Hong Kong Franchised Public Bus Operations

The Kowloon Motor Bus Company (1933) Limited ("KMB") and Long Win Bus Company Limited ("LWB") are leading franchised public bus operators providing world-class, environment-friendly, value-for-money bus services in Kowloon, the New Territories and Hong Kong Island. The service philosophy underpinning our operations focuses on safety, reliability, comfort and convenience.

THE KOWLOON MOTOR BUS COMPANY (1933) LIMITED ("KMB")

KMB, the largest franchised bus operator in Hong Kong, is the wholly-owned subsidiary of TIH. Each day, KMB serves approximately 2.65 million passenger-trips with its fleet of about 3,880 buses running on some 370 routes. With a workforce of around 12,000 employees, including some 8,600 bus captains, KMB ensures that its customers receive service of the highest order.

OPERATIONAL EXCELLENCE

With more than eight decades' experience providing franchised public bus services in Hong Kong, KMB maintains its industry leadership through the adoption of the highest operational and service standards.

In 1999, KMB became the first public bus company – and thus far, the only one – and the fourth organisation in Hong Kong to obtain ISO 9001:1994 certification on a corporate-wide basis for its quality management systems. In 2002, it was awarded ISO 9001:2000 certification for its quality management systems. The following year, Lai Chi Kok and Sha Tin Depots received ISO 14001:1996 Environmental System certification, making KMB the only franchised bus company in Hong Kong with both ISO 9001 and ISO 14001 accreditation. By 2005, the two depots had been upgraded to ISO 14001:2004 certification, and two years later KMB's four major operating depots at Lai Chi Kok, Sha Tin, Kowloon Bay and Tuen Mun received Green Mark Certification from the Q-Mark Council of the Federation of Hong Kong Industries. In 2009, KMB received ISO 9001:2008 certification from the Hong Kong Quality Assurance Agency ("HKQAA") on completion of upgrading audits in four certification areas: KMB Headquarters; Operations Development Department and the four operating depots; the Overhaul Centre; and the Unit Overhaul Depot. In 2012, KMB became the first franchised bus company in Hong Kong to receive Occupational Health and Safety Assessment Series ("OHSAS") 18001:2007 certification from the HKQAA in recognition of its implementation of effective risk management systems in bus operations and maintenance activities.

With more than eight decades' experience providing franchised public bus services in Hong Kong, KMB maintains its industry leadership through the adoption of the highest operational and service standards.

Committed to providing passengers with safe and reliable bus services, we have established mechanical reliability and operational capability as the key benchmarks of our public bus services.

PERFORMANCE PLEDGE

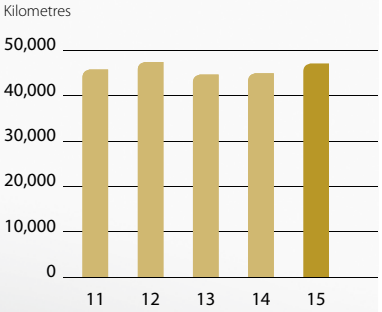
Committed to providing passengers with safe and reliable bus services, we have established mechanical reliability and operational capability as the key benchmarks of our public bus services.

Mechanical reliability refers to the average number of kilometres a bus operates before it experiences one mechanical breakdown on the road with passengers on board. In 2015, the mechanical reliability of KMB's fleet was 47,116 km : 1.

Operational capability refers to the ratio of actual to scheduled departures in the peak direction during the peak hours of 7:00 a.m. to 9:00 a.m. across the entire bus network. In 2015, we achieved an operational capability of 99.74%.

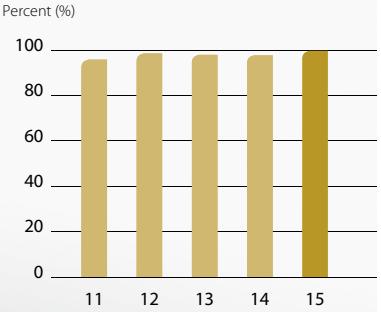
Buses are the preferred choice of discerning residents throughout Hong Kong

Mechanical reliability – KMB



Average number of kilometres operated before a bus has one mechanical breakdown while passengers are on board

Operational capability – KMB



Percentage of actual number of bus departures to scheduled number of bus departures during morning peak hours (7am-9am) in the peak direction

BUS FLEET AND FLEET UPGRADE

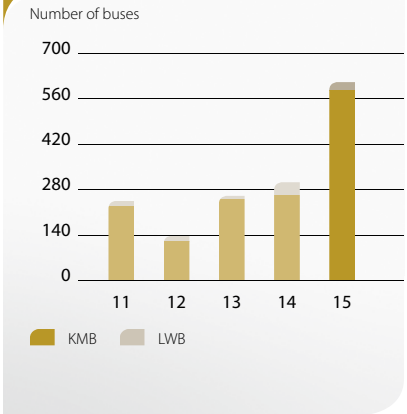
KMB is committed to constant innovation as it modernises its bus fleet. Since 1997, when KMB, in collaboration with its bus suppliers, introduced the world's first super-low floor, wheelchair accessible double-deck buses to Hong Kong, different generations of technologically advanced and environment-friendly buses, with a range of innovative features, including the On-board Electronic Bus Stop Announcement System, the Octopus Smart Card System and Hong Kong's first "Multi-media On-board" platform, have been added to KMB's fleet.

We are committed to building a better environment by investing in environment-friendly buses that meet the stringent exhaust emission standards set by the European Council of Environmental Ministers. In 2009, we demonstrated our leadership in environment-friendly bus services by becoming the first public bus company in Asia to introduce the Euro V double-deck bus at a time when legislation required only Euro IV emission standards for newly-registered diesel vehicles. To further improve fleet environmental performance, KMB has collaborated with a British bus manufacturer to co-develop the new generation of Euro V double-deck E500 buses, which came into service in Hong Kong in May 2013. The new generation E500 bus has a lighter build, which reduces fuel consumption and results in 10% lower carbon emissions, and comes equipped with new driveline technology and a more energy-efficient air-conditioning system. Its chassis is compatible with future Euro VI engine development and hybrid technology.

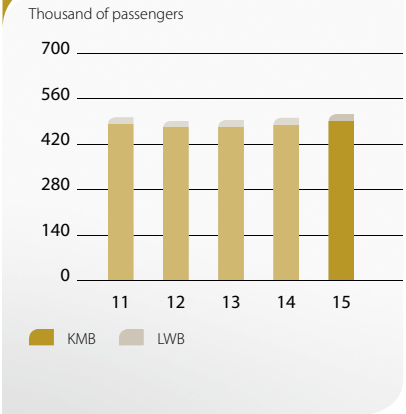
In 2015, KMB continued to make substantial investments in new buses with the latest safety, environmental and design features. A total of 586 new super-low floor air-conditioned buses, consisting of 583 Euro V double-deck buses and three Government-sponsored supercapacitor air-conditioned 12-metre single-deck buses ("gBuses"), were added to the KMB fleet.

Since August 2014, when KMB introduced four 12.8-metre double deck buses to run on Route 73X, an additional 150 12.8-metre buses have been ordered, with the first batch commencing service in November

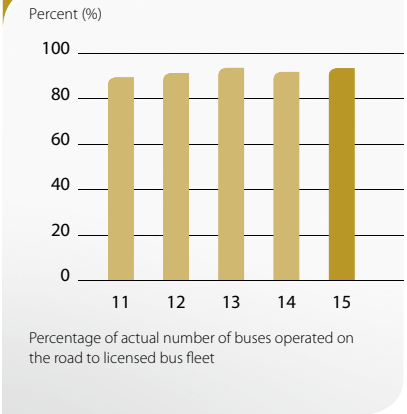
Number of new buses introduced to the fleet



Total fleet capacity at 31 December



Fleet utilisation – KMB



Percentage of actual number of buses operated on the road to licensed bus fleet

KMB's modern bus fleet is ready to serve our customers every day

2015. The 12.8-metre bus is based on the ADL E500 Turbo 12-metre bus, with an additional 0.8 metre added to the mid-body length to provide space for nine more passengers, bringing the capacity to 146. The 12.8-metre buses exhibit the same fuel efficiency and reliability that have been achieved by the 12-metre version. KMB will continue to further expand its fleet of 12.8-metre buses in 2016 to provide increased passenger capacity on routes with high demand. As at the end of 2015, 24 12.8-metre buses had been put into service.

As at 31 December 2015, KMB operated a total of 3,889 licensed air-conditioned buses, comprising 3,717 double-deck buses and 172 single-deck buses.

In addition, 471 air-conditioned double-deck Euro V buses and two air-conditioned double-deck Euro VI buses and five Government-sponsored supercapacitor single-deck buses were on order for delivery in 2016.

KMB's bus fleet	Air-conditioned double-deck buses	Air-conditioned single-deck buses	Total number of buses
As at 1 January 2015	3,682	173	**3,855**
Additions during year	598	3	**601**
Disposals during year	(563)	(4)	**(567)**
As at 31 December 2015	3,717	172	**3,889**

BUS SERVICE NETWORK

At the end of 2015, KMB operated a total of 377 bus routes. To improve the efficiency and competitiveness of its bus network, KMB constantly reviews the viability of its bus routes with respect to the changing operating environment, taking into account factors such as railway expansion, population intake and redistribution, and the building of new highways. Matching resource allocation to the new demand patterns not only safeguards long term sustainability; it also enables expansion into new growth markets, such as routes serving boundary-crossing passengers. Strategic bus network reorganisation therefore remains central to KMB's response to ongoing changes in market conditions.

In 2015, we submitted 107 route reorganisation proposals to the Government, 60 of which were put forward for consultation with District Councils, of which 43 were agreed in principle by the relevant District Councils (including 26 that were implemented in 2015 and 17 that will be implemented later).

These route reorganisation packages enhance the synergy of the entire route network and offer the following benefits to the travelling public by:

- eliminating wasteful duplication between different modes of transport and release resources for redeployment in new growth areas;
- straightening routes that are unduly circuitous;
- introducing new express routes that utilise the new highway infrastructure;
- offering greater connectivity between routes by using Bus-Bus Interchanges on the 'Hub and Spoke' principle; and
- simplifying the network of "historic" bus routes to improve their effectiveness.

With the support of the HKSAR Government, large-scale route reorganisation exercises were successfully implemented in Sha Tin, Tai Po, Yuen Long / Tin Shui Wai and Tsing Yi in 2014 and 2015. The opening of the Tsing Sha Highway Bus Interchange in January 2015 means that passengers travelling from the Eastern New Territories to West Kowloon can choose from 11 bus routes to reach their destinations, at various discount combinations. Traffic congestion at peak periods can be relieved, as passengers have an alternative to the roads using the Lion Rock Tunnel and the Shing Mun Tunnels. New bus services have also been introduced for new development areas such as Shui Chuen O, Wu Kai Sha, Pak Shek Kok and Kai Tak. Furthur service enhancements and the introduction of new routes have been planned for these areas and for other new development areas such as Anderson Road Development Area and Hung Shui Kiu.

In 2015, two competitive tendering exercises for new bus routes were finalised by the HKSAR Government, and KMB was awarded both tenders. As a result of the first tender, Routes 290 and 290A were introduced in March 2015 to operate between Tseung Kwan O and Tsuen Wan. The call for tenders for the route package for Anderson Road Development Area was made in mid-2015 and KMB was notified that it had been awarded the tender in November 2015. Services on the routes will commence in phases from the first quarter of 2016 in line with the population intake.

The opening of the West Island Line in late 2014 has had a significant impact on the ridership of KMB's cross-harbour routes serving Western District. In response to the passenger shift from road based public transport to rail, six buses were redeployed to other routes. With new railway lines set to commence service in 2016 and 2017, namely the Kwun Tong Line Extension and the South Island Line (East), timely route reorganisation needs to be implemented with the concerted effort of all stakeholders to enable better use of resources. This will ensure improved connectivity and a sustainable and financially viable bus network that plays its part in easing traffic congestion and improving environmental management through reduced roadside emissions.

The following table summarises the bus network reorganisation carried out in 2015:

	Proposed		Implemented	
	Number of proposals	**Number of buses to be saved**	**Number of proposals**	**Number of buses saved**
Route reorganisation	107	17	26	9
Service frequency reduction	58	6	51	6
Total	**165**	**23**	**77**	**15[#]**

[#] Due to the population intake in new development areas such as Shui Chuen O, 12 of the vehicles saved were redeployed to other routes with growing demand.

Building on the route reorganisation that has already been done, we have drafted proposals for the further fine-tuning of our network for formal consultation in 2016 with the aim of achieving more efficient fleet deployment for the communities we serve.

BUS SERVICE RELIABILITY

Deteriorating traffic conditions have been adversely affecting the reliability of our bus services over recent years with the result that many KMB routes are recording an actual journey time greater than that published in the Government gazette.

To cope with the traffic conditions, we have amended the timetable of some of our routes based on Best Practice Scheduling, according to which bus services are better aligned to meet actual passenger demand and operate with sufficient journey time to counter increased traffic congestion, and the departures outside peak hours are generally made at fixed and regular intervals. As part of our efforts to ensure that buses depart from the terminus on time, we rescheduled around 100 routes with Best Practice Scheduling in 2015.

We remain resolute in our commitment to work with the Government to ease traffic congestion and to strengthen

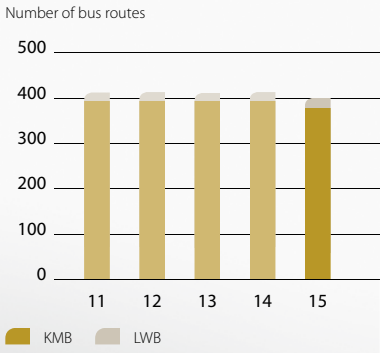
Busy urban interchange connects people across the territory

enforcement-related problems. We will continue to press for sustainable solutions, including the adoption of bus priority measures such as traffic signal priority, extended hours for bus-only lanes and the adoption of a Bus Rapid Transit system on the lines of those implemented in a number of the world's leading cities.

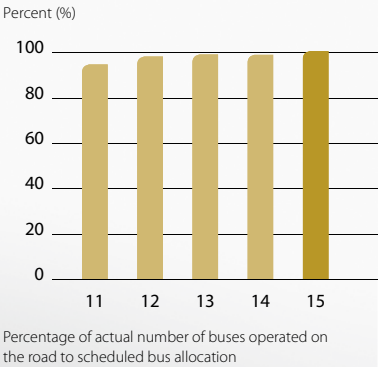
DEPOTS

Routine maintenance and repair services are provided by KMB's four major bus depots at Kowloon Bay, Sha Tin, Lai Chi Kok and Tuen Mun. 10 smaller depots supply parking and minor maintenance services, while major overhaul services are provided by the KMB Overhaul Centre in Tuen Mun. Depot facilities are continually upgraded to ensure consistent service quality and a high level of productivity.

Number of bus routes operated at 31 December



Achievement of schedule – KMB



Percentage of actual number of buses operated on the road to scheduled bus allocation

Major Depots Serving KMB and LWB Buses

Depot	Areas served/ main purpose of depot	Gross floor area (square feet)	Number of buses served as at 31 December 2015	Year in which operations commenced	Remarks
KMB depots:					
Kowloon Bay Depot	East Kowloon	768,038	1,068	1990	The depot land was acquired at market price from the Government in 1986 under a Private Treaty Grant
Sha Tin Depot	North and East New Territories	720,005	1,112	1988	The depot land was acquired at public auction in 1984
Lai Chi Kok Depot	South and West Kowloon	648,946	861	2002	The depot land has been leased from the Government on a short term tenancy[#]
Tuen Mun Depot	West New Territories	148,961	849	1979	The depot land was acquired at public auction in 1974
KMB Overhaul Centre	Bus overhaul	380,915	N/A	1983	The depot land was acquired at market price from the Government in 1979 under a Private Treaty Grant
LWB depot:					
Siu Ho Wan Depot	Lantau Island	82,422	190	1998	The depot land has been leased from the Government on a short term tenancy[#]
Total		**2,749,287**	**4,080**		

[#] Under the short term tenancy agreements, rentals at market rates are payable to the HKSAR Government.

APPLICATION OF INFORMATION TECHNOLOGY

Information technology is used across the company to improve efficiency and communications. Operations across offices, bus depots, bus termini and customer service centres are integrated via a high-speed network that connects 1,950 personal computers and 128 servers. A total of 48 computer applications help maintain a high standard of customer service and strengthen day-to-day bus operations, as well as facilitating human resources management and financial management. The following are some of the key computer systems being used by the company:

Bus Estimated Time of Arrival ("ETA")

At the end of 2015, the in-house developed ETA service had been applied to all solely-operated KMB and LWB routes, making them the first two bus companies in Hong Kong to provide such a service across the entire fleet. Passengers are able to obtain bus arrival information via display panels at bus termini and bus stops, as well as the KMB/LWB smartphone app and the KMB and LMB websites.

Integrated Bus Service Information Display System ("IBSID")

IBSID panels have been installed at 38 bus termini to provide passengers with information on bus route destinations, departure times, fares and major traffic disruptions.

Electronic Bus Stop Announcement System ("BSAS")

The entire KMB fleet is equipped with the on-board BSAS, which gives passengers the name of the next stop in Cantonese, English and Putonghua, backed up by the same information on LED displays. The system also broadcasts safety reminders and bus service messages.

Terminus Management System ("TER")

TER supports daily bus operations at 186 termini by displaying the next departure time and any special instructions when bus captains present their personalised Octopus card on reporting for duty.

Traffic Operations Management System ("TOM")

TOM generates duty assignment for more than 8,000 bus captains in accordance with the working guidelines set by the HKSAR Government. It also streamlines the duty dispatch process by accurately recording the bus parking location.

Bus On-board Monitoring System ("BOM")

BOM reports on the driving performance of bus captains for analysis by depots and departments with the aim of raising standards of driving with a special focus on safety and passenger comfort.

Information technology is used across the company to improve efficiency and communications.

Hong Kong Franchised Public Bus Operations

LWB has been operating franchised public bus services between the New Territories and Hong Kong International Airport and North Lantau since 1 June 1997. The areas currently served by LWB's network include the Airport, Tung Chung, Hong Kong Disneyland, the Ngong Ping 360 cable car and AsiaWorld-Expo.

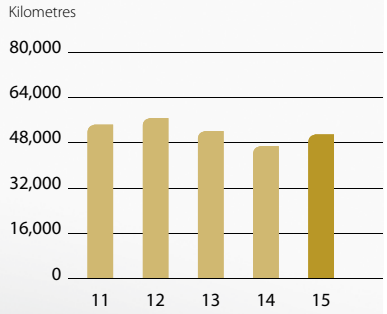
LONG WIN BUS COMPANY LIMITED ("LWB")

LWB's ridership continued to grow in 2015, boosted by the increasing number of travellers using Hong Kong International Airport and the developments established or under construction in the Airport area and Tung Chung. With its wide network coverage, LWB remains well placed to capture the business potential arising from business and leisure travellers, from those who work at the Airport and from those requiring transport to and from the construction sites for the Hong Kong-Zhuhai-Macao Bridge and the housing projects in Tung Chung.

PERFORMANCE ASSURANCE

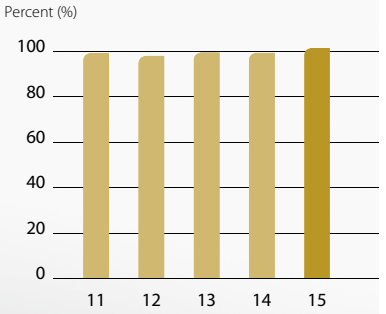
LWB constantly reviews its bus services and maintenance regime to ensure that safety and efficiency are maintained at the highest standards across its bus fleet. LWB measures its operational performance by reference to two key performance indicators, namely, mechanical reliability and operational capability. Mechanical reliability is the average number of kilometres a bus operates before it experiences one mechanical breakdown on the road with passengers on board. Operational capability is the ratio of actual to scheduled departures in the peak direction in the peak hours of 7:00 a.m. to 9:00 a.m. across the whole bus network. In 2015, LWB achieved 50,869 km : 1 in mechanical reliability and 101.67% in operational capability.

Mechanical reliability – LWB



Average number of kilometres operated before a bus has one mechanical breakdown while passengers are on board

Operational capability – LWB



Percentage of actual number of bus departures to scheduled number of bus departures during morning peak hours (7am-9am) in the peak direction

LWB obtained ISO 9001:2008 quality management systems certification in November 2012. Having successfully passed the certification renewal audit in 2015, LWB's certification was extended for 3 years up to September 2018, demonstrating its dedication to excellence in bus service provision.

BUS FLEET AND FLEET UPGRADE

In 2015, in order to replace older buses and meet increasing passenger demand and network growth while providing better environmental protection, LWB continued to strengthen the carrying capacity of its fleet by introducing 26 new Euro V super-low floor air-conditioned double-deck buses. These new buses, with improved design features such as more spacious leg-room, reclining seats and leather-touch seat covers, have been deployed to operate on Airbus routes. They also incorporate advanced features such as the Bus Telematics System, which provides enhanced functions for fleet management, and on-board CCTV systems, which monitor passengers' luggage and improve security.

At 31 December 2015, LWB operated 190 air-conditioned super-low floor wheelchair accessible double-deck buses, all equipped with the electronic bus stop announcement system.

LWB's services link the New Territories with the Airport and North Lantau

LWB's air-conditioned double-deck bus fleet	Total number of buses
As at 1 January 2015	**179**
Additions during year	**26**
Disposals during year	**(15)**
As at 31 December 2015	**190**

In addition, it had on order 60 Euro V super-low floor air-conditioned double-deck buses for delivery in 2016. The overwhelming majority of these buses are premium design buses which are scheduled to operate on existing or new Airbus routes. To meet increased passenger demand, 39 of these buses are 12.8 metres in length, offering a higher carrying capacity.

BUS SERVICE NETWORK

At the end of 2015, LWB operated 23 routes. To cater for passenger growth and increased service expectations, eight buses were added on Routes A33, A43, E33/E33P, E34A, E34B and E42. In response to passenger requests for premium bus services, LWB introduced two new Airbus routes A36 and A47 linking the Airport and Hung Shui Kiu/ Yuen Long and Tai Po respectively. Supplementary Airbus services of Route A33 and A43, named Routes A33P and A43P, were introduced in September 2015 to expand the service network of LWB to Tuen Mun North and San Tin Public Transport Interchange (Lok Ma Chau) respectively.

To satisfy the needs of the increasing number of air passengers arriving late at night and Airport staff working late or early morning shifts, LWB strengthened the service of Overnight Routes N30 and N42P, with departures being added in June and July 2015 respectively.

To provide a more direct service for air passengers arriving after midnight, two new Overnight Airbus routes, NA33 and NA34, were introduced in July 2015, serving Tuen Mun and Yuen Long/Tin Shui Wai respectively. With their direct routing and extended operating hours, these two services have met with a positive response from passengers.

LWB is committed to maintaining high standards of network coverage and service for all its passengers, while exploring ways to meet increasing travel demand in the tourism and leisure sectors. It will continue to operate according to its mission of providing the most efficient, direct and user-friendly bus services for its passengers.

DEPOT

LWB's depot at Siu Ho Wan provides daily bus maintenance, refuelling, bus washing and parking for its fleet. The depot is equipped with a waste water treatment system to ensure that the quality of waste water complies with the statutory requirements before being discharged into the public drainage system.

SAFETY AND CUSTOMER SERVICE

Regular and thorough inspections of LWB's buses are undertaken to make sure that they are maintained to the highest operational standards. Driving instructors carefully monitor bus captains' driving performance and customer service delivery, while safety briefings are held periodically and safety reminders are circulated to all bus captains. In addition, LWB runs quality campaigns to recognise and reward good performance.

To provide passengers with real-time bus trip information that helps them with their journey planning, an app-based estimated time of arrival function is available on all LWB routes with regular services, along with other key bus service information. Estimated time of arrival information is also provided on LWB's website, which continues to provide passengers with convenient access to route information, and on display panels at selected bus stops.

ENVIRONMENTAL PROTECTION

LWB is fully alert to the importance of environment protection and continues to invest in environment-friendly buses that meet the stringent emission standards of the European Council of Environmental Ministers. In 2015, LWB introduced 26 new Euro V buses to its fleet, bringing the proportion of Euro V buses up to 57%. In addition, it has retrofitted Diesel Particulate Filters on all its Euro II and Euro III buses to reduce the emission of particulate matter. To further improve air quality, Near Zero Sulphur Diesel ("NZSD") has been used fleet-wide since 2010.

The electrostatic air filtration function in the air-conditioning system of LWB buses significantly improves the air quality in the bus compartment, while the Eco-driveline system reduces both fuel consumption and exhaust emissions.

To improve roadside air quality, the HKSAR Government has set aside HK$180 million for Hong Kong's franchised bus operators, including LWB, to purchase 36 electric buses and trial them on different routes to evaluate their performance in different operating environments. Under this scheme, LWB received funding to procure four single-deck electric buses. The procuring arrangement for three of these buses has been approved by the HKSAR Government, while the tendering process for the remaining bus is under way.

Comfortable and speedy Airport services are the hallmark of LWB