International Cooperation on Hybrid & Electric Vehicles in International Energy Agency’s Energy Technology Network

Hybrid & Electric Vehicle Technology Collaboration Program (HEV TCP)

Mission and Scope
- HEV TCP was formed in 1994
- Mission
  - To facilitate international collaboration in pre-competitive research and demonstration projects involving shared resources from multiple countries.
  - To share best practices for deployment of hybrid/electric vehicles to reduce energy consumption, emissions, and improve local and global air quality.
  - To supply objective information to governmental policy makers and industry decision makers.

Participants
- 17 member countries:
  - Austria
  - Belgium
  - Canada
  - Denmark
  - Finland
  - France
  - Germany
  - Ireland
  - Italy
  - Netherlands
  - South Korea
  - Sweden
  - Switzerland
  - Turkey
  - UK
  - USA
- One sponsor: KAPSARC

Current Working Groups (16)

Hybrid/Electric Cars
- Plug-in Hybrid Electric Vehicles (PHEVs)
- Electrified, Connected, and Automated Vehicles (eCAVs)
- Fuel Cell Electric Vehicles (FCEVs)
- Batteries

Infrastructure
- Home Grids and V2X Technologies
- Wireless Charging
- Light Electric Vehicle Infrastructure
- Extreme Fast Charging

Electrification Beyond Automotive
- Hybrid and Electric Trucks
- Electric Buses
- Small Electric Vehicles
- Marine Applications (eShips)

Analysis and Policy
- Environmental Effects of EVs
- Economic Impact of e-Mobility
- Fuels and Energy Carriers for Transport
- Purchase and Use Patterns

Observations and Findings
- Hybrid/electric vehicles contribute significantly to energy saving, CO₂ reduction and energy security via high fuel economy and diversity of electricity sources.
- Hybrid and electric vehicles have a major economic impact. Over 13 million hybrid electric vehicles have been sold worldwide. More than 2.5 million plug-in electric vehicles have been sold globally.
- Several countries have taken HEV-TCP results into account for their national energy policy, using information from HEV-TCP to guide the development of their electric vehicle roadmaps.
- Environmental impacts depend strongly on the national mix of electricity generation. Countries are increasingly embracing hybrid and electric vehicles as the electric grid becomes increasingly less carbon intensive.
- Electric bicycles (e-bikes), electric scooters (e-scooters), and pedal/electric bikes (pedelecs) all contribute to reducing traffic congestion in cities and reducing greenhouse gas emissions.
- V2X is a key technology for introducing EVs as distributed energy resource, in home grids and other applications. PEVs are now available with batteries that show less degradation for V2X applications.

Further Information

www.ieahev.org