

ITEM FOR FINANCE COMMITTEE

HEAD 45 – FIRE SERVICES DEPARTMENT Subhead 603 Plant, vehicle and equipment

Members are invited to approve a new commitment of \$53,334,000 for replacement of three existing and procurement of one additional Turntable Ladders.

PROBLEM

Three of the existing 52-metre Turntable Ladders (TLs) (fleet numbers F15, F282 and F283) of the Fire Services Department (FSD) have exceeded their normal serviceable life. There is also a need to cope with the substantial increase in the demand for fire-fighting and rescue services in the Kowloon South Division.

PROPOSAL

2. The Director of Fire Services, with the support of the Secretary for Security, proposes to replace three existing and procure one additional TLs to maintain the Department's fire-fighting and rescue capability for high-rise buildings.

JUSTIFICATION

Three TLs proposed to be replaced

3. Currently, TLs F15, F282 and F283 are deployed at Kwun Tong Fire Station, Tuen Mun Fire Station and Mong Kok Fire Station respectively for frontline operation. FSD proposes to replace them, on the following grounds –

/(a)

(a) *Expiry of normal serviceable life*

FSD advises that the normal serviceable life of a TL is about 12 years. These three existing 52-metre TLs proposed to be replaced have been in service since 2000. If they are to remain in service for an unduly long period of time beyond their normal serviceable life, the frontline fire-fighting and rescue operation would be adversely affected. According to the inspection and assessment of FSD on the three TLs, those vehicles could remain in service until the commissioning of new vehicles in 2016. However, to ensure the timely completion of the construction, delivery and testing of the three replacement TLs, FSD needs to commence the tendering procedures in mid-2013 (see paragraph 15 below).

(b) *Extensive and costly repair*

The major parts such as engine, gearbox and electrical controlling device of the three existing TLs are ageing. These TLs need more frequent repairs to keep them in good operating conditions, hence increasing the maintenance cost and rendering their maintenance not cost effective. The average annual maintenance cost of each of the three TLs proposed to be replaced was about \$160,000 in 2012, which is substantially higher than the average annual maintenance cost of \$50,000 per TL in the fleet.

One additional TL proposed to be procured

4. To ensure that the fire-fighting and rescue capabilities for high-rise buildings of the Kowloon South Division¹ are sufficient and commensurate with the risk assessment result on the concerned areas, FSD proposes to procure one additional TL on the following grounds –

(a) *Substantial increase in fire calls in Kowloon South*

In the past five years, the number of fire calls in the Kowloon South Division increased by 16.7% from 3 299 calls in 2008 to 3 849 calls in 2012, which is higher than the respective growth rates of the Kowloon Command and the territory of 7.5% and 6% in the same period. It is evident that there has been a substantial increase in the demand for fire-fighting and rescue services in the Kowloon South Division. With further developments in the area (see paragraph 4(b)

/below

¹ Kowloon South Division covers the Tsim Sha Tsui, Yau Ma Tei and Hung Hom areas. It has four fire stations, including Tsim Sha Tsui Fire Station, Tsim Tung Fire Station, Yau Ma Tei Fire Station and Hung Hom Fire Station. Among these four fire stations, only Tsim Sha Tsui Fire Station, located on Canton Road (near Austin Road), has a 55-metre TL. The other three fire stations do not have TL.

below), FSD anticipates that the fire service demand would continue to increase. Therefore, it is necessary to enhance the fire-fighting and rescue capabilities in the Kowloon South Division.

(b) *Increasing number of high-rise buildings and premises with special fire risk*

In the past five years, more than 50 high-rise buildings, including hotels, residential buildings and large-scale shopping centres have been built in the Kowloon South area covering Tsim Sha Tsui, Yau Ma Tei and Hung Hom. With the anticipated completion of major developments such as West Kowloon Cultural District and Guangzhou-Shenzhen-Hong Kong Express Rail Link terminus in the near future, the fire risk of the area is expected to increase. FSD considers it necessary to procure one additional TL for the Kowloon South Division to enhance its fire-fighting and rescue capabilities.

Taking into account the fact that most of the premises with special risk (e.g. hotels and large-scale performance venues) in the Kowloon South area are located in Tsim Sha Tsui and Tsim Sha Tsui East, the locations of TLs in other operational divisions of Kowloon, the availability of parking spaces of individual fire stations² as well as the traffic conditions of the urban area, FSD plans to deploy the additional TL to Tsim Tung Fire Station, which would best meet the operational needs of the Division and achieve operational efficiency.

Functions/features of the TLs proposed to be procured

5. FSD proposes to procure a total of four 55-metre TLs, comprising three replacement and one additional TLs, with better fire-fighting and rescue capabilities than the existing 52-metre TLs. The major new features or improved functions are as follows –

- (a) the maximum rescue height will increase from 52 to 55 metres, enabling the TLs to reach a higher place for rescue operation;
- (b) a CCTV system will be installed at the rescue cage. This can facilitate the ladder operator to position the rescue cage more accurately and safely for operation; and
- (c) a portable electricity generator will be provided to provide electricity for operation of the ladder in case of engine breakdown.

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² Both Yau Ma Tei Fire Station and Hung Hom Fire Station do not have extra parking space for accommodating the new TL.

6. For better use of resources, upon commissioning of the new TLs, FSD will assess the conditions of the three existing TLs and consider redeploying them for training or as operational reserve vehicles.

FINANCIAL IMPLICATIONS

Non-recurrent Expenditure

7. The total non-recurrent cost of procuring four new 55-metre TLs is estimated to be \$53,334,000. A detailed breakdown is as follows –

Item		Unit cost (\$'000)	Total cost (\$'000)
(a)	Four basic vehicles	10,905	43,620
(b)	Fitting-out, accessories, factory acceptance test and operation training, etc.	1,091	4,364
(c)	Fire-fighting equipment (e.g. fire-fighting hose and rescue rope) and communication equipment required on board (only applicable to the additional TL for Tsim Tung Fire Station)	500	500
(d)	Contingency		
	- three TLs for replacing existing vehicles	1,200	3,600
	- the additional TL	1,250	1,250
		13,196	
		(TL for replacing existing vehicle)	
		13,746	
		(the additional TL)	
Total:			53,334

8. On paragraph 7(a) above, the estimate of \$43,620,000 is for procuring the basic vehicles which will be assembled units comprising the chassis, ladder, cabin and other components.

9. On paragraph 7(b) above, the estimate of \$4,364,000 is for the expenses on locker fitting-out works, training, factory acceptance test and initial spare parts, etc.

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10. On paragraph 7(c) above, the estimate of \$500,000 is for procuring the fire-fighting equipment and communication system for the additional TL for Tsim Tung Fire Station. As the relevant equipment and system on the three existing TLs will be transferred to the new TLs upon their commissioning, the three replacement TLs do not require the equipment and system and hence, will not incur the relevant expenses.

11. On paragraph 7(d) above, the estimates of \$3,600,000 and \$1,250,000 represent the contingency for the replacement of three existing TLs (roughly 10% of the items 7(a) and 7(b) above) and procurement of one additional TL for Tsim Tung Fire Station (roughly 10% of items 7(a) to 7(c) above) respectively.

12. The estimated cash flow requirement is as follows –

Year	\$'000
2013 – 14	4,124
2015 – 16	49,210
Total :	53,334

Recurrent Expenditure

13. FSD estimates that the annual recurrent cost (including maintenance and fuel cost) of each new vehicle will be roughly the same as the current average of \$70,000 per TL (including maintenance cost of \$50,000 and fuel cost of \$20,000) in the fleet.

14. FSD will deploy existing manpower to operate three new TLs and will not require additional manpower. As for the operation of the additional TL for Tsim Tung Fire Station, FSD would require 14 posts³ of fire service personnel with an estimated annual expenditure of about \$4,480,000. Such requirements will be reflected in the Estimates of the relevant years.

IMPLEMENTATION PLAN

15. Subject to the approval of the Finance Committee, we plan to procure the four new TLs according to the following schedule –

/Activity

³ Each TL requires four fire service personnel to operate. FSD requires 14 additional posts in accordance with the duty shift arrangement.

Activity	Target completion date
(a) Invitation of tender ⁴	June 2013
(b) Evaluation of tender and award of contract	September 2013
(c) Construction, modification and delivery of sample vehicle	March 2015
(d) Testing and acceptance, training, minor modification and trial use of sample vehicle	June 2015
(e) Construction, modification and delivery of remaining vehicles	December 2015
(f) Testing and acceptance, training, minor modification and trial use of remaining vehicles	March 2016
(g) Commissioning of the vehicles	March 2016

PUBLIC CONSULTATION

16. We consulted the Legislative Council Panel on Security on 5 April 2013. Members supported the proposal.

BACKGROUND

17. At present, FSD has 24 TLs including 15 37-metre, six 52-metre and three 55-metre TLs. Their main functions are to carry out fire-fighting and rescue operations at high level and they can be used as surveillance towers.

Security Bureau
May 2013

⁴ As the specifications of the proposed TLs are broadly the same as that of the current 55-metre TL, the preparation of relevant tender specifications has already been completed.