LONDON METAL EXCHANGE

To:	All members, warehouse companies, London agents and other interested parties
Ref:	15/071 : A070 : W024
Date:	2 March 2015
Subject:	**CONSULTATION ON PROPOSED ADJUSTMENT TO THE DECAY FACTOR IN THE LINKED LOAD-IN / LOAD-OUT RULE**

Summary

1. Pursuant to the Warehouse Agreement, the LME is today launching a four week consultation with LME-listed warehouses and other interested parties regarding the LME's intention to increase the decay factor which forms part of the Linked Load-In / Load-Out Rule ("LILO"). This will, broadly, increase the rate at which queues will fall at affected warehouses, provided such warehouses continue to load in metal. The measure is necessary so that the LME can continue to give assurance to its primary regulator, the UK Financial Conduct Authority ("FCA") that it is complying with its regulatory obligations to maintain an orderly market.

Background

2. On 1 July 2013, the LME announced (in Notice 13/208 : A201 : W076) a consultation in respect of queues at LME listed warehouses (the "2013 Consultation"). In particular, the 2013 Consultation proposed the introduction of LILO. The 2013 Consultation was an extensive three month market-wide consultation with market participants, including the LME listed warehouses.

3. In summary, the LILO Rule operates by linking the amount of metal a warehouse loads in to the amount it is obligated to load out for warehouses with queues of over 50 days (referred to as "Affected DP Warehouses").

4. The LME originally implemented LILO with a decay factor of 0.5x. In broad terms[1], this means that LILO would need to operate for two business days to remove one calendar day of queues. The decay factor was set at 0.5x after consultation with the market. The LME acknowledged in the Decision Notice relating to the 2013 Consultation (Notice 13/326 : A312 : W125) that the level of the decay factor was a balance of the demands of metal users (who in general wish to see a higher decay factor) and warehouses (for whom an increased decay factor could give rise to increased obligations). The LME acknowledged in the Decision Notice that the queues could take several years to fall at certain affected warehouses. The LME explicitly stated that it would keep the decay factor under review, and reserved the right to make changes to it in future.

5. The introduction of the LILO Rule was delayed by approximately ten months due to an action for judicial review that was brought against the LME[2].

6. The LME notes the persistence of certain factors in the LME physical delivery network which have been viewed by certain sections of the market as problematic, in particular embedded

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[1] In particular, considering a warehouse which continues to load in metal at a rate equal to its pre-LILO load-out requirements.
[2] The LME successfully defended the judicial review and the case is now over, the Supreme Court having refused permission to appeal on 17 December 2014.

queues at two warehouses. These factors affect the LME's assurance to the FCA that its warehousing arrangements are operating in a way that enable it to satisfy its regulatory obligations, including the obligation to ensure that its market continues to operate in an orderly manner and that the LME price accurately reflects the underlying value of the metal.

7. In light of this and after due consideration, the LME believes that it is necessary to adjust the decay factor, in order to accelerate the reduction of queues so that the queues are brought below the queue threshold of 50 days more quickly in order to, amongst other things, potentially compensate for the delay caused by the judicial review proceedings. A proposed timeline for implementation is set out below.

8. Separately, the LME wishes to discuss with the market certain additional measures which could address existing queues, prevent the accumulation of future queues and/or address the levels of rent and FOT rates charged by warehouses. The LME has today issued a discussion paper (Notice 15/072 : A071 : W025) regarding such measures. Those measures should be viewed separately from the proposed increase in the decay factor, and will proceed on a separate timeline.

9. Capitalised terms not otherwise defined herein shall have the meaning ascribed to them in the revised Warehouse Agreement.

Proposed Increase in the Decay Factor

10. The LME is proposing to increase the decay factor in LILO – a parameter which affects the rate at which queues are reduced[3] – from 0.5x to 1.0x, as of 1 August 2015 (i.e. from the Third Calculation Period, and subsequent Calculation Periods).

11. In broad terms[4] this means that LILO would only need to operate for one business day to remove one calendar day of queues (under a 0.5x decay factor this was two business days in order to remove one calendar day of queues).

Orderly Functioning of the Market

12. The LME Policy on the Approval of Warehouses dated 1 February 2015, section F6, states as follows:

    The LME, acting reasonably, reserves the right to adjust the Decay Factor and/or the Queue Threshold either on a market-wide basis or on a per-warehouse basis in order to enhance the orderly functioning of the market or to prevent abusive behaviour or for any other reason.

13. As set out above, and in light of its ongoing assurance to the FCA regarding its regulatory obligations, the LME believes that an increase in the decay factor is necessary in order to enhance the orderly functioning of the market. The LME notes that, while LILO is expected to reduce queues at Affected DP Warehouses to beneath the queue threshold of 50 days, it may take a significant period of time for this to occur. Furthermore, the 10 month delay in implementing LILO due to the judicial review proceedings against the LME has necessarily delayed the point at which such reduction is expected to occur. The LME notes that the Preliminary Calculation Period under LILO has lengthened considerably as a result of the delay caused by the legal proceedings, meaning warehouse companies could choose to balance

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[3] For warehouses which continue to load in metal.
[4] In particular, considering a warehouse which continues to load in metal at a rate equal to its pre-LILO load-out requirements.

load-in and load-out during this period and resulting in the First Discharge Period under LILO commencing 10 months later than it would otherwise have done. When LILO was initially proposed in July 2013, the queues at Metro Detroit stood at 575 days and at Pacorini Vlissingen stood at 518 days. They now stand at 579 and 573 days respectively[5].

14. The LME is a recognised investment exchange ("RIE") pursuant to the Financial Services & Markets Act 2000 ("FSMA"). As an RIE, the LME has to comply with certain recognition requirements, including a duty to ensure, amongst other things, that (a) contracts admitted to trading on its markets are capable of being traded in a fair, orderly and efficient manner, (b) the arrangements for determining the settlement price of its contracts must be such that the contract price properly reflects the price of the underlying metal, (c) there are adequate settlement and delivery procedures for the metal traded on the exchange, and (d) business conducted by means of its facilities affords proper protection to investors.

15. Notwithstanding the reforms to its physical delivery network which the LME has undertaken to date, and due partially to the delay to the introduction of LILO caused by the judicial review proceedings, the continued dislocation between the LME price and the price of equivalent metal in the physical market, together with the persistent queues at two warehouses, pose a threat to the orderly functioning of the LME's market and the reliability and integrity of the LME's price discovery arrangements. Consequently, the LME is considering urgent action to ensure that, amongst other things, the existing lengthy queues at Detroit and Vlissingen may be reduced on roughly the same schedule as was originally proposed during the 2013 Consultation.

Benefits and Unintended Consequences

16. Warehouses without queues, or with queues of under 50 days, will not be affected by the proposed increase in the decay factor. As the LME noted above, there are currently lengthy, embedded queues at two warehouses: Metro Detroit and Pacorini Vlissingen. The LME notes that Metro Detroit appears to be in "run off" mode, and has not loaded in any metal for several months. Assuming this situation was to continue, Metro Detroit would not be affected by the proposed amendment. Pacorini Vlissingen would be affected by the proposed amendment, assuming that it continued to deliver in metal. The LME notes that it is in the discretion of any particular warehouse in a delivery point whether or not to load in metal.

17. The following analysis sets out the gross daily load-out requirement for a DP Warehouse under LILO[6], based on varying levels of load-in and various decay factors. The first table (below) shows the daily gross load-out requirement in tonnes, depending on the daily load-in and the decay factor, in the simplified and hypothetical scenario laid out above. The LME notes that a daily load-in of (for example) 3,000 tonnes per day would, under the proposed revised decay factor of 1.0x, result in a DP Warehouse loading out an additional 1,500 tonnes per day compared to its requirements under a decay factor of 0.5x. The LME believes that this is a reasonable and proportionate increase which would not place undue obligations on any DP Warehouse.

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[5] As at 30 January 2015.
[6] For simplicity, this analysis assumes that the warehouse is subject to a 3,000 tonne per day load-out requirement (top tier of the current LME load-out rules), and that other rules (such as non-dominant requirements) do not apply in this case.

DAILY GROSS LOAD OUT REQUIREMENT (tonnes)											
		DAILY LOAD-IN (tonnes)									
DECAY FACTOR		0	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500	5,000
	0.0	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,500	4,000	4,500	5,000
	0.1	3,000	3,050	3,100	3,150	3,200	3,250	3,300	3,800	4,300	4,800	5,300
	0.2	3,000	3,100	3,200	3,300	3,400	3,500	3,600	4,100	4,600	5,100	5,600
	0.3	3,000	3,150	3,300	3,450	3,600	3,750	3,900	4,400	4,900	5,400	5,900
	0.4	3,000	3,200	3,400	3,600	3,800	4,000	4,200	4,700	5,200	5,700	6,200
	0.5	3,000	3,250	3,500	3,750	4,000	4,250	4,500	5,000	5,500	6,000	6,500
	0.6	3,000	3,300	3,600	3,900	4,200	4,500	4,800	5,300	5,800	6,300	6,800
	0.7	3,000	3,350	3,700	4,050	4,400	4,750	5,100	5,600	6,100	6,600	7,100
	0.8	3,000	3,400	3,800	4,200	4,600	5,000	5,400	5,900	6,400	6,900	7,400
	0.9	3,000	3,450	3,900	4,350	4,800	5,250	5,700	6,200	6,700	7,200	7,700
	1.0	3,000	3,500	4,000	4,500	5,000	5,500	6,000	6,500	7,000	7,500	8,000
	1.1	3,000	3,550	4,100	4,650	5,200	5,750	6,300	6,800	7,300	7,800	8,300
	1.2	3,000	3,600	4,200	4,800	5,400	6,000	6,600	7,100	7,600	8,100	8,600
	1.3	3,000	3,650	4,300	4,950	5,600	6,250	6,900	7,400	7,900	8,400	8,900
	1.4	3,000	3,700	4,400	5,100	5,800	6,500	7,200	7,700	8,200	8,700	9,200
	1.5	3,000	3,750	4,500	5,250	6,000	6,750	7,500	8,000	8,500	9,000	9,500
	1.6	3,000	3,800	4,600	5,400	6,200	7,000	7,800	8,300	8,800	9,300	9,800
	1.7	3,000	3,850	4,700	5,550	6,400	7,250	8,100	8,600	9,100	9,600	10,100
	1.8	3,000	3,900	4,800	5,700	6,600	7,500	8,400	8,900	9,400	9,900	10,400
	1.9	3,000	3,950	4,900	5,850	6,800	7,750	8,700	9,200	9,700	10,200	10,700
	2.0	3,000	4,000	5,000	6,000	7,000	8,000	9,000	9,500	10,000	10,500	11,000

The information from the first table is then presented (below) in terms of net daily load-out, i.e. the amount the DP Warehouse must load-out above load-in, which is key in respect of reducing stocks, and eventually queues. It will be noted that (in this simplified and hypothetical scenario), the effect of a 1.0x decay factor is to ensure that Affected DP Warehouses exhibit a net load-out of 3,000 tonnes per day, regardless of load-in behaviour.

						DAILY NET LOAD OUT REQUIREMENT (tonnes)					
						DAILY LOAD-IN (tonnes)					
		0	**500**	**1,000**	**1,500**	**2,000**	**2,500**	**3,000**	**3,500**	**4,000**	**4,500**	**5,000**
	0.0	3,000	2,500	2,000	1,500	1,000	500	0	0	0	0	0
	0.1	3,000	2,550	2,100	1,650	1,200	750	300	300	300	300	300
	0.2	3,000	2,600	2,200	1,800	1,400	1,000	600	600	600	600	600
	0.3	3,000	2,650	2,300	1,950	1,600	1,250	900	900	900	900	900
	0.4	3,000	2,700	2,400	2,100	1,800	1,500	1,200	1,200	1,200	1,200	1,200
	0.5	3,000	2,750	2,500	2,250	2,000	1,750	1,500	1,500	1,500	1,500	1,500
	0.6	3,000	2,800	2,600	2,400	2,200	2,000	1,800	1,800	1,800	1,800	1,800
	0.7	3,000	2,850	2,700	2,550	2,400	2,250	2,100	2,100	2,100	2,100	2,100
DECAY FACTOR	**0.8**	3,000	2,900	2,800	2,700	2,600	2,500	2,400	2,400	2,400	2,400	2,400
	0.9	3,000	2,950	2,900	2,850	2,800	2,750	2,700	2,700	2,700	2,700	2,700
	1.0	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
	1.1	3,000	3,050	3,100	3,150	3,200	3,250	3,300	3,300	3,300	3,300	3,300
	1.2	3,000	3,100	3,200	3,300	3,400	3,500	3,600	3,600	3,600	3,600	3,600
	1.3	3,000	3,150	3,300	3,450	3,600	3,750	3,900	3,900	3,900	3,900	3,900
	1.4	3,000	3,200	3,400	3,600	3,800	4,000	4,200	4,200	4,200	4,200	4,200
	1.5	3,000	3,250	3,500	3,750	4,000	4,250	4,500	4,500	4,500	4,500	4,500
	1.6	3,000	3,300	3,600	3,900	4,200	4,500	4,800	4,800	4,800	4,800	4,800
	1.7	3,000	3,350	3,700	4,050	4,400	4,750	5,100	5,100	5,100	5,100	5,100
	1.8	3,000	3,400	3,800	4,200	4,600	5,000	5,400	5,400	5,400	5,400	5,400
	1.9	3,000	3,450	3,900	4,350	4,800	5,250	5,700	5,700	5,700	5,700	5,700
	2.0	3,000	3,500	4,000	4,500	5,000	5,500	6,000	6,000	6,000	6,000	6,000

18. In order to provide the market with an indicative sense for the impact on the resolution of queues at the two DP Warehouses in the LME network most affected by queues, the LME sets out below its modelled estimate for the time required (in years[7], commencing from 30 January 2015[8]) for queues to fall to 50 days at each of Pacorini Vlissingen and Metro Detroit[9], under both a 0.5x and 1.0x decay factor. Clearly, such timings are highly dependent on, amongst other things, (i) load-in behaviour of the warehouse in question, and (ii) cancellation behaviour of metal owners. As such, three scenarios are presented[10]:

- "Upside case" – no further load-in takes place following 30 January 2015 (the end of the Preliminary Calculation Period), and no live warrants are cancelled. Note that, in this case, the increase in the LILO decay factor has no impact (because LILO will not give rise to additional load-out requirements if no load-in is present);

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[7] Years quoted with decimal fractions, rather than months. Figures derived from number of calendar days required to reduce queues to 50 days.
[8] Being the end of the Preliminary Calculation Period under LILO.
[9] In the case of Metro Detroit under a decay factor of 1.0x, it will be observed that the queue decay time is most rapid for the mid case, followed by the downside case and finally the upside case. Under the downside and mid cases, the fact that LILO is engaged causes destocking at the same rate as for the upside case (given the decay factor of 1.0x) – and the fact that LILO takes several months to adjust between the Calculation Period and the associated Discharge Period results in a quicker conclusion to the queue decay. At the same time, the fact that little live stock remains at Metro Detroit means that the impact of residual stock cancellation is minimal.
[10] No representation is made that these scenarios accurately capture the behaviour which will emerge at any particular LME DP Warehouse – rather, the scenarios are designed to capture a potential range of outcomes which may be observed.

- "Mid case" – the DP Warehouse continues to load in at a rate equal to its pre-LILO load-out requirement, with cancellation activity equal to load in on each business day; and

- "Downside case" – all warrants in the DP Warehouse are cancelled on 2 February 2015 (the first business day after the end of the Preliminary Calculation Period) giving rise to an immediate increase in queue length. The DP Warehouse continues to load in at a rate equal to its pre-LILO load-out requirement, with cancellation activity equal to load in on each business day.

Time to reach 50 day queue threshold (in years)	Pacorini Vlissingen			Metro Detroit		
	Upside	Mid	Downside	Upside	Mid	Downside
A. 0.5x decay factor	1.5	2.6	4.1	1.7	2.4	2.6
B. 1.0x decay factor	1.5	1.7	2.3	1.7	1.5	1.6

19. This analysis is naturally subject to a number of modelling assumptions[11]. Any interested party wishing to understand the LME's modelling approach in greater detail, including assumptions, is welcome to contact the LME to arrange such a discussion. This analysis is presented to assist market participants. The LME takes no responsibility for any errors or omissions contained in it and accordingly market participants should not rely on it. Market participants are encouraged to undertake their own analysis to form their own view on such matters. This analysis can be performed on the basis of the published LILO Rule (including the proposed adjustment to the decay factor) and published LME per-DP Warehouse stock and queue data.

20. The LME acknowledges that there are potential logistical concerns associated with imposing additional load-out obligations on warehouse companies. These concerns were described in detail in the report of the 2013 Consultation. The primary concern is in respect of the logistical capability (real or claimed) of warehouses. The LME concluded during the 2013 Consultation that (i) significant operational differences exist between warehouses, and that some warehouses do suffer from significant logistical limitations which could make the imposition of higher requirements more difficult to implement, and (ii) any increase in load-out (even at locations practically able to accomplish this) would require significant investment by warehouse operators.

21. In short, increasing the decay factor could have three material effects for an Affected DP Warehouse, should it choose to continue to deliver in metal:

    (a) it is possible that a warehouse company may, for reasons beyond its control or otherwise, be unable to meet its delivery obligations, with negative consequences for the orderly functioning of the market;

    (b) the obligations on warehouse companies could be increased to the point where a warehouse company had no option but to withdraw from the market; or

    (c) it is reasonably foreseeable that warehouse companies may seek to compensate by increasing rent and FoT charges, which action may be viewed negatively by metal owners.

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[11] Assumptions which the LME believes to be particularly material include the homogeneous distribution of metals in the cancellation queue (vs. actual queue scheduling at the warehouse in question), the precise point at which queues fall below 50 days and LILO ceases to apply, the non-application of round lot sizes to the assumptions as to daily load-out and the rate at which a destocking warehouse can de-license capacity and hence reduce load-out requirements based on floor area.

22. Whilst the proposed increased decay factor may have such effects, the LME thinks that, in the circumstances, the measure is necessary. The level of the decay factor continues to be a balance between the conflicting interests of warehouse companies and metal users. With a decay factor of 1.0x, the potential costs to warehouse companies are outweighed by the benefits to the market of reducing the queues more quickly. The benefits may include:

(a) warrant holders getting access to their metal more rapidly;

(b) a reduced dislocation between the LME price and the physical spot price of metal; and

(c) the orderly operation of the market.

Timing and steps of implementation

23. Subject to this consultation, the proposed timeline for implementation of the adjusted decay factor would be as follows:

(i) 2 March 2015 – four week consultation with warehouse companies on the increased in the decay factor commences;

(ii) 30 March 2015 – consultation period closes;

(iii) Not later than 1 May 2015 – decision announced and market given not less than 90 days' notice ahead of implementation of decay factor adjustment; and

(iv) 1 August 2015 – adjusted decay factor implementation date.

Responding to the consultation

24. The LME seeks the views of warehousing companies and other interested parties in respect of the proposed adjustment to the decay factor. The LME will consider and take account of all responses to the consultation. Responses to the consultation should be made in writing by email to Georgina Hallett (consultation@lme.com), no later than close of business on 30 March 2015. Responses made after this date will not be taken into consideration. Alternatively, or in addition, the LME will make itself available during this period for reasonable requests for meetings with respondents in person at the LME or by teleconference.

25. Following due consideration, the LME may either:

(i) implement the increased decay factor;

(ii) implement a modified version of the increased decay factor; or

(iii) not implement any changes to the decay factor.

26. The LME may need to share responses received with regulatory authorities or its legal or other professional advisers, or as required by law. Apart from this, all responses will be treated in confidence.

Matthew Chamberlain
Head of Business Development

cc: Board directors
     User Committee
     All metals committees
     Physical Market Committee
     Warehouse Committee