

Corrigendum: The Role of E-Fuels in Decarbonising Transport

Issued: January 2024

Link to Report: <https://www.iea.org/reports/the-role-of-e-fuels-in-decarbonising-transportpdf>

Page 5, expert acknowledgment, replace the following name:

Asmara Klein Topsoe

with the **updated one**

Agustín Rodríguez Riccio Topsoe

Page 8, first paragraph, replace “**only 1-2%**” with “**less than 1%**”

Although a substantial increase, the extra cost would represent **only 1-2% less than 1%** of the typical value of goods transported in containers.

Page 36, first paragraph, change “**hydrogen-based fuel**” to “**e-fuel**”

With the EU’s 2022 average grid emissions (252 g CO₂/kWh), **hydrogen-based fuel e-fuel** emissions would still be slightly above of comparable fossil fuels.

Page 38, third paragraph, replace “**capacity**” with “**load**”

At this level, the annual **capacity load** factor of an e-fuels plant reaches 62% solely based on variable renewable energy without any need for intermediate buffer storage.

Page 39, first paragraph, replace “**capacity**” with “**load**”

While hybridization does not contribute to higher **capacity load** factor, it can be used to minimise curtailments for a given amount of oversizing.

Page 40, delete the text under the figure:

Notes: CO₂ capture costs USD 30/t CO₂ from high-concentration sources, USD 80/t CO₂ from flue gases, USD 400/t CO₂ from direct air capture. All other assumptions are for 2030. Financial: WACC 5%, economic life 25 years. Performance (all in LHV): electrolyser 69%, H₂-to-ammonia 88%, H₂-to-methanol 80%, ammonia and methanol synthesis minimum load 30%, electricity consumption of compression and ASU for ammonia plant 500 kWh/t, electricity consumption of compression and distillation for methanol plant 1 100 kWh/t. CAPEX: solar PV USD 690/kW, wind onshore USD 1 160/kW, electrolyser USD 800/kW_e, H₂ storage USD 400/kg, ASU + ammonia

synthesis loop USD 700/kW_e, methanol synthesis loop + distillation USD 700/kW_e. OPEX: onshore wind USD 10/MWh (today and 2030), solar PV USD 10/MWh (today), USD 5/MWh (2030), electrolysis 1.5%/yr of CAPEX, synthesis 3%/yr of CAPEX. Consumables: water USD 2/m³, ~~CO₂ feedstock USD 30/t~~. No value assumed for by-product heat.

Page 48, revise the text under the figure:

Notes: The example features an e-kerosene plant based in US Midwest with 18% capacity factor for solar PV and 44% for onshore wind. Financial: WACC 5%, economic life 25 years. Performance (all in LHV): electrolyser 65% (today), 69% (2030); H₂-to-syn-crude 57%, transport fuel mass yield from FT jet fuel refinery 85%, FT synthesis minimum load 30%, electricity consumption of compression and refining 540 kWh/t. CAPEX: solar PV USD 1 120/kW (today), USD 690/kW (2030), wind onshore USD 1 220/kW (today), USD 1 160/kW (2030), electrolyser USD 2 000/kW_e (today), USD 800/kW_e (2030); H₂ storage USD 400/kg, RWGS + FT synthesis + refinery USD 1 200/kW_e. OPEX: onshore wind USD 10/MWh (today and 2030), solar PV USD 10/MWh (today), USD 5/MWh (2030), electrolysis 1.5%/yr of CAPEX, synthesis 3%/yr of CAPEX. Consumables: water USD 2/m³, ~~CO₂ feedstock USD 30/t~~ **CO₂ feedstock USD 80/t (unoptimised) USD 30/t (optimised)**. Value of e-gasoline by-product assumed equal to e-kerosene. No value assumed for by-product heat. Weather data from [Renewables.ninja](https://renewables.ninja).

Page 57, first sentence, replace “high” with “large”

Despite the **high large** increase in the total cost of ownership, the overall impact on shipping would be moderated by the high value of the transported goods.

Page 62, second paragraph, replace “biodiesel” with “biomass-based FT fuel”

Close to 40 Mt CO₂ could be captured in 2030, with around 65% from bioethanol and ~~biodiesel~~ **biomass-based FT fuel** plants and 35% from heat and power plants, according to publicly announced projects.

Page 70, fifth paragraph, delete “all applications of”

Stimulate demand creation for ~~all applications of~~ low-emission electrolytic hydrogen to accelerate cost reduction of electrolysers. Achieving lower electrolyser CAPEX is a key component for enabling large-scale deployment of e-fuels by 2030.