZD9120	Spec	Contracts 9+	Decrease	USD	3,630	3,300	3,300	3,000
ZD9120	Hedge/Member	Contracts 9+	Decrease	USD	3,300	3,300	3,000	3,000
ERIS 20-YR INT RATE SWAP SEC COUPON (ZD9220)								
ZD9220	Spec	Months 1-7	Decrease	USD	3,850	3,500	3,520	3,200
ZD9220	Hedge/Member	Months 1-7	Decrease	USD	3,500	3,500	3,200	3,200
ZD9220	Spec	Months 8-14	Decrease	USD	4,015	3,650	3,630	3,300
ZD9220	Hedge/Member	Months 8-14	Decrease	USD	3,650	3,650	3,300	3,300
ZD9220	Spec	Months 15-19	Decrease	USD	4,180	3,800	3,850	3,500
ZD9220	Hedge/Member	Months 15-19	Decrease	USD	3,800	3,800	3,500	3,500
ZD9220	Spec	Months 20+	Decrease	USD	4,180	3,800	3,850	3,500
ZD9220	Hedge/Member	Months 20+	Decrease	USD	3,800	3,800	3,500	3,500

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Outright Rates								
ERIS STANDARD 10Y INT RATE SWAP FUT (ZC9110)								
ZC9110	Spec	Contracts 1-4	Decrease	USD	1,430	1,300	1,210	1,100
ZC9110	Hedge/Member	Contracts 1-4	Decrease	USD	1,300	1,300	1,100	1,100
ZC9110	Spec	Contracts 5-8	Decrease	USD	1,760	1,600	1,485	1,350
ZC9110	Hedge/Member	Contracts 5-8	Decrease	USD	1,600	1,600	1,350	1,350
ZC9110	Spec	Contracts 9+	Decrease	USD	1,925	1,750	1,650	1,500
ZC9110	Hedge/Member	Contracts 9+	Decrease	USD	1,750	1,750	1,500	1,500
ERIS STANDARD 30Y INT RATE SWAP FUT (ZD9130)								
ZD9130	Spec	Contracts 1-4	Decrease	USD	4,950	4,500	4,400	4,000
ZD9130	Hedge/Member	Contracts 1-4	Decrease	USD	4,500	4,500	4,000	4,000
ZD9130	Spec	Contracts 5-8	Decrease	USD	4,950	4,500	4,400	4,000
ZD9130	Hedge/Member	Contracts 5-8	Decrease	USD	4,500	4,500	4,000	4,000
ZD9130	Spec	Contracts 9+	Decrease	USD	4,950	4,500	4,400	4,000
ZD9130	Hedge/Member	Contracts 9+	Decrease	USD	4,500	4,500	4,000	4,000
INTEREST RATES - Outright Rates								
10-YEAR USD MAC SWAP FUTURES (N1U)								
N1U	Spec		Decrease	USD	1,925	1,750	1,650	1,500
N1U	Hedge/Member		Decrease	USD	1,750	1,750	1,500	1,500
30 YR U.S. TREASURY BOND FUTURES (17)								
17	Spec	Month 1	Decrease	USD	3,465	3,150	3,300	3,000
17	Hedge/Member	Month 1	Decrease	USD	3,150	3,150	3,000	3,000
17	Spec	Month 2+	Decrease	USD	3,465	3,150	3,300	3,000
17	Hedge/Member	Month 2+	Decrease	USD	3,150	3,150	3,000	3,000
30-YEAR USD MAC SWAP FUTURES (B1U)								
B1U	Spec		Decrease	USD	4,950	4,500	4,400	4,000
B1U	Hedge/Member		Decrease	USD	4,500	4,500	4,000	4,000
LONG TERM U.S. TREASURY BOND FUTURE (UBE)								
UBE	Spec		Decrease	USD	4,290	3,900	4,070	3,700
UBE	Hedge/Member		Decrease	USD	3,900	3,900	3,700	3,700
ULTRA 10-YEAR U S TREASURY NOTE FUT (TN)								
TN	Spec		Decrease	USD	1,870	1,700	1,650	1,500
TN	Hedge/Member		Decrease	USD	1,700	1,700	1,500	1,500

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Outright Rates								
			METALS - Outright Rates					
PALLADIUM FUTURES NYMEX (PA)								
PA	Spec	Mnth 1	Increase	USD	10,340	9,400	12,320	11,200
PA	Hedge/Member	Mnth 1	Increase	USD	9,400	9,400	11,200	11,200
PA	Spec	Mnth 2-3	Increase	USD	8,800	8,000	10,560	9,600
PA	Hedge/Member	Mnth 2-3	Increase	USD	8,000	8,000	9,600	9,600
PA	Spec	Mnth 4+	Increase	USD	8,800	8,000	10,560	9,600
PA	Hedge/Member	Mnth 4+	Increase	USD	8,000	8,000	9,600	9,600
			NGL/PETROCHEMICALS - Outright Rates					
MONT BELVIEU ETHYLENE FIN BALMO FUT (MBB)								
MBB	Spec		Decrease	USD	5,500	5,000	4,538	4,125
MBB	Hedge/Member		Decrease	USD	5,000	5,000	4,125	4,125
			PETROLEUM CRACKS AND SPREADS - Outright Rates					
SINGAPORE GASOIL VS ICE (GA)								
GA	Spec	Mnths 7+	Increase	USD	275	250	413	375
GA	Hedge/Member	Mnths 7+	Increase	USD	250	250	375	375

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Intra Spreads								
				METALS - Intra Spreads				
Palladium - Tier 1 vs Tier 2 (PALLADIUM FUTURES NYMEX)								
PA	Spec		Increase	USD	3,300	3,000	3,850	3,500
PA	Hedge/Member		Increase	USD	3,000	3,000	3,500	3,500
Palladium - Tier 2 vs Tier 2 (PALLADIUM FUTURES NYMEX)								
PA	Spec		Increase	USD	3,300	3,000	3,850	3,500
PA	Hedge/Member		Increase	USD	3,000	3,000	3,500	3,500

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

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

Inter-commodity Spread Rates

COAL - Inter-commodity Spread Rates

DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs COAL (API 2) CIF ARA (ARGUS/MCCLOSKEY) SWAP FUTURESS (NY-MTF - CME)

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Spread Credit Rate	New	+1:-1			50%	50%

DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs COAL (API 4) FOB RICHARDS BAY (ARGUS/MCCLOSKEY) SWAP FUTURES (NY-MFF - CME)

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Spread Credit Rate	New	+1:-1			40%	40%

UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs COAL (API 2) CIF ARA (ARGUS/MCCLOSKEY) SWAP FUTURESS (NY-MTF - CME)

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Spread Credit Rate	New	+1:-1			50%	50%

UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs COAL (API 4) FOB RICHARDS BAY (ARGUS/MCCLOSKEY) SWAP FUTURES (NY-MFF - CME)

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Spread Credit Rate	New	+1:-1			40%	40%

CRUDE OIL - Inter-commodity Spread Rates

DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs BRENT CRUDE OIL LAST DAY FINANCIAL FUTURES (NY-BZ - CME)

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Spread Credit Rate	New	+1:-2			35%	35%
Spread Credit Rate	New	+1:-2			40%	40%

DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs LIGHT SWEET CRUDE OIL FUTURES (NY-CL - CME)

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Spread Credit Rate	New	+1:-2			35%	35%
Spread Credit Rate	New	+1:-2			40%	40%

DUTCH TTF NATURAL GAS CALENDAR MONTH FUTURES (NY-TTF - CME) vs BRENT CRUDE OIL LAST DAY FINANCIAL FUTURES (NY-BZ - CME)

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Spread Credit Rate	New	+2:-1			35%	35%
Spread Credit Rate	New	+2:-1			40%	40%

DUTCH TTF NATURAL GAS CALENDAR MONTH FUTURES (NY-TTF - CME) vs LIGHT SWEET CRUDE OIL FUTURES (NY-CL - CME)

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Spread Credit Rate	New	+2:-1			35%	35%
Spread Credit Rate	New	+2:-1			40%	40%

UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs LIGHT SWEET CRUDE OIL FUTURES (NY-CL - CME)

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Spread Credit Rate	New	+1:-2			30%	30%

UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs LIGHT SWEET CRUDE OIL FUTURES (NY-CL - CME). 284139

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Spread Credit Rate	New	+1:-2			30%	30%
Spread Credit Rate	New	+1:-2			35%	35%

UK NBP NATURAL GAS CALENDAR MONTH FUTURES (NY-UKG - CME) vs BRENT CRUDE OIL LAST DAY FINANCIAL FUTURES (NY-BZ - CME)

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
Spread Credit Rate	New	+2:-1			30%	30%
Spread Credit Rate	New	+2:-1			35%	35%
UK NBP NATURAL GAS CALENDAR MONTH FUTURES (NY-UKG - CME) vs LIGHT SWEET CRUDE OIL FUTURES (NY-CL - CME)						
Spread Credit Rate	New	+2:-1			30%	30%
Spread Credit Rate	New	+2:-1			35%	35%
ELECTRICITY - Inter-commodity Spread Rates						
DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs GERMAN POWER BASELOAD CALENDAR MONTH FUTURES (NY-DEB - CME)						
Spread Credit Rate	New	+1:-4			25%	25%
DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs GERMAN POWER PEAKLOAD CALENDAR MONTH FUTURES (NY-DEP - CME)						
Spread Credit Rate	New	+1:-11			25%	25%
DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs ITALIAN POWER BASELOAD (GME) CALENDAR MONTH FUTURES (NY-ITB - CME)						
Spread Credit Rate	New	+1:-4			40%	40%
Spread Credit Rate	New	+1:-4			40%	40%
DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs ITALIAN POWER PEAKLOAD (GME) CALENDAR MONTH FUTURES (NY-ITP - CME)						
Spread Credit Rate	New	+1:-11			35%	35%
UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs GERMAN POWER BASELOAD CALENDAR MONTH FUTURES (NY-DEB - CME)						
Spread Credit Rate	New	+1:-4			20%	20%
UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs GERMAN POWER PEAKLOAD CALENDAR MONTH FUTURES (NY-DEP - CME)						
Spread Credit Rate	New	+1:-11			20%	20%
UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs ITALIAN POWER BASELOAD (GME) CALENDAR MONTH FUTURES (NY-ITB - CME)						
Spread Credit Rate	New	+1:-4			35%	35%
UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs ITALIAN POWER PEAKLOAD (GME) CALENDAR MONTH FUTURES (NY-ITP - CME)						
Spread Credit Rate	New	+1:-11			30%	30%

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

DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs BRENT CRUDE OIL LAST DAY FINANCIAL FUTURES (NY-BZ - CME)

Spread Credit Rate	New	+1:-2			35%	35%
Spread Credit Rate	New	+1:-2			40%	40%

DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs COAL (API 2) CIF ARA (ARGUS/MCCLOSKEY) SWAP FUTURESS (NY-MTF - CME)

Spread Credit Rate	New	+1:-1			50%	50%

DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs COAL (API 4) FOB RICHARDS BAY (ARGUS/MCCLOSKEY) SWAP FUTURES (NY-MFF - CME)

Spread Credit Rate	New	+1:-1			40%	40%

DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs DUTCH TTF NATURAL GAS CALENDAR MONTH FUTURES (NY-TTF - CME)

Spread Credit Rate	New	+1:-4			90%	90%

DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs GERMAN POWER BASELOAD CALENDAR MONTH FUTURES (NY-DEB - CME)

Spread Credit Rate	New	+1:-4			25%	25%

DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs GERMAN POWER PEAKLOAD CALENDAR MONTH FUTURES (NY-DEP - CME)

Spread Credit Rate	New	+1:-11			25%	25%

DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs ITALIAN POWER BASELOAD (GME) CALENDAR MONTH FUTURES (NY-ITB - CME)

Spread Credit Rate	New	+1:-4			40%	40%
Spread Credit Rate	New	+1:-4			40%	40%

DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs ITALIAN POWER PEAKLOAD (GME) CALENDAR MONTH FUTURES (NY-ITP - CME)

Spread Credit Rate	New	+1:-11			35%	35%

DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs LIGHT SWEET CRUDE OIL FUTURES (NY-CL - CME)

Spread Credit Rate	New	+1:-2			35%	35%
Spread Credit Rate	New	+1:-2			40%	40%

DUTCH TTF NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-TTE - CME) vs UK NBP NATURAL GAS CALENDAR MONTH FUTURES (NY-UKG - CME)

Spread Credit Rate	New	+1:-3			70%	70%

DUTCH TTF NATURAL GAS CALENDAR MONTH FUTURES (NY-TTF - CME) vs BRENT CRUDE OIL LAST DAY FINANCIAL FUTURES (NY-BZ - CME)

Spread Credit Rate	New	+2:-1			35%	35%
Spread Credit Rate	New	+2:-1			40%	40%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
DUTCH TTF NATURAL GAS CALENDAR MONTH FUTURES (NY-TTF - CME) vs LIGHT SWEET CRUDE OIL FUTURES (NY-CL - CME)						
Spread Credit Rate	New	+2:-1			35%	35%
Spread Credit Rate	New	+2:-1			40%	40%
UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs COAL (API 2) CIF ARA (ARGUS/MCCLOSKEY) SWAP FUTURESS (NY-MTF - CME)						
Spread Credit Rate	New	+1:-1			50%	50%
UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs COAL (API 4) FOB RICHARDS BAY (ARGUS/MCCLOSKEY) SWAP FUTURES (NY-MFF - CME)						
Spread Credit Rate	New	+1:-1			40%	40%
UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs DUTCH TTF NATURAL GAS CALENDAR MONTH FUTURES (NY-TTF - CME)						
Spread Credit Rate	New	+1:-4			73%	73%
UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs GERMAN POWER BASELOAD CALENDAR MONTH FUTURES (NY-DEB - CME)						
Spread Credit Rate	New	+1:-4			20%	20%
UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs GERMAN POWER PEAKLOAD CALENDAR MONTH FUTURES (NY-DEP - CME)						
Spread Credit Rate	New	+1:-11			20%	20%
UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs ITALIAN POWER BASELOAD (GME) CALENDAR MONTH FUTURES (NY-ITB - CME)						
Spread Credit Rate	New	+1:-4			35%	35%
UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs ITALIAN POWER PEAKLOAD (GME) CALENDAR MONTH FUTURES (NY-ITP - CME)						
Spread Credit Rate	New	+1:-11			30%	30%
UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs LIGHT SWEET CRUDE OIL FUTURES (NY-CL - CME)						
Spread Credit Rate	New	+1:-2			30%	30%
UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs LIGHT SWEET CRUDE OIL FUTURES (NY-CL - CME). 284139						
Spread Credit Rate	New	+1:-2			30%	30%
Spread Credit Rate	New	+1:-2			35%	35%
UK NBP NATURAL GAS (USD/MMBTU) (ICIS HEREN) FRONT MONTH FUTURES (NY-NBP - CME) vs UK NBP NATURAL GAS CALENDAR MONTH FUTURES (NY-UKG - CME)						
Spread Credit Rate	New	+1:-3			75%	75%
UK NBP NATURAL GAS CALENDAR MONTH FUTURES (NY-UKG - CME) vs BRENT CRUDE OIL LAST DAY FINANCIAL FUTURES (NY-BZ - CME)						
Spread Credit Rate	New	+2:-1			30%	30%
Spread Credit Rate	New	+2:-1			35%	35%

SPAN MINIMUM PERFORMANCE BOND REQUIREMENTS

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spread Rates						
UK NBP NATURAL GAS CALENDAR MONTH FUTURES (NY-UKG - CME) vs LIGHT SWEET CRUDE OIL FUTURES (NY-CL - CME)						
Spread Credit Rate	New	+2:-1			30%	30%
Spread Credit Rate	New	+2:-1			35%	35%
EQUITY INDEX - Inter-commodity Spread Rates						
E-MINI RUSSELL 2000 INDEX FUTURES (RTY - CME) vs E-MINI S&P MIDCAP 400 (ME - CME)						
Spread Credit Rate	Increase	+5:-2	75%	75%	80%	80%