

13.3 Clearing Agencies

13.3.1 Notice and Request for Comment – Application by LME Clear Limited for Exemption from Recognition as a Clearing Agency

NOTICE AND REQUEST FOR COMMENT

APPLICATION BY LME CLEAR LIMITED FOR EXEMPTION FROM RECOGNITION AS A CLEARING AGENCY

November 8, 2018

A. Background

LME Clear Limited (**LMEC**) has applied (the **Application**) to the Commission for an order pursuant to section 147 of the *Securities Act* (Ontario) (**OSA**) to exempt it from the requirement to be recognized as a clearing agency in subsection 21.2(0.1) of the OSA.

LMEC is an approved central counterparty (**CCP**) under Regulation (EU) No. 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (**EMIR**) and is also subject to the *Financial Services and Markets Act 2000* (**FSMA**). LMEC obtained its authorization on September 3, 2014. LMEC is also authorized to provide Automated Trading Services in Hong Kong and is the clearing organization for the LME under its Foreign Board of Trade License in the US.

LMEC proposes to offer direct access to its clearing and settlement facilities to prospective participants in Ontario.

As LMEC will be carrying on business in Ontario, it is required to be recognized as a clearing agency under the OSA or apply for an exemption from the recognition requirement. Among other factors set out in the Application, LMEC is seeking an exemption from the recognition requirement on the basis that it is subject to an appropriate regulatory and oversight regime in its home jurisdiction of the United Kingdom (**UK**) by the Bank of England (**Bank**).

The Application accompanies the related application made by the London Metal Exchange (**LME**) to exempt it from the requirement to be recognized as an exchange in subsection 21(1) of the OSA.

B. Application and Draft Exemption Order

In the Application, LMEC describes its requirements under EMIR and the FSMA that are generally comparable or that achieve similar outcomes to the requirements of National Instrument 24-102 *Clearing Agency Requirements* (**NI 24-102**). Subject to comments received, staff propose to recommend to the Commission that it grant LMEC an exemption order in the form of the proposed draft order attached at Appendix A (**Draft Order**). We are prepared to recommend to the Commission that it exempt LMEC because it does not currently pose significant risk to Ontario's capital markets and is subject to an appropriate regulatory and oversight regime in another jurisdiction by its home regulator.

In determining whether a clearing agency poses significant risk to Ontario, we consider the level of activity of the clearing agency in Ontario (using indicators such as notional value and volume of transactions cleared for Ontario-based market participants) and other qualitative and quantitative factors, such as interconnectedness, size of obligations and the role and central importance of a clearing agency to a particular market.

The Draft Order requires LMEC to comply with various terms and conditions set forth in Schedule "A" to the Draft Order, including relating to:

1. Regulation of LMEC
2. Governance
3. Permitted scope of clearing activities in Ontario
4. Filing requirements
5. Information sharing

The Draft Order also acknowledges that the scope of the terms and conditions imposed by the Commission, or the determination as to whether it is appropriate that LMEC continue to be exempted from the requirement to be recognized as a clearing agency, may change as a result of the Commission's monitoring of developments in international and domestic capital markets, LMEC's activities or regulatory status, or as a result of any changes to the laws in the UK or Ontario affecting trading in or clearing and settlement of derivatives or securities.

C. Comment Process

The Commission is publishing for public comment LMEC's Application and Draft Order. We are seeking comment on all aspects of the Application and Draft Order.

Please provide your comments in writing, via e-mail, on or before December 7, to the attention of:

Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto, Ontario M5H 3S8
Fax: 416-593-2318
Email: comments@osc.gov.on.ca

The confidentiality of submissions cannot be maintained as the comment letters and a summary of written comments received during the comment period will be published.

Questions may be referred to:

Oren Winer
Legal Counsel, Market Regulation
Tel: 416-593-8250
Email: owiner@osc.gov.on.ca

Colm Dowds
Legal Counsel, Market Regulation
Tel: 416-263-7659
Email: cdowds@osc.gov.on.ca

Youssef Sekal
Risk Specialist, Market Regulation
Tel: 416-597-7815
Email: ysekal@osc.gov.on.ca



29 May 2018

Ontario Securities Commission
20 Queen Street West
22nd Floor
Toronto, ON M5H 3S8

Attention: Secretary to the Commission

Dear Sirs/Mesdames:

RE: LMEC Limited – Application for an Exemption from Recognition as a Clearing Agency

LME Clear Limited (**LMEC**) is applying, pursuant to section 147 of the *Securities Act* (Ontario) (the **Act**) and National Instrument 24-102 *Clearing Agency Requirements (NI 24-102)*, for an order exempting it from recognition as a clearing agency under section 21.2 of the Act, in order to provide its central counterparty (**CCP**) service to Ontario market participants (**Exemption Order**). The London Metal Exchange is concurrently filing an application for exemption from the requirements to be recognised as an exchange.

Capitalized terms that appear in this application but are not defined in the body of this application have the meanings ascribed thereto in the LMEC Rules which can be found at <https://www.lme.com/LME-Clear/Rules-and-regulations>.

1. Background

Location

- 1.1 LMEC is a private company incorporated in England and Wales on 21 April 2011, under registered number 07611628. LMEC's registered office and head office is at 10 Finsbury Square, London EC2A 1AJ. All corporate documentation relating to LMEC is filed with Companies House in the United Kingdom (**UK**).
- 1.2 LMEC is based in London and carries on all of its activities in London. Its Membership base comprises the members of the London Metal Exchange (**LME**) that are categorised as clearing members of LME. Any prospective Members will have to apply to, and satisfy the Membership Criteria of, LMEC.

History and Strategy

- 1.3 LMEC was established to act as the CCP in relation to all classes of contracts that are traded on the LME as part of LME's global strategy which included expanding its activities to clearing. LME business was previously cleared by LCH Limited (formerly LCH.Clearnet Ltd).
- 1.4 LMEC also provides transaction and position reporting services for those Members electing for this service for on-exchange and over-the-counter (**OTC**) transactions. This service started in February 2014 and is called LMEwire. This reporting service is a separate service from the clearing services to facilitate financial counterparties' compliance with their reporting obligations under Regulation (EU) No. 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (**EMIR**). In effect, LMEC acts as the reporting agent on behalf of the users of the reporting service to report the transaction data to the appointed transaction repository (**DTCC**).
- 1.5 LMEC is regulated in the UK as an approved CCP under EMIR and is subject to the *Financial Services and Markets Act 2000 (FSMA)*. LMEC is supervised by the Bank of England (the **Bank**). Its authorisation was obtained on 3 September 2014. LMEC is also authorised to provide Automated Trading Services in Hong Kong and is the clearing organisation for the LME under its Foreign Board of Trade Licence in the US.

Size

- 1.6 LMEC started clearing LME Contracts on 22 September 2014. It currently employs approximately 48 employees and those functions not directly resourced by LMEC staff are provided on an outsourced basis (such as finance, human resources, company secretariat, marketing etc.) from its sister company, the LME.
- 1.7 Its revenues are generated from the clearing of LME trades (including profits generated from investing collateral balances) and its transaction reporting service. LME is a highly liquid market and in 2017 achieved traded volumes of approximately 157.4 million lots, equivalent in value to approximately US\$12.7 trillion annually and 3.5 billion tonnes of material. LME is a global market with an international membership. More than 450 brands of metal from over 60 countries are approved as “good delivery” against LME Contracts. There are over 550 LME approved warehouses in approximately 14 countries and 34 locations globally.
- 1.8 LMEC’s revenues for the 2016 and 2017 fiscal years, respectively, were USD\$92.992mn and USD\$ 91.788mn.

Eligible Products

- 1.9 LMEC seeks an exemption from the clearing agency recognition requirement in relation to all products eligible to be cleared on LMEC (as set out in paragraph 1.11(a) to (f) below). The contracts that are cleared at the time of this submission are those contracts traded on LME that are eligible to be cleared via the Clearing System (**Eligible Products**). The product specifications for the Eligible Products are set out in Annex 1 of the LMEC Rules and have been categorized as follows: .
- (a) **LME Exchange-Traded Forwards**, which are referred to on the **LME Execution Venues** (being the Ring, LMEselect and the Inter-office Market) as “Metal Futures”, are physically or cash settled futures contracts in thirteen metals. LME Metal Futures contracts provide for the delivery of a prescribed quantity of metal on a specified date (the **Prompt Date**). They are settled by offset or delivery on their Prompt Dates.
 - (b) LME Exchange-Traded futures (Minis, LMEX and ferrous futures). These cover:
 - (i) **Index Futures**, which are referred to on the LME Execution Venues as “LMEX” (**LMEX Contracts**). These are index contracts based on the weighted values of six LME metals and are available for futures. LMEX Contracts are presently available for trade but have never been traded. LMEX Contracts are cash-settled only; and
 - (ii) small lot size contracts, which are referred to as “LMEminis” on LME Execution Venues, are traded in five-ton lots of copper, aluminum and zinc as opposed to larger lots for **LME Exchange Traded Futures**. These LMEminis are settled in cash only.
 - (c) LME exchange-traded American Options. The contracts are traded options contracts (referred to as **LME Traded American Options** on the LME Execution Venues) that give the right to buy or sell the underlying LME Metal Futures for all LME metals. LME Traded American Options are American options that can be purchased against a long or short futures contract. These are settled by offset or delivery on their Prompt Dates.
 - (d) LME exchange-traded average price options (**TAPOs**). TAPOs give the right to buy or sell any of the LME metals at the average of the LME official prices for a given month. TAPOs are Asian options. TAPOs are intended to be physically settled.
 - (e) LME exchange-trade average price futures, which are referred to as “LMEswaps” on the LME Execution Venues, are average monthly price futures contracts. LMEswaps are cash-settled against the average of the daily cash settlement price of the relevant LME metal during the relevant month.
 - (f) Exchange traded gold and silver futures called LMEprecious futures.
- 1.10 The Eligible Products are split into two main Services: LME Base Metal Products and LMEprecious Products. Members may subscribe to either Service or to both (see below).
- 1.11 LMEC therefore seeks an exemption from the clearing agency recognition requirement in relation to:
- (a) Exchange Traded Forwards relating to metals;

- (b) Exchange Traded Futures relating to metals;
- (c) Exchange Traded Futures relating to metal indices (Index Futures);
- (d) Exchange Traded American Options relating to metals;
- (e) Exchange Traded Average Price Options (TAPOs) relating to metals;
- (f) Exchange Traded Monthly Average Futures relating to metals.

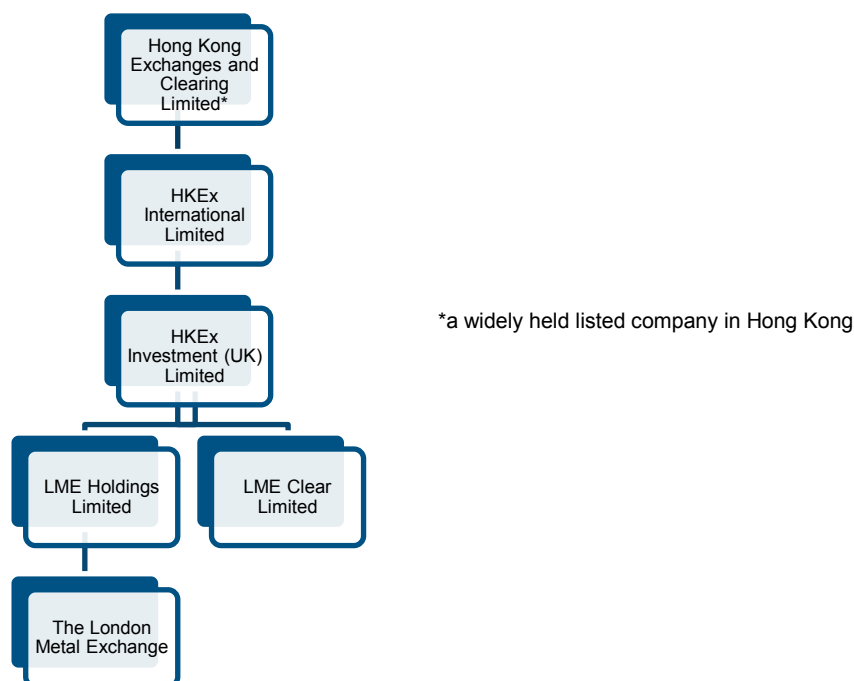
LMEC's Rules and Procedures

1.12 The LMEC's Rules and Procedures (**LMEC Rules**) act as the master agreement between LMEC and Members in respect of all transactions cleared by LMEC. A copy of the current LMEC Rules can be found at:

<https://www.lme.com/en-GB/LME-Clear/Rules-and-regulations#tabIndex=2>

2. Ownership, Corporate Structure and Governance Structure

- 2.1 LMEC is 100% owned by HKEX Investment UK Limited (**HKEX UK**), a holding company which also owns 100% of the shares in LME, through LME Holdings Limited. LMEC has no subsidiaries.
- 2.2 HKEX UK's ultimate parent company is Hong Kong Exchanges and Clearing Limited (**HKEX**). The HKEX Group consists of HKEX and 25 directly or indirectly owned subsidiaries. Except for three wholly owned subsidiaries which are incorporated in the People's Republic of China (**China**) and operate their business in China and the four wholly owned UK-based subsidiaries that make up the LME Group, all other HKEX Group companies are incorporated in Hong Kong and operate their businesses in Hong Kong. HKEX also maintains a representative office in Beijing, with representatives located in Shanghai and Guangzhou.
- 2.3 The following is a diagram of the chain of ownership above LMEC and LME:



2.4 HKEX is incorporated in Hong Kong with company number 681388 with its registered office at 12/F, One International Finance Centre, 1 Harbour View Street, Central, Hong Kong. HKEX is listed in Hong Kong on the Main Board of the Stock Exchange of Hong Kong Limited. Under the SFO, no person shall be entitled to exercise or control the exercise of 5% or more of the voting power in a general meeting of shareholders of

- HKEX except with the Securities and Futures Commission's (**SFC**) approval, after consultation with the Financial Secretary of Hong Kong (such approved person being referred to as Minority Controller).
- 2.5 The Board of LMEC (the **Board**) retains overall responsibility for the management of LMEC. It has delegated the day-to-day management to the Executive Committee of LMEC (**ExCom**), which is supported by an extended management team representing the key functional areas of the organisation (Operations and Technology; Risk; Business Development; Legal and Compliance).
- 2.6 The Board is solely responsible for setting the strategy of LMEC. In setting the strategy, the Board considers the views of all stakeholders including the HKEX Group, the Relevant Regulations and seeks to achieve an appropriate balance between commercial and risk mandates in determining what is appropriate for LMEC.
- 2.7 LMEC, as required under the Relevant Regulations, remains responsible and accountable for the good management and performance of LMEC and ensures that it has a competent management team to which the Board has properly and effectively delegated the day-to-day management of LMEC.
- 2.8 The Board has delegated some of its responsibilities to Board committees. The responsibilities of each committee are defined by terms of reference approved by the Board. The Board retains overall control of any matter delegated to a committee and retains responsibility for approving any decisions that could have a significant impact on the risk profile of LMEC.
- 2.9 The Board is comprised of:
- (a) four Executive Directors; and
 - (b) five Non-Executive Directors,
- (together the **Directors**).
- Non-Executive Directors comprise a majority of the Board. Some of the Executive Directors and Non-Executive Directors are also directors elsewhere in the HKEX Group.
- Non-Executive Directors are Directors who do not hold an executive office across the LME Group. Currently all non-Executive Directors are also independent directors (as defined in EMIR). There may in the future be circumstances in which a Non-Executive Director is not considered independent in accordance with that definition, but LMEC will ensure that it continues to meet all relevant regulatory requirements relating to independence. Further, LMEC looks to observe best practice guidance when considering its board composition where relevant, such as the UK Corporate Governance Code (which requires at least half of the Board to be independent).
- 2.10 At the time of this submission, the following individuals are serving on the Board as Executive Directors:
- (a) Adrian Farnham (CEO of LMEC);
 - (b) Romnesh Lamba (Co-Head of Market Development of HKEX);
 - (c) Matthew Chamberlain (CEO of LME); and
 - (d) Roland Chai (HKEX Group Risk Officer).
- 2.11 The following individuals are serving on the Board as Non-Executive Directors:
- (a) Richard Thornhill (Chairman);
 - (b) Marye Humphery;
 - (c) Marco Strimmer (also chairman of the Board Risk Committee);
 - (d) Anthony Stuart; and
 - (e) Stephen Yiu.

- 2.12 The Non-Executive Directors have been selected on the basis that they are of sufficiently good repute and have adequate expertise in financial services, risk management and clearing services. They have been selected based on the balance of skills they bring to the Board as a group.
- 2.13 LMEC's main strategy is to focus on clearing contracts traded on the LME. Accordingly there is some cross-membership of Directors to allow for greater collaboration. In addition Messrs Romnesh Lamba and Roland Chai are representatives of the HKEX Group and are permitted to have further directorships across the HKEX Group¹.
- 2.14 The following individuals serve as members of the Board, or on a Committee of the Board, of LMEC as well as on the board of directors of LME or a committee of such board: Matthew Chamberlain, Romnesh Lamba, Anthony Stuart and Stephen Yiu.
- (a) Mr Chamberlain is also a Director of the LME.
 - (b) Mr Lamba is a director of both the LME and LMEC. He is also a member of LMEC's Audit and Nomination Committees and a member of the LME's Audit and Risk Committee.
 - (c) Mr Stuart is a member of LMEC's Audit and Board Risk Committees. In addition Mr Stuart is a Director of the LME and a member of the LME's Audit and Risk and Nomination Committees.
 - (d) Mr Yiu – the Chairman of LMEC's Audit Committee – is the Chairman of the LME's Audit and Risk Committee. Mr Yiu is also a member of LMEC's Remuneration and Nomination Committees and is a member of further committees across the HKEX Group, including at the ultimate parent company level.
- 2.15 Each entity within the LME Group is operated as a separate legal entity and therefore each member of the board, including those with cross-memberships, are required to act in the best interests of the company of the board on which they serve. No one board has a veto over another.
- 2.16 The Articles of Association of LMEC also contain provisions dealing with potential conflicts of interest at Board level and complies with the relevant provisions of the UK Companies Act 2006. Where a Conflict of Interest is identified between a Board Committee Member and any other person, such conflict shall be dealt with in accordance with the terms of the relevant Committee Terms of Reference. For the avoidance of doubt, where a Board Committee Member is also an Employee, the Employee shall also be subject to the terms of the LME Group Conflicts of Interest Policy.

Policy Summary

- 2.17 The following standards are applied in the Group Conflicts of Interest Policy:
- (a) Avoiding Conflicts of Interest – involves identifying the different areas of risk of conflicts of interest and establish
 - (b) Reporting Conflicts of Interest – includes establishing a process for identification of a conflict of interest and a reporting structure for all employees.
 - (c) Declaration – all employees are obliged to declare any conflicts of interest.
 - (d) Record Keeping – maintain a register of all reported conflicts of interest in line with legal and regulatory requirements.
 - (e) Managing and Mitigating Conflicts of Interest – on identification and reporting of a conflict of interest the authorised person must agree a means of mitigation.
 - (f) Disclosure – in the event that the authorised person determines any mitigation is not sufficient a disclosure of the conflict may be made.
 - (g) Awareness and Training – provide all employees with appropriate training in relation to conflicts of interest.

¹ At the present time, Mr Lamba holds other directorships within the HKEX Group, including being a member of the LME board. Mr Chai does not hold any other HKEX directorships at present.

- (h) Management Information – ensure senior management are actively engaged in the Companies' approach
- 2.18 The Conflicts of Interest Policy also makes explicit reference to the management of conflicts of interest within ExCom, particularly when executive and employees sit on more than one committee.
- 2.19 Under section 175 of the UK *Companies Act 2006*, a director has a statutory duty to avoid any situations in which he has, or could have, a direct or indirect interest that conflicts, or could conflict, with the interests of the company. Section 175 (2) emphasises the applicability of the duty to the exploitation of any property, information or opportunity, and confirms that it is irrelevant whether the company itself could have taken advantage of that property, information and opportunity.
- 2.20 EMIR and Commission Delegated Regulation (EU) No. 153/2013 of 19 December 2012 supplementing EMIR with regard to regulatory technical standards on requirements for central counterparties (**EMIR RTS 153/2013**) include the following provisions pertaining to CCP independence:
 - (a) Preamble, paragraph 61 of EMIR provides, "A CCP should have robust governance arrangements, senior management of good repute and independent members of its board, irrespective of its ownership structure. At least one-third, and no less than two, members of its board should be independent. However, different governance arrangements and ownership structures may influence a CCP's willingness or ability to clear certain products. It is thus appropriate that the independent members of the board and the risk committee to be established by the CCP address any potential conflict of interests within a CCP. Clearing members and clients need to be adequately represented as decisions taken by the CCP may have an impact on them."
 - (b) Article 3(4) of Reg. 153/2013 provides, "A CCP that is part of a group shall take into account any implications of the group for its own governance arrangements including whether it has the necessary level of independence to meet its regulatory obligations as a distinct legal person and whether its independence could be compromised by the group structure or by any board member also being a member of the board of other entities of the same group. In particular, such a CCP shall consider specific procedures for preventing and managing conflicts of interest including with respect to outsourcing arrangements."

Committee Structure

- 2.21 The governance structure of LMEC provides for a number of committees which report to the Board. The following Committees have been appointed by the Board to deal with specific aspects of LMEC's affairs.

a. Executive Committee

- 2.22 The ExCom is composed of the following individuals:
 - (a) Chief Executive Officer of LMEC, Adrian Farnham;
 - (b) Chief Executive Officer of LME, Matthew Chamberlain;
 - (c) Chief Risk Officer, Chris Jones;
 - (d) Chief Operating Officer, James Cressy;
 - (e) Head of Market Development, Robin Martin;
 - (f) General Counsel, Tom Hine;
 - (g) Chief Compliance Officer (CCO), Gavin Hill;
 - (h) Chief Finance Officer, Catherine Lester
 - (i) LMEC Chief Technology Officer, Neil Duggan; and
 - (j) Head of HR, Sarah Burdett.

- 2.23 The ExCom is a committee of the Board to which the Board has delegated the overall day-to-day management of LMEC. The ExCom has specific responsibility for matters including:
- (a) implementation of Board approved strategies and policies;
 - (b) approval of all changes to the LMEC Rules at the recommendation of the Rulebook Committee (save for those reserved to the Board and the Board Risk Committee);
 - (c) proposing the annual budget and making proposals on fees;
 - (d) approval of expenditures within budget;
 - (e) designing and establishing compliance and internal controls and procedures that promote LMEC's objectives and subjecting such procedures to regular review and testing;
 - (f) ensuring that sufficient resources are devoted to risk management and compliance;
 - (g) active involvement in the risk control process;
 - (h) financial performance of investment activities;
 - (i) receiving and considering reports and recommendation from the Executive Risk Committee and ensuring implementation of relevant recommendations;
 - (a) ensuring that risks posed to LMEC are duly addressed and that all decisions are taken in line with the Risk Appetite Statement;
 - (j) receiving and considering reports and recommendations from the Board Risk Committee and ensuring implementation of recommendations made by the Board Risk Committee (subject to approval of the Board); and
 - (k) ensuring and overseeing the compliance with all statutory duties imposed on it under all Applicable Laws and regulatory requirements.

b. Board Risk Committee

- 2.24 The Board Risk Committee will at all times be composed of 9 individuals. At least two and a maximum of three members will be selected from the Non-Executive Directors; at least two and a maximum of three shall be selected from Clients of Members; and at least two and a maximum of four will be selected from Members. The Committee is composed to ensure that no one set of membership group shall have a majority of votes. The Member and Client representatives are selected by the Nominations Committee in accordance with criteria set out in the terms of reference of the Board Risk Committee.
- 2.25 The role of this committee is to be an advisory committee to the Board (as required under EMIR).
- 2.26 The responsibilities and governance arrangements include:
- (a) advising the Board on any arrangements that may impact the risk management of LMEC, including a significant change in its risk model, the default procedures, the criteria for accepting Members, the clearing of new classes of instruments and the outsourcing of functions;
 - (b) advising the Board in relation to developments impacting the risk management of LMEC in emergency situations;
 - (c) monitor and assess the adequacy and effectiveness of LMEC's risk management policies, procedures, and risk management systems and methodology;
 - (d) discussing and advising the Board on the initial versions of, and any changes to, the LMEC Rules which impact the risk management of LMEC;
 - (e) reviewing and making recommendations to the Board in relation to key risk policies such as the Margin Policy, Collateral Policy, Liquidity Policy and funding plans, Credit Policy, Default Fund Policy and the Default Management Policy;

- (f) reviewing and making recommendations to the Board in relation to Membership Criteria; and
 - (g) reviewing and making recommendations to the Board in relation to the risks that any of LMEC's outsourcing arrangements may create for LMEC.
- 2.27 Any recommendation of the Board Risk Committee which is not followed by the Board shall be reported to the Bank. The Board Risk Committee meets four times a year or more frequently as required.

c. Risk Committees

2.28 In addition to the Board Risk Committee, LMEC has also set up two risk-focussed committees: the Clearing Risk Committee and the Executive Risk Committee which both report directly to the ExCom. The Clearing Risk Committee is composed of the following individuals:

- (a) Chief Executive Officer;
 - (b) Chief Risk Officer;
 - (c) Chief Operating Officer;
 - (d) Chief Compliance Officer;
 - (e) Head of Market Development;
 - (f) Head of Risk;
 - (g) Head of Credit Risk;
 - (h) Head of Liquidity and Collateral Risk;
 - (i) Head of Market Risk;
 - (j) Head of Quantitative Risk;
 - (k) Head of Clearing Operations;
 - (l) Head of LMEC Legal; and
 - (m) Deputy Group Risk Officer.
- 2.29 This committee is responsible, under delegated powers from the ExCom, for overseeing certain matters relating to the day-to-day risk management of LMEC and any LME risks which fall under the headings within its Terms of Reference. In addition, the Committee will oversee the implementation of the relevant parts of the Risk Appetite Statement. The Executive Risk Committee also facilitates the work of the Board Risk Committee by assisting the chief risk officer in producing and providing all relevant information to the Board Risk Committee.

2.30 The Executive Risk Committee is composed of the following individuals:

- (a) Chief Executive Officer, LMEC;
- (b) Chief Executive Officer, LME;
- (c) Chief Risk Officer;
- (d) Chief Operating Officer;
- (e) Head of Regulation and Compliance;
- (f) Chief Financial Officer;
- (g) General Counsel;

- (h) Head of Market Development;
- (i) Chief Technology Officer, LMEC;
- (j) Chief Technology Officer, LME;
- (k) Head of Risk;
- (l) Chief Compliance Officer, LMEC;
- (m) Head of ERM and Operational Risk;
- (n) Group Head of ERM; and
- (o) Group Risk Officer.

2.31 The Committee is responsible for overseeing the day-to-day risk management of LME and LMEC, the implementation of the relevant parts of the Risk Appetite Statement and to ensure the active management of financial and non-financial risks.

d. Nomination Committee

2.32 The Nomination Committee is composed of a maximum of five individuals with a majority of Non-Executive Directors. The roles and responsibilities of the Nomination Committee include:

- (a) regular reviews of the structure, size and composition (including but not limited to the skills, knowledge and experience) of the Board and recommendations to the Board with regard to any changes;
- (b) giving full consideration to succession planning for Non-Executive Directors nominated and appointed by the Board;
- (c) responsible for identifying and recommending, for approval by the Board, candidates to fill vacancies for the position of Non-Executive Directors;
- (d) responsible for selecting the representatives of Members and Clients to sit on the Board Risk Committee and attend Board meetings for matters relevant to Article 38 and 39 of EMIR; and
- (e) performance evaluation on Directors' time to fulfil their duties.

e. Audit Committee

2.33 The Audit Committee is composed of at least four individuals with at least three Non-Executive Directors and one individual with relevant and recent financial experience. The Audit Committee plays a key role in the oversight of the compliance function at LMEC. It is responsible for the approval of the key compliance policies. It also plays an important role in the monitoring of the effectiveness of the internal controls and the risk management framework of LMEC. The Audit Committee's responsibilities include, amongst other things:

- (a) Financial Reporting – monitoring of the integrity of the financial statements of LMEC, including its annual and interim reports and any other formal announcement relating to its financial performance;
- (b) Internal Controls – monitoring and keeping under review the effectiveness of the Company's internal controls as well as the adequacy of LMEC's policies and procedures relating to financial, operational, IT, information security, outsourcing, legal and compliance risks;
- (c) Risk Management – monitoring the risk management system and monitoring and reviewing of the key risks faced by, or relating to, LMEC (enterprise risk);
- (d) Business Continuity – reviewing the adequacy of the business continuity and disaster recovery plan and monitor its effectiveness;
- (e) Bribery and Fraud Prevention – reviewing and approve LMEC's assessment of the corruption risks to which it is subject and the framework of controls put in place to mitigate those risks;

- (f) Whistleblowing – reviewing the company’s arrangements for its employees to raise concerns, in confidence, about possible wrongdoing in financial reporting or other matters;
 - (g) Internal Audit – monitoring and reviewing the effectiveness of LMEC’s internal audit function as well as reviewing and approving the annual internal audit plan and any internal audit findings; and
 - (h) External Audit – overseeing the appointment of LMEC’s external auditors as well as overseeing the relationship, independence and objectivity of such auditors, approving the annual external audit plan and reviewing the findings of the external audit with the external auditors.
- f. Remuneration Committee
- 2.34 The Remuneration Committee is composed of four Non-Executive Directors. In carrying out its functions, the Remuneration Committee liaises with the remuneration committee of HKEX. The Remuneration Committee’s role is mainly to:
- (a) design and develop the Remuneration Policy for LMEC (including determining targets for any performance-related pay schemes operated by LMEC), oversee the implementation of that policy by the management and review its operation on a continuous basis. The Remuneration Committee shall ensure that the Remuneration Policy complies with the requirements of Article 8 of the EMIR RTS153/2013;
 - (b) review the Remuneration Policy on at least an annual basis;
 - (c) ensure that the Remuneration Policy is subject to independent audit on an annual basis and review the policy in line with any recommendations made following the audit;
 - (d) ensure that contractual terms on termination, and any payments made, are fair to the individual and LMEC, that failure is not rewarded and that the duty to mitigate loss is fully recognised;
 - (e) within the terms of the agreed policy, determine the remuneration package of the chief executive officer, the chairman of the Board, the members of the Board, the members of any committee of the Board and such other members of management as it is designated by the Board to consider, having specific regard to the requirements of Article 8 of the EMIR RTS 153/2013; and
 - (f) review and note annually the remuneration trends at LMEC.

Conflict of Interest

- 2.35 The terms of reference of the Board Risk Committee contain a provision dealing with potential conflicts. Committee members must disclose to the chairman any situation which may amount to a conflict and the chairman will assess whether such situation constitute a conflict or not. If it amounts to a conflict, the committee member may be excluded from discussions or not permitted to vote.
- 2.36 LMEC has adopted a Conflicts of Interest Policy which sets out the arrangements to identify and manage conflicts of interest between (a) itself (including LMEC’s managers, employees and persons with indirect control or close links) and its Members or Members’ Clients (where known to LMEC); and (b) itself and other members of the HKEX Group; and (c) Members and Clients as members of the Board Risk Committee.
- 2.37 The policy first defines the concept of conflicts of interest, identifies potential conflicts of interest situations and sets out the procedures to be put into place to manage such conflicts, including the internal organisation of LMEC and the use of information barriers.
- 2.38 In the event that a conflict relates to a Member, the Conflicts of Interest Policy specifies that disclosure of a conflict should be made to the Member (and where the conflict concerns a Client who is known to LMEC, the Client) in circumstances where arrangements to manage conflicts of interest are not sufficient to ensure, with reasonable confidence, that the risks of damage to the interests of the Member or the Client will be prevented.
- 2.39 The Conflicts of Interest Policy also sets out how information must be treated in order to ensure that it is not misused or used for business purposes other than those for which the information was intended.
- 2.40 All employees are required to complete a conflicts of interest declaration form at the start of their employment and to update it on an annual basis.

3. Regulatory Status and Regulatory Framework

- 3.1 LMEC is an Authorised CCP under Article 17 of the EMIR; a Recognised Central Counterparty in accordance with section 288 of the *Financial Services and Markets Act 2000 (FSMA)* in the UK; and a designated system under the Financial Markets and Insolvency (Settlement Finality) Regulations 1999 (**Settlement Finality Regulations**). LMEC is authorized and primarily supervised by the Bank in the UK.
- 3.2 The Bank is the responsible body for authorizing and supervising CCPs in the UK. Under the EMIR regime, a College of European regulators (the **College**) is also formed to authorize and supervise the CCPs. The day to day supervision role is therefore delegated to the national regulator (being in the UK, the Bank) but the authorization as well as the extension of the authorization to include additional services or activities not covered by the initial authorization must involve the College.
- 3.3 The Bank exercises its supervision of CCPs within the framework of the UK legal regime. Part 18 of FSMA is the main UK legislation relating to the regulation of CCPs. The standards that UK CCPs must meet to be recognized are set out in the *Financial Services and Markets Act 2000* (Recognition Requirements for Investment Exchanges and Clearing Houses) Regulations. CCPs must continue to meet these standards to maintain their recognized status. The Bank oversees CCPs' continuing compliance with the recognition requirements. The UK legal regime sits within the applicable European Union regulations being specifically EMIR together with the related technical standards adopted by the European Securities and Markets Authority.
- 3.4 The Principles for Financial Market Infrastructures (**PFMIs**), published by the Committee on Payment and Market Infrastructure (**CPMI**) and the International Organisation of Securities Commissions (**IOSCO**), form the keystone for the Bank's supervisory approach. The UK regulatory framework is therefore consistent with the minimum standards set out in the PFMIs.
- 3.5 CCPs have primary responsibility for meeting the minimum standards of the PFMIs. Consistent with that, the Bank expects CCPs to complete their own self-assessment against the Principles and to provide these to the Bank. CCPs are also expected to review their self-assessment at least annually. LMEC's latest CPMI-IOSCO disclosure statement can be found at:
<https://www.lme.com/en-GB/LME-Clear/Rules-and-regulations/Disclosure-and-transparency>.
- 3.6 According to the Bank's statement on FMI Supervision, the self-assessment does not replace the Bank's own judgement but is used as one input to its supervision. The Bank seeks to reach forward-looking judgements on whether a CCP's governance, operational design, policies or actions pose unacceptable risks to financial stability. Where the Bank judges such risks to be unacceptably high, it expects the CCP to take action to reduce them.
- 3.7 The Bank is also a party to the memorandum of understanding with the Ontario Securities Commission, Alberta Securities Commission and British Columbia Securities Commission concerning consultation, cooperation and the exchange of information related to the supervision of cross-border regulated entities, which is available at:
http://www.osc.gov.on.ca/en/About_mou_20130711_nmou-osc-asc-bcsc-bank-england.htm
- 3.8 The regulatory regime for all financial market infrastructures (**FMI**s) is framed by the CPMI-IOSCO Principles. This demonstrates the co-operation between the regulators and is consistent with CPMI-IOSCO Principle 5. The Bank is committed to the CPMI-IOSCO Principles and accepts particular responsibility for ensuring effective co-operative oversight between regulators.
- 3.9 The Bank's system for the supervision of CCPs and FMIs more generally is outlined in the most recent annual report of the Bank, which is available at:
<https://www.bankofengland.co.uk/-/media/boe/files/annual-report/2017/supervision-of-financial-market-infrastructures-annual-report-2017.pdf?la=en&hash=E116F8DAA8F255D3AE9B777E52F11B86CEB621BB>
- The above annual report states that the Bank adopts a risk based approach, reaching forward-looking judgements on whether a CCP's governance, operation design, policies or actions pose unacceptable risks to financial stability and will expect a CCP to reduce them if the risks become too high. The Bank's key supervisory pillars are focusing on these specific areas:

- (a) Governance: the centrality of systemic risk management to culture and decision-making;
- (b) Promotion and maintenance of standards: FMI's own role in promoting risk management in the markets they serve; and
- (c) Financial risk mitigates: loss absorbency.

The Bank will seek evidence that CCPs, including LMEC, are reaching adequate standards in such areas.

- 3.10 In line with the CPMI-IOSCO principles, the Bank considers that co-operation with other authorities is an essential part of the Bank's supervision of FMIs and works closely with other international authorities in respect of the UK FMIs it supervises.
- 3.11 LMEC's status as an authorized CCP under EMIR is evidenced by its inclusion in the European Securities and Markets Authority's List of Central Counterparties authorized to offer services and activities in the Union (available at: https://www.esma.europa.eu/system/files/force/library/ccps_authorized_under_emir.pdf).
- 3.12 LMEC's status as a Recognised Central Counterparty in accordance with FSMA and a designated system under the Settlement Finality Regulations is evidenced by its inclusion in the Bank's list of Recognised CCPs (available at: <https://www.bankofengland.co.uk/financial-stability/financial-market-infrastructure-supervision>).
- 3.13 The UK has voted to leave the European Union in March 2019. However, the UK government has stated that it intends to copy all EU legislation into UK law, so that the laws and regulations that will apply on the UK's departure from the EU will be identical to those which applied beforehand. The UK government is currently laying before Parliament the necessary statutory instruments needed to transpose EU law onto the UK statute books and as such it is clear that the legal and regulatory framework that LMEC will be subject to post-Brexit will, from a UK perspective, be the same as it is today. It is possible that over time the applicable UK regulatory regime may diverge from the European requirements in some respects. However, representatives of the UK government and the UK financial services regulators have clearly indicated that they do not wish to enter into a "regulatory race to the bottom".
- 3.14 From an EU perspective, EMIR provides that a CCP established outside the EU may only provide clearing services to members or trading venues established within the EU where that CCP first obtains recognition from the European Securities and Markets Authority (**ESMA**). The LMEC intends to obtain third country recognition from ESMA as soon as possible. Obtaining recognition as a third country CCP is, however, subject to a determination by the European Commission that the UK meets its "equivalence" conditions. It is unclear at this time how quickly such a determination would be made.
- 3.15 The UK and the EU have, in principle, agreed to a transitional period (from 29 March until the end of December 2020) during which the UK would continue to be treated as though it were still a member of the EU. However, this forms part of the overall withdrawal agreement which is still being negotiated, and there remains a risk that the UK will leave the EU without such an agreement in place. If the transitional period does apply, then we would expect that LMEC could continue to service its EU members for the duration of that period, even before it is able to obtain recognition as a third country CCP. At the end of the transitional period (or from the date of Brexit if no transitional period applies), and in the absence of any specific agreement to the contrary between the EU and UK, LMEC will no longer be permitted to have or to continue to directly service EU members until such time as it has become a recognised third country CCP. It is difficult to speculate upon what form of agreement might be reached between the EU and the UK at this point, but LMEC has made contingency plans that will be applied in the event that the UK leaves the EU without any form of agreement in place.
- 3.16 The LME and LMEC have published a 'Brexit Factsheet' for Members, which can be found on the LME website: <https://www.lme.com/en-GB/About/Regulation/Brexit>.

4. LMEC Clearing Participants: Individual Clearing Members and General Clearing Members

- 4.1 There are two categories of LMEC Membership:
 - (a) "Individual Clearing Members" (**ICMs**) are permitted to clear transactions on their own behalf only;
 - (b) "General Clearing Members" (**GCMs**) may clear transactions on their own behalf and also in respect of transactions effected (i) by the GCM with its Clients or (ii) by its Clients with other non-Members.

There are no other participant types.

- 4.2 Only Members, in their capacity as ICMs or GCMs, can set up Accounts with LMEC and access the system for clearing services. All Members are subject to the same Membership Criteria applicable to their membership category. The criteria on Membership are described under LMEC Rule 3. Once admitted as Members, all Members have access to the same range of Accounts and services as described in the LMEC Rules. There are no clearing privileges available to some Members only.
- 4.3 As a GCM or ICM, a Member has the ability to access the following services:
- (a) EMIR compliant accounts structure, as further described below;
 - (b) automated real time feed from LME of matched transactions in eligible Products to be cleared and settled in real time by LMEC;
 - (c) manual input or cancellation of transactions;
 - (d) cash and Collateral management in real time;
 - (e) real time assessment of risk exposure;
 - (f) data validation and Position risk checked against collateral/limits;
 - (g) management of contract expiry and option exercise;
 - (h) settlement and delivery management; and
 - (i) monitoring of trades and Positions by either subscribing to reports in the Reporting section of the LMEC clearing system or by querying the screens directly.
- 4.4 Reports available include:
- (a) Position Reports;
 - (b) Trade Reports;
 - (c) Exercise Reports; and
 - (d) Collateral Reports.
- 4.5 LMEC allows Members to set up a client account structure which allows Members to record Positions or Collateral arising as a result of transactions effected or cleared by the Member on behalf of a Client or an Indirect Client on a segregated basis. In relation to such Positions or Collateral, LMEC's contractual relationship remains with the Member. LMEC does not have any contractual relationship with either a Client or an Indirect Client. However, a Client has the right to request to port the Positions and Collateral in a Client Account in certain circumstances. Accounts of an Indirect Client can also be ported at the request of a Member.
- 4.6 Members can subscribe to either or both of the services provided by LMEC – the LME Base Service, LMEprecious Service or both. A Member will continue to be categorised as either a GCM or an ICM. An ICM may not act as a GCM in relation to any service but a GCM may choose to only undertake house business in respect of one of the services (and therefore, in practice, act as an ICM in respect of that service).

5. Clearing Services

- 5.1 LMEC offers Members the ability to operate the following types of Accounts (see LMEC Rule 4.2):
- (a) House Account: in which Members can only record Positions and Collateral attributable to their proprietary trading activities.
 - (b) Omnibus Segregated Client Accounts (Omnibus Accounts): in which Members record Positions and Collateral attributable to trading activities conducted with or for Clients, where the Client has chosen

not to be segregated by reference to individual Clients. Each Omnibus Account would therefore cover multiple Clients.

- (c) Individual Segregated Client Accounts (ISA): in which Members can record Positions and Collateral attributable to trading activities conducted with or for specific Clients. Only one Client may be allocated to any specific ISA.

- 5.2 The LMEC Rules confirm that it is the responsibility of the Member and not LMEC to ensure that the Member has established an account structure within LMEC that is appropriate to enable the Member to satisfy its obligations under any Applicable Law (see LMEC Rule 4.5).

Account Structures: Rule Requirements

- 5.3 Each Member must establish at least one House Account. House Accounts may only be used to record Positions and Collateral arising as a result of transactions effected by the Member on its own behalf (see LMEC Rule 4.2.1).

- 5.4 A GCM may elect, depending on the requests of its Clients, to establish one or more of the following types of Client Accounts:

- (a) an Omnibus Account; and/or
- (b) an ISA (LMEC Rule 4.2.2), which can be of the following type:
 - (i) Direct ISA;
 - (ii) Indirect ISA; or
 - (iii) Indirect Omnibus Account.

- 5.5 An Omnibus Account is used to record Positions and Collateral arising as a result of transactions effected or cleared by a GCM on behalf of one or more Clients (LMEC Rule 4.2.3).

- 5.6 A Direct ISA may only be used to record Positions and Collateral arising as a result of transactions effected or cleared by a GCM on behalf of a single Client (LMEC Rule 4.2.4).

- 5.7 An Indirect ISA may only be used to record Positions and Collateral arising as a result of transactions effected or cleared by a GCM on behalf of a single Clearing Client which relate to a single Indirect Client (LMEC Rule 4.2.5).

- 5.8 An Indirect Omnibus Account may only be used to record Positions and Collateral arising as a result of transactions effected or cleared by a GCM on behalf of a single Clearing Client which relate to one or more Indirect Clients (LMEC Rule 4.2.6).

- 5.9 An ICM will have only a House Account, as it will not be clearing transactions entered into with or by Clients.

Segregation

- 5.10 LMEC segregates each Account from each other Account in the books and records of LMEC and treats each Account maintained for a Member separately from other Accounts maintained for that Member, for the purposes of:

- (a) recording the Positions and Collateral referable to each Account;
- (b) recording and accounting for any excess collateral referable to that Account;
- (c) where applicable, the netting of Positions referable to that Account;
- (d) the exercise of any right by LMEC under the LMEC Rules to combine or consolidate balances on Accounts or any set-off rights;
- (e) the allocation or discharge of losses; and

- (f) the exercise of porting rights (being the rights of a client of a defaulting clearing member to request, if some specific conditions are met, the transfer of Positions and Collateral relating to such client to a non-defaulting clearing member).

6. Overview on Default Management, the Default Fund and At-Risk Capital

Default Management

- 6.1 LMEC default management procedures govern the processes that apply to Members in the case of a clearing Member default; clearing Members remain responsible for the credit risk of their Clients. These procedures facilitate transparent and practical market action in stress situations.
- 6.2 In broad terms LMEC will look to neutralise risk by hedging the overall house Position of a defaulting Member against the most liquid market dates and roll forward any prompt physical delivery Positions to manage its risk. LMEC will then seek to auction the defaulting Member's remaining house portfolio to other participants as its preferred method of disposal; however it will also be able to execute the close out of all remaining open house Positions if required.
- 6.3 A Member must successfully complete simulated default tests to demonstrate they have the appropriate expertise and operational processes in place prior to beginning clearing operations. Once live, all Members are required to participate in fire drills regularly to confirm their operational readiness to manage a Member default.

Margin

- 6.4 Each Member provides LMEC with, and maintains on a daily basis for so long as it is a Member, Eligible Collateral with a Collateral Value sufficient to satisfy its Margin Requirement, which comprises of:
 - (a) the End of Day Margin Requirement;
 - (b) the Intra-Day Margin Requirement(s); and
 - (c) any other margin requirements (which excludes a Default Fund Contribution) required at any time by LMEC pursuant to the Rules and the Procedures,as security, cover and/or credit support for the performance by that Member of all of its present and future obligations to LMEC pursuant to the Rules or the operation of the Clearing System.
- 6.5 The Margin Requirement for each Member will be the amount which LMEC may determine and notify the Member from time to time. A Member's Margin Requirement will be calculated, maintained and applied for each of the following Accounts on a net basis. Such net calculations are applied separately in respect of:
 - (a) the House Account of the Member;
 - (b) each Direct NOSA of the Member;
 - (c) each Indirect NOSA of the Member;
 - (d) each Direct ISA of the Member; and
 - (e) each Indirect ISA of the Member,such that any Collateral provided by the Member in respect of the Client or Clients allocated to the Account shall be in respect of a net Margin Requirement calculation.
- 6.6 A Member's Margin Requirement will be calculated, maintained and applied for each of the following Accounts on a gross basis. Such gross calculations are applied separately in respect of:
 - (a) each Direct Gross Omnibus Segregated Client Account of the Member; and
 - (b) each Indirect Gross Omnibus Segregated Client Account of the Member,

such that any Collateral provided by the Member in respect of the Client or Clients allocated to the Account are in respect of a gross Margin Requirement calculation.

Additional Margin

- 6.7 LMEC has a margin methodology that includes 4 types of additional margin which are concentration additional margin, default fund additional margin, credit additional margin and discretionary additional margin:
- (a) Concentration additional margin – will be used to cover the risk of large positions that in a default would potentially take longer to close out than the two day assumed liquidation period. It is automatically calculated by the clearing system. To determine the additional concentration margin for each clearing member LMEC calculates the average traded volume for each commodity. LMEC will utilise this, in conjunction with assumptions of the market depth it could trade, to calculate the tradable volume in the event of a default. This is then compared to the position that would be needed to liquidate in the event of the Member defaulting. If the position is determined to be larger than could be traded in a two day period, i.e. a concentrated position, then an additional charge is calculated.
 - (b) Default fund additional margin – If, at the end of each day, a Clearing Member has a total stress testing losses (TSTL) of greater than 40% of the total level of the Default Fund then LMEC will call for additional collateral to reduce the clearing Members TSTL to 40%. Total stress testing losses include loss of IM on the cleared product positions and loss over haircut for collateral. This is called default additional margin. This is an automatic calculation within the clearing system.
 - (c) Credit additional margin – Members will be required to provide collateral to cover some or all of their total stress testing losses, if their credit rating based on the LMEC internal credit risk assessment framework is below a minimum threshold. Once implemented this is also an automatic calculation within the clearing system.
- 6.8 As these additional margin calculations are automatically performed within the clearing system, this ensures the methodology is implemented as efficiently as possible. Automated reporting allows for transparency to clearing members.
- 6.9 Discretionary additional margin: LMEC has the ability to charge Members further additional margin that falls outside of the system calculated credit, concentration and default additional margin. For example this might be for exposures highlighted in the limitations of the SPAN algorithm for the LME products. This will be calculated outside of the system and manually input. Members impacted will be told in advance and the calculation fully explained.

Default Fund

- 6.10 LMEC maintains a separate Default Fund for each Service and Members are only required to contribute to the Default Funds of the Services they participate in. Currently the Default Fund is sized according to EMIR requirements and is recalculated monthly based on the previous six months' data. Member contributions are based on relative initial margins subject to a minimum contribution. Members' Default Fund contributions are covered in cash and this is invested by LMEC in accordance with EMIR requirements.

LMEC's At-Risk Capital

- 6.11 EMIR sets out the authorisation process that enables CCPs to provide central counterparty clearing services in the European Union. In order to be authorised under EMIR, a CCP must demonstrate, amongst other things, that it meets the requirements set out below.
- 6.12 A CCP is obliged to hold capital which is, at all times, sufficient to ensure an orderly wind-down or restructuring of the CCP's activities over an appropriate time span and adequately protects the CCP against credit, counterparty, market, operational, legal and business risks that are not already covered by specific financial resources (such as the Default Fund). This is subject to a minimum requirement that it has permanent and available initial capital of at least €7.5m. In addition, a CCP will be required to report, on an ongoing basis, to its competent authority should its capital fall below 110% of its capital requirement (meaning that, in practice, a CCP will aim to apply a 10% buffer at all times).
- 6.13 A CCP is required to maintain an additional amount of dedicated own resources which is equal to 25% of the amount of its capital requirement (not including the 10% buffer referred to above). Such amount is to be used

as part of its default waterfall as “skin in the game” in case of a Member’s default where the defaulting Member’s margins contributions and default fund contributions are not sufficient.

7. Participation in LMEC by Entities in Ontario

- 7.1 LMEC anticipates that at least two banks based in Ontario that are subject to the *Bank Act* (Canada) and are governed by the Office of the Superintendent of Financial Institutions (**Ontario Bank Participants**) may be interested in participating in LMEC. Potential Ontario Bank participants could be interested in becoming GCMs or ICMs. LMEC would provide its services to Ontario Bank Participants without establishing an office or having a physical presence in Ontario or elsewhere in Canada. LMEC intends to offer its clearing services to Ontario Bank Participants who become Members. In the event that current LMEC Members are no longer able to receive clearing services from LMEC following the UK’s withdrawal from the European Union, some of those Members may elect to access LMEC’s services indirectly through a Member in Ontario.
- 7.2 Initially LMEC does not plan to clear instruments for Ontario participants that are derivatives under OSC Rule 91-506 *Derivatives: Product Determination*. Thus, initially LMEC will not clear OTC derivatives for Ontario participants. Accordingly, LMEC does not initially intend to be subject to OSC Rule 91-507 *Trade Repositories and Derivatives Trade Reporting (OSC Rule 91-507)*, National Instrument 94-101 *Mandatory Central Counterparty Clearing of Derivatives (NI 94-101)* or National Instrument 94-102 *Customer Clearing and Protection of Customer Collateral and Positions (NI 94-102)*.
- 7.3 If LMEC decides it would like to provide clearing services for OTC derivatives that are derivatives under OSC Rule 91-506 *Derivatives: Product Determination*, LMEC will file an application pursuant to section 144 of the Act to vary the Exemption Order to include the clearing of OTC derivatives. In filing that application, LMEC will set out, to the satisfaction of OSC staff, the manner in which it would comply with the requirements of OSC Rule 91-507, NI 94-101 and NI 94-102 that would apply to LMEC, including, where applicable, seeking an exemption from any such requirement.

8. Criteria for Exemption from Recognition as a Foreign Clearing Agency

- 8.1 Section 2.1 of NI 24-102 requires a foreign clearing agency to provide the following information in its application for exemption from recognition as a clearing agency:
- (a) its most recently completed PFMI Disclosure Document together with disclosure about any material change to the information in the PFMI Disclosure Document or concerning any information in the PFMI Disclosure Document having become materially inaccurate for any reason;
 - (b) sufficient information to demonstrate that it is in compliance with the regulatory regime of the jurisdiction in which its head office or principal place of business is located; and
 - (c) any additional relevant information sufficient to demonstrate that it is in the public interest for the securities regulatory authority to exempt the applicant. According to section 2.1 of the Companion Policy to NI 24-102, this additional information is a detailed description of the regulatory regime of the clearing agency’s home jurisdiction and the requirements imposed on the clearing agency, including how such requirements are similar to the requirements in Parts 3 and 4 of NI 24-102.

LMEC’s most recent PFMI Disclosure Document, prepared in 2018, is available at:

<https://www.lme.com/en-GB/LME-Clear/Rules-and-regulations/Disclosure-and-transparency>

- 8.2 This was reviewed and validated by the Bank of England.

PART II – Requirements Set out in Part 4 of NI 24-102

Each requirement in Part 4 of NI 24-102 is set out below in italics, followed by a description of how the requirement is comparable to EMIR and EMIR RTS 153/2013, as applicable, and LMEC compliance with EMIR and EMIR RTS 153/2013, as applicable.

1. Division 1 – Governance

Board of directors (section 4.1 of NI 24-102)

- (1) ***A recognized clearing agency must have a board of directors.***
- (2) ***The board of directors must include appropriate representation by individuals who are***
 - (a) ***independent of the clearing agency, and***
 - (b) ***not employees or executive officers of a participant or their immediate family members.***
- (3) ***For the purposes of paragraph (2) (a), an individual is independent of a clearing agency if he or she has no direct or indirect material relationship with the clearing agency.***
- (4) ***For the purposes of subsection (3), a “material relationship” is a relationship that could, in the view of the clearing agency’s board of directors, be reasonably expected to interfere with the exercise of a member’s independent judgment.***

Comparable provisions under EMIR

- 1.1 Article 27(1) of EMIR provides that “the senior management of a CCP shall be of sufficiently good repute and shall have sufficient experience so as to ensure the sound and prudent management of the CCP.”
- 1.2 Article 27(2) of EMIR requires that “at least one third, but no less than two, of the members of that board shall be independent [and] the compensation of the independent and other non- executive members of the board shall not be linked to the business performance of the CCP.”
- 1.3 Article 27(3) provides that “a CCP shall clearly determine the roles and responsibilities of the board and shall make the minutes of the board meetings available to the competent authority and auditors.”
- 1.4 Article 2(27) of EMIR defines “board” as an “administrative or supervisory board, or both.” Article 3(5) of EMIR RTS 153/2013 further elaborates that the responsibilities of the “board” are allocated to the supervisory board and the executive board, as appropriate.
- 1.5 Article 2(28) of EMIR provides that ““independent member of the board means a member of the board who has no business, family or other relationship that raises a conflict of interests regarding the CCP concerned or its controlling shareholders, its management or its clearing members, and who has had no such relationship during the five years preceding his membership of the board.”
- 1.6 Article 7(5) of EMIR RTS 153/2013 further requires that the governance arrangements, by which the board and senior management of a CCP operate must include processes to identify, address and manage potential conflicts of interest of members of the board and senior management. Article 5(4) of EMIR RTS 153/2013 states: “a CCP shall identify and analyse potential conflicts of law issues and develop rules and procedures to mitigate legal risk resulting from such issues. If necessary, independent legal opinions shall be sought by the CCP for the purpose of this analysis.”

Compliance by LMEC

- 1.7 The Board is solely responsible for setting the strategy of LMEC. In setting the strategy, the Board considers the views of all stakeholders including the HKEX Group, the Relevant Regulations and seeks to achieve an appropriate balance between commercial and risk mandates in determining what is appropriate for LMEC.
- 1.8 LMEC, as required under the Relevant Regulations, remains responsible and accountable for the good management and performance of LMEC and ensures that it has a competent management team to which the Board has properly and effectively delegated the day-to-day management of LMEC.
- 1.9 The Board has delegated some of its responsibilities to Board committees. The responsibilities of each committee are defined by terms of reference approved by the Board. The Board retains overall control of any matter delegated to a committee and retains responsibility for approving any decisions that could have a significant impact on the risk profile of LMEC.

- 1.10 The Board is comprised of four Executive Directors and five Non-Executive Directors. As such, Non-Executive Directors comprise a majority of the Board. Some of the Executive Directors and Non-Executive Directors are also directors elsewhere in the HKEX Group.
- 1.11 The Non-Executive Directors have been selected on the basis that they are of sufficiently good repute and have adequate expertise in financial services, risk management and clearing services. They have been selected based on the balance of skills they bring to the Board as a group.
- 1.12 The following individuals serve as a member of the Board, or on a Committee of the Board, of LMEC as well as on the board of directors of LME or a committee of such board: Matthew Chamberlain, Romnesh Lamba, Anthony Stuart and Stephen Yiu. Please see paragraphs 2.33-2.38 for details of how LMEC manages the potential conflicts of interest that may arise.
- 1.13 The Articles of Association of LMEC also contain provisions dealing with potential conflicts of interest at Board level.

2. Documented procedures regarding risk spill-overs (section 4.2 of NI 24-102)

(1) *The board of directors and management of a recognized clearing agency must have documented procedures to manage possible risk spill over where the clearing agency provides services with a different risk profile than its depository, clearing and settlement services.*

2.1 In addition to its clearing services, LMEC operates LMEwire, which is a platform used for EMIR transaction and position reporting to the elected Trade Repository, DTCC. EMIR provides that reporting may be delegated, but regulatory responsibility remains with the original party and does not transfer to the delegate. LMEC therefore does not bear any additional regulatory risk in connection with operating the LMEwire service.

2.2 Under the standard contractual terms that LMEC enters into with users of the LMEwire service, LMEC agrees to use reasonable care in the performance of its reporting responsibilities, but accepts no liability for any losses suffered by users of LMEwire that may result from LMEC's acts or omissions. The only risk for LMEC, therefore, is that it could fail to exercise a reasonable standard of care in providing the LMEwire service to perform reporting functions.

2.3 LMEC has in place a robust set of procedures relating to the management and operation of the IT systems required to provide the LMEwire service, and the process by which that service will be provided, along with its standard overarching incident management procedures.

3 Chief Risk Officer and Chief Compliance Officer (section 4.3 of NI 24-102)

(1) *A recognized clearing agency must designate a chief risk officer and a chief compliance officer, who must report directly to the board of directors or, if determined by the board of directors, to the chief executive officer of the clearing agency.*

(2) *The chief risk officer must*

(a) *have full responsibility and authority to maintain, implement and enforce the risk management framework established by the clearing agency,*

(b) *make recommendations to the clearing agency's board of directors regarding the clearing agency's risk management framework,*

(c) *monitor the effectiveness of the clearing agency's risk management framework, and*

(d) *report to the clearing agency's board of directors on a timely basis upon becoming aware of any significant deficiency with the risk management framework.*

(3) *The chief compliance officer must*

(a) *establish, implement, maintain and enforce written policies and procedures to identify and resolve conflicts of interest and ensure that the clearing agency complies with securities legislation,*

(b) *monitor compliance with the policies and procedures described in paragraph (a),*

- (c) **report to the board of directors of the clearing agency as soon as practicable upon becoming aware of any circumstance indicating that the clearing agency, or any individual acting on its behalf, is not in compliance with securities legislation and one or more of the following apply:**
 - (i) **the non-compliance creates a risk of harm to a participant,**
 - (ii) **the non-compliance creates a risk of harm to the broader financial system,**
 - (iii) **the non-compliance is part of a pattern of non-compliance, or**
 - (iv) **the non-compliance may have an impact on the ability of the clearing agency to carry on business in compliance with securities legislation,**
- (d) **prepare and certify an annual report assessing compliance by the clearing agency, and individuals acting on its behalf, with securities legislation and submit the report to the board of directors,**
- (e) **report to the clearing agency's board of directors as soon as practicable upon becoming aware of a conflict of interest that creates a risk of harm to a participant or to the capital markets, and**
- (f) **concurrently with submitting a report under paragraphs (c), (d) or (e), file a copy of such report with the securities regulatory authority.**

Comparable provisions under EMIR

- 3.1 Article 26(4) of EMIR provides that "a CCP shall maintain a clear separation between the reporting lines for risk management and those for the other operations of the CCP."
- 3.2 Article 33 of EMIR provides that "a CCP shall maintain and operate effective written organizational and administrative arrangements to identify and manage any potential conflicts of interest between itself, including its managers, employees, or any person with direct or indirect control or close links, and its clearing members or their clients known to the CCP. It shall maintain and implement adequate procedures aiming at resolving possible conflicts of interest."
- 3.3 Article 3(3) of EMIR RTS 153/2013 requires a CCP to ensure that the functions of the chief risk officer and CCO are carried out by different individuals, who must be employees of the CCP entrusted with the exclusive responsibility of performing these functions.
- 3.4 Pursuant to Article 4(6) of EMIR RTS 153/2013, the chief risk officer is required to implement the risk management framework including the policies and procedures established by the board. Article 7(6) of EMIR RTS 153/2013 requires the chief risk officer to report to the board either directly or through the chair of the risk committee.
- 3.5 Pursuant to Article 6(2) of EMIR RTS 153/2013, the responsibilities of a CCP's CCO include the following:
 - (a) monitoring and, on a regular basis, assessing the adequacy and effectiveness of the measures put in place to identify and analyze potential conflicts of law issues and to develop rules and procedures to mitigate legal risk resulting from such issues, as well as the actions taken to address any deficiencies in the CCP's compliance with its obligations;
 - (b) administering the compliance policies and procedures established by senior management and the board;
 - (c) advising and assisting the persons responsible for carrying out the CCP services and activities to comply with the CCP's obligations under EMIR and EMIR RTS 153/2013;
 - (d) reporting regularly to the board on compliance by the CCP and its employees with EMIR and EMIR RTS 153/2013;
 - (e) establishing procedures for the effective remediation of instances of non-compliance; and

- (f) ensuring that the relevant persons involved in the compliance function are not involved in the performance of the services or activities they monitor and that any conflicts of interest of such persons are properly identified and eliminated.

Article 7(6) of EMIR RTS 153/2013 requires the CCO to report directly to the board.

Compliance by LMEC

- 3.6 A new CCO, Gavin Hill joined in March 2018 and is responsible for regulatory compliance of LMEC. This includes responsibility for:
 - (a) the development, maintenance and implementation of compliance policies and procedures designed to ensure that LMEC meets its regulatory obligations under the Relevant Regulations;
 - (b) monitoring, and, on an ongoing basis, assessing the adequacy and effectiveness of policies and procedures established by senior management and the Board;
 - (c) coordinating the relationship with regulators and assist the chief executive officer with his ongoing relationship with the regulators;
 - (d) advising and assisting persons responsible for carrying out LMEC's services and activities to comply with the regulatory obligations relevant to LMEC;
 - (e) reporting to the senior management, Board and regulators on compliance by LMEC and its employees with all relevant regulatory standards; and
 - (f) establishing procedures for remediation of breaches;
- 3.7 The risk tolerance for legal and compliance risks is set out in the Risk Appetite Statement. The Ethical Conduct, Legal and Compliance Risk Policy defines how LMEC intends to minimize the risk of loss (financial and non-financial) arising from a failure to adapt to legislative and regulatory changes or comply with laws and regulations, failure to act with integrity, fairness and honesty and a failure to put in place adequate contractual protections with third party suppliers and Members. The policy sets out the roles of the Legal and Compliance Functions.
- 3.8 The CCO reports to the Head of Regulation and Compliance for the LME Group and has a reporting line into the Chief Executive Officer and separately to the Board. The CCO liaises closely with the LME Group General Counsel (see below) on a regular basis and also with the Head of Legal Services and Chief Counsel and the Chief Regulatory Officer of HKEX to provide regular updates on legal and regulatory matters impacting LMEC. This is to ensure that a global view of all legal risks is maintained at group level, to minimise risks of conflicts of interest and to ensure that LMEC's contractual arrangements with Members and suppliers protect the interests of the Group.
- 3.9 The Regulation and Compliance function is organisationally separate from any other function of LMEC.
- 3.10 The CCO is supported by five specialist compliance persons. The compliance manager is not involved in any activities or services performed by LMEC.
- 3.11 The CCO is responsible for the development, maintenance and implementation of policies and procedures designed to ensure that LMEC meets its regulatory requirements. The CCO is responsible for all compliance policies which cover matters such as:
 - (a) conflicts of interest;
 - (b) whistleblowing;
 - (c) records and retention;
 - (d) ethical conduct, legal and compliance risk;
 - (e) financial crime; and
 - (f) fraud management and bribery management.

- 3.12 The CCO officer is also be responsible for reviewing policies developed by other functions within LMEC to ensure they meet all regulatory requirements. Policies are reviewed on an annual basis and relevant changes are made by the relevant team. These are then reviewed by relevant key reviewers as well as the ExCom for sign off. Once signed off, these are presented for approval by the Board or the Audit Committee (as appropriate).
- 3.13 LMEC also has a separate Legal function which is headed by the LME Group General Counsel who is responsible for all legal matters. This includes responsibility for:
- (a) advising and assisting persons responsible for carrying out LMEC's services and activities on the application of the LMEC Rules;
 - (b) the maintenance of the LMEC Rules, ensuring that the LMEC Rules comply with all applicable regulatory and supervisory requirements and obtaining independent legal opinions in relation to the soundness of the LMEC Rules, Membership agreements and conflict of law issues (in coordination with the CCO);
 - (c) investigating any breaches of the LMEC Rules by Members in accordance with the disciplinary procedure set out in the LMEC Rules;
 - (d) investigating any complaints brought by Members in accordance with the complaints procedure set out in the LMEC Rules; and
 - (e) reviewing and advising on agreements to be signed with service providers to ensure compliance with the Risk Appetite Statement and the Ethical Conduct, Legal and Compliance Risk Policy.
- 3.14 In addition to the General Counsel, three dedicated solicitors assist on all legal matters such as legal and regulatory monitoring, contract drafting and negotiating, procurement, legal advice to business, default management and foreign legal opinions as well as issues relating to enforceability and conflicts of law. The three dedicated lawyers are part of the LME Group Legal Function, which is comprised of 9 lawyers in total.

4 Board or advisory committees (section 4.4 of NI 24-102)

- (1) ***The board of directors of a recognized clearing agency must, at a minimum, establish and maintain committees on risk management, finance and audit.***
- (2) ***If a committee is a board committee, it must be chaired by a sufficiently knowledgeable individual who is independent of the clearing agency.***
- (3) ***Subject to subsection (4), a committee must have an appropriate representation by Individuals who are independent of the clearing agency.***
- (4) ***An audit or risk committee must have an appropriate representation by individuals who are:***
 - (a) ***independent of the clearing agency, and***
 - (b) ***not employees or executive officers of a participant or their immediate family members.***

Comparable provisions under EMIR

- 4.1 Article 28(1) of EMIR states: "A CCP shall establish a risk committee, which shall be composed of representatives of its clearing members, independent members of the board and representatives of its clients. The risk committee may invite employees of the CCP and external independent experts to attend risk-committee meetings in a non-voting capacity. Competent authorities may request to attend risk-committee meetings in a non-voting capacity and to be duly informed of the activities and decisions of the risk committee. The advice of the risk committee shall be independent of any direct influence by the management of the CCP. None of the groups of representatives shall have a majority in the risk committee."
- 4.2 Article 7(1) of EMIR RTS 153/2013 requires the board of a CCP to establish an audit committee.

Compliance by LMEC

- 4.3 The Audit Committee plays a key role in the oversight of the compliance function at LMEC. The Audit Committee is composed of at least four individuals with at least three Non-Executive Directors and one individual with relevant and recent financial experience. It is responsible for the approval of the key compliance policies. It also plays an important role in the monitoring of the effectiveness of the internal controls and the risk management framework of LMEC. The Audit Committee's responsibilities include, amongst other things:
- (a) Financial Reporting – monitoring of the integrity of the financial statements of LMEC, including its annual and interim reports and any other formal announcement relating to its financial performance;
 - (b) Internal Controls – monitoring and keeping under review the effectiveness of the Company's internal controls as well as the adequacy of LMEC's policies and procedures relating to financial, operational, IT, information security, outsourcing, legal and compliance risks;
 - (c) Risk Management – monitoring the risk management system and monitoring and reviewing of the key risks faced by, or relating to, LMEC (enterprise risk);
 - (d) Business Continuity – reviewing the adequacy of the business continuity and disaster recovery plan and monitoring its effectiveness;
 - (e) Bribery and Fraud Prevention – reviewing and approving LMEC's assessment of the corruption risks to which it is subject and the framework of controls put in place to mitigate those risks;
 - (f) Whistleblowing – reviewing the company's arrangements for its employees to raise concerns, in confidence, about possible wrongdoing in financial reporting or other matters;
 - (g) Internal Audit – monitoring and reviewing the effectiveness of LMEC's internal audit function as well as reviewing and approving the annual internal audit plan and any internal audit findings;
 - (h) External Audit – overseeing the appointment of LMEC's external auditors as well as overseeing the relationship, independence and objectivity of such auditors, approving the annual external audit plan and reviewing the findings of the external audit with the external auditor; and
 - (i) LMEC has also established the Board Risk Committee, the details of which are set out at paragraphs 2.22- 2.28 of Part I – Default management.

5 Use of own capital (section 4.5 of NI 24-102)

A recognized clearing agency that operates as a central counterparty must dedicate and use a reasonable portion of its own capital to cover losses resulting from one or more participant defaults.

Comparable provisions under EMIR

- 5.1 Article 43(1) of EMIR provides that a CCP must maintain sufficient pre-funded available financial resources to cover potential losses that exceed the losses to be covered by margin requirements and the default fund. Such pre-funded financial resources must include dedicated resources of the CCP, must be freely available to the CCP, and may not be used to meet the capital required under Article 16 of EMIR.
- 5.2 Article 45(4) of EMIR provides that a CCP must use dedicated own resources before using the default fund contributions of non-defaulting clearing members. A CCP must not use the margins posted by non-defaulting clearing members to cover the losses resulting from the default of another clearing member.
- 5.3 Article 35 (2) of EMIR RTS 153/2013 defines the minimum amount a CCP must contribute to its default fund (**Dedicated Own Resources**). A CCP is required to calculate its minimum contribution to the default fund by multiplying the minimum capital, including retained earnings and reserves, held in accordance with Article 16 of EMIR by 25%.

Compliance by LMEC

- 5.4 Where there is a Default Loss remaining following the exercise of LMEC's default procedures, the Default Loss will be satisfied in the following order of priority:

- (a) first, LMEC will apply all Collateral provided by the defaulting Member in or towards the discharge of the Default Loss in accordance with the Rules;
- (b) secondly, if the Collateral provided by the defaulting Member is not sufficient to discharge the Default Loss, LMEC will apply the Default Fund contribution of the defaulting Member in or towards the discharge of the outstanding balance of the Default Loss;
- (c) thirdly, if the Default Fund contribution of the defaulting Member is not sufficient to discharge the balance of the Default Loss, LMEC will apply its Dedicated Own Resources in or towards the discharge of the outstanding balance of the Default Loss;
- (d) fourthly, if the Dedicated Own Resources of LMEC are not sufficient to discharge the outstanding balance of the Default Loss, LMEC will apply the Default Fund contributions of non-defaulting Members on a pro rata basis in or towards the discharge of the remaining balance of the Default Loss; and
- (e) fifthly, the loss allocation rules will apply.

LMEC's default waterfall is set out in LMEC Rule 10.10.

Division 3 – Operational risk

6 Systems requirements (section 4.6 of NI 24-102)

For each system operated by or on behalf of a recognized clearing agency that supports the clearing agency's clearing, settlement and depository functions, the clearing agency must:

- (a) *develop and maintain*
 - (i) *an adequate system of internal controls over that system, and*
 - (ii) *adequate information technology general controls, including, without limitation, controls relating to information systems operations, information security, change management, problem management, network support and system software support,*
- (b) *in accordance with prudent business practice, on a reasonably frequent basis and, in any event, at least annually*
 - (i) *make reasonable current and future capacity estimates, and*
 - (ii) *conduct capacity stress tests to determine the ability of that system to process transactions in an accurate, timely and efficient manner, and*
- (c) *promptly notify the regulator or, in Québec, the securities regulatory authority of any material systems failure, malfunction, delay or security breach, and provide timely updates on the status of the failure, malfunction, delay or security breach, the resumption of service, and the results of the clearing agency's internal review of the failure, malfunction, delay or security breach.*

Comparable provisions under EMIR

- 6.1 Article 26(1) of EMIR provides that “a CCP shall have robust governance arrangements, which include a clear organisational structure with well-defined, transparent and consistent lines of responsibility, effective processes to identify, manage, monitor and report the risks to which it is or might be exposed, and adequate internal control mechanisms, including sound administrative and accounting procedures.”
- 6.2 Article 26(3) of EMIR provides in part that a CCP “shall employ appropriate and proportionate systems, resources and procedures.”
- 6.3 Article 26(6) of EMIR provides that “a CCP shall maintain information technology systems adequate to deal with the complexity, variety and type of services and activities performed so as to ensure high standards of security and the integrity and confidentiality of the information maintained.”

- 6.4 Article 26(8) of EMIR provides that “the CCP shall be subject to frequent and independent audits. The results of those audits shall be communicated to the board and shall be made available to the competent authority.”
- 6.5 Article 9(1) of EMIR RTS 153/2013 requires a CCP to design and ensure its information technology systems are reliable and secure as well as capable of processing the information necessary for the CCP to perform its activities and operations in a safe and efficient manner. It further requires systems to be designed to deal with the CCP’s operational needs and the risks the CCP faces, be resilient, including in stressed market conditions, and be scalable, if necessary, to process additional information. A CCP must provide for procedures and capacity planning as well as for sufficient redundant capacity to allow the system to process all remaining transactions before the end of the day in circumstances where a major disruption occurs.
- 6.6 Article 9(3) of EMIR RTS 153/2013 requires a CCP to maintain a robust information security framework that appropriately manages its information security risk. This framework is required to include appropriate mechanisms, policies and procedures to protect information from unauthorised disclosure, to ensure data accuracy and integrity and to guarantee the availability of the CCP’s services. Article 9(4) of EMIR RTS 153/2013 sets out features required to be included in the information security network. Pursuant to Article 9(5) of EMIR RTS 153/2013, the information technology systems and the information security framework must be reviewed at least on an annual basis and be subject to independent audit assessments, the results of which are to be reported to the board and made available to the CCP’s regulator.
- 6.7 Article 4(7) of EMIR RTS 153/2013 requires a CCP to have adequate internal control mechanisms to assist the board in monitoring and assessing the adequacy and effectiveness of its risk management policies, procedures and systems. These mechanisms must include sound administrative and accounting procedures, a robust compliance function and an independent internal audit and validation or review function.
- 6.8 Article 11(5) of EMIR RTS 153/2013 requires a CCP’s internal control mechanisms to be subject to audit, and to be performed at least on an annual basis.

Compliance by LMEC

- 6.9 LMEC has implemented the Cinnober TRADExpress Real-Time Clearing System (**LMEmercury**) which has been modified and adapted to cater for LMEC’s specific needs. LMEmercury is a real time clearing and settlement, risk management and collateral management system. LMEC has also implemented an internally developed data warehouse (**CDW**) to provide additional risk reporting and analytical capabilities.
- 6.10 The platform supports the following key business functions:
- (a) **Clearing and Settlement**
 - (i) matched trade acceptance: real time FIX feed of matched trades (from LMEsmart operated by the LME), data validated and position risk checked against collateral/limit;
 - (ii) position management: real time management using account structure supporting multiple House Accounts, OSAs and ISAs, support for position transfer and porting;
 - (iii) contract expiry: management of contract expiry process;
 - (iv) option exercise and assignment: management of automated expiry and random assignment process;
 - (v) settlement and delivery management: interface with physical settlement and delivery system (LMEsword operated by the LME) and management of cleared delivery process; and
 - (b) **Risk Management**
 - (i) margin and default fund calculation and collection, real time calculation of margin and margin cover processing;
 - (ii) stress testing and reverse stress testing of Member and Client portfolios;
 - (iii) risk analytics, including calculation of greeks and sensitivity analysis on portfolios and collateral;

- (iv) credit risk metrics for credit scoring and near real time updates of credit market data for Members and other counterparties;
 - (v) default management, ability to manage position transfer and record default processes;
 - (vi) real time risk monitoring and ability to consolidate risk exposure across market exposure, treasury investment exposure; and
 - (vii) pricing and market data management using multiple pricing sources and calculate multiple settlement prices;
- (c) **Cash and Collateral Management**
- (i) payments handling: link to Society for Worldwide Interbank Financial Telecommunication (**SWIFT**) network via SWIFT bureau service to manage payment across settlement and concentration banks; and
 - (ii) cash and securities collateral management: SWIFT processing of cash and securities to manage assets across custodians and cash investment agent.

6.11 The other key systems used by LMEC alongside LMEmercury and the data warehouse include:

- (a) Algorithmica: provided by Cinnober alongside LMEmercury, Algorithmica is used for detailed analysis of risk factors to support SPAN parameter setting; and
- (b) Bottomline: standard SWIFT bureau application used to manage interface between LMEmercury and SWIFT network.

7. Systems reviews (section 4.7 of NI 24-102)

- (1) ***A recognized clearing agency must annually engage a qualified party to conduct an Independent systems review and vulnerability assessment and prepare a report in accordance with established audit standards and best industry practices to ensure that the clearing agency is in compliance with paragraph 4.6(a) and section 4.9.***
- (2) ***The clearing agency must provide the report resulting from the review conducted under subsection (1) to***
 - (a) ***its board of directors, or audit committee, promptly upon the report's completion, and***
 - (b) ***the regulator or, in Québec, the securities regulatory authority, by the earlier of the 30th day after providing the report to its board of directors or the audit committee or the 60th day after the calendar year end.***

Comparable provisions under EMIR

7.1 Article 26(8) of EMIR requires a CCP to be subject to frequent and independent audits. The results of those audits must be communicated to the board and shall be made available to its regulator.

Compliance by LMEC

7.2 LMEC applies industry best practice for development, implementation, operations, monitoring, management and maintenance of IT systems, using industry standard hardware and processes for which experienced resources are readily available. LMEC ensures that this is tested as part of the SOC2. assessment review. The Chief Technology Officer is responsible for ensuring IT standards are applied. At the highest level, the IT standards adopted are:

- (a) New system development and project management: system development lifecycle model supported by formal project management methodology when developing large business components; and
- (b) IT Support Services: ITIL.

8. Clearing Agency technology requirements and testing facilities (section 4.8 of NI 24-102)
- (1) ***A recognized clearing agency must make available to participants, in their final form, all technology requirements regarding interfacing with or accessing the clearing agency***
 - (a) ***if operations have not begun, sufficiently in advance of operations to allow a reasonable period for testing and system modification by participants, and***
 - (b) ***if operations have begun, sufficiently in advance of implementing a material change to technology requirements to allow a reasonable period for testing and system modification by participants.***
 - (2) ***After complying with subsection (1), the clearing agency must make available testing facilities for interfacing with or accessing the clearing agency***
 - (a) ***if operations have not begun, sufficiently in advance of operations to allow a reasonable period for testing and system modification by participants, and***
 - (b) ***if operations have begun, sufficiently in advance of implementing a material change to technology requirements to allow a reasonable period for testing and system modification by participants.***
 - (3) ***The clearing agency must not begin operations before***
 - (a) ***it has complied with paragraphs (1)(a) and (2)(a), and***
 - (b) ***the chief information officer of the clearing agency, or an individual performing a similar function, has certified in writing to the regulator or, in Québec, the securities regulatory authority, that all information technology systems used by the clearing agency have been tested according to prudent business practices and are operating as designed.***
 - (4) ***The clearing agency must not implement a material change to the systems referred to in section 4.6 before***
 - (a) ***it has complied with paragraphs (1)(b) and (2)(b), and***
 - (b) ***the chief information officer of the clearing agency, or an individual performing a similar function, has certified in writing to the regulator or, in Québec, the securities regulatory authority, that the change has been tested according to prudent business practices and is operating as designed.***
 - (5) ***Subsection (4) does not apply to the clearing agency if the change must be made immediately to address a failure, malfunction or material delay of its systems or equipment and if***
 - (a) ***the clearing agency immediately notifies the regulator or, in Québec, the securities regulatory authority, of its intention to make the change, and***
 - (b) ***the clearing agency discloses to its participants the changed technology requirements as soon as practicable.***

Comparable provisions under EMIR

- 8.1 Article 26(3) provides in part that a CPP “shall employ appropriate and proportionate systems, resources and procedures.”
- 8.2 Article 26(6) provides that “a CCP shall maintain information technology systems adequate to deal with the complexity, variety and type of services and activities performed so as to ensure high standards of security and the integrity and confidentiality of the information maintained.”
- 8.3 Article 26(8) provides that “the CCP shall be subject to frequent and independent audits. The results of those audits shall be communicated to the board and shall be made available to the competent authority.”

- 8.4 Article 9(1) of EMIR RTS 153/2013 requires a CCP to provide for procedures for the introduction of new technology including clear reversion plans.
- 8.5 Article 9(2) of EMIR RTS 153/2013 requires a CCP to subject its systems to stringent testing, simulating stressed conditions, before initial use, after making significant changes and after a major disruption has occurred. Clearing members and clients, interoperable CCPs and other interested parties must be involved as appropriate in the design and conduct of these tests.

Compliance by LMEC

- 8.6 LMEC has two key categories for changes that occur on its systems. These categories are Business As Usual (**BAU**) change and Major releases.
- 8.7 BAU change encompasses minor patches and small works to the system. These changes can be in response to small works requested by the LMEC business or patches required for incident and defect resolution. BAU changes are predominately internally facing with no or limited visibility to outside parties.
- 8.8 Major releases result in significant change to the system which may include impact to third parties.
- 8.9 Due to the differences in impact and visibility, the two change routes have different levels of testing and coordination applied to them.
- 8.10 LMEC aims to undertake two major releases per year dependent upon business requirements. These changes are generally considered large scale in their nature with significant member and external impact. Due to the size of these releases extensive testing is applied to each release. Testing of a release is undertaken by LMEC test and business teams. This ensures that LMEC fully reviews all releases to ensure that they are of sufficient quality and stability for deployment into production.
- 8.11 Testing of a major release includes Unit Testing, Functional Testing, User Acceptance Testing, Non-functional Testing, Regression Testing, Parallel Runs, Member Tests and Penetration Testing.
- 8.12 Unit testing is undertaken on all new code developed on the system. This is the first test applied and is undertaken by the developers of the code. This ensures that the code is good and addresses the core requirements it is intended for. If the code passes this test then it is promoted to the release for delivery to the LMEC test team.
- 8.13 Functional Testing is applied to all new releases and patches. This testing ensures that the new release or patch functionally works as expected. The functional testing is done against detailed test plans that are created prior to the code delivery. This allows the testers to execute a wide number of tests and compare against expected outcomes. If a defect is identified then it is raised with the developers for correction either via a patch or a subsequent release. All defects are tracked and reported on as part of the release project governance.
- 8.14 User Acceptance Testing is undertaken by the LMEC business teams on each element of the release. This test ensures that the LMEC business confirms that they are able to undertake their required actions and activities on the system. If a defect is identified then it is raised with the developer for correction.
- 8.15 Regression testing is undertaken on all major releases. This test runs through a detailed risk based regression test pack. The pack covers key elements of the LMEC activities to ensure all elements, regardless of whether they are being changed or not still function as expected. This test ensures that there are no unintended consequences of changes made to the system.
- 8.16 Member Testing is carried out with LMEC's external members. This is done with the use of two dedicated member test systems which are available to all LMEC members. The member test environments are setup to provide members with the ability to test against current state and future state. During a major release members are required to self-certify that they have tested against the new release.
- 8.17 Non-Functional Testing is applied to all releases. This test is focused on performance of the system with the new release. The test ensures that the system continues to perform with required trade volumes. These trade volumes include peak LME trade volume and 3x peak volume as required by EMIR. Non-functional tests also include failover and resilience testing which ensures that the system continues to meet the EMIR regulatory requirement of a 2 hour recovery period.

- 8.18 Parallel run tests are undertaken on all major releases. This test involves the pre-production system being run behind the production system with all trades and price updates experienced in production played into the test system. This test is carried out by the LMEC business team and ensures that the system continues to provide the same results as production and that functionality is as expected by the business teams.
- 8.19 Penetration testing is undertaken on each new release. This is undertaken by a third party on LMEC's behalf to ensure that there are no security flaws within the new release. If a severe security flaw is detected then this is corrected before go live of the release.
- 8.20 BAU changes are smaller in scope to the major releases and are delivered as patches to the system. This means that the changes are discrete in nature and can easily be removed if required. As a result of this, BAU changes undergo Unit Testing, Functional Testing and Pre-Prod deployment testing before deployment into production.
- 8.21 LMEC's COO and CTO meet regularly with the Bank of England and inform it of major releases planned and the expected go-live dates of these. BAU changes are made with no regulatory consultation.

9. Testing of business continuity plans (section 4.9 of NI 24-102)

A recognized clearing agency must

- (a) develop and maintain reasonable business continuity plans, including disaster recovery plans, and***
- (b) test its business continuity plans, including its disaster recovery plans, according to prudent business practices and on a reasonably frequent basis and, in any event, at least annually.***

Comparable provisions under EMIR

- 9.1 Article 34(1) of EMIR states: "A CCP shall establish, implement and maintain an adequate business continuity policy and disaster recovery plan aiming at ensuring the preservation of its functions, the timely recovery of operations and the fulfilment of the CCP's obligations. Such a plan shall at least allow for the recovery of all transactions at the time of disruption to allow the CCP to continue to operate with certainty and to complete settlement on the scheduled date."
- 9.2 Article 17 of EMIR RTS 153/2013 provides the following requirements for a CCP's business continuity plan:
 - 1. A CCP shall have a business continuity policy and a disaster recovery plan which are approved by the board. The business continuity policy and the disaster recovery plan shall be subject to independent reviews which are reported to the board.
 - 2. The business continuity policy shall identify all critical business functions and related systems, and include the CCP's strategy, policy, and objectives to ensure the continuity of these functions and systems.
 - 3. The business continuity policy shall take into account external links and interdependencies within the financial infrastructure including trading venues cleared by the CCP, securities settlement and payment systems and credit institutions used by the CCP or a linked CCP. It shall also take into account critical functions or services which have been outsourced to third-party providers.
 - 4. The business continuity policy and disaster recovery plan shall contain clearly defined and documented arrangements for use in the event of a business continuity emergency, disaster or crisis which are designed to ensure a minimum service level of critical functions.
 - 5. The disaster recovery plan shall identify and include recovery point objectives and recovery time objectives for critical functions and determine the most suitable recovery strategy for each of these functions. Such arrangements shall be designed to ensure that in extreme scenarios critical functions are completed on time and that agreed service levels are met.
 - 6. A CCP's business continuity policy shall identify the maximum acceptable time for which critical functions and systems may be unusable. The maximum recovery time for the CCP's critical functions to be included in the business continuity policy shall not be higher than two hours. End of day procedures and payments shall be completed on the required time and day in all circumstances.

7. A CCP shall take into account the potential overall impact on market efficiency in determining the recovery times for each function.”
- 9.3 Article 18 of EMIR RTS 153/2013 requires a CCP to conduct a business impact analysis that is designed to identify the business functions critical to ensuring the services of the CCP (including the criticality of these functions to other institutions and functions in the financial infrastructure) and to use scenario based risk analysis designed to identify how various scenarios affect the risks to its critical business functions. The business impact analysis and scenario analysis are required to be kept up to date, reviewed at least on an annual basis and following an incident or significant organizational changes, and taking into account all relevant developments, including market and technology developments.
- 9.4 Article 19 of EMIR RTS 153/2013 requires a CCP to have in place arrangements to ensure continuity of its critical functions based on disaster scenarios.
- 9.5 Article 20 of EMIR RTS 153/2013 provides for the following requirements regarding the testing and monitoring of a CCP’s business continuity and disaster recovery plan:
- (a) A CCP shall test and monitor its business continuity policy and disaster recovery plan at regular intervals and after significant modifications or changes to the systems or related functions to ensure the business continuity policy achieves the stated objectives including the two hour maximum recovery time objective. Tests shall be planned and documented.
 - (b) Testing of the business continuity policy and disaster recovery plan shall fulfill the following conditions:
 - (i) involve scenarios of large scale disasters and switchovers between primary and secondary sites;
 - (ii) include involvement of clearing members, external providers and relevant institutions in the financial infrastructure with which interdependencies have been identified in the business continuity policy.
- 9.6 LME Group has in place a Business Continuity Management System (**BCMS**) that is certified to the International Standard for Business Continuity ISO22301, amongst others.
- 9.7 This BCMS ensures LME Group has the capability to plan for and respond to operational disruptions, including events that could cause a wide scale or major disruption, and continue business at a pre-defined and acceptable level.

Business Continuity Policy

- 9.8 Senior Management define Business Continuity Objectives within the Business Continuity Policy (**BC Policy**). This provides a framework for the creation of the Business Continuity Management System. The BC Policy is annually reviewed and approved at Board level. Accountability for the success and completeness of the BCMS is with the Chief Operating Officer. Responsibility for maintenance of the BCMS is assigned to appropriately qualified and suitably experienced management personnel.
- 9.9 BC Policy Objectives:
- (a) Ensure safety and welfare of staff, contractors and visitors throughout a business continuity incident.
 - (b) Meet statutory and regulatory requirements.
 - (c) Determine recovery time objectives for functions that are essential to the business (as documented within business impact Analysis), and develop appropriate responses.
 - (d) Maintain robust business continuity strategies and plans that are thoroughly exercised on at least an annual basis.
 - (e) Maintain communication with regulators and compliance with regulatory requirements.
 - (f) Ensure staff are fully cognisant of the importance of business continuity and understand what is expected of them should a business continuity invocation take place.

- (g) Adhere to industry best practices and standards and continually monitor and improve operational resilience and business continuity preparedness.
 - (h) Anticipate threats that could disrupt LME Group operations and prevent their occurrence from causing greater than:
 - (i) Two (2) hours disruption to electronic trading and trade matching services.
 - (ii) Two (2) hours disruption to critical LMEC clearing services.
 - (iii) A disruption beyond the same business day for regulatory services.
 - (iv) A disruption beyond 48hours for all other services that have a disaster recovery strategy.
- 9.10 Business Continuity Plan (**BC Plan**) – The BC Plan guides Senior Management in the recovery and continuation of LME Group services. It covers the procedures for how to manage a major incident which has resulted in disruption to LME and/or LMEC services beyond a predefined acceptable level. The BC Plan is annually reviewed and approved at Board level
- 9.11 In Scope for the BC Plan are:
- (i) All LME trading activities provided to the market
 - (ii) All LMEC settlement and clearing activities
 - (iii) The workplace based at LME Group Head Office
 - (iv) All personnel based in LME Group Head Office

Business Continuity Strategy

- 9.12 Determination and selection of Business Continuity Strategy (**BC Strategy**) is based on the output from Business Impact Analysis (BIA) and Risk Analysis (RA). BIA and RA are performed at least annually to ensure the strategy remains relevant. BC Strategy is annually reviewed.
- 9.13 BC Strategy is required for the following scenarios:
- (a) Loss of a building, E.G.:
 - (i) Power cut
 - (ii) Building access problems
 - (b) Technological failure, E.G.:
 - (i) Data Centre Failure (or partial)
 - (ii) Extensive Hardware failure
 - (iii) Extensive Software Failure
 - (c) Cyber attack
 - (d) Reduction of personnel below acceptable levels, e.g.:
 - (i) pandemic illness
 - (ii) industrial action affecting transportation
 - (iii) critical third party supplier failure
- 9.14 Business Impact Analysis (BIA) & Risk Analysis – BIA and Risk Analysis reviews the impact over time of a disruption to LME Group and its Members. These analyses identify the resources required to support the

essential functions concluded within the BIA and help define the acceptable recovery objectives for functions, processes and resources for continuance of service. BIA and Risk Analysis are annually reviewed.

9.15 The BIA:

- (a) documents the impact of loss or disruption over time to both LME Group and the market;
- (b) identifies LME Group processes that support its functions and process dependencies; and
- (c) identifies the resources required for recovery.

9.16 Risk Analysis:

- (a) identifies and manages risks in order to minimise the need to invoke business continuity; and
- (b) assesses risk by considering the likelihood of occurrence over time, and the potential impact if an event did materialise.

The impact parameters are: financial loss; damage to reputation; and, the ability to meet regulatory requirements.

Testing & Exercising

9.17 LME Group implements an annual testing and exercising programme that covers all plans and strategies and demonstrates compliance with its Business Continuity preparedness. The programme covers a range of scenarios, including large scale disasters involving the need to switchover from the Finsbury Square office to the Disaster Recovery Site(s). Tests take place at regular intervals and after significant modifications or changes to the systems and related functions in order to ensure the Business Continuity Plan can achieve the defined objectives.

9.18 LME Group personnel, LME Members and critical service providers are included in the testing and exercising programme. A post-test report is produced to record the results of the tests against the test objectives and to determine required actions if objectives were not satisfactorily achieved.

10. Outsourcing (section 4.10 of NI 24-102)

If a recognized clearing agency outsources a critical service or system to a service provider, including to an affiliated entity of the clearing agency, the clearing agency must do all of the following:

- (a) ***establish, implement, maintain and enforce written policies and procedures to conduct suitable due diligence for selecting service providers to which a critical service and system may be outsourced and for the evaluation and approval of those outsourcing arrangements;***
- (b) ***identify any conflicts of interest between the clearing agency and the service provider to which a critical service and system is outsourced, and establish, implement, maintain and enforce written policies and procedures to mitigate and manage those conflicts of interest;***
- (c) ***enter into a written contract with the service provider to which a critical service or system is outsourced that***
 - (i) ***is appropriate for the materiality and nature of the outsourced activities,***
 - (ii) ***includes service level provisions, and***
 - (iii) ***provides for adequate termination procedures;***
- (d) ***maintain access to the books and records of the service provider relating to the outsourced activities;***
- (e) ***ensure that the securities regulatory authority has the same access to all data, information and systems maintained by the service provider on behalf of the clearing agency that it would have absent the outsourcing arrangements;***

- (f) **ensure that all persons conducting audits or independent reviews of the clearing agency under this Instrument have appropriate access to all data, information and systems maintained by the service provider on behalf of the clearing agency that such persons would have absent the outsourcing arrangements;**
- (g) **take appropriate measures to determine that the service provider to which a critical service or system is outsourced establishes, maintains and periodically tests an appropriate business continuity plan, including a disaster recovery plan;**
- (h) **take appropriate measures to ensure that the service provider protects the clearing agency's proprietary information and participants' confidential information, including taking measures to protect information from loss, thefts, vulnerabilities, threats, unauthorized access, copying, use and modification, and discloses it only in circumstances where legislation or an order of a court or tribunal of competent jurisdiction requires the disclosure of such information;**
- (i) **establish, implement, maintain and enforce written policies and procedures to monitor the ongoing performance of the service provider's contractual obligations under the outsourcing arrangements.**

Comparable provisions under EMIR

- 10.1 Article 35(1) of EMIR provides that, when outsourcing operational functions, services or activities, a CCP must at all times ensure that, among the following:
- (a) outsourcing does not prevent the exercise of supervisory and oversight functions, including on-site access to acquire any relevant information needed to fulfil those mandates;
 - (b) outsourcing does not result in depriving the CCP from the necessary systems and controls to manage the risks it faces;
 - (c) the service provider implements equivalent business continuity requirements to those that the CCP must fulfil;
 - (d) the CCP retains the necessary expertise and resources to evaluate the quality of the services provided and the organizational and capital adequacy of the service provider, and to supervise the outsourced functions effectively and manage the risks associated with the outsourcing and supervises those functions and manages those risks on an ongoing basis;
 - (e) the CCP has direct access to the relevant information of the outsourced functions;
 - (f) the service provider cooperates with the competent authority in connection with the outsourced activities; and
 - (g) the service provider protects any confidential information relating to the CCP and its clearing members and clients.

A CCP may not outsource major activities linked to risk management unless approved by its regulator.

- 10.2 Pursuant to Article 35(2) of EMIR, a CCP's regulator must require the CCP, in entering into an outsourcing arrangement, to allocate and set out its rights and obligations, and those of the service provider, clearly in a written agreement. Pursuant to Article 35(3), a CCP must make all information necessary to enable the regulator to assess the compliance of the performance of the outsourced activities available upon request.

Compliance by LMEC

- 10.3 LMEC has entered into written agreements with all its outsourced providers which meet the EMIR requirements set out above. All outsourcing arrangements have been reviewed by the Board Risk Committee and approved by the Bank. LMEC's outsourcing arrangements were recently reviewed by the Bank in 2017 and found to be compliant with the EMIR requirements. The performance of outsourced providers is regularly reviewed and the adequacy of these internal controls and polices is reviewed by the Audit Committee.

Division 4 – Participation requirements

11. Access requirements and due process (section 4.11 of NI 24-102)

- (1) ***A recognized clearing agency must not***
 - (a) ***unreasonably prohibit, condition or limit access by a person or company to the services offered by the clearing agency,***
 - (b) ***unreasonably discriminate among its participants or indirect participants,***
 - (c) ***impose any burden on competition that is not reasonably necessary and appropriate,***
 - (d) ***unreasonably require the use or purchase of another service for a person or company to utilize the clearing agency's services offered by it, and***
 - (e) ***impose fees or other material costs on its participants that are unfairly or inequitably allocated among the participants.***
- (2) ***For any decision made by the clearing agency that terminates, suspends or restricts a participant's membership in the clearing agency or that declines entry to membership to an applicant that applies to become a participant, the clearing agency must ensure that***
 - (a) ***the participant or applicant is given an opportunity to be heard or make representations, and***
 - (b) ***it keeps records of, gives reasons for, and provides for reviews of its decisions, including, for each applicant, the reasons for granting access or for denying or limiting access to the applicant, as the case may be.***
- (3) ***Nothing in subsection (2) limits or prevents the clearing agency from taking timely action in accordance with its rules and procedures to manage the default of one or more participants or in connection with the clearing agency's recovery or orderly wind-down, whether or not such action adversely affects a participant.***

Comparable provisions under EMIR

- 11.1 Pursuant to Article 37(1) of EMIR, a CCP's criteria for admitting clearing members must be "non-discriminatory, transparent and objective so as to ensure fair and open access to the CCP" and "ensure that clearing members have sufficient financial resources and operational capacity to meet the obligations arising from participation in a CCP". Criteria that restrict access to be admitted as clearing members are permitted only to the extent that their objective is to control the risk for the CCP.
- 11.2 Article 37(4) of EMIR requires a CCP to have objective and transparent procedures for the suspension and orderly exit of clearing members that no longer meet the CCP's admission criteria.
- 11.3 Article 37(5) of EMIR provides that a CCP may only deny access to clearing members meeting its admission criteria where duly justified in writing and based on a comprehensive risk analysis.
- 11.4 Article 37(6) of EMIR allows a CCP to impose specific additional obligations on clearing members, such as the participation in auctions of a defaulting clearing member's position.
- 11.5 These additional obligations must be proportional to the risk brought by the clearing member and may not restrict participation to certain categories of clearing member.

Compliance by LMEC

- 11.6 LMEC provides services to persons who are admitted to Membership on the terms of its Rules (Rule 3.1.1). The Rules are binding on Members (Rule 2.1.1) by virtue of the Clearing Membership Agreement, which must be executed by each applicant. The applicant will become a member on the date of its acceptance by LMEC, which is set out in the Clearing Membership Agreement. This decision is taken by the Board Risk Committee. A member is accepted once LMEC is satisfied that the applicant complies with all Membership Criteria. LMEC's Membership Criteria have been designed to operate on an objective basis to all applicants. LMEC

applies its Membership Criteria to all applicants on a non-discriminatory basis, with the aim of ensuring fair and open access to its clearing system.

- 11.7 The Application Process is set out in the Membership Procedures in the LMEC Rules, which also contain the complaints, disciplinary and appeals procedures.

12. Additional Information to Demonstrate that it is in the Public Interest for the OSC to Exempt the Applicant

LMEC is committed to operating a clearing agency in accordance with relevant public interest considerations. The LMEC Board has overall responsibility for the management of LMEC and is governed by a Statement of Corporate Governance. LMEC ensures compliance with all applicable laws and regulatory requirements and recognises the importance of maintaining the highest standards of corporate governance. The Board seeks to promote and maintain the highest standards in relation to the operations of LMEC, and, in this, is fully supported by HKEx, the Group parent company.

13. Certification Regarding Books and Records as well as Onsite Inspection and Examination

Pursuant to paragraph 2.1(2)(a) of NI 24-102, LMEC hereby certifies that it will, if so requested, (a) assist the OSC in accessing LMEC's books and records and in undertaking an onsite inspection at LMEC's premises and (b) provide the OSC with an opinion of legal counsel that LMEC has, as a matter of law, the power and authority to (i) provide the OSC with prompt access to its books and records; and (ii) submit to onsite inspection and examination by the OSC.

14. Form 24-102F1 Submission to Jurisdiction and Appointment of Agent for Service

Pursuant to subsection 2.1(3) of NI 24-102, LMEC has submitted a Form 24- 102F1 Submission to Jurisdiction and Appointment of Agent for Service. A fully executed Form 24-102F1 (including the date of exemption) will be filed with the OSC once the order requested by this application is issued.

15. Notice Regarding Material Change to Information Provided in Application

Pursuant to subsection 2.1(4) of NI 24-102, LMEC agrees to inform the OSC in writing of any material change to the information provided in this application, or if any of the information becomes materially inaccurate for any reason, as soon as the change occurs or LMEC becomes aware of any material inaccuracy.

16. Filing of Audited Financial Statements

- 16.1 Pursuant to subsection 2.4(1) of NI 24-102, LMEC will provide audited financials for the most recently completed financial year. Such audited financial statements and the accompanying auditor's report will meet the standards prescribed in subsections 2.4(2) and (3) of NI 24-102, respectively.

Should you have any questions on this application, please contact the LME Clear Legal Team (lmeclearlegal@lme.com).

Yours faithfully,

LMEC

APPENDIX "A"

"Accounts"	means an account established and maintained by LMEC in respect of a Member, in accordance with LMEC Rule 4 (Accounts), including any: <ul style="list-style-type: none">• House Accounts; or• Client Accounts, which may be either:<ul style="list-style-type: none">(i) an Omnibus Account; or(ii) an ISA;
"Applicable Law"	means (a) all regional, national and international laws, rules, regulations, standards and directions, including those imposed by any competent regulatory authority which apply from time to time to the person or activity, and (b) all other regulations applying to LMEC or a Member and any binding rules or non-binding guidance issued by a Clearing House regulator and / or a regulator of a Member, including FSMA, EMIR, the Recognition Regulations and the Settlement Finality Regulations;
"Clearing System"	means the formal arrangements, rules and procedures operated by LMEC and the services provided by it for the clearing and settlement of contracts, as described in the Rules and the Procedures (each as amended from time to time) as published from time to time by LMEC;
"Client"	means a person that has an agreement with a Member pursuant to which: <ul style="list-style-type: none">(a) the Member enters into transactions with or for that person; or(b) the Member agrees to take responsibility for the clearing via the Clearing System of transactions entered into by such person;
"Client Account"	means an Account in the books and records of LMEC established in accordance with LMEC Rule 4 (Accounts), to record respective entitlements in respect of transactions cleared by a Member for one or more of its Clients;
"Collateral"	means cash, securities, gold, instruments and other types of asset provided (or to be provided) by a Member to LMEC to satisfy its margin requirement;
"Default Fund"	means the fund maintained by LMEC, to which each Member is required to contribute under LMEC Rule 9 (Default Fund);
"ExCom"	means the LMEC Executive Committee;
"Executive Director"	means a director employed by LMEC;
"House Account"	means an Account in the books and records of LMEC established in accordance with LMEC Rule 4.2.1;
"Indirect Client"	means the client of a Client;
"Index Future"	means a cash-settled Exchange-traded futures contract pursuant to which the buyer and seller agree to pay or receive in cash the difference between the level of the Index on the Prompt Date and the level agreed in the Contract, multiplied by the Contract size, settled on the Settlement Business Day next following the Prompt Date and subject to daily marking to market in accordance with the Clearing House Rules and conforming to the other specifications prescribed by the Exchange;
"LME Exchange-Traded Forwards"	means the products listed at paragraph 2.2 of Annex 1 to the LMEC Rules;
"LME Exchange Traded Futures"	means the products listed at paragraph 2.3 of Annex 1 of the LMEC Rules;

"LME Contract"	means a transaction that is made on the LME between two Members (and that is defined as a "Contract" under the LME Rules) ² ;
"Member"	means a person admitted to use the Clearing System in accordance with LMEC Rule 3 (Membership) and the Membership Procedure either as a GCM or an ICM (and "Membership" shall be construed accordingly);
"Membership Criteria"	means the criteria to be satisfied in order to qualify for, and maintain, Membership of LMEC, as specified in Membership Procedures B3, B4 and B5 which are set out in the LMEC Rules;
"Non-Executive Director"	means a member of the LMEC Board without executive responsibilities within LMEC;
"Position"	means: <ul style="list-style-type: none">(a) in relation to an open contract, the consolidated rights and liabilities of the parties to that open contract at the relevant point in time; and(a) in relation to an Account, the consolidated rights and liabilities arising out of open contracts recorded on such Account;
"Relevant Regulations"	means all Applicable Law binding on LMEC in the UK and the European Union that governs, regulates or specifies in any way the manner in which LMEC shall be required to make available and / or perform its obligations as the operator of the Clearing System including FSMA, EMIR, the Recognition Regulations and the Settlement Finality Regulations;
"Risk Appetite Statement"	means LME's documented tolerances for different categories of risk, as defined by, and as revised from time to time by, LMEC's Board;

² **Explanatory Note:** This definition covers contracts between two LMEC Members and would not therefore capture a Client Trade (which is between a Member and a Client or between a Client and any other person).

IN THE MATTER OF
THE SECURITIES ACT,
R.S.O. 1990, CHAPTER S.5, AS AMENDED
(THE OSA)

AND

IN THE MATTER OF
LME CLEAR LIMITED

ORDER
(Section 147 of the OSA)

WHEREAS LME Clear Limited (**LMEC**) has filed an application (**Application**) with the Ontario Securities Commission (**Commission**) pursuant to section 147 of the OSA requesting an order exempting LMEC from the requirement to be recognized as a clearing agency under subsection 21.2(0.1) of the OSA in order to provide its central counterparty (**CCP**) services to Ontario market participants;

AND WHEREAS LMEC has represented to the Commission that:

- 1.1 LMEC is a private company incorporated in England and Wales on April 21, 2011, under registered number 07611628. LMEC's registered office and head office is at 10 Finsbury Square, London EC2A 1AJ. All corporate documentation relating to LMEC is filed with Companies House in the United Kingdom (**UK**).
- 1.2 LMEC is 100% owned by HKEX Investment UK Limited (**HKEX UK**), a holding company which also owns 100% of the shares in the London Metal Exchange (**LME**), through LME Holdings Limited. LMEC has no subsidiaries.
- 1.3 LMEC is authorised as a CCP pursuant to Regulation (EU) No. 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (**EMIR**), which sets out clearing and bilateral risk-management requirements for derivative contracts, reporting requirements for derivative contracts, and uniform requirements for the performance of activities of CCPs and trade repositories. LMEC is primarily supervised by the Bank of England (the **Bank**), is regulated as a Recognised Central Counterparty in accordance with the *Financial Services and Markets Act 2000 (FSMA)* in the United Kingdom, and is a designated system under the Financial Markets and Insolvency (Settlement Finality) Regulations 1999. Its authorisation was obtained on 3 September 2014. LMEC is also authorised to provide Automated Trading Services in Hong Kong and is the clearing organisation for the LME under its Foreign Board of Trade Licence in the US.
- 1.4 LMEC is of the opinion that it fully observes the international standards applicable to financial market infrastructures described in the April 2012 report named *Principles for financial market infrastructures (PFMI)*, having prepared a detailed assessment of its compliance against the PFMI and the associated disclosure framework as of September 2018, which has been reviewed and validated by the Bank.
- 1.5 LMEC is subject to regulatory supervision by the Bank. LMEC is required to deliver to the Bank monthly returns showing LME Clear's activities, including:
 - initial margin;
 - default fund size ;
 - cash and non-cash collateral data;
 - stress testing results for counterparty credit and liquidity risk;
 - capital data; and
 - details of any significant changes in the organisation, governance, structure or ownership of LMEC.
- 1.6 The Bank reviews LMEC's annual financial statements and auditors' reports and does an annual risk classification of LMEC, including an assessment of the adequacy of LMEC's capital and risk management procedures. In addition, the Bank may carry out site audits.

- 1.7 In addition, LME Clear provides quarterly updates to the Securities & Futures Commission of Hong Kong (SFC) as part of its Automated Trading System Licence on the total volume of all trades cleared and settled and open interest, as well as details of the margin and collateral balances, and the default fund contribution of each Hong Kong Member (if any).
- 1.8 A member of LMEC (**Member**) is a member of the London Metal Exchange who has been admitted to use the clearing system of LMEC in accordance with Rule 3 of the LMEC Rules and Procedures (**LMEC Rules**) and the membership procedures. Members may be either an Individual Clearing Member (**ICM**) or a General Clearing Member (**GCM**). ICMs are permitted to clear transactions on their own behalf only. GCMs may clear transactions on their own behalf and also in respect of transactions effected (i) by the GCM with its clients, or (ii) by its clients with other non-members. Members may elect to use either the LME Base Service, the LMEprecious Service or both.
- 1.9 LMEC anticipates that banks based in Ontario and certain other market participants that have a head office or principal place of business in Ontario may be interested in becoming Members of LMEC.
- 1.10 The LMEC Rules act as the master agreement between LMEC and its Members in respect of all transactions cleared by LMEC.
- 1.11 LMEC provides services to persons who are admitted to membership on the terms of the LMEC Rules (LMEC Rule 3.1.1). The LMEC Rules are binding on Members (LMEC Rule 2.1.1) by virtue of the LME Clear Membership Agreement. LMEC's membership criteria have been designed to operate on an objective basis to all applicants. LMEC applies its membership criteria to applicants on a non-discriminatory basis, with the aim of ensuring fair and open access to its clearing system.
- 1.12 LMEC's membership criteria covers professional qualifications, financial integrity, regulated status of an applicant, and the ability of the applicant to meet and continue to meet the standards set out by LMEC.
- 1.13 The membership criteria are set out in membership procedures which are contained in the LMEC Rules, Part B. There are some additional criteria for applicants applying to become a GCM which are summarised below.
- 1.14 The criteria to become a GCM are that the applicant must:
- (a) meet the conditions (if any) in LMEC's pro forma membership agreement;
 - (b) satisfy the minimum net capital for a Member; and
 - (c) pay its contribution to the LMEC default fund.
- 1.15 A Member clearing for the LME business must also:
- (a) be a clearing member of the LME (this status is only available to certain categories of LME member specified in the LME Rules);
 - (b) be a member of the LMEsmart system; and
 - (c) meet the minimum net capital requirement for a Member of US\$10,000,000;
- 1.16 A GCM is required be regulated in the conduct of its business under the securities and/or banking legislation of an European Economic Area State or of any other country or countries acceptable to LMEC, and must not be prohibited by such legislation or its regulator from becoming a Member or from performing the obligations of a Member under the LMEC Rules. A GCM must also have sufficient financial resources and operational capacity to clear transactions on behalf of clients.
- 1.17 The LMEC Executive Risk Committee may approve an application to become a Member upon a determination that the applicant meets the membership criteria and after conducting a risk assessment and assigning an internal credit rating to the applicant.
- 1.18 Each Member shall provide to LMEC and maintain on a daily basis for so long as it is a Member, eligible collateral with a value sufficient to satisfy its margin requirement, which shall comprise as security, cover and/or credit support for the performance by that Member of all of its present and future obligations to LMEC pursuant to the LME Rules or the operation of the LMEC's clearing system.
- 1.19 The margin requirement for each Member will be the amount which LME Clear may determine and notify the Member from time to time.

- 1.20 LMEC requires all Members posting non-cash collateral to execute one or more security deeds and/or pledge agreements granting charges in favour of LMEC over all collateral and default fund contributions held by Members with LMEC.
- 1.21 The LMEC Rules (including in particular the default procedures contained within them) govern the processes that apply to Members in the case of a clearing Member default; clearing Members remain responsible for the credit risk of their Clients. These procedures facilitate transparent and practical market action in stress situations. In broad terms LMEC will look to neutralise risk by hedging the overall house position of a defaulting Member against the most liquid market dates and roll forward any prompt physical delivery positions to manage its risk. LMEC will then seek to auction the defaulting Member's remaining house portfolio to other participants as its preferred method of disposal; however it will also be able to execute the close out of all remaining open house positions if required. A Member must successfully complete simulated default tests to demonstrate they have the appropriate expertise and operational processes in place prior to beginning clearing operations. Once live, all Members are required to participate in fire drills regularly to confirm their operational readiness to manage a Member default.
- 1.22 LMEC seeks an exemption from the clearing agency recognition requirement in relation to all products eligible to be cleared on LMEC. (**Eligible Products**). The Eligible Products as at the time of this order are as follows:
- (a) Exchange Traded Forwards relating to metals;
 - (b) Exchange Traded Futures relating to metals;
 - (c) Exchange Traded Futures relating to metal indices;
 - (d) Exchange Traded American Options relating to metals;
 - (e) Exchange Traded Average Price Options (TAPOs) relating to metals; and
 - (f) Exchange Traded Monthly Average Futures relating to metals.
- 1.23 LMEC would provide its services to participants in Ontario without establishing an office, accessing systems from, or having a physical presence in Ontario or elsewhere in Canada.
- 1.24 LMEC submits that it does not pose a significant risk to the Ontario capital markets and is subject to an appropriate regulatory and oversight regime in a foreign jurisdiction.

AND WHEREAS LMEC has agreed to the respective terms and conditions as set out in Schedule "A" to this order;

AND WHEREAS based on the Application and the representations that LMEC has made to the Commission, the Commission has determined that granting an order to exempt LMEC from the requirement to be recognized as a clearing agency would not be prejudicial to the public interest;

AND WHEREAS LMEC has acknowledged to the Commission that the scope of and the terms and conditions imposed by the Commission attached hereto as Schedule "A" to this order, or the determination whether it is appropriate that LMEC continue to be exempted from the requirement to be recognized as a clearing agency, may change as a result of the Commission's monitoring of developments in international and domestic capital markets, LMEC's activities, or as a result of any changes to the laws in Ontario affecting trading in or clearing and settlement of derivatives or securities;

IT IS HEREBY ORDERED by the Commission that pursuant to section 147 of the OSA, LMEC is exempt from the requirement to be recognized as a clearing agency under subsection 21.2(0.1) of the OSA;

PROVIDED THAT LMEC complies with the terms and conditions attached hereto as Schedule "A".

DATED this [•] day of [•], 2018.

SCHEDULE "A"

Terms and Conditions

Definitions:

For the purposes of this Schedule "A":

"client clearing" means the ability of a Clearing Member to clear transactions on LMEC for and on behalf of a client.

Unless the context requires otherwise, other terms used in this Schedule "A" shall have the meanings ascribed to them in Ontario securities law (including terms defined elsewhere in this order).

COMPLIANCE WITH ONTARIO LAW

1. LMEC will comply with Ontario securities law (as defined in the OSA) and, where applicable, Ontario commodity futures law (as defined in the *Commodity Futures Act* (Ontario)).

SCOPE OF PERMITTED CLEARING SERVICES IN ONTARIO

2. LMEC's activities in Ontario will be limited to the clearing of transactions described in paragraph 1.22 of LMEC's representations set out above in this order.

REGULATION OF LMEC

3. LMEC will maintain its status as a CCP under EMIR and FSMA or any comparable successor legislation and will continue to be subject to the regulatory oversight of the Bank or any successor supervisory authority.
4. LMEC will continue to comply with its ongoing regulatory requirements as a CCP under EMIR and FSMA or any comparable successor legislation and with the ongoing regulatory requirements of the Bank or any successor supervisory authority.

GOVERNANCE

5. LMEC will promote within LMEC a governance structure that minimizes the potential for any conflict of interest between LMEC and its shareholders that could adversely affect the clearing services permitted under this order or the effectiveness of LMEC's risk management policies, controls and standards.

FILING REQUIREMENTS

Filings with the Bank

6. LMEC will provide staff of the Commission the following information to the extent that it is required to provide or to file such information with the Bank or its successor:
 - (a) details of any material legal proceeding instituted against LMEC;
 - (b) notification that LMEC has failed to comply with an undisputed obligation to pay money or deliver property to a Clearing Member for a period of thirty days after receiving notice from the Clearing Member of LMEC's past due obligation;
 - (c) notification that LMEC has instituted a petition for a judgment of bankruptcy or insolvency or similar relief, or to wind up or liquidate LMEC or has a proceeding for any such petition instituted against it;
 - (d) notification that LMEC has initiated its recovery plan;
 - (e) the appointment of a receiver or the making of any voluntary arrangement with creditors;
 - (f) the entering of LMEC into any resolution regime or the placing of LMEC into resolution by a resolution authority;
 - (g) material changes to its bylaws and rules where such changes would impact the services permitted by this order to be used by Ontario residents (whether as a Clearing Member or otherwise); and

- (h) new services or clearing of new types of products to be offered to a Clearing Member having a head office or principal place of business in Ontario (Ontario Clearing Member) or services or products that will no longer be available to an Ontario Clearing Member.

Prompt Notice

- 7. LMEC will promptly notify staff of the Commission of any of the following:
 - (a) any material change or proposed material change to LMEC's status as a CCP under EMIR or FSMA or in its regulatory oversight by the Bank.
 - (b) any material problems with the clearing and settlement of transactions that could materially affect the safety and soundness of LMEC;
 - (c) the admission of any new Ontario Clearing Members;
 - (d) any event of default by, or removal of the ability to clear transactions through LMEC of, any Ontario Clearing Member; and
 - (e) any system failure, malfunction or delay, or security incident, at LMEC that is material and that affects an Ontario Clearing Member including cybersecurity incidents.

Quarterly Reporting

- 8. LMEC will maintain and submit the following information to the Commission in a manner and form acceptable to the Commission on a quarterly basis within 30 days of the end of each calendar quarter, and at any time promptly upon the request of staff of the Commission:
 - (a) current list of all Ontario Clearing Members with their corresponding legal entity identifier (**LEI**), if any;
 - (b) a list of all Ontario Clearing Members against whom disciplinary or legal action has been taken in the quarter by LMEC with respect to activities at LMEC, or to the best of LMEC's knowledge, by any other authority that has or may have jurisdiction with respect to the relevant Ontario Clearing Member's clearing activities at LMEC;
 - (c) a list of all investigations by LMEC in the quarter relating to Ontario Clearing Members;
 - (d) a list of all Ontario-resident applicants who have been denied Clearing Member status in the quarter by LMEC;
 - (e) quantitative information in respect of the services used by Ontario Clearing Members for transactions in the asset classes listed in paragraph 1.22 of LMEC's representations set out above in this order, including in particular the following:
 - (i) as at the end of the quarter, level, maximum and average daily open interest, number of transactions and notional value of transactions cleared during the quarter for each Ontario Clearing Member;
 - (ii) the percentage of end of quarter level and average daily open interest, number of transactions and the notional value cleared during the quarter for all Clearing Members that represents the end of quarter and average daily open interest, number of transactions and the notional value of transactions cleared during the quarter for each Ontario Clearing Member;
 - (iii) the aggregate initial margin amount required by LMEC ending on the last trading day during the quarter for each Ontario Clearing Member;
 - (iv) the portion of the initial margin required by LMEC ending on the last trading day of the quarter for all Clearing Members that represents the initial margin required during the quarter for each Ontario Clearing Member; and
 - (v) the aggregate total margin amount required by LMEC ending on the last trading day during the quarter for each Ontario Clearing Member;
 - (f) the default fund contribution, for each Ontario Clearing Member on the last trading day during the quarter, and its proportion to the total default fund contributions;

- (g) if known to LMEC, for each Clearing Member (identified by LEI) offering client clearing to an Ontario resident that seeks to clear transactions through such Clearing Member, the identity of the Ontario resident client (including LEI, if any) receiving such services, and the value and volume cleared by asset class or transaction type during the quarter for and on behalf of each Ontario resident client;
- (h) a summary of the risk management analysis related to the adequacy of LMEC's default funds, including but not limited to stress testing and backtesting results; and
- (i) a copy of all circulars published during the quarter that describe and show changes to the LMEC Rules made during the quarter.

INFORMATION SHARING

- 9. LMEC will promptly provide such information as may be requested from time to time by, and otherwise cooperate with, the Commission or its staff, subject to any applicable privacy or other laws that would prevent the sharing of such information and subject to the application of solicitor-client privilege.
- 10. Unless otherwise prohibited under applicable law, LMEC will share information relating to regulatory and enforcement matters and otherwise cooperate with other recognized and exempt clearing agencies on such matters, as appropriate.