

'Fit for 55' legislative package: Deployment of alternative fuels infrastructure

Impact assessment (SWD(2021) 631, SWD(2021) 632 (summary)) accompanying a Commission proposal for a Regulation of the European Parliament and of the Council on the deployment of alternative fuels infrastructure, and repealing Directive 2014/94/EU of the European Parliament and of the Council

This briefing provides an initial analysis of the strengths and weaknesses of the European Commission's [impact assessment](#) (IA) accompanying the above-mentioned [proposal](#); the IA was submitted on 14 July 2021 and referred to the Parliament's Committee on Transport and Tourism (TRAN). The proposal seeks to amend [Directive 2014/94/EU \(AFID\)](#), to ensure the existing framework is consistent with the European Green Deal, the climate target plan, and the Commission's communication on a sustainable and smart mobility strategy. It is part of the 'Fit for 55' legislative package announced in the Commission's 2020 communication on [Stepping up Europe's 2030 climate ambition](#) (the climate target plan¹); 'Fit for 55' is the review of relevant EU legislation to help achieve the target of reducing net greenhouse gas (GHG) emissions by at least 55 % by 2030 and the objective of climate neutrality by 2050 set out in the European Climate Law ([Regulation \(EU\) 2021/1119](#)). The proposal is included in the [2021 Commission work programme](#) and the [Joint Declaration on EU Legislative Priorities for 2021](#) and complements, in particular, the [proposal](#) on strengthening CO₂ emission performance standards for new passenger cars and vans.²

Problem definition

Based on the [evaluation of Directive 2014/94/EU](#) (carried out in parallel with the IA) and the [report on its application](#), as well as the accompanying [assessment of the Member States' Implementation Reports on the National Policy Frameworks](#) for developing the alternative fuels market, the IA identifies **three main problems** (pp. 12-17) and their drivers (problem tree shown in Figure 1, p. 12):

- 1 **Lack of ambition and coherence** in Member States' infrastructure planning, leading to **insufficient and unevenly distributed alternative fuel infrastructure** (AFI).³ This is substantiated in Annex 6, which provides an overview of AFI distribution per Member State,⁴ and by the [assessment of the Member States' Implementation Reports](#) (from p. 26). The IA argues that the proposal lacks a coherent approach to electric recharging points and hydrogen infrastructure for Heavy Duty Vehicles (HDV). For electric Light Duty Vehicles (LDV), there is an increasing gap between the growth rate for vehicle registration and infrastructure development. The IA (Section 2.3.1) suggests, credibly, that the problems will increase in the absence of any action, especially for electric charging and hydrogen refuelling. It identifies **two drivers** of this problem:
 - 1.1 The lack of binding provisions in terms of network coverage for road transport (while the Directive requires each Member State to adopt a National Policy Framework (NPF), they remain free to set their own targets) and waterborne transport (especially for on-shore power supply (OPS)), and the scope of the alternative fuels considered in the proposal. The IA notes that the Directive does

- not currently take into account technological advances, and is not fully adjusted to the needs of the HDV sector and the hydrogen refuelling network.⁵
- 2.1 Target-setting by Member States is not consistent with market developments and the GHG reduction ambition: the IA notes that, in many Member States, the projections for Alternative Fuel Vehicles (AFV) uptake are very low and they drive the low target for infrastructure. Moreover, the EU's commitment to reduce GHG by 55 %, instead of the previous 40 %, implies a revision of AFV uptake targets.
 - 2 Persisting **interoperability issues** in terms of physical connections, especially for trucks, communication standards and data models. The main risk identified by the IA is that recharging and refuelling services do not develop in a competitive manner and that companies instead develop proprietary solutions, leading to a fragmented ecosystem, especially for HDV and shipping. The IA identifies the main driver of this problem as the fact that implementation of the Directive fails to consider necessary requirements/standards to ensure full interoperability. The open public consultation (OPC) indicates that further mandatory technical requirements are needed (IA, pp. 20-21 and Annex 2, p. 103).
 - 3 Publicly accessible infrastructure **does not fully correspond to user needs**. The IA finds that there are gaps in ensuring adequate and relevant consumer information and clear provisions for a unified ad hoc payment method (such as credit or debit cards) and that, in the absence of action, progress is likely to be concentrated in some Member States only. The IA identifies **two drivers** of this problem:
 - 1.3 Lack of user information about, and at, refuelling and recharging points, regarding location, pricing or billing (for this, the IA refers to the OPC, but lacks a clear reference to the relevant question).
 - 2.3 Lack of a uniform ad hoc payment method that is available at all stations (this is supported by the OPC and three external sources).

The problems identified in the IA correspond to those identified in the evaluation (Section 5). However, the evaluation identifies a fourth problem (integrating electro-mobility into the electricity system, especially related to smart charging); this is not framed as a 'problem' in the IA, but is discussed as part of interoperability issues, since, according to the evaluation, the role of AFID in this area is limited. (It should be noted that, throughout this section, the IA refers to an Annex 10 that could not be found.) Overall, the quality of the problem definition is good and is substantiated by evidence on AFI distribution at Member State level.

Subsidiarity/proportionality

The IA states (p. 27) that the legal basis for the draft regulation is the TFEU, specifically the articles on common transport policy, Title VI (Articles 90-91), and the trans-European networks, Title XVI (Articles 170-171). The subsidiarity analysis in the IA covers both the necessity for EU action and EU added value. According to the IA, 'without EU intervention it would be very unlikely that a coherent and complete network of fully interoperable alternative fuels infrastructure develops across all Member States' (p. 28). Moreover, Section 7.4 argues that proportionality is respected by all the policy options considered, since all intervene in Member States' planning of infrastructure rollout but do not interfere in essential Member State competences in planning, permitting and procuring. Two [reasoned opinions](#) for non-compliance with the principle of subsidiarity were issued by the Irish Houses of the Oireachtas and the Czech Senate before the deadline of 8 November 2021.

Objectives of the initiative

The general objective of the initiative, as presented in the IA, is to help achieve zero GHG emissions by 2050, which implies reducing net GHG emissions by at least 55 % by 2030. To achieve this, together with the other ['Fit for 55' objectives](#), a sufficient uptake of AFV is needed, which requires a dense and widespread network of AFI in the EU (p. 28). Three specific objectives are identified in the IA (p. 29) and are coherent with the problems identified and their drivers (Figure 5, Section 2.2).

The operational objectives are defined in the context of monitoring and evaluation (Annex 9), in line with the Commission’s Better Regulation Guidelines (BRG). The specific objectives are:

- 1 Ensuring sufficient infrastructure to support the required uptake of AFVs across all modes and in all Member States.
- 2 Ensuring full interoperability of the infrastructure.
- 3 Ensuring full user information and adequate payment options.

The relevant information is scattered across other sections of the IA, which makes the report difficult to read. For the **first specific objective**, the targets are defined in Annex 7 and the implications in terms of AFI availability are defined in the section on impacts (6.1). This objective can be defined as SMART according to the BRG (Tool 15), as it is specific, relevant, achievable (based on stakeholder consultation), measurable and time-bound (targets are set for different years, starting from 2025). Annex 7 and Section 6 lack some clarity regarding the manner in which the targets are to be obtained and linked to the AFV uptake scenarios.⁶ The **second specific objective** is largely SMART; its formulation is not measurable, but the corresponding operational objective is ('adopted standards by ESOs'). It is not clearly time-bound, but, since a review of the proposal is scheduled for 2026, this is likely to set a time horizon. The same is true for the **third objective**, which is not fully SMART, being less clearly measurable. Overall, the objectives are not fully SMART, but they appear to be 'as SMART as possible' (as requested by the BRG).

Range of options considered

The IA defines the baseline as the [EU Reference Scenario 2020](#), a common baseline for the 'Fit for 55' package, while the trends in AFI deployment in case of 'no action' are based on the [analysis of the Member States Implementation Reports](#). In addition to the baseline, the IA assesses **three policy options** that are **different combinations of a number of policy measures**; these options are linked to the specific objectives outlined above, which is clearly illustrated in Table 2 (pp. 35-36). A number of policy measures have been discarded by the Commission (e.g. because they fall outside the scope, or because they depend too much on local conditions; there is an exhaustive explanation on pp. 31-34) and the discarded policy measures are fully listed in Annex 5.

		Policy Option 1 (PO1)	Policy Option 2 (PO2)	Policy Option 3 (PO3)
Legal tool		Change in the Directive	Change in the Directive	Change to a Regulation
Targets for AFI availability	Road	<p><i>Electric LDV</i>: Mandatory fleet-based target at national level defined by the Directive (approx. 1kW/registered battery for electric and 0.66kW per registered plug for hybrid).</p> <p><i>Electric HDV</i>: mandatory target on TEN-T core network from 2025 of 700kW every 60 km, and every 100 km in 2030, on TEN-T comprehensive network; 50kW in each safe parking area in 2030.</p> <p><i>Hydrogen</i>: one station every 150 km on TEN-T core network (min 1t/day) for HDV, with accessibility for LDV, too; one station in each urban node.</p> <p><i>CNG/LNG</i>: no change.</p>	<p>On top of PO1:</p> <p><i>Electric LDV</i>: mandatory targets on TEN-T core network (from 2025) and comprehensive network (from 2030) of 300 Kw every 60 km.</p> <p><i>Electric HDV</i>: mandatory target (600 Kw by 2025) in every urban node of TEN-T network.</p> <p><i>Hydrogen</i>: minimum capacity increase to 2t; mandatory target on liquid hydrogen for trucks on TEN-T core network.</p> <p><i>CNG/LNG</i>: Member States have to ensure appropriate refuelling LNG for HDV on TEN-T core network.</p>	<p>On top of PO2:</p> <p><i>Electric LDV</i>: mandatory targets for petrol stations from 2025 (at least 1 recharging station, min 350 kW, if >12 pumps).</p> <p><i>Electric HDV</i>: same mandate for petrol stations.</p> <p><i>Hydrogen</i>: as PO2, but in 2025.</p> <p><i>CNG/LNG</i>: 1 refuelling station every 150 km on TNE-T core network.</p>

	Shipping	<p><i>LNG</i>: no change.</p> <p><i>OPS</i>: mandatory – 1 installation in each TEN-T core port (both inland by 2025 and maritime, beyond a defined threshold, by 2030).</p>	<p><i>LNG</i>: removes the requirement for LNG bunkering in TEN-T core ports.</p> <p><i>OPS</i>: <i>inland ports</i>: extend target to TEN-T comprehensive ports by 2030; <i>maritime ports</i>: OPS is installed to cover at least 90 % of demand for TEN-T core and comprehensive ports beyond the defined threshold in PO1.</p>	<p><i>LNG</i>: mandatory LNG bunkering in all core ports.</p> <p><i>OPS</i>: 1 installation in each TEN-T core and comprehensive port by 2030; PO2 requirements for maritime ports apply to all ports (also non-TEN-T).</p>
	Aviation	<p><i>Electricity supply for stationary aircraft</i>: all commercial passenger aircraft in all TEN-T core and comprehensive airports.</p>	<p><i>Electricity supply for stationary aircraft</i>: Mandatory targets also in outfield positions.</p>	As PO2.
Interoperability		<p><i>Physical standards</i>: new set of technical specifications, including requirements for new standards for charging points.</p> <p><i>Communication standards for e-mobility</i>: all new charging points equipped with OCPP and OCPI interface to enable communication with roaming platforms.</p>	<p><i>Physical standards</i>: add standards for waterborne transport and aviation.</p> <p><i>Communication standards for e-mobility</i>: technical specifications adopted by European standardisation organisations and subsequently transferred into the Directive.</p>	<i>Physical standards</i> : as PO2.
Consumer information		<p><i>Ad hoc payments</i>: bank card mandatory at all charging points.</p> <p><i>Price transparency</i>: mandatory clear display of prices in a defined format.</p> <p><i>User information</i>: mandatory for operators to provide static data to national access points.</p> <p><i>Signposting</i>: no change.</p>	<p><i>Ad hoc payments</i>: tightened provisions for card payments.</p> <p><i>Price transparency</i>: communicate price and its components via a dedicated app.</p> <p><i>User information</i>: mandatory for operators to provide dynamic data.</p> <p><i>Signposting</i>: mandatory in service areas in TEN-T core and comprehensive network.</p>	<p><i>Ad hoc payments</i>: further tightened provisions for card payments.</p> <p><i>Price transparency</i>: as PO2.</p> <p><i>User information</i>: as PO2.</p> <p><i>Signposting</i>: mandatory outside service areas in TEN-T core and comprehensive network.</p>

Source: IA, Table 2 and pp. 40-47.

The IA identifies a **preferred option**, which is **policy option 2**. Section 8 (pp. 89-91) briefly illustrates how this choice is made, balancing effectiveness and costs.

Assessment of impacts

The IA assesses the economic, environmental and, to a smaller extent, the social impacts of the options. Policy options are not expected to affect the uptake of AFV (Table 4⁷), as the IA assumes fleets will grow mostly because of other measures in the ‘Fit for 55’ package, and especially because of the revised emission standards for cars and vans (p. 49). Therefore, the environmental and public health impacts that depend solely on the increased uptake of AFV are the same for all policy options.

Economic impacts are assessed for all three policy options using both qualitative and quantitative methodologies, and the IA acknowledges that quantitative methods have been used mainly for measures addressing insufficient and unevenly distributed AFI in the area of road transport.

The IA considers the following categories of economic impacts: (1) impact on AFV and AFI markets; (2) administrative burden for public authorities; (3) infrastructure costs; (4) costs and benefits for manufacturers; (5) impacts on SMEs, users and businesses; (6) impact on the internal market and competition; (7) impact on innovation and industry competitiveness. Only (1) and (3) are quantified.

- Under (1): numbers of additional recharging/refuelling points are given for each policy option, with respect to the baseline, for road and waterborne transport and aviation. The IA considers that all policy options provide sufficient infrastructure⁸ for the required AFV fleet in 2030 and beyond; the infrastructure level that is considered sufficient is calculated in Annex 7, but the correspondence between AFI deployment under the policy options and sufficient targets is not clearly illustrated to a non-expert reader (comparing Table 6 in the IA on p. 53 and Table 7 in Annex 7 on p. 164, it is not clear whether sufficient targets are met in 2030). Regarding the market impact of measures to promote interoperability and user information, the IA simply states that they will improve customer experience and investment security.
- Under (2): additional costs are expected only under PO3 because of more frequent reporting requirements.
- Under (3): costs are calculated for each policy option (based on cost estimates in Annex 4, pp.129-131). Costs include capital costs (for investment) and operational costs (for maintenance) and are borne by both the public and private sectors (disaggregation is provided). Disaggregation by fuel and by Member State is also provided in the case of road transport. However, more explanation as to how the cost estimates are calculated under each policy option would be welcome. The costs of promoting interoperability and user information are partly quantified and are complemented with a short qualitative cost-benefit analysis. The overview of costs (for both the public and private sectors) is provided in Table 29, pp. 77-78. They range from €58.1 billion to €80.5 billion between 2021 and 2050, compared to the baseline.
- Under (4): the analysis is brief and qualitative, while key points appear to be addressed (e.g. cost reductions because of growing fleets, certainty about the AFI market).

Overall, the economic impacts seem to be explained in a credible way, although this could be done more clearly. **Social impacts** are assessed succinctly and are not quantified in terms of impacts on consumers, employment and persons with a disability; moreover, these assessments do not distinguish between policy options. The impact on public health is partly quantified, by estimating the reduction in air pollutants; this is then monetised (and corresponds to €75 billion between 2021 and 2050), but the methodology is not explained. **Environmental impacts** are quantified in two areas – reduction in CO₂ emissions and reduction in air pollutants – and a monetary value is provided (€445 billion between 2021 and 2050), along with a reference for the methodology. Environmental impacts are, in most cases, not assessed separately for each policy option, for the reason explained above (the only exception is waterborne transport). No other impacts are considered.

The options are **compared** in line with the BRG's guidance, according to effectiveness (in addressing the specific objectives, see Table 28, p. 76), efficiency, coherence, proportionality and subsidiarity. PO1 is rated as having a 'positive' impact, while PO2 and PO3 are both rated as having a 'strongly positive' impact; these ratings seem to be illustrated well. For the preferred policy option 2, **costs and benefits** are summarised (pp. 110-112): direct benefits to consumers and businesses are not quantified, while indirect benefits from reducing CO₂ emissions and air pollution are quantified as indicated above (sections 6.2 and 6.3). Costs are distinguished between those for businesses and for administrations and are divided according to investment, operation and administrative/monitoring costs, the first two of which are quantified.

SMEs/Competitiveness

The relevant analysis is conducted under categories (5), (6) and (7) of the economic impacts. The analysis of the impact on SMEs is very brief, with no analysis of SMEs' presence in the value chain.

The IA identifies no area where disproportionate costs would be borne by SMEs (5); possible negative impacts (e.g. harsher competition with larger companies) are expected to be mitigated by EU competition law. The impact on competition and the internal market is considered to be positive due, for instance, to even deployment of infrastructure and simplified and uniform information (6); the impact on innovation is also expected to be positive (7). These impacts are simply stated in the IA, but are not investigated further.

Simplification and other regulatory implications

The IA notes the complementarity of the proposed revision, especially with the Commission proposal on strengthening the CO₂ emission performance standards, the main instrument that is expected to drive the uptake of AFV, which in turn drives the need for improved AFI. The IA underlines that the initiative has an important REFIT component and includes elements of simplification (via harmonisation of requirements) that primarily affect operators and providers, but that all market actors are expected to benefit.

Monitoring and evaluation

The IA provides a monitoring framework, set out in detail in Annex 9, which defines operational objectives associated with specific objectives and includes both indicators and data sources; most indicators are quantifiable. In accordance with the BRG, monitoring provisions are presented in Section 9, and Table 2 (pp. 35-36) illustrates monitoring tools for all three policy options. The proposal for a Regulation refers to this Annex regarding monitoring provisions.

Stakeholder consultation

The Commission carried out a comprehensive consultation exercise consisting of an open public consultation (OPC), a set of exploratory interviews with EU-level representatives of key stakeholders, and a targeted stakeholder consultation that included surveys among key stakeholders and data requests; it also received [feedback](#) on the inception impact assessment (IIA) (86 responses). The IA provides a breakdown of participants in the exploratory interviews, stakeholder interviews and OPC. The 12-week [OPC](#) gathered 324 responses, mostly from companies and business associations (about 58 %), followed by citizens (22 %), public authorities (9 %) and civil society/consumer organisations (9 %). The OPC concerned both the ex-ante IA and the ex-post evaluation, as the two were carried out back to back. The overview of the questionnaire and answers is not available online; the overview of OPC questions is split between Annex 2 of the IA and the evaluation, which limits the accessibility of the information. Feedback from stakeholders is used extensively throughout the IA.

Supporting data and analytical methods used

Annex 4 illustrates the **methodology for the assessment of impacts**, which draws on a study that is referenced (Ricardo et al. (2021)) but is not accessible at the moment of writing. The IAs accompanying several of the legislative proposals included in the 'Fit for 55' package, including this one, rely on a common analytical framework, although it is not explicitly mentioned in this IA. This framework is embedded in several modelling tools with a proven track record in supporting EU policymaking, which are used to produce a common baseline (the above-mentioned [EU Reference Scenario 2020](#)). These tools are publicly available in the Commission's Modelling Inventory and Knowledge Management System ([MIDAS](#)), including the [PRIMES and PRIMES-TREMOVE](#) models that are the main models used in this IA.⁹

The modelling work is based on socio-economic and technological assumptions about the evolution of Europe's population, GDP growth, international energy prices, and the development of technologies, in terms of performance and costs. These assumptions are provided in Annex 4, pp. 117-125 and on the [EU Reference Scenario 2020 webpage](#). Some assumptions, and the presentation of the mechanisms behind the model, would benefit from greater clarity and further explanation. The IA also lacks a comprehensive discussion of the limitations of the methodology.

The modelling tools produce a set of core scenarios (REG, MIX, MIX-CP) to achieve the 'Fit for 55' targets, complemented by specific variants developed for the individual initiatives. The core scenario selected in this IA is the MIX scenario (p. 128), which reflects a combination of carbon pricing instruments and regulatory-based instruments. MIX is chosen to ensure coherence with the IA on [emission performance standards](#), and especially with its medium target level (TL_Med), since it includes among the policy measures the medium intensification of the CO₂ emission standards for vehicles, supported by a 'large scale roll-out' of AFI. This needs more explanation, since TL_Med is not the preferred option in the emission standards IA (which prefers TL_High).¹⁰ Nevertheless, while most of the policy options' impacts are assessed only under the TL_Med scenario (and the consequent fleet size), the cost of infrastructure under the preferred policy option is also assessed under the two other target levels (low and high) of the emission standards IA.

A **sensitivity analysis** (sections 7.6, 7.7 and 7.8) is conducted for the preferred policy option (PO2), based on the stringency of CO₂ standards; sufficiency of recharging and refuelling infrastructure; a change in assumptions about average power output for a recharging point (fast chargers); developments in smart charging capabilities; and uncertainty in the uptake of battery HDV. This appears to be a robust analysis of the possible sources of uncertainty.

Follow-up to the opinion of the Commission Regulatory Scrutiny Board

On 7 May 2021, the Commission's Regulatory Scrutiny Board (RSB) adopted a positive [opinion](#) on a draft version of the IA, which was submitted on 7 April. The final version of the IA summarises the RSB's recommendations in Annex 1 (pp. 95-96), in line with the BRG. Based on the explanations provided in the Annex, the IA does appear to have addressed the RSB's recommendations.

Coherence between the Commission's legislative proposal and IA

While the IA's preferred policy option implies a revision of the Directive, the Commission proposes to switch to a **Regulation**. The reason, which is illustrated on p. 7 of the proposal, is the need to achieve substantial results by 2025, a timeframe that requires, according to the proposal, 'clearly binding and directly applicable obligations for Member States at national level, ensuring their EU-wide coherent and timely application and implementation at the same time'.

The IA itself notes that the provisions of the preferred policy option would also allow the Commission to change the legislation into a Regulation (Annex 5, p. 137) and that a broader group in the OPC called for a Regulation (p. 46). Most of the measures in the proposal nevertheless correspond to the preferred policy option in the IA, with a few exceptions for HDV electric vehicles, where the proposal is more ambitious, and on-shore power supply in inland ports and electricity supply to stationary aircraft, where the proposal envisages a shorter timeline to achieve the targets.¹¹

Overall, this IA appears to support the Commission's proposal well. Its main strengths are 1) the proper connection between problem analysis, specific objectives and measures proposed (that are then combined into a range of policy options), and 2) the quantitative analysis. The problem analysis is substantiated and clearly linked to the objectives. The economic impacts, in terms of the infrastructure that is needed and its costs, environmental impacts and public health impacts are quantified. The modelling used for analysis of impacts has a proven track record in supporting EU policymaking and has been used in academic publications, the data sources and most of the assumptions are mentioned, and the sensitivity analysis seems to be well developed and detailed. Furthermore, it seems the IA made an effort to incorporate the recommendations made in the RSB's positive opinion. The provisions on monitoring are satisfactory, both as indicators and institutional tools. The Commission proposal is coherent with the IA, although it differs in some aspects from the IA's preferred policy option (notably the legal tool, which has been changed to a Regulation).

Generally, the assessment is detailed and relies on a broad set of sources, both qualitative and quantitative, but it has some weaknesses. A supporting study exists, and is referenced throughout

the IA, but is not available online. The analysis is complex and not always accessible to a non-expert reader, while information is often scattered and the logic is not easy to follow. While the analysis of impacts is detailed when it comes to target-setting, it is less detailed on other areas of action (interoperability and user information) and on social impacts; moreover, the mechanisms behind the model would benefit from further explanation, and the IA lacks a comprehensive discussion on the limitations of the methodology for the quantitative analysis. Finally, results of the public consultation are used extensively throughout the IA, but the references to it could be made more transparent.

ENDNOTES

- ¹ Vikolainen, V., [Setting the 2030 GHG emissions reduction target](#), EPRS, European Parliament, December 2020.
- ² Vikolainen, V., ['Fit for 55' legislative package: Strengthening the CO2 emission performance standards for new passenger cars and new light commercial vehicles](#), EPRS, European Parliament, November 2021.
- ³ Soone, J., [Alternative fuel vehicle infrastructure and fleets: State of play](#), EPRS, European Parliament, November 2021.
- ⁴ Differences between Member States depend on the fuel. For example, 70 % of publicly accessible recharging points for electric LDV are in just three countries (France, Germany and the Netherlands). Hydrogen infrastructure is mostly present in Germany. Natural gas is more equally distributed, but there are still gaps, especially in south-east Europe in LNG. The IA notes the lack of data from Member States on aviation, i.e. electricity supply at airports for use by stationary airplanes.
- ⁵ The IA also reports that OPC opinions are divided on whether natural gas should be included among alternative fuels.
- ⁶ Annex 7 mentions desk research without further detailing the literature or methodology that has been used, while the role of the stakeholder consultation is well detailed. Furthermore, it is unclear to a non-expert reader why uptake scenarios differ between Annex 7 (e.g. Table 5, p. 162) and Section 6.1 (Table 4).
- ⁷ A projected evolution that would need some explanation is the decrease in plug-hybrid electric vehicles after 2040.
- ⁸ See, with regard to infrastructure needed for the HDV road sector, van Grinsven, A. et al., [Study requested by the TRAN Committee – Alternative fuels infrastructure for heavy-duty vehicles](#), European Parliament, Policy Department for Structural and Cohesion Policies, November 2021.
- ⁹ The other models used in the IA are also available: POLES-JRC (energy price projections), GEM-E3 (macroeconomic developments at sectoral level), GAINS (non-CO₂ GHG emission projections), GLOBIOM-G4M (LULUCF emissions), CAPRI (agriculture).
- ¹⁰ Vikolainen, V., *ibid*, EPRS, European Parliament, November 2021.
- ¹¹ For a complete review of the proposal, see Soone, J., [Deployment of alternative fuels infrastructure: Fit for 55 package](#), EPRS, European Parliament, November 2021.

This briefing, prepared for the European Parliament's Committee on Transport and Tourism (TRAN), analyses whether the principal criteria laid down in the Commission's own Better Regulation Guidelines, as well as additional factors identified by the Parliament in its Impact Assessment Handbook, appear to be met by the IA. It does not attempt to deal with the substance of the proposal.

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