

IT'S NOW OR NEVER: THE 'FIT FOR 55' PACKAGE IS CRUCIAL FOR EUROPE'S CLIMATE AMBITIONS

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Europe has taken the lead in the fight against climate change with the European Green Deal and the commitment to climate-neutrality by 2050. With the rollout of the 'Fit for 55' package, we are reaching a make-or-break moment: now is the time to walk the talk and keep faith to the level of climate ambition announced to the whole world. The EU Green Deal success story can only be achieved by enacting a clear commitment towards:

1. RENEWABLES: ONLY ZERO EMISSIONS SOLUTIONS WILL BE SUITABLE IN A DECARBONISED FUTURE.

2050 is just one investment cycle away and therefore the reduction of our current emissions must be driven exclusively through efficient and zero emission energy sources, if we want to avoid the effects of carbon lock in. Fossil fuels and low-carbon gases are not the solutions to successfully achieve the challenge of the Green Deal. Cost benefit analysis are always in favor of renewables, if we consider environmental costs and abatement of residual CO₂ for "low carbon" solutions. As IRENA puts it, renewable power generation is becoming the default economic choice for new capacity. The mission must be to accelerate the development of renewables and create the suitable enabling conditions. As the IEA's "Net Zero 2050 Roadmap" puts it: "*There is no need for investment in new fossil fuel supply in our net zero pathway*"

2. DIRECT ELECTRIFICATION: DIRECT ELECTRIFICATION OFFERS THE CHEAPEST AND SIMPLEST ROUTE TO DECARBONIZE LARGE PORTIONS OF TOTAL FINAL ENERGY USES.

In buildings. In buildings there is a great amount of energy inefficiency. We need to directly electrify heating and cooling systems in private and public spaces in order to save energy and money for consumers. Studies demonstrate that electric heat pumps use four times less energy than oil or gas boilers. In May, the IEA report Net Zero by 2050 concluded that no new fossil fuel boiler should be sold globally as of 2025.

In road transport. Electric vehicles are getting cheaper and cheaper and are three to five times more efficient than the internal combustion engine vehicles. Building on shared mobility, sustainable battery production and optimized transportation needs, they are the only future-proof solution to decarbonize road transport.

3. RENEWABLE HYDROGEN: RENEWABLE HYDROGEN (PRODUCED BY ELECTROLYSIS FED BY RENEWABLE ELECTRICITY) MUST BE USED IN PRIORITY SECTORS THAT ARE HARD TO ELECTRIFY, AND DRIVE ADDITIONAL INVESTMENTS IN RENEWABLES.

Renewable hydrogen is the only truly sustainable production pathway, at zero greenhouse gas emissions and fed by renewable sources. There is no other production method which holds parallel sustainability features. Low carbon will not bring zero carbon and blue hydrogen is a dead-end street rather than a bridge to renewable hydrogen.

Since direct electrification is the cheapest way to decarbonize our economy, renewable hydrogen and other alternatives should be used only to substitute current use of fossil based hydrogen as industrial feedstock and to decarbonize the hard-to-abate sectors (heavy industry like steel and chemicals, shipping and aviation), where other solutions compatible with climate neutrality are not available. Blending hydrogen into the gas grid goes against a strategic and targeted use of this resource and decreases the volume available for sectors where no alternatives currently exist. Retrofitting infrastructure for blending is not cost efficient and has a minimal impact on greenhouse gas emissions.

4. GRIDS: THE GRIDS ARE THE ENABLER OF THE ENERGY TRANSITION.

The consequence is that investments in electricity infrastructure such as smart grids, demand-side management, and electrical transmission and distribution grids are going to be needed. In Europe the share of generation capacity directly connected to distribution grids is expected to grow from the current 24% to 67% in 2050, according to BNEF. Continued investment in electricity system infrastructure is a "no-regret" option because direct electrification will be the basis of decarbonization.

By making the right choices now and placing renewables and direct electrification at the core of Europe's future energy system, we can truly live our "Man on the moon moment".

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