Program 1 "Brent oil, gold and silver futures contracts"

1. The table below shows instruments and their designations for which the Contractors must maintain quotes and/or trading volume during the trading sessions on the Moscow Exchange Derivatives Market in accordance with this Program:

Instrument designation	Instrument name
k=1	Futures on Brent oil
k=2	Futures on Gold
k=3	Futures on Silver

2. Conditions for the Contractors' obligations to be fulfilled.

2.1. The following definitions are used to set the Contractors' obligations parameters:

Bid/ask quote spread	The maximum difference between the best bid and the best ask on the orders submitted by the Market Maker with respect to the Instrument. The value of the Spread of two-sided quotes is determined by the formula: $Spread_{MM}$ = max {|a*SP_i|;b}, where: a, b - constant coefficients determined for the Instrument in paragraph 2.2.1. of this Program; SPi - The settlement price of the Instrument with the i-th contract month, determined on the basis of the Daily clearing session (intermediate clearing). The spread is determined by the value used for determination of the Instrument's price as set out in the Specifications.
Best bid	The price of an order to buy entered by Contractor 1 with respect to the Instrument, which volume (considering the volume of all Contractor 1's orders to buy at the same price or higher) is no less than the minimum required order volume.
Best ask	The price of an order to sell entered by Contractor 1 with respect to the Instrument, which volume (considering the volume of all Contractor 1's orders to sell at the same price or lower) is no less than the minimum required order volume.
Quantum	The period of the Trading Session during which the Contractor 1 must enter orders. Quanta are designated as q= 1, 2, … (where 1, 2, ... – the Quantum sequence number). The Quantum duration (Ts) is in seconds.
Nearest contract month for the Instrument	The contract month of the Instrument that is as close as possible to the Trading Day on which quotes are maintained for such Instrument. Such contract month is designated as i=n (where n= 1, 2, … – the sequence number of the expiration date of the Instrument).
Next contract month for the Instrument	The contract month determined as i= n+1.
Reporting Period	A calendar month.
Historical Volatility Value	The value determined at the end of the main clearing session: $\sigma_T = \sqrt{\frac{\sum_{j=T-2}^{T}(R_j-\bar{R})^2}{2}}$, where $R_j = \frac{P_j-P_{j-1}}{\lvert P_{j-1}\rvert}$, P – Settlement Price for the Instrument determined at the end of the evening clearing session (main clearing), T – the sequence number of

	the Trading Day for calculating Historical Volatility Value, j – the Trading Day sequence number. When the Historical Volatility Value equals to or greater than the Volatility Threshold Value for the Instrument as indicated in clause 2.2.1. of this Program, the Trading Day T+1 shall mean the start of the Period of Heightened Volatility.
Period of Increased Volatility	The period during which multiplying factors s and n indicated in clause 2.2.1 below shall apply to the Bid/ask quote spread and Minimum quoted size values. The Period of Increased Volatility starts on the Trading Day when the Historical Volatility Value reaches or exceeds Volatility Threshold Value for the Instrument as indicated in clause 2.2.1. of this Program and designated as σ_{high}. The period of Increased Volatility ends on the Trading Day when the Historical Volatility Value becomes less or equal to the value calculated according to the following formula: $\sigma_{average} = \frac{\sum_{j=J-1}^{J-31} \sigma_j}{30}$, where J – Trading Day on which the Period of Increased Volatility starts.

Terms that are not specified in this Program are used in the values, the land of internal documents of the Public Joint-Stock Company "Moscow Exchange MICEX-RTS" (hereinafter - the Exchange) and the National Settlement Depository, and in the absence of such terms - in accordance with the current legislation of the Russian Federation.

2.2. Contractors' obligations parameters

2.2.1. The Contractors shall perform only with regard to contract months specified in Tables 1-6 below:

Table 1

Conditions for maintaining two-sided quotes for the Futures on Brent oil k=1 during Quantum q=1			
Market making obligations parameters	The second contract month (i=2)	The third contract month (i=3)	Quantum start-Quantum end (q=1)
	Whole period	Whole period	
1. Bid/ask quote spread (in the Instrument price unit as per the Specification)	max{|a*SPi|; b}, where a = 0.15%, b=0.03	max{|a*SPi|; b}, where a = 0.19%, b=0.04	10:00 MSK (UTC+3) – 18:45 MSK (UTC+3)
2. Minimum quoted size (in contracts)	1000	500	
3. Minimum length of time to maintain two-sided quotes (in per cent of the Quantum)	60	60	
4. Volatility threshold value σ_{high} (in %)	10	10	
5. Multiplying factor s for a Bid/ask quote spread	2	2	
6. Multiplying factor v for a Minimum quoted size	0.5	0.5	

Table 2

Conditions for maintaining two-sided quotes for the Futures on Brent oil k=1 during Quantum q=2			
Market making obligations parameters	The second contract month (i=2)	The third contract month (i=3)	Quantum start-Quantum end (q=2)
	Whole period	Whole period	

1. Bid/ask quote spread (in the Instrument price unit as per the Specification)	max{|a*SPi|; b}, where a = 0.15%, b=0.03	max{|a*SPi|; b}, where a = 0.19%, b=0.04	19:00 MSK (UTC+3) – 23:50 MSK (UTC+3)
2. Minimum quoted size (in contracts)	1000	500	
3. Minimum length of time to maintain two-sided quotes (in per cent of the Quantum)	60	60	
4. Volatility threshold value σ_{high} (in %)	10	10	
5. Multiplying factor s for a Bid/ask quote spread	2	2	
6. Multiplying factor v for a Minimum quoted size	0.5	0.5	

Table 3

Conditions for maintaining two-sided quotes for Futures on Gold k=2 during Quantum q=1			
MM obligations parameters	The first contract month (i=1)	The second contract month (i=2)	Quantum start-Quantum end (q=1)
	Whole period	Whole period	
1. Bid/ask quote spread (in the Instrument price unit as per the Specification)	max{|a*SPi|; b}, where a = 0.10%, b=0.8	max{|a*SPi|; b}, where a = 0.125%, b=1	10:00 MSK (UTC+3) – 18:45 MSK (UTC+3)
2. Minimum quoted size (in contracts)	500	300	
3. Minimum length of time to maintain two-sided quotes (in per cent of the Quantum)	60	60	
4. Volatility threshold value σ_{high} (in %)	3	3	
5. Multiplying factor s for a Bid/ask quote spread	2	2	
6. Multiplying factor v for a Minimum quoted size	0.5	0.5	

Table 4

Conditions for maintaining two-sided quotes for Futures on Gold k=2 during Quantum q=2			
MM obligations parameters	The first contract month (i=1)	The second contract month (i=2)	Quantum start-Quantum end (q=2)
	Whole period	Whole period	
1. Bid/ask quote spread (in the Instrument price unit as per the Specification)	max{|a*SPi|; b}, where a = 0.10%, b=0.8	max{|a*SPi|; b}, where a = 0.125%, b=1	19:00 MSK (UTC+3) – 23:50 MSK (UTC+3)
2. Minimum quoted size (in contracts)	500	300	
3. Minimum length of time to maintain two-sided quotes (in per cent of the Quantum)	60	60	
4. Volatility threshold value σ_{high} (in %)	3	3	
5. Multiplying factor s for a Bid/ask quote spread	2	2	
6. Multiplying factor v for a Minimum quoted size	0.5	0.5	

Table 5

Conditions for maintaining two-sided quotes for the Futures on Silver k=3 during Quantum q=1

Market making obligations parameters	The first contract month (i=1)	The second contract month (i=2)	Quantum start-Quantum end (q=1)
	Whole period	Whole period	
1. Bid/ask quote spread (in the Instrument price unit as per the Specification)	max{|a*SPi|; b}, where a = 0.35%, b=0.03	max{|a*SPi|; b}, where a = 0.4%, b=0.05	10:00 MSK (UTC+3) – 18:45 MSK (UTC+3)
2. Minimum quoted size (in contracts)	2000	1000	
3. Minimum length of time to maintain two-sided quotes (in per cent of the Quantum)	60	60	
4. Volatility threshold value σ_{high} (in %)	5	5	
5. Multiplying factor s for a Bid/ask quote spread	2	2	
6. Multiplying factor v for a Minimum quoted size	0.5	0.5	

Table 6

Conditions for maintaining two-sided quotes for the Futures on Silver k=3 during Quantum q=2			
Market making obligations parameters	The first contract month (i=1)	The second contract month (i=2)	Quantum start-Quantum end (q=2)
	Whole period	Whole period	
1. Bid/ask quote spread (in the Instrument price unit as per the Specification)	max{|a*SPi|; b}, where a = 0.35%, b=0.03	max{|a*SPi|; b}, where a = 0.4%, b=0.05	19:00 MSK (UTC+3) – 23:50 MSK (UTC+3)
2. Minimum quoted size (in contracts)	2000	1000	
3. Minimum length of time to maintain two-sided quotes (in per cent of the Quantum)	60	60	
4. Volatility threshold value σ_{high} (in %)	5	5	
5. Multiplying factor s for a Bid/ask quote spread	2	2	
6. Multiplying factor v for a Minimum quoted size	0.5	0.5	

2.2.2. The nearest and the next contract month of the Instrument are the nearest and the next dates of the expiration of the Instrument k=1, attributable to every calendar month.

The nearest and the next contract month of the Instrument are the nearest and the next dates of the expiration of the Instruments k=2 and k=3, attributable to March, June, September and December, respectively.

2.3. During the Reporting Period, the Market Maker has the right not more than 7 (seven) times to not perform during each q-th Quantum of each Trading day the obligation in respect of the k-th Instrument with the i-th contract month specified in Tables 1-6 in clause 2.2. of this Program.

3. Market Maker's compensation

6.1. The amount of compensation that the Contractors receive for fulfilling their obligations for Instrument during the Reporting Period on the terms set out in Clauses 1-2 above, subject to paragraph 2.3. of this Program is:

6.1.1. for the Instrument k = 1

a. the amount of remuneration determined by Formula 1 in relation to each group of the clearing registers section codes which are used to perform the Contractors' obligations under this Program based on the market making agreement with the Exchange provided by the Market

Maker services full in accordance with the parameters of obligations provided for in Tables 1-2 of paragraph 2.2.2. of this Program in respect of the kth Tool.

6.1.2. for the Instrument k = 2

a. the amount of remuneration determined by Formulas 2 to 3 in relation to each group of the clearing registers section codes which are used to perform the Contractors' obligations under this Program based on the market making agreement with the Exchange provided by the Market Maker services full in accordance with the parameters of obligations provided for in Tables 3 to 4 of paragraph 2.2.2. of this Program in respect of the kth Tool;

b. the amount of remuneration determined by Formulas 2 to 3 in relation to each group of the clearing registers section codes which are used to perform the Contractors' obligations under this Program based on the market making agreement with the Exchange provided by the Market Maker services full in accordance with the parameters of obligations provided for in Table 3 of paragraph 2.2.2. of this Program in respect of the kth Tool;

c. the remuneration determined by Formula 2 in relation to each group of the clearing registers section codes which are used to perform the Contractors' obligations under this Program based on the market making agreement with the Exchange provided by the Market Maker services full in accordance with the parameters of obligations provided for in Table 4 of paragraph 2.2.2. of this Program in respect of the kth Tool.

6.1.3. for the Instrument k = 3

a. the amount of remuneration determined by Formulas 3 and 4 in relation to each group of the clearing registers section codes which are used to perform the Contractors' obligations under this Program based on the market making agreement with the Exchange provided by the Market Maker services full in accordance with the parameters of obligations provided for in Tables 5 to 6 of paragraph 2.2.2. of this Program in respect of the kth Tool;

b. the amount of remuneration determined by Formulas 3 and 4 in relation to each group of the clearing registers section codes which are used to perform the Contractors' obligations under this Program based on the market making agreement with the Exchange provided by the Market Maker services full in accordance with the parameters of obligations provided for in Table 5 of paragraph 2.2.2. of this Program in respect of the kth Tool;

c. the remuneration determined by Formula 4 in relation to each group of the clearing registers section codes which are used to perform the Contractors' obligations under this Program based on the market making agreement with the Exchange provided by the Market Maker services full in accordance with the parameters of obligations provided for in Table 6 of paragraph 2.2.2. of this Program in respect of the kth Tool.

Formula 1:

$\min\left(0.25 \times \sum_{q,j,k,i} Fee^{k,i,j,q}_{active} \times \left(I_{q,i}\left(Pcf^{k,i}_{j,q}; Pcn^{k,i}_{j,q}\right) + 1\right) + 0.375 \times \sum_{q,j,k,i} Fee^{k,i,j,q}_{passive} \times \left(I_{q,i}\left(Pcf^{k,i}_{j,q}; Pcn^{k,i}_{j,q}\right) + 1\right); 1\,200\,000\right)$, where

- $I_{q,i}$ is determined as follows:

$$I_{q,i}\left(Pcf^{k,i}_{j,q}; Pcn^{k,i}_{j,q}\right) = \begin{cases} 1, if\ Pcf^{k,i}_{j,q} \geq 80\% \\ \left(\frac{\left(Pcf^{k,i}_{j,q} - Pcn^{k,i}_{j,q}\right)}{\left(80\% - Pcn^{k,i}_{j,q}\right)}\right)^5, if\ Pcn^{k,i}_{j,q} \leq Pcf^{k,i}_{j,q} < 80\% \\ -1, otherwise \end{cases}$$

- $Fee^{k,i,j,q}_{active}$ – the amount of exchange fee and commission for clearing charged to Contractor 1 for market trades executed in the k[th] Instrument with the i[th] contract month similar to those

specified in Clause 2.2 above, during the q[th] Quantum on the j[th] Trading Day based on unaddressed orders entered by such Contractor 1 as instructed by Contractor 2 and with the clearing registers section codes which are used to perform the Contractors' obligations under this Program based on the market making agreement with the Exchange, provided that these orders are registered in the Order Register with larger numbers than the relevant counter orders for the corresponding Paired Transactions;

- $Fee^{k,i,j,q}_{passive}$ – the amount of exchange fee and commission for clearing charged to Contractor 1 for market trades executed in the k[th] Instrument with the i[th] contract month similar to those specified in Clause 2.2 above, during the q[th] Quantum on the j[th] Trading Day based on unaddressed orders entered by such Contractor 1 as instructed by Contractor 2 and with the clearing registers section codes which are used to perform the Contractors' obligations under this Program based on the market making agreement with the Exchange, provided that these orders are registered in the Order Register with lower numbers than the relevant counter orders for the corresponding Paired Transactions;

- $Pcf^{k,i}_{j,q}$ – the actual length of time during which the Contractors maintain Bid/Ask Quote Spread for the k[th] Instrument with the i[th] contract month during the q[th] Quantum on the j[th] Trading Day, on terms set out in Clause 2.2 above (per cent of the Quantum length);

- $Pcn^{k,i}_{j,q}$ – the minimum length of time during which the Contractors shall maintain Bid/Ask Quote Spread for the k[th] Instrument with the i[th] contract month during the q[th] Quantum on the j[th] Trading Day, on terms set out in Clause 2.2 above (per cent of the Quantum length);

- $k = 1, 2, \ldots$ – the sequence number of the relevant Instrument as specified in Clause 1 above;
- $i = 1, 2, \ldots$ – the sequence number of the contract month as specified in Clause 1 above;
- $j = 1, 2, \ldots$ - the sequence number of the Trading Day in the relevant month;
- $q = 1, 2, \ldots$ - the sequence number of the Quantum as specified in Clause 2.2.1 above.

Formula 2:

$$0.20 \times \sum_{q,j,k,i} Fee^{k,i,j,q}_{active} \times \left(I_{q,i}\left(Pcf^{k,i}_{j,q}; Pcn^{k,i}_{j,q}\right) + 1\right) +$$
$$+0.325 \times \sum_{q,j,k,i} Fee^{k,i,j,q}_{passive} \times \left(I_{q,i}\left(Pcf^{k,i}_{j,q}; Pcn^{k,i}_{j,q}\right) + 1\right)$$

Formula 3:

$$Y \times \frac{\sum_{q,j,k,i} \max\left(0; I_{q,i}\left(Pcf^{k,i}_{j,q}; Pcn^{k,i}_{j,q}\right) \times (S_4 - S_3) + S_3\right)}{\sum_{j,k,q} K^{k,q}_{j}}$$

if q=1

$$Y \times \frac{\sum_{1,j,k,i} \max\left(0; I_{1,i}\left(Pcf^{k,i}_{j,1}; Pcn^{k,i}_{j,1}\right) \times (S_4 - S_3) + S_3\right)}{\sum_{j,k,1} K^{k,1}_{j}}$$, where:

- S_3 – RUB 100 000 (One hundred thousand);
- S_4 – RUB 200 000 (Two hundred thousand);
- Y – the coefficient determined as follows:

Instrument designation	Instrument name	Volume of derivative trades in Contracts, *VT*	Coefficicent Y, if $\sum VT^{k}_{j,MM} \geq VT$

k=2	Futures on Gold	150 000	1
k=3	Futures on Silver	150 000	1

- $K_j^{k,q}$ – the number of maturities for the kth Instrument for which the Contractors must adhere to terms of maintain Bid/Ask Quote Spread as set out in Clause 2.2 above during the q[th] quant on the jth Trading Day;

- $VT_{j,MM}^{k}$ – the actual volume of Derivative trades in Contracts executed in the k[th] Instrument with the contract months specified in clause 2.2. on the j[th] Trading Day based on unaddressed orders entered by Contractor 1 as instructed by Contractor 2 and with the position register section codes specified which are used to perform the Contractors' obligations under this Program based on the market making agreement with the Exchange.

Formula 4:

$$0.375 \times \sum_{q,j,k,i} Fee\ {}^{k,i,j,q}_{active} \times \left(I_{q,i}\left(Pcf_{j,q}^{k,i}; Pcn_{j,q}^{k,i}\right) + 1\right) +$$

$$+0.625 \times \sum_{q,j,k,i} Fee\ {}^{k,i,j,q}_{passive} \times \left(I_{q,i}\left(Pcf_{j,q}^{k,i}; Pcn_{j,q}^{k,i}\right) + 1\right).$$