

Primarily used components under the Net-Zero Industry Act

CurrENT response to the EC's public consultation

The large-scale deployment of innovative grid technologies is essential for supporting the widespread adoption of renewables. These technologies can unlock additional transmission capacity, connecting clean energy generation, households, and industries—accelerating electrification while reducing system costs. They also minimize the use of critical raw materials, lower reliance on imported fossil fuels, and help keep consumer prices low. The Prospects for Innovative Grid Technologies report (available at: currenteurope.eu/wp-content/uploads/2024/06/CL-CurrENT-BE-Prospects-for-Innovative-Grid-Technologies-final-report-20240617-2.pdf) shows that these technologies could increase grid capacity by 20–40% by 2040 while saving €700 billion in infrastructure costs.

Given their strategic role in achieving the EU's goals outlined in the Competitiveness Compass, the innovative grid technologies and their components added in the list below **in red** should be granted access to the Net-Zero Industry Act conditions.

ANNEX

List of final products and specific components considered to be primarily used for the production of net-zero technologies.

	Sub-categories of net-zero technologies	Final products	Primarily used components
Electricity grid technologies	Electricity grid technologies	<ul style="list-style-type: none"> - Onshore substations - Offshore substations 	<ul style="list-style-type: none"> - Cables and lines for electricity transmission and electricity distribution (overhead lines, underground and undersea cables, including

			<p>conventional HVDC, HVAC cables and HTS - High-Temperature Superconducting cables, tapes, wires and sFCL (Superconducting Fault Current Limiters)</p> <ul style="list-style-type: none"> - Switchgears - Circuit breakers - Protection relays - Power transformers - Disconnectors - Insulators - Surge arrestors - Capacitors - Reactors - Busbar systems - Electric cabinets - Offshore substations <p>(topside and jacket/foundation sub-assemblies)</p>
		<p>- Electricity transmission and distribution towers</p>	<ul style="list-style-type: none"> - Electricity transmission and distribution towers - Electrical conductors (including advanced conductors and high-temperature superconductors) - Insulators - Surge arrestors

		<ul style="list-style-type: none"> - Cables and lines and associated accessories for electricity transmission and electricity distribution (overhead lines, underground and undersea cables, including MV and HVDC and HVAC) 	<ul style="list-style-type: none"> - Cables and lines for electricity transmission and distribution (overhead lines, underground and subsea cables, including HVDC / HVAC conventional and High-Temperature Superconducting (HTS) cables, HTS tapes, wires and sFCL (Superconducting Fault Current Limiters) - Insulators - Joints - Terminations - Associated integration accessories
		<ul style="list-style-type: none"> - Power transformers 	<ul style="list-style-type: none"> - Power transformers - Transformer cores - Transformer windings - Transformer tap changers
	<p>Electric charging technologies for transport</p>	<ul style="list-style-type: none"> - Electric vehicle supply equipment - Electric road Systems(2) - Shore-side electricity 	<ul style="list-style-type: none"> - Electric vehicle supply equipment - Electric vehicle charging connectors - Shore-side electricity supply equipment

		supply equipment - Overhead contact lines	
	Technologies to digitalise the grid and other electricity grid technologies	<ul style="list-style-type: none"> - High- and medium-voltage power electronics equipment and components (including DC technology) - Flexible alternating current transmission system (FACTS) technologies - Smart meters / advanced metering infrastructures 	<ul style="list-style-type: none"> - High- and medium-voltage power electronics equipment and components (including DC technology) - Flexible alternating current transmission system (FACTS) technologies - Substation automation systems - Smart meters / advanced metering infrastructures

(2) The term 'Electric road system' (also known as dynamic charging) refers to equipment along the road that supplies power to vehicles while they are in motion. This final product includes both conductive and inductive charging.