



Ministry of Land,
Infrastructure and Transport

Electric double-decker metropolitan bus' to be in operation in Suwon from May 9th

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- 7 electric double-decker buses will be operating in 2 Metropolitan bus routes (7780, 7800) –

- **Metropolitan Transport Commission** (Chairman Baek Seung-Geun hereinafter referred to as Metropolitan Transport Commission) of **the Ministry of Land, Infrastructure and Transport** (Minister Noh Hyeong-Ouk, MOLIT) announced that **7 'low-floor electric double-decker metropolitan buses'** (hereinafter referred to as electric double-decker metropolitan buses) will be installed in **the Suwon bus routes from May 9th.**
- **Three buses** will be introduced to bus **no. 7780**, which runs from Gwonseon-gu to Sadang Station through Paldal-gu and Jangan-gu, and **four buses** to bus **no. 7800**, which runs from Gwonseon-gu to Sadang Station through Jangan-gu. **These will be the first 'electric double-decker metropolitan buses' to go in operation in Suwon.**
- The **'electric double-decker metropolitan bus'**, which will start operation,

was jointly developed (2019) by **MOLIT and Transport and Hyundai Motor Company** to expand the seat supply and reduce greenhouse gas emissions.

< Exterior of electric double-decker metropolitan bus >

		
<p>M bus (metropolitan express bus)</p>	<p>Regular Metropolitan Bus (direct seat bus)</p>	<p>M bus (metropolitan express bus)</p>

- **The total number of seats is 70** (11 seats on the 1st floor, 59 seats on the 2nd floor), which is about **60% more than that of the existing bus** (44 seats). It was developed as a **low-floor bus** which can have 2 wheelchairs on it **in order to guarantee the mobility right of the people who have difficulties in using transportations, such as the disabled.**

< Convenience facilities for handicapped passengers in the electric double-decker metropolitan bus >

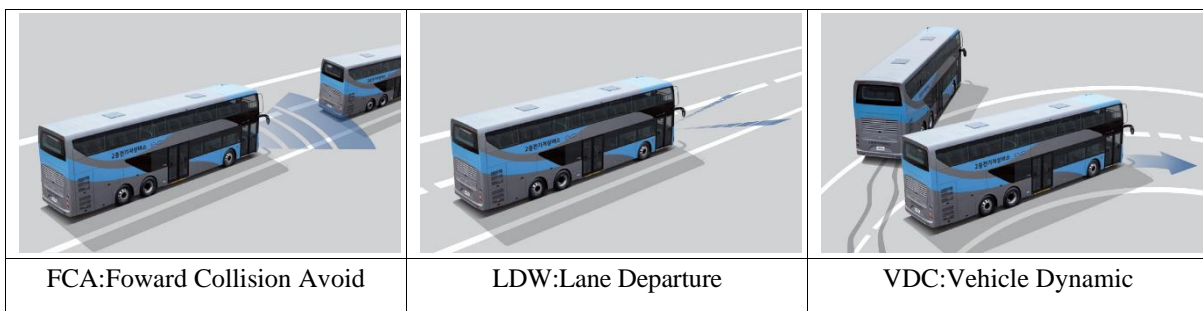
		
<p>Sliding ramp</p>	<p>Room for wheelchair (1st floor)</p>	<p>Room for stroller (1st floor)</p>

< Interior of the electric double-decker metropolitan bus >



- Also, since it uses an electric motor, it creates **almost no noise and vibration**, and various **driving safety devices** such as forward collision prevention (FCA) and lane departure warning (LDW) are installed to provide comfortable and safe metropolitan transportation service to passengers.

< Key safety devices of the electric double-decker metropolitan bus >



- As there is **no emission of harmful substances** such as carbon monoxide, **the atmosphere of the central city will likely be improved. The increase in transport volume per vehicle** has been shown to have a great effect in alleviating **in-vehicle congestion and road congestion** during commuting hours.

* Compared to the conventional buses, ‘electric double-decker metropolitan buses’ reduce carbon emissions by more than 90 tons per year, increase the average daily number of passengers on the introduced route by 20% (1,250→1,501), and reduce the average

congestion level by 13%p (57%→44%)

- **Metropolitan Transport Commission** has been promoting the “**project for supplying electric double-decker metropolitan buses**” since 2020 to **alleviate extreme congestion on metropolitan bus routes during commuting hours**. Currently, 25 ‘**electric double-decker metropolitan buses**’ are running on 10 routes.

< **Status on electric double-decker metropolitan buses (2020~2021)** >

District	Route (10 in total)	Transportation company	Starting point	Last stop	Number of buses (25 in total)	Operation starting date
Incheon-si	M6450	Seonjin Transport	Incheon Songdo	Samsung Station	2	'21.04
Pocheon-si	3006	Pocheon Transport	Haseongbuk-ri	Jamsil Station	3	'21.10
Gimpo-si	M6427	Gimpo Transport	Gimpo (Yanggok)	Gangnam Station	6	'21.10
Namyangju-si	M2323	Gyeonggi Express	Namyangju (Hopyeong-dong)	Jamsil Station	2	'21.12
	M2352	Daewon Transport	Namyangju (Pyeongnae-dong)	Jamsil Station	2	'21.12
Yongin-si	M4101	Gyeonggi Express	Yongin (Suji)	Seoul Station	3	'21.11
Hwaseong-si	M4108	Daewon Express	Dongtan 1	Seoul Station	2	'21.11
	M4403	Daewon Express	Dongtan 1	Gangnam Station	3	'21.11
Uijeongbu-si	G6000	Pyeongan Transport	Shindong Elementary School	Jamsil Station	1	'21.12
	G6100	Pyeongan Transport	Gyeonggi Provincial Government North Office	Jamsil Station	1	'21.12

- In addition, the plan is to introduce ‘**electric double-decker metropolitan buses**’ for **the first time in a regional metropolitan areas (Daejeon area)**, **increasing the number to around 60 by the end of this year**. The number will be increased to **around 300** according to the “**The Second Foundational Plan for Metropolitan Transportation.**”

< **Plan for introducing electric double-decker metropolitan bus in 2022** >

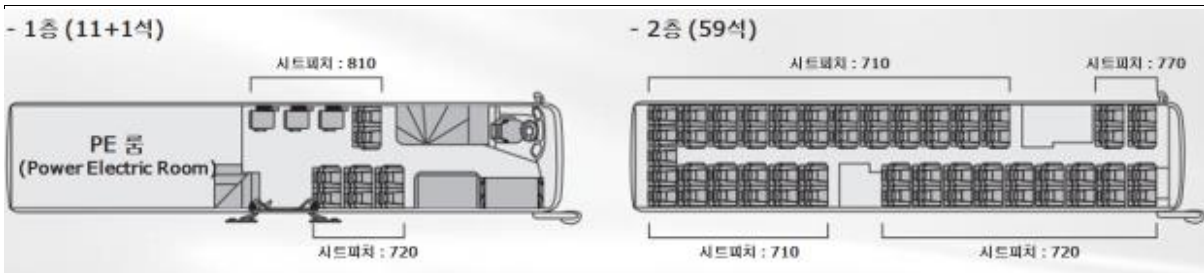
District	Routes (Total7)	Transportation Company	Starting point	Last stop	Number of buses (35 in total)	Operation starting date
Suwon	7780	Kyungjin Passenger Transportation	Neungsil Village Complex 21	Sadang Station	3	'22.05.09.
	7800	Kyungjin Passenger Transportation	Seobu Public Garage	Sadang Station	4	'22.05.09.
Hwaseong	7790	Kyungjin Passenger Transportation	The main gate of Hyeopseongdae	Sadang Station	9	'22.07(Scheduled)
	1006	Kyungjin Passenger Transportation	The University of Suwon	Gangnam Station	5	'22.07(Scheduled)
	M4403	Daewon Express	Naru Village	Gangnam Station	1	'22.07(Scheduled)
Yongin	5002	Kyoengnam Bus	Myongji University	Gangnam Station	11	'22.10(Scheduled)
Daejeon	B1	Daejeon BRT	Daejeon Station	Osong Station	2	'22.09(Scheduled)

- **Yoon Jun-Sang head of metropolitan bus department at Metropolitan Transport Commission** stated, “The electric double-decker metropolitan bus is **the only low-floor bus** that can be operated in the metropolitan bus routes. It will greatly contribute to guaranteeing **the transportation rights of mobility handicapped, such as the disabled.**”
- “We will continue to increase the number of electric double-decker metropolitan buses **to better the convenience of metropolitan buses, improve the atmosphere, and guarantee the mobility of the disabled,**” he said.

< External design of the electric double-decker metropolitan bus >



< Key specifications of the electric double-decker metropolitan >



Item	Electric double-decker bus	Item	Electric double-decker bus
Capacity (person)	71 (1 st floor 11+1, 2 nd floor 59)	Climbing height (front gate/inner gate)	340/320
Full length (mm)	12,990	Curb weight(kg)	17,630

Full width (mm)		2,490
Overall height (mm)		3,995
Wheel base (mm)		5,750+1,450
Interior height (mm)	1 st floor	1,830
	2 nd floor	1,700
Overhang (mm)	Front	2,750
	Rear	2,995
Minimum turning radius		11,530
Door (mm)	Front gate	Double swing-in
	Inner gate	Double swing-out
	Effective width (front gate/inner gate)	1,105/1,265

Total weight (kg)		22,245
Driving motor	Type	Permanent seat type wheel motor
	Capacity (kW)	240(120x2)
Battery (kWh)		384(64x6)
Charging time (minute)		72(150kWx3)
Charging port type (kW)		Combo 2 type (3)
Distance from 1 change (km)		447
Maximum speed (kph)		90
Front axis		Air suspension, independent suspension
Rear 1 axis		Air suspension, integrated axle (wheel motor drive)
Rear 2 axis		Air suspension, integrated axle, rear wheel steer