

17-285

TO: Clearing Member Firms

Chief Financial Officers Back Office Managers Margin Managers

FROM: CME Clearing

SUBJECT: Performance Bond Requirements

DATE: Friday, July 21, 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

Monday, July 24, 2017.

Current rates as of:

Friday, July 21, 2017.

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Outrig	ıht Rates							
			C	OAL - Οι	ıtright Rates			
AUST	RALIAN COKING	(PLATTS) LOW	VOL (ALW)					
ALW	Spec	Mnth 1	Decrease	USD	33,000	30,000	27,500	25,000
ALW	Hedge/Member	Mnth 1	Decrease	USD	30,000	30,000	25,000	25,000
ALW	Spec	Mnth 2	Decrease	USD	33,000	30,000	27,500	25,000
ALW	Hedge/Member	Mnth 2	Decrease	USD	30,000	30,000	25,000	25,000
ALW	Spec	Mnths 3-4	Decrease	USD	33,000	30,000	27,500	25,000
ALW	Hedge/Member	Mnths 3-4	Decrease	USD	30,000	30,000	25,000	25,000
ALW	Spec	Mnths 5-11	Decrease	USD	33,000	30,000	27,500	25,000
ALW	Hedge/Member	Mnths 5-11	Decrease	USD	30,000	30,000	25,000	25,000
ALW	Spec	Mnths 12-14	Decrease	USD	26,400	24,000	20,900	19,000
ALW	Hedge/Member	Mnths 12-14	Decrease	USD	24,000	24,000	19,000	19,000
ALW	Spec	Mnths 15+	Decrease	USD	22,000	20,000	16,500	15,000
ALW	Hedge/Member	Mnths 15+	Decrease	USD	20,000	20,000	15,000	15,000
EAST	ERN RAIL DELIVE	RY CSX COAL	FUT (QX)					
QX	Spec	Mths 1	Decrease	USD	3,850	3,500	3,025	2,750
QX	Hedge/Member	Mths 1	Decrease	USD	3,500	3,500	2,750	2,750
QX	Spec	Mths 2-3	Decrease	USD	3,575	3,250	2,750	2,500
QX	Hedge/Member	Mths 2-3	Decrease	USD	3,250	3,250	2,500	2,500
QX	Spec	Mths 4-6	Decrease	USD	3,575	3,250	2,750	2,500
QX	Hedge/Member	Mths 4-6	Decrease	USD	3,250	3,250	2,500	2,500
QX	Spec	Mnths 7-11	Decrease	USD	3,080	2,800	2,200	2,000
QX	Hedge/Member	Mnths 7-11	Decrease	USD	2,800	2,800	2,000	2,000
QX	Spec	Mnths 12+	Decrease	USD	3,080	2,800	2,200	2,000
QX	Hedge/Member	Mnths 12+	Decrease	USD	2,800	2,800	2,000	2,000
WEST	ERN RAIL DELIVE	ERY PRB COAL	. FUT (QP)					
QP	Spec	Mnth 1	Decrease	USD	715	650	605	550
QP	Hedge/Member	Mnth 1	Decrease	USD	650	650	550	550
QP	Spec	Mnth 2	Decrease	USD	550	500	440	400
QP	Hedge/Member	Mnth 2	Decrease	USD	500	500	400	400
QP	Spec	Mnths 3-6	Decrease	USD	440	400	330	300
QP	Hedge/Member	Mnths 3-6	Decrease	USD	400	400	300	300
QP	Spec	Mnth 7+	Decrease	USD	440	400	330	300
QP	Hedge/Member	Mnth 7+	Decrease	USD	400	400	300	300

CC	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Outri	ght Rates							
			ENVIRO	NMENTA	AL - Outright I	Rates		
IN DE	LIVERY MONTH E	UA FUTURES (6T)					
6T	Spec	Mth 1	Decrease	EUR	858	780	660	600
6T	Hedge/Member	Mth 1	Decrease	EUR	780	780	600	600
6T	Spec	Mths 2+	Decrease	EUR	858	780	660	600
6T	Hedge/Member	Mths 2+	Decrease	EUR	780	780	600	600
			ETH	IANOL - (Outright Rate	s		
CHIC	AGO ETHANOL FU	JT (CU)						
CU	Spec	Mth 1	Decrease	USD	3,300	3,000	2,860	2,600
CU	Hedge/Member	Mth 1	Decrease	USD	3,000	3,000	2,600	2,600
CU	Spec	Mths 2	Decrease	USD	2,860	2,600	2,530	2,300
CU	Hedge/Member	Mths 2	Decrease	USD	2,600	2,600	2,300	2,300
CU	Spec	Mth 3-7	Decrease	USD	2,420	2,200	2,310	2,100
CU	Hedge/Member	Mth 3-7	Decrease	USD	2,200	2,200	2,100	2,100
CU	Spec	Mnth 8+	Decrease	USD	1,980	1,800	1,870	1,700
CU	Hedge/Member	Mnth 8+	Decrease	USD	1,800	1,800	1,700	1,700
NEW	YORK ETHANOL I	FUT (EZ)						
EZ	Spec	Mth 1	Decrease	USD	3,520	3,200	2,970	2,700
ΕZ	Hedge/Member	Mth 1	Decrease	USD	3,200	3,200	2,700	2,700
ΕZ	Spec	Mth 2	Decrease	USD	3,080	2,800	2,750	2,500
ΕZ	Hedge/Member	Mth 2	Decrease	USD	2,800	2,800	2,500	2,500
ΕZ	Spec	Mths 3-7	Decrease	USD	2,970	2,700	2,640	2,400
ΕZ	Hedge/Member	Mths 3-7	Decrease	USD	2,700	2,700	2,400	2,400
ΕZ	Spec	Mnths 8+	Decrease	USD	2,970	2,700	2,640	2,400
ΕZ	Hedge/Member	Mnths 8+	Decrease	USD	2,700	2,700	2,400	2,400
			NATUR	RAL GAS	- Outright Ra	ates		
HOUS	STON SHIP CHANN	NEL BASIS FUT	(NH)					
NH	Spec	Mnth 2	Increase	USD	39	35	55	50
NH	Hedge/Member	Mnth 2	Increase	USD	35	35	50	50
NH	Spec	Mnths 3-6	Increase	USD	39	35	55	50
NH	Hedge/Member	Mnths 3-6	Increase	USD	35	35	50	50
NH	Spec	Mnths 7-12	Increase	USD	39	35	55	50
NH	Hedge/Member	Mnths 7-12	Increase	USD	35	35	50	50
NH	Spec	Mnths 13-21	Increase	USD	39	35	55	50
NH	Hedge/Member	Mnths 13-21	Increase	USD	35	35	50	50

СС	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Outri	ght Rates							
		PETI	ROLEUM CRA	CKS AN	SPREADS -	- Outright Rates		
SING	APORE GASOIL V	S ICE (GA)						
GA	Spec	Mnths 3-6	Increase	USD	275	250	358	325
GA	Hedge/Member	Mnths 3-6	Increase	USD	250	250	325	325
GA	Spec	Mnths 7+	Increase	USD	413	375	495	450
GA	Hedge/Member	Mnths 7+	Increase	USD	375	375	450	450
			REFINED	PRODUC	CTS - Outrigh	t Rates		
GULF	COAST ULSD CA	LENDAR FUT	(LY)					
LY	Spec	Mnth 1	Decrease	USD	3,135	2,850	2,750	2,500
LY	Hedge/Member	Mnth 1	Decrease	USD	2,850	2,850	2,500	2,500
LY	Spec	Mnths 2-6	Decrease	USD	3,135	2,850	2,750	2,500
LY	Hedge/Member	Mnths 2-6	Decrease	USD	2,850	2,850	2,500	2,500
LY	Spec	Mnths 7-12	Decrease	USD	2,860	2,600	2,530	2,300
LY	Hedge/Member	Mnths 7-12	Decrease	USD	2,600	2,600	2,300	2,300
LY	Spec	Mnths 13+	Decrease	USD	2,750	2,500	2,420	2,200
LY	Hedge/Member	Mnths 13+	Decrease	USD	2,500	2,500	2,200	2,200

СС	Rate Type	Description	Change	ISO	Current Initial	Current Maintenance	New Initial	New Maintenance
Intra S	Spreads							
			ETH	HANOL -	Intra Sprea	ds		

		ETI	HANOL - In	tra Spreads			
Ethar	nol (Platts) T2 FOB Rottero	dam Including Duty S	Swap - Mntl	n 1 vs. All Mont	hs (ETHANOL(F	PL) T2 FOB RTF	RDM INCL)
Z1	Spec	Decrease	EUR	3,850	3,500	2,750	2,500
Z1	Hedge/Member	Decrease	EUR	3,500	3,500	2,500	2,500
Ethar	nol (Platts) T2 FOB Rottero	dam Including Duty S	Swap - Mntl	n 2+ All Months	(ETHANOL(PL) T2 FOB RTRD	M INCL)
Z1	Spec	Decrease	EUR	2,530	2,300	1,980	1,800
Z1	Hedge/Member	Decrease	EUR	2,300	2,300	1,800	1,800

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
nter-commodity Spre	ead Rates					
	CRI	JDE OIL - Inter-	-commodity Sp	read Rates		
ARGUS PROPANE FA FUTURES (NY-UB - CI		AP FUTURES (I	NY-7E - CME) v	s DATED BRENT	Γ (PLATTS) CAL	ENDAR SWAP
Spread Credit Rate	Decrease	+1:-12	60%	60%	50%	50%
BRENT (ICE) CALEND	OAR SWAP FUTURE	S (NY-CY - CM	E) vs CRUDE O	IL FINANCIAL F	UTURES (NY-W	/S - CME)
Spread Credit Rate	Increase	+1:-1	91%	91%	93%	93%
BRENT (ICE) CALEND (NY-MP - CME)	OAR SWAP FUTURE	S (NY-CY - CM	E) vs HEATING	OIL CALENDAR	R SWAP FUTUR	ES
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
BRENT (ICE) CALEND	OAR SWAP FUTURE	S (NY-CY - CM	E) vs HEATING	OIL FINANCIAL	FUTURES (NY-	·BH - CME)
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
BRENT (ICE) CALEND (NY-23 - CME)	OAR SWAP FUTURE	S (NY-CY - CM	E) vs HEATING	OIL LAST DAY	FINANCIAL FUT	URES
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%
BRENT (ICE) CALEND	OAR SWAP FUTURE	S (NY-CY - CM	E) vs LIGHT SV	VEET CRUDE OI	L FUTURES (N	Y-CL - CME)
Spread Credit Rate	Increase	+1:-1	91%	91%	93%	93%
BRENT (ICE) CALEND (NY-HO - CME)	OAR SWAP FUTURE	S (NY-CY - CM	E) vs NEW YOF	RK HARBOR NO	. 2 HEATING OI	L FUTURES
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
BRENT (ICE) CALEND	OAR SWAP FUTURE	S (NY-CY - CM	E) vs RBOB GA	ASOLINE FUTUR	ES (NY-RB - CI	ΛE)
Spread Credit Rate	Decrease	+1:-1	67%	67%	62%	62%
BRENT CRUDE OIL B	ULLET SWAP FINA	NCIAL (NYM-B	B, BZ, CY) vs H	EATING OIL (NY	'M-HO, BH, MP))
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
Spread Credit Rate	Decrease	+1:-1	86%	86%	84%	84%
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%
BRENT CRUDE OIL LA (NY-MP - CME)	AST DAY FINANCIA	L FUTURES (N	Y-BZ - CME) vs	HEATING OIL C	CALENDAR SWA	AP FUTURES
Spread Credit Rate	Decrease	+1:-1	86%	86%	84%	84%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
BRENT CRUDE OIL LA (NY-BH - CME)	AST DAY FINANCIA	L FUTURES (N	Y-BZ - CME) vs	HEATING OIL F	INANCIAL FUT	URES
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spre	ad Rates					
Spread Credit Rate	Decrease	+1:-1	86%	86%	84%	84%
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%
BRENT CRUDE OIL LA (NY-23 - CME)	AST DAY FINANC	IAL FUTURES (N	Y-BZ - CME) vs	HEATING OIL L	AST DAY FINAN	CIAL FUTURE
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
Spread Credit Rate	Decrease	+1:-1	86%	86%	84%	84%
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%
BRENT CRUDE OIL LA NY-CL - CME)	AST DAY FINANC	IAL FUTURES (N	Y-BZ - CME) vs	LIGHT SWEET	CRUDE OIL FUT	URES
Spread Credit Rate	Decrease	+1:-1	91%	91%	90%	90%
Spread Credit Rate	Increase	+1:-1	91%	91%	93%	93%
BRENT CRUDE OIL LA FUTURES (NY-HO - CI		IAL FUTURES (N	Y-BZ - CME) vs	NEW YORK HA	RBOR NO. 2 HE.	ATING OIL
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
Spread Credit Rate	Decrease	+1:-1	86%	86%	84%	84%
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%
Spread Credit Rate	Decrease	+1:-1	70%	70%	62%	62%
BRENT CRUDE OIL LA	AST DAY FINANC	IAL FUTURES (N	Y-BZ - CME) vs	RBOB GASOLI	NE FUTURES (N	Y-RB - CME)
Spread Credit Rate	Decrease	+1:-1	67%	67%	62%	62%
BRENT CRUDE OIL PE FUTURES (NY-MP - CE		ANCIAL FUTURE	S (NY-BB - CMI	E) vs HEATING (OIL CALENDAR	SWAP
Spread Credit Rate	Decrease	+1:-1	86%	86%	84%	84%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
BRENT CRUDE OIL PE NY-BH - CME)	ENULTIMATE FIN	ANCIAL FUTURE	S (NY-BB - CMI	E) vs HEATING (OIL FINANCIAL F	TUTURES
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
Spread Credit Rate	Decrease	+1:-1	86%	86%	84%	84%
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%
BRENT CRUDE OIL PE FUTURES (NY-23 - CM		ANCIAL FUTURE	S (NY-BB - CMI	E) vs HEATING (OIL LAST DAY FI	NANCIAL
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
Spread Credit Rate	Decrease	+1:-1	86%	86%	84%	84%
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
nter-commodity Sprea	ad Rates					
BRENT CRUDE OIL PE NY-CL - CME)	ENULTIMATE FINA	NCIAL FUTURE	S (NY-BB - CM	E) vs LIGHT SW	EET CRUDE OIL	. FUTURES
Spread Credit Rate	Decrease	+1:-1	91%	91%	90%	90%
Spread Credit Rate	Increase	+1:-1	91%	91%	93%	93%
BRENT CRUDE OIL PE (NY-RB - CME)	NULTIMATE FINA	NCIAL FUTURE	S (NY-BB - CM	E) vs RBOB GAS	SOLINE FUTURE	ES
Spread Credit Rate	Decrease	+1:-1	67%	67%	62%	62%
CRUDE OIL FINANCIA (NY-BZ - CME)	L FUTURES (NY-W	/S - CME) vs BR	RENT CRUDE O	IL LAST DAY FII	NANCIAL FUTU	RES
Spread Credit Rate	Decrease	+1:-1	91%	91%	90%	90%
Spread Credit Rate	Increase	+1:-1	91%	91%	93%	93%
CRUDE OIL FINANCIA (NY-BB - CME)	L FUTURES (NY-W	/S - CME) vs BR	RENT CRUDE O	IL PENULTIMAT	E FINANCIAL F	JTURES
Spread Credit Rate	Decrease	+1:-1	91%	91%	90%	90%
Spread Credit Rate	Increase	+1:-1	91%	91%	93%	93%
CRUDE OIL FINANCIA (NY-HO - CME)	L FUTURES (NY-W	/S - CME) vs NE	W YORK HARI	BOR NO. 2 HEAT	ING OIL FUTUR	ES
Spread Credit Rate	New	+1:-1			81%	81%
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	84%	84%	82%	82%
Spread Credit Rate	Decrease	+1:-1	79%	79%	77%	77%
CRUDE OIL FINANCIA	L FUTURES (NY-W	/S - CME) vs RE	OB GASOLINE	CALENDAR SV	VAP FUTURES (NY-RL - CME)
Spread Credit Rate	Decrease	+1:-1	62%	62%	59%	59%
CRUDE OIL FINANCIA	L FUTURES (NY-W	/S - CME) vs RE	OB GASOLINE	FUTURES (NY-	RB - CME)	
Spread Credit Rate	Decrease	+1:-1	63%	63%	58%	58%
Spread Credit Rate	Decrease	+1:-1	62%	62%	59%	
CRUDE OIL LAST DAY (NY-CY - CME)						
Spread Credit Rate	Increase	+1:-1	91%	91%	93%	93%
CRUDE OIL LAST DAY (NY-BZ - CME)	FINANCIAL FUTU	RES (NY-26 - C	ME) vs BRENT	CRUDE OIL LAS	ST DAY FINANC	AL FUTURES
Spread Credit Rate	Decrease	+1:-1	91%	91%	90%	90%
Spread Credit Rate	Increase	+1:-1	91%	91%	93%	93%
CRUDE OIL LAST DAY FUTURES (NY-BB - CN		IRES (NY-26 - C	ME) vs BRENT	CRUDE OIL PE	NULTIMATE FINA	ANCIAL
Spread Credit Rate	Decrease	+1:-1	91%	91%	90%	90%
Spread Credit Rate	Increase	+1:-1	91%	91%	93%	93%

	Change	Ratio	Current Initial M	Current laintenance	New Initial	New Maintenance
nter-commodity Spre	ad Rates					
EUROPEAN NAPHTHA CALENDAR SWAP FU			TURES (NY-UN - C	ME) vs DATE	D BRENT (PLAT	TS)
Spread Credit Rate	Decrease	+1:-9	84%	84%	80%	80%
EUROPEAN PROPANI SWAP FUTURES (NY-		S) SWAP FUTUR	ES (NY-PS - CME)	vs DATED B	RENT (PLATTS)	CALENDAR
Spread Credit Rate	Decrease	+1:-12	55%	55%	50%	50%
IEATING OIL LAST D	AY FINANCIAL FU	TURES (NY-23 -	CME) vs CRUDE (OIL FINANCIA	L FUTURES (NY	-WS - CME)
Spread Credit Rate	New	+1:-1			81%	81%
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	79%	79%	77%	77%
Spread Credit Rate	Decrease	+1:-1	84%	84%	82%	82%
HEATING OIL LAST DA NY-26 - CME)	AY FINANCIAL FU	TURES (NY-23 -	CME) vs CRUDE (OIL LAST DAY	FINANCIAL FU	TURES
Spread Credit Rate	New	+1:-1			81%	81%
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	79%	79%	77%	77%
Spread Credit Rate	Decrease	+1:-1	84%	84%	82%	82%
HEATING OIL LAST D	AY FINANCIAL FU	TURES (NY-23 -	CME) vs LIGHT S	WEET CRUDE	OIL FUTURES	(NY-CL - CME)
	AY FINANCIAL FU	+1:-1	CME) vs LIGHT S	WEET CRUDE	E OIL FUTURES	
Spread Credit Rate			CME) vs LIGHT S	WEET CRUDE		81%
Spread Credit Rate Spread Credit Rate	New	+1:-1			81%	81% 83%
Spread Credit Rate Spread Credit Rate Spread Credit Rate	New Decrease	+1:-1	85%	85%	81% 83%	81% 83% 77%
Spread Credit Rate Spread Credit Rate Spread Credit Rate Spread Credit Rate	New Decrease Decrease Decrease	+1:-1 +1:-1 +1:-1 +1:-1	85% 79% 84%	85% 79% 84%	81% 83% 77% 82%	81% 83% 77% 82%
Spread Credit Rate HEATING OIL LAST Da	New Decrease Decrease Decrease	+1:-1 +1:-1 +1:-1 +1:-1	85% 79% 84%	85% 79% 84%	81% 83% 77% 82%	81% 83% 77% 82%
Spread Credit Rate Spread Credit Rate Spread Credit Rate Spread Credit Rate HEATING OIL LAST Da	New Decrease Decrease Decrease AY FINANCIAL FU	+1:-1 +1:-1 +1:-1 +1:-1 TURES (NY-23 -	85% 79% 84% CME) vs WTI CAL	85% 79% 84% ENDAR SWA	81% 83% 77% 82% P FUTURES (NY	81% 83% 77% 82% -CS - CME)
Spread Credit Rate Spread Credit Rate Spread Credit Rate Spread Credit Rate HEATING OIL LAST Da Spread Credit Rate Spread Credit Rate	New Decrease Decrease AY FINANCIAL FU Decrease Decrease	+1:-1 +1:-1 +1:-1 +1:-1 FURES (NY-23 - +1:-1 +1:-1	85% 79% 84% CME) vs WTI CAL 79% 85%	85% 79% 84% ENDAR SWA 79% 85%	81% 83% 77% 82% P FUTURES (NY 77% 83%	81% 83% 77% 82% -CS - CME) 77% 83%
Spread Credit Rate HEATING OIL LAST D	New Decrease Decrease AY FINANCIAL FU Decrease Decrease	+1:-1 +1:-1 +1:-1 +1:-1 FURES (NY-23 - +1:-1 +1:-1	85% 79% 84% CME) vs WTI CAL 79% 85%	85% 79% 84% ENDAR SWA 79% 85%	81% 83% 77% 82% P FUTURES (NY 77% 83%	81% 83% 77% 82% -CS - CME) 77% 83%
Spread Credit Rate	New Decrease Decrease AY FINANCIAL FU Decrease Decrease Decrease	+1:-1 +1:-1 +1:-1 +1:-1 FURES (NY-23 - +1:-1 +1:-1 Y-CL - CME) vs I	85% 79% 84% CME) vs WTI CAL 79% 85% HEATING OIL CAL	85% 79% 84% ENDAR SWA 79% 85% ENDAR SWA	81% 83% 77% 82% P FUTURES (NY 77% 83%	81% 83% 77% 82% -CS - CME) 77% 83% -MP - CME)
Spread Credit Rate Spread Credit Rate Spread Credit Rate Spread Credit Rate BEATING OIL LAST DA Spread Credit Rate	New Decrease Decrease AY FINANCIAL FUT Decrease Decrease E OIL FUTURES (N Decrease Decrease	+1:-1 +1:-1 +1:-1 1URES (NY-23 - +1:-1 +1:-1 Y-CL - CME) vs I +1:-1 +1:-1	85% 79% 84% CME) vs WTI CAL 79% 85% HEATING OIL CAL 84% 85%	85% 79% 84% ENDAR SWA 85% ENDAR SWA 84% 85%	81% 83% 77% 82% P FUTURES (NY 83% P FUTURES (NY 82% 83%	81% 83% 77% 82% -CS - CME) 77% 83% 7-MP - CME) 82%
Spread Credit Rate Spread Credit Rate Spread Credit Rate Spread Credit Rate HEATING OIL LAST Da Spread Credit Rate Spread Credit Rate Spread Credit Rate LIGHT SWEET CRUDE	New Decrease Decrease AY FINANCIAL FUT Decrease Decrease E OIL FUTURES (N Decrease Decrease	+1:-1 +1:-1 +1:-1 1URES (NY-23 - +1:-1 +1:-1 Y-CL - CME) vs I +1:-1 +1:-1	85% 79% 84% CME) vs WTI CAL 79% 85% HEATING OIL CAL 84% 85%	85% 79% 84% ENDAR SWA 85% ENDAR SWA 84% 85%	81% 83% 77% 82% P FUTURES (NY 83% P FUTURES (NY 82% 83%	81% 83% 77% 82% -CS - CME) 77% 83% 7-MP - CME) 82%
Spread Credit Rate	New Decrease Decrease AY FINANCIAL FUT Decrease Decrease E OIL FUTURES (N Decrease Decrease	+1:-1 +1:-1 +1:-1 1URES (NY-23 - +1:-1 +1:-1 Y-CL - CME) vs +1:-1 +1:-1	85% 79% 84% CME) vs WTI CAL 79% 85% HEATING OIL CAL 84% 85%	85% 79% 84% ENDAR SWA 85% ENDAR SWA 84% 85%	81% 83% 77% 82% P FUTURES (NY 83% P FUTURES (NY 82% 83%	81% 83% 77% 82% -CS - CME) 77% 83% -MP - CME) 82% 83% HO, BH, MP)
Spread Credit Rate	New Decrease Decrease AY FINANCIAL FUT Decrease Decrease E OIL FUTURES (N Decrease Decrease Decrease	+1:-1 +1:-1 +1:-1 TURES (NY-23 - +1:-1 +1:-1 Y-CL - CME) vs I +1:-1 +1:-1	85% 79% 84% CME) vs WTI CAL 79% 85% HEATING OIL CAL 84% 85%) vs HEATING OIL	85% 79% 84% ENDAR SWA 79% 85% ENDAR SWA 84% 85% FINANCIAL F	81% 83% 77% 82% P FUTURES (NY 77% 83% P FUTURES (NY 82% 83% FUTURES (NYM-	81% 83% 77% 82% -CS - CME) 77% 83% 7-MP - CME) 82% 83% HO, BH, MP)
Spread Credit Rate	New Decrease Decrease AY FINANCIAL FUT Decrease Decrease E OIL FUTURES (N Decrease Decrease E OIL FUTURES (N New Decrease	+1:-1 +1:-1 +1:-1 1URES (NY-23 - +1:-1 +1:-1 Y-CL - CME) vs I +1:-1 +1:-1 IYM-CL, CS, WS +1:-1 +1:-1	85% 79% 84% CME) vs WTI CAL 79% 85% HEATING OIL CAL 84% 85% vs HEATING OIL	85% 79% 84% ENDAR SWA 85% ENDAR SWA 84% 85% FINANCIAL F	81% 83% 77% 82% P FUTURES (NY 83% P FUTURES (NY 82% 83% FUTURES (NYM- 81% 83%	81% 83% 77% 82% -CS - CME) 77% 83% -MP - CME) 82% 83% HO, BH, MP) 81% 83%
Spread Credit Rate Spread Credit Rate Spread Credit Rate Spread Credit Rate HEATING OIL LAST DA Spread Credit Rate	New Decrease Decrease AY FINANCIAL FUT Decrease Decrease E OIL FUTURES (N Decrease	+1:-1 +1:-1 +1:-1 +1:-1 TURES (NY-23 - +1:-1 +1:-1 Y-CL - CME) vs I +1:-1 +1:-1 1YM-CL, CS, WS +1:-1 +1:-1 +1:-1	85% 79% 84% CME) vs WTI CAL 79% 85% HEATING OIL CAL 84% 85%) vs HEATING OIL 85% 84% 79%	85% 79% 84% ENDAR SWA 85% ENDAR SWA 84% 85% FINANCIAL F	81% 83% 77% 82% P FUTURES (NY 77% 83% P FUTURES (NYM- 81% 83% 82% 77%	81% 83% 77% 82% -CS - CME) 77% 83% (-MP - CME) 82% 83% HO, BH, MP) 81% 82% 77%
Spread Credit Rate Spread Credit Rate Spread Credit Rate Spread Credit Rate HEATING OIL LAST DA Spread Credit Rate	New Decrease Decrease AY FINANCIAL FUT Decrease Decrease E OIL FUTURES (N Decrease	+1:-1 +1:-1 +1:-1 +1:-1 TURES (NY-23 - +1:-1 +1:-1 Y-CL - CME) vs I +1:-1 +1:-1 1YM-CL, CS, WS +1:-1 +1:-1 +1:-1	85% 79% 84% CME) vs WTI CAL 79% 85% HEATING OIL CAL 84% 85%) vs HEATING OIL 85% 84% 79%	85% 79% 84% ENDAR SWA 85% ENDAR SWA 84% 85% FINANCIAL F	81% 83% 77% 82% P FUTURES (NY 77% 83% P FUTURES (NYM- 81% 83% 82% 77%	81% 83% 77% 82% -CS - CME) 77% 83% -MP - CME) 82% 83% HO, BH, MP) 81% 82% 77%

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spre	ad Rates					
RBOB GASOLINE CAI (NY-CY - CME)	LENDAR SWAP F	UTURES (NY-RL	- CME) vs BRE	NT (ICE) CALEN	IDAR SWAP FUT	URES
Spread Credit Rate	Decrease	+1:-1	70%	70%	62%	62%
RBOB GASOLINE CAI FUTURES (NY-BZ - CI		UTURES (NY-RL	- CME) vs BRE	NT CRUDE OIL	LAST DAY FINAI	NCIAL
Spread Credit Rate	Decrease	+1:-1	70%	70%	62%	62%
RBOB GASOLINE CA	LENDAR SWAP F	UTURES (NY-RL	- CME) vs WTI (CALENDAR SW	AP FUTURES (N	Y-CS - CME)
Spread Credit Rate	Decrease	+1:-1	63%	63%	58%	58%
RBOB GASOLINE FUT	TURES (NY-RB - C	ME) vs WTI CAL	ENDAR SWAP	FUTURES (NY-0	CS - CME)	
Spread Credit Rate	Decrease	+1:-1	62%	62%	59%	59%
RBOB GASOLINE LAS (NY-CY - CME)	ST DAY FINANCIA	L FUTURES (NY	-27 - CME) vs B	RENT (ICE) CAI	ENDAR SWAP I	FUTURES
Spread Credit Rate	Decrease	+1:-1	67%	67%	62%	62%
RBOB GASOLINE LAS FUTURES (NY-BZ - CN		L FUTURES (NY	-27 - CME) vs B	RENT CRUDE C	OIL LAST DAY FI	NANCIAL
Spread Credit Rate	Decrease	+1:-1	67%	67%	62%	62%
RBOB GASOLINE LAS FUTURES (NY-BB - CI		L FUTURES (NY	-27 - CME) vs B	RENT CRUDE C	DIL PENULTIMAT	E FINANCIAL
Spread Credit Rate	Decrease	+1:-1	67%	67%	62%	62%
WTI CALENDAR SWA (NY-BZ - CME)	P FUTURES (NY-0	CS - CME) vs BR	ENT CRUDE OIL	L LAST DAY FIN	IANCIAL FUTUR	ES
Spread Credit Rate	Increase	+1:-1	91%	91%	93%	93%
WTI CALENDAR SWA (NY-BB - CME)	P FUTURES (NY-0	CS - CME) vs BR	ENT CRUDE OIL	L PENULTIMATE	FINANCIAL FU	TURES
Spread Credit Rate	Increase	+1:-1	91%	91%	93%	93%
WTI CALENDAR SWA	P FUTURES (NY-C	CS - CME) vs HE	ATING OIL CALI	ENDAR SWAP F	UTURES (NY-M	P - CME)
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	84%	84%	81%	81%
WTI CALENDAR SWA (NY-HO - CME)	P FUTURES (NY-0	CS - CME) vs NE	W YORK HARBO	OR NO. 2 HEAT	ING OIL FUTURE	ES
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	79%	79%	77%	77%
	CRUDE	OIL SPREADS -	Inter-commodi	ty Spread Rates	3	
·						
CANADIAN LIGHT SW (NET ENERGY) INDEX			UTURES (NY-CII	L - CME) vs CAI	NADIAN HEAVY	CRUDE OIL

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
nter-commodity Spre	ead Rates					
	EQU	ITY INDEX - Inte	er-commodity	Spread Rates		
E-MINI RUSSELL 200 (XAR - CME)	0 INDEX FUTURES	(RTY - CME) vs	E-MINI REAL	ESTATE SELECT	SECTOR FUTU	IRES
Spread Credit Rate	New	+1:-2			55%	55%
E-MINI RUSSELL 200 XAY - CME)	0 INDEX FUTURES	(RTY - CME) vs	S&P SELECT	SECTOR - CONS	SUMER DISCRE	TIONARY
Spread Credit Rate	New	+1:-1			60%	60%
E-MINI RUSSELL 200	0 INDEX FUTURES	(RTY - CME) vs	S&P SELECT	SECTOR - CONS	SUMER STAPLE	S (XAP - CME)
Spread Credit Rate	New	+1:-1			55%	55%
E-MINI RUSSELL 200	0 INDEX FUTURES	(RTY - CME) vs	S&P SELECT	SECTOR - ENER	RGY (XAE - CME)
Spread Credit Rate	New	+1:-1			55%	55%
E-MINI RUSSELL 200	0 INDEX FUTURES	(RTY - CME) vs	S&P SELECT	SECTOR - FINAL	NCIAL (XAF - CI	ΛE)
Spread Credit Rate	New	+1:-1			55%	55%
E-MINI RUSSELL 200	0 INDEX FUTURES	(RTY - CME) vs	S&P SELECT	SECTOR - HEAL	TH CARE (XAV	- CME)
Spread Credit Rate	New	+1:-1			60%	60%
E-MINI RUSSELL 200	0 INDEX FUTURES	(RTY - CME) vs	S&P SELECT	SECTOR - INDU	STRIAL (XAI - C	ME)
Spread Credit Rate	New	+1:-1			65%	65%
E-MINI RUSSELL 200	0 INDEX FUTURES	(RTY - CME) vs	S&P SELECT	SECTOR - MATE	RIALS (XAB - C	ME)
Spread Credit Rate	New	+1:-1			65%	65%
E-MINI RUSSELL 200	0 INDEX FUTURES	(RTY - CME) vs	S&P SELECT	SECTOR - TECH	INOLOGY (XAK	- CME)
Spread Credit Rate	New	+1:-1			65%	65%
	NGL/PET	ROCHEMICALS	- Inter-commo	odity Spread Rate	es	
ARGUS PROPANE FA FUTURES (NY-UB - C	AR EAST INDEX SW			<u> </u>		ENDAR SWAP
Spread Credit Rate	Decrease	+1:-12	60%	60%	50%	50%
	E CIF ARA (ARGUS	S) SWAP FUTUR	ES (NY-PS - C	ME) vs DATED E	BRENT (PLATTS) CALENDAR
EUROPEAN PROPAN SWAP FUTURES (NY-						

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
nter-commodity Spre	ead Rates					
	REFINE	PRODUCTS -	Inter-commodi	ty Spread Rates	i	
BRENT (ICE) CALEND (NY-MP - CME)	OAR SWAP FUTURE	ES (NY-CY - CM	E) vs HEATING	OIL CALENDAR	R SWAP FUTURI	ES
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
BRENT (ICE) CALEND	OAR SWAP FUTURE	S (NY-CY - CM	E) vs HEATING	OIL FINANCIAL	FUTURES (NY-	BH - CME)
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
BRENT (ICE) CALEND (NY-23 - CME)	OAR SWAP FUTURE	ES (NY-CY - CM	E) vs HEATING	OIL LAST DAY	FINANCIAL FUT	URES
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%
BRENT (ICE) CALEND (NY-HO - CME)	OAR SWAP FUTURE	ES (NY-CY - CM	E) vs NEW YOF	RK HARBOR NO	. 2 HEATING OII	L FUTURES
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
BRENT (ICE) CALEND	OAR SWAP FUTURE	S (NY-CY - CM	E) vs RBOB GA	SOLINE FUTUR	RES (NY-RB - CN	ME)
Spread Credit Rate	Decrease	+1:-1	67%	67%	62%	62%
BRENT CRUDE OIL B	ULLET SWAP FINA	NCIAL (NYM-BI	B, BZ, CY) vs H	EATING OIL (NY	M-HO, BH, MP)	
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
Spread Credit Rate	Decrease	+1:-1	86%	86%	84%	84%
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%
BRENT CRUDE OIL L (NY-MP - CME)	AST DAY FINANCIA	L FUTURES (N	Y-BZ - CME) vs	HEATING OIL C	CALENDAR SWA	AP FUTURES
Spread Credit Rate	Decrease	+1:-1	86%	86%	84%	84%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
BRENT CRUDE OIL L NY-BH - CME)	AST DAY FINANCIA	L FUTURES (N	Y-BZ - CME) vs	HEATING OIL F	INANCIAL FUT	JRES
NT-BH - CIVIE)						
,	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate Spread Credit Rate	Decrease Decrease	+1:-1 +1:-1	85% 87%	85% 87%	83% 85%	
Spread Credit Rate						85%

	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spre	ad Rates					
BRENT CRUDE OIL L (NY-23 - CME)	AST DAY FINANCI	AL FUTURES (N	Y-BZ - CME) vs	HEATING OIL L	AST DAY FINAN	CIAL FUTURES
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
Spread Credit Rate	Decrease	+1:-1	86%	86%	84%	84%
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%
BRENT CRUDE OIL L FUTURES (NY-HO - C		AL FUTURES (N	Y-BZ - CME) vs	NEW YORK HA	RBOR NO. 2 HE	ATING OIL
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
Spread Credit Rate	Decrease	+1:-1	86%	86%	84%	84%
Spread Credit Rate	Decrease	+1:-1	83%	83%	81%	81%
Spread Credit Rate	Decrease	+1:-1	70%	70%	62%	62%
BRENT CRUDE OIL L	AST DAY FINANCI	AL FUTURES (N	Y-BZ - CME) vs	RBOB GASOLI	NE FUTURES (N	Y-RB - CME)
Spread Credit Rate	Decrease	+1:-1	67%	67%	62%	62%
BRENT CRUDE OIL P FUTURES (NY-MP - C		ANCIAL FUTURE	S (NY-BB - CMI	E) vs HEATING (OIL CALENDAR	SWAP
Spread Credit Rate	Decrease	+1:-1	86%	86%	84%	84%
Spread Credit Rate	Decrease	+1:-1	87%	87%	85%	85%
	ENULTIMATE FINA	ANCIAL FUTURE	S (NY-BB - CMI	E) vs HEATING (OIL FINANCIAL I	FUTURES
(NY-BH - CME)	Decrease	+1:-1	85%	E) vs HEATING (DIL FINANCIAL I	FUTURES 83%
(NY-BH - CME) Spread Credit Rate			•			
(NY-BH - CME) Spread Credit Rate Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
(NY-BH - CME) Spread Credit Rate Spread Credit Rate Spread Credit Rate	Decrease Decrease	+1:-1 +1:-1	85% 87%	85% 87%	83% 85%	83% 85%
(NY-BH - CME) Spread Credit Rate	Decrease Decrease Decrease Decrease	+1:-1 +1:-1 +1:-1 +1:-1	85% 87% 86% 83%	85% 87% 86% 83%	83% 85% 84% 81%	83% 85% 84% 81%
(NY-BH - CME) Spread Credit Rate BRENT CRUDE OIL P FUTURES (NY-23 - CN	Decrease Decrease Decrease Decrease	+1:-1 +1:-1 +1:-1 +1:-1	85% 87% 86% 83%	85% 87% 86% 83%	83% 85% 84% 81%	83% 85% 84% 81%
Spread Credit Rate BRENT CRUDE OIL P FUTURES (NY-23 - CN	Decrease Decrease Decrease Decrease PENULTIMATE FINAME)	+1:-1 +1:-1 +1:-1 +1:-1 ANCIAL FUTURE	85% 87% 86% 83% S (NY-BB - CMI	85% 87% 86% 83% E) vs HEATING (83% 85% 84% 81% DIL LAST DAY F	83% 85% 84% 81% INANCIAL
Spread Credit Rate BRENT CRUDE OIL P FUTURES (NY-23 - CN Spread Credit Rate Spread Credit Rate	Decrease Decrease Decrease Decrease PENULTIMATE FINAME) Decrease	+1:-1 +1:-1 +1:-1 +1:-1 ANCIAL FUTURE +1:-1	85% 87% 86% 83% S (NY-BB - CMI	85% 87% 86% 83% E) vs HEATING (83% 85% 84% 81% DIL LAST DAY FI	83% 85% 84% 81% INANCIAL 83% 85%
Spread Credit Rate BRENT CRUDE OIL P FUTURES (NY-23 - CN Spread Credit Rate Spread Credit Rate Spread Credit Rate	Decrease Decrease Decrease Decrease PENULTIMATE FINAME) Decrease Decrease	+1:-1 +1:-1 +1:-1 +1:-1 ANCIAL FUTURE +1:-1 +1:-1	85% 87% 86% 83% SS (NY-BB - CMI 85% 87%	85% 87% 86% 83% E) vs HEATING (83% 85% 84% 81% DIL LAST DAY F	83% 85% 84% 81% INANCIAL 83% 85% 85%
BRENT CRUDE OIL P (NY-BH - CME) Spread Credit Rate Spread Credit Rate Spread Credit Rate Spread Credit Rate BRENT CRUDE OIL P FUTURES (NY-23 - CN Spread Credit Rate	Decrease	+1:-1 +1:-1 +1:-1 +1:-1 ANCIAL FUTURE +1:-1 +1:-1 +1:-1	85% 87% 86% 83% 8 S (NY-BB - CMI 85% 87% 86% 83%	85% 87% 86% 83% E) vs HEATING (85% 87% 86% 86%	83% 85% 84% 81% DIL LAST DAY FI 83% 85% 84%	83% 85% 84% 81% INANCIAL 83% 85% 84% 81%

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spre	ead Rates					
CRUDE OIL FINANCIA (NY-HO - CME)	AL FUTURES (NY-V	VS - CME) vs NE	EW YORK HARE	BOR NO. 2 HEAT	ING OIL FUTUR	ES
Spread Credit Rate	New	+1:-1			81%	81%
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	84%	84%	82%	82%
Spread Credit Rate	Decrease	+1:-1	79%	79%	77%	77%
CRUDE OIL FINANCIA	AL FUTURES (NY-V	/S - CME) vs RE	BOB GASOLINE	CALENDAR SV	VAP FUTURES (I	NY-RL - CME)
Spread Credit Rate	Decrease	+1:-1	62%	62%	59%	59%
CRUDE OIL FINANCIA	AL FUTURES (NY-V	/S - CME) vs RE	BOB GASOLINE	FUTURES (NY-	RB - CME)	
Spread Credit Rate	Decrease	+1:-1	63%	63%	58%	58%
Spread Credit Rate	Decrease	+1:-1	62%	62%	59%	59%
EUROPEAN NAPHTH CALENDAR SWAP FU			TURES (NY-UN	- CME) vs DATE	D BRENT (PLAT	TTS)
Spread Credit Rate	Decrease	+1:-9	84%	84%	80%	80%
HEATING OIL LAST D	AY FINANCIAL FU	ΓURES (NY-23 -	CME) vs CRUD	E OIL FINANCIA	L FUTURES (N)	(-WS - CME)
Spread Credit Rate	New	+1:-1			81%	81%
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	79%	79%	77%	77%
Spread Credit Rate	Decrease	+1:-1	84%	84%	82%	82%
HEATING OIL LAST D (NY-26 - CME)	AY FINANCIAL FUT	TURES (NY-23 -	CME) vs CRUD	E OIL LAST DA	FINANCIAL FU	TURES
Spread Credit Rate	New	+1:-1			81%	81%
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	79%	79%	77%	77%
Spread Credit Rate	Decrease	+1:-1	84%	84%	82%	82%
HEATING OIL LAST D	AY FINANCIAL FUT	ΓURES (NY-23 -	CME) vs LIGH	SWEET CRUDE	OIL FUTURES	(NY-CL - CME
Spread Credit Rate	New	+1:-1			81%	81%
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	79%	79%	77%	77%
Spread Credit Rate	Decrease	+1:-1	84%	84%	82%	82%
HEATING OIL LAST D	AY FINANCIAL FU	ΓURES (NY-23 -	CME) vs WTI C	ALENDAR SWA	P FUTURES (NY	-CS - CME)
Spread Credit Rate	Decrease	+1:-1	79%	79%	77%	77%
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
	E OIL FUTURES (N	Y-CL - CME) vs	HEATING OIL (CALENDAR SWA	P FUTURES (NY	(-MP - CME)
LIGHT SWEET CRUD						
Spread Credit Rate	Decrease	+1:-1	84%	84%	82%	82%

Rate Type	Change	Ratio	Current Initial	Current Maintenance	New Initial	New Maintenance
Inter-commodity Spre	ad Rates					
LIGHT, SWEET CRUD	E OIL FUTURES (N	YM-CL, CS, WS) vs HEATING (OIL FINANCIAL I	FUTURES (NYM-	HO, BH, MP)
Spread Credit Rate	New	+1:-1			81%	81%
Spread Credit Rate	Decrease	+1:-1	85%	85%	83%	83%
Spread Credit Rate	Decrease	+1:-1	84%	84%	82%	82%
Spread Credit Rate	Decrease	+1:-1	79%	79%	77%	77%
NY HARBOR RBOB G	ASOLINE (NYM-RE	B, RL, RT) vs LIC	GHT, SWEET CI	RUDE OIL FUTU	RES (NYM-CL, C	S, WS)
Spread Credit Rate	Decrease	+1:-1	63%	63%	58%	58%
Spread Credit Rate	Decrease	+1:-1	62%	62%	59%	59%
RBOB GASOLINE CAI (NY-CY - CME)	LENDAR SWAP FU	TURES (NY-RL	- CME) vs BRE	NT (ICE) CALEN	DAR SWAP FUT	URES
Spread Credit Rate	Decrease	+1:-1	70%	70%	62%	62%
RBOB GASOLINE CAI FUTURES (NY-BZ - CN		TURES (NY-RL	- CME) vs BRE	NT CRUDE OIL	LAST DAY FINAI	NCIAL
Spread Credit Rate	Decrease	+1:-1	70%	70%	62%	62%
RBOB GASOLINE CAI	LENDAR SWAP FU	TURES (NY-RL	- CME) vs WTI	CALENDAR SW	AP FUTURES (N	Y-CS - CME)
Spread Credit Rate	Decrease	+1:-1	63%	63%	58%	58%
RBOB GASOLINE FUT	TURES (NY-RB - CI	ME) vs WTI CAL	ENDAR SWAP	FUTURES (NY-0	CS - CME)	
Spread Credit Rate	Decrease	+1:-1	62%	62%	59%	59%
RBOB GASOLINE LAS (NY-CY - CME)	ST DAY FINANCIAL	. FUTURES (NY	-27 - CME) vs B	RENT (ICE) CAL	ENDAR SWAP I	TUTURES
Spread Credit Rate	Decrease	+1:-1	67%	67%	62%	62%
RBOB GASOLINE LAS FUTURES (NY-BZ - CN		. FUTURES (NY	-27 - CME) vs B	RENT CRUDE C	OIL LAST DAY FI	NANCIAL
Spread Credit Rate	Decrease	+1:-1	67%	67%	62%	62%
			01 /0	0.70		
RBOB GASOLINE LAS	ST DAY FINANCIAL				OIL PENULTIMAT	E FINANCIAL
RBOB GASOLINE LAS FUTURES (NY-BB - CI	ST DAY FINANCIAL				PENULTIMAT	E FINANCIAL 62%
RBOB GASOLINE LAS FUTURES (NY-BB - CI Spread Credit Rate	ST DAY FINANCIAL ME) Decrease	+1:-1	-27 - CME) vs B	RENT CRUDE C	62%	62%
RBOB GASOLINE LAS FUTURES (NY-BB - CI Spread Credit Rate WTI CALENDAR SWA	ST DAY FINANCIAL ME) Decrease	+1:-1	-27 - CME) vs B	RENT CRUDE C	62%	62%
RBOB GASOLINE LAS FUTURES (NY-BB - CI Spread Credit Rate WTI CALENDAR SWA Spread Credit Rate	ST DAY FINANCIAL ME) Decrease P FUTURES (NY-C	+1:-1 S - CME) vs HE	-27 - CME) vs B 67% ATING OIL CAL	RENT CRUDE C 67% ENDAR SWAP F	62% Futures (NY-MI	62% P - CME)
RBOB GASOLINE LAS FUTURES (NY-BB - CI Spread Credit Rate WTI CALENDAR SWA Spread Credit Rate Spread Credit Rate WTI CALENDAR SWA	Decrease Decrease Decrease Decrease Decrease Decrease	+1:-1 S - CME) vs HE +1:-1 +1:-1	67% ATING OIL CAL 85% 84%	67% ENDAR SWAP F 85% 84%	62% FUTURES (NY-MI 83% 81%	62% P - CME) 83% 81%
RBOB GASOLINE LAS FUTURES (NY-BB - CI Spread Credit Rate WTI CALENDAR SWA Spread Credit Rate Spread Credit Rate WTI CALENDAR SWA (NY-HO - CME)	Decrease Decrease Decrease Decrease Decrease Decrease	+1:-1 S - CME) vs HE +1:-1 +1:-1	67% ATING OIL CAL 85% 84%	67% ENDAR SWAP F 85% 84%	62% FUTURES (NY-MI 83% 81%	62% P - CME) 83% 81%