

How are the current instruments shaping renewable fuel production?

The deployment of sustainable resources to replace fossil-based ones requires mobilising new industrial assets and large-scale expansion of novel technologies for converting biomass, waste and CO₂ and renewable electricity resources. The transformation of the industrial system requires extensive deployment of first-of-a-kind (FOAK) commercial projects, but these face significant challenges in reaching Final Investment Decisions and accessing private sector financing.¹ To meet the climate ambitions, considerable investments are needed to help these projects scale up.

In the Netherlands, instruments are in place to incentivise the transport sector to shift towards the use of renewable energy. In this factsheet we discuss the mandates that create demand for renewable fuels and a number of instruments that support investments in scaling up production;

Mandates are in place to reduce emissions and increase the share of renewable energy in the transport sector

With the recast of the Renewable Energy Directive (revised version called RED III), the Netherlands has adopted targets to achieve at least 14,5% less greenhouse gas emissions from fuels in the transport sector by 2030. In fact, the Netherlands have decided to go beyond the minimal levels as set in the European directive. The targets are enforced by the Fuel Transition Obligation (or in Dutch brandstoftransitieverplichting, BTV) which obliges fuel suppliers to replace their fossil fuels with a supply of renewable energy which apply to the road, non-road, recreational shipping, rail transport and agricultural machinery. With the recast of the RED, the scope also includes the supply of bunker fuels to maritime and inland waterways. The amount of the obligation varies per transport sector. Aviation does fall under the RED III directive but is not part of the Dutch BTV.² Sustainable Aviation Fuels are mandated by a European regulation: the ReFuelEU Aviation regulation (Table 1).³ The Fuel Transition Obligation sets targets to steer emission reductions in each of these sectors with sub-obligations for the contribution of certain fuels and limits per year.

¹ TNO and Via Solutis 2025, [Bankability of Defossilised First-of-a-Kind Chemicals & Fuels Production Projects](#)

² RVO 2026, [Hernieuwbare energie voor vervoer](#)

³ Read more the scope of the Fuel Transition Obligation and further information about calculating the volumes on basis of the scope set by RED in [this factsheet](#)

Table 1: Overview of 2030 targets in the Dutch transport sector with sub-target and limits.

Transport sector and scope	2030 target	Important sub-target and limits
Land sector (road vehicles, rail vehicles, mobile machinery, agricultural/forestry machinery, recreational craft and fixed installations)	28.4 % minimum CO ₂ equivalent chain-emission reduction of transport fuels	- At least 8.8% from advanced renewable fuels - At least 1.45% from RFNBOs - Maximum 4.3% from Annex IX-B fuels.
Inland shipping (inland water way vessels)	14.5 % minimum CO ₂ equivalent chain-emission reduction of transport fuels	- Up to 2.9 % may be met with EREs from other sectors - At least 0.34% RFNBOs
Maritime sector (seagoing ships)	8.2 % minimum CO ₂ equivalent chain-emission reduction of transport fuels	- Up to 2.5 % may be met with EREs from other sectors - At least 0.32% RFNBOs
Aviation (aviation fuel supplied to aircraft)	14% blending of sustainable aviation fuel	Under ReFuelEU Aviation, not part of the Dutch BTv

In order to meet these targets, the Netherlands must increase the use of renewable energy from about 40 PJ in 2023 to more than 140 PJ in 2030 (Figure 3). Part of this task will be absorbed using renewable electricity in road transport, but the largest contribution will continue to come from renewable liquid and gaseous fuels.

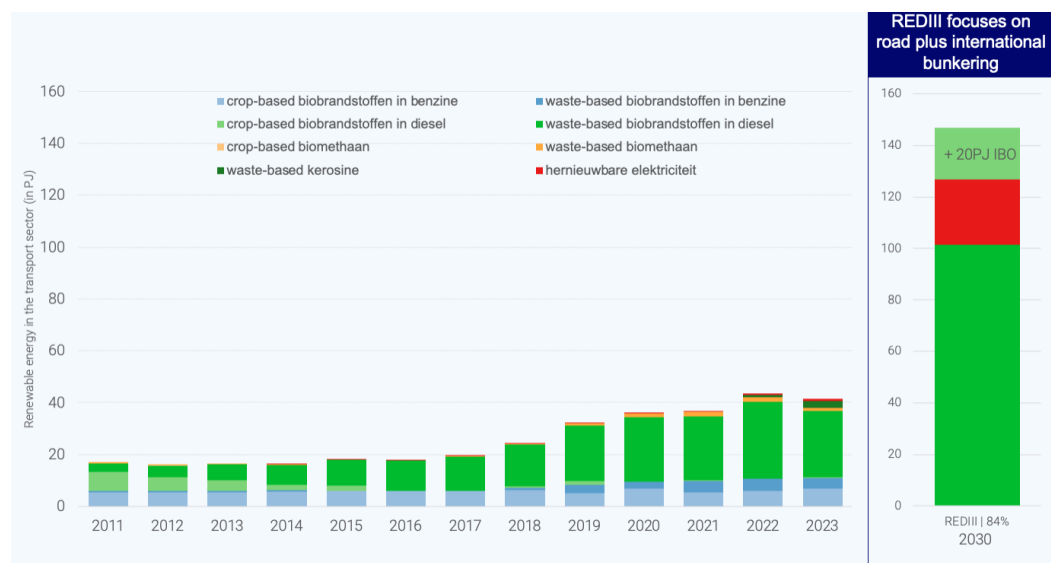


Figure 2: The deployment of renewable energy (in physical volumes) as a result of the increased annual obligation (Source: Netherlands Emission Authority, annual reports 'Jaarverplichting energie vervoer, 2021-2024'. For 2030, estimates are based on data KEV22, PBL and Besluit Voorjaarsnota 2023 = +20 PJ IBO, calculated in October 2024 based on previous targets)

The targets being based on emission reductions, we can translate this in terms of volumes that are required per sector. Given that the production of renewable fuels leads to a range of emission savings depending on their supply chain, we can estimate the volumes of renewable fuels that are needed by using the minimum threshold that they need to achieve. The fuel volumes required per sector can be estimated based on an average greenhouse gas emission savings of 75% to reach 2030 targets (Figure 4). The largest volumes of renewable fuels are required in the road transport and maritime shipping.

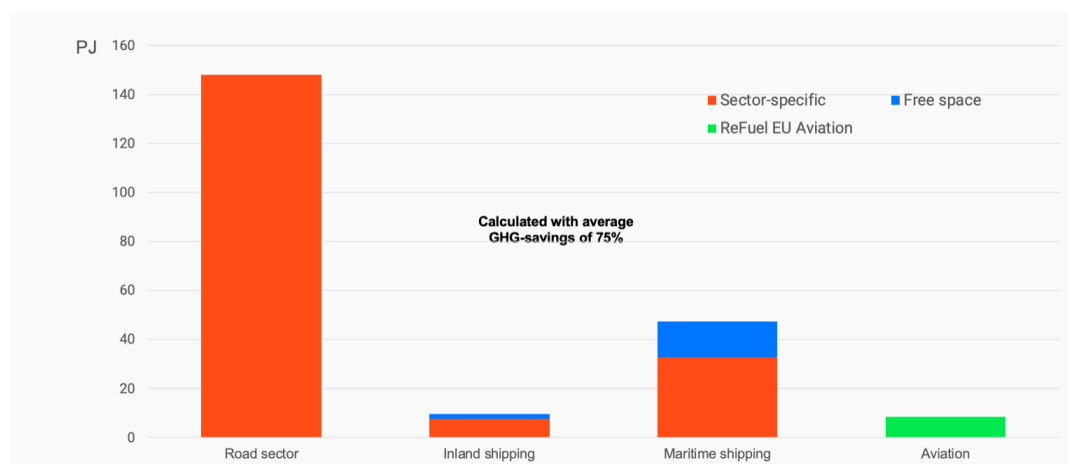


Figure 3: Estimated volumes of renewable fuels (PJ) in the different transport sectors required to meet emission reduction targets for 2030.

Subsidies to finance projects accelerating the transition

Several financial instruments in the form of subsidy are in place to support projects from research, pilots and renewable fuel production projects (Table 2).

The mandates for transport are in place and financial support from the government is there, but additional investments are needed to accelerate the scale-up of renewable fuel production projects. The European Central Bank estimated a need for an additional €400 – 550 billion of investments until 2030 to meet the Green Deal targets.⁴

Table 2: Overview of European and Dutch subsidies

Subsidy	Budget	Suitable for
Connecting Europe Facility (CEF) Transport	Total €330 million, with a maximum of 30% co-financing. Up to €130 million for road transport and airport, €200 million for shipping	For offshore power and battery charging points in seaports and inland ports, truck charging stations, electrification of airport ground operations, propulsion of ships with clean fuels
Demonstration Energy and Climate Innovation (DEI+)	Depending on category and type of project	For pilot or demonstration of innovative technology with the aim of emitting less CO ₂
Energy and Climate Research and Development (EKOOR)	Depending on category and type of project	Research and development projects for cheaper, climate-neutral and/or circular products and services
Horizon Europe	€93.5 billion (2021-2027)	European Research and Innovation Programme
Mission-driven research, development and innovation (MOOI)	Depending on category and type of project	Research and development projects for energy innovation in collaboration with at least 3 companies
SAF state aid	Total budget: €290 million	Investment support for the production of SAF and preparatory work for SAF projects, including technical design studies in the initial phase.

⁴ European Central Bank 2025, Green investment needs in the EU and their funding.