

The ICE Brent Index

September 2018

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THE ICE BRENT INDEX

The cash settlement price for the ICE Brent Future is based on the ICE Brent Index ('The Index') on expiry day for the relevant ICE Brent Futures contract month. The Index represents the average price of trading in the BFOE (Brent-Forties-Oseberg-Ekofisk-Troll) cash or forward ('BFOE Cash') market in the relevant delivery month as reported and confirmed by the industry media. Only published cargo size (600,000 barrels) trades and assessments are taken into consideration in the calculation.

Calculation

The calculation of the ICE Brent Index will be the average of five values. These will be aggregated into a single figure for the final ICE Brent Index figure from the five standalone valuations at each of the sampling points.

Each of those five figures will be calculated by averaging the sum of:

- The volume weighted minute marker for the second month ICE Brent Futures contract at the sampling time; and the sum of a weighted average of full cargo second month EFP trades and a weighted average of full cargo spread trades (between first and second months) in the Cash BFOE market, in the 30 minute period concluding at the sampling point in question; and
- 2) that same volume weighted minute marker to the sum of the straight averages of the independent assessment(s) specified in the Index methodology for the second month EFP value and the spread between the first and second month Cash BFOE markets at the sampling point; and
- 3) a weighted average of any full cargo **first** month Cash BFOE trades (if any) in the **5 minute** period concluding at the sampling point in question.

Should trades occur in only **one** of the component markets of section 1 above, the **missing** tradederived value will be replaced in the calculation above by an independent assessment of that component market at that time, but only where no trade in that component market has occurred.

Should trades occur in **neither** component market during the 30 minute period in question, then the value for that sampling time will be calculated as per paragraphs 2 and 3 only, i.e., on the basis of independent assessments and any full cash cargoes only.

Should no trades occur in component market 3, then the value for that sampling time will be calculated as per paragraph 1 and 2 only, i.e. on the basis of independent assessments and/or any EFP and/or spread trade only.

1. VOLUME WEIGHTED SECOND MONTH MINUTE MARKERS

Tradable minute markers will exist for the second month ICE Brent Crude Futures contract at the following sampling times: 10:30, 12:30, 14:30, 16:30 and 19:30. Two of the second month minute markers already exist, which are calculated at 16:30 (the 'tradable ICE Brent London Minute Marker') and 19:30 (settlement). Please note, the 19:30 marker is a two minute marker.

2. FULL CARGO SECOND MONTH EFP TRADES AND FULL CARGO SPREAD TRADES (BETWEEN FIRST AND SECOND MONTHS)

For inclusion in the Index calculation, the full cargo EFP must be traded in the 30 minutes before the sample time, so 10:00:00 to 10:29:59 for the 10:30 sampling point, 12:00:00 to 12:29:59 for the 12:30 sampling point and so forth. If the cargo trades any time after 10:30 or 12:30 and so forth, it will not be included in the Index calculation. If the trade appears to be close to the cut-off, the Exchange will reach out to participants on one or both sides, and/or to brokers to clarify when the trade actually occurred. Under its cargo exclusion policy, ICE Futures Europe reserves the right to omit trades that cannot be substantiated to the satisfaction of the Exchange.

3. INDEPENDENT ASSESSMENTS

ICIS assess the M2 EFP and M1/M2 Cash BFOE Spread at 10:30, 12:30, 14:30, 16:30 and 19:30 on expiry day. These independent assessments of the M2 EFP and M1/M2 Cash BFOE Spread are used in the calculation of the Brent Index.

4. FIRST MONTH CASH BFOE TRADES

To be included in the Brent Index, full cargo front month cargo trades must happen within 5 minutes of the cut-off time. These are at: 10:25:00 to 10:29:59, 12:25:00 to 12:29:59, 14:25:00 to 14:29:59, 16:25:00 to 16:29:59 and 19:25:00 to 19:29:59.

5. DATA SOURCE

Component	Source: ICE	Source: ICIS	Source: Other (direct enquiry)
M2 Minute Markers	 ✓ 		
M2 EFPs		 ✓ 	 ✓
Front month Spreads		~	
Front month outright cargoes		 	
Independent assessments		v	

6. CURRENTLY USED PRICE REPORTING AGENCIES:

NO.	NAME	WEBSITE
1.	ICIS	http://www.icis.com/energy/crude-oil/

APPENDIX 1 (Available <u>here</u> as an Excel document):

ICE BRENT INDEX METHODOLOGY																											
ICE Minute Markers Cargo Trades as reported by independent assessors Independent Assessments							Cargo inde	Cargo Trades as reported by Independent assessors																			
ICE Bren Minute	nt Index M2 e Marker	Premia for M2 EFP Trades (i.e. the differential between M2 cash BFOE and M2 ICE Brent Futures) M1/M2 Cash BFOE Cargo Spread Trade			ash BFOE read Trades	Independ EFP Pren between IC	dent Assess nia (i.e. the M2 cash Bl E Brent Fut	ment of M2 differential FOE and M2 ures)	Independent Assessment of M1/M2 Cash BFOE Cargo Spread			M1 Cash	BFOE full cargo trades	OE full cargo trades					<u>ulation</u>								
Time	Price (\$/bbl)	Time	Trade Time	Premia (\$/bbl)	Trade Time	Price (\$/bbl)	Asses- sment Time	Bid (\$/bbl) Ask (\$/bbl)	Time	Bid (\$/bbl)	Ask (\$/bbl)	Time	Trade Time	Time	ICE Brent Index M2 Minute Marker (Ai)	Weighted Average Premia for M2 EFP trades (Aiia)	Weighted Average M1/M2 Cash BFOE Spread Trades (Aiib)	M1 Cash/M2 Futures based on Trades (Aii) (derived from Aiia + Aiib)	Value (A) (derived Ai + Aii)	ICE Brent Index M2 Minute Marker (Bi)	Average Independent Assessment of M2 EFP Premia (Biia)	Average Independent Assessment of M1/M2 Cash BFOE Spread Trades (Biib)	M1 Cash/M2 Futures based on Assessments (Bii) (derived from Biia + Biib)	Value (B) (derived Bi + Bii)	Weighted Average of M1 Cash BFOE full cargo trades (C)	<u>Weighted</u> <u>Average of</u> <u>A, B and C</u>
10:30		10:00:00 to 10:30:00					10:30			10:30			10:25:00 to 10:30:00	Image: Sector of the	10:30		No Input	No Input		-		No Input	No Input	-	-	No Input	-
		Outside Period						<u> </u>					Outside Period														
12:30		12:00:00 to 12:30:00					12:30			12:30			12:25:00 to 12:30:00		12:30		No Input	No Input	-	-		No Input	No Input	-	-	No Input	
		Outside											Outside														
14:30		14:00:00 to 14:30:00					14:30			14:30			14:25:00 to 14:30:00		14:30		No Input	No Input	-	-		No Input	No Input	-		No Input	-
		Outside Period											Outside Period														
16:30		16:00:00 to 16:30:00					16:30			16:30			16:25:00 to 16:30:00		16:30		No Input	No Input	-	-		No Input	No Input	-	-	No Input	
		Outside Period											Outside Period														
19:30		19:00:00 to 19:30:00					19:30			19:30			19:25:00 to 19:30:00		19:30	t Index	No Input	No Input				No Input	No Input			No Input	
		Period											Period		*1: Should t	rades occur in r	neither compone	nt market (for A	Aii) during the 5 r	ninute period in a	uestion, then the v	alue for that san	npling time will	not be calculate	d.		
															*2: Should r	no trades occur	of first month BF	OE cash full c	argoes at the sa	mpling point in qu	estion, then the in	traday value will	be based on th	he average of A (if applicable) and	B only.	