

Finnish Energy answer to RED call-for-evidence

Finnish Energy is the main industry association representing Finland's energy sector. It represents companies that produce, acquire, transmit, and sell electricity, gas, district heating, and district cooling, as well as related services. Finnish Energy works to promote a clean, secure, and competitive energy system by supporting sound energy and climate policy at national and EU level, producing analysis and statistics, and providing guidance and advocacy for its member companies.

Renewable energy target

European Union must have ambitious climate targets that promote clean energy. All net-zero energy technologies must be treated equally in the 2040 Climate and energy framework.

Because ETS 1 and ETS 2 will steer investments towards zero-emission alternatives, we do not believe a binding target is needed. Therefore, our order of priorities is:

1. **No target at all.** The emissions trading system will do the job. At most, an indicative, non-binding target that can be monitored.
2. **A clean energy target**, if some kind of target must be set.
3. **If a clean energy target cannot, for one reason or another, be introduced**, any new target must include sufficient flexibilities – for example for nuclear power and waste heat – so that the 2040 targets can be achieved without unnecessarily shutting down nuclear power plants or leaving waste heat / electric boilers unutilized.

Setting a dedicated renewable energy target beyond 2030 risks becoming an increasingly blunt and potentially counterproductive instrument for achieving the EU's climate objectives. A renewables-only target focuses on increasing supply shares rather than on whether remaining fossil fuel use is actually displaced, even though fossil fuels are the direct source of energy-related greenhouse gas emissions. European climate policy should focus on **minimising the use and emissions of fossil fuels** across all sectors. Targeting fossil fuels provides a clearer, more technology-neutral link to climate outcomes and better reflects the real objective of climate policy: eliminating fossil-based emissions. Such an approach allows different clean solutions to compete on equal terms based on their actual emissions impact and cost-effectiveness, rather than privileging specific technologies through predefined categories. This is essential for heating, cooling and industry, where decarbonisation will require a mix of technologies such as electrification, sustainable bioenergy, waste heat utilisation, nuclear energy, CCS and other solutions rather than a single pathway.

An important shortcoming of renewable energy targets is that they fail to recognise key decarbonisation options that fall outside the scope of renewable energy as defined in EU legislation. **Waste heat, for example, is not classified as renewable energy under the Renewable Energy Directive**, even though its utilisation can deliver immediate and permanent emission reductions by directly displacing fossil fuel use. Waste heat typically originates from industrial processes, data centres or other activities where the primary energy input already exists, and its recovery avoids both additional fuel use and

additional emissions. Despite these clear climate benefits, waste heat does not fully count towards renewable energy targets and is not treated as equivalent to renewables under the directive. As a result, renewable targets structurally undervalue one of the most cost-effective decarbonization measures available, particularly in district heating -based systems. **All waste heat should be treated equally despite the origin.**

A policy framework centered on fossil fuel reduction would avoid this distortion by treating waste heat, electrification, renewables, sustainable bioenergy and other clean solutions like nuclear consistently based on their contribution to reducing fossil energy use and emissions. Clean energy such as nuclear energy should have equal incentives as renewable energy. For example, low-carbon hydrogen produced by nuclear energy should be promoted equally with renewable hydrogen.

From a market and governance perspective, focusing on fossil fuel reduction is also more consistent with emissions-based regulation driven by the EU Emissions Trading System. The ETS already provides a technology-neutral carbon price signal that incentivizes fuel switching away from fossil energy towards all lower-emission alternatives. Introducing overlapping renewable targets beyond 2030 risks weakening this signal, increasing regulatory complexity and creating parallel incentives without improving climate outcomes. Reinforcing the role of the ETS and concentrating policy attention on remaining fossil fuel use would improve overall system efficiency and investment predictability.

Finally, shifting the focus from renewable shares to fossil fuel minimization better supports affordability, competitiveness and security of supply. It allows decarbonization to proceed where it delivers the greatest emissions impact at the lowest cost and preserves flexibility as technologies, markets and system needs continue to evolve. For Finland and other Nordic countries with well-developed district heating infrastructure, this approach better reflects system realities and enables full utilization of waste heat and sector integration as key enablers of the clean energy transition.

Electrification in RED

Table 3

Different types of energy flow associated with electric heating which may be accounted across Articles

Heating technology	Art. 15a	Art. 22a	Art. 23	Art. 24
Heat pumps in Accordance with Annex VII	Ambient and geothermal input	Ambient and geothermal input	Ambient and geothermal input	Ambient and geothermal input
Heat and cold generators with efficiency > 100 %	RES-E input	RES-E input	RES-E input (*)	RES-E input
E-boilers	RES-E input	RES-E input	X	RES-E input'

(*) Applies only to flexibility, not the main target

Currently commission instructs electrified heat production to be counted according to the table above. Considering the momentum around electrification and the will to increase the electrification, Finnish Energy considers the calculation rules for electricity use to be unfavorable and considers that all electricity-based heat production should be accounted as fully renewable / carbon free depending on changes to RED. With the current calculation rules, electrified solutions will not fully contribute to fulfilling the res targets. This is particularly problematic with e-boilers combined with heat storage that

are a cornerstone of balancing the variable electricity generation. Currently in Finland with about 95% of electricity coming from non-fossil sources, only 50 % of their output is counted as renewable. Also heat pumps lose to biomass in this calculation and situation gets even worse if waste heat source is used. Hence also change to the overall approach of clean energy target is needed instead of focusing purely on renewables.

Commission has identified in the call for evidence -paper problems such as “*The electricity system faces constraints to absorb high penetration of RES generation, related to grid capacity and a lack of flexibility, The rise in hours of low and negative prices in electricity markets stemming from variable non-dispatchable generation of RES such as wind or solar makes additional investments less attractive, The uptake of innovative RES technologies and innovative forms of deployment can be faster*”. E-boilers significantly help with all of these problems. As Figure 1 shows, E-boilers’ production curve close follows the wind power production. This helps absorb excess renewable energy and significantly increases the flexibility of the energy system. The increased share of very flexible consumption also helps reduce the number of negative hours which can be seen from Figure 2.

Figure 1: Wind power production and E-boiler production in December 2025 in Finland. Source: Fingrid open data

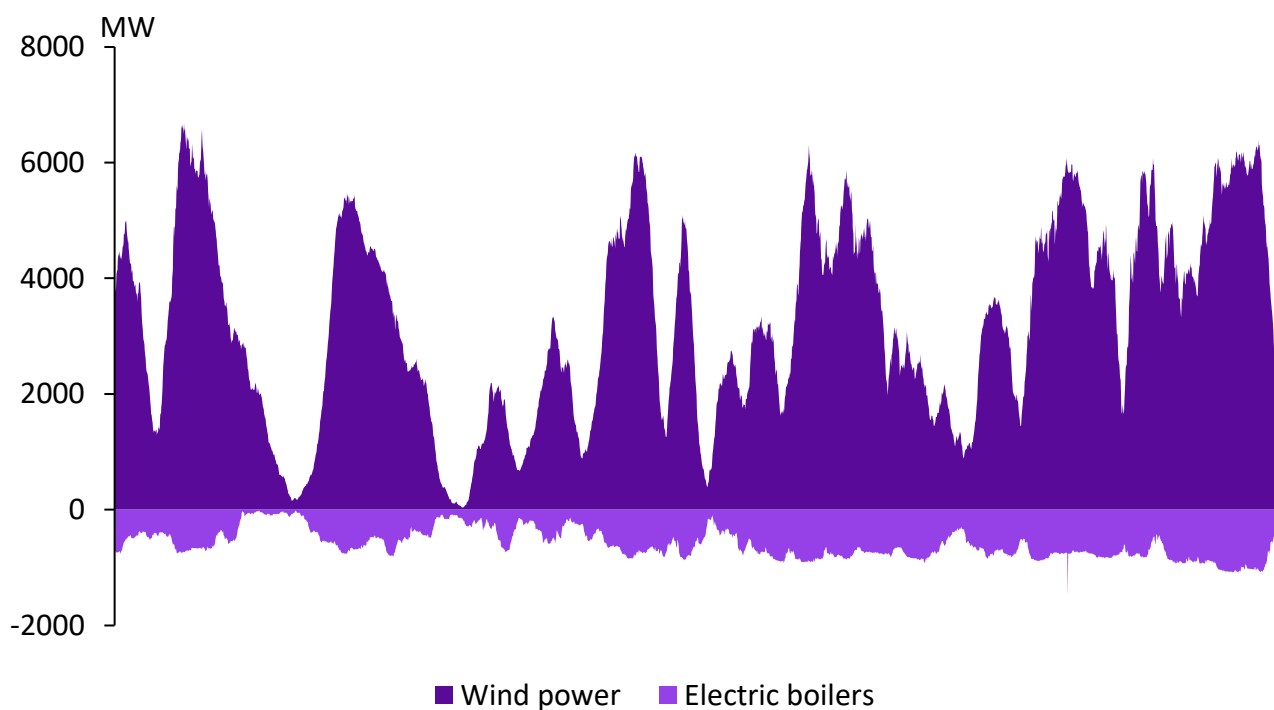
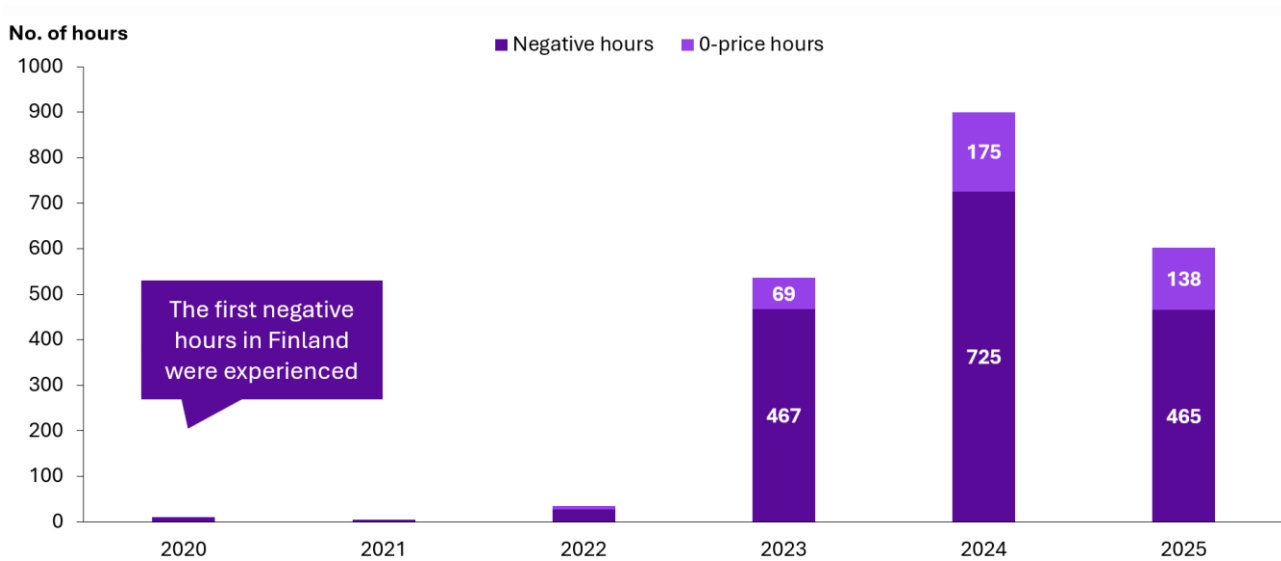


Figure 2: Number of negative and 0-price hours in Finland between 2020-2025. Source: Entso-E



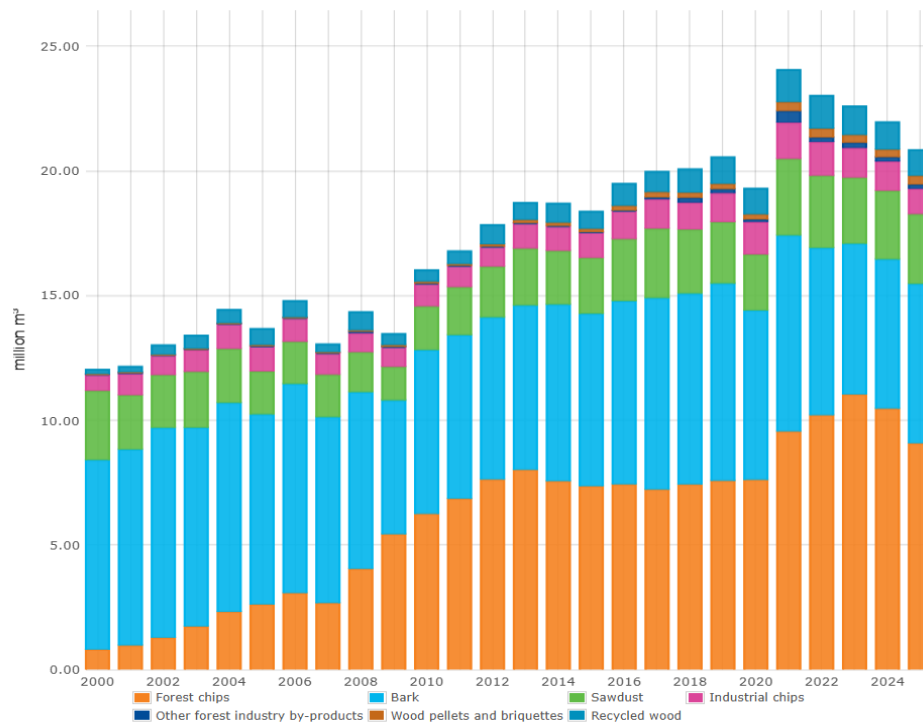
Considering the various benefits of flexible electrification in heating, particularly in district heating, Finnish Energy considers that electrification, waste heat and other clean energy sources should be equally treated in RED. **Additionally, Finnish Energy considers that the current flexibility in article 24 (10) regarding the share of efficient district heating (90 %) should remain in the directive.** Countries where district heating is decarbonizing rapidly do not need these measures to be implemented and directive measures should focus on countries that have not been able to fulfil the requirements.

Biomass sustainability

The Commission has expressed concerns about the limited availability of biomass, for example in its bioeconomy strategy, and has thus pondered the need to regulate more closely how biomass is used. However, it is important to recognize that, alongside other renewable and emission-free energy sources, biomass has played a key role in how, as in Finland, the energy sector has already moved away from fossil fuels almost entirely. We should not penalize the progress already made or pull the rug out from under biomass use by over-regulating the sector; rather, we should seek ways to reduce excessive bureaucracy by streamlining regulations.

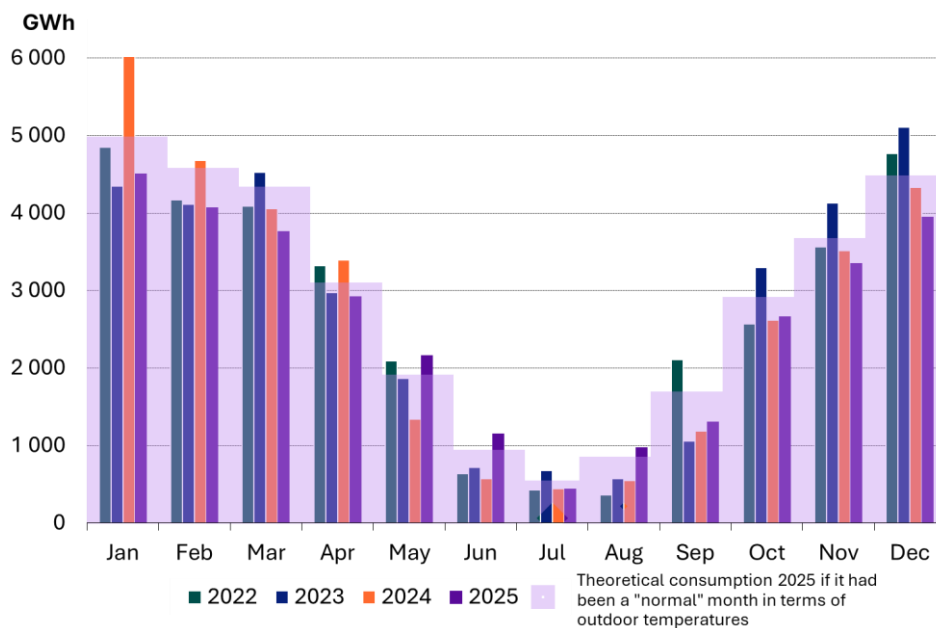
In a Nordic country like Finland, bioenergy is extremely important both for weather-independent electricity generation and for heating towns and cities through district heating systems. The role of plants using biomass has in fact already begun to change and become more diverse with the electrification of district heating mentioned above, but it remains a vital source of energy. In Finland, bioenergy use has already begun to decline from its 2021 peak, as can be seen in the statistical figures in Figure 3 below. This has been influenced in part by warmer weather conditions, but also largely by the aforementioned electrification of district heating, which has been implemented entirely on a market basis.

Figure 3: Solid wood fuel consumption in heating and power plants (Source: [OSF: Natural Resources Institute Finland, Wood in energy generation](#))



Nevertheless, these electricity-based production methods cannot meet all heating needs throughout the year, and there is a need for combustion-based production in the cold months. Figure 4 below shows how much the demand for district heating varies throughout the year. In many district heating networks in Finland, the low heat demand during the summer months can already be covered by electricity-based heat sources, and combustion plants are not used for several months. However, as temperatures drop, electricity-based production methods are no longer sufficient, and both CHP plants and standalone heating plants are needed.

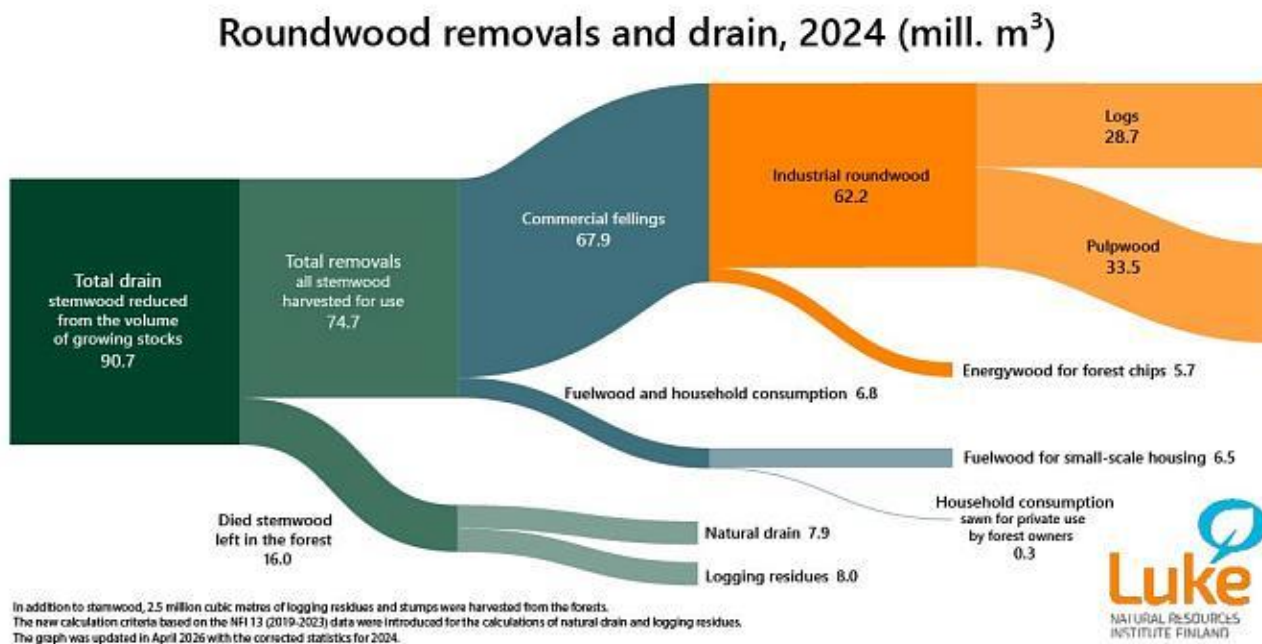
Figure 4: Monthly district heat demand (source [Finnish Energy Statistics on district heating](#))



These seasonal variations in biomass demand pose entirely new challenges for the use of biomass for energy: how to ensure that logistics chains operate smoothly, which types of biomass store well, and where to find labour for only part of the year. This is also a phenomenon that must be taken into account in the future when discussing the effective functioning of sustainability assessments across all EU member states and the consideration of local conditions. Having already made the right choice to phase out the use of fossil fuels—and with Finland’s energy sector having nearly achieved this—the following must also be said: Bioenergy is needed now and in the future to ensure the operational capacity and security of supply of the energy system in any situation. Its advantages compared to imported fossil fuels also include its local and domestic nature, at least in some Member States.

The Commission has previously expressed concern about the impact of the use of various types of bioenergy on the land use sector's carbon sinks, and this issue is addressed in Article 29(7) of the current directive. We would like to emphasize that, particularly in Member States with a strong forestry sector, bioenergy is not a driving force behind forest use, and regulating bioenergy cannot solve the challenges facing the entire LULUCF sector. As an example, the statistical data for Finland presented in Figure 5 below shows that the amount of wood used directly as energy wood from forests plays a relatively small role compared to other removals. It is noteworthy that small-scale use is actually of the same scale as the share of wood used directly as energy wood from forests. Additionally, nearly 3 million cubic meters of logging residues are counted as energy wood, which do not appear in these statistics on roundwood removals. Naturally, a large amount of direct industrial by-products is also used for energy, including wood marked as pulpwood in the harvesting statistics but not used by industry for one reason or another, as well as tree bark, sawmill sawdust, and other residues.

Figure 5: Total roundwood removals in Finland in 2024 (source [OSF: Natural Resources Institute Finland, Total roundwood removals and drain](#))



This brings us to the Commission’s concern regarding the cascading use of wood, which was presented within the scope of the RED during the previous round of updates. In terms of cascading use, it is important to recognise, just as the current RED text states, that wood can be used for many different purposes for a variety of reasons, and that regulation in this area should not be based solely on overall efficiency by, for example, focusing solely on the diameter of the wood or some other technical detail. In particular, it is not possible to determine a tree’s end use simply by looking at which sector the company trading the wood belongs to. For this reason, the current directive’s provision on cascade use is reasonable, and we support the Commission in maintaining an approach that takes particular account of national specificities, local conditions, and the need for security of supply. The objective of the current Article 3 cascade clause to reduce Member States’ subsidies for bioenergy remains valid. The Commission might consider further restricting support—or at least require that subsidized activities make more efficient use of biomass resources, for example through efficient cogeneration rather than electricity generation alone

Continuity and predictability are always at the top of our list of priorities, and we are asking for them once again. At present, a large number of Member States have still not fully, or not at all, implemented the directive. The priority should be to ensure that the entire EU implements it, after which it would be possible to assess its impact on the use of biomasses. The Commission should therefore either refrain from amending the sustainability criteria at this stage, with the exception of technical corrections, or freeze the sustainability criteria following the amendments for the entire 2030s, so that the criteria are not in a state of constant change and predictability in the operating environment could be achieved.

Permitting

Finnish Energy continues to emphasize the importance of streamlining the permitting process not only for renewable energy production but also for all kind of non-fossil clean energy production, energy storages and energy grids as well as industrial projects aimed at decarbonization and electrification. The “acceleration area” concept under the current RED have just been implemented into national legislation. The implemented procedure became administratively burdensome. It involves a municipal proposal to the state’s authority, a SEA assessment carried out by the state’s authority, a designation decision, as well as a “screening decision” when an individual project is located in the area. The acceleration area procedure therefore resulted in two new administrative decisions and a new opportunity for appeal. Currently the designated area offers little benefit to operators, as normal zoning and permit procedures are still required. The designation of areas should be possible not only for the state but also for municipalities. The designated area should provide greater predictability than currently for activities located in the area.

It is unclear if the assessments fall within the permit time limits. The definition of the permit procedure has been broadened to cover also assessment procedures. On the other hand, the time limit starts when the permit application is confirmed complete. For this reason, assessments required under the EIA Directive and the Nature Directive might have been nationally left outside the time limits. The Directive should be clarified so that mandatory assessment procedures are unambiguously included within the time limits. Projects require a zoning decision as a prerequisite. Nationally, this is considered planning and, as a result, has not been included in the permitting time limits. The directive should be amended so that the required zoning decision is explicitly regarded as part of the permit procedure and included into the relevant deadlines.

Finnish Energy notes that sector-specific permitting rules are now found in several different regulations. In addition to the Renewable Energy Directive, these include the Critical Raw Materials Act (CRMA) and the Net-Zero Industry Act (NZIA) as well as the Energy Infrastructure Regulation (TEN-E). The December 2025 Grid Package proposes new permitting regulations for the Renewable Energy Directive, the Electricity Market Directive, the Gas Market Directive, and the TEN-E Regulation. Furthermore, the proposal on Industrial Accelerator Act issued in March 2026 contains permitting provisions for industrial projects.

In general, the permit procedures and the applicable substantive environmental, nature protection, and assessment legislation are generally the same regardless of the type of project. For this reason, we are concerned that permitting regulations appear to be becoming fragmented. This sector-specific approach may result in overlaps and inconsistencies. In the longer term, the Commission should aim for comprehensive, clear, consistent, and harmonized permitting regulations.

Hydrogen in RED and related delegated acts

Finland offers a uniquely strong foundation for the development of renewable and low-carbon hydrogen, with Europe’s lowest electricity prices, a power system that is over 95% fossil-free, efficient permitting processes, and comparatively fast grid connection timelines. Despite these favourable conditions, hydrogen projects in Finland—mirroring trends across the EU—have not yet reached Final Investment Decisions (FID).

This highlights systemic challenges at EU level. Current EU hydrogen regulation has largely been designed for a mature market with fully developed infrastructure, rather than for the early market phase that Europe is currently in. Without targeted regulatory adjustments, investment uncertainty and

political risk will continue to delay hydrogen deployment, undermining EU climate, industrial, and competitiveness objectives.

Market Context and Investment Reality

The EU's hydrogen policy framework assumes the availability of established infrastructure, including pipelines, terminals, and storage. In reality, hydrogen markets are still nascent, characterised by:

- Limited or non-existent hydrogen infrastructure
- High first-of-a-kind project costs
- Uncertain long-term demand outside of selected transport segments

As a result, regulatory requirements that may be appropriate in a fully developed market currently impose disproportionate cost and complexity on early projects. This directly affects project bankability and investor confidence.

Regulatory Challenges in the Early Market Phase

Demand Creation: Transport vs. Industry

EU policy has successfully created demand-side signals for hydrogen-based fuels in parts of the transport sector with FuelEU Maritime, and ReFuelEU Aviation regulations and Renewable Energy Directive (RED) road transport rules. These instruments provide predictable long-term demand and have a positive impact on investment decisions. In contrast, industry lacks comparable demand-side drivers. The general industrial obligation under the (RED) has proven too broad and ambiguous to effectively stimulate hydrogen uptake or supply. As a result, industrial hydrogen investments remain largely unsupported by firm market signals. **EU-level demand drivers are needed for industry as well, and the competition between member states with state subsidies should be avoided.**

Policy Priorities and Recommendations

To unlock hydrogen investments while preserving the EU's long-term climate objectives, the following policy priorities are proposed:

Enable Broader Use of Clean Electricity for Compliance

- Allow the use of clean, fossil-free electricity more broadly to meet EU hydrogen-related obligations.
- Move beyond exclusive reliance on hydrogen that meets strict RFNBO criteria, as currently applied under ReFuelEU.
- Recognise regional differences in power system decarbonisation, particularly in Member States with highly fossil-free electricity systems.

Establish Markets for Carbon Dioxide Utilisation

- Create EU-level market frameworks that support CO₂ utilisation.
- Enable the use of non-recyclable, waste-based CO₂ **alongside sustainable** biogenic CO₂ and Direct Air Capture (DAC)
- Support circular carbon solutions that complement hydrogen deployment and improve project economics.

Create Lead Markets for Hard-to-Abate Industries

- Develop lead market instruments for industrial sectors where electrification is not technically or economically feasible.
- Provide clear, long-term demand signals for hydrogen and hydrogen-derived products in these sectors.

- Align industrial policy, climate objectives, and competitiveness considerations.

Conclusion

Europe's hydrogen ambitions cannot be realised if regulation continues to assume a level of infrastructure and market maturity that does not yet exist. A more phased and pragmatic regulatory approach is required—one that supports early investments, reduces political risk, and builds demand in both transport and industry.

By adjusting the current hydrogen regulatory framework to better reflect early market realities, broadening recognition of clean electricity, enabling CO₂ utilisation markets, and creating lead markets for hard-to-abate sectors, the EU can accelerate hydrogen deployment while safeguarding its climate and industrial leadership.

Other comments to RED

The mandatory status of the CEN-EN 16325 standard should be removed from the directive, as it delegates legislative authority to a highly non-transparent process outside the official institutional framework.

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