

Thursday 2nd June 2022
Brussels

How cleantech innovation will boost the Repowering of the EU

Your Excellencies Heads of State and Government,
Your Excellences Permanent representatives to the EU,
Dear Mister President of the European Council,
Dear Madam President of the European Commission,
Dear Executive Vice-Presidents of the European Commission,
Dear Madam Chairwoman and Mister Chairmen of the European Parliament Committees,
Dear Members of the European Parliament,

We, the undersigned, fully support the objectives of the REPowerEU Plan as a response to the hardships and global energy market disruption caused by Vladimir Putin's second invasion of Ukraine. Europe must phase out its dependency on fossil fuels faster and increase investments in climate innovation to deliver energy savings, diversification of energy supplies, and an accelerated roll-out of renewable energy.

We welcome the positioning of energy savings first in addressing this energy crisis, as increased energy efficiency targets and a boost to renovations will improve the delivery of the EU Renovation Wave. Focusing on reducing energy demand will enable an easier, quicker and more cost-effective deployment of renewable energies. We also endorse the recognition of the central role that energy storage plays in ensuring flexibility and security of supply in the energy system by facilitating the integration of variable renewables while reinforcing grid stability and reducing the need for grid development.

We see the increased 2030 renewables targets, a new strategy to double solar photovoltaic capacity by 2025, the simplification of permitting for major renewable projects with 'go-to' areas, and a legal obligation to install solar panels on new buildings as all strong drivers of innovation in the delivery of onsite and utility scale renewable generation. This urgent increase in renewable power is a cornerstone in the delivery of REPowerEU's target of 10 million tonnes of domestic renewable hydrogen production by 2030, to replace natural gas, coal and oil in hard-to-electrify industries and transport such as aviation and shipping. Additional funding for hydrogen storage infrastructure and research through REPowerEU is also welcome.

However, we believe that bolder action can be made in the following areas:

- Concrete strategies should be put in place to accelerate the deployment of the clean technologies we need to enable a renewable-heavy energy mix. Long-duration energy storage, innovative renewables and smart grid technologies in particular need clear and binding targets.
- Financing the transition should not come at the expense of the Climate Law. Selling additional ETS allowances does jeopardise that and introduces an instability in the carbon price just as businesses are reacting to new long-term signals. The use of the ETS Market Stability Reserve as a funding source is likely to increase emissions, undermine the credibility of the ETS, reduce the carbon price, and create market

unpredictability and thereby disincentivize clean technology investments and climate innovation.

- The REPowerEU plan still over-relies on building new fossil fuel infrastructure and yet [research](#) by E3G, RAP, Bellona and Ember, clearly shows that this is not needed and will create stranded assets in our net-zero emissions future.

Raising an additional €210 billion of public and private investment between now and 2027 is another significant challenge. The savings of almost €100 billion per year from Russian fossil imports can be augmented by energy savings delivered through efficiency and investment in new and emerging technologies. The costs of storage, innovative electrification and renewable hydrogen applications in hard-to-electrify sectors can only come down with these new investments.

We welcome the Commission's re-prioritisation of identified components of MFF and RRFs to help deliver the goals of REPowerEU and underscore the critical roles Horizon Europe, the EIC and the Innovation Fund have to deliver the technologies Europe needs to enhance energy security. Member States now have the chance to repurpose RRF money to deploy innovative cleantech solutions. The Innovation Fund is one of the world's largest and smartest funding programmes for the first-of-a-kind demonstration projects of innovative low-carbon technologies. As such, we endorse its roll out of carbon contracts for difference to support the full switch of the existing hydrogen production in industrial processes, from natural gas to renewables, and the transition to hydrogen-based production processes in new industrial sectors. Nonetheless, we remain concerned that true climate innovation may be crowded-out unless clear safeguards are put in place to [protect the Innovation Fund from becoming a generalist climate fund](#).

In closing, we underscore REPowerEU's call for massive joint green procurement to unlock the true innovation that we witnessed in joint Government vaccine procurement and health data collaboration during the global COVID-19 pandemic. Further, an external energy strategy that aligns the EU's long-term partnerships with suppliers with the objectives of the EU Green Deal will also enhance the EU's climate leadership and its long-term energy security.

We remain convinced that to repower the EU, we need to supercharge cleantech innovation and its deployment through delivering a policy framework fit for innovation, that truly links European programs (like HEU, IF, EIC) to deliver on the scaling and deployment. Below our signatures, we highlight some of the policies in the Fit for 55 package which we together believe will deliver climate innovation and deliver our energy independence and strategic autonomy.

We stand ready to assist you in any way, and we welcome any opportunity to discuss this further with you and your cabinets.

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EUREC
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Renewable Energy Research Centres

JDEC — JACQUES DELORS
ENERGY CENTRE

MVP



NEGATIVE
EMISSIONS
PLATFORM



Ocean Energy
Europe

Policy recommendations to free Europe from its dependence on Russian fossil fuels and accelerate a just energy transition to full fossil independence.

The signatories of this letter urge you to support the following immediate policy actions:

Carbon Pricing

- Protect the integrity of the EU-ETS as a functioning EU-wide carbon market that delivers a price signal to investors, with an ETS Market Stability Reserve continuing as a mechanism to provide price stability and not be misused for short-term funding.
- Introduce a carbon floor price in EU ETS to provide predictability to investors, thus helping to de-risk their projects and ease their access to private finance.
- Consider a carbon border adjustment mechanism that includes hydrogen and hydrogen-based products.
- By 2030, phase-out all EU ETS free allowances to all sectors (i.e. both those covered and not covered by the carbon border adjustment mechanism). Those allowances should be granted to the Innovation Fund, to invest in the best clean innovation projects, such as producing steel via [renewable hydrogen direct reduction](#) of iron ore*; and incentivise the replacement of fossil inputs by [bio-based input](#)* in chemistry.
- Revise, without delay, the rules applicable to benchmarks to level the playing-field for new zero and close-to-zero emission technologies.

Financial instruments

- Fast-track deployment of carbon contracts for difference (CCfDs) to support the uptake of renewable hydrogen in hydrogen-consuming industry and hard-to-electrify sectors at EU level through the Innovation Fund (IF).
- Amend the EU ETS Directive so that Member States are encouraged to “top-up” the 60% maximum cost cap for the most needed and meritorious projects to 100%, if determined; and create specific IF clusters for different technologies with an earmark of a dedicated amount of ETS revenues for the scale-up of mission critical earlier stage cleantech solutions like technological removals.
- Embed flexibility in the early implementation of CCfDs so they can support technologies which will mature over the span of the next decade of Innovation Fund disbursements.
- Ensure the Energy Efficiency First Principle is being applied by financial institutions across public financial instruments, including Recovery and Resilience Plans and financial outlays at the Member State level.
- Ensure that a well funded Social Climate Fund becomes a driving engine for mass deployment of clean technologies and solutions (heat pumps, deep renovation, electric buses) particularly for the energy poor.
- Increase the European Investment Fund’s allocation to cleantech development and deployment.
- Ensure that unabated fossil gas is excluded from the Sustainable EU Taxonomy.
- Increase the share of storage and smart grids projects in the next PCI list.

Energy efficiency and embodied carbon

- Nationally binding targets must be included in the recast Energy Efficiency Directive to signal energy demand reduction pathways and deliver REPowerEU goals.

- Enhance the EPBD Minimum Energy Performance Standards provision to align it with climate neutrality by 2050, by increasing performance level and advancing implementation timelines.
- In EPBD, require Member States to provide financial support to boost serial-type and turnkey renovation schemes to deliver a large-scale deployment of buildings renovation, onsite solar, heating and cooling networks and heat pumps. Advance the end of fossil fuel boiler installations to 2025 to align with IEA net-zero scenario analysis.
- Further, in the EPBD, provide full right of access to building owners, tenants and managers to their energy data with the freedom to pass this to third parties such as researchers or renovation contractors. Publicly owned buildings' data must generally be freely, fully and rapidly available to researchers.
- Ensure that the ESPR requires transparency throughout the buildings' supply chain, especially with regards to carbon footprint, with digital product passports required in all key structural components and materials.

Mobility

- Ensure that the only new cars and heavy duty vehicles that can be sold in Europe by 2035 are zero-emission vehicles. This would accelerate the electrification of transport, with positive spillover also for larger vehicles like buses, [trucks*](#), [planes*](#), boats, agricultural equipment and yellow machinery.
- Implement credible targets for sustainable aviation fuels in ReFuelEU Aviation, including an e-fuels target of 0.1% in 2025, 2% in 2030 and increasing to 7% in 2035.
- Ensure the deployment of hydrogen and ammonia infrastructure for the maritime sector, and binding targets for uptake of RFNBOs to incentivise these e-fuels.
- Deploy a massive EU-wide [charging network*](#) for electric cars and trucks. Enable fast-charging on highways and MW-scale charging for trucks in key segments of the road network. Ensure all Member States guarantee that parking space owners in residential and nonresidential buildings are seamlessly able to install, at their own expense, EV charge points without any further approval or procedure, other than the prior communication to the building co-owners, by implementing a *right to plug* provision.

Renewable Energy, grid and storage

- Ensure the EU power grid can absorb an increased share of variable renewables. Specifically:
 - o Speed up the deployment of complementary technologies that can be more reactive, manageable, or predictable, such as floating offshore wind, solar thermal, geothermal or ocean energy
 - o Strengthen and modernise EU electricity grids through priority investments on software and hardware innovations for [grid mapping*](#), [transmission efficiency* improvements*](#) and [optimisation*](#). Support innovative solutions enabling the development of cross-border offshore grids
 - o Introduce long-duration electricity and thermal storage targets and roadmaps for each Member State (integrated in the National Energy and Climate Plans). This includes [power to gas*](#), but also [grid-scale batteries*](#), [hydrogen storage*](#) and [innovative pumped hydro storage*](#).
- Develop renewable heating solutions, such as heat pumps or [solar heat for district heating*](#) and for [industrial heat*](#).
- Follow [Rapporteur Piepers' suggestion](#) to set a target alongside the 2030 renewable energy target for at least 5 % of newly installed renewable energy capacity to be from

innovative renewable energy technology and to implement a more granular system for Guarantees of Origins (GOO).

- Reinforce and promote special regimes (e.g., regulatory sandboxes and carbon contracts for difference) to support innovative renewables like [wave power](#)*, [advanced geothermal](#)*, [floating offshore wind](#)*, [building-integrated solar](#)* and agri-PV.
- Launch an Insurance Scheme for innovative renewable energy projects.

Carbon Capture, Removal and Storage

- Ensure the development of an optimised, EU-wide CO₂ transport and storage network (including by redeploying gas infrastructure) to enable key industries to transition to net-zero and retain vital sources of employment, while encouraging new carbon removal industries, thereby supporting new sources of employment in the future.
- Encourage Member States to develop cross-border agreements on CO₂ transport and storage with EU and non-EU Member States. This would include removing legal barriers such as those contained in the London Protocol as well as provide guidelines on the export of CO₂ to non-EU countries.
- Develop a Carbon Removal Certification Mechanism that establishes comprehensive and robust rules for each type of carbon removal, on top of a common EU minimum standard.
- Consider the options on how to integrate technological CDR alongside or within the EU ETS. For future revisions of the climate framework, consider establishing a fourth pillar for permanent removal to complement LULUCF, ETS and the ESR, which would set compliance targets for negative emissions.

Gas, methane, hydrogen, TEN-E and infrastructure

- Expand proposed methane regulations to the full domestic value chain and imports.
- Shorten the timelines on implementation of domestic methane regulations in order to save wasted gas and alleviate supply concerns in the near-term.
- Introduce a comprehensive certification scheme for all low-carbon fuels entering the European market to create a level playing field.
- Maintain the binding 50% renewable hydrogen consumption target in priority industrial sectors to scale the [renewable hydrogen production](#)* capacity throughout Europe, and 2.6% renewable fuels from non-biological origin targets in limited fit-for net-zero sectors.
- Prioritise the use of renewable hydrogen and derived e-fuels in sectors that already consume hydrogen or are hard-to-electrify and have no other decarbonisation alternatives, such as heavy industry and energy intensive transport notably aviation and shipping.
- Streamline the permitting processes for renewable hydrogen production plants in line with the public interest considerations for renewable generation and electrolysers.
- Repurpose gas infrastructure to transport and store CO₂ and hydrogen where a technical and economic analysis shows a clear benefit to the system.
- Protect the integrity of renewable hydrogen by not including blending as it would raise consumer costs by about a third, while only [reducing emissions by 6-7%](#) given that hydrogen has roughly three times less energy density by volume than fossil gas.

N.B. Hyperlinks marked with an asterisk* refer to European companies that are examples of the specific technologies mentioned in this letter.