

eFuel Alliance information brochure

*This is what climate-neutral
fuels will cost in the future*

(Baseline data: Prognos et al.)

What will climate-neutral fuels cost in the future?

Mixing eFuels with conventional fossil fuels will result in two positive effects on the path to climate-neutral fuels in 2050 complementing each other.

1. The cost of eFuels will fall sharply between 2025 and 2050. (See 1)
2. The initial level of eFuel admixture will be very low in 2025 but will reach 100 % by 2050, making fuels climate-neutral. (See 2)

Conclusion: These two effects will lead to a moderate increase in fuel prices. Climate-neutral mobility will therefore be affordable for everyone. (See 3)

What are the cost advantages of liquid eFuels?

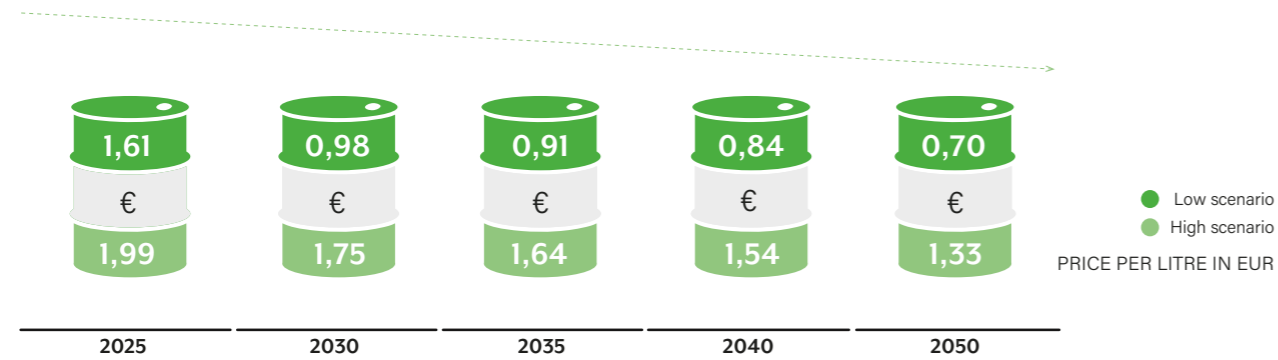
eFuels have the same comparatively high energy densities and storage potential of today's liquid fuels. This ensures the same easy and efficient handling along the entire logistics chain – from generation to consumption. Greater logistical distances are almost irrelevant due to the excellent transportability of liq-

uid eFuels: transport costs PtL = 1/40 of PtG.¹⁾ This makes it possible to import high-efficiency eFuels from regions around the globe with potential for renewable energies. At user level, climate-neutral eFuels can be added to today's conventional liquid fuels and combustibles.

1. eFuel generation costs (PtL syncrude as a crude oil substitute)

for large-scale industrial production in wind- & sun-rich regions of the world

DECREASING PRODUCTION COSTS



Lower cost path of eFuels: cost-effective international provision with optimal site conditions for renewable power generation and better electrolysis efficiency

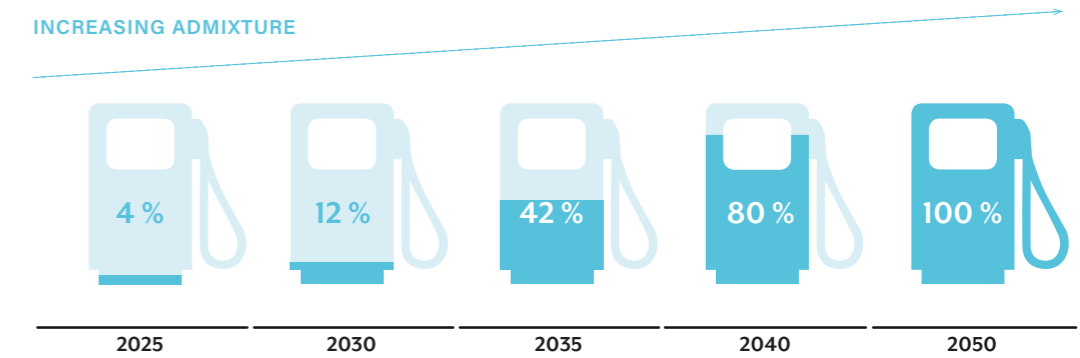
Higher cost path of eFuels: international provision with a not always optimal choice of location for renewable power generation and slower increase in electrolysis efficiency

¹⁾ "PtX transport costs from non-EU countries", dena pilot study, 2018.

2. Increasing the admixture of eFuels

will lead to climate-neutral fuels in 2050

Example of a market ramp-up of e-fuels with steadily increasing proportion in conventional fuels from today up to climate neutrality in 2050:



3. Development of end-user fuel prices

Future costs for the customer at the filling station

PRICE PER LITRE IN EUR

	2025	2030	2035	2040	2050
CZECH REPUBLIC					
diesel	1,17	1,18	1,22	1,34	1,35
petrol	1,20	1,21	1,23	1,36	1,36
FRANCE					
diesel	1,33	1,34	1,36	1,48	1,48
petrol	1,37	1,38	1,39	1,51	1,50
GERMANY					
diesel	1,21	1,22	1,24	1,36	1,36
petrol	1,34	1,36	1,36	1,48	1,46
HUNGARY					
diesel	1,14	1,15	1,20	1,32	1,34
petrol	1,12	1,14	1,18	1,30	1,32
ITALY					
diesel	1,37	1,39	1,40	1,52	1,52
petrol	1,44	1,45	1,45	1,58	1,56
POLAND					
diesel	1,10	1,11	1,16	1,28	1,30
petrol	1,10	1,11	1,15	1,27	1,29
SPAIN					
diesel	1,13	1,14	1,18	1,30	1,31
petrol	1,20	1,21	1,24	1,36	1,37

Basic assumptions for calculations:

- For the eFuel/conventional fuel mixtures (diesel/petrol), member states' individual energy tax rates apply. Energy tax is levied to the same extent as today for pure fossil products.
- The same applies to transport and distribution costs, margins and VAT.
- Calculations are based on large-scale expansion with efficiency gains and economies of scale as well as optimal international locations.

Important conclusions

- 1** eFuels harness electricity from renewable energies around the globe.
- 2** eFuels ensure the attainability of global and national climate targets.
- 3** Policymakers must open the regulatory framework for eFuels as soon as possible in order to enable their market ramp-up.
- 4** Only then can politicians ensure the sustainable, reliable and affordable transformation of transport.
- 5** They can be mixed, resulting in affordable fuels and combustibles at all times during the market ramp-up phase.

eFuels can thus make a significant contribution to the achievement of climate protection targets in the transport and building sector. Both in the EU and worldwide.

The eFuel Alliance is an interest group that advocates for a positive policy framework for the use and production of eFuels from renewable energies. We aim to win broader recognition of the significant contribution eFuels can make in the drive for sustainability and climate protection. Our goal is to facilitate the industrial production and wide-spread use of carbon neutral synthetic liquid fuels from renewable energy sources.



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(English) eFuels -
the solution for tomorrow's
climate-neutral transport