Regulatory design elements: Phase-out targets for combustion engine vehicles

An increasing number of countries, states, and provinces around the world are planning for a full phase out of the sale or registration of new internal combustion engine (ICEs) vehicles (Figure 1). In Europe, Norway has the nearest-term target, requiring all new passenger cars and light commercial vehicles to have zero tailpipe emissions by 2025. Other countries and regions that have announced new ICE vehicle phase-out target dates for cars, and in some cases vans, are Iceland (2030), Ireland (2030), Sweden (2030), the Netherlands (2030), Denmark (2035), the UK (2035), France (2040), and Spain (2040). Slovenia plans to phase out full ICE vehicles but would allow plug-in hybrid vehicles (PHEVs) to be eligible for new registrations until 2030.

Most of the ICE phase out announcements in Europe and around the world are part of climate action plans or similar roadmaps. **None of the announcements by the European countries mentioned above have been transposed into binding regulation to date,** as this is only the case in the Canadian province of British Columbia. **Within the EU, internal market rules currently hinder Member State efforts to impose binding phase-out targets for new ICE passenger cars and vans.** In mid-March 2021, nine European countries called on the European Commission to set a phase-out date for the sale of new ICE cars and vans.
Governments with official targets to 100% phase out sales or registrations of new internal combustion engine cars by a certain date* (Status: June 2021)

* Includes countries, states, and provinces that have set targets to only allow the sale or registration of new battery electric vehicles (BEVs), fuel cell electric vehicles (FCEVs), and plug-in hybrid electric vehicles (PHEVs). Countries such as Japan with pledges that include hybrid electric vehicles (HEVs) and mild hybrid electric vehicles (MHEVs) are excluded as these vehicles are non-plug-in hybrids.

Figure 1. Global overview of government targets to 100% phase out the sale or registration of new ICE passenger cars as of June 2021.
*This map is presented without prejudice as to the status of or sovereignty over any territory, the delimitation of international frontiers and boundaries, and the name of any territory, city, or area.

Vehicle manufacturers are adapting their product plans to ensure compliance with current and future CO₂ emission targets. For Europe, Ford, Volvo, and Fiat have publicly announced their intention to phase out all combustion engine passenger car sales by 2030. Renault is targeting a share of 90% by 2030, although this includes PHEVs. Other public target announcements for 2030 include Daimler (at least 50%), BMW (50%), and VW Group (at least 40%)—all including PHEVs (Figure 2).
Figure 2. Overview of public vehicle manufacturer announcements for the market share of new electric passenger car sales in Europe. The size of the boxes is proportional to the total number of all new passenger car registrations in 2020.

Flowing from the analysis, ICCT recommends considering the following policy actions:

» The stringency of the 2025 CO₂ targets (at least a 30% reduction versus 2021) and 2030 CO₂ targets (at least a 70% reduction versus 2021) for new passenger cars should be strengthened to be in line with vehicle manufacturers’ intention to increase the production of electric vehicles in future years.

» An EU-wide phase-out target for new ICE passenger cars and vans should be introduced for 2035 at the latest.

FOR MORE INFORMATION


» Growing momentum: Global overview of government targets for phasing out sales of new internal combustion engine vehicles https://theicct.org/blog/staff/global-ice-phaseout-nov2020

» Update on government targets for phasing out new sales of internal combustion engine passenger cars https://theicct.org/publications/update-govt-targets-ice-phaseouts-jun2021

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