BELLONA EUROPA

CONSULTATION RESPONSE

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Review report on the Governance Regulation - Energy Union and Climate Action

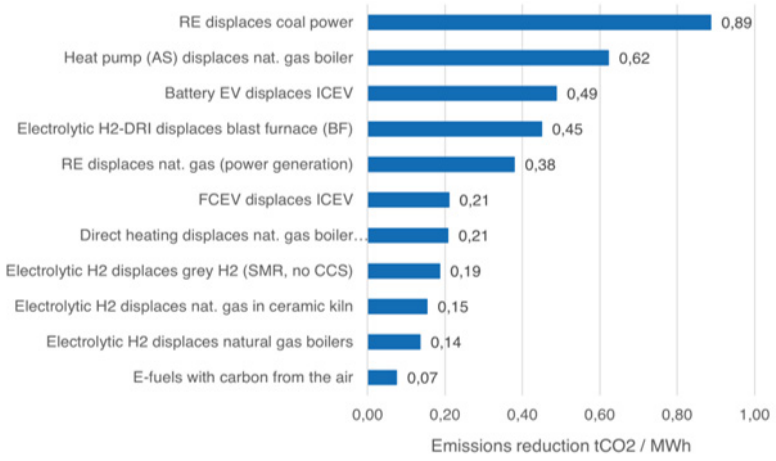
BELLONA EUROPA

REVIEW REPORT ON THE GOVERNANCE REGULATION - ENERGY UNION AND CLIMATE ACTION

Bellona Europa welcomes the opportunity to provide feedback to The Governance Regulation and planning of energy and climate policies to achieve the Energy Union objectives for 2030. Given the need to reflect the higher ambition of the Fitfor55 package, we support the review of the Regulation through the following aspects of the key dimensions of the Energy Union.

DECARBONISATION

To effectively decarbonise our energy consumption, the production from renewable sources needs to be harnessed, stored, transmitted and distributed efficiently. Renewable electricity should therefore be used to directly electrify homes, transport and parts of the industry, whilst liquid, gaseous and solid renewable fuels will remain limited in scale due to either large energy losses or limited feedstock. Therefore, renewable fuels should only be used where the direct use of electricity is not an option.



FCEV: Fuel Cell Electric Vehicle, EV: Electric Vehicle, ICEV: internal Combustion Engine Vehicle RE: Renewable Electricity, DRI: Direct Reduced Iron

Source: Bellona analysis.[5] The use of renewables will usually focus on electricity but in some cases may include a component of renewable heat.

Figure 1: Direct uses of renewable electricity yield more emission reductions, as seen in the examples of using 1MWh of renewable electricity illustrated in this figure (Bellona 2022).

In addition to the efficient use of renewable electricity, electricity grids will play a crucial role in a renewable energy electricity system. Their mainetance and buildout should be supported through accelerated permitting and anticipatory planning, ensuring that renewable energy targets can be achieved.

ENERGY SECURITY & ENERGY EFFICIENCY

Reducing fossil gas and fossil fuel dependency will require large investments into renewable capacity deployment. The use of the renewable electricity generated could also lead to different outcomes in terms of our energy security.

For example, using 1 TWh of electricity to heat homes with heat pumps instead of gas boilers displaces three times more gas than using it to produce hydrogen for electricity production. Switching off gas-fired power plants to power the grid through the deployment of additional renewables is also a much more efficient solution than using this electricity for hydrogen production and then using the hydrogen for power production. How effectively we use electricity will determine how easily we move away from depending on fossil fuel use and achieve energy security.

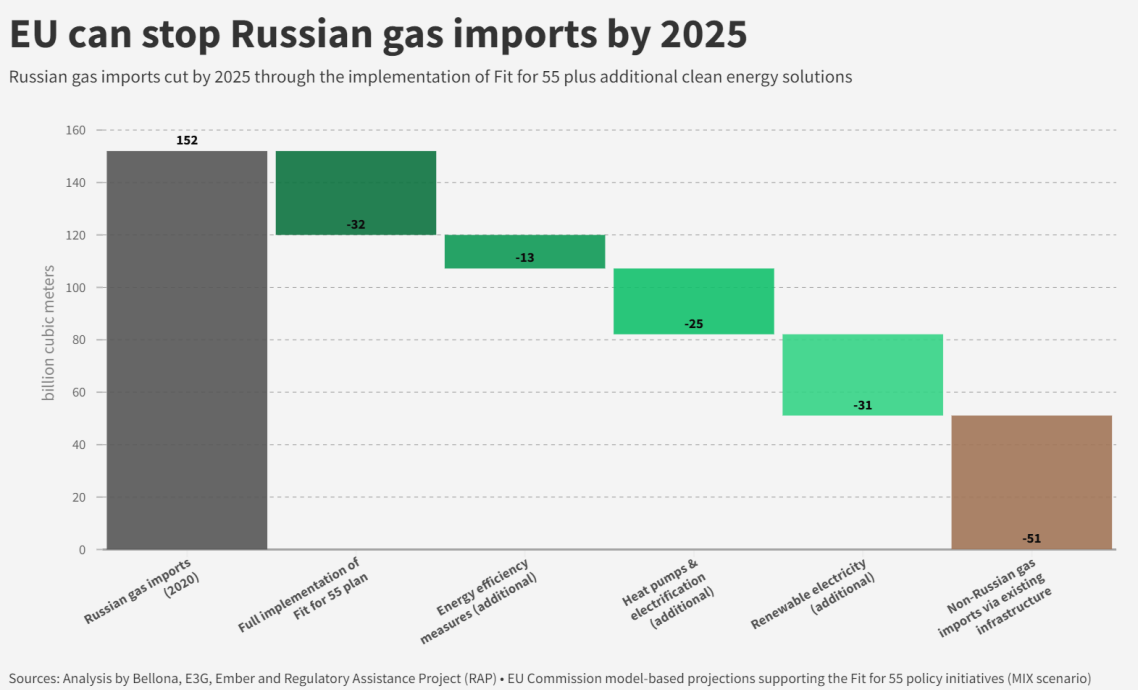


Figure 2: Figure from Briefing 'EU can stop Russian gas imports by 2025' (Bellona, E3G, Ember and Regulatory Assistance Project 2022)

THE INTERNAL ENERGY MARKET

The key reforms of the internal energy market, specifically the Electricity Market Design, need to ensure sufficient investment in renewables, address grid infrastructure needs, promote the efficient use of energy and finally, encourage and enable demand side flexibility. Reforming the electricity system will enable a higher integration of renewable electricity sources and therefore contribute to significant emission reductions in many sectors.

To support the key dimensions of the Energy Union, including decarbonisation, energy security and energy efficiency, the review of the Regulation should take into account the following principles:

1. Carbon-intensive energy use needs to be replaced with the direct use of renewable electricity sources wherever possible. The efficient dispatch and direct use of renewable electricity with minimal energy losses along the way is key to reducing emissions as quickly as possible.
2. Renewable energy generation is produced in very different regions from the centralised locations of major power demand. Therefore, existing grid infrastructure requires immense maintenance work, but new infrastructure is also needed to fully transition to a renewable-based system.
3. As emphasised in the REPowerEU plan, permitting needs to be accelerated to build the needed grid and renewables infrastructure.
4. Incentives need to be developed to ensure the right mechanisms are in place to balance an increasingly renewables-heavy grid. Enhancing grid flexibility is crucial to balancing the grid and accommodating the increasing electricity demand; therefore, implementing technologies such as energy storage systems, demand response mechanisms, and grid management solutions is crucial.
5. To ensure a low climate impact, electrolytic hydrogen should be produced from additional as well as temporally and geographically matched renewable electricity generation, as set out in the Delegated Act for Renewable Fuels of Non-Biological Origin.
6. All of the greenhouse gases emitted to produce hydrogen, regardless of technology or feedstock, must be taken into account. This should include the carbon source (if any), upstream emissions, indirect land use change (if any), any potential leakage and all indirect emissions incurred for the energy to produce the H2 or any other alternative fuel.
7. Due to their resource requirements and limited supply, renewable solid, liquid and gaseous fuels, such as hydrogen or biofuels, need to be used in a targeted way (i.e., in sectors where direct electrification is not possible).

RECOMMENDATIONS FOR REGULATION REVIEW

Overall, the Regulation on the Governance of the Energy Union and Climate Action should be revised to fully reflect the more ambitious climate targets by 2030 and more ambitious elements of the Fit for 55 package.

- ◊ The above-mentioned principles should be considered in the potential revision of the Regulation, as they ensure a cost-efficient and effective energy transition.
- ◊ The National Energy and Climate Plans need to outline realistic and anticipatory plans to reduce emissions in each sector. If projects rely on resources that need to be developed, plans for obtaining such resources should be obligatory (e.g., renewable electricity for hydrogen production).
- ◊ To reach carbon neutrality, member states may outline carbon dioxide removal targets. However, these CDR targets must be expressed separately from GHG reduction targets. The separation of the reduction and removal targets is essential to ensure emission reduction efforts remain undiluted by removals and is de facto supported by the Climate Law.

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Bellona Europa is an international, independent and non-profit organisation that meets environmental and climate challenges head on. We are solutions-oriented and have a comprehensive and cross-sectoral approach to assess the economics, climate impacts and technical feasibility of necessary climate actions. To do this, we work with civil society, academia, governments, institutions, and industries.