

立法會

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Report of the Subcommittee on Matters Relating to Railways for submission to the Panel on Transport

Purpose

This report gives an account of the work of the Subcommittee on Matters Relating to Railways during the 2017-2018 legislative session.

The Subcommittee

2. The Panel on Transport ("the Panel") agreed at its meeting on 28 October 2016 to set up a Subcommittee on Matters Relating to Railways ("the Subcommittee"). The terms of reference and membership list of the Subcommittee are set out in **Appendices I and II** respectively.

3. Under the chairmanship of Hon Michael TIEN Puk-sun, the Subcommittee has discharged its functions according to its terms of reference and held five meetings (up to mid-June 2018) with the Administration and the MTR Corporation Limited ("MTRCL").

Major work

4. In the current session, the Subcommittee has followed up on various issues relating to the implementation of new railway project, and the operation of existing railways. The discussion of the Subcommittee with the Administration and MTRCL are summarized in the ensuing paragraphs.

Implementation of new railway project

5. The Subcommittee has been monitoring closely the implementation of two railway projects near completion/under construction, namely:

- (a) the Hong Kong Section ("HKS") of the Guangzhou-Shenzhen-Hong Kong Express Rail Link ("XRL"); and
- (b) the Shatin to Central Link ("SCL").

These two projects are implemented under the concession approach,¹ and the relevant key information is given in **Appendix III**.

Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link

6. The Subcommittee had continued to follow up on the construction of HKS of XRL. Members had been keenly concerned about the slippage of the project and the resultant increase in the project costs. To recap, the Administration and MTRCL announced in April 2014 that it would be impossible to complete the construction of HKS of XRL by the original target of 2015 due to inclement weather and difficult geological conditions; and the completion date would be postponed to 2016 with the line ready for operation in 2017.

7. On 30 June 2015, MTRCL submitted a revised programme to complete ("PTC") and cost to complete ("CTC") of the HKS of XRL project to the Administration. According to the revised PTC and CTC, the commissioning of HKS of XRL would have to be delayed further from the end of 2017 to the third quarter of 2018 (including a six-month contingency period), and the project costs would have to be revised to \$85.3 billion (including a revised total project cost of \$83.2 billion and \$2.1 billion for contingency). MTRCL explained that the further delay was mainly due to unforeseen site conditions, issues relating to tunnel boring machines, fast-tracked front end and design variations, lower than expected production rates and labour shortage; and the increase in project

¹ Under the concession approach, the Administration is responsible for the construction costs of the railway project whilst MTRCL is entrusted with the planning and design of the project. Upon completion of the construction, MTRCL will be granted a service concession for the operation of the railway line while the Administration will receive a service concession payment annually.

cost was due to programme extension, changes in scope and methodologies owing to unforeseen events and additional labour and material costs. After discussion between the Administration and MTRCL, CTC of the project was subsequently reduced to \$84.42 billion, with target commissioning in the third quarter of 2018.

8. In the 2017-2018 session, the Subcommittee examined three quarterly progress reports on progress update and financial situation of the HKS of XRL project submitted by the Administration at its meetings on 1 December 2017, 2 February 2018 and 1 June 2018. When reviewing the progress report covering the period ending 31 March 2018, members noted that the overall progress of HKS of XRL was 99.4%, which was ahead of the planned progress of 98.2% based on the target of commissioning of the XRL in the third quarter of 2018. Members further noted that the most critical parts of the entire XRL project were the construction of the West Kowloon Station ("WKS"), including the works for port area facilities, and the works related to fire services equipment.

9. With the commissioning of HKS of XRL approaching, the Subcommittee has expressed pressing concerns about the operating arrangements and the financial position of the HKS of XRL. Members sought details on a number of financial and operational matters, such as the number of Mainland cities to be connected by XRL, fare levels, train schedule, operating hours, as well as revenue and cost sharing arrangements between Hong Kong and the Mainland. Members were also very concerned about the ticketing arrangements for the HKS of XRL, in particular the possible service charge for buying tickets to mainland cities other than the 18 cities served directly by high-speed trains from Hong Kong. Members urged the Administration to roll out more facilitation arrangements for high-speed rail passengers such as e-tickets and e-payments, and to offer concessionary fares for students and the elderly at the early stage of commissioning.

10. The Administration advised that other than short-haul trains running between WKS and the Futian, Shenzhen North, Humen and Guangzhou South stations, there would be long-haul trains to/from 14 Mainland cities upon commissioning of the HKS of XRL. During the early stage of commissioning, 114 daily trains pairs could be provided for short-haul services during peak periods. The train schedule could be adjusted subject to the actual operational needs. The Administration was in discussion with the China Railway Corporation on the financial and related matters of the HKS of XRL and would announce the outcome of discussion at an appropriate time. The actual operating arrangements

and ultimate financial position of the HKS of XRL would hinge on the outcome of the said discussion.

11. Members further noted that five ticketing counters at the ticket office of WKS were reserved to facilitate the provision of service by the agent authorized by the Mainland high-speed rail operator to sell Mainland journey tickets (i.e. tickets for journeys that start and terminate at Mainland stations) in the future. Passengers would be able to purchase both cross boundary journey tickets and Mainland journey tickets in one go in Hong Kong. Discussion on these matters, including the level of service fees, was still in progress. The Administration assured members that it would urge MTRCL to discuss with the Mainland high-speed rail operator with a view to minimizing the service fees as far as possible.

12. The Subcommittee expressed concerns on the details of discussions between the Administration and MTRCL on the operation of the HKS of XRL, including the terms of the service concession and the future operating costs of the HKS of XRL. They urged the Administration to consult the Subcommittee on certain important issues, including the period and payment of the service concession as well as the arrangements for sharing operating losses (if any), before finalizing the details with MTRCL. The Administration responded that the HKS of XRL project had been taken forward on the basis that MTRCL would be invited to operate HKS of XRL under a service concession approach in future. The Administration had already commenced discussion with MTRCL in this regard and would update the Subcommittee once consensus had been reached with MTRCL on the general principles regarding the arrangements of the Supplemental Service Concession Agreement.

13. Members noted that the trial operations of the HKS of XRL had commenced in April 2018. Having regard to a number of incidents occurred during the trial operations, the Subcommittee raised concerns over the safety of the HKS of XRL and had followed up with the Administration/MTRCL on the derailment incident at Shek Kong Stabling Sidings of the HKS of XRL at its meeting on 1 June 2018. Members expressed discontent that MTRCL failed to disclose proactively the incidents occurred during the trial operations, and the widened track gauge had not been identified either by MTRCL site staff or the Monitoring and Verification Consultant ("M&V Consultant") appointed by the Highways Department ("HyD") during routine inspections. The Administration and MTRCL had been requested to provide details of the notification mechanism in respect of incidents occurred during the trial

operations of the HKS of XRL, including the criteria for reporting incidents and the time limit (if any) between the actual occurrence of the incident and the actual notification to the relevant Government department(s).

Shatin to Central Link

14. SCL is a territory-wide strategic railway project. With a total length of 17 kilometres, it consists of (a) the Tai Wai to Hung Hom Section, and (b) the Hung Hom to Admiralty Section.²

15. The approved project estimate ("APE") for the entire SCL project is \$79,800 million in money-of-the-day ("MOD") prices. In February 2011, the Finance Committee ("FC") approved the funding applications for the advance railway and non-railway works at \$6,254.9 million and \$1,448.2 million in MOD prices respectively. In May 2012, FC approved the funding applications for the remaining railway and non-railway works with a total of about \$71,400 million in MOD prices. Thereafter, the Administration and MTRCL entered into an agreement for entrusting construction, testing and commissioning of SCL to the latter at a cost of \$70,827 million. The Administration informed the Subcommittee in December 2016 that the revised cost of advance railway works of SCL would exceed APE by \$847.7 million, increasing from \$6,254.9 million to \$7,102.6 million in MOD prices. FC approved the additional funding application at its meeting on 17 June 2017. The APE for the entire SCL project is therefore adjusted upward from the original estimate of \$79,800 million to \$80,700 million in MOD prices.

16. The Subcommittee was briefed on the progress of the SCL project at the meetings on 1 December 2017, 2 February 2018 and 1 June 2018. According to the latest assessment by MTRCL, in view of the delay of 11 months arising from the archaeological discovery and other factors encountered during construction, there would be about a year's delay in commissioning the project, i.e. the Tai Wai to Hung Hom Section deferred to end 2019, while the Hung Hom to Admiralty Section deferred to 2021. However, with the delay recovery measures implemented at the Tai Wai to Hung Hom Section, the target commissioning date of this section could be advanced to about mid-2019.

² The Tai Wai to Hung Hom Section is the extension of Ma On Shan Line from Tai Wai via Southeast Kowloon to Hung Hom where it will join West Rail Line; the Hung Hom to Admiralty Section is an extension of the existing East Rail Line from Hung Hom across the Victoria Harbour to Wan Chai North and Admiralty.

17. At the Subcommittee meeting on 2 February 2018, members noted that MTRCL had submitted the latest cost estimate of SCL project to the Administration on 5 December 2017. MTRCL indicated a need of adjusting upward the entrustment cost of the main works of the SCL project, from \$70,827 million to \$87,328 million, i.e. an increase of about \$16,501 million. As advised by the Administration, it has been conducting a detailed review of the MTRCL's latest cost estimate and expected to complete the review by the second quarter of 2018. Upon completion of the detailed review, the Administration would apply for additional funds from the Legislative Council to continue with the SCL works.

18. In addition to cost overrun and project delay, members expressed grave concern at the meeting on 1 June 2018 about structural safety of construction works under the SCL project. In connection with the substandard steel works found at a platform slab of Hung Hom Station Extension, members expressed strong dissatisfaction that MTRCL rendered confusing information on several occasions and failed to disclose all relevant details. They urged the Administration to set up an independent expert panel to ascertain the structural safety of the slab concerned and to investigate whether MTRCL and its contractors had tried to cover up the substandard works. Members also cast doubt on MTRCL's confirmation that concreting works for the slab concerned were done only after the rectification works had been completed. Members also noted at the meeting that, at the request of the Administration, MTRCL had undertaken to provide an investigation report and to arrange an independent expert to conduct a loading test to affirm the structural integrity of the platform slab in question. The Administration also undertook to refer the matter to law enforcement agencies for follow-up actions in case any misconduct was found.

19. Members were of particular concern about the monitoring regime for railway projects. Members in general questioned the role of the HyD and its M&V Consultant in supervising and monitoring the implementation of railway projects. They urged the Administration to step up its monitoring effort to avoid further cost overrun and to enhance accountability of MTRCL and the Administration in the monitoring of railway projects.

20. At the Subcommittee meeting on 2 February 2018, members noted that two undetonated bombs were discovered at the construction site of the Exhibition Centre Station in January 2018.³ They expressed dissatisfaction to MTRCL that metal detectors were not used to locate if there were any wartime bombs lying underground before commencing excavation works at the site, even though it was aware of such risks at the design and planning stage of the project back in 2012. Members expressed serious concern that MTRCL had put the safety of workers on site and people living or working in Wan Chai at risk. They urged MTRCL to conduct an overall investigation of the site. Some members were also concerned whether the progress of the construction works of the SCL would be adversely affected.

21. MTRCL responded that in view of the fact that the northern coastline of Hong Kong Island was bombarded during the Second World War, it had envisaged the risk of discovering wartime explosives during the planning stage. To enhance the workers' understanding and awareness of the risk, MTRCL communicated with police experts to provide a specific project briefing for the engineering site staff on suitable procedures in case of encountering any suspected explosive objects before commencing major excavation works in 2016. MTRCL had adopted a particularized and controlled excavation method to allow the excavation works to be conducted in a strictly controlled manner, so as to uphold safety and to minimize risk. HyD had requested MTRCL to assess the time and cost implications arising from the discovery of unexploded ordnances, and explore delay recovery measures to minimize the risk of project delays.

Operation of existing railways

22. The Subcommittee continued to follow up on issues relating to railway operations.

Upgrading of signalling system for railway lines

23. Members noted with serious concern that signalling fault was one of the major causes of railway service disruption. In this connection, the Subcommittee had followed up with MTRCL on the progress of signalling replacement of railway lines. Members noted that the new signalling system has a smaller number of overall parts and components

³ Subsequently, a third unexploded wartime bomb was found at the Exhibition Centre works site on 10 May 2018.

which would reduce the chances of faults. Back-up devices would also be strengthened to enhance the reliability of train service. At the Subcommittee meeting on 1 December 2017, members called on MTRCL to implement measures to minimize the risks of impacting on railway service during upgrades of its signalling systems so as to avoid causing inconvenience to passengers.

24. On some members' concerns regarding the life expectancy of the new signalling system, and whether the electronic components of the signalling system would be updated regularly within its overall system life-cycle to keep pace with technological advancements, MTRCL advised that normally a signalling system should have 20 to 30 years' lifetime. A stringent asset management system was in place to set out appropriate procedures for the maintenance of various components of the railway system, including signalling system equipment. Timely renewal would be arranged in accordance with the functions and performance of the railway components.

Measures for enhancing Light Rail services

25. In view of the patronage growth arising from the development of Tuen Mun and Yuen Long community, coupled with the huge traffic demand generated by the population growth upon the completion of Hung Shui Kiu New Development Area, the Subcommittee members held grave concerns that the Light Rail ("LR") service and facilities would be insufficient to cope with the increasing patronage and passenger need. Members were briefed by the Administration on the progress of implementing the various short, medium and long-term measures to enhance Light Rail service as recommended in the Final Report of the Public Transport Strategy Study ("PTSS") released in June 2017.

26. Members noted that in the Final Report of the PTSS, the Administration had reaffirmed the role of LR as an important rail-based and at-grade transport mode in Yuen Long and Tuen Mun, as well as a feeder to the West Rail Line ("WRL"). Members urged MTRCL to deploy more coupled-set Light Rail Vehicles ("LRVs") to relieve congestion during peak hours. They were of the view that the addition of 10 LRVs from 2019 to 2023 would be minimal to cope with the huge traffic demand. Further, members suggested that improvements should be made to identified busy junctions by building overhead or underground LR tracks, thereby facilitating the deployment of coupled-set LRVs during peak hours.

27. Members noted that MTRCL had deployed short-haul special runs to ease congestion problem. MTRCL advised that adding more LRVs might not be the best solution to increase the carrying capacity as the increase in LRVs might cause further bottlenecking and congestion at road junctions. It would explore other effective means such as route rationalization. Members further noted that the feasibility study on design improvements of road junctions, which was one of the medium-term measures recommended under the PTSS, would soon be commenced. The Administration would report the findings of the study to the Subcommittee in due course.

MTR station facilities

28. The Subcommittee has been closely monitoring measures to enhance MTR station facilities. Members urged MTRCL to enhance its station facilities in various aspects including installation of water drinking facility within MTR stations, addition of barrier-free facilities at specific exit/entrance of certain MTR stations, further improvements to facilities for visually impaired passengers, provision of additional exits to relieve the congestion problem at station and provision of self-contained baby care rooms in all MTR stations. Some members expressed dissatisfaction that MTRCL had set aside certain space at staff rest rooms, instead of vacating some MTR shops, for breastfeeding purpose.

29. MTRCL explained that as provision of baby care rooms and other facilities in existing stations would involve substantial alteration works, it would take time for design and implementation. Setting aside some space at staff rest rooms for breastfeeding purpose was an interim measure to provide convenience earlier to passengers in need. MTRCL noted members' views and pledged to strive for continuous improvements in the provision of station facilities.

Manpower resources for railway services

30. In April 2018, the Subcommittee was briefed by MTRCL on its manpower situation and staff training programmes. Pointing out that major growth in manpower came from part-time staff who were less experienced and might not be capable to handle sudden or emergency incidents, members were concerned about whether there was sufficient full-time staff to meet the operational needs. The Subcommittee passed two motions urging MTRCL to recruit additional frontline staff, strengthening staff training, increasing pay levels and reviewing the pay adjustment mechanism.

31. MTRCL explained to the Subcommittee that it had kept in view the mix of part-time/full-time staff to address operational needs, and would flexibly deploy manpower resources to suit different operational requirements and during crisis/emergency situations. Frontline station and operational staff were employed at full strength and therefore sufficient to cope with service demand and operational needs. Further, a mechanism was in place for reviewing and adjusting staff remunerations taking into account factors such as profit level, staff performance, market salary trend etc. Staff side had also been consulted on the mechanism which had worked well for many years.

Major railway incidents

32. The Subcommittee had followed up on two major railway incidents caused by signalling fault, namely service disruption of Kwun Tong Line for more than 10 hours on 5 August 2017 and the 2-hour service disruption of East Rail Line ("EAL") on 11 January 2018. At the meeting on 10 April 2018, members noted with concern that the service disruption of EAL on 11 January 2018 was related to continuous growth of traffic regulations data processed by the server of EAL Train Control System over the past few years. Members asked whether MTRCL would proactively suggest to the Administration the development of new railway lines given that the old railway lines such as EAL had already reached their full capacity. The Administration responded that the Transport Department was responsible for planning and developing transport services including railway services to meet service need, and would actively listen to views of MTRCL in the development of new railway project.

33. While inquiring into the causes of individual incidents, members urged MTRCL to enhance its contingency arrangement during the incidents, in particular the arrangement of free shuttle buses and other transport services in dispersing passengers during the incidents as well as the dissemination of information on the latest train service to the public. Members held the view that a mechanism should be in place for MTRCL to liaise with operators of other transport modes to mobilize additional transport services within a short period of time. Some members also urged MTRCL to make timely investment to renew its railway assets including the signalling systems, with a view to keeping abreast of the technological development and enhancing the reliability and safety of the railway system. MTRCL responded that it was planning to replace signalling system of railway lines commissioned 10 or more years ago and would study if the latest railway technology could be used to improve the signalling system.

Recommendation

34. The Panel is invited to note the work of the Subcommittee.

Council Business Division 4
Legislative Council Secretariat
22 June 2018

Panel on Transport

Subcommittee on matters relating to railways

Terms of Reference

To follow up various issues relating to the planning and implementation of new railway projects, and the operation of existing railways as follows:

Planning and implementation of new railway projects

- (a) planning and financing of new railway projects;
- (b) environmental impact assessment of new railway projects;
- (c) resumption of land arising from the implementation of new railway projects under the Railways Ordinance (Cap. 519);
- (d) progress update on the implementation of new railway projects;
- (e) provision of supporting public infrastructure for new railway projects; and
- (f) co-ordination of public transport services arising from the commissioning of new railway lines.

Railway operation

- (a) performance of existing railway lines including train service performance and safety management;
- (b) maintenance programme; and
- (c) train service disruptions and breakdowns, and arrangements for handling emergency situations.

Matters relating to corporate governance of the post-merger corporation and fares, including review of the fare adjustment mechanism, should be dealt with by the Panel on Transport.

Panel on Transport

Subcommittee on Matters Relating to Railways

Membership list for 2017-2018 session

Chairman	Hon Michael TIEN Puk-sun, BBS, JP
Deputy Chairman	Hon CHAN Han-pan, JP
Members	Hon Mrs Regina IP LAU Suk-ye, GBS, JP Hon Claudia MO Hon Frankie YICK Chi-ming, SBS, JP Hon YIU Si-wing, BBS Dr Hon KWOK Ka-ki Dr Hon Helena WONG Pik-wan Ir Dr Hon LO Wai-ki, SBS, MH, JP Hon Alvin YEUNG Hon CHU Hoi-dick Dr Hon Junius HO Kwan-yiu, JP Hon LAM Cheuk-ting Hon Wilson OR Chong-shing, MH Hon CHAN Chun-ying Hon Tanya CHAN Hon LUK Chung-hung Hon LAU Kwok-fan, MH Dr Hon CHENG Chung-tai Hon Jeremy TAM Man-ho Hon Gary FAN Kwok-wai Hon AU Nok-hin Hon Tony TSE Wai-chuen, BBS (Total: 23 members)
Clerk	Ms Sophie LAU
Legal Adviser	Mr Alvin CHUI

* Changes in membership are set out in Annex to Appendix II

Annex to Appendix II

Panel on Transport Subcommittee on Matters Relating to Railways Changes in membership

Member	Relevant date
Hon Tony TSE Wai-chuen, BBS	Since 21 March 2018
Hon AU Nok-hin	Since 22 March 2018
Hon Gary FAN Kwok-wai	Since 26 March 2018

Key information of the two railway projects near completion/under construction
(updated as at June 2018)

	Hong Kong section of Guangzhou-Shenzhen- Hong Kong Express Rail Link	Shatin to Central Link
<i>Length of the rail line</i>	26 km	17 km
<i>Estimated construction cost</i>	\$66.82 billion (in money-of-the day ("MOD") prices)	\$79.8 billion (in MOD prices)
<i>The MTR Corporation Limited's latest estimated construction cost</i>	\$86.42 billion (increased by \$19.6 billion)	\$80.7 billion (the latest cost estimate of the main works submitted by MTRCL is now \$87.3 billion, representing an increase of \$16.5 billion over the original entrustment cost of the main works of \$70.8 billion. The Administration is conducting a detailed review of the MTRCL's latest cost estimate)
<i>Funding arrangement</i>	Implemented under the concession approach Construction of: - railway works: \$70.405 billion - non-railway works: \$16.015 billion Special ex-gratia payments in relation to the project: \$86 million	Implemented under the concession approach Protection works: \$695 million Advance works: \$8.6 billion Construction of: - railway works – main works: \$65.4 billion - non-railway works – main works: \$5.98 billion
<i>Works commenced in</i>	2010	2012

	Hong Kong section of Guangzhou-Shenzhen- Hong Kong Express Rail Link	Shatin to Central Link
<i>Original target commissioning dates</i>	2015	December 2018: Tai Wai to Hung Hom Section December 2020: Hung Hom to Admiralty Section
<i>Target commissioning date</i>	September 2018	Mid-2019: Tai Wai to Hung Hom Section 2021: Hung Hom to Admiralty Section