

Foreword

In East Asia Summit (EAS) countries, progress has been made in recent years towards electrifying the transport sector. Electric vehicles (EVs) are considered as the important technological options for those EAS countries towards air quality improvement in the urban area, energy security enhancement for shifting away from oil dependence, and climate change mitigation – if these are coupled with low-carbon power generation sources.

In view of the future expansion of EVs on the road, policymakers in the EAS region would have to prepare necessary policies, programmes and plans, economic incentives, focused areas of services, and accelerate the decarbonisation of the power sector.

This report has provided the well-to-wheel CO₂ emissions from the electrification of the transport sector, and identified the strengths, weaknesses, opportunities, and threats for the selected Association of Southeast Asian Nations (ASEAN) countries' electrification of the transport sector. The report also analysed passenger vehicles' total cost of ownership for internal combustion engine vehicles, hybrid electric vehicles, plug-in hybrid electric vehicles, and battery electric vehicles. The report has explored the tipping point for battery electric vehicles to become cost competitive against internal combustion engine vehicles, in those cases for passenger vehicles, buses/trucks, and motorcycles.

I hope the report will provide a good basis for ASEAN countries in the understanding over the necessary policy and measures, as well as business and infrastructure development for the wider diffusion of electrified vehicles.

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