

A. Introduction

The Audit Commission (“Audit”) conducted a review on the work of the Housing Department (“HD”) in maintaining the safety of lifts and escalators (“L/Es”) in public rental housing (“PRH”) estates.

2. Hon SHIU Ka-fai and Hon Carmen KAN Wai-mun declared that they were members of the Hong Kong Housing Authority (“HA”). Hon Louis LOONG Hon-biu declared that he was a Legislative Council Member representing the Real Estate and Construction Functional Constituency, and contractors in the sector might have carried out the projects concerned.

Background

3. As at 30 June 2023, HD, as the executive arm of HA, managed about 774 500 PRH flats located in 193 PRH estates, and maintained 6 056 lifts and 277 escalators by the award of 11 and 9 term maintenance contracts (“TMCs”) respectively to the original manufacturers/installers for their specific L/E brands (i.e. proprietary maintenance). The total maintenance expenditure in 2022-2023 was \$763.2 million.

4. Since 1988, HA has implemented an on-going Lift Modernisation (“LM”) Programme for lifts maintained by HD which calls for a complete replacement of the lift installation. From 2018-2019 to 2022-2023, a total of 27 contracts, involving 382 lifts, with a total contract sum of \$652.2 million were awarded to six contractors. In addition, HA has conducted safety enhancement works for L/Es since 2020 and 2018 respectively to retrofit them with the latest safety devices as recommended by the Electrical and Mechanical Services Department (“EMSD”).

5. The Committee held a public hearing on 18 December 2023 to receive evidence. Opening statement made by **Ms Winnie HO Wing-yin, Secretary for Housing and Chairman of the Hong Kong Housing Authority**, at the public hearing is in *Appendix 15*.

Lifts and escalators in public rental housing estates

6. Referring to paragraph 1.5 of the Director of Audit’s Report No. 81 (“the Audit Report”) regarding 173 cases of lift malfunctioning from 2006 to 2010 in

Hong Kong causing injury to over 20 people and an incident relating to lift plunging in Fu Shin Estate in Tai Po in 2008, the Committee enquired about the respective numbers of L/E incidents in PRH estates causing injury to people in the past three years and measures to prevent the occurrence of such incidents. **Secretary for Housing** and **Miss Rosanna LAW Shuk-pui, Director of Housing** advised at the public hearing, and **Secretary for Housing** supplemented in her letter dated 8 January 2024 (*Appendix 16*) that:

- from January 2020 to September 2023, there were three reported incidents of injury to passengers each in L/Es of PRH estates managed by HD (details of which are provided in the above letter);
- HD adopted proprietary maintenance requiring the original manufacturers to take full responsibility for the design, installation, maintenance and repairs of L/Es, and to provide spare parts and technical support directly. HD also proactively monitored the work of contractors and required them to carry out periodic maintenance on a weekly basis to ensure the normal operation of L/Es. In addition, approximately 20% of the breakdown cases of lifts were caused by human behaviour or environmental factors (e.g. obstruction of the normal opening/closing of lift doors by foreign objects), and the breakdown rate of escalators was even higher. HD would continue its education work to raise the public awareness on the proper and safe use of L/Es, and strictly implement the “Marking Scheme for Estate Management Enforcement” (“the Marking Scheme”) to combat malicious damage; and
- the Housing Bureau was collaborating with the Hong Kong Applied Science and Technology Research Institute (“ASTRI”) to develop an Artificial Intelligence Predictive Maintenance System for lifts, which would help analyse Internet of Things data and obtain the data pattern of lift operations for effective prediction of lift breakdown patterns.

7. The Committee further asked whether HD considered the proprietary maintenance arrangement for L/Es, which had been adopted since 1983, was still effective and reliable given the inadequacies identified by Audit in the maintenance of L/Es in PRH estates, and whether the proprietary maintenance arrangement had created a disincentive for contractors to maintain adequate level of service and performance, and would undermine the competitiveness of tendering exercises.

8. **Secretary for Housing** responded at the public hearing and further explained in her letter dated 8 January 2024 (*Appendix 16*) that as each brand had its own unique features and the electronic components used also had to be compatible with each other, HD considered that the adoption of proprietary maintenance was an important element in safeguarding the safety and serviceability of L/Es. HD assessed the performance of lift contractors on a monthly basis through the Building Services Maintenance Assessment Scoring System (“BSMASS”). This performance score was one of the important assessment criteria for HA’s tenders for the construction of new PRH estates and installation of new L/Es, and hence had direct impact on the contractors’ opportunity of winning tenders. Contractors needed to strive for good performance in maintenance works in order to enhance the opportunity of successful tendering for new L/E works. Therefore, contractors had great incentives to continuously improve the quality of their maintenance works. HD might also terminate the maintenance contracts of contractors in case of persistent poor performance.

9. The Committee sought details about the respective responsibilities and liabilities for the original manufacturers/installers of L/Es in PRH estates under TMCs engaged with HA and the Lifts and Escalators Ordinance (Cap. 618), as well as the legal consequences to be borne by them for breaching the relevant TMCs and Cap. 618. **Secretary for Housing** and **Director of Housing** advised at the public hearing, and **Secretary for Housing** elaborated in her letter dated 8 January 2024 (*Appendix 16*) that:

- under the proprietary maintenance, if any mechanical or safety problems were found in L/Es, the manufacturer, installer or maintenance contractor was held responsible. If the performance of the contractor was found unsatisfactory, HD would follow up appropriately, such as issuing warning letters or adverse reports and suspending the contractor concerned from tendering for new works contracts, depending on the circumstances. In addition, if the contractor failed to resume the normal service of L/Es for more than 60 days, HD might deduct the maintenance payment in accordance with the contract terms; and
- the relevant contractors, engineers and workers must register under Cap. 618 and were required to carry out L/E works in accordance with the requirements of Cap. 618, the Lifts and Escalators (General) Regulations (Cap. 618A), and the Code of Practice for Lift Works and Escalator Works (“the Code of Practice”) issued under Cap. 618. In case of non-compliance, the relevant contractors, engineers and workers were liable to fines or imprisonment as detailed in the above letter.

10. According to paragraph 1.7 of the Audit Report, the total maintenance expenditure in 2022-2023 for 6 056 lifts and 277 escalators (as at 30 June 2023) located in 193 PRH estates was \$763.2 million. The Committee questioned whether it was necessary and cost-effective for HD to adopt more stringent requirements in TMCs for routine maintenance and inspection works than the statutory requirements as mentioned in paragraph 2.8 of the Audit Report. The Committee asked whether such practice would incur additional expenditure on the maintenance of L/Es in PRH estates, and sought the average maintenance cost of each L/E in PRH estates with the comparison to those of the private sector. **Secretary for Housing** and **Director of Housing** responded at the public hearing, and **Secretary for Housing** further explained in her letter dated 8 January 2024 (*Appendix 16*) that:

- in order to provide PRH residents with safer and more reliable lift services, HD had stipulated more stringent requirements in the lift maintenance contracts than the statutory requirements. For example, Cap. 618 required lift contractors to carry out periodic maintenance for lifts at least once a month, i.e. 12 times a year, whereas HD required contractors to carry out periodic maintenance once a week, i.e. 52 times a year. Therefore, the number of periodic maintenance for each lift was 40 times more than that of the statutory requirement; and
- in 2022-2023, the average monthly maintenance cost per HD's lift was \$10,300, while the average monthly maintenance cost per lift in private residential buildings (based on buildings with more storeys) exceeded \$10,000. In the same financial year, the average monthly maintenance cost per HD's escalator was \$5,300, and the cost data of escalator maintenance for private buildings was not available for comparison. The usage of lifts in PRH estates was higher than that of private residential estates in general, and hence the lifts maintained by HD needed to maintain a higher level of serviceability. While HD required a higher frequency of routine maintenance than the minimum statutory requirement, the maintenance cost of HD was similar to that of the private market.

11. With reference to Table 2 in paragraph 1.9 of the Audit Report, the Committee sought the reasons for the relatively small numbers of contracts awarded and lifts included in 2022-2023 as shown in Table 2 under the LM Programme when compared with the last four financial years, as well as the number of contracts awarded to the original manufacturers/installers and the percentage of such contracts in the total number of contracts awarded under LM Programme during the period from 2018-2019 to 2022-2023.

12. **Mr Michael HONG Wing-kit, Assistant Director (Estate Management)3, HD** clarified at the public hearing, and **Secretary for Housing** further explained in her letter dated 8 January 2024 (*Appendix 16*) that HD invited tender for modernization works for about 80 to 90 lifts every year, and Table 2 showed the number of contracts awarded in that financial year but not the number of projects tendered. Due to the time required for vetting and approving tender documents, it normally took several months for HD to award the contract after tender closing. Hence, Table 2 did not fully reflect the total number of LM works tendered in a particular year. In fact, a total of 77 lifts were planned to be tendered in the 2022-2023 financial year. As at 31 March 2023, contracts for 60 of these lifts had been awarded. The documents of another 17 returned tenders were under assessment, and would be included in the records of the 2023-2024 financial year. HD awarded a total of 27 LM contracts from 2018-2019 to 2022-2023, of which six contracts (22.2%) were awarded to the original lift manufacturers/installers.

13. With reference to Table 3 in paragraph 1.13 of the Audit Report, the Committee sought the details of the lift breakdown incident with passengers trapped for 206 minutes and the improvement measures taken by HD to facilitate early identification of irregularities of lifts in PRH estates. **Assistant Director (Estate Management)3, HD** advised at the public hearing, and **Secretary for Housing** supplemented in her letter dated 8 January 2024 (*Appendix 16*) that:

- regarding the incident, the contractor arrived at the site after 23 minutes upon receipt of the emergency call and met the performance pledge. After inspection, lift workers found that the lift was parked in the midway of the lift shaft, and hence on-site assistance from firemen was required for the rescue operation. At the same time, estate management (“EM”) staff comforted the trapped passengers on site and provided support. Following the assessment, the firemen decided that the High Angle Rescue Team should be engaged. Given the complexity of the circumstances, the rescue operation in this case was relatively time-consuming; and
- the Housing Bureau signed a Memorandum of Understanding with ASTRI in November 2023 to, among other things, study the application of the Artificial Intelligence Predictive Maintenance System to facilitate HD in performing preventive and targeted maintenance, so that the chances of trapping passengers due to lift breakdowns could be reduced.

14. The Committee further asked about the procedures for handling lift trapping incidents and whether HD had formulated guidelines in this respect. **Secretary for Housing, Director of Housing and Assistant Director (Estate Management)**³, HD advised at the public hearing, and **Secretary for Housing** supplemented in her letter dated 8 January 2024 (*Appendix 16*) that:

- HD had provided guidelines to frontline staff on handling cases of trapping. When a person was trapped in a lift, the EM staff should call the 24-hour hotline of the contractor immediately to request emergency repairs, and provide relevant information, including the location, lift number, lift position and condition of the trapped passenger. The EM staff should be present on site to comfort the trapped passenger and advise him to stay inside the lift car and remain calm while waiting for rescue. If the trapped passenger felt unwell or was injured, the EM staff should call 999 immediately and contact the Fire Services Department for assistance. Upon arrival at scene, the contractor's workers should take appropriate follow-up action immediately, and release the trapped passenger under a safe condition; and
- the contractor's workers should record the date and time of the emergency call, the arrival time and the time of release of the trapped passenger on the lift log-book. The contractor should also maintain a work record containing the work details and the lift resumption time for signature by the EM staff.

15. With reference to paragraph 1.14 of the Audit Report, the Committee queried that the “three-tier monitoring mechanism” adopted currently by HD for the maintenance of L/Es in PRH estates had failed to achieve economy, efficiency and effectiveness in ensuring the safety of L/Es in PRH estates, and questioned whether it was necessary for HD to consider streamlining the mechanism to avoid duplication of inspection resources and reduce the frequency of suspensions of L/Es for inspection. **Secretary for Housing** and **Director of Housing** responded at the public hearing, and **Secretary for Housing** added in her letter dated 8 January 2024 (*Appendix 16*) that:

- the monitoring work and scope of the three tiers were different. District Maintenance Offices (“DMOs”) and Property Services Agents (“PSAs”) were responsible for the day-to-day monitoring of L/E contractors and conducting biannual assessment on L/Es with the assistance of contractors. The Central Services Team (“CST”) under the Estate Management Division (“EMD”) of HD conducted additional surprise checks on the overall operation of L/Es by senior technical staff at

headquarters level to ensure effective monitoring of contractors' performance by DMOs/PSAs. The Lift Inspection Focus Team ("the Focus Team") under the Independent Checking Unit conducted sample independent checks on the safety standards and performance of L/Es against the statutory requirements; and

- HD would continue to review and enhance the existing monitoring system, such as exploring ways to shorten the inspection time, coordinating the inspection schedules of different tiers, and considering integrating the inspections by district and headquarters staff, so as to minimize the number of suspensions of lifts for inspection and the impact on residents.

B. Maintenance of lifts and escalators

16. With reference to paragraph 2.2 of the Audit Report, the Committee enquired about the measures taken by HD to enhance the serviceability of those L/Es with high breakdown rates but not included under LM Programme for replacement. **Secretary for Housing** and **Director of Housing** advised at the public hearing, and **Secretary for Housing** supplemented in her letter dated 8 January 2024 (*Appendix 16*) that HD had always been monitoring the maintenance performance of contractors through the aforesaid three-tier mechanism, so as to identify areas requiring attention or rectification in the maintenance of L/Es and reduce the breakdown rate. In collaboration with ASTRI, HD had actively explored the application of technology to enhance the level of lift service, including the application of the Artificial Intelligence Predictive Maintenance System which could facilitate HD to improve the serviceability of lifts by carrying out preventive maintenance.

17. Referring to paragraph 2.3 of the Audit Report about the three lifts which had service suspended for over 60 days and the seven lifts which had service suspended for over two days twice within six months, the Committee sought the details of the incidents, and asked whether the aforesaid seven lifts had been included under LM Programme for early replacement. **Secretary for Housing, Director of Housing** and **Assistant Director (Estate Management)**³, HD advised at the public hearing, and **Secretary for Housing** elaborated in her letters dated 13 December 2023 and 8 January 2024 (*Appendices 17* and *16*) that:

- the three cases with lift service suspended for over 60 days happened in the same estate between 2022 and early 2023, and were mainly attributable to parts failure or damage of motor-generator sets

(commonly known as “motors”) used in the lifts. The motors were phased-out products and the manufacturer ran out of spare parts. As the lift contractor was unable to find replacement parts locally, it took time to order and obtain the replacement parts. Repairing of these aged motors normally took four to six weeks. However, the cases took place between the pandemic of Coronavirus Disease 2019 and the beginning of resumption of normalcy, during which the manpower and work progress of the repair workshop, as well as the lead time for material ordering and transportation was adversely affected. Under such circumstances, the motor repairs took longer time to complete;

- drawing on the experience of the above cases, HD had instructed the contractors to stock up with more spare parts, and had made special arrangements to retain the old motors in good condition dismantled from LM Programme as back-up;
- the seven cases with lift service suspended twice within six months were due to different causes and the two suspensions of each of these seven lifts were not directly related. Some cases involving adjustment of suspension ropes were planned maintenance works and not equipment breakdown. The disassembly, re-assembly and adjustment involved in replacement of motor parts and adjustment of suspension ropes were relatively time-consuming, and thus the lift operation took longer time to resume service; and
- among the above seven lifts, one was planned for undergoing LM works in 2024, two were tentatively scheduled for tendering for modernization works in 2024-2025 and 2025-2026, and the other four were not included in LM Programme for the time being as their service life was less than 25 years.

18. The Committee asked whether HD had imposed any penalties in accordance with TMCs on the contractors concerned for the above incidents, and whether a sliding scale of penalties was adopted according to the severity of incidents. **Director of Housing** responded at the public hearing, and **Secretary for Housing** further explained in her letter dated 8 January 2024 (*Appendix 16*) that:

- the suspensions of services of the seven lifts twice within six months were all caused by different components, and not due to the repeated breakdown of the same component resulted from improper handling by the contractors. Considering that the service suspension period ranged

from three to six days only and the contractors' maintenance performance during the six months was generally acceptable, HD therefore did not penalize the contractors for these cases; and

- under BSMASS, the breakdown rate, number of suspension, time taken for resumption of service, etc. were the major factors for consideration of contractors' performance. HD would take different levels of follow-up actions according to contractors' performance. For example, if a contractor's performance score was below the passing score, HD would issue a warning letter to the contractor; if the contractor's score was below the passing score twice in a rolling period of 12 months, HD would consider issuing an adverse report to the contractor; and if the contractor's monthly performance score was below the passing score for three consecutive months, it would be suspended from tendering for at least three months. If the contractor failed to resume normal service of L/Es for more than 60 days, HD would deduct the maintenance payment in accordance with the contract terms.

19. With reference to paragraph 2.4 of the Audit Report, the Committee enquired about the timetable for the deployment of new technologies by HD to further reduce the breakdowns of L/Es. **Secretary for Housing** advised at the public hearing and in her letter dated 8 January 2024 (*Appendix 16*) that some lifts had been selected for the pilot programme of the Artificial Intelligence Predictive Maintenance System, which was expected to be developed and tested within 24 months. Meanwhile, HD would continue to keep in view other new technologies in order to enhance the serviceability of L/Es.

20. With reference to paragraph 2.6(c) of the Audit Report, the Committee enquired about the number of cases in the past three years where a PRH tenant was allotted penalty points or required to vacate the PRH unit under the Marking Scheme due to vandalism of L/Es. **Secretary for Housing** advised at the public hearing and in her letter dated 8 January 2024 (*Appendix 16*) that for willful damage to HA's property (including L/Es), once discovered and confirmed, HD would implement the Marking Scheme against the tenants concerned as a sanction. With effect from 18 December 2023, the allotment of points for such misdeed was increased from 7 to 15 points. When 16 valid points had been accrued, HA might terminate the tenancy by issuing a Notice-to-Quit in pursuant to the Housing Ordinance (Cap. 283). In the past three years, a tenant was allotted seven points for willful damage to a lift in mid-2023. As the accrued points had not yet reached 16 within two years, HD did not issue a Notice-to-Quit to that tenant.

21. With reference to paragraphs 2.12 and 2.13 of the Audit Report, the Committee sought details about Contractor C's substandard performance and the follow-up actions taken/penalties imposed by HD in accordance with TMC for Contractor C's persistent failure to meet required standard of service. **Director of Housing** advised at the public hearing, and **Secretary for Housing** elaborated in her letter dated 8 January 2024 (*Appendix 16*) that from 2019 to 2021, there were generally no major problems with the lifts maintained by Contractor C. In certain months of 2019 and 2021, Contractor C scored lower marks under BSMASS as compared with other contractors mainly due to its average higher breakdown rate. Furthermore, Contractor C experienced difficulties in manpower arrangement due to the epidemic in 2021. In handling some lift breakdown cases, the arrival time of the lift workers on site failed to meet the requirements of the performance pledge, and the scores were consequentially lowered. In view of the performance of Contractor C, HD had issued two adverse reports to it.

22. The Committee further asked about the remedial measures taken by Contractor C to fulfill the contractual requirements and the latest performance of Contractor C. **Director of Housing** advised at the public hearing, and **Secretary for Housing** added in her letter dated 8 January 2024 (*Appendix 16*) that after HD met with Contractor C for several times to review its performance and discuss improvement measures, including enhanced maintenance for lifts with high breakdown rates and deployment of additional maintenance workers to individual districts, Contractor C's performance had improved. The average score in 2022 and 2023 increased to about 67 (with a passing score of 50). Its performance had gradually stabilized and its manpower arrangements had also improved. Although the maintenance performance of Contractor C had once been unsatisfactory, no non-compliance with the statutory requirements by Contractor C was found.

23. The Committee queried whether BSMASS was still effective in monitoring contractors' performance given the persistent substandard performance of Contractor C, and asked whether HD would consider reviewing BSMASS, which was launched in 1991. **Director of Housing** responded at the public hearing, and **Secretary for Housing** further explained in her letter dated 8 January 2024 (*Appendix 16*) that BSMASS had made it easier for HD to identify the items in need of improvement by contractors, so that they could then take focused follow-up actions on the low-scoring items for performance enhancement. Therefore, the prevailing BSMASS could effectively reflect and monitor the performance of contractors in maintenance services. HD would continue to pay close attention to the updates of the relevant legislation as well as codes of practice on L/Es, and timely review and update the content of BSMASS in response to any changes in the statutory requirements.

24. With reference to paragraph 2.15 of the Audit Report, the Committee asked why neither routine assessments nor half-yearly assessments had been performed on the 21 and 26 lifts in 2021 and 2022 respectively identified by Audit, and whether the incidents suggested that there were deficiencies in the current monitoring mechanism for the lift inspection work of contractors. **Assistant Director (Estate Management)3, HD** explained at the public hearing, and **Secretary for Housing** supplemented in her letter dated 8 January 2024 (*Appendix 16*) that in recent years, HD had been applying information technology system to ensure that the routine and half-yearly assessments of over 6 000 lifts could be evenly distributed throughout the year. Upon completion of new lifts installation, HD staff were required to input data of the new lifts into the system. Due to delays in collating lift information and inputting data by individual staff in some district offices, there were delays in the routine and half-yearly assessments of a small number of lifts in 2021 and 2022.

25. The Committee further asked about the remedial measures taken by HD to prevent recurrence of the aforesaid incidents, and the progress of the review on the relevant procedures and guidelines by HD as mentioned in paragraph 2.24(b) of the Audit Report. **Assistant Director (Estate Management)3, HD** advised at the public hearing, and **Secretary for Housing** added in her letter dated 8 January 2024 (*Appendix 16*) that HD had enhanced the guidelines for handover of new lifts. HD had requested the relevant staff to input the data into the information technology application system in a proper and timely manner, and their immediate supervisors to review the input.

26. With reference to paragraphs 2.16, 2.17 and 2.19 of the Audit Report, the Committee queried whether it was necessary for CST to arrange both surprise checks and additional lift inspections in monitoring the maintenance work of lift contractors, and asked whether the results of both surprise checks and additional lift inspections were reflected under BSMASS. **Director of Housing** and **Assistant Director (Estate Management)3, HD** explained at the public hearing, and **Secretary for Housing** added in her letter dated 8 January 2024 (*Appendix 16*) that:

- surprise checks were targeted at all L/E contractors and the main objective was to obtain an independent understanding of the overall operation of L/Es to ascertain whether the existing documentation system and supervisory control over the contractors by DMOs/PSAs were operating effectively. Some surprise checks were conducted on an ad-hoc basis, and the key lift inspection items might vary from each surprise check. As the items examined were not standardized for all surprise checks, the results obtaining from surprise checks were not

included as part of performance assessment (i.e. BSMASS Score) of lift contractors; and

- the additional inspections of lifts mainly aimed at strengthening the monitoring of contractors with unsatisfactory scores in BSMASS. Each additional lift inspection followed the existing routine or half-yearly assessment checklist, and the results were counted towards BSMASS as part of the contractor's performance assessment after the inspection.

27. With reference to paragraph 2.18 of the Audit Report, the Committee asked whether HD considered it acceptable for the relevant DMOs/PSAs to take 7 to 128 days (30 days on average) to issue the Notification of Completion in respect of 26 surprise checks to CST, and whether HD had set any performance pledge/timeframe for the issuance of the Notification of Completion by DMOs/PSAs. **Director of Housing and Assistant Director (Estate Management)**³, HD responded at the public hearing, and **Secretary for Housing** added in her letter dated 8 January 2024 (*Appendix 16*) that:

- among the issues identified by CST during surprise checks, some simple items could be handled within a relatively short period of time. However, some of the improvement items were more complicated or outside the scope of TMCs, involving more procedures, building works, drawing up of works plans, preparation of materials and coordination of works programme, and would require a longer time to handle. As such items did not involve safety, HD did not require DMOs/PSAs to return the Notification of Completion within a specified period of time in the past; and
- starting from January 2024, HD had required DMOs/PSAs to return the Notification of Completion within one month from the issuance of the surprise check reports. If the rectification could not be completed within one month, DMOs/PSAs were required to state the expected completion date on the Notification of Completion. CST would issue reminder letters to those DMOs/PSAs which failed to return the Notification of Completion on time.

28. With reference to paragraph 2.22 of the Audit Report, the Committee asked about the mechanism put in place by HD to address the delays in replying by DMOs/Property Service Administration Units ("PSAUs") to the list of

defects/outstanding items identified in the Focus Team's independent checks, and the progress of updating the procedural manual on the issuance of reminders by the Focus Team for outstanding replies from DMOs/PSAUs as mentioned in paragraph 2.24(e) of the Audit Report.

29. **Director of Housing and Assistant Director (Estate Management)3, HD** advised at the public hearing, and **Secretary for Housing** supplemented in her letter dated 8 January 2024 (*Appendix 16*) that upon completion of each independent check, the Focus Team would issue a list of defects/outstanding items to DMOs/PSAUs for follow-up and request a reply within 30 days. For outstanding replies, the Focus Team would issue reminders to them. In order to strengthen the monitoring of follow-up of outstanding items, the Focus Team would directly address the list to the Chief Managers of Regional Management Offices for follow-up in the future. In addition, the Focus Team had already updated the procedural guideline in December 2023 to clearly indicate the new workflow and timeframe of issuing reminders.

30. According to paragraph 2.26 of the Audit Report, of the 53 submissions of quarterly inspection reports made by the 11 L/E contractors from January 2022 to March 2023, there were delays in 22 (42%) submissions from eight L/E contractors. The Committee asked whether such delays were common among L/E contractors and the reasons for the delays, as well as the measures taken by HD to address the issue. The Committee also sought the reasons behind the failures of Registered L/E Engineers to certify/sign the quarterly inspection reports as mentioned in paragraph 2.27(b) of the Audit Report, and queried whether there would be any legal disputes that might arise from reports without certification/signature by Registered L/E Engineers. **Director of Housing and Assistant Director (Estate Management)3, HD** responded at the public hearing, and **Secretary for Housing** further explained in her letters dated 13 December 2023 (*Appendix 17*) and 8 January 2024 (*Appendix 16*) that:

- the submission of quarterly inspection reports was an extra requirement imposed by HD on L/E contractors in addition to the statutory requirements. HD noted that the frontline maintenance staff of the contractors generally focused on maintenance works and there was room for improvement in the quality of document handling. In particular, the progress of processing the quarterly inspection reports was far from satisfactory amid epidemic of Coronavirus Disease 2019;
- while not every report was signed, the name of the registered engineer concerned and his registration number were printed on each report submitted with the contractor's covering letter signed by the contractor's

senior management. HD had stepped up efforts in monitoring the submission of quarterly inspection reports, and urged contractors to timely submit duly completed quarterly inspection reports and every report be signed by registered engineers. HD would also take follow-up actions, such as issuing reminder letters and warning letters, as well as reflecting contractors' performance in assessments. At present, the overall situation had improved and all quarterly inspection reports for the third quarter of 2023 had been signed by registered engineers; and

- L/E contractors and their registered engineers had all along been carrying out periodic examinations, submitting examination reports, and issuing safety certificates to certify that the L/Es were in safe working order and obtaining use permits for all L/Es maintained by HD in accordance with the relevant statutory requirements.

31. With reference to paragraph 2.31 of the Audit Report, the Committee sought clarification about “the Responsible Person” in terms of the maintenance and repair of L/Es in PRH estates under Cap. 618 and Cap. 618A. **Secretary for Housing, Director of Housing and Assistant Director (Estate Management)3, HD** explained at the public hearing, and **Secretary for Housing** elaborated in her letter dated 8 January 2024 (*Appendix 16*) that under Cap. 618, “the Responsible Person” of an L/E means the person who owns the L/E; or any other person who has the management or control of the L/E. In the case of the Audit Report, “the Responsible Person” was HA. At the request of the Committee, the legal responsibilities and liabilities borne by “the Responsible Person” and concerned parties (including L/E contractors) as well as the penalties imposed on different parties for non-compliance were detailed in the above letter.

32. With reference to paragraph 2.32 of the Audit Report, the Committee enquired about the workflow of and the party responsible for checking the maintenance schedules and log-book records completed by lift contractors of HD. **Assistant Director (Estate Management)3, HD** advised at the public hearing, and **Secretary for Housing** supplemented in her letter dated 8 January 2024 (*Appendix 16*) that it was the responsibility of a registered L/E contractor to carry out periodic L/E maintenance according to the maintenance scheme recommended by the manufacturer. According to the Code of Practice, the registered L/E contractor was required to print on the log-book the anticipated maintenance time for accomplishing the maintenance scheme which should be completed within the maintenance cycle recommended by the manufacturer. At the same time, registered engineers, registered workers and general

workers should sign and chop their names with identification numbers on the log-books to certify that the L/E works had been carried out in accordance with the requirements of the relevant ordinances and codes of practice. HD had noticed the deficiencies identified in the records of some lift contractors in respect of individual items and had immediately reminded the contractors to take appropriate follow-up actions. HD would step up the monthly review of log-book records and maintenance plan.

33. With reference to paragraph 2.34 of the Audit Report, the Committee enquired about the features of the system of digital log-books (“DLBs”), the cost and manpower that could be saved from the adoption of DLBs, as well as the progress of the trial adoption of DLBs by HD. **Director of Housing and Assistant Director (Estate Management)**³, HD advised at the public hearing, and **Secretary for Housing** added in her letter dated 8 January 2024 (*Appendix 16*) that:

- the DLB system was a platform rolled out by EMSD for use by the industry. It helped clearly record the information of maintenance works to ensure its authenticity and completeness. While the adoption of DLBs did not necessarily lead to a direct saving in manpower resources, it could indirectly enhance the work efficiency and reduce the error rate, thereby enabling more effective use of existing manpower resources. In the long run, HD would more actively explore the use of records stored in DLBs to analyze the conditions of L/Es, so as to provide better facility management services; and
- as of December 2023, HD had activated about 74% of the DLB accounts for L/Es, targeted to activate the DLB accounts for all L/Es in the first quarter of 2024, and encouraged L/E contractors and EM staff to use them as soon as possible. After the contractors and HD staff had familiarized themselves with the operation of DLBs, the log-books in paper format would be fully replaced with DLBs.

C. Lift Modernisation Programme

34. According to paragraph 3.2 of the Audit Report, HA evaluated the performance of all lifts maintained by HD which had been in use for 25 years or more and set priority for the LM works. As at 30 June 2023, 1 380 (23% of 6 056) lifts had been in use for 25 years or more and 1 325 (22%) of lifts were with service years ranging from 20 to less than 25. According to paragraph 3.3(a) of the Audit Report, HD could only modernize around 80 to 90 lifts per year with the resources available

currently. The Committee enquired about the implementation timetable for LM Programme in view of the budget constraint. **Director of Housing** advised at the public hearing, and **Secretary for Housing** supplemented in her letter dated 8 January 2024 (*Appendix 16*) that:

- in formulating the LM Programme, HA had to consider not only its internal resources but also the affordability of the lift industry. HD would actively discuss arrangements with the lift industry on training of technical staff and resources allocation, with a view to enhancing the overall capacity of the industry to undertake the works. The timetable of the approved LM Programme for 2023 was set out below:
 - (a) 2023-2024: a total of 92 lifts;
 - (b) Tentative programme for 2024-2025: a total of 94 lifts; and
 - (c) Long-term programme from 2025-2026 to 2031-2032: a total of 553 lifts; and
- HD had adopted a two-pronged strategy to alleviate the pressure on LM works to increase capacity. Apart from continuing with the LM works, HD had also commenced the lift safety enhancement works in accordance with EMSD's guidelines in mid-2020 for those lifts which had not been equipped with the latest three safety devices (including the double brake system, the unintended car movement protection device and the ascending car overspeed protection device). At the request of the Committee, the statistics on the number of lift breakdowns by the age of lifts in PRH estates from 1 July 2020 to 30 June 2023 were provided in the letter dated 13 December 2023 from the Secretary for Housing (*Appendix 17*).

35. With reference to paragraph 3.4 of the Audit Report, the Committee asked whether the lift performance assessment form, technical evaluation report and scoresheet summary currently adopted under the LM Programme would be digitized so that they could be processed electronically. **Secretary for Housing** advised at the public hearing and in her letter dated 8 January 2024 (*Appendix 16*) that HD had commissioned an electronic system since mid-2020 to assist in the data collection, storage and management of maintenance-related activities. HD would also digitize the lift performance assessment forms and score sheets currently in use, and the technical evaluation reports for lifts currently in use would be digitally archived to facilitate easy retrieval of records at any time. The above series of digitization measures would be completed and implemented within the first quarter of 2024.

36. With reference to Note 29 in paragraph 3.4 of the Audit Report, the Committee asked how the normalized score could accurately reflect the conditions of the lifts with similar service years but in two different PRH estates. **Director of Housing** and **Assistant Director (Estate Management)**³, **HD** explained at the public hearing, and **Secretary for Housing** elaborated in her letter dated 8 January 2024 (*Appendix 16*) that from late 2020, HD had been adopting a lift performance assessment form developed by the consultant to quantify the performance of existing lifts. The assessment covered three main areas, namely lift condition, level of service and risk. A weighted score could be generated for each lift based on the assessment. As some of the scoring items might not be applicable to all lifts in all estates, the total score available for each lift varied. In order to compare objectively the performance of lifts in PRH estates, it was thus necessary to adjust the scores for lifts in each estate (i.e. normalized scores) according to the ratio of the scores obtained to the total available scores, which could then serve as a reference for setting priorities for implementing the LM Programme.

37. With reference to paragraph 3.4(a) of the Audit Report, the Committee asked whether the extension of the lift age for the annual technical assessment for modernization purpose from 25 to 30 years as recommended in the consultancy study would have any impacts on the lift safety. **Secretary for Housing** explained at the public hearing and added in her letter dated 8 January 2024 (*Appendix 16*) that in general, both new and old lifts could be used safely with proper periodic examination and maintenance. Therefore, increasing the age requirement from 25 years to 30 years would not have any direct impact on the overall safety of lifts. While the consultant had recommended that the threshold for examining the need for replacement of lifts be raised from 25 years to 30 years of service, HD considered it a more prudent and secure arrangement to continue with the assessment of lifts with service life of 25 years or more in view of the more stringent practice of requiring the submission of a technical evaluation report on lift with 25 years or more of service and the relatively less resources involved.

38. With reference to paragraph 3.8 of the Audit Report, the Committee asked about the justifications for the Lift Modernisation Technical Vetting Committee (“LMTVC”) to include those 36 lifts that were not recommended for replacement by the relevant DMOs/PSAs in the provisional LM Programme of 2024-2025, and the operation of the scoring mechanism/benchmarking system for determining the priority of lift replacement under the LM Programme. **Secretary for Housing**, **Director of Housing** and **Assistant Director (Estate Management)**³, **HD** explained at the public hearing, and **Secretary for Housing** added in her letter dated 13 December 2023 (*Appendix 17*) that:

- the first stage of the assessment exercise was conducted by DMOs/PSAs through carrying out annual technical assessments and making recommendations on modernization programme for all lifts under their management with a service life of 25 years or more. From late 2020, HD had been using a lift performance assessment form developed by the consultant to quantify the performance of existing lifts. The form covered three main assessment areas, namely lift condition, level of service and risk. A weighted score could be generated for each lift based on the assessment. Higher scores represented greater need for modernization works. The assessment and the recommendation made by DMOs/PSAs were only some of the factors to be considered in formulating LM Programmes;
- the second stage of the assessment was carried out by LMTVC. Apart from the assessment and recommendations submitted in the first stage by DMOs/PSAs, LMTVC would take into account other factors such as work programme, manpower, resources, technical feasibility, public expectation and other major works to be carried out in the estate, in prioritizing and scheduling the works under consideration. If the lift/estate had already been included in other improvement works or other major projects, e.g. estate redevelopment in the near future, the lift would be excluded from consideration to ensure no wastage of public resources. After taking holistic consideration of all relevant factors, LMTVC would formulate and eventually submit LM Programmes for the following financial year and the year after that to the Maintenance Planning and Review Committee for approval; and
- the decision of LMTVC to include the 36 lifts, which were not recommended by the local DMOs/PSAs, in the tentative programme for 2024-2025 was made after having holistically considered all relevant factors. The lifts concerned would reach a service life of 31 years or more by 2024-2025 and thus there was a genuine need of carrying out modernization works.

39. With reference to paragraphs 3.19 and 3.23(b) of the Audit Report, the Committee enquired about the measures taken by HD to shorten the shut-down period of lifts undergoing LM works. **Secretary for Housing** and **Director of Housing** advised at the public hearing, and **Secretary for Housing** added in her letter dated 8 January 2024 (*Appendix 16*) that:

- unlike many LM works in private sectors, HD adopted a comprehensive and full LM under which the entire machinery for the lift installation was totally renewed, and building fabric of the lift machine room, lift shaft and lift pit would be thoroughly rectified, modified or re-conditioned as necessary. In some cases, extra lift landing openings would also be provided to enhance lift services and access for tenants, should site and technical constraints permit;
- on shortening the suspensions of lift services, HD had since 2013 implemented a streamlined process for LM works with an aim to reduce the project duration of LM works with extensive building supporting works. With the streamlined process, the number of site handovers could be reduced and the shut-down period of lifts undergoing LM works had been shortened from a minimum of 10.5 months to 7.5 months at the earliest; and
- to minimize the downtime of LM works in progress, HD was actively considering ways to compress the time required for modernization works without compromising safety and as far as practicable, e.g. by considering partial LM works, or exploring the use of alternative modes of contract works to encourage speeding up of the works. HD would further review the project management of site works to strike a balance between the scope of modernization works and the downtime of lifts, with a view to providing better and safer lift services to tenants.

40. With reference to paragraph 3.21 of the Audit Report, the Committee asked why there were 149 (63%) and 30 (12%) lifts out of 238 lifts with LM works completed from 2018-2019 to 2022-2023 taking 11 to 30 days and over 30 days respectively to resume service after obtaining use permits from EMSD, and the measures taken by HD to address the delay in resuming lift services. **Director of Housing and Assistant Director (Estate Management)**³, HD explained at the public hearing, and **Secretary for Housing** supplemented in her letter dated 8 January 2024 (*Appendix 16*) that:

- after obtaining the use permit for a new lift installation, the lift car and lift lobby would normally be required to undergo the necessary final touch-up and decoration works, as well as further adjustment of components, such as lift door switches, levelling adjustment and repeated trials, to ensure the ride comfort of the lift before the lift service could be resumed for tenants. For some projects, there were delays in the receipt of the original use permits due to the longer-than-usual time

required for the transmission of documents during the epidemic, which also affected the date of resumption of lift service; and

- HD would take measures to resume lift service to the public as soon as possible through strengthening the management guidelines and procedures for LM projects, such as limiting a maximum run-in buffer period of two weeks after the issue of the use permits.

D. Other safety enhancement measures for lifts and escalators

41. With reference to paragraph 4.4 of the Audit Report, the Committee enquired about the latest progress of the lift safety enhancement works, in particular the works for lifts shortlisted as prioritized items and the expected timeframe for completing the whole exercise. **Assistant Director (Estate Management)3, HD** advised at the public hearing, and **Secretary for Housing** supplemented in her letter dated 8 January 2024 (*Appendix 16*) that since 2020-2021, the lift safety enhancement works had been implemented more than three years, and the number of lifts with enhanced safety devices was in line with the planned progress, including the completion of about a total of 300 lifts in the first three years, with an average of about 100 lifts per year. After a three-year familiarization period, HD would gradually ramp up the number of lifts to be enhanced annually. As at 30 November 2023, enhancement works had been completed for about 404 out of the 1 871 priority lifts. The safety enhancement works for all the prioritized items of lifts could be completed by 2031-2032 as planned.

42. With reference to paragraph 4.5 of the Audit Report, the Committee asked about the timeframe set by HD for the shut-down of lifts by contractors for carrying out enhancement works, the circumstances under which HD would consider extending the timeframe and the penalties imposed on contractors if they failed to meet the timeframe. **Assistant Director (Estate Management)3, HD** explained at the public hearing, and **Secretary for Housing** added in her letter dated 8 January 2024 (*Appendix 16*) that the shut-down period of lift safety enhancement works varied according to the complexity of individual projects, and generally ranged from four to six weeks. The working period of the enhancement works was specified in the works orders. In case of delay in works which was not the responsibility of the contractors, like unforeseen technical difficulties encountered in the course of installation, the contractors would be granted an extension of time. Otherwise, they were required to pay liquidated damages in accordance with the contractual requirements.

43. With reference to paragraphs 4.7(b) and 4.8(b) of the Audit Report, the Committee enquired about the progress of the review on the project management of lift safety enhancement works and measures taken by HD to shorten the shut-down period of lifts during the lift safety enhancement works. **Assistant Director (Estate Management)**³, **HD** advised at the public hearing, and **Secretary for Housing** added in her letter dated 8 January 2024 (*Appendix 16*) that HD had examined the management of lift safety enhancement works and taken measures to shorten the shut-down period of lifts, including:

- ensuring that manpower and materials were properly arranged before suspension of lift for lift safety enhancement works;
- avoiding the spanning of works over long holidays as far as possible, such as Lunar New Year and Christmas; and
- encouraging contractors to make good use of EMSD's online inspection booking system to facilitate the safety checking and resumption of lift services as early as possible after completion of works.

44. Referring to paragraph 4.10 of the Audit Report about the delays in conducting periodic overhauls of escalators maintained by HD, the Committee asked about the monitoring effort and enhancements to the procedures for overhauls made by HD to ensure timely conduct of periodic overhauls of escalators in accordance with HD's EMD Instruction. **Director of Housing** and **Assistant Director (Estate Management)**³, **HD** advised at the public hearing and **Secretary for Housing** supplemented in her letter dated 8 January 2024 (*Appendix 16*) that HD had revised the EMD Instruction on escalator overhaul in 2018, and all escalators under its management (except newly handed-over escalators which were not yet required to undergo overhaul) had been overhauled at least once. HD would continue to closely monitor the periodic overhaul of escalators, including regularly reviewing the progress and related information of overhaul submitted by the project teams, and the overhaul status of each district at regular management meetings, as well as reminding staff the requirements of overhaul from time to time to ensure that the periodic overhauls were carried out in accordance with the EMD Instruction.

E. Conclusions and recommendations

Overall comments

45. The Committee:

- stresses that:
 - (a) L/Es are essential facilities in PRH estates which enhance the mobility of tenants of PRH estates and contribute to their overall quality of life, in particular individuals with mobility limitations and the elderly. It is thus crucial for the HD to provide better, safer and more reliable L/E services in PRH estates to minimize the risk of accidents/breakdowns of L/Es by carrying out high-quality and cost-effective maintenance and enhancement works; and
 - (b) while the original manufacturers/installers, with which HA entered into TMCs for the maintenance of L/Es in PRH estates under the proprietary maintenance arrangement, are responsible for the safety of L/Es in PRH estates, HA, as a “Responsible Person” of L/Es in PRH estates under Cap. 618, must ensure that, among others, the L/Es concerned are kept in a proper state of repair and in safe working order. It is of utmost importance that all involved parties should be aware of their roles and responsibilities, and work collaboratively as a team to drive for the betterment of the PRH community;

Monitoring mechanism for L/E maintenance

- notes that:
 - (a) in view of the fact that the usage of lifts in PRH estates is higher than that of private residential estates in general, HA has been adopting more stringent requirements in routine maintenance and quarterly inspection works as required in TMCs than the statutory requirements;
 - (b) while HD requires a higher frequency of routine maintenance than the minimum statutory requirements, the average maintenance cost of lifts in PRH estates is similar to that of the private market; and

(c) HD has currently adopted a three-tier mechanism to monitor the works of L/E contractors as follows:

- routine monitoring by district offices: DMOs and PSAs are responsible for the day-to-day monitoring of L/E contractors and conduct biannual assessment of each L/E with the assistance of contractors to check the operational conditions of L/Es as well as the conditions of the major components;
 - inspection by headquarters staff: CST under EMD of HD conducts surprise checks and additional lift inspections for the maintenance of L/Es. This arrangement aims to ensure effective monitoring of contractors' performance by DMOs/PSAs through independent checking on the overall operation of L/Es by senior technical staff at headquarters level. Surprise checks are conducted having regard to the actual situation or the occurrence of special incidents, and hence the focus of each check may vary. Additional lift inspections are conducted when the monthly scores of a lift contractor under BSMASS remain below the lowest acceptable scores for three consecutive months; and
 - sample independent checks: the Focus Team of the Independent Checking Unit under the Office of the Permanent Secretary for Housing conducts sample independent checks on L/Es maintained by HD to check their safety standards and performance against the statutory and contractual requirements;
- strongly recommends HA and HD to review, on the premise of not compromising safety, whether the above three-tier mechanism can be streamlined to avoid duplication of inspection resources and reduce the frequency of suspensions of L/Es for inspection in order to minimize inconvenience caused to users;
- notes that HD has agreed to review and enhance the existing monitoring system, such as exploring ways to shorten the inspection time, coordinating the inspection schedules of the three-tier monitoring mechanism, and considering integrating the inspections by district and headquarters staff, so as to minimize the number of suspensions of L/Es for inspection;

- requests HD to provide a progress report on the outcome of the review on the three-tier monitoring mechanism;

Service performance of L/Es and monitoring of L/E contractors

- expresses concern about the following inadequacies/areas for improvement regarding the maintenance of lifts under the the three-tier monitoring mechanism:
 - (a) as at 31 December 2021 and 2022, of the 5 829 and 5 891 lifts subject to routine and half-yearly assessments by DMOs/PSAs, neither routine assessments nor half-yearly assessments had been performed on 21 and 26 lifts in 2021 and 2022 respectively. No assessment had been conducted for three lifts in both 2021 and 2022. The incidents were due to delays in collating the information about newly installed lifts and inputting data by individual staff in some district offices, which resulted in delays in the routine and half-yearly assessments of a small number of lifts in 2021 and 2022;
 - (b) CST has not set any timeframe for DMOs/PSAs to follow up the rectification of the defects identified in its surprise checks. Of the 27 surprise checks conducted by CST from January 2022 to April 2023, while the defects were rectified and the relevant DMO issued the Notification of Completion to CST on the same date of surprise check report in one case, DMOs/PSAs took 7 to 128 days (averaging 30 days) to issue the Notification of Completion to CST for the remaining 26 cases. In 10 of the aforesaid 27 surprise checks involving 83 defects, 13 (16% of 83) defects were not yet rectified/followed-up at the time of issuing the Notification of Completion;
 - (c) results of surprise checks conducted by CST are not included as part of performance assessment of lift contractors under BSMASS;
 - (d) of the eight additional lift inspections performed by CST between January 2022 and April 2023, 20 (18% of 113) defects identified in six inspections were not yet rectified at the time of issuing the Notification of Completion by DMOs/PSAs; and
 - (e) from January 2022 to April 2023, the Focus Team conducted independent checks on 853 L/Es maintained by HD. Audit

examined 15 independent check reports on 29 lifts, and discovered that DMOs/PSAUs did not reply to the Focus Team within 30 days as required in eight (53%) of the 15 independent checks, with delays ranging from 2 to 29 days. Of the eight independent checks, the Focus Team failed to issue reminders to the respective DMOs/PSAUs timely in three cases, with delays ranging from 7 to 25 days;

- expresses concern that of the 31 364 cases of breakdown of lifts and 1 539 cases of breakdown of escalators from 1 January 2020 to 30 April 2023, services had been suspended for over two days in 219 (0.7%) and 25 (1.6%) cases respectively;
- expresses grave concern that of the aforesaid 219 cases of breakdown of lifts, three lifts had service suspended for over 60 days (ranging from 72 to 89 days) and seven lifts had service suspended for over two days twice within six months (with a total suspension period ranging from five to nine days for each lift);
- notes that:
 - (a) HD has enhanced the relevant guidelines and requesting the responsible staff to input the data on newly installed lifts into the information technology application system in a proper and timely manner;
 - (b) the aforesaid three cases with lift service suspended for over 60 days were mainly attributable to the failure or damage of spare parts, which were either out of stock or phased-out. The lift contractor took longer time to arrange the repair in those three cases due to the pandemic of Coronavirus Disease 2019;
 - (c) the seven lifts with service suspended for over two days twice within six months were due to different causes. Some cases involved relatively time-consuming maintenance works; and
 - (d) approximately 20% of the breakdown cases of lifts are caused by human behaviour or environmental factors (e.g. obstruction of the normal opening/closing of lift doors by foreign objects), and the breakdown rate of escalators is even higher;

- expresses concern about the following non-compliances with the requirements for submission of quarterly inspection reports and frequency of checking maintenance items by L/E contractors:
 - (a) in the 53 submissions by the 11 L/E contractors from January 2022 to March 2023, there were delays in 22 (42%) submissions. The delays ranged from 1 to 203 days (averaging 48 days);
 - (b) of the 44 quarterly inspection reports submitted by L/E contractors for inspections conducted in the third and fourth quarters of 2022 examined by Audit, Registered L/E Engineers had not certified whether or not L/Es were in a safe, satisfactory and serviceable condition in 32 (73%) reports. Furthermore, 8 of the 32 reports were not duly signed by a Registered L/E Engineer; and
 - (c) Audit's examination of the maintenance schedules and log-book records for seven lift contractors (sample checked one lift for each contractor by Audit) from January to December 2022 revealed that six of the seven lift contractors did not fully meet the checking frequency, namely that all main items must be checked during a lift's periodic maintenance in accordance with the frequency requirements as stated in the maintenance schedules;
- expresses grave concern about the substandard performance of one of the lift contractors (i.e. Contractor C) whose monthly BSMASS scores were below the passing score of 50 in four months in 2021. Following three meetings with HD in 2021 and the issuance of two adverse reports by HD in August 2021 and February 2022, the monthly BSMASS scores of Contractor C were still below average in 14 (88%) months during the 16-month period from March 2022 to June 2023;
- notes that:
 - (a) HD has, in collaboration with ASTRI, explored the application of the Artificial Intelligence Predictive Maintenance System in analysing and obtaining relevant data to predict the lift breakdown patterns, which can facilitate HD in performing preventive and targeted maintenance to reduce lift breakdown incidents;
 - (b) HD has stepped up efforts in monitoring the submission of quarterly inspections reports and urged contractors to submit duly completed and signed reports in a timely manner. All quarterly inspection

reports for the third quarter of 2023 have been signed by registered engineers;

- (c) HD is taking forward the trial adoption of DLBs, and aims to activate DLB accounts for all L/Es for access by HD staff and L/E contractors in the first quarter of 2024;
 - (d) Contractor C's performance has improved. Its BSMASS average score in 2022 and 2023 increased to about 67 (with a passing score of 50); and
 - (e) the Director of Housing has agreed with Audit's recommendations in paragraphs 2.5, 2.23, 2.29 and 2.36 of the Audit Report; and
- recommends that HD should:
- (a) enhance monitoring over the implementation of improvement works identified in surprise checks and additional lift inspections conducted by CST, including stipulating a timeframe for issuing the Notification of Completion by DMOs/PSAs for surprise checks;
 - (b) consider including the results of surprise checks conducted by CST as scoring items under BSMASS, with a view to better reflecting the performance of L/E contractors;
 - (c) take measures to ensure that reminders for outstanding replies from DMOs/PSAUs are issued by the Focus Team in accordance with HD's procedural manual;
 - (d) closely monitor the inventory of spare parts with L/E contractors to ensure their reliable supply, and draw up the arrangements and contingency measures in response to the shortage of replacement parts and lack of alternatives;
 - (e) step up educational efforts to raise the public awareness of the proper and safe use of L/Es, and strictly implement the Marking Scheme to take penalty actions as appropriate against willful damage of L/Es by PRH tenants;
 - (f) make continuous efforts in exploring new technologies to facilitate early identification of areas requiring attention or rectification in L/E maintenance and timely submission of quarterly inspection

reports by L/E contractors in a comprehensive manner to enhance the serviceability of L/Es;

- (g) step up efforts in achieving full implementation of DLBs by requiring all L/E contractors to adopt DLBs, and remind contractors the importance of maintaining proper documentation as required by TMCs and the relevant L/E legislation; and
- (h) review the scoring mechanism operated under BSMASS, and consider imposing penalties as appropriate on L/E contractors who fail to perform the duties as required by TMCs and the relevant L/E legislation.

Specific comments

46. The Committee:

Lift Modernisation Programme

- expresses concern that:
 - (a) as at 30 June 2023, 1 380 (23% of 6 056) lifts maintained by HD had been in use for 25 years or more and 1 325 (22% of 6 056) lifts maintained by HD were with service years ranging from 20 to less than 25. However, HD could only modernize around 80 to 90 lifts per year with the resources available;
 - (b) while LMTVC at the meeting held in February 2023 accepted the inclusion of all 55 lifts in the provisional LM Programme of 2024-2025 as suggested by DMOs/PSAs, it also endorsed the inclusion of 36 lifts (not being suggested by DMOs/PSAs) in the provisional LM Programme. However, the justifications for such decision were not documented in the LMTVC meeting minutes;
 - (c) of the 238 lifts with LM works completed during the period from 2018-2019 to 2022-2023, while 12 (5%) lifts resumed service on the dates the use permits were issued by EMSD:

- 47 (20%) lifts took 1 to 10 days to resume service after obtaining use permits;
 - 149 (63%) lifts took 11 to 30 days to resume service after obtaining use permits; and
 - 30 (12%) lifts took more than 30 days to resume service after obtaining use permits; and
- (d) despite that a streamlined process for LM works has been implemented since 2013 by HD aiming to shorten the shut-down period of lifts undergoing LM works from 10.5 to 7.5 months, of the 238 lifts with LM works completed during the period from 2018-2019 to 2022-2023, only one (0.4%) lift had been shut down for 7.5 months or less;
- expresses grave concern about the delays in resuming lift service revealed in Audit's analysis of the aforesaid 238 lifts with LM works completed during the period from 2018-2019 to 2022-2023, as evidenced by the following:
- (a) 188 (79.0%) lifts had been shut down for more than 7.5 to 10.5 months;
 - (b) 49 (20.6%) lifts had been shut down for more than 10.5 to 14.5 months; and
 - (c) 190 (80%) lifts had not resumed service by the planned completion dates as stipulated in the contracts, resulting in delays in service resumption of 2 to 169 days (averaging 32 days);
- notes that:
- (a) to alleviate the pressure on LM works, HD has adopted a two-pronged strategy. Apart from continuing with the LM works, it has also commenced the lift safety enhancement works in accordance with EMSD's guidelines in mid-2020 for those lifts which have not been equipped with the latest safety devices;
 - (b) HD will digitize the lift performance assessment forms, score sheets and the technical evaluation reports currently adopted under the

LM Programme for easy retrieval. Such digitization measures will be completed and implemented within the first quarter of 2024; and

- (c) the Director of Housing has agreed with Audit's recommendations in paragraphs 3.13 and 3.23 of the Audit Report;
- strongly urges HA/HD to:
 - (a) make every effort to expedite the implementation of the LM Programme, while taking into account the resource constraint and the affordability of the lift industry;
 - (b) review the operation of the scoring mechanism (including the adoption of normalized scores) for determining the priority of lift replacement under the LM Programme to ensure that those lifts in genuine or pressing needs of replacement will be selected for modernization works;
 - (c) make proactive efforts in taking forward the digitization measures on the use of various assessment forms and evaluation reports for the LM Programme, with a view to speeding up the workflow of the assessment exercise under the LM Programme;
 - (d) maintain proper documentation on the justifications for the decisions/recommendations made by LMTVC in prioritizing lift replacement works under the LM Programme to ensure the fairness and integrity of the exercise;
 - (e) make continuous efforts to review and enhance the efficiency of the process for LM works so as to minimize the disruption to lift service arising from the shut-down for the modernization works;
 - (f) take measures to resume the lift services as soon as possible after obtaining the use permits from EMSD, and if final touch-ups and making good works are required prior to the resumption of lift services, consider specifying a timeframe for completion of such works; and
 - (g) strengthen contract management to better monitor contractors' adherence to the completion schedules for LM works as set out in the contracts, with a view to securing timely resumption of lift service;

Other safety enhancement measures for L/Es

- expresses concern that:
 - (a) of the 1 871 lifts shortlisted as prioritized items to be enhanced by 2031-2032, lift safety enhancement works were completed for 318 (17%) lifts up to 30 June 2023. Of the 318 lifts, 52 (16%) took more than six weeks to complete the enhancement works; and
 - (b) the periodic overhauls of some of the 277 escalators maintained by HD as at 30 June 2023 were not conducted in accordance with HD's EMD Instruction, as evidenced by the following:
 - of the 81 escalators with only one overhaul conducted after the maintenance period, 74 (91%) escalators had their overhaul conducted more than three years after the expiry of the maintenance period; and
 - of the 131 escalators with two or more overhauls conducted after the maintenance period, 76 (58% of 131) and 16 (12% of 131) escalators had their latest overhaul conducted more than three years but within six years and more than six years after the previous overhaul respectively;
- notes that:
 - (a) as at 30 November 2023, the safety enhancement works have been completed for 404 of the 1 871 priority lifts, and the exercise can be completed by 2031-2032 as planned; and
 - (b) the Director of Housing has agreed with Audit's recommendations in paragraphs 4.7 and 4.12 of the Audit Report; and
- urges HD to:
 - (a) explore measures to shorten the shut-down period of lifts for lift safety enhancement works; and
 - (b) strictly observe EMD Instruction which stipulates that the interval between two successive overhauls for an escalator shall not be in any case more than six years.

Follow-up action

47. The Committee wishes to be kept informed of the progress made in implementing the various recommendations made by the Committee and Audit.