Singaproe transport notes:

|  |  |  |
| --- | --- | --- |
| **Transport** | * BEV sales share for light vehicles and buses increases to ~100% by ~2030. Stock share reaches ~100% by ~2050. * Passenger activity tracks population growth, meaning that it stays relatively the same in both scenarios. The Vehicle Quota System (VQS) means that vehicle registrations stays the same or decreases from 2021. * BEV sales share for heavy trucks increases to 75% by 2060, resulting in a 60% stock share by 2060. FCEVs are not used in Singapore. * In both the scenarios mixing rates of biogasoline (including renewable gasoline and ethanol), biodiesel (including renewable diesel) and biojet levels off at 5% at 2030. * In both the scenarios the Early Turnover Scheme (ETS) has an effect on increasing the turnover of cars, which increases the rate that EV’s and other new cars are adopted in Singapore compared to other economies. The effect is more pronounced in the Target scenario, which is why with the same vehicle sales shares, the target scenario sees significantly higher stock shares, earlier. | * BEV Sales shares are the same as in the reference case, however because of a more pronounced effect from the Early Turnover Scheme, the stock share for light vehicles and buses reaches 100% BEV’s by 2040. * The share of bus use in passenger transport increases, so that 70% of road passenger activity is buses by 2060. * BEV stock share for heavy trucks reaches 70% by 2035 and 90% by 2060. * There is a 20% decrease in road freight activity as a result of improved routing and other activity efficiency measures. * *The transport assumptions have been simplified for ease of understanding. We can provide a lot more details if required.* ~~Refer~~ |

|  |  |
| --- | --- |
| * Sale of diesel cars and taxis eliminated in 2025 * Sale of gasoline cars and taxis eliminated by 2030 * Assume that diesel and gasoline cars remain in use for the rest of their useful lifetimes * Bus fleet rises from 1% electric now to 7% by 2025 and 50% by 2030, and approaches 100% by the end of the projection, with some diesel buses living out their 17-year useful lives into the 2040s * EEAI, VQS, enhanced VES and deployment of vehicle charging points incentivise higher EV adoption | * Stocks of cars, taxis and buses are 100% “cleaner-energy models” by 2040 * Modal shifting towards public transit and freight and distribution optimization reduce vehicle-miles traveled for passenger and freight sectors |

Notes for the next section (storylines)

In the projection for Singapore’s transport system we made a big effort to accurately show the effects of the Early Turnover Scheme and Vehicle Quota System, which allowed Singapore to reach 100% EV’s in light vehicles and buses by 2050 in Reference and 2040 in Target.

Our assumptions about the EV sales shares in both scenarios takes into account the government target of 100% sales share of cleaner-energy models in 2030, however because of the suitability of BEV’s to Singapore’s geography, all cleaner-energy models are assumed to be BEV’s.

* This may increase the requirements for publicly available chargers. We are happy to share our stock numbers by vehicle type, in case that is helpful.

In the target case it is assumed that Singapore will achieve a 75% mass public transport peak-period modal share by 2030; and by 2040, it hits 80%, and public, active, and shared transport modes account for 90%. This is enacted by increasing the share of bus use compared to private car and taxi use. As a result of this, the share of bus use in road passenger transport reaches 70% by 2060.

Freight and distribution optimization reduces vehicle-km traveled by about 5% in Reference and 20% in Target for the road freight sector by 2060. This helps to drive a decrease in diesel use, which makes up 100% of transport emission in 2060 at 0.6Million tonnes CO2 (8.5PJ).