

Net-Zero Industry Act – list of net-zero technology final products and their main specific components (implementing act)

EUGINE input to the consultation

The list suggested by the European Commission in the draft annex for an Implementing Act includes components that are essential elements of the mentioned net-zero technologies. However, it unfortunately limits the list of final products and main specific components to a few selected solutions within each specific net-zero technology. This selection of only a subset does limit the choice of solutions without giving any reason.

Under hydrogen technologies fuel cells are listed while hydrogen engines are not. Both are hydrogen technologies, using hydrogen to generate electricity and heat. It is not compatible with a transparent technology-open approach to pre-select some solutions within the net-zero technology headline defined by the NZIA.

Biogas, biomethane, sewage and landfill gas are all transformed to valuable dispatchable electricity and heat by using biogas engines and the connected generators. There seems to be no obvious reason why eg anaerobic digesters or landfill gas technologies are listed, but not the matching biogas engines.

We therefore ask to include the listed main specific components to the “List of final products and specific components considered to be their main specific components for the purposes of assessing the contribution to resilience”. They are essential for the resilience of the European Union.

They are in most cases using a customised design for the mentioned technology and are provided by a European industry competing globally. The proposed components meet the criteria of Specificity, Commercial Viability, and Essentiality.

Net-zero technology	Sub-categories of net-zero technologies	Final products	Main specific components
Hydrogen technologies	Other hydrogen technologies	<u>To be added:</u> Hydrogen power plants	<u>To be added:</u> Hydrogen engines and connected generators

Justification:

Hydrogen engines have the same applications as fuel cells and can be operated more flexibly. European companies are leading technology developers and manufacturers of hydrogen(ready) engines. Hydrogen engines will be decisive in providing electricity and heat in times of low variable renewables supply and high demand. The value of such hydrogen engines is recognised by countries like Germany that foresee an important role for hydrogen engines in ensuring reliability in their electricity system.

The product can be differentiated from engines operating with natural gas and has a modified design and uses partially different sub-components.

Net-zero technology	Sub-categories of net-zero technologies	Final products	Main specific components
Sustainable biogas and biomethane technologies	Sustainable biogas technologies	Sustainable biogas plants	<u>To be added:</u> Biogas engines incl generators
	Sustainable biomethane technologies	Sustainable biomethane plants	<u>To be added:</u> Biomethane engines incl generators

Justification:

Biogas & biomethane engines are the core elements of any sustainable biogas or biomethane plant. They transform the renewable gas into reliable dispatchable electricity and heat. Most of these engines are operation in cogeneration mode, having an extremely high efficiency. They provide an essential complement to other renewable technologies as they are capable of generating electricity and heat under all weather conditions and therefore are able to provide flexibility to the electricity and heat grid.

The product can be differentiated from engines operating with natural gas and uses partially different sub-components.

Net-zero technology	Sub-categories of net-zero technologies	Final products	Main specific components
Other renewable energy technologies	Landfill gas technologies	<u>To be added</u> landfill gas power plants	<u>To be added:</u> Biogas engines incl generators
	Sewage treatment plant gas technologies	<u>To be added</u> sewage gas power plants	<u>To be added:</u> Biogas engines incl generators

Justification

Landfill and sewage gases are used in connection with biogas engines to generate reliable dispatchable electricity and heat. Most of these engines are operation in cogeneration mode, having an extremely high efficiency. They provide an essential complement to other renewable technologies as they are capable of generating electricity and heat under alle weather conditions and therefore are able to provide flexibility to the electricity and heat grid.

The product can be differentiated from engines operating with natural gas and uses partially different sub-components.

EUGINE is the voice of Europe's engine power plant industry. Our members are the leading European manufacturers of engine power plants and their key components.

Engine power plants are a flexible, efficient, reliable and sustainable technology, helping to ensure security of electricity supply and providing (renewable) electricity and heat.

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