



GLOBAL ALLIANCE POWERFUELS

Common Declaration of the Global Alliance Powerfuels

Preamble - The missing link for the global energy transition

The Global Alliance Powerfuels (hereafter *the Alliance*) is guided by the goals of the Paris Agreement and clearly declares its support to reduce global greenhouse gas (GHG) emissions.

We acknowledge the direct use of renewable energy and energy efficiency as key pillars towards a global energy transition and climate change mitigation. In addition, the Alliance is convinced that powerfuels as third key pillar will further contribute to the global energy transition and will be needed to reach the Paris Agreement goals.

The Alliance defines Powerfuels as synthetic gaseous or liquid non-biofuels that draw their energy content from renewable electricity. Powerfuels are renewable and climate-friendly and can be used as energy carriers and as feedstocks. Our definition includes but is not limited to hydrogen, synthetic gas (e.g. methane, propane) or synthetic liquid fuels (e.g. methanol, ammonia, Fischer-Tropsch products) and is hence technologically neutral. In line with the long-term goal of reducing GHG emissions, the carbon needed for the production of hydrocarbon powerfuels can originate from carbon capture of existing emission streams, or from direct air capture technologies that draw carbon dioxide from the ambient air.

The Alliance strongly believes that powerfuels will represent the missing link to achieve net-zero global greenhouse gas emissions through a just and cost-efficient transition. Particularly, powerfuels can contribute significantly to the energy transition worldwide:

- Providing energy or basic materials for many industries, powerfuels allow to reduce GHG emissions of applications that cannot be directly electrified and provide additional options for those sectors that are currently mainly supplied with fossil fuels.
- Opening options for countries with high energy needs, but limited space and/or potential for renewable energy sources, thus leveraging the global potential of renewable energies for all demand markets.
- Enhancing energy security and stability through long-term energy storage and diversification of supply.
- Enlarging the number of options for the design of energy systems, as powerfuels provide value in large-scale centralized plants as well as smaller, decentralized applications – in close-knit integrated grids as well as isolated island systems.
- Capitalising on given energy infrastructure and technical equipment, as powerfuels can be transported and distributed via existing transmission and distribution systems and used by existing installations and applications.
- Providing an alternative use for renewable electricity, thus diminishing the limiting impact of systemic factors on the direct use of high shares of renewables (e.g. electricity grid constraints).
- Opening new carbon-neutral export opportunities for countries with high renewable energy potential and providing a sustainable economic perspective for countries currently exporting fossil energy carriers.
- Enlarging the toolbox of policy makers and offering alternative approaches for climate policy measures.

This is why powerfuels are an indispensable element for the transformation of the energy system and reaching the climate goals.

As of today, various powerfuels technologies have already been proven and are available. However, production capacities have not been scaled to industrial levels, as powerfuels still have a cost disadvantage compared to their fossil counterparts and regulation does not yet adequately value their benefits as renewable, climate-friendly resources.

Our Vision – The transformation towards a truly sustainable world

Our long-term vision is the transformation towards a truly sustainable world, based on a highly efficient, sufficient and diversified carbon neutral energy and resources system in line with the Paris Agreement goals. The rise in global average temperature till 2050 will thus be kept well below 2°C compared to pre-industrial levels.

Powerfuels will play an important role in making the global transformation come true. In our vision, they will be widely used in numerous applications, thus significantly reducing greenhouse gas emissions of many sectors. Reflecting the increasing demand, production capacities for powerfuels will be scaled up worldwide with gigawatt-installations spread over all continents within the next decade. Suppliers and customers on all continents will be connected through a competitive world market for powerfuels.

Our Goals - Fostering the development of a global market for powerfuels

The goal of the Alliance is to work towards our vision: fostering the development of a global market for powerfuels. We want to become both a key enabler and a key knowledge centre for powerfuels. In particular, we aim to:

- Bring together potential countries and industries with an interest in being suppliers, enablers, or customers in a global powerfuels market in order to develop a common strategy and structure the current debate for such a market.
- Create acceptance and awareness and put powerfuels on the agenda of political and economic decision makers.
- Reach full recognition of powerfuels as renewable fuels and achieve supportive conditions in the regulatory framework.
- Stimulate market development with innovative show cases and success stories.
- Facilitate global production capacity of powerfuels by promoting both additional capacities in decentralized installations and supporting the initiation of first GW-scale projects.
- Spur the trading and market growth of powerfuels internationally.

Our Activities – What we do

Our activities are built on the principles of non-discrimination and transparency. The Alliance commits itself to the Sustainable Development Goals as a base of our actions. Particularly, we will:

- Operate as think-tank, network and information hub for partners and relevant decision makers with a truly global focus.
- Identify challenges and barriers for potential business models, analyse corresponding solutions and provide politics, business and civil society with the information needed for political agenda setting and further enhancement of regulation.
- Work together with other initiatives and associations to develop guidelines and standards that acknowledge the sustainability of powerfuels and thus enable well-functioning markets.
- Initiate projects with partners to build up the global production capacity of powerfuels. Therefore, we will create project ideas; identify, pool, and match suitable partners; and support project initiation.
- Foster global cooperation on research and development by building an international scientific network.
- Host and organise international events to ensure visibility and impact of our activities.

The Global Alliance Powerfuels Founding Members



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