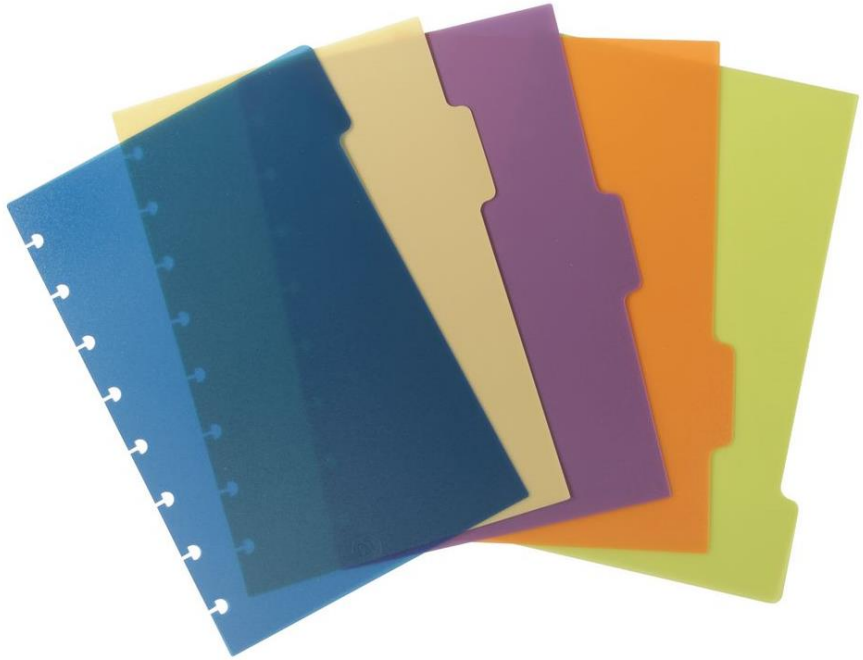
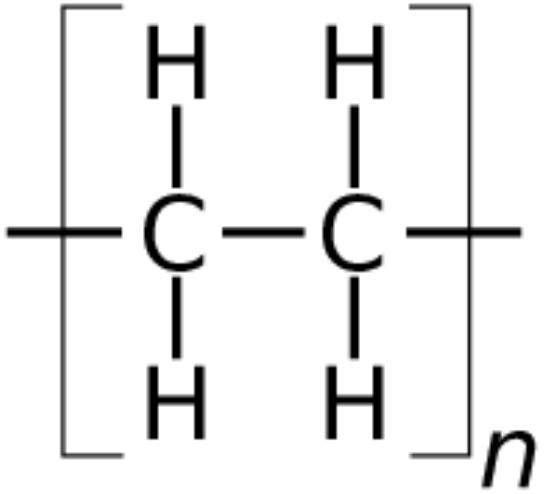
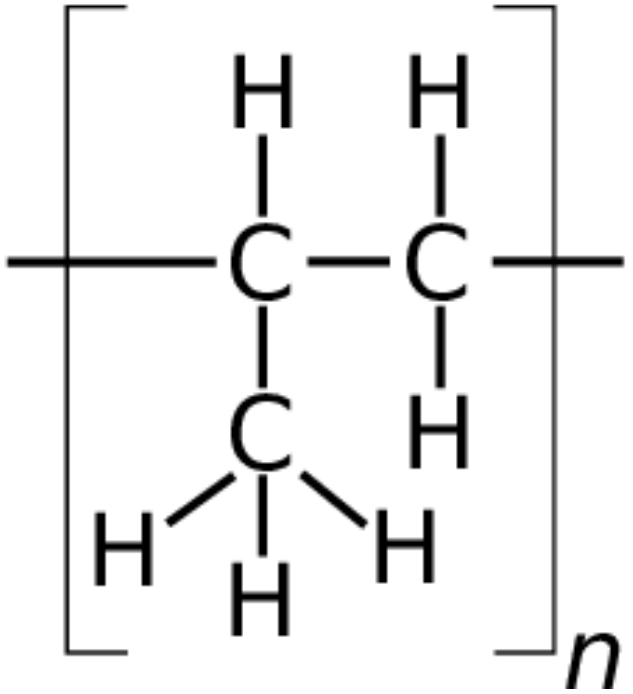
The hydrogen hype: from ambition, promise and targets to action, delivery and reality

Amersfoort, January 2025

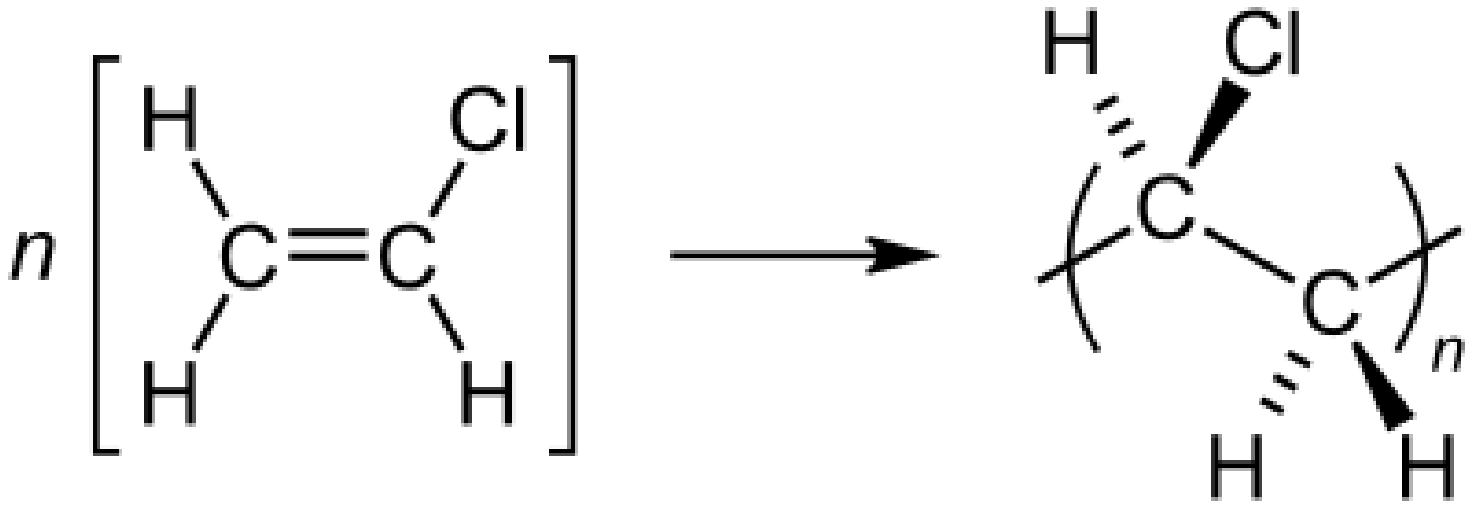


Polyethylene and Polypropylene

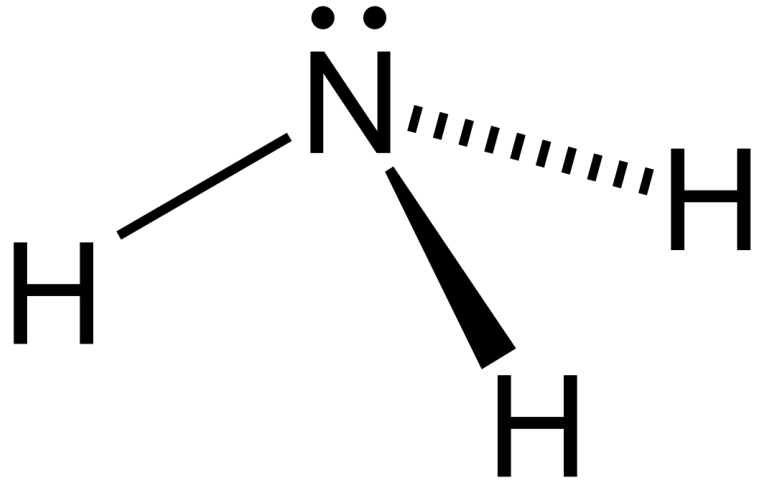




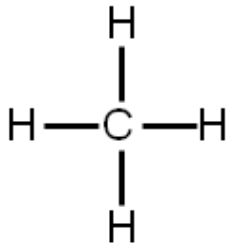
Vinyl Chloride Monomer (VCM) Polyvinyl Chloride (PVC)



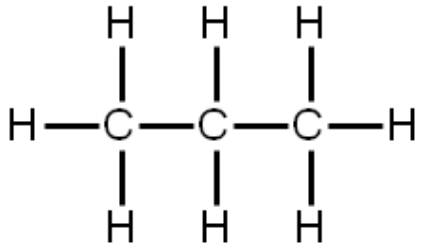
Ammonia (NH3)



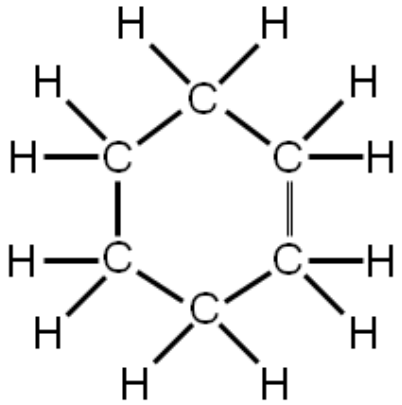
Aliphatics



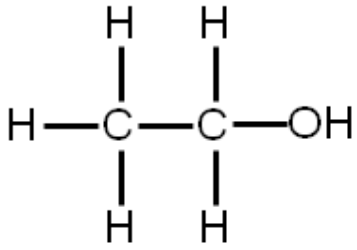
Methane



Propane

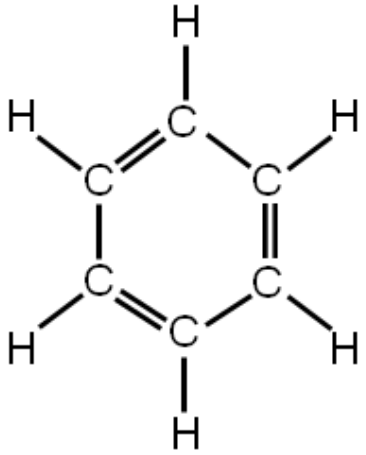


Cyclohexane

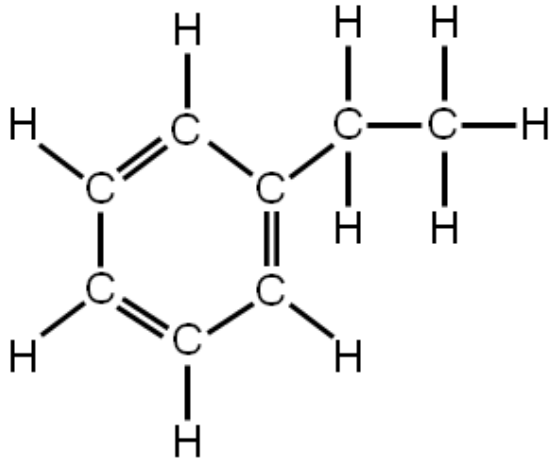


Ethanol

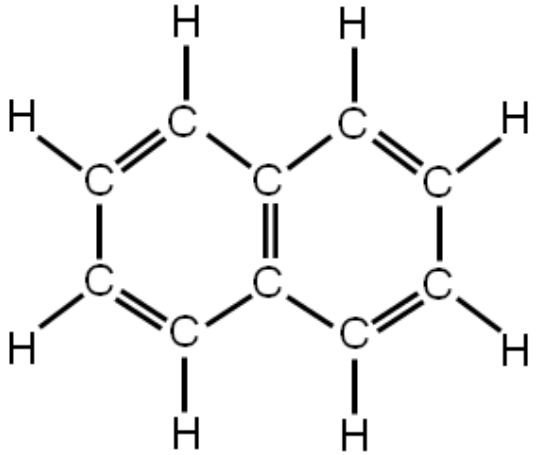
Aromatics



Benzene



Ethylbenzene



Naphthalene


Karachi
KLM
AIR FRANCE KLM
Royal Dutch Airlines
Powered by biofuel
KLM

Ambitions keep on building, with a market in uncertainty that is waiting for regulations (1)

NEWS > ENERGY AND CLIMATE

EU's Clean Industrial Deal to cover 6 themes from energy prices to trade

The contours of a mammoth industrial decarbonization strategy are taking shape ahead of its Feb. 26 unveiling.

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EU proposes 90% GHG reduction target by 2040: Green hydrogen could meet up to 10% of energy demand

EU 2040 emissions target outlines large role for hydrogen

HIGHLIGHTS

Up to 35 million mt production by 2040

Represents 10% of final energy demand

EU models just 3 million mt production in 2030

Hydrogen 'resilience' | EU moves forward with target for 40% of electrolysers to be made in Europe

European Parliament and Council reach provisional agreement on Net Zero Industrial Act

Ambitions keep on building, with a market in uncertainty that is waiting for regulations (2)

OIL AND GAS NEWS

Shell Implements Workforce Reductions and Refocuses Hydrogen Business in CEO's Overhaul Plan

Nyrstar to suspend Budel zinc operations in second half of January

Reuters

January 15, 2024 11:34 AM GMT+1 · Updated a month ago

LONDON, Jan 15 (Reuters) - Nyrstar will suspend its Budel zinc smelting operations in the Netherlands in the second half of this month owing to high energy costs and market conditions, it said on Monday.

Nyrstar, which is wholly owned by trading and logistics company Trafigura, said it will put the operations on "care and maintenance", which stops production but continues maintenance so it can reopen in the future.

"This decision follows a thorough and extensive review and is a direct response to ongoing and projected high energy costs as well as deteriorating market conditions," Nyrstar said.

Reuters World Business Markets Sustainability Legal Breakingviews Technology Investigations

BP cuts over 5% of workforce to reduce costs

By Ron Bousso

January 17, 2025 12:06 AM GMT+1 · Updated 11 days ago

Fuel cell manufacturer Nedstack , founded in 1998 as a spin-off from AkzoNobel, and world leader in the field of mission-critical high-power PEM fuel cell technology, was declared bankrupt on February 2, 2024 after a short moratorium of less than 2 days. This means that a Dutch pearl in the field of hydrogen technology will be lost .

The green hydrogen opportunity in perspective

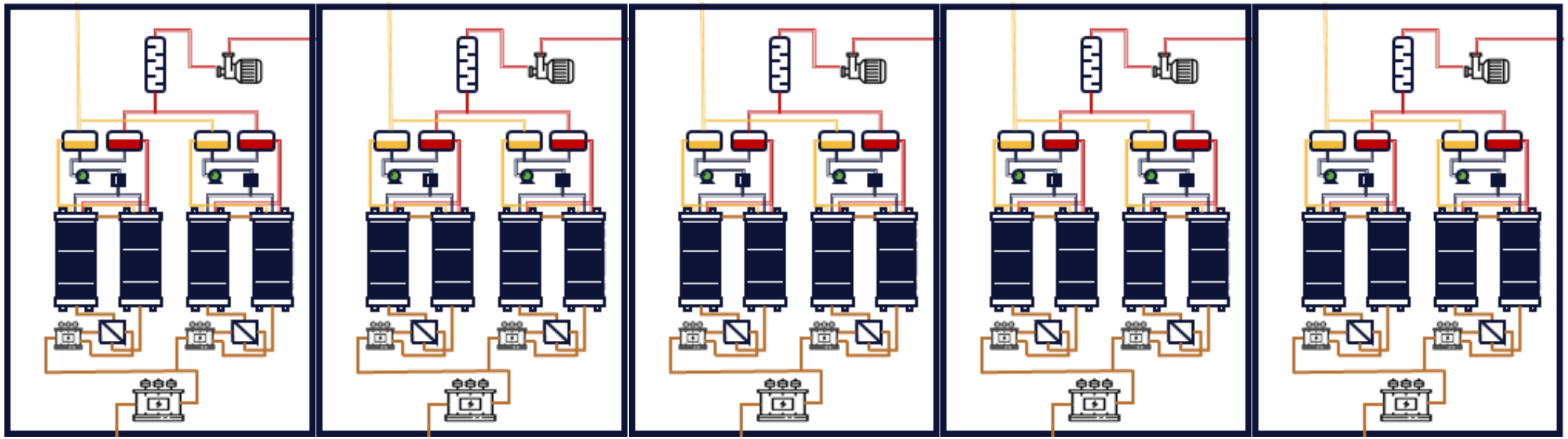
There is a growing global momentum towards decarbonization and green hydrogen, but let us put the EU ambition of **20Mtpa** into a perspective.

The European Union now has an objective for Europe to produce 10 Mtpa and import 10 Mtpa, that is some **~200 GW of electrolysis up and running in 2030.**

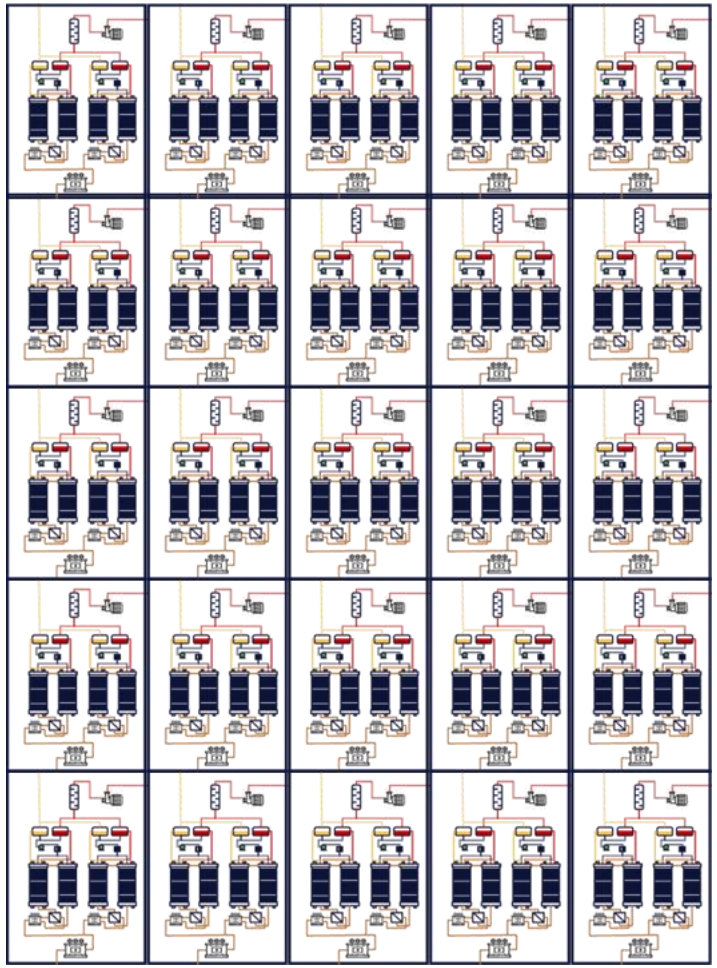
This is number for Europe alone, also other global regions are accelerating their decarbonization and hydrogen ambitions.

20 MW in practice

What scale are we talking about, building a perspective: 20MW

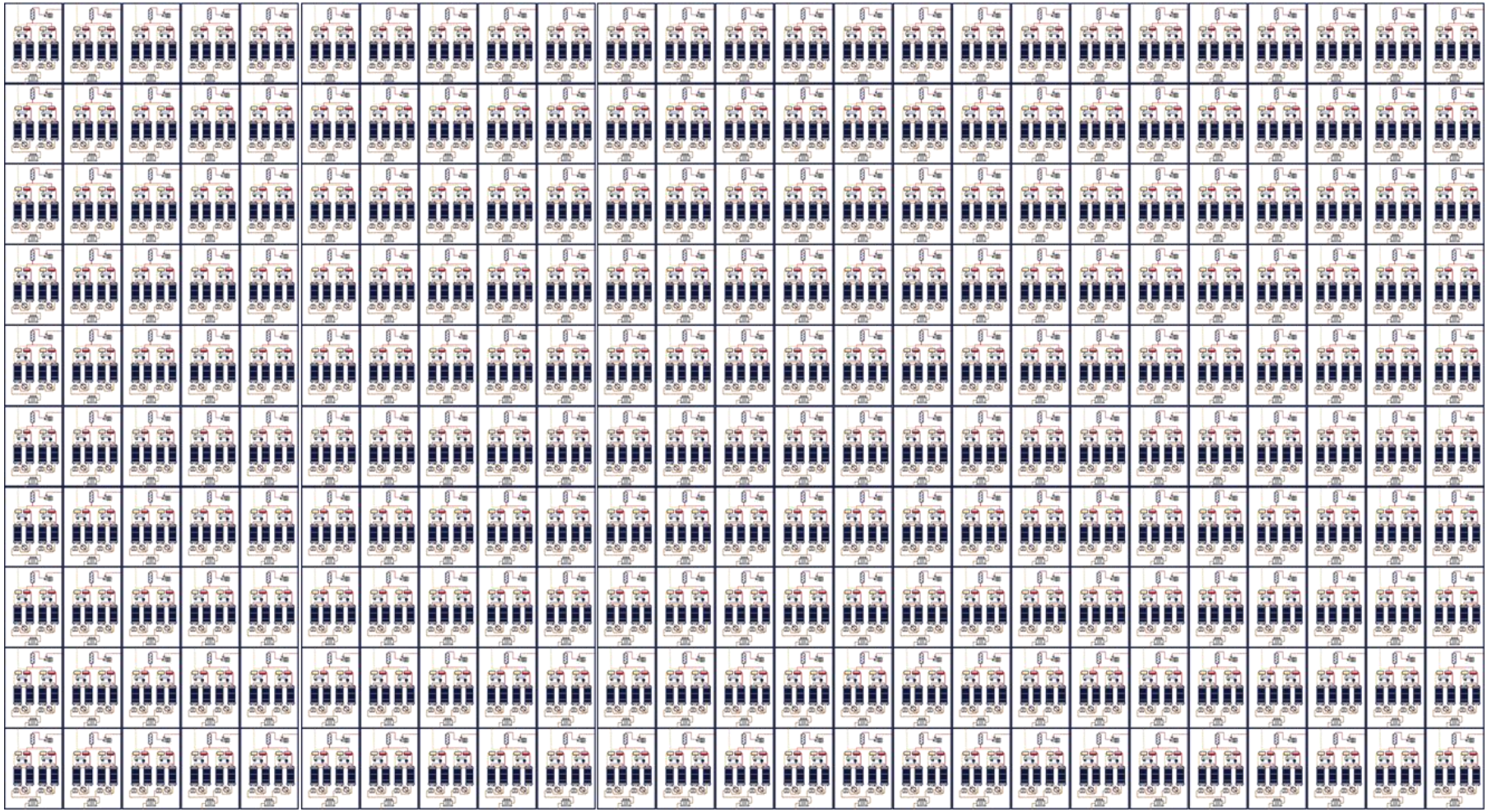


What scale are we talking about, building a perspective: 100MW

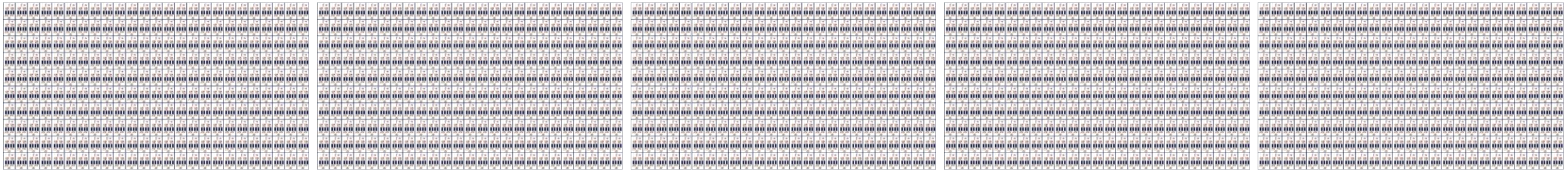


What scale are we talking about, building a perspective: 500MW

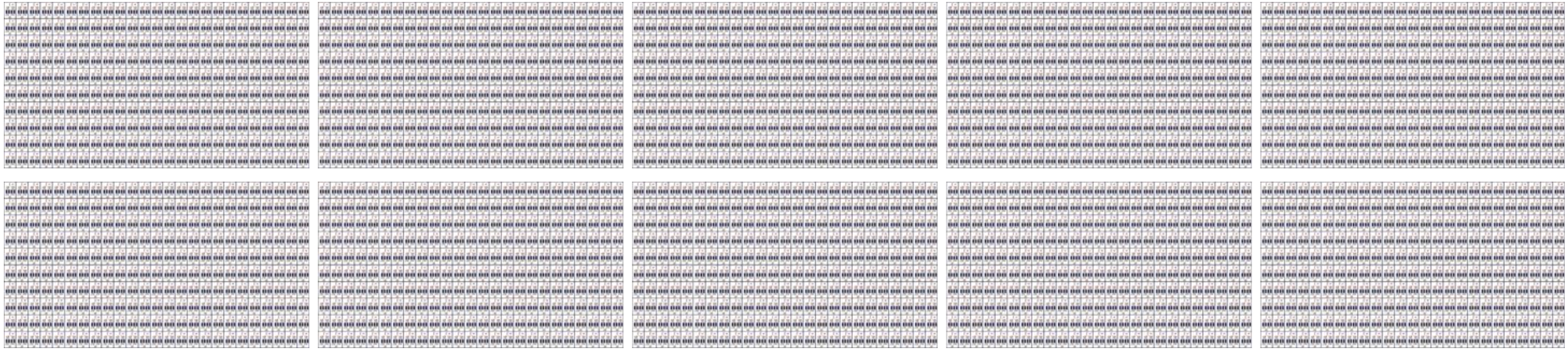
What scale are we talking about, building a perspective: 1GW



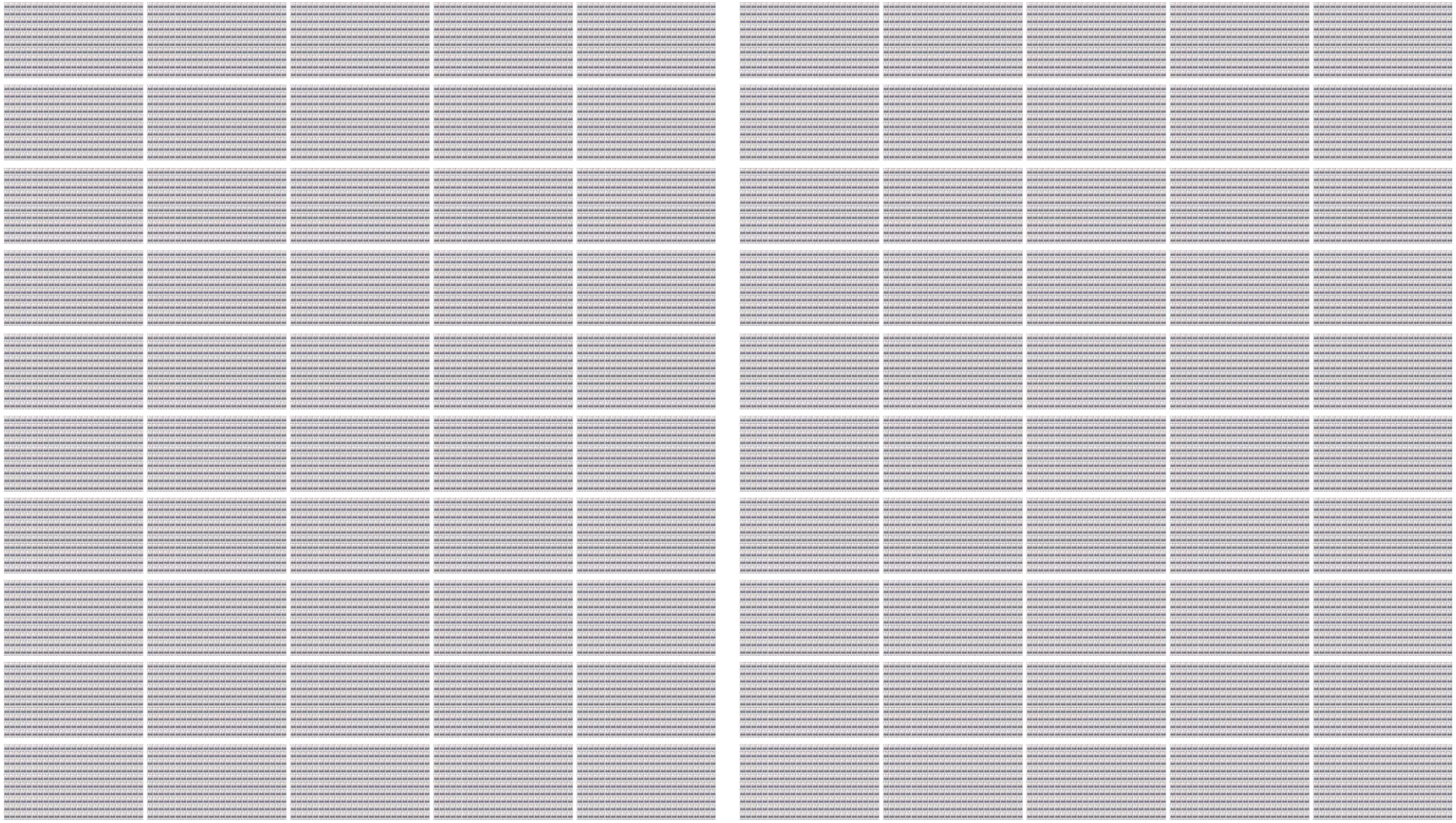
What scale are we talking about, building a perspective: 5GW



What scale are we talking about, building a perspective: 10GW

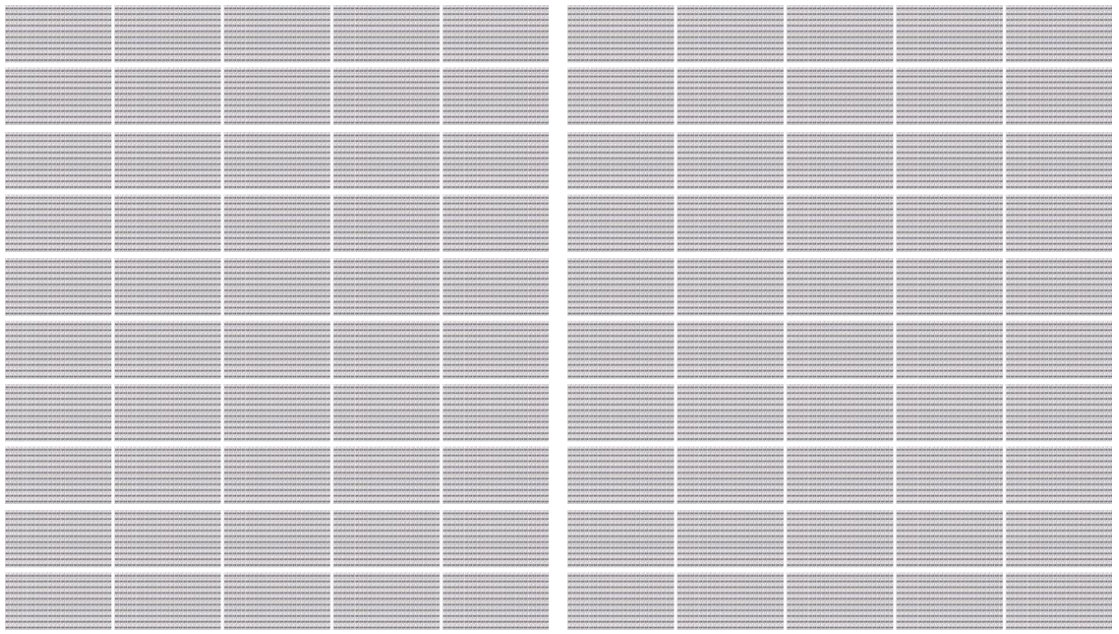


What scale are we talking about, building a perspective: 100GW

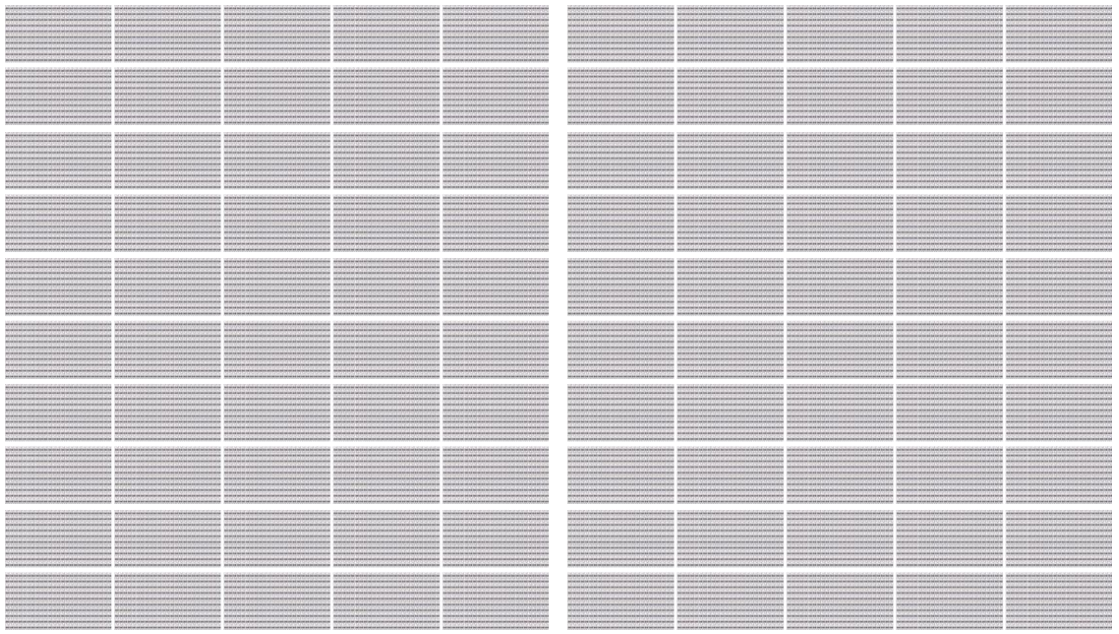


What scale are we talking about, building a perspective: 200GW, the European ambition on hydrogen for 2030 50% local production and 50% import.

European local hydrogen production



European projected imports



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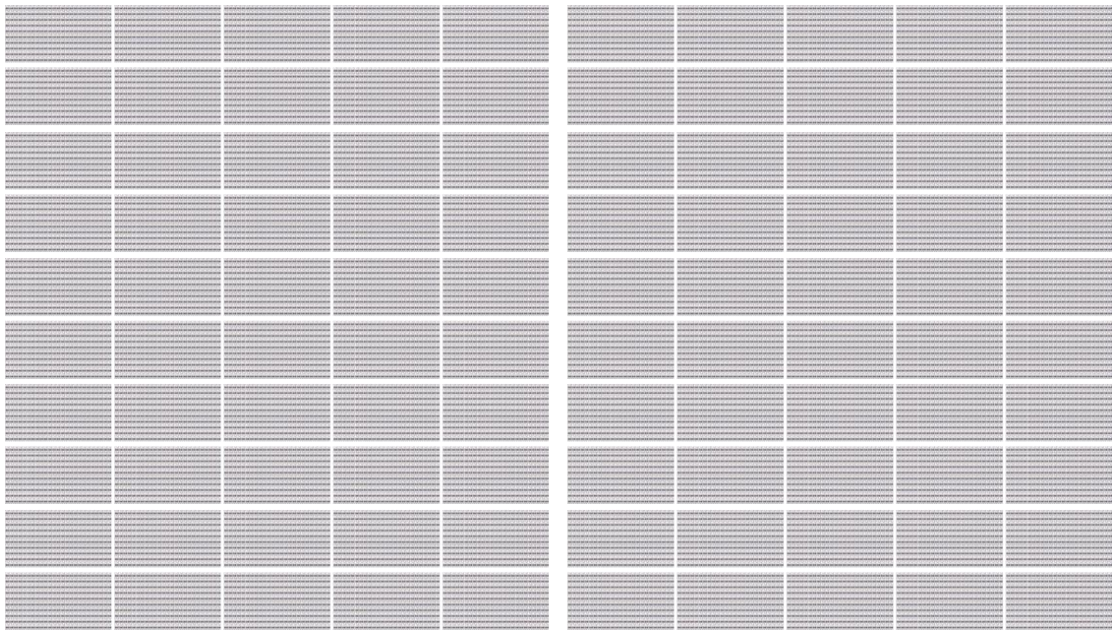
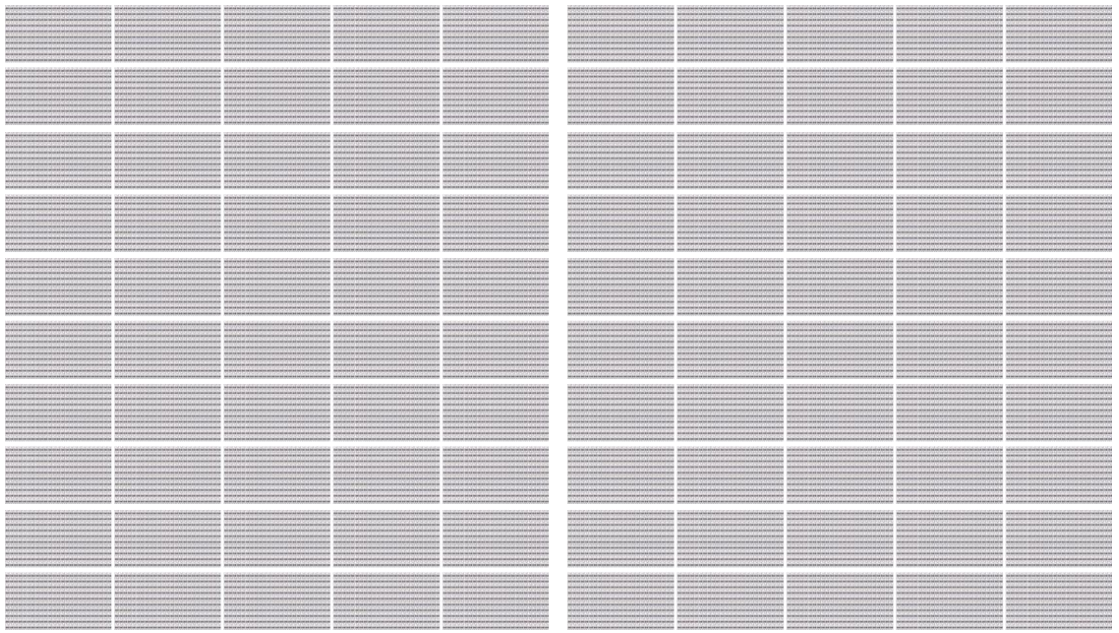


European projected imports



This is only Europe !!
And is not including the renewables and hydrogen downstream activities !!


Zimbabwe
1972-2015, 90MW
IA
IB
2A
2B
3A

Norway
1931, 165 MW

Foto: Ukjent

Norsk Industriarbeidermuseum

Egypt
1960, 165MW

From ambition, promise and targets to action, delivery and reality

Key concerns	Permitting timelines	Value chain dependencies and financeability	Technology readiness
	Lagging and complex regulation	People availability with capabilities	Renewable energy availability
The support	Benefiting from ‘low cost’ renewable/low carbon electricity sources	Use of existing infrastructure (E and Natural Gas)	Integration into clusters/ecosystems (harbor and industry)
	Strong upcoming mandates/subsidies	Customer willingness to pay	Potential for cost reductions through scale and industrialization

Enabling emission free industries

Our Vision & Mission

To enable the full **decarbonization of industry** and the transition to a truly circular economy, by supplying safe, reliable and affordable **green hydrogen** supplies and circular **chemistry solutions**

HyCC