Singapore’s policies and strategies

Low carbon transport and electric mobility

Source: Singapore Land Transport Authority

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Presentation Outline

Singapore’s transport context
Vision for electric mobility
EV Road Map
Policy Timeline
Singapore’s context

Vehicle types (2018)

- Buses 2%
- Goods & Other Vehicles 17%
- Cars & Taxis 67%
- Motorcycles 14%

Goods & Other Vehicles 161,511
Total Vehicles 957,006

Goods-cum-passenger vehicles 2%
Light Goods Vehicles (LGVs) 58%
Heavy Goods Vehicles (HGVs) 17%
Very Heavy Goods Vehicles 10%
Other 12%

Average Annual Distance Travelled Per Vehicle

- Buses
- HGVs
- LGVs
- Cars
- Motorcycles

Population 5.6 million
Land Area 724 km²

Sources: LTA DataMall, URA Master Plan 2014, OpenStreetMap, Singstat.
¹ Latest data from 2014 ² Private Hire and School Buses only ³ Singstat (2019). M014541 - Gross Domestic Product At Current Market Prices, By Industry (SSIC 2015), Annual
Usual Mode of Transport 2020

Among Resident Students Travelling to School
- Other combination of MRT or Public Bus: 3.9%
- MRT/LRT Only: 13.2%
- MRT/LRT and Public Bus Only: 25.7%
- Public Bus Only: 15.0%
- Private Chartered Bus/Van Only: 2.1%
- Lorry/Pickup Only: 1.3%
- Taxi/Private Hire Car Only: 3.0%
- Car Only: 21.1%
- Motorcycle/Scooter Only: 3.4%

Among Resident Working Persons Travelling to Work
- No Transport Required*: 9.8%
- Others: 1.6%

Note: Figures may not add up due to rounding. Data exclude working persons who were overseas for more than 6 months.
* Includes working persons who usually walk to work and those who work from home (i.e., at their place of residence).
Singapore: *High-Density* City-State

**BUILT ENVIRONMENT**

~80% live in high-rise buildings

Reliance on publicly shared chargers

**EV FLEET**

EVs represent 3% of all vehicles (July 2022), growing exponentially

**ENERGY**

Most (95%) electricity generated from by natural gas
Vision for Electric Mobility

**TARGETS**

- 80% reduction in land transport emissions by 2050
- All vehicles on cleaner energy by 2040
- Electrification of public and private vehicles

**NATIONAL ELECTRIC VEHICLE CENTRE**

- Promote wider EV adoption
- EV Charging Infrastructure
- EV Regulations and Standards
- Cultivate robust EV Ecosystem

Source: Singapore Land Transport Authority
NO NEW DIESEL CAR AND TAXI REGISTRATIONS

FROM 2025

CLEANER ENERGY MODELS FOR ALL NEW CAR AND TAXI REGISTRATIONS

FROM 2030

Source: Singapore Land Transport Authority
Electric buses for public transport

- All of Singapore’s 5,800 public buses to run on cleaner energy (electric and hybrid) by 2040

- Some are charged using overhead pantograph chargers that take 30 minutes to fully charge a bus that has a range of 130 kilometres per charge

- Electric buses have 50% less emissions, 50% fuel cost savings per kilometer, are 3 decibels quieter than diesel buses
Overview: EV Road Map

- 60,000 EV Charging Points
- Electrification of half our public bus and taxi fleet

2030

Reducing peak land transport emissions By 80%

2050

- Every HDB Town to be An EV-Ready Town
- 400 diesel buses will be replaced with electric buses (60 buses have already been deployed as of end 2021)

2025

100% of vehicles to run on cleaner energy

2040

Source: Singapore Land Transport Authority
VEHICLE TAXES AND INCENTIVES

Reduction in road tax for electric cars from 1 January 2021
Narrows the upfront cost gap with ICE cars
Up to $45,000 reduction

REGULATIONS AND STANDARDS

TR 25 standards for EV charging (includes low- and high-powered charging, battery swapping for motorcycles)

Source: Singapore Land Transport Authority
EV Road Map

EV CHARGER DEPLOYMENT

Every residential town will be EV-ready by 2025
Charger grant for private residences and condominiums
Streamlined process for landed properties

INDUSTRY PARTNERSHIPS

Ecosystem of mobility players
Battery-related R&D
Lithium-ion battery recycling in Singapore

Source: Singapore Land Transport Authority
Timeline of Singapore’s EV Policies

2009 Inter-agency Electric Vehicle (EV) Taskforce was established.

2010 Technical Reference 25 (TR 25), which outlines safety requirements for EV charging systems in Singapore, was established.

2011 Launch of EV test bed

- 5 charging stations;
- 9 electric passenger vehicles; and
- Participants from 2 government units and 2 companies.
2017  **Electric taxis** introduced. Launch of **electric car sharing** service, BlueSG.

**Mar 2020**  Addition of **DC charging systems** to public charging infrastructure.

**Feb 2021**  **Singapore Green Plan 2030** launched. Outlines targets to:

- Install at least 3 charging points in public housing car parks by 2025;
- Install 60,000 charging points by 2030, two thirds of which will be public charging points; and
- Cease new car registrations for ICE vehicles in 2030 and phase out ICE vehicles completely by 2040.

**July 2021**  Singapore Land Transport Authority (LTA) launches the **Electric Vehicle Common Charger Grant**, which co-funds installation costs of 2,000 EV chargers in non-landed private residences.
Timeline of Singapore’s EV Policies

Mar 2022  Latest revision of TR25, Singapore’s National EV Charging Standards, was made.

LTA launches public EV awareness campaign, ‘Power EVery Move’.

Apr 2022  LTA launches large-scale tender for 12,000 public chargers across 2,000 public housing carparks.

May 2022  EV-specific criteria for Certificate of Entitlement categorization is instated, which reduces the cost of purchasing an EV.

June 2022  LTA proposes Electric Vehicle Charging Bill, which outlines legislation that all new buildings with car parks will be required to install EV charging points in at least 1 percent of their total car parking lots.
MY ELECTRIC RIDE POWERS OUR GREEN CITY

GET YOUR FAMILY ON BOARD FOR A GREENER TOMORROW.

Source: Singapore Land Transport Authority
THANK YOU

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