The RED recast must drive innovative RES market uptake

The twin geopolitical and energy crisis have thrown into sharp relief the high costs of Europe's continued fossil gas dependency. Rising prices and supply threats clearly highlight the necessity to quickly decarbonise and diversify our energy mix.

All renewable sources and next-generation technologies are needed to achieve these objectives. The roll out of technologies such as ocean energy, geothermal, floating wind, next-generation solar, biomass and heat pump technologies will:

- accelerate and secure the decarbonisation of Europe's power supply
- balance a grid with a very high penetration of variable generation
- create high-value jobs and contribute to Europe's technological and industrial leadership

Europe has diverse and abundant renewable energy resources – but to date not all technologies have been scaled up to harness this potential. The lack of incentives for Member States to provide long term visibility prevents innovative renewable technologies from reaching the commercial stage. The resulting absence of tailored support at national level is hindering Europe's ability to transform its current technological leadership in the lab to industrial leadership in the market.

The recast of the Renewable Energy Directive is a great opportunity to enable innovative RES technologies to scale up. Several political groups in the European Parliament have already introduced amendments that will lead to better support by Member States, namely:

- a definition for innovative renewables
- an indicative 2030 target for innovative renewables set at 5% of new installed renewable energy capacity.

The following organisations call on both the European Parliament and the Council of the EU to adopt these provisions to be in line with the EU's climate and energy security ambitions. The annex of this letter comments on the individual amendments.

Ocean Energy Europe
Bioenergy Europe
EGEC Geothermal
ehpa european heat pump association
EUREC
ESTELA
Solar Heat Europe ESTIF
EREF European Renewable Energies Federation
esmc European Solar Manufacturing Council
eit InnoEnergy
JDEC Jacques Delors Energy Centre

Annex: Compromise amendments and deployment potential

Article 1 – paragraph 1 – point 1 – point c on a definition for Innovative renewable energy technology

Draft Report	***Recommendation***
'innovative renewable energy technology' means technology that improves in at least one way a comparable state-of-the-art renewable technology, or makes exploitable a largely untapped renewable energy resource and that is generally not able to attract low-cost private finance;	[Retain Rapporteur's text in full]

Justification:

- Limiting the definition to demonstration projects would miss the target's main aim of helping new RES technologies that are currently close to or at technical maturity to scale up and become commercially viable.
- We support the wording on barriers to get private finance — a key reason for creating this target and an issue Member States should tackle in their National Energy and Climate Plans (NECPs).

2. Article 1 – paragraph 1 – point 2 – point a on a new target

Draft Report	***Recommendation***
Member States shall collectively ensure that the share of energy from renewable sources in the Union's gross final consumption of energy in 2030 is at least 40%. In order to safeguard the Union's industrial competitiveness, each Member State shall set an indicative target to ensure that at least 5 % of new installed renewable electricity capacity between 2025 and 2035 is innovative renewable energy technology.	Member States shall collectively ensure that the share of energy from renewable sources in the Union's gross final consumption of energy in 2030 is at least 40%. In order to safeguard the Union's industrial competitiveness **and independence from fossil fuel imports**, each Member State shall set a national indicative target to ensure that at least 5 % of new installed renewable ~~electricity~~ **power and heating and cooling** capacity between **[entry into force of the Directive]** and 2030 is innovative renewable energy technology. Those national indicative targets and the measures needed to reach them shall be specified in the national objectives set out by Member States in their integrated energy and climate plans, in accordance with Article 4, point (d), point (3), of Regulation (EU) 2018/1999.

Justification:

- The target is extended to the heating and cooling sector. This will bring under the target much-needed innovative RES in buildings and industrial heat processing, as requested by several groups in the European Parliament.
- The timing of the innovative RES sub-target should be aligned with the general RES target. This was proposed by two groups.
- Member States should explain how they intend to fulfil this target in their NECPs (measures to be implemented, technologies to be deployed). It should be considered whether existing national and European initiatives or funds could support the achievement of this target, such as Important Projects of Common European Interest (IPCEIs).
- It is important to maintain an indicative target of at least 5% of new installed capacity in RES to make this measure effective.
- The amendment 89 wording "independence from fossil fuel imports" is important to reflect the energy security dimension.

Innovative renewable energy potential to 2030

Sector	2030 deployment forecast	Source / Comment
Floating offshore wind	10 GW	Wind Europe - This is a conservative figure as large bottom mounted offshore wind turbines around 14-15 MW could also be considered as innovative.
Solar PV	56 GW	The Commission's goal in the REPowerEU plan is that 320 GW of PV will be installed by 2025 and 600 GW by 2030. ESMC advocates for a goal that 75% of deployed PV capacities should be produced within the EU by that time. Up to about half of the output of up-coming manufacturing capacities could stem from innovative technologies, including high performance Heterojunction and tandem modules, bifacial panels and integrated PV (VDMA ITRPV 2022).
Ocean energy	1 to 3 GW	1 GW – EU Offshore Strategy objective; 3 GW - Ocean Energy Europe 2030 vision, ambition scenario
Solar thermal heat for industrial processes	7 GW	There is vast untapped potential to use solar thermal technology in larger installations and at higher temperatures for industrial processes requiring low to medium temperatures, such as in agroindustry. This innovative application is expected to generate at least 7 GWth by 2030 (see H2020 Ship2fair).
Concentrated Solar Power	5 GW	ESTELA & Spanish NECP
Geothermal	3 GW	EGEC
Total	78 GW	