

APEC AD Plans 2022-2025 and Decarbonization of Transportation

59th APEC Expert Group on Energy Efficiency and Conservation (EGEEC59) and 57th APEC Expert Group on New and Renewable Energy Technologies (EGNRET57) Joint Meeting

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Advancing Free Trade for Asia-Pacific **Prosperity**

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Outline

- APEC Automotive Dialogue
 - AD Plans 2022-2025
 - Deliverables on the Putrajaya Vision 2040 and the Aotearoa Plan of Action
- Automotive Dialogue in Thailand
 - AD-35 Key Outcomes and Policy Recommendations (Decarbonization of Transportation)
 - AD-36 Key Outcomes and Policy Recommendations



APEC Automotive Dialogue (AD)

THE APEC Automotive Dialogue (AD) was established in 1998 to act as a forum where APEC officials and senior auto industry representatives work together to map out strategies for increasing the integration and development of the automotive sector within APEC region

- Automotive industry is important driver in the economic and social development which involves a large network of supporting industries, investment and labor force
- 6 of TOP 10 world largest auto producers are APEC member economies. APEC region is the largest portion in world automotive, both in term of production and sales.
 - Total auto production in 2021 in APEC member economies is approximately 56.1 million units, accounting for <u>70.1%</u> of world production
 - Total auto sales in 2021 in APEC member economies is approximately 60.0 million units, accounting for <u>72.6%</u> of world sales



AD Plans 2022-2025

Objective

The AD aims to become the premier public-private fora to discuss the adoption of new vehicle technology and to lead in-depth discussions on three key areas; 1) trade policy settings in the auto sector 2) capacity building, and 3) new vehicle technologies ... By doing so, the AD will

• identify specific priorities and build collective activities that AD member economies will pursue and implement collectively in these three fields.

• pursue technical coordination to support convergent standards and good regulatory approaches in the region for new auto technologies including a focus on connected and autonomous vehicles (AV), electric vehicles and hydrogen fuel cell vehicles technologies.

• address trade and policy issues relating to connected vehicles, electric vehicles, hydrogen fuel cell vehicles, cybersecurity, infrastructure development, and future road mobility with a focus on addressing pertinent issues to help lower emissions and reduce energy usage by 45% by 2035.

Priority

moving APEC member economies towards lower emissions and reducing energy use in the transport sector by developing roadmaps, guiding principles, and holding workshops and

discussions on the topic.



Deliverables on the Putrajaya Vision 2040 and the Aotearoa Plan of Action

Deliver on Trade and Investment by;

- Progressing liberalization of trade in goods by reducing unnecessary barriers, strengthening trade facilitation, and fostering regulatory reform
- Increasing trade predictability and openness by improving economies' transparency through trade measures and policies.
- Addressing key infrastructure gaps and enhancing connectivity by creating transparent regulatory environments, promoting dialogue, and sharing best practices
- Identifying and integrating new and emerging sustainable transportation and mobility technologies and services.
- Adopting new and emerging technologies to stimulate growth, connectivity and digital transformation
 Deliver on Innovation and Digitalization by;
- Supporting the identification and integration of new and emerging sustainable transportation and mobility technologies and services.
- Adopting new and emerging technologies to stimulate growth, connectivity and digital transformation



Deliverables on the Putrajaya Vision 2040 and the Aotearoa Plan of Action

Deliver on Strong, Balanced, Secure, Sustainable and Inclusive Growth by;

- Developing, encouraging and exchanging best practice policies, and by promoting capacity building programs, that address all environmental challenges - including climate change - and support sustainable growth, through:
 - sustainable infrastructure and transport;
 - promoting sustainable growth across sectors and the development of cost effective low and zero emissions technologies,
 - seeking to deliver on existing Leaders' commitment to deliver a plan to reduce aggregate energy intensity by 45%, from 2005 levels, by 2035;



35th APEC Automotive Dialogue (AD) : 12-13 May 2022 at Lebua StateTower

- 1 day plenary hybrid meeting (in-person and virtual) and half day for battery factory visit
- Fruitful discussion on;
 - Thailand's policy priority for APEC 2022: Open-Connect-Balance and how the AD can implement the Aotearoa Plan of Action
 - industry updates on auto trade and policy developments from 10 economies
 - panel discussion on "The Role of the Auto Sector in Meeting Economies' Climate Commitments"
 - auto industry ecosystem : "Fostering a Resilient & Sustainable Future", including regulation & standard, supply-chains, HRD and end-of-life vehicles and lithium-ion battery







36th APEC Automotive Dialogue (AD) : 12-13 September 2022 at Pullman Bangkok KingPower Hotel

- Workshop on APEC Advanced Vehicle Vehicles on September 12
- Plenary Meeting on September 13
- Fruitful discussion on;
 - EV Battery Trends and Developments
 - AD & TPTWG Joint Session: A Sustainable Transport System for APEC- What Policies Are Needed?
 - Developing the Green Economy via Green Transportation in Thailand





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AD35 : Key Outcomes & Policy Recommendations (Decarbonization of Transportation)

- The UNFCCC says we need to reduce GHG emissions by 45% relative to 2010 levels by 2030.
- Many economies are developing measures in response to climate change and aim to be net-zero by 2050.
- APEC need to act to meet these targets and can further support the uptake for new technology vehicles (NTVs) by:
- Developing policies to reduce the price of NTVs (e.g. tax credits, subsidies, rebates/feebates)
- Leading on charging infrastructure: policy makers can support the rollout for infrastructure by developing and funding EV charging plans and ensuring the regulatory framework is appropriate and chargers are well located
- Developing vehicle emissions (CO2) regulatory frameworks that are stable, predictable and provide clear long-term signals to industry
- Implementing 'end of life' battery schemes to replace, repurpose and recycle EV batteries and deliver of the circular economy
- Demonstrate leadership on adopting NVT in government fleets to support the used car market and infrastructure rollout
- Adopting global best practice in fuel quality standards to facilitate the deployment of NVTs
- Co-investing with industry to increase the availability of critical and rare earth minerals to increase the availability of NVTs
- Incentivizing R&D, manufacturing and recycling of NVT components e.g. batteries, semi conductors,
- Collaborating with APEC partners to harmonize standards and establish battery recycling supply-chains



AD36 : Key Outcomes & Policy Recommendations

To support the uptake of Electric Vehicles, APEC Governments can;

- Implement mandates on CO2 vehicle emissions regulations and sales targets
- Develop policies that include:
 - Public, private and fleet charging and hydrogen refueling
 - Non-financial EV incentives (access to transit lanes, free parking & charging, information and awareness campaigns)
 - Mandated government EV fleet procurement targets
 - Purchase Incentives
 - Accelerate the adoption of world class, international fuel quality standards
- Develop strategies to support manufacturing of clean vehicle motors, software, batteries
- Design curriculums to support the capacity development- re-training of auto industry trades
- Ensure EVs are maximized to be able to support grid stability with energy storage, microgrids
- Cooperate internationally and across industries to determine agreed charging standards and protocols
- Adopt Carbon Neutral Fuel Strategies to develop clean fuels existing the vehicle fleet to decarbonize



AD36 : Key Outcomes & Policy Recommendations

To support a sustainable battery industry in the Asia Pacific, APEC Governments should;

- Invest in Battery R&D to incentivize innovation and tech break throughs
- Collaborate to resolve supply chain issues and minimize costs
- Ensure industry collaboration across the life-cycle so batteries are designed for easy reuse, repurpose, and recycle batteries.
- Create a more stable and predictable source of materials for EV batteries
- Develop international standards for sustainable batteries and supply chains
- Follow the UN regulations batteries to ensure vehicle safety and train first responders
- Reduce the demand for raw materials and minimize the risks of geopolitical disruptions of the supply-chain
- **Develop a circular economy** model for batteries and EVs as a whole



AD36 : Key Outcomes & Policy Recommendations

Autonomous vehicle policy frameworks are needed to;

- Educate and inform communities about the potential benefits of AVs and how risks are mitigated
- Study legal and liability issues arising from the manufacture, programming, and operation of AVs, but note there is not likely to be a one-size-fits-all approach
- **Protect** vehicle owners' personal data with appropriate safeguards while also allowing for its use to develop new features and content for the customer and grow the digital economy.
- Ensure the free flow of data to share learning, facilitate innovation, and reduce costs while ensuring consumer privacy and security
- Guarantee intellectual property as algorithms, sensors, and other technological innovations will become key to developing AVs

<u>Shared vehicle, micro-mobility, and public transport policies are needed to reduce traffic congestion, accidents and air pollution. Economies can ;</u>

Provide seed funding for start-ups and SMEs that lead to reducing transport issues
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