Algorithmic Trading and Direct Electronic Access Policy

Please respond to:
Trading Operations

1   Introduction

This document sets out the London Metal Exchange's (the "**LME**") policy on algorithmic trading and the provision of order routing facilities by Members to their Clients (also known as "**Direct Electronic Access**" or "**DEA**"). This policy addresses obligations imposed upon UK Regulated Investment Exchanges ("**UK RIE**") under the UK MiFID Framework[1] and Financial Conduct Authority ("**FCA**") Handbook ("**FCA Handbook**"), with particular reference to Articles 1, 9, 10, 18, 21, and 22 of the UK version of Commission Delegated Regulation (EU) No 2017/584 ("**UK MiFID RTS 7**").

This policy should be read in conjunction with other documentation, including those set out below, which collectively sets out obligations that are applicable to anyone accessing or conducting business on LMEselect, including Members, their Clients and independent software vendors ("**ISVs**") as part of a DEA arrangement:

- LME DEA Overview;
- Error Trades and Erroneous Order Submissions Policy;
- Policies and Controls for the Prevention of Disorderly Trading;
- LMEselect Unexecuted Order to Transaction Ratio Policy;
- LMEptrm User Guide; and
- LMEselect Test Services.

2   Defined Terms

Capitalised terms not otherwise defined herein shall have the meaning ascribed to them in the Rules and Regulations of the LME (the "**LME Rulebook**").

3   Power to Request Information

The LME Rulebook at Part 2 sets out the powers of the LME to request information from Members. For the avoidance of doubt, these powers notably include the power to request information from Members regarding their organisational requirements and trading controls, or about the organisational requirements and trading controls of any Client of a Member. Under the LME Rulebook, the Member must comply with any request of the LME or must procure that its Client complies with any request of the LME.

4   Algorithmic Trading & Testing Requirements

Prior to conducting business on LMEselect, and prior to any deployment or update of LMEselect, the LME, its Members and their Clients where applicable, shall engage in testing of the system. The LME may issue guidelines from time to time on such testing, and Members are expected to comply with all applicable

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[1] Directive 2014/65/EU, and all delegated legislation thereunder, was onshored by way of the European Union (Withdrawal) Act 2018 (the "**UK MiFID Framework**")

guidelines (including where they act as DEA Provider, their responsibility to ensure that their DEA Client complies with all applicable algorithm testing requirements in UK MiFID) and are required to comply with all applicable obligations under the UK MiFID Framework, FCA Handbook and the LME Rulebook.

4.1 Conformance testing

Members and prospective Members must undertake conformance testing prior to the deployment or a substantial update of: (a) access to LMEselect; or (b) the Member's trading system, trading algorithm or trading strategy. This includes conformance testing of ISVs where conformance testing has not already been completed. ISVs who have passed LME conformance tests for order routing applications connecting via the LMEselect API can be found on the LME website. The conformance testing shall ensure that the basic functioning of the Member's trading system, algorithm and strategy complies with the LME's conditions set out in the LME Rulebook and in this policy.

The conformance testing shall verify the functioning of the following:

a)   the ability of the system or algorithm to interact as expected with the LME's matching logic and the adequate processing of the data flows from and to the LME;

b)   the basic functionalities such as submission, modification or cancellation of an order or an indication of interest, static and market data downloads and all business data flows; and

c)   the connectivity, including the cancel on disconnect command, market data feed loss and throttles, and the recovery, including the intra-day resumption of trading and the handling of suspended instruments or non-updated market data.

Full details of conformance testing and certification, including the test environments provided by the LME can be found in the LMEselect Test Services document published on the LME website.

Conformance testing is not limited to algorithmic trading. Any Member, prospective Member, Client, and ISV (where applicable) must undertake conformance testing prior to accessing or conducting business on LMEselect. Also refer to the LMEselect Test Services for further information.

4.2 Algorithm testing & Certification

It is the Member's responsibility to ensure appropriate testing of algorithms has been carried out either themselves or by their DEA Client. This must be done prior to the deployment or substantial update of a trading system, trading algorithm or trading strategy. This includes proprietary algorithms, and all algorithms deployed under a DEA arrangement. The purpose of testing is to avoid trading systems, trading strategies and use of algorithms from creating or contributing to disorderly trading conditions, including under stressed conditions. Members must ensure the trading system, trading strategy or algorithms do not behave in an unintended manner and that they comply with applicable obligations under UK MiFID Framework, FCA Handbook and the LME Rulebook. Members and DEA clients must ensure that testing is carried out using sufficiently designed testing methodologies, by suitably qualified staff and under appropriate governance arrangements.

It is the Member's responsibility to determine whether a change to an existing algorithm, that has already been deployed, constitutes a "substantial update" and whether further testing and certification to the LME is required.

4.2.1 Algorithm Certification

As required by Article 10 of UK MiFID RTS 7, the LME requires Members to certify to the LME that algorithms have undergone appropriate testing and must explain the means used for that testing. This can be done using the LMEselect Algorithm Certification form available on the LME website.

It is the Member's responsibility to complete certification of all algorithms, including those DEA Client algorithms deployed under their DEA arrangements.

Each algorithm must be given an identifier by the Member or their DEA Client and provide this to the LME on the certification. The LME does not mandate a specific format for such identifiers, but they should, as a minimum, assist Members and DEA Clients to evidence that a particular algorithm has been the subject of testing/certification and to facilitate monitoring and oversight by the Exchange and Members (including in respect of their DEA Clients).

The DEA Provider is reminded that under the FCA Handbook and Regulation 12.11 Part 3 of the Rulebook, it is required to have a binding written agreement with each DEA Client stating that the DEA Provider is responsible for ensuring that the DEA Client notably complies with all applicable algo testing requirements in UK MiFID (including UK version of Commission Delegated Regulation (EU) No 2017/589 ("**UK MiFID RTS 6**")) and in the LME Rulebook (in particular Regulation 21 Part 3 of the LME Rulebook).

Full details of algorithm testing and certification, including details of the testing environments and dummy products provided by the LME, can be found in the LMEselect Test Services document published on the LME website.

4.3 Compliance

Members, including prospective Members and Clients or ISVs as applicable, will be required to demonstrate that they have complied with all relevant regulatory requirements including, but not limited to, those set out in the UK MiFID Framework and/or in the FCA Handbook. This may be subject to further information requests by the LME (see section 3).

5   Direct Electronic Access

The LME permits Members who meet the Order-routing Eligibility Requirement set out in the LME Rulebook, to offer DEA to their Clients. Under DEA, Members can offer Direct Market Access ("**DMA**") or Sponsored Access ("**SA**"). Members who provide DEA may be referred to as DEA, DMA, or SA Providers as applicable, and similarly Clients as DEA, DMA, or SA Clients.

Under both DMA and SA, the DEA Provider is at all times responsible for the activity of their DEA Clients and for ensuring compliance with the UK MiFID Framework and/or FCA Handbook and the LME Rulebook. This

applies both to DEA Clients accessing LMEselect directly or through an ISV. To fulfil their regulatory obligations, DEA Providers must notably perform due diligence as set out in UK MiFID RTS 6 both on prospective clients before they access the LME and on an annual or ad-hoc basis where required thereafter.

A SA Provider must receive prior authorisation by the LME for each SA arrangement. Where an SA Client has direct access to the LME and does not pass through the usual order management systems of the SA Provider, appropriate risk controls must be in place to prevent the entry of erroneous orders on the LME. This could present greater risk and as such may require the SA Provider to carry out additional checks to ensure and evidence that the SA Client complies.

DEA Providers are required to inform the LME of arrangements in place with each and every DEA Client to set out how each specific arrangement, which may differ, meets the requirements of the UK MiFID Framework and/or FCA Handbook and the LME Rulebook. Notification requirements are set out in section 5.3.

5.1 DEA Providers' Responsibility for the provision of DEA

DEA Providers who offer the facility for Clients to order route to LMEselect must ensure that they have in place appropriate policies regarding the conditions under which they offer these services to their DEA Clients.

DEA Providers are reminded of the obligations set out in the 'Order routing services (Direct Electronic Access)' section of the LME Rulebook and the requirements set out in the UK MiFID Framework and/or FCA Handbook. In particular, DEA Providers are reminded that they are responsible, and remain liable, for:

a) all trading activity entered into by clients under DEA arrangements;

b) ensuring all DEA Clients are fully aware of this policy;

c) ensuring all orders submitted by DEA Clients are subject to appropriate pre- and post-trade risk controls and procedures that have been implemented by the DEA Provider and that such controls are equivalent to, and not less effective or robust than, the controls that the LME requires Members to establish in respect of their own LMEselect activities;

d) ensuring the effectiveness of pre-trade and post-trade controls, regardless of whether such controls have been provided by the DEA Provider, a third party, or the LME;

e) ensuring the necessary conformance testing has been undertaken;

f) algorithm certifications on behalf of their DEA Clients; and

g) notifying the FCA, where required, of their provision of DMA and SA as part of DEA arrangements.

DEA Providers are also reminded that they must not offer DEA access to Clients located in or from a jurisdiction where the LME does not have the relevant regulatory licences or approvals (if such regulatory licence or approval is required) if to do so would put the LME in breach of any legal or regulatory obligations to which it

might be subject within that jurisdiction or would bring the LME into disrepute with the regulatory authority within such jurisdiction (Regulation 12.6(j) Part 2 of the LME Rulebook).

Where applicable, DEA Providers are also reminded that they must comply with the local applicable jurisdictional requirements described in the LME Jurisdictions Notice (as updated from time to time).

5.2 Conditions for Offering DEA

a) A DEA Provider must meet the Order-routing Eligibility Requirement set out in the LME Rulebook. These include notably being an investment firm, as defined under the UK Regulated Activities Order ("**RAO**"), which has permission under Part 4A of the Financial Services and Markets Act 2000 ("**FSMA**") to carry on a regulated activity being any of the 'investment services or activities' defined under section 417 of FSMA. They also include being a qualifying credit institution that has permission under Part 4A of FSMA to carry on the regulated activity of 'accepting deposits', as specified in the RAO. A DEA Provider may also be a third country firm and (a) the provision of DEA by that firm is subject to the exclusion in Article 72 of the RAO; or (b) is providing DEA in the course of exercising rights under article 46.1 of the UK version of the Markets in Financial Instruments Regulation ("**UK MiFIR**"); or (c) is a third country firm which does not come within (a) or (b) and is otherwise permitted to provide DEA under FSMA;

b) A DEA Provider shall conduct a due diligence assessment of its prospective DEA Clients to ensure that they meet the requirements set out in UK MiFID RTS 6 and the LME Rulebook;

c) The due diligence assessment referred to above shall cover:

    i. the governance and ownership structure of the prospective DEA Client;

    ii. the types of strategies to be undertaken by the prospective DEA Client;

    iii. the operational set-up, the systems, the pre-trade and post-trade controls and the real time monitoring of the prospective DEA Client. The Member allowing DEA Clients to use third-party trading software for accessing the LME shall ensure that the software includes pre-trade controls that are equivalent to the pre-trade controls set out in UK MiFID Framework and/or FCA Handbook;

    iv. the responsibilities within the prospective DEA Client for dealing with actions and errors;

    v. the historical trading pattern and behaviour of the prospective DEA Client;

    vi. the level of expected trading and order volume of the prospective DEA Client;

    vii. the ability of the prospective DEA Client to meet its financial obligations to the Member; and

    viii. the disciplinary history of the prospective DEA Client, where available.

d) Where a DEA Provider intends on allowing a DEA Client to provide DEA to its own clients (sub-delegation), approval is required by the LME before access is granted. The DEA Provider shall ensure that the DEA Client has a due diligence framework that is at least equivalent to that set out in this section;

e) As set out in UK MiFID RTS 6, a DEA Provider shall:

i.   review its due diligence assessment processes at least annually; and

ii.   carry out an annual risk-based reassessment of the adequacy of its DEA Clients' systems and controls, in particular taking into account changes to the scale, nature or complexity of their trading activities or strategies, changes to their staffing, ownership structure, trading or bank account, regulatory status, financial position and whether a DEA Client has expressed an intention to sub-delegate the access it receives from the DEA Provider;

and

f)   A DEA Provider that offers SA must ensure that they are at all times exclusively entitled to set or modify the parameters that apply to pre-trade and post-trade controls applicable to the order flow of their SA Clients when accessing the market.

5.3 Notification/Application to the LME of DEA arrangements

5.3.1 Direct Market Access

Where Members wish to provide their Clients with DMA, they must complete the 'LMEselect Direct Market Access (DMA) Provider – Notification of Client' form to advise the LME in advance of the service being activated.

The completed form must be sent by email to: tradingoperations@lme.com.

The DMA Provider Notification form, detailing all the information required, can be found on the LME website.

5.3.2 Sponsored Access

Where Members wish to provide SA to their Clients must have first received prior authorisation by the LME for each SA arrangement. To apply for approval from the LME in advance of providing this service to an SA Client, the 'LMEselect Sponsored Access (SA) - Client Application' must be completed.

The completed application form must be sent by email to: tradingoperations@lme.com.

The 'LMEselect Sponsored Access (SA) – Client Application' form, detailing all the information required, can be found on the LME website.

Members must receive confirmation of approval from the LME in advance of the service being activated.

Members are reminded in relation to SA they may provide to other jurisdictions, that Regulation 12.6(j) Part 2 of the LME Rulebook prohibits a Member facilitating trades from a jurisdiction where the Exchange does not have the relevant regulatory licences or approvals.

6 Yearly Audit

Members will be required to complete a yearly reconciliation on information previously provided to the LME, including both algorithms and DEA data, to verify recorded details remain accurate.

7 Breach

For the avoidance of any doubt, failure to comply with any of the conditions set out in this Policy shall constitute a breach of the LME Rules, under Regulation 12.11(c) of Part 3 of the LME Rulebook, and disciplinary proceedings may be commenced against the Member concerned.

These guidelines may be amended from time to time without prior notice.