

## NYMEX/COMEX Exchange Open Interest Report - Monthly

	Commodity	Open Interest NOV 2019	Open Interest NOV 2018	% CHG	Open Interest OCT 2019	% CHG
Ag Products Futures						
COCOA TAS	CJ	0	0	-	0	-
COFFEE	KT	0	0	-	0	-
COTTON	TT	0	0	-	1	-100.0%
SUGAR 11	YO	0	0	-	0	-
Energy Futures						
CRUDE OIL PHY	CL	2,190,986	2,059,836	6.4%	2,047,643	7.0%
CRUDE OIL	WS	36	286	-87.4%	286	-87.4%
MINY WTI CRUDE OIL	QM	4,008	5,664	-29.2%	3,995	0.3%
BRENT OIL LAST DAY	BZ	223,009	221,956	0.5%	240,633	-7.3%
HEATING OIL PHY	HO	413,914	364,275	13.6%	452,006	-8.4%
HTG OIL	BH	120	180	-33.3%	133	-9.8%
MINY HTG OIL	QH	0	0	-	1	-100.0%
RBOB PHY	RB	376,874	394,224	-4.4%	379,213	-0.6%
MINY RBOB GAS	QU	0	0	-	0	0.0%
NATURAL GAS	HP	81,933	102,224	-19.8%	82,395	-0.6%
LTD NAT GAS	HH	301,828	489,683	-38.4%	298,239	1.2%
MINY NATURAL GAS	QG	5,981	2,815	112.5%	4,422	35.3%
PJM MONTHLY	JM	80	620	-87.1%	120	-33.3%
NATURAL GAS PHY	NG	1,264,051	1,264,167	0.0%	1,192,796	6.0%
RBOB GAS	RT	84	96	-12.5%	92	-8.7%
3.5% FUEL OIL CID MED SWA	7D	18	133	-86.5%	27	-33.3%
3.5% FUEL OIL CIF BALMO S	8D	0	0	-	0	-
AEP-DAYTON HUB DAILY	VD	38	68	-44.1%	38	0.0%
AEP-DAYTON HUB MTHLY	VM	0	0	-	0	-
AEP-DAYTON HUB OFF-PEAK M	VP	0	0	-	0	-
ALGON CITY GATES NAT GAS	N7	0	0	-	0	-
ALGONQUIN CITYGATES BASIS	B4	0	0	-	0	-
ANR LOUISIANA BASIS SWAP	ND	0	0	-	0	-
ANR OKLAHOMA	NE	0	273	-100.0%	0	-
ARGUS LLS VS. WTI (ARG) T	E5	15,890	39,993	-60.3%	16,792	-5.4%
ARGUS PROPAN FAR EST INDE	7E	5,188	5,290	-1.9%	5,224	-0.7%
ARGUS PROPAN(SAUDI ARAMCO	9N	1,829	2,448	-25.3%	1,895	-3.5%
AUSTRIALIAN COKE COAL	ACT	0	0	-	0	-
AUSTRIALIAN COKE COAL	ALW	8	96	-91.7%	12	-33.3%
BRENT BALMO SWAP	J9	0	0	-	197	-100.0%
BRENT CALENDAR SWAP	CY	29,713	21,164	40.4%	29,014	2.4%
BRENT CFD SWAP	6W	0	0	-	0	-
BRENT FINANCIAL FUTURES	BB	0	1,158	-100.0%	158	-100.0%
BRENT FINANCIAL FUTURES	MBC	230	0	-	406	-43.3%
BRENT FINANCIAL FUTURES	MDB	0	0	-	0	-
BRENT OIL LAST DAY	BZL	0	0	0.0%	0	0.0%
BRENT OIL LAST DAY	BZS	0	0	0.0%	0	0.0%
CAISO SP15 EZGNHUB5 MW P	9X	0	0	-	0	-
CAISO SP15 EZGNHUB5 PEAK	9Z	0	0	-	0	-
CANADIAN LIGHT SWEET OIL	CIL	0	0	-	0	-
CENTERPOINT BASIS SWAP	PW	0	2,769	-100.0%	140	-100.0%
CHICAGO ETHANOL SWAP	CU	40,065	52,410	-23.6%	41,694	-3.9%
CHICAGO ULSD (PLATTS) SWA	4C	0	0	-	0	-
CHICAGO ULSD PL VS HO SPR	5C	1,560	1,657	-5.9%	2,420	-35.5%
CHICAGO UNL GAS PL VS RBO	3C	100	0	-	250	-60.0%

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<b>Energy Futures</b>						
CIG BASIS	CI	558	7,938	-93.0%	1,098	-49.2%
CIG ROCKIES NG INDEX SWA	Z8	0	0	-	0	-
CINERGY HUB OFF-PEAK MONT	EJ	0	20	-100.0%	0	-
CINERGY HUB PEAK MONTH	EM	0	48	-100.0%	0	-
CIN HUB 5MW D AH O PK	K2	0	0	0.0%	0	-
CIN HUB 5MW D AH PK	H5	233	2,411	-90.3%	254	-8.3%
CIN HUB 5MW REAL TIME O P	H4	42,904	179,384	-76.1%	52,904	-18.9%
CIN HUB 5MW REAL TIME PK	H3	3,164	20,034	-84.2%	4,464	-29.1%
COAL SWAP	ACM	0	80	-100.0%	0	-
COAL SWAP	SSI	0	0	-	0	-
COLUMB GULF MAINLINE NG B	5Z	658	615	7.0%	681	-3.4%
COLUMBIA GULF ONSHORE	GL	0	0	-	0	-
CONWAY NATURAL GASOLINE (OPIS) SWAP	8L	1,152	1,356	-15.0%	1,268	-9.1%
CONWAY NORMAL BUTANE (OPIS) SWAP	8M	1,544	1,309	18.0%	1,550	-0.4%
CONWAY PROPANE 5 DECIMALS SWAP	8K	22,713	24,158	-6.0%	24,065	-5.6%
CRUDE OIL	LPS	20,535	23,730	-13.5%	20,110	2.1%
CRUDE OIL OUTRIGHTS	42	285	192	48.4%	260	9.6%
CRUDE OIL OUTRIGHTS	CC5	1,935	210	821.4%	1,654	17.0%
CRUDE OIL OUTRIGHTS	CPD	0	0	-	0	-
CRUDE OIL OUTRIGHTS	CSN	0	0	-	0	-
CRUDE OIL OUTRIGHTS	CSW	0	2,280	-100.0%	592	-100.0%
CRUDE OIL OUTRIGHTS	DBL	730	0	-	730	0.0%
CRUDE OIL OUTRIGHTS	FE	0	0	-	0	-
CRUDE OIL OUTRIGHTS	GSW	69	0	-	97	-28.9%
CRUDE OIL OUTRIGHTS	HTT	157,698	121,494	29.8%	152,022	3.7%
CRUDE OIL OUTRIGHTS	LSW	1,887	0	-	768	145.7%
CRUDE OIL OUTRIGHTS	SSW	0	0	-	0	-
CRUDE OIL OUTRIGHTS	UMD	0	0	-	0	-
CRUDE OIL OUTRIGHTS	UNS	0	0	-	0	-
CRUDE OIL OUTRIGHTS	WCC	0	0	-	0	-
CRUDE OIL OUTRIGHTS	WCW	6,733	9,396	-28.3%	7,967	-15.5%
CRUDE OIL PHY	CLL	0	0	0.0%	0	0.0%
CRUDE OIL PHY	HCL	973	1,233	-21.1%	1,057	-7.9%
CRUDE OIL SPRDS	38	150	410	-63.4%	0	-
CRUDE OIL SPRDS	HIL	900	0	-	900	0.0%
CRUDE OIL SPRDS	WTT	126,768	144,566	-12.3%	130,459	-2.8%
CRUDE OIL TRADE AT MARKER SINGAPORE	CLS	0	0	0.0%	0	0.0%
DAILY PJM	AOR	6,048	2,400	152.0%	4,032	50.0%
DAILY PJM	IDO	17,952	23,624	-24.0%	16,137	11.2%
DAILY PJM	NOC	2,736	12,384	-77.9%	1,824	50.0%
DAILY PJM	PAP	260	625	-58.4%	250	4.0%
DAILY PJM	PEO	2,720	4,096	-33.6%	2,445	11.2%
DAILY PJM	PNO	18,496	23,552	-21.5%	16,626	11.2%
DAILY PJM	PNP	1,014	1,375	-26.3%	975	4.0%
DAILY PJM	PWO	17,408	24,064	-27.7%	15,648	11.2%
DAILY PJM	PWP	832	1,175	-29.2%	800	4.0%
DAILY PJM	WOR	9,792	16,320	-40.0%	6,528	50.0%
DAILY PJM	ZAO	1,088	14,848	-92.7%	978	11.2%
DAILY PJM	ZGO	36,992	29,184	26.8%	25,917	42.7%
DAILY PJM	ZJO	16,320	12,800	27.5%	14,670	11.2%
DATED BRENT (PLATTS) DAILY SWAP	7G	0	0	-	0	-
DATED TO FRONTLINE BRENT	FY	795	3,565	-77.7%	845	-5.9%
DIESEL 10P BRG FOB RDM VS	7X	0	0	-	0	-

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DIESEL 10PPM BARGES FOB B	U7	0	0	-	0	-
DOMINION TRAN INC - APP I	IH	0	488	-100.0%	0	-
DOMINION TRANSMISSION INC	PG	3,672	13,799	-73.4%	4,362	-15.8%
DUBAI CRUDE OIL BALMO	BI	0	0	-	0	-
DUBAI CRUDE OIL CALENDAR	DC	1,039	40,608	-97.4%	1,394	-25.5%
DUTCH TTF NATURAL GAS CAL MONTH FUT	TTF	7,316	283	2,485.2%	5,944	23.1%
DY EURO 3.5% FUEL OI RDA	FOR	0	0	-	0	-
EASTERN RAIL DELIVERY CSX	QX	0	0	-	0	-
EAST/WEST FUEL OIL SPREAD	EW	14	42	-66.7%	15	-6.7%
EIA FLAT TAX ONHWAY DIESE	A5	1,343	1,785	-24.8%	1,553	-13.5%
ELEC ERCOT DLY OFF PK	I4	0	0	-	0	-
ELEC ERCOT DLY PEAK	I3	0	0	-	0	-
ELEC ERCOT DLY PEAK	I7	0	0	-	0	-
ELEC ERCOT OFF PEAK	I2	0	0	-	0	-
ELEC FINSETTLED	47	596	1,106	-46.1%	642	-7.2%
ELEC FINSETTLED	49	0	0	-	0	-
ELEC MISO PEAK	4L	0	615	-100.0%	0	-
ELEC MISO PEAK	55	0	0	-	0	-
ELEC NYISO OFF-PEAK	4M	0	12,135	-100.0%	0	-
ELEC NYISO OFF-PEAK	58	0	0	-	0	-
ELECTRICITY ERCOT PEAK	ERE	0	0	-	0	-
ELECTRICITY OFF PEAK	46	10,962	20,322	-46.1%	11,714	-6.4%
ELECTRICITY OFF PEAK	4P	16,180	55,380	-70.8%	23,700	-31.7%
ELECTRICITY OFF PEAK	50	0	0	-	0	-
ELEC WEST POWER OFF-PEAK	MDA	0	0	-	0	-
ELEC WEST POWER PEAK	MDC	0	0	-	0	-
ERCOT DAILY 5MW PEAK	ERW	0	0	-	0	-
ERCOT HOUSTON Z MCPE 5MW PEAK SWAP	I1	0	0	-	0	-
ERCOT NORTH ZMCPE 5MW OFFPEAK	I8	0	0	-	0	-
ERCOT NORTH ZMCPE 5MW OFFPEAK SWAP	I6	0	0	-	0	-
ERCOT NORTH ZMCPE 5MW PEAK	I5	0	0	-	0	-
ETHANOL	MTH	0	0	-	10	-100.0%
ETHANOL	Z1B	0	0	-	0	-
ETHANOL SWAP	MT2	430	390	10.3%	360	19.4%
ETHANOL T2 FOB ROTT INCL DUTY SWAP	Z1	6,906	6,224	11.0%	6,228	10.9%
EURO 1% FUEL OIL NEW BALM	KX	0	0	-	0	-
EURO 3.5% FUEL OIL RDAM B	KR	95	235	-59.6%	13	630.8%
EURO 3.5% FUEL OIL SPREAD	FK	20	46	-56.5%	10	100.0%
EURO-DENOMINATED PETRO PROD	NCP	0	0	-	0	-
EURO GASOIL 10PPM VS ICE	ET	0	104	-100.0%	0	-
EUROPE 1% FUEL OIL NWE CA	UF	227	258	-12.0%	302	-24.8%
EUROPE 1% FUEL OIL RDAM C	UH	2	3	-33.3%	3	-33.3%
EUROPE 3.5% FUEL OIL MED	UI	33	186	-82.3%	30	10.0%
EUROPE 3.5% FUEL OIL RDAM	UV	3,879	9,559	-59.4%	4,261	-9.0%
EUROPEAN GASOIL (ICE)	7F	144	222	-35.1%	125	15.2%
EUROPEAN NAPHTHA BALMO	KZ	15	184	-91.8%	35	-57.1%
EUROPEAN NAPHTHA CRACK SPR	EN	6,528	18,168	-64.1%	7,395	-11.7%
EUROPE DATED BRENT SWAP	UB	25	4,720	-99.5%	50	-50.0%
EUROPE JET KERO NWE CALSW	UJ	6	30	-80.0%	12	-50.0%
EUROPE NAPHTHA CALSWAP	UN	1,465	4,144	-64.6%	1,487	-1.5%
EURO PROPANE CIF ARA SWA	PS	2,658	2,160	23.1%	2,578	3.1%
FLORIDA GAS ZONE3 BASIS S	FP	0	0	-	0	-
FREIGHT MARKETS	ACB	1,020	0	-	1,020	0.0%

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<b>Energy Futures</b>					
FREIGHT MARKETS FLP	637	1,223	-47.9%	761	-16.3%
FREIGHT MARKETS FRC	534	170	214.1%	639	-16.4%
FREIGHT MARKETS FRS	10	0	-	0	-
FREIGHT MARKETS T2D	1,055	2,620	-59.7%	1,060	-0.5%
FREIGHT MARKETS TC6	0	0	-	0	-
FREIGHT MARKETS TD3	0	20	-100.0%	0	-
FREIGHT MARKETS TD8	0	150	-100.0%	0	-
FREIGHT MARKETS USC	0	0	-	120	-100.0%
FUEL OIL CRACK VS ICE FO	8,175	9,823	-16.8%	8,377	-2.4%
FUEL OIL NWE CRACK VS ICE FI	156	171	-8.8%	156	0.0%
FUEL OIL (PLATS) CAR CM 1W	2	28	-92.9%	3	-33.3%
FUEL OIL (PLATS) CAR CN 1X	0	50	-100.0%	0	-
FUELOIL SWAP:CARGOES VS.B FS	510	674	-24.3%	537	-5.0%
GAS EURO-BOB OXY NWE BARGES 7H	3,088	5,919	-47.8%	3,350	-7.8%
GAS EURO-BOB OXY NWE BARGES CRK 7K	18,491	33,497	-44.8%	19,638	-5.8%
GASOIL 0.1 CIF MED SWAP Z4	0	0	-	0	-
GASOIL 0.1CIF MED VS ICE Z5	0	0	-	0	-
GASOIL 0.1 CIF NWE VS ISE TU	0	0	-	0	-
GASOIL 0.1 CIF VS ICE GAS 8W	0	0	-	0	-
GASOIL 0.1 RDAM BRGS VS I WQ	4	24	-83.3%	6	-33.3%
GASOIL 0.1 ROTTERDAM BARG VL	26	71	-63.4%	36	-27.8%
GASOIL 10P CRG CIF NW VS 3V	0	0	-	0	-
GASOIL 10PPM VS ICE SWAP TP	3	97	-96.9%	4	-25.0%
GASOIL BULLET SWAP BG	0	0	-	0	-
GASOIL CALENDAR SWAP GX	97	10	870.0%	81	19.8%
GASOIL CRACK SPREAD CALEN GZ	12,568	16,830	-25.3%	10,992	14.3%
GASOIL MINI CALENDAR SWAP QA	2,073	1,382	50.0%	1,551	33.7%
GERMAN POWER BASELOAD CAL MONTH FUT DEB	1,559	83	1,778.3%	1,486	4.9%
GROUP THREE ULSD (PLATTS) A7	0	70	-100.0%	6	-100.0%
GROUP THREE UNLEAD GAS (P A9	250	175	42.9%	300	-16.7%
GRP THREE ULSD(PLT)VS HEA A6	5,212	7,474	-30.3%	8,614	-39.5%
GRP THREE UNL GS (PLT) VS A8	3,466	4,759	-27.2%	3,826	-9.4%
GULF COAST 3% FUEL OIL BA VZ	304	703	-56.8%	614	-50.5%
GULF COAST JET FUEL CLNDR GE	44	869	-94.9%	66	-33.3%
GULF COAST JET VS NYM 2 H ME	20,967	28,964	-27.6%	22,855	-8.3%
GULF COAST NO.6 FUEL OIL MF	13,943	35,511	-60.7%	12,980	7.4%
GULF COAST NO.6 FUEL OIL MG	2,100	3,782	-44.5%	1,550	35.5%
GULF COAST ULSD CALENDAR LY	1,248	1,638	-23.8%	1,506	-17.1%
GULF COAST ULSD CRACK SPR GY	650	685	-5.1%	675	-3.7%
HEATING OIL BALMO CLNDR S 1G	0	0	-	0	-
HEATING OIL CRCK SPRD BAL 1H	0	0	-	0	-
HEATING OIL PHY HOL	0	0	0.0%	0	0.0%
HENRY HUB BASIS SWAP HB	4,960	10,244	-51.6%	1,200	313.3%
HENRY HUB FINANCIAL LAST NBP	0	0	-	0	-
HENRY HUB FINANCIAL LAST TTE	0	3	-100.0%	0	-
HENRY HUB INDEX SWAP FUTU IN	6,160	16,720	-63.2%	4,641	32.7%
HENRY HUB SWAP NN	760,130	1,034,914	-26.6%	805,489	-5.6%
HOUSTON SHIP CHANNEL BASI NH	6,382	11,789	-45.9%	6,892	-7.4%
HUSTN SHIP CHNL PIPE SWP XJ	0	0	-	0	-
ICE BRENT DUBAI SWAP DB	45,953	40,144	14.5%	46,957	-2.1%
ICE GASOIL BALMO SWAP U9	0	0	-	0	-
IN DELIVERY MONTH EUA 6T	0	2,450	-100.0%	0	-
INDIANA MISO FAD	0	18,200	-100.0%	0	-

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INDIANA MISO	FTD	3,600	6,720	-46.4%	2,400	50.0%
INDIANA MISO	FTM	0	0	-	0	-
INDIANA MISO	PDD	165	1,294	-87.2%	546	-69.8%
INDIANA MISO	PTD	455	498	-8.6%	455	0.0%
INDONESIAN COAL	MCC	0	0	-	0	-
INDONESIAN COAL ICI4	ICI	563	260	116.5%	527	6.8%
ISO NEW ENGLAND OFF-PEAK	KI	0	0	-	0	-
ISO NEW ENGLAND PK LMP	NI	0	0	-	0	-
JAPAN C&F NAPHTHA CRACK S	JB	54	251	-78.5%	81	-33.3%
JAPAN C&F NAPHTHA SWAP	JA	779	2,656	-70.7%	946	-17.7%
JAPAN NAPHTHA BALMO SWAP	E6	0	20	-100.0%	0	-
JET AV FUEL (P) CAR FM ICE GAS SWAP	1V	0	4	-100.0%	0	-
JET CIF NWE VS ICE	JC	104	360	-71.1%	258	-59.7%
JET FUEL BRG FOB RDM VS I	9Q	0	0	-	0	-
JET FUEL CRG CIF NEW VS I	6X	0	0	-	132	-100.0%
JET FUEL UP-DOWN BALMO CL	1M	1,675	5,075	-67.0%	4,145	-59.6%
JKM LNG Futures	JKM	6,078	5,226	16.3%	7,120	-14.6%
LA CARB DIESEL (OPIS)	LX	0	0	-	0	-
LA CARB DIESEL (OPIS) SWA	KL	27	340	-92.1%	28	-3.6%
LA CARBOB GASOLINE(OPIS)S	JL	0	810	-100.0%	0	-
LA JET FUEL VS NYM NO 2 H	MQ	0	0	-	0	-
LA JET (OPIS) SWAP	JS	1,350	1,689	-20.1%	1,734	-22.1%
LLS (ARGUS) CALENDAR SWAP	XA	303	542	-44.1%	322	-5.9%
LLS (ARGUS) VS WTI SWAP	WJ	12,606	32,865	-61.6%	13,503	-6.6%
LOS ANGELES CARB GASOLINE	MH	0	10	-100.0%	0	-
MARS (ARGUS) VS WTI SWAP	YX	1,470	5,990	-75.5%	2,270	-35.2%
MARS (ARGUS) VS WTI TRD M	YV	24,905	20,520	21.4%	29,007	-14.1%
MARS BLEND CRUDE OIL	MB	0	0	-	0	-
MCCLOSKEY ARA ARGS COAL	MTF	23,144	28,906	-19.9%	22,039	5.0%
MCCLOSKEY RCH BAY COAL	MFF	2,119	3,467	-38.9%	1,679	26.2%
MGF FUT	MGF	10	50	-80.0%	10	0.0%
MGN1 SWAP FUT	MGN	230	374	-38.5%	270	-14.8%
MICHIGAN BASIS	NF	1,344	2,413	-44.3%	1,464	-8.2%
MICHIGAN MISO	HMO	0	5,656	-100.0%	0	-
MICHIGAN MISO	HMW	0	287	-100.0%	0	-
MINI GAS EUROBOB OXY NWE ARGS BALMO	MEB	62	347	-82.1%	20	210.0%
MINI RBOB V. EBOBARG NWE BRGS BALMO	MXR	0	0	-	90	-100.0%
MINI RBOB V. EBOB(ARGUS) NWE BRGS	MXB	1,617	3,172	-49.0%	1,751	-7.7%
MJC FUT	MJC	60	365	-83.6%	60	0.0%
MNC FUT	MNC	2,524	7,315	-65.5%	2,703	-6.6%
MONT BELVIEU ETHANE 5 DECIMAL	C0	41,342	40,260	2.7%	43,154	-4.2%
MONT BELVIEU ETHANE OPIS BALMO	8C	110	80	37.5%	30	266.7%
MONT BELVIEU LDH PROPANE 5 DECIMAL	B0	137,850	127,330	8.3%	139,249	-1.0%
MONT BELVIEU LDH PROPANE OPIS BALMO	8O	1,604	1,806	-11.2%	1,895	-15.4%
MONT BELVIEU NATURAL GASOLINE 5 DEC	7Q	20,809	20,996	-0.9%	18,324	13.6%
MONT BELVIEU NATURAL GASOLINE BALMO	R0	685	40	1,612.5%	672	1.9%
MONT BELVIEU NORMAL BUTANE 5 DECIMAL	D0	55,674	48,111	15.7%	58,798	-5.3%
MONT BELVIEU NORMAL BUTANE BALMO	8J	871	790	10.3%	1,244	-30.0%
NAT GAS BASIS SWAP	TZ6	217	2,803	-92.3%	427	-49.2%
NATURAL GAS	XIC	0	0	-	0	-
NATURAL GAS FIXED PRICE SWAP FUTURES	DSF	0	0	-	0	-
NATURAL GAS INDEX	TZI	0	0	-	0	-
NATURAL GAS PEN SWP	NP	126,842	165,463	-23.3%	125,577	1.0%

## NYMEX/COMEX Exchange Open Interest Report - Monthly

Commodity		Open Interest NOV 2019	Open Interest NOV 2018	% CHG	Open Interest OCT 2019	% CHG
<b>Energy Futures</b>						
NEPOOL CNCTCT 5MW D AH O	P3	0	0	-	0	-
NEPOOL CONECTIC 5MW D AH	P2	0	0	-	0	-
NEPOOL INTR HUB 5MW D AH	H2	315,896	438,472	-28.0%	329,360	-4.1%
NEPOOL INTR HUB 5MW D AH	U6	16,062	26,092	-38.4%	16,881	-4.9%
NEPOOL NE MASS 5MW D AH O	P8	2,427	14,040	-82.7%	3,555	-31.7%
NEPOOL NE MASS 5MW D AH P	P7	123	765	-83.9%	192	-35.9%
NEPOOL RHD ISLD 5MW D AH	U4	0	0	-	0	-
NEPOOL RHODE IL 5MW D AH	U5	0	0	-	0	-
NEPOOL W CNT MASS 5MW D A	L9	0	0	-	0	-
NEPOOL W CNTR M 5MW D AH	R6	0	0	-	0	-
NEW ENGLAND HUB PEAK DAIL	CE	1,248	2,239	-44.3%	1,154	8.1%
NEW YORK ETHANOL SWAP	EZ	2,285	1,002	128.0%	1,532	49.2%
NEW YORK HUB ZONE G PEAK	GN	1,184	2,232	-47.0%	1,092	8.4%
NEW YORK HUB ZONE J PEAK	JN	1,120	620	80.6%	1,085	3.2%
NGPL MID-CONTINENT	NL	3,664	16,527	-77.8%	5,476	-33.1%
NGPL TEX/OK	PD	3,855	28,866	-86.6%	5,625	-31.5%
N ILLINOIS HUB DAILY	UD	68	178	-61.8%	68	0.0%
N ILLINOIS HUB MTHLY	UM	0	0	-	0	-
NO 2 UP-DOWN SPREAD CALEN	UT	100	0	-	250	-60.0%
NORTHERN NATURAL GAS DEMAR	PE	0	436	-100.0%	0	-
NORTHERN NATURAL GAS VENTU	PF	0	1,364	-100.0%	0	-
NORTHERN ILLINOIS OFF-PEA	UO	0	0	-	0	-
NORTHWEST ROCKIES BASIS S	NR	2,123	18,346	-88.4%	3,293	-35.5%
N ROCKIES PIPE SWAP	XR	0	59	-100.0%	0	-
NY1% VS GC SPREAD SWAP	VR	1,765	2,070	-14.7%	2,265	-22.1%
NY 2.2% FUEL OIL (PLATTS	Y3	0	0	-	0	-
NY 3.0% FUEL OIL (PLATTS	H1	0	100	-100.0%	0	-
NY HARBOR 1% FUEL OIL BAL	VK	0	0	-	0	-
NY HARBOR HEAT OIL SWP	MP	7,974	13,450	-40.7%	8,687	-8.2%
NY HARBOR LOW SULPUR GAS 1000MBBL	NLS	840	815	3.1%	840	0.0%
NY HARBOR RESIDUAL FUEL 1	MM	2,434	1,883	29.3%	1,384	75.9%
NY HARBOR RESIDUAL FUEL C	ML	0	50	-100.0%	0	-
NYH NO 2 CRACK SPREAD CAL	HK	2,680	3,777	-29.0%	3,000	-10.7%
NYISO A	KA	0	0	-	0	-
NYISO A OFF-PEAK	KB	0	0	-	0	-
NYISO CAPACITY	LHV	316	604	-47.7%	352	-10.2%
NYISO CAPACITY	NNC	3	385	-99.2%	6	-50.0%
NYISO CAPACITY	NRS	40	436	-90.8%	52	-23.1%
NYISO G	KG	0	0	-	0	-
NYISO G OFF-PEAK	KH	0	0	-	0	-
NYISO J	KJ	0	0	-	0	-
NYISO J OFF-PEAK	KK	0	0	-	0	-
NYISO ZONE A 5MW D AH O P	K4	9,344	38,451	-75.7%	10,160	-8.0%
NYISO ZONE A 5MW D AH PK	K3	0	4,165	-100.0%	252	-100.0%
NYISO ZONE C 5MW D AH O P	A3	0	0	-	0	-
NYISO ZONE C 5MW D AH PK	Q5	0	0	-	0	-
NYISO ZONE G 5MW D AH O P	D2	372,789	563,195	-33.8%	402,573	-7.4%
NYISO ZONE G 5MW D AH PK	T3	20,197	21,167	-4.6%	20,974	-3.7%
NYISO ZONE J 5MW D AH O P	D4	14,016	154,416	-90.9%	26,256	-46.6%
NYISO ZONE J 5MW D AH PK	D3	2,056	12,051	-82.9%	2,791	-26.3%
NYMEX ALUMINUM FUTURES	AN	384	1,023	-62.5%	372	3.2%
NYMEX ULSD VS NYMEX HO	UY	550	0	-	550	0.0%
NY ULSD (ARGUS) VS HEATING OIL	7Y	1,024	129	693.8%	1,061	-3.5%

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	Commodity	Open Interest NOV 2019	Open Interest NOV 2018	% CHG	Open Interest OCT 2019	% CHG
Energy Futures						
ONEOK OKLAHOMA NG BASIS	8X	0	62	-100.0%	0	-
ONTARIO POWER SWAPS	OFD	0	0	-	0	-
ONTARIO POWER SWAPS	OFM	0	0	-	0	-
ONTARIO POWER SWAPS	OPD	0	0	-	0	-
ONTARIO POWER SWAPS	OPM	0	0	-	0	-
PANHANDLE BASIS SWAP FUTU	PH	1,435	5,478	-73.8%	1,555	-7.7%
PANHANDLE PIPE SWAP	XH	0	197	-100.0%	0	-
PERMIAN BASIS SWAP	PM	3,356	5,060	-33.7%	3,416	-1.8%
PETROCHEMICALS	22	129	103	25.2%	166	-22.3%
PETROCHEMICALS	32	83	51	62.7%	103	-19.4%
PETROCHEMICALS	3NA	8	11	-27.3%	12	-33.3%
PETROCHEMICALS	51	24	2	1,100.0%	36	-33.3%
PETROCHEMICALS	8I	6,074	5,034	20.7%	5,606	8.3%
PETROCHEMICALS	91	1,029	856	20.2%	925	11.2%
PETROCHEMICALS	HPE	0	0	-	0	-
PETROCHEMICALS	MAA	0	0	-	0	-
PETROCHEMICALS	MAC	0	0	-	0	-
PETROCHEMICALS	MAE	1,323	828	59.8%	1,407	-6.0%
PETROCHEMICALS	MAS	358	439	-18.5%	443	-19.2%
PETROCHEMICALS	MBE	575	635	-9.4%	350	64.3%
PETROCHEMICALS	MNB	1,544	3,456	-55.3%	1,751	-11.8%
PETROCHEMICALS	MPS	590	358	64.8%	596	-1.0%
PETRO CRCKS & SPRDS ASIA	JNC	0	0	-	0	-
PETRO CRCKS & SPRDS ASIA	STI	0	0	-	0	-
PETRO CRCKS & SPRDS ASIA	STR	390	300	30.0%	465	-16.1%
PETRO CRCKS & SPRDS ASIA	STS	182	394	-53.8%	202	-9.9%
PETRO CRCKS & SPRDS NA	CRB	6,381	9,490	-32.8%	7,653	-16.6%
PETRO CRCKS & SPRDS NA	EXR	3,376	3,495	-3.4%	3,248	3.9%
PETRO CRCKS & SPRDS NA	FOC	920	650	41.5%	1,180	-22.0%
PETRO CRCKS & SPRDS NA	GBB	125	440	-71.6%	281	-55.5%
PETRO CRCKS & SPRDS NA	GCC	0	290	-100.0%	0	-
PETRO CRCKS & SPRDS NA	GCI	2,203	1,924	14.5%	1,897	16.1%
PETRO CRCKS & SPRDS NA	GCM	200	0	-	300	-33.3%
PETRO CRCKS & SPRDS NA	GCU	11,332	19,993	-43.3%	9,320	21.6%
PETRO CRCKS & SPRDS NA	GFC	0	0	-	0	-
PETRO CRCKS & SPRDS NA	HOB	10,904	4,714	131.3%	11,324	-3.7%
PETRO CRCKS & SPRDS NA	KSD	0	0	-	0	-
PETRO CRCKS & SPRDS NA	MFR	0	0	-	0	-
PETRO CRCKS & SPRDS NA	NFG	0	0	-	0	-
PETRO CRCKS & SPRDS NA	NYF	100	0	-	75	33.3%
PETRO CRCKS & SPRDS NA	NYH	0	0	-	0	-
PETRO CRCKS & SPRDS NA	RBB	16,980	10,561	60.8%	17,913	-5.2%
PETRO CRCKS & SPRDS NA	RVG	14,815	19,304	-23.3%	14,514	2.1%
PETRO CRCKS & SPRDS NA	SF3	133	64	107.8%	185	-28.1%
PETRO CRK&SPRD EURO	1NB	770	2,715	-71.6%	913	-15.7%
PETRO CRK&SPRD EURO	1ND	0	0	-	0	-
PETRO CRK&SPRD EURO	43	0	0	-	0	-
PETRO CRK&SPRD EURO	BFR	0	0	-	0	-
PETRO CRK&SPRD EURO	BOB	3,224	3,998	-19.4%	3,215	0.3%
PETRO CRK&SPRD EURO	EGB	0	0	-	0	-
PETRO CRK&SPRD EURO	EGN	0	0	-	0	-
PETRO CRK&SPRD EURO	EOB	40	45	-11.1%	20	100.0%
PETRO CRK&SPRD EURO	EPN	1,384	1,792	-22.8%	1,517	-8.8%

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Energy Futures						
PETRO CRK&SPRD EURO	EVC	2,445	4,495	-45.6%	2,955	-17.3%
PETRO CRK&SPRD EURO	FBT	0	0	-	0	-
PETRO CRK&SPRD EURO	FVB	30	30	0.0%	30	0.0%
PETRO CRK&SPRD EURO	GCB	0	0	-	10	-100.0%
PETRO CRK&SPRD EURO	GOC	14	24	-41.7%	15	-6.7%
PETRO CRK&SPRD EURO	MGB	60	110	-45.5%	70	-14.3%
PETRO CRK&SPRD EURO	MUD	70	46	52.2%	110	-36.4%
PETRO CRK&SPRD EURO	NBB	0	0	-	0	-
PETRO CRK&SPRD EURO	NOB	1,102	3,687	-70.1%	1,197	-7.9%
PETRO CRK&SPRD EURO	SFB	0	0	-	0	-
PETROLEUM PRODUCTS	1NM	20	0	-	30	-33.3%
PETROLEUM PRODUCTS	EWB	0	0	-	0	-
PETROLEUM PRODUCTS	EWG	2,545	9,527	-73.3%	2,600	-2.1%
PETROLEUM PRODUCTS	H5F	5,168	0	-	0	-
PETROLEUM PRODUCTS	JCC	700	0	-	700	0.0%
PETROLEUM PRODUCTS	MBS	0	0	-	0	-
PETROLEUM PRODUCTS	MGS	0	0	-	0	-
PETROLEUM PRODUCTS	MME	0	30	-100.0%	0	-
PETROLEUM PRODUCTS	MPE	0	0	-	0	-
PETROLEUM PRODUCTS	NCC	10	0	-	10	0.0%
PETROLEUM PRODUCTS	R5F	15	0	-	7	114.3%
PETROLEUM PRODUCTS	S53	50	0	-	50	0.0%
PETROLEUM PRODUCTS	UP5	1,125	0	-	72	1,462.5%
PETROLEUM PRODUCTS	VU	300	295	1.7%	125	140.0%
PETROLEUM PRODUCTS ASIA	E6M	20	0	-	20	0.0%
PETROLEUM PRODUCTS ASIA	MJN	680	2,464	-72.4%	1,145	-40.6%
PETROLEUM PRODUCTS ASIA	MSB	0	0	-	0	-
PETRO OUTRIGHT EURO	0B	282	40	605.0%	321	-12.1%
PETRO OUTRIGHT EURO	0C	0	0	-	0	-
PETRO OUTRIGHT EURO	0D	1,870	4,125	-54.7%	2,294	-18.5%
PETRO OUTRIGHT EURO	0E	0	0	-	10	-100.0%
PETRO OUTRIGHT EURO	0F	198	753	-73.7%	314	-36.9%
PETRO OUTRIGHT EURO	1T	6	30	-80.0%	12	-50.0%
PETRO OUTRIGHT EURO	33	0	0	-	0	-
PETRO OUTRIGHT EURO	5L	8	40	-80.0%	0	-
PETRO OUTRIGHT EURO	63	0	40	-100.0%	30	-100.0%
PETRO OUTRIGHT EURO	6L	0	0	-	0	-
PETRO OUTRIGHT EURO	7I	46	74	-37.8%	220	-79.1%
PETRO OUTRIGHT EURO	7R	70	68	2.9%	39	79.5%
PETRO OUTRIGHT EURO	88	0	20	-100.0%	6	-100.0%
PETRO OUTRIGHT EURO	CBB	0	25	-100.0%	35	-100.0%
PETRO OUTRIGHT EURO	CGB	0	0	-	0	-
PETRO OUTRIGHT EURO	CPB	225	87	158.6%	125	80.0%
PETRO OUTRIGHT EURO	EFF	19	63	-69.8%	0	-
PETRO OUTRIGHT EURO	EFM	2	0	-	3	-33.3%
PETRO OUTRIGHT EURO	ENS	56	70	-20.0%	68	-17.6%
PETRO OUTRIGHT EURO	ESB	0	0	-	0	-
PETRO OUTRIGHT EURO	EWN	282	1,255	-77.5%	359	-21.4%
PETRO OUTRIGHT EURO	FBD	0	0	-	0	-
PETRO OUTRIGHT EURO	FLB	0	0	-	0	-
PETRO OUTRIGHT EURO	GES	0	0	-	0	-
PETRO OUTRIGHT EURO	H5G	945	0	-	192	392.2%
PETRO OUTRIGHT EURO	M1B	1,293	0	-	945	36.8%

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	Commodity	Open Interest NOV 2019	Open Interest NOV 2018	% CHG	Open Interest OCT 2019	% CHG
<b>Energy Futures</b>						
PETRO OUTRIGHT EURO	M35	5	0	-	15	-66.7%
PETRO OUTRIGHT EURO	MBB	5	50	-90.0%	0	-
PETRO OUTRIGHT EURO	MBN	1,772	2,385	-25.7%	2,115	-16.2%
PETRO OUTRIGHT EURO	MEF	377	973	-61.3%	385	-2.1%
PETRO OUTRIGHT EURO	R53	167	0	-	86	94.2%
PETRO OUTRIGHT EURO	R5M	927	0	-	826	12.2%
PETRO OUTRIGHT EURO	R5O	1,714	0	-	1,759	-2.6%
PETRO OUTRIGHT EURO	S5F	108	0	-	83	30.1%
PETRO OUTRIGHT EURO	S5M	954	0	-	683	39.7%
PETRO OUTRIGHT EURO	S5O	298	0	-	188	58.5%
PETRO OUTRIGHT EURO	SMU	325	126	157.9%	525	-38.1%
PETRO OUTRIGHT EURO	T0	6	45	-86.7%	9	-33.3%
PETRO OUTRIGHT EURO	T2B	0	0	-	0	-
PETRO OUTRIGHT EURO	TMB	0	0	-	0	-
PETRO OUTRIGHT EURO	ULB	0	0	-	0	-
PETRO OUTRIGHT EURO	V0	0	160	-100.0%	0	-
PETRO OUTRIGHT EURO	X0	0	0	-	0	-
PETRO OUTRIGHT NA	FCB	0	0	-	0	-
PETRO OUTRIGHT NA	FOM	0	0	-	0	-
PETRO OUTRIGHT NA	JE	180	108	66.7%	240	-25.0%
PETRO OUTRIGHT NA	JET	1,850	2,540	-27.2%	2,800	-33.9%
PETRO OUTRIGHT NA	JTB	250	900	-72.2%	448	-44.2%
PETRO OUTRIGHT NA	MBL	314	25	1,156.0%	264	18.9%
PETRO OUTRIGHT NA	MEN	78	348	-77.6%	225	-65.3%
PETRO OUTRIGHT NA	MEO	1,958	3,810	-48.6%	2,174	-9.9%
PETRO OUTRIGHT NA	MFD	138	0	-	103	34.0%
PETRO OUTRIGHT NA	MMF	4	135	-97.0%	15	-73.3%
PETRO OUTRIGHT NA	NYT	0	0	-	0	-
PETRO OUTRIGHT NA	XER	0	0	-	0	-
PJM AD HUB 5MW REAL TIME	V3	133,936	241,252	-44.5%	150,778	-11.2%
PJM AD HUB 5MW REAL TIME	Z9	13,748	19,179	-28.3%	14,128	-2.7%
PJM AECO DA OFF-PEAK	X1	0	0	-	0	-
PJM AECO DA PEAK	Y1	0	0	-	0	-
PJM APS ZONE DA OFF-PEAK	W4	0	0	-	0	-
PJM APS ZONE DA PEAK	S4	0	0	-	0	-
PJM ATSI ELEC	MOD	0	0	-	0	-
PJM ATSI ELEC	MPD	0	0	-	0	-
PJM BGE DA OFF-PEAK	R3	0	1,618	-100.0%	0	-
PJM BGE DA PEAK	E3	0	82	-100.0%	0	-
PJM COMED 5MW D AH O PK	D9	0	4,045	-100.0%	0	-
PJM COMED 5MW D AH PK	D8	0	205	-100.0%	0	-
PJM DAILY	JD	960	622	54.3%	960	0.0%
PJM DAYTON DA OFF-PEAK	R7	46,720	70,120	-33.4%	48,760	-4.2%
PJM DAYTON DA PEAK	D7	2,570	5,120	-49.8%	2,780	-7.6%
PJM JCPL DA OFF-PEAK	F2	0	0	-	0	-
PJM JCPL DA PEAK	J2	0	0	-	0	-
PJM NI HUB 5MW REAL TIME	B3	4,559	11,710	-61.1%	5,239	-13.0%
PJM NI HUB 5MW REAL TIME	B6	77,752	143,616	-45.9%	85,371	-8.9%
PJM NILL DA OFF-PEAK	L3	0	159,120	-100.0%	13,872	-100.0%
PJM NILL DA PEAK	N3	0	9,945	-100.0%	819	-100.0%
PJM OFF-PEAK LMP SWAP FUT	JP	0	80	-100.0%	0	-
PJM PECO ZONE5MW PEAK CAL MO DAY AH	4N	820	2,960	-72.3%	1,280	-35.9%
PJM PPL DA OFF-PEAK	F5	0	0	-	0	-

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	Commodity	Open Interest NOV 2019	Open Interest NOV 2018	% CHG	Open Interest OCT 2019	% CHG
<b>Energy Futures</b>						
PJM PPL DA PEAK	L5	0	0	-	0	-
PJM PSEG DA OFF-PEAK	W6	20,225	92,380	-78.1%	29,625	-31.7%
PJM PSEG DA PEAK	L6	1,025	4,235	-75.8%	1,600	-35.9%
PJM WESTH DA OFF-PEAK	E4	48,364	198,124	-75.6%	61,420	-21.3%
PJM WESTHDA PEAK	J4	2,634	10,794	-75.6%	3,306	-20.3%
PJM WESTH RT OFF-PEAK	N9	479,163	1,057,700	-54.7%	506,431	-5.4%
PJM WESTH RT PEAK	L1	50,038	62,667	-20.2%	59,638	-16.1%
PLASTICS	PGP	3,804	1,984	91.7%	3,669	3.7%
PREMIUM UNLD 10P FOB MED	3G	71	537	-86.8%	82	-13.4%
PREMIUM UNLEAD 10PPM FOB	8G	0	5	-100.0%	32	-100.0%
PREM UNL GAS 10PPM RDAM FOB BALMO	7N	0	3	-100.0%	0	-
PREM UNL GAS 10PPM RDAM FOB SWAP	7L	0	104	-100.0%	5	-100.0%
PROPANE NON-LDH MB (OPIS) BALMO SWP	1S	538	7	7,585.7%	1,441	-62.7%
PROPANE NON-LDH MT. BEL (OPIS) SWP	1R	59,948	60,778	-1.4%	52,857	13.4%
RBOB CALENDAR SWAP	RL	13,954	17,042	-18.1%	15,752	-11.4%
RBOB CRACK SPREAD	RM	6,071	4,477	35.6%	4,734	28.2%
RBOB CRACK SPREAD BALMO S	1E	0	0	-	0	-
RBOB GASOLINE BALMO CLNDR	1D	1,587	396	300.8%	198	701.5%
RBOB PHY	RBL	0	0	0.0%	0	0.0%
RBOB SPREAD (PLATTS) SWAP	RI	0	0	-	0	-
RBOB VS HEATING OIL SWAP	RH	75	110	-31.8%	75	0.0%
SAN JUAN BASIS SWAP	NJ	614	8,642	-92.9%	794	-22.7%
SAN JUAN PIPE SWAP	XX	0	288	-100.0%	0	-
SINGAPORE 180CST BALMO	BS	0	10	-100.0%	117	-100.0%
SINGAPORE 380CST BALMO	BT	78	85	-8.2%	17	358.8%
SINGAPORE 380CST FUEL OIL	SE	2,882	10,526	-72.6%	3,488	-17.4%
SINGAPORE FUEL 180CST CAL	UA	169	699	-75.8%	166	1.8%
SINGAPORE FUEL OIL SPREAD	SD	110	635	-82.7%	149	-26.2%
SINGAPORE GASOIL	MAF	3,081	1,230	150.5%	3,671	-16.1%
SINGAPORE GASOIL	MTB	65	48	35.4%	138	-52.9%
SINGAPORE GASOIL	MTS	2,908	8,920	-67.4%	3,858	-24.6%
SINGAPORE GASOIL	STZ	0	300	-100.0%	0	-
SINGAPORE GASOIL CALENDAR	GDH	0	0	-	0	-
SINGAPORE GASOIL CALENDAR	GDL	0	0	-	0	-
SINGAPORE GASOIL CALENDAR	GHS	0	0	-	0	-
SINGAPORE GASOIL CALENDAR	MGO	0	0	-	0	-
SINGAPORE GASOIL CALENDAR	MSG	517	408	26.7%	408	26.7%
SINGAPORE GASOIL CALENDAR	SGG	0	0	-	0	-
SINGAPORE GASOIL SWAP	SG	1,464	6,750	-78.3%	830	76.4%
SINGAPORE GASOIL VS ICE	GA	6,838	35,703	-80.8%	7,178	-4.7%
SINGAPORE JET KERO BALMO	BX	0	0	-	50	-100.0%
SINGAPORE JET KERO GASOIL	RK	900	9,500	-90.5%	1,350	-33.3%
SINGAPORE JET KEROSENE SW	KS	1,630	3,625	-55.0%	1,640	-0.6%
SINGAPORE JET KERO VS. GASOIL BALMO	Z0	0	0	-	0	-
SINGAPORE MOGAS 92 UNLEADED BALMO	1P	0	50	-100.0%	0	-
SINGAPORE MOGAS 92 UNLEADED SWP	1N	8,758	15,286	-42.7%	6,799	28.8%
SINGAPORE NAPHTHA SWAP	SP	0	0	-	0	-
SING FUEL	MSD	25	0	-	5	400.0%
SOCAL PIPE SWAP	XN	0	0	-	0	-
SONAT BASIS SWAP FUTURE	SZ	0	0	-	0	-
SOUTH STAR TEX OKLHM KNS	8Z	0	10	-100.0%	0	-
Sumas Basis Swap	NK	641	2,977	-78.5%	821	-21.9%
SUMAS NAT GAS PLATTS FIXED PRICE	DVS	0	0	-	0	-

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Commodity		Open Interest NOV 2019	Open Interest NOV 2018	% CHG	Open Interest OCT 2019	% CHG
<b>Energy Futures</b>						
TC2 ROTTERDAM TO USAC 37K	TM	469	365	28.5%	571	-17.9%
TC5 RAS TANURA TO YOKOHAM	TH	1,275	825	54.5%	1,360	-6.2%
TCO BASIS SWAP	TC	1,344	4,479	-70.0%	1,464	-8.2%
TCO NG INDEX SWAP	Q1	0	0	-	0	-
TD3 MEG TO JAPAN 250K MT	TL	12,109	7,886	53.6%	13,475	-10.1%
TENNESSEE 500 LEG BASIS S	NM	0	0	-	0	-
TENNESSEE 800 LEG NG BASI	6Z	0	0	-	0	-
TENNESSEE ZONE 0 BASIS SW	NQ	0	0	-	0	-
TETCO M-3 INDEX	IX	0	0	-	0	-
Tetco STX Basis	TX	0	62	-100.0%	0	-
TEXAS EASTERN ZONE M-3 BA	NX	976	2,643	-63.1%	1,036	-5.8%
TEXAS GAS ZONE1 NG BASIS	9F	0	484	-100.0%	0	-
Transco Zone 3 Basis	CZ	0	279	-100.0%	0	-
TRANSCO ZONE 3 NG INDEX S	Y6	0	0	-	0	-
TRANSCO ZONE4 BASIS SWAP	TR	1,671	3,513	-52.4%	1,804	-7.4%
TRANSCO ZONE 4 NAT GAS IN	B2	0	0	-	0	-
TRANSCO ZONE 6 BASIS SWAP	NZ	0	242	-100.0%	0	-
TRANSCO ZONE 6 INDEX	IT	0	0	-	0	-
UCM FUT	UCM	0	0	-	0	-
UK NBP NAT GAS CAL MTH FUT	UKG	360	60	500.0%	330	9.1%
ULSD 10PPM CIF MED SWAP	Z6	0	0	-	0	-
ULSD 10PPM CIF MED VS ICE	Z7	0	0	-	0	-
ULSD 10PPM CIF NW BALMO S	B1	0	0	-	0	-
ULSD UP-DOWN BALMO SWP	1L	4,785	7,571	-36.8%	10,555	-54.7%
UP DOWN GC ULSD VS NMX HO	LT	58,374	45,156	29.3%	61,010	-4.3%
WAHA BASIS	NW	751	2,855	-73.7%	814	-7.7%
WAHA INDEX SWAP FUTURE	IY	0	0	-	0	-
WESTERN RAIL DELIVERY PRB	QP	0	0	-	0	-
WTI-BRENT BULLET SWAP	BY	762	5,979	-87.3%	804	-5.2%
WTI-BRENT CALENDAR SWAP	BK	175,151	137,707	27.2%	171,411	2.2%
WTI CALENDAR	CS	182,194	171,656	6.1%	172,302	5.7%
WTS (ARGUS) VS WTI SWAP	FF	65,152	57,623	13.1%	67,275	-3.2%
WTS (ARGUS) VS WTI TRD MT	FH	3,776	4,848	-22.1%	4,455	-15.2%
<b>Energy Options</b>						
12 MO GASOIL CAL SWAP SPR	GXZ	0	0	-	0	-
BRENT 1 MONTH CAL	AA	0	0	-	0	-
BRENT CALENDAR SWAP	BA	9,189	10,543	-12.8%	8,514	7.9%
BRENT CRUDE OIL 12 M CSO	9Y	0	0	-	0	-
BRENT CRUDE OIL 1 M CSO	9C	2,000	33,000	-93.9%	3,600	-44.4%
BRENT CRUDE OIL 6 M CSO	9L	0	0	-	0	-
BRENT OIL LAST DAY	BE	12,140	112,765	-89.2%	24,800	-51.0%
BRENT OIL LAST DAY	BZO	72,491	206,983	-65.0%	67,594	7.2%
BRENT OIL LAST DAY	OS	0	150	-100.0%	0	-
COAL API2 INDEX	CLA	335	95	252.6%	335	0.0%
COAL API2 INDEX	CQA	175	100	75.0%	175	0.0%
COAL API2 INDEX	MTC	0	0	-	0	-
COAL API4 INDEX	RLA	0	0	0.0%	0	-
COAL API4 INDEX	RQA	0	0	-	0	-
COAL SWAP	CPF	0	0	-	0	-
COAL SWAP	RPF	0	0	-	0	-
CRUDE OIL	6Y	150	0	-	150	0.0%
CRUDE OIL 1MO	WA	368,625	409,475	-10.0%	414,975	-11.2%

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	Commodity	Open Interest NOV 2019	Open Interest NOV 2018	% CHG	Open Interest OCT 2019	% CHG
<b>Energy Options</b>						
CRUDE OIL APO	AO	377,796	329,762	14.6%	329,938	14.5%
CRUDE OIL CALNDR STRIP	6F	200	170	17.6%	200	0.0%
CRUDE OIL OUTRIGHTS	AH	0	6,000	-100.0%	0	-
CRUDE OIL OUTRIGHTS	DBP	0	0	-	0	-
CRUDE OIL OUTRIGHTS	WCI	0	390	-100.0%	0	-
CRUDE OIL PHY	CD	0	0	-	0	-
CRUDE OIL PHY	LC	49,763	57,408	-13.3%	54,742	-9.1%
CRUDE OIL PHY	LO	1,682,390	3,059,457	-45.0%	2,300,030	-26.9%
CRUDE OIL PHY	LO1	8,166	2,652	207.9%	5,371	52.0%
CRUDE OIL PHY	LO2	2,873	0	-	3,249	-11.6%
CRUDE OIL PHY	LO3	318	505	-37.0%	0	-
CRUDE OIL PHY	LO4	0	456	-100.0%	1,356	-100.0%
CRUDE OIL PHY	LO5	0	0	0.0%	832	-100.0%
ELEC MISO PEAK	9T	0	0	-	0	-
ETHANOL	CE1	0	0	-	0	-
ETHANOL	CE3	0	0	-	0	-
ETHANOL SWAP	CVR	12,900	6,896	87.1%	13,798	-6.5%
ETHANOL SWAP	GVR	60	2,257	-97.3%	90	-33.3%
EUROPEAN JET KEROSENE NWE (PLATTS) AVG PRC	30	0	0	-	0	-
FREIGHT MARKETS	TDT	1,200	0	-	1,800	-33.3%
GASOLINE	GCE	0	0	-	0	-
HEATING OIL CRACK OPTIONS	CH	0	0	-	0	-
HEATING OIL CRK SPD AVG PRICE OPTIONS	3W	0	0	-	0	-
HEATING OIL PHY	LB	39	466	-91.6%	186	-79.0%
HEATING OIL PHY	OH	26,565	50,272	-47.2%	43,955	-39.6%
HENRY HUB FINANCIAL LAST	E7	11,259	5,237	115.0%	11,954	-5.8%
HO 1 MONTH CLNDR OPTIONS	FA	400	2,600	-84.6%	0	-
LLS CRUDE OIL	WJO	0	300	-100.0%	0	-
LLS CRUDE OIL	YVO	0	0	-	0	-
MCCLOSKEY ARA ARGS COAL	MTO	350	90	288.9%	50	600.0%
MCCLOSKEY RCH BAY COAL	MFO	35	340	-89.7%	60	-41.7%
NATURAL GAS	G10	0	0	-	0	-
NATURAL GAS 1 M CSO FIN	G4	214,377	72,510	195.7%	142,800	50.1%
NATURAL GAS 2 M CSO FIN	G2	10,125	0	-	0	-
NATURAL GAS 3 M CSO FIN	G3	0	0	-	2,400	-100.0%
NATURAL GAS 5 M CSO FIN	G5	3,600	0	-	2,750	30.9%
NATURAL GAS 6 M CSO FIN	G6	47,700	17,100	178.9%	26,250	81.7%
NATURAL GAS OPTION ON CALENDAR STRP	6J	21,524	20,502	5.0%	19,384	11.0%
NATURAL GAS PHY	KD	0	0	0.0%	0	0.0%
NATURAL GAS PHY	LN	1,799,989	2,202,405	-18.3%	1,800,580	0.0%
NATURAL GAS PHY	ON	116,767	191,124	-38.9%	102,226	14.2%
NATURAL GAS WINTER STRIP	6I	0	0	-	0	-
N ROCKIES PIPE SWAP	ZR	4,658	3,408	36.7%	4,658	0.0%
NY HARBOR HEAT OIL SWP	AT	9,157	16,468	-44.4%	11,968	-23.5%
NYISO ZONE G 5MW PEAK OPTIONS	9U	0	0	-	0	-
NYMEX EUROPEAN GASOIL APO	F7	0	0	-	0	-
PANHANDLE PIPE SWAP	PU	0	480	-100.0%	0	-
PETROCHEMICALS	4H	2,141	4,490	-52.3%	2,888	-25.9%
PETROCHEMICALS	4J	150	1,070	-86.0%	225	-33.3%
PETROCHEMICALS	4K	260	1,290	-79.8%	280	-7.1%
PETROCHEMICALS	CPR	20	0	-	20	0.0%
PETRO OUTRIGHT EURO	8H	0	0	-	0	-
PETRO OUTRIGHT EURO	BCO	24	0	-	24	0.0%

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	Commodity	Open Interest NOV 2019	Open Interest NOV 2018	% CHG	Open Interest OCT 2019	% CHG
<b>Energy Options</b>						
PETRO OUTRIGHT NA	DAP	632	564	12.1%	618	2.3%
PJM WES HUB PEAK CAL MTH	6OA	1,540	2,110	-27.0%	1,390	10.8%
PJM WES HUB PEAK CAL MTH	JOA	0	0	-	0	-
PJM WES HUB PEAK LMP 50MW	PMA	512	2,579	-80.1%	512	0.0%
RBOB 1MO CAL SPD OPTIONS	ZA	0	0	-	0	-
RBOB CALENDAR SWAP	RA	260	300	-13.3%	295	-11.9%
RBOB CRACK	RX	0	2	-100.0%	0	-
RBOB PHY	OB	5,893	11,565	-49.0%	8,584	-31.3%
RBOB PHY	RF	0	0	-	0	-
ROTTERDAM 3.5%FUEL OIL CL	Q6	0	0	-	0	-
SAN JUAN PIPE SWAP	PJ	3,880	2,347	65.3%	3,880	0.0%
SHORT TERM	C15	0	0	-	0	-
SHORT TERM	U11	0	0	-	0	-
SHORT TERM	U12	0	0	-	0	-
SHORT TERM	U13	0	0	-	0	-
SHORT TERM	U14	0	0	-	0	-
SHORT TERM	U15	0	0	-	0	-
SHORT TERM	U22	0	0	-	0	-
SHORT TERM	U23	0	0	-	0	-
SHORT TERM	U24	0	0	-	0	-
SHORT TERM	U25	0	0	-	0	-
SHORT TERM	U26	0	0	-	0	-
SHORT TERM NATURAL GAS	U01	0	0	-	125	-100.0%
SHORT TERM NATURAL GAS	U02	500	0	-	0	-
SHORT TERM NATURAL GAS	U03	0	750	-100.0%	0	-
SHORT TERM NATURAL GAS	U04	0	0	-	0	-
SHORT TERM NATURAL GAS	U05	0	0	-	0	-
SHORT TERM NATURAL GAS	U06	0	0	-	0	-
SHORT TERM NATURAL GAS	U07	0	0	-	0	-
SHORT TERM NATURAL GAS	U08	0	0	-	0	-
SHORT TERM NATURAL GAS	U09	0	0	-	0	-
SHORT TERM NATURAL GAS	U10	0	0	-	0	-
SHORT TERM NATURAL GAS	U16	0	0	-	0	-
SHORT TERM NATURAL GAS	U17	0	0	-	0	-
SHORT TERM NATURAL GAS	U18	0	0	-	0	-
SHORT TERM NATURAL GAS	U19	0	0	-	0	-
SHORT TERM NATURAL GAS	U20	0	0	-	0	-
SHORT TERM NATURAL GAS	U21	0	0	-	0	-
SHORT TERM NATURAL GAS	U27	0	0	-	0	-
SHORT TERM NATURAL GAS	U28	0	0	-	0	-
SHORT TERM NATURAL GAS	U29	0	0	-	0	-
SHORT TERM NATURAL GAS	U30	0	0	-	0	-
SHORT TERM NATURAL GAS	U31	0	0	-	0	0.0%
SINGAPORE GASOIL CALENDAR	M2	0	0	-	0	-
SINGAPORE JET FUEL CALEND	N2	0	0	-	0	-
SOCAL PIPE SWAP	ZN	0	0	-	0	-
WTI-BRENT BULLET SWAP	BV	110,550	105,044	5.2%	101,000	9.5%
WTI CRUDE OIL 1 M CSO FI	7A	147,325	142,400	3.5%	147,185	0.1%
<b>Metals Futures</b>						
COMEX GOLD	GC	674,822	388,430	73.7%	681,205	-0.9%
NYMEX HOT ROLLED STEEL	HR	17,206	15,800	8.9%	16,685	3.1%

## NYMEX/COMEX Exchange Open Interest Report - Monthly

Commodity		Open Interest NOV 2019	Open Interest NOV 2018	% CHG	Open Interest OCT 2019	% CHG
<b>Metals Futures</b>						
NYMEX PLATINUM	PL	90,461	74,698	21.1%	89,351	1.2%
PALLADIUM	PA	25,311	24,971	1.4%	28,469	-11.1%
URANIUM	UX	2,406	4,782	-49.7%	2,406	0.0%
COMEX SILVER	SI	204,547	184,700	10.7%	224,936	-9.1%
COMEX E-Mini GOLD	QO	2,356	1,000	135.6%	2,709	-13.0%
COMEX E-Mini SILVER	QI	213	143	49.0%	444	-52.0%
COMEX COPPER	HG	209,490	215,249	-2.7%	238,590	-12.2%
COMEX MINY COPPER	QC	101	37	173.0%	83	21.7%
ALUMINUM	A38	18	72	-75.0%	28	-35.7%
ALUMINUM	AEP	15,301	12,912	18.5%	11,671	31.1%
ALUMINUM	ALA	870	1,615	-46.1%	720	20.8%
ALUMINUM	ALI	287	0	-	520	-44.8%
ALUMINUM	AUP	27,647	33,846	-18.3%	25,354	9.0%
ALUMINUM	CUP	0	0	-	0	-
ALUMINUM	EDP	12,937	11,400	13.5%	11,558	11.9%
ALUMINUM	MJP	4,490	8,264	-45.7%	4,920	-8.7%
COPPER	HGS	11,064	13,325	-17.0%	11,465	-3.5%
E-MICRO GOLD	MGC	21,830	9,130	139.1%	22,752	-4.1%
FERROUS PRODUCTS	BUS	2,292	4,096	-44.0%	2,162	6.0%
GOLD	GPS	0	0	-	0	-
GOLD	SGC	80	0	-	68	17.6%
GOLD	SGU	260	0	-	83	213.3%
Gold Kilo	GCK	0	0	-	0	-
IRON ORE 62 CHINA PLATTS FUTURES	PIO	0	160	-100.0%	0	-
IRON ORE 62 CHINA TSI FUTURES	TIO	4,753	9,478	-49.9%	5,787	-17.9%
LNDN ZINC	ZNC	0	25	-100.0%	0	-
SILVER	SIL	2,429	2,118	14.7%	2,613	-7.0%
<b>Metals Options</b>						
COMEX COPPER	HX	31,301	15,787	98.3%	38,490	-18.7%
COMEX GOLD	OG	1,244,841	1,080,006	15.3%	1,708,953	-27.2%
COMEX SILVER	SO	117,351	210,531	-44.3%	219,551	-46.5%
COPPER	H1E	135	115	17.4%	26	419.2%
COPPER	H2E	60	0	-	10	500.0%
COPPER	H3E	0	0	-	0	-
COPPER	H4E	0	0	-	0	-
COPPER	H5E	0	0	-	0	-
GOLD	OG1	12,261	4,764	157.4%	15,770	-22.3%
GOLD	OG2	6,113	1,530	299.5%	15,021	-59.3%
GOLD	OG3	3,079	2,818	9.3%	5,308	-42.0%
GOLD	OG4	0	0	-	794	-100.0%
GOLD	OG5	0	0	0.0%	0	-
HOT ROLLED COIL STEEL CALL OPTION	HRO	350	400	-12.5%	550	-36.4%
HOT ROLLED COIL STEEL PUT OPTION	HRO	150	0	-	0	-
IRON ORE 62 CHINA TSI CALL OPTION	ICT	870	536	62.3%	1,230	-29.3%
IRON ORE 62 CHINA TSI PUT OPTION	ICT	410	80	412.5%	615	-33.3%
NYMEX PLATINUM	PO	5,555	5,945	-6.6%	5,276	5.3%
PALLADIUM	PAO	1,417	834	69.9%	2,239	-36.7%
SILVER	SO1	1,139	358	218.2%	1,995	-42.9%
SILVER	SO2	672	270	148.9%	744	-9.7%
SILVER	SO3	12	485	-97.5%	452	-97.3%
SILVER	SO4	0	0	-	16	-100.0%
SILVER	SO5	0	0	0.0%	0	-



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Commodity	Open Interest NOV 2019	Open Interest NOV 2018	% CHG	Open Interest OCT 2019	% CHG
<b>TOTAL FUTURES GROUP</b>					
Ag Products Futures	0	0	-	1	-100.0%
Energy Futures	9,354,196	12,026,743	-22.2%	9,407,742	-0.6%
Metals Futures	1,331,171	1,016,251	31.0%	1,384,579	-3.9%
<b>TOTAL FUTURES</b>	<b>10,685,367</b>	<b>13,042,994</b>	<b>-18.1%</b>	<b>10,792,322</b>	<b>-1.0%</b>
<b>TOTAL OPTIONS GROUP</b>					
Energy Options	5,141,003	7,096,877	-27.6%	5,667,796	-9.3%
Metals Options	1,425,716	1,324,459	7.6%	2,017,040	-29.3%
<b>TOTAL OPTIONS</b>	<b>6,566,719</b>	<b>8,421,336</b>	<b>-22.0%</b>	<b>7,684,836</b>	<b>-14.5%</b>
<b>TOTAL COMBINED</b>					
Ag Products	0	0	-	1	-100.0%
Energy	14,495,199	19,123,620	-24.2%	15,075,538	-3.8%
Metals	2,756,887	2,340,710	17.8%	3,401,619	-19.0%
<b>GRAND TOTAL</b>	<b>17,252,086</b>	<b>21,464,330</b>	<b>-19.6%</b>	<b>18,477,158</b>	<b>-6.6%</b>

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