

立法會 *Legislative Council*

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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 2018-2019 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 Frankie YICK Chi-ming, the Subcommittee has discharged its functions according to its terms of reference and held four meetings (up to mid-June 2019) with the Administration and the MTR Corporation Limited ("MTRCL").

Major work

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

Operation of existing railways

5. The Subcommittee continued to follow up on various issues relating to the operation of existing railways.

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

6. The Subcommittee noted that the Hong Kong Section ("HKS") of the Guangzhou-Shenzhen-Hong Kong Express Rail Link ("XRL") commenced operation on 23 September 2018 and was briefed on the operating issues of the HKS of the XRL after its commissioning at the meeting on 7 December 2018. To recap, the HKS of the XRL is a 26 kilometres long underground rail corridor running from West Kowloon to Shenzhen, where it connects to the Mainland section of XRL. The HKS of XRL project has been undertaken under the concession approach. The Government provides the funding under the Public Works Programme for constructing the XRL and owns the railway. The Administration entered into an entrustment agreement with MTRCL on 26 January 2010 for the design, construction, testing and commissioning of the project.

7. The HKS of the XRL provides high-speed rail service between the Hong Kong West Kowloon Station ("WKS") and 44 Mainland destinations, including six short-haul destinations and 38 long-haul destinations. As regards the train schedule, in the light of the actual patronage and the market demand, the Administration advised in December 2018 that there were currently 70 pairs of short-haul trains and 13 pairs of long-haul trains daily. As the passenger demand was relatively high during weekends, nine additional pairs of trains were arranged to run between WKS and Futian from Fridays to Sundays since October 2018 until end-February 2019. MTRCL maintained close communication with the China Railway Corporation ("CR") in adjusting the train schedule according to passenger needs and train service arrangements.

8. At the meeting on 7 December 2018, some members raised concern on the patronage of the HKS of the XRL, which in their views might adversely affect the financial position of the railway line. Noting that the ratio of Hong Kong residents among the passengers of the XRL was much lower than the earlier forecast made by the Administration back in 2009, some members suggested the Administration offering further fare discounts during non-peak periods or low seasons to Hong Kong residents and passengers taking short-haul trains. The Subcommittee passed a motion urging the Administration to request MTRCL to provide interchange discounts for XRL passengers by making reference to the interchange discount scheme applicable to Airport Express, with a view to facilitating members of the public to interchange

from MTR to XRL, thereby increasing the passenger flow of XRL.

9. In response to the above motion, the Administration advised that the HKS of the XRL operated smoothly since its commissioning on 23 September 2018. The patronage of the railway line had been increasing progressively as well, with a total patronage of 5 270 281, comprising 2 551 364 outbound passengers and 2 718 917 inbound passengers, as at 31 December 2018. During this period, the average daily patronage for the XRL was 52 703 and the highest patronage for a day (23 December 2018) was 94 625. The Administration trusted that passengers were getting used to using the HKS of the XRL as a cross-boundary transport mode. MTRCL further advised that it would continue to actively promote the HKS of the XRL to the public through various channels. MTRCL and the tourism industry also cooperated to explore business in tour groups and individual visits. As regards the suggestion of offering further fare discounts to Hong Kong residents, MTRCL advised that it would continue its discussion with CR on concessionary fares.

10. Some members expressed dissatisfaction on various operating arrangements of the HKS of the XRL, including the provision of train service information on the High Speed Rail App, ticket purchase and collection arrangements for Hong Kong passengers and the fare structure. Some of them opined that MTRCL should strive for enhancement in the Mainland ticketing website (i.e. www.12306.cn), simplification of ticketing arrangements especially for passengers taking short-haul trains, and enhancement in the provision of direct train services to certain Mainland destinations.

11. Members were advised that the Administration had been pressing ahead the enhancement of the Mainland ticketing system with CR so that passengers from Hong Kong might register an account and purchase tickets at the Mainland ticketing website using an e-mail and collect tickets using self-service machines. Also, the Administration would work in tandem with MTRCL to roll out more facilitation arrangements such as introducing e-tickets to cater for the needs of different passenger groups.

12. Apart from the above, the Subcommittee continued to follow up on the financial situation of the HKS of the XRL project. Expressing concern on the number and amount of the claims unresolved, some members called on the Administration to furnish more details on the situation of resolved/unresolved claims, and to submit regularly the details of the financial situation of the HKS of the XRL project to the Subcommittee for reference after its commissioning.

13. In response, the Administration explained that the amount awarded (for claims resolved) and amount of interim award (for claims unresolved) were not necessarily equal to the amount claimed as all the claims were subject to the Engineer's assessments based on justifications and information provided by the contractors. The number of claims would be subject to change as MTRCL was still finalizing the accounts of the contracts in respect of the HKS of the XRL project. The Administration pointed out that the patronage the HKS of the XRL had been increasing progressively since it commenced operation in September 2018. The Administration did not see the need to revise the projected patronage and projected EBITDA (i.e. Earnings Before Interest, Tax, Depreciation and Amortisation) at this moment. Overall, the financial position of the HKS of the XRL after its commissioning had been satisfactory. Since the HKS of the XRL had commenced operation for only short period of time, the Administration would report the financial position of the HKS of the XRL project to the Subcommittee at an appropriate time.

Upgrading of signalling system for railway lines

14. Noting that signalling system is the heart of railway operation, members in general were concerned about the progress of the upgrading of signalling system for railway lines. At the meeting on 1 February 2019, members were advised that upon the completion of the upgrade of signalling systems in 2026, the overall capacity of the Tsuen Wan Line, Island Line, Kwun Tong Line, Tsung Kwan O Line, Disneyland Resort Line, Tung Chung Line and Airport Express could be increased by about 10%. Nevertheless, members noted with serious concern that the expected completion of the upgrading of the new signalling systems for Tsuen Wan Line and Island Line would be delayed by one year and two years respectively. They worried that the retrofitting of Automatic Platform Gates ("APGs") along the East Rail Line ("ERL") would be further postponed and the congestion situation of railway lines would be aggravated as a result of the delay in the upgrading programme.

15. MTRCL explained that the time required for conducting tests was longer than estimated, mainly because MTRCL had been carrying out in-depth testing on the new signalling system, and making reference to experience in other places, in order to ensure a higher level of reliability before commissioning. The tests conducted during non-traffic hours covered accuracy of trains' stopping locations, coordination between train doors' opening and closing and platform screen doors, and passenger comfort level. The Administration noted members' concern on the

progress of retrofitting APGs along ERL and would review with MTRCL on various safety measures and facilities to ensure the safety of passengers of ERL.

Major railway incidents on 16 October 2018 and 18 March 2019

16. The Subcommittee followed up on two major railway incidents pertinent to signalling fault, namely service disruption of four MTR lines on 16 October 2018 and the incident of the new signalling system testing on Tsuen Wan Line ("TWL") on 18 March 2019. Members were generally dissatisfied with the deteriorating service performance of MTRCL. Insofar as the service disruption of four MTR lines on 16 October 2018 was concerned, the Subcommittee passed three motions urging the Administration to, among others, review the Service Performance Arrangement ("SPA") so that it could properly reflect the severity of the railway incidents and revisit the existing contingency measures taken by the Administration and MTRCL, including the operation of the Emergency Transport Coordination Centre of the Transport Department ("TD"), in the event of extensive service disruption.

17. Members noted that in light of the experience gained from the incident happened on 16 October 2018, TD was reviewing the existing contingency plan with MTRCL, including the deployment of free shuttle buses serving the affected MTR stations and the alert system for railway service disruptions. As regards the SPA which was introduced after the review of the Fare Adjustment Mechanism ("FAM") in 2013, the Administration advised that the maximum amount per incident of serious service disruption to be set aside for fare concession under SPA had been increased from \$15 million to \$25 million after the FAM review conducted in early 2017. The Administration would continue to step up its monitoring of MTRCL in terms of railway operation and service performance to ensure railway safety, and would review SPA as and when appropriate.

18. The Subcommittee was also gravely concerned about the incident on 18 March 2019, in which two MTR trains collided near Central Station on TWL in the early hours during the testing of the new signalling system. Members received a briefing from the Administration and MTRCL on the incident at its meeting on 29 March 2019. Some members considered that MTRCL failed to properly supervise its contractor to carry out the simulation tests of the new signalling system. Apart from seeking explanation from the Administration and MTRCL on the causes of the incident, members requested MTRCL to ascertain the

safety of the existing signalling system and affirm that incident of similar nature would not occur again in the future.

19. Members noted that MTRCL suspended all train tests for the new signalling system until the cause of the incident was identified and the new signalling system was confirmed to be safe. MTRCL also reserved the right to take action against the signalling system contractor according to the contract and in the light of the investigation findings. Members were also assured that the incident was not related to the existing signalling system and that incident of similar nature would not occur on the existing lines. That said, the Electrical and Mechanical Services Department had conducted on-site inspection of the interlocking functions of the computer-controlled turnouts of the existing signalling system to ensure that it continued to operate effectively.

Implementation of new railway project

20. The Subcommittee has been monitoring closely the implementation of the Shatin to Central Link ("SCL") project, which is funded by the Administration under the concession approach.¹ The relevant key information is given in **Appendix III**.

Shatin to Central Link

21. 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

22. 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.

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.

² The Tai Wai to Hung Hom Section will extend the existing Ma On Shan Line from Tai Wai to the West Rail Line via East Kowloon to form the Tuen Ma Line; the Hung Hom to Admiralty Section will extend the existing East Rail Line across the harbour to Wan Chai North and Admiralty.

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 was therefore adjusted upward from the original estimate of \$79,800 million to \$80,700 million in MOD prices.

23. The Administration advised that the latest cost estimate of the main works of the SCL project was provided by MTRCL 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. The main reasons given by MTRCL for the increase in construction cost included the archaeological and conservation works at Sung Wong Toi Station, the additional expenses due to delays in the handover of work sites at Wan Chai north, and the station works required for allowing flexibility for the topside development at Exhibition Centre Station. The Administration had been conducting a detailed review of the MTRCL's latest cost estimate. Upon completion of the detailed review, the Administration would apply for additional funds from the Legislative Council ("LegCo") to continue with the SCL works.

24. According to the then assessment by the Administration and MTRCL, in view of the delay of about 11 months to the Tai Wai to Hung Hom Section arising from the archaeological discoveries and conservation works at Sung Wong Toi Station, the commissioning date of Tai Wai to Hung Hom Section of SCL was once deferred to end 2019. Given that the delay recovery measures implemented at this section have become effective progressively, the target commissioning date could originally be advanced to about mid-2019. However, due to the series of incidents at Hung Hom Station Extension and associated investigation work, the target commissioning date would need to be further reviewed. The target commissioning date of the Hung Hom to Admiralty Section remains to be 2021.

25. The Subcommittee was briefed on the progress of the SCL project at the meetings on 7 December 2018 and 1 February 2019. Additionally, the Subcommittee examined the interim report of COI into the construction works at and near the Hung Hom Station Extension under the SCL Project at its meeting on 29 March 2019. The Subcommittee noted from the Administration's paper that on 19 February 2019, the

Chief Executive in Council approved the expansion of the Commission of Inquiry ("COI")'s Terms of Reference to investigate the steel reinforcement fixing or concreting works at three locations under contract No. 1112 of SCL,³ as well as an extension of time for COI to submit its report to the Chief Executive.⁴

26. At the Subcommittee meeting on 7 December 2018, some members raised concern about the cash flow situation of the SCL project. Members were advised that as at the end of December 2018, the total expenditure of the main works of SCL (i.e. 61TR and 62TR) under construction was about \$58 billion, accounting for about 82% of APE. In view of the latest development of the incident about the Hung Hom Station Extension Works under the SCL project, the Administration needed more time to verify the facts and the conditions of the works. The Administration would apply for additional funds from LegCo to continue with the SCL works in due course.

27. In view of the fact that the target commissioning date of the Tai Wai to Hung Hom Section would need to be further reviewed due to the series of Hung Hom Station incidents and associated investigation works, members urged the Administration and MTRCL to complete as soon as practicable the feasibility study on the partial opening of some stations and sections of the Tai Wai to Hung Hom Section.

28. MTRCL advised that it had been requested by the Administration to expedite the study on different options and make recommendations on the need and feasibility of the partial commissioning of some stations and sections of Tai Wai to Hung Hom Section. MTRCL pointed out that the system that controlled Ho Man Tin Station was situated in the Hung Hom Station Extension. As such, partial commissioning up to Ho Man Tin Station would depend on the overall situation of the Hung Hom Station Extension. The feasibility of partial commissioning options mainly hinged on whether the timely approval of the relevant Government departments could be obtained for NAT and the Tuen Ma Line signalling control rooms situated within Hung Hom Station.

29. In addition to cost overrun and project delay, the quality of construction works of the SCL project was of considerable concern to the Subcommittee. In view of the series of incidents relating to works at the

³ The three locations are the North Approach Tunnels ("NAT"), the South Approach Tunnels ("SAT") and the Hung Home Stabling Sidings ("HHS").

⁴ According to the Administration, COI might have to defer its submission of the final report to the Chief Executive from August to November 2019 (LC Paper No. CB(4)975/18-19(05)).

Hung Hum Station Extension, To Kwa Wan Station and Exhibition Centre Station, members criticized the Administration and MTRCL for having failed to duly monitor the implementation of the SCL project and expressed deep concern over MTRCL's system on reporting to the Administration as prescribed under the Entrustment Agreement. In particular, they queried the role of the Monitoring and Verification Consultant appointed by the Highways Department in the incidents and considered the Consultant not being able to perform its monitoring duties.

30. Having regard to the missing Request for Inspection and Survey Checks Forms (i.e. RISC Forms) for the steelworks at NAT, SAT and HHS, as well as the insufficient documentation for NAT regarding a design change of some connections between reinforcement bars during construction, members expressed strong disappointment at the monitoring system of MTRCL in implementing the SCL project. Some members were deeply concerned whether the matter involved suspected fraudulent act or use of false instrument. They also queried how and why the contractor would be permitted to proceed to the next process of works without the relevant RISC Forms.

31. The Administration responded that the matter had already been referred to the law enforcement agencies for necessary follow-up actions. MTRCL advised that based on the information available so far, the contractor concerned, i.e. Leighton Contractors (Asia) Limited ("Leighton"), did not submit the relevant RISC Forms according to the established procedures and there was no evidence indicating that staff of MTRCL or Leighton had deleted the records of the relevant RISC Forms from the project management system.

32. The Subcommittee noted that the Administration accepted a three-stage holistic assessment strategy proposed by MTRCL in December 2018 to ascertain the as-constructed condition of the structures including the platform slabs of the Hung Hom Station Extension. Among others, MTRCL proposed to conduct non-destructive tests (Phased Array Ultrasonic Test ("PAUT")) to determine the embedded length of the threaded steel bar inside the coupler. However, a large deviation was observed between the embedded length measured using non-destructive PAUT and the direct measurement after cutting the reinforcement bar with the coupler connected in January 2019. At the meeting on 1 February 2019, some members urged the Administration to consider using another testing method, such as physical measurements by lifting the coupler connections from the concrete as adopted by the Police.

33. The Administration advised that MTRCL had carried out a detailed investigation on the root cause of such a deviation and improved PAUT in consultation with experts and laboratories concerned, with a view to enhancing its accuracy and reliability. MTRCL also conducted validation on the enhanced PAUT. Members were advised that the Administration accepted the proposal submitted by MTRCL for the enhanced PAUT on 14 March 2019, and MTRCL resumed the tests on 15 March 2019 on the exposed couplers (including those previously tested and those not yet tested).

34. At the Subcommittee meeting on 29 March 2019, some members questioned the determination reached by COI that the diaphragm wall and platform slab construction works at the Hung Hom Station Extension are safe. Pointing out that the second stage of the holistic assessment strategy was still on-going, they considered that it might be premature for COI to come to this determination.

35. The Administration advised that it was not appropriate for the Administration to elaborate on the determinations reached by COI, and drew members' attention to chapter 9 of the Interim Report in which COI had already explained its conclusions with regard to structural safety in great detail.

36. On members' concern about the quality of works of other stations along SCL, the Administration advised that it would check the major structural works of these stations to confirm if there were quality issues similar to those at the Hung Hom Station Extension. Specifically, the Administration had implemented a three-tier audit of all relevant stations to ascertain the quality of works thereof. The first stage audit covered To Kwa Wan Station and Diamond Hill Station.

Recommendation

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

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 2018-2019 session*

Chairman	Hon Frankie YICK Chi-ming, SBS, JP
Deputy Chairman	Hon LUK Chung-hung, JP
Members	<p>Hon Tommy CHEUNG Yu-yan, GBS, JP Dr Hon Priscilla LEUNG Mei-fun, SBS, JP Hon Mrs Regina IP LAU Suk-yee, GBS, JP Hon Claudia MO Hon Michael TIEN Puk-sun, BBS, JP Hon YIU Si-wing, BBS Hon CHAN Han-pan, BBS, JP Hon LEUNG Che-cheung, SBS, MH, JP Dr Hon KWOK Ka-ki Dr Hon Helena WONG Pik-wan Hon POON Siu-ping, BBS, MH Ir Dr Hon LO Wai-kwok, SBS, MH, JP Hon Alvin YEUNG Hon CHU Hoi-dick Dr Hon Junius HO Kwan-yiu, JP Hon HO Kai-ming Hon LAM Cheuk-ting Hon Wilson OR Chong-shing, MH Hon Tanya CHAN 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: 27 members)</p>
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 SHIU Ka-fai	Up to 4 January 2019
Hon CHUNG Kwok-pan	Up to 31 January 2019

Key information of the Shatin to Central Link

(updated as at June 2019)

	Shatin to Central Link
<i>Length of the rail line</i>	17 km
<i>Estimated construction cost</i>	\$79.8 billion (in MOD prices)
<i>The MTR Corporation Limited's latest estimated construction cost</i>	\$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 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>	2012
<i>Original target commissioning dates</i>	Tai Wai to Hung Hom Section: December 2018 Hung Hom to Admiralty Section: December 2020
<i>Target commissioning date</i>	Tai Wai to Hung Hom Section: need to be further reviewed due to the series of incidents at the Hung Hom Station Extension Hung Hom to Admiralty Section: 2021