

The EU's plan for Ukraine hydrogen exports is colonialist greenwash

Monday 15 August 2022, by [PIRANI Simon](#) (Date first published: 11 August 2022).

Plan to pipe huge amounts of resource-intensive “green” hydrogen to Europe would undermine Ukraine’s recovery

The European Commission, cheered on by fossil fuel companies, is promoting a plan to put exporting hydrogen to Europe at the centre of Ukraine’s post-war recovery. The plan reeks of greenwash and neocolonialism, and should be scrapped.

Hydrogen is extracted from fossil gas and is used in oil refining and industrial processes. It has a huge carbon footprint, as left-over carbon is released into the air.

Hydrogen lobbyists say that in future the gas will be “blue” (with the left-over carbon captured and stored) or “green” (made by electrolysis – passing an electric current through water). But even “green” hydrogen, the only carbon-free kind, gulps down huge quantities of renewable electricity. Plans to export it from Ukraine – which will need that clean electricity itself for decades to come – are little more than cynical profiteering in wartime.

Hydrogen may be used in future in industrial sectors that are hard to decarbonise, such as steelmaking, fertiliser production and long-distance transport. But the picture painted by lobbyists, of its widespread use for residential heating and urban transport, is dangerously counter-productive.

It undermines effective climate policies in the interests of fossil fuel companies – who see hydrogen as a survival strategy, because it can be made from gas, and uses similar infrastructure and technologies.

Where the plan came from

The European Commission’s [Fit for 55](#) decarbonisation policy, published in 2021, featured a plan to generate “green” hydrogen from thousands of electrolytic cells in Ukraine and north Africa, and export it to European countries. This idea was lifted wholesale from a plan proposed by Hydrogen Europe, an industry [lobbying](#) group, the year before.

Russia’s invasion of Ukraine in February, far from offering pause for thought about plunging resources into a speculative technology, accelerated the hydrogen import plan.

In May, the European Commission published its [RePowerEU](#) energy policy proposals, which focused on reducing dependence on Russian energy imports. Its targets for expanding hydrogen use by 2030 had swelled nearly four times over – although there are far better ways to cut dependence on Russian imports.

In response, the European Hydrogen Backbone – a lobbying group supported by gas transport companies – [offered](#) a hydrogen transportation network, ready by 2040 and compatible with the

RePowerEU plans, for €80bn to €143bn. The side benefit for the gas companies is obvious: repurposing their pipelines for a new fuel.

Brussels is now [negotiating](#) a “strategic partnership” with Ukraine on hydrogen and biomethane. And a linked [study](#), supported by the German government, endorses Hydrogen Europe’s proposal for 8 gigawatts (GW) of wind and solar generation capacity in Ukraine – a little more than the current total – for hydrogen production, by 2030.

At the [Ukraine Recovery Conference in Lugano](#) last month, the Ukrainian government presented a post-war [reconstruction plan](#), in which hydrogen is the biggest item of energy investment. Out of a proposed \$114bn for energy transition, hydrogen takes up \$40bn for electricity generation and transport infrastructure, and \$7bn for electrolytic cells that would send electric current through water to make hydrogen. Renewables for Ukraine’s own electricity needs are assigned \$15bn, gas production \$18bn and the nuclear industry \$14bn.

Civil society reacted with alarm to these proposals. The Ukrainian government has “unjustified expectations” for hydrogen export, environmentalist campaign group Ecoaction [said](#).

Instead of using renewable electricity for exporting hydrogen, it would be “much more expedient” to put it into the Ukrainian grid, to reduce coal, gas and nuclear generation capacity.

Five reasons to stop

There are five reasons why the hydrogen export plan should be scrapped.

First, Ukraine should, as rapidly as possible, increase renewable electricity generation, as Ecoaction proposes.

The faster renewables come to dominate Ukraine’s energy supply, the more effective and socially just will be the necessary [transition](#) away from coal in the mining areas devastated by the Russian army; and the quicker Ukraine can stop importing gas. Since 2016, Ukraine has imported gas at its western border, instead of directly from Russia, but is still almost all Russian in origin. This gas comes via countries like Poland, Austria and Germany, but was produced in Russia.

The 8GW of renewable capacity that Hydrogen Europe wants to use for hydrogen export could, instead, supply heat pumps to warm millions of Ukrainian homes that now rely on boilers, or ageing district heating systems, which burn gas or coal. And Ukraine will need many times that amount of renewables in the coming decades to decarbonise its energy system fully.

The other crucial priority for Ukrainian energy policy is conservation. Urban infrastructure dating from the 1960s and 1970s needs to be renewed or replaced. Homes that leak heat need to be [insulated](#). District heating systems, and the combined heat and power plants that supply them, desperately need to be revamped with electric heat pumps, as a [recent report](#) from the Low Carbon Ukraine research group showed.

The government’s recovery plan includes an impressive \$59bn for residential energy efficiency, \$11bn for district heating and \$18bn for heat pumps. This is good. But delivery is a mammoth challenge: past plans have failed due to lack of human resources and political will. Diverting those to the fanciful hydrogen export plan is less than war-torn Ukraine deserves.

Second, if Ukraine decides to use spare renewable energy to make “green” hydrogen, the possibility of using that instead of “grey” hydrogen – produced from gas, with a gigantic carbon footprint – for the country’s industrial sector should be examined. Most of this “grey” hydrogen is used to produce

fertilisers in plants owned by Group DF, a holding company controlled by oligarch Dmytro Firtash.

Ukraine produces 1.1 million tonnes of “grey” hydrogen annually, according to [research](#) commissioned by the UN Economic Commission for Europe. This production probably accounts for about 4% of Ukraine’s carbon dioxide emissions.

Third, by grabbing renewably-produced electricity that Ukraine desperately needs itself, the EU would reinforce neocolonial economic relations. The hydrogen imports proposal covers Morocco, Algeria and Egypt, as well as Ukraine, and would perpetuate a “neocolonial energy model based on exploiting countries in the Global South”, the Corporate Europe Observatory has [warned](#). The economic and energy needs of exporter countries would, in effect, be subordinated to an export business that serves the gas industry, and the richest European countries.

Energy researchers in Germany, the prime potential importer, have [pointed to](#) the country’s National Hydrogen Strategy, which states that trade in the gas should not “impede the supply of renewable energy, which is inadequate in many cases, in the developing countries”. If that principle were applied, the Ukrainian scheme would be paused tomorrow.

Fourth, fossil fuel companies conceived the European import plan to create a hydrogen market where it is not needed, primarily for residential heating. As Jan Rosenow, senior energy researcher at the Regulatory Assistance Project [points out](#), gas industry representatives present hydrogen to politicians as a “low-cost, no-disruption option”, supported by “overblown” claims that clean alternatives are too expensive and disruptive.

Using renewables to power heat pumps is [five times](#) more efficient – and cheaper, a study for the UK’s Climate Change Committee [found](#). Hydrogen makes sense only for winter back-up in hybrid systems. It is being pushed at the expense of rational climate policy.

Fifth, EU investment in hydrogen import would benefit neither Ukrainians nor the green transition, but would help fossil fuel companies, and perhaps nuclear ones. For the next 20 years, the German Energy Agency [points out](#), dedicated transport infrastructure for hydrogen is unlikely to be available. Any hydrogen produced in Ukraine would probably be blended with gas.

European gas transport companies are working towards a gas-hydrogen mixture in which hydrogen is 10% of the volume. The opportunities for greenwashing this mixture would be sumptuous, while the cuts in greenhouse gas emissions would be close to zero.

Another possibility that worries Ukrainian environmentalists is that electrolysis for “green” hydrogen would be powered by the country’s substantial nuclear power capacity, rather than wind or solar – another lifeline for an industry that needs to contract.

If the European Commission and the fossil fuel industry spend billions of euros on problematic hydrogen technology, that will inevitably be at the expense of energy conservation and renewables, the real decarbonisation priorities. They must not be allowed to use war-torn Ukraine as a testing-ground for a false solution. European and Ukrainian civil society can and must unite to stop them.

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