



# Policy Working Group

Meeting #7 – 25 October 2022



# Meeting Agenda

5 min

**1) Welcome and approval of Minutes**

10 min

**2) Debrief of EERA High-Level Policy Conference**

35 min

**3) EU International & Policy Updates**

7,5 min

**4) SET Plan Revamp**

12,5 min

**5) SUPEERA developments**

5 min

**6) Open Consultations**

5 min

**7) For your agendas**

5 min

**8) AOB**

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**1**

**Welcome and approval  
of the minutes of last  
POL WG meeting**

# Minutes last EERA Policy Working Group – 15 September



## POL WG meeting MINUTES

Date 15 September 2022  
Time 10:00 – 11:15 CET  
Location Zoom

### Participants

Alessandro Sciallo (UNITO)  
Ganna Gladtykh (EERA)  
Giorgio Alessandro (EERA)  
Holger Ihssen (Helmholtz)  
José Rosa (EERA)  
Luisa Fernandez (EERA)  
Katrin Mögele (Fraunhofer)  
Klaus Kubeczko (AIT)  
Kristin Gulbrandsen Fraysa (Ulf)

Maria Oksa (VTT)  
Martina Campajola (EERA)  
Myrini Christou (CRES)  
Paola Mazzucchelli (CIRCE)  
Petter Staa (SINTEF)  
Pinar Derin Güre (METU)  
Raffaele Guerri (EERA)  
Rosita Zili (EERA)  
Vanessa Polillo (ENEA)

### Agenda

#### Topics discussed

- 1) Welcome and approval of the minutes of last POL WG meeting (30.06.22)
- 2) EU & International Policy Updates - DISCUSSION
- 3) SUPEERA Developments - INFORMATION
- 4) SET Plan Revamp - INFORMATION
- 5) Open consultations - INFORMATION
- 6) For your agendas - INFORMATION
- 7) AOB

### Links to useful documents

- \* [POL WG meeting PPT](#)
- \* [Recording](#)

### Key Outcomes

#### 1. Welcome and approval of minutes

Minutes are approved.

#### 2. Latest EU and international policy developments

Following the March and May REPowerEU plans, the European institutions moved forward with additional initiatives:

- 28 July – Save gas for a safe winter
- 7 September – European Commission's non-papers on the reform of the Electricity Market
- 9 September – EU Extraordinary Energy Council
- 14 September – State of the Union speech (SOTEU) announcing a string of new measures
- 14 September – Proposals for an emergency intervention to address high energy prices

SOTEU 2022 announcements and exceptional electricity demand reduction measures  
On the 14<sup>th</sup> of September, European Commission President von der Leyen delivered the State of the Union speech. In it, she announced a wide range of measures:

- Tackling high energy prices through obligations to reduce electricity consumption and reduce energy demand particularly during peak hours.
- Work in progress to cap revenues of companies that produce electricity at a low cost – which is expected to generate more than 140 billion euros for Member States to redirect to consumers.
- Temporary solidarity contribution on excess profits from activities in the oil, gas, coal and refinery sectors.
- Price cap on gas – establishment of a Task Force to work on a differentiation of approaches depending on the type of supplies (reliable vs unreliable).
- Changes in the gas market, from pipeline to increasing LNG – the Title Transfer Facility (TTF) benchmark hasn't changed to reflect this development and the EC will work on establishing a more representative benchmark.
- Reform of the electricity market to decouple the dominant influence of gas on the price of electricity.
- Step up efforts on hydrogen through the establishment of a European Hydrogen Bank meant to increase investment in hydrogen.
- Upskilling the workforce and increasing investment in education and training.
- Establishing the European Critical Raw Materials Act.
- Push for an ambitious global agreement on biodiversity at the Montreal UN Biodiversity conference and at COP27 in Sharm el-Sheikh.
- Increased financial participation in Important Projects of Common European Interest.

### "Save Gas for a Safe Winter" plan

On July 28<sup>th</sup>, the European Commission presented the plan meant to avoid emergency energy curtailments in the event of further gas delivery disruptions from Russia. The main focus was on avoidable consumption due to the nearing exhaustion of alternative supply options. At the heart of the proposal is a 15% demand reduction target for the Member States between August 1, 2022, to March 31, 2023, compared to their previous five-year average consumption for the same period. The measure is currently voluntary but in case of an EU alert level it becomes mandatory. The provision applies to all Member States equally, irrespective from the degree of dependence from Russian gas.

### Open Debate on the Energy Crisis:

Petter Staa (SINTEF) informed that Norway will play a key role in the Task Force announced by President von der Leyen on negotiating the optimal strategy to lower gas prices. He added that EERA can assess participation on the EU side.

Paola Mazzucchelli (CIRCE) expressed her willingness to know more about the European Bank of Hydrogen.

Klaus Kubeczko (AIT) said that there are a lot of unknowns regarding the stepping up of the efforts on hydrogen. He then called the EERA community to share studies on hydrogen infrastructure and solutions and added that the energy transition modelling initiative needs to be strengthened to include this element. He concluded by saying that it is important for countries to be in contact with research organisations so they can provide input about technologies and possible solutions.

Pinar Derin Güre (METU) expressed concerns as an economist about the focus on demand reduction as it might be difficult to execute it efficiently. It is possible for the public domain but much more difficult to apply in the private sphere.

Vanessa Polillo (ENEA) noted that the reduction of consumption is something very difficult to achieve and that making such reduction an obligation is a complicated matter.

Maria Oksa (VTT) highlighted that EERA can contribute with "solutions modelling". It is also important to fight the media "crisis" narrative by providing inputs and information on concrete research to focus on the solutions and strategies for the future.

Rosita Zili (EERA) added that the work that has been done regarding EERA's manifesto on REPowerEU and the input that will be generated in October go in line with that effort.

Myrini Christou (CRES) appreciated the work done on the manifesto and emphasised the importance of the input that the EERA community can provide to policymakers in light of their technical background. She added that the Greek government is working on implementing the

REPowerEU provisions and that there are working and investment plans for hydrogen, particularly for the shipping sector. Nonetheless, there are still issues that need to be addressed regarding hydrogen, such as the storage factor.

Kristin Fraysa (University of Bergen) pointed out to how many politicians don't know how the electricity system and market work or how the prices are set. EERA can play a key role in conveying relevant information in that regard. Additionally, she mentioned that efforts must be made to ensure that short-term imperatives and measures do not hamper the development of renewables and the long-term general climate goals.

Alessandro Sciallo (University of Turin) commented that demand reduction measures constitute a complicated issue, particularly because they can have different impacts on different social groups or different countries/regions. The adoption of an equality applied policy across the EU can lead to specific unbalances. He suggested that the Joint Programme on Economic, Environmental and Social Impacts of the Energy Transition could meet to discuss and assess the situation.

Klaus Kubeczko (AIT) commented that it should be always kept in mind that energy is a service of public interest. On modelling, he said that it is important to capture the acceleration of the transition. In reaction to the provided link on zero emission pathways for hydrogen provided by Deloitte (<https://www2.deloitte.com/nl/pages/sustainability/articles/economic-advisoryrole-of-hydrogen-in-european-energy-transition.html>), he noted that publicly financed research organisations organised in EERA are competing with consultants with respect to consulting the EU with information on transition pathways. We should position ourselves as providers of independent research in support of the public sector, given the challenge of principle-agent challenge.

Katrin Mögele (Fraunhofer) welcomed the work made on the manifesto and added that in Germany there are discussions ongoing about the transformation of the electricity market, with emphasis on the fairness of the process. She then highlighted the need for short-term solutions not to hamper the long-term climate goals.

Paola Mazzucchelli (CIRCE) highlighted that indeed the focus on the long term should not be lost. In this process, the biogas and biomethane discussion has been forgotten, even though it was mentioned in REPowerEU. She argued that there is a lot of attention being given to hydrogen, but the crucial issue of hydrogen production is not really being addressed.

Holger Ihssen (Helmholtz) pointed out that storage is a big discussion now in Germany, and hydrogen is an important component in that regard. There are LNG terminals being built now, even though the current focus is on the energy transition. He thus noted that those terminals will have to be used in the coming decades. On hydrogen, he added that a big challenge is storage and one of the alternatives to that is using aluminium as a reactive metal.



The minutes of the last EERA Policy Working Group are available at this [link](#).

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# **Debrief of EERA High- Level Policy Conference**

# EERA High-Level Policy Conference 2022



- ▶ High-level representatives from *IPCC, European Commission, EuroCities, EIT Climate-KIC, Belgian Government, EIT InnoEnergy, Clean Energy Transition Partnership, etc.*
- ▶ In-person participants: 85
- ▶ Online participants: 115
- ▶ Occasion which marked the official launch of the **EERA REPowerEU Manifesto**

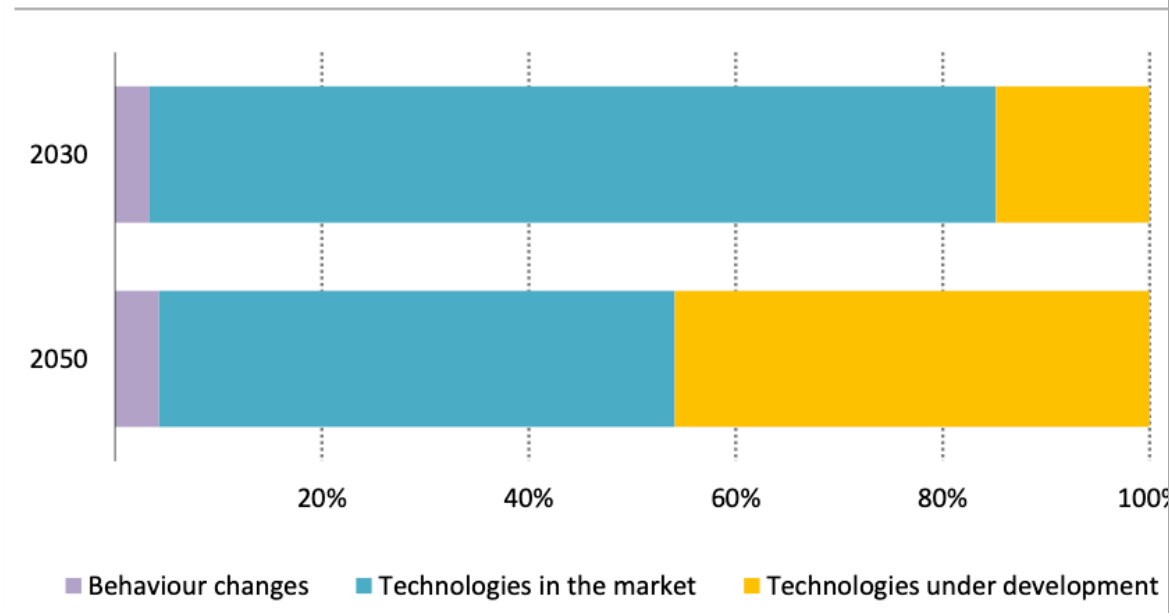




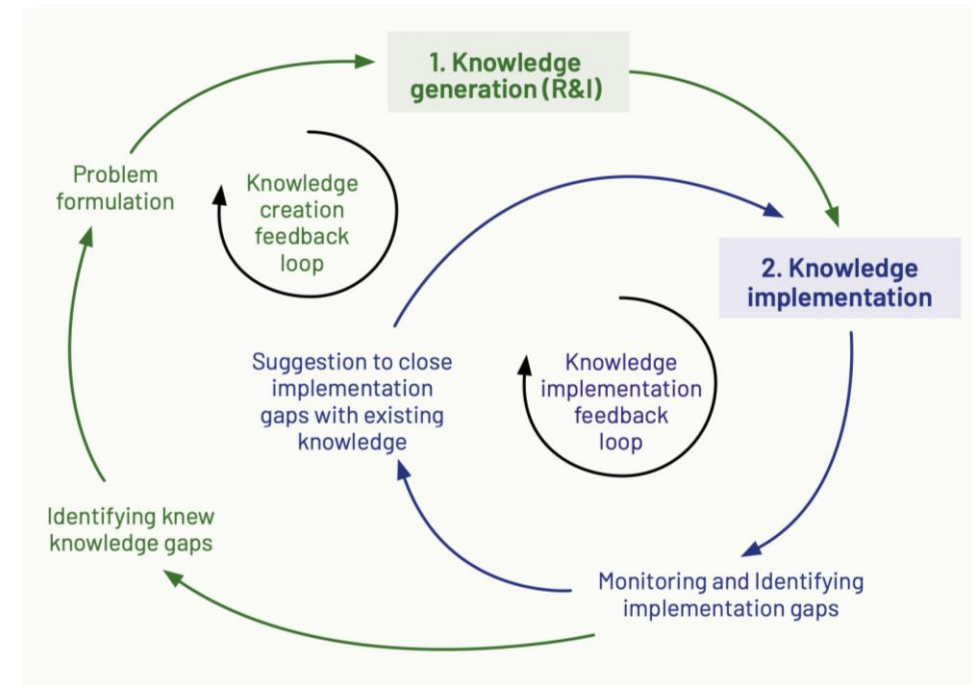
- ▶ Link available here: [EERA REPowerEU Manifesto](#)
- ▶ A collaborative work between JPs and the Secretariat highlighting complementarities of EERA constituencies and following up on the “EERA White paper on the CET”
- ▶ A holistic approach to the repowering challenge
- ▶ A new role For Research: Facilitating REPowerEU implementation
- ▶ Detailed technology-related recommendations
- ▶ 12 high-level policy recommendations

# A new role for research: facilitating REPowerEU implementation

Annual CO<sub>2</sub> emissions savings in the net zero pathway, relative to 2020



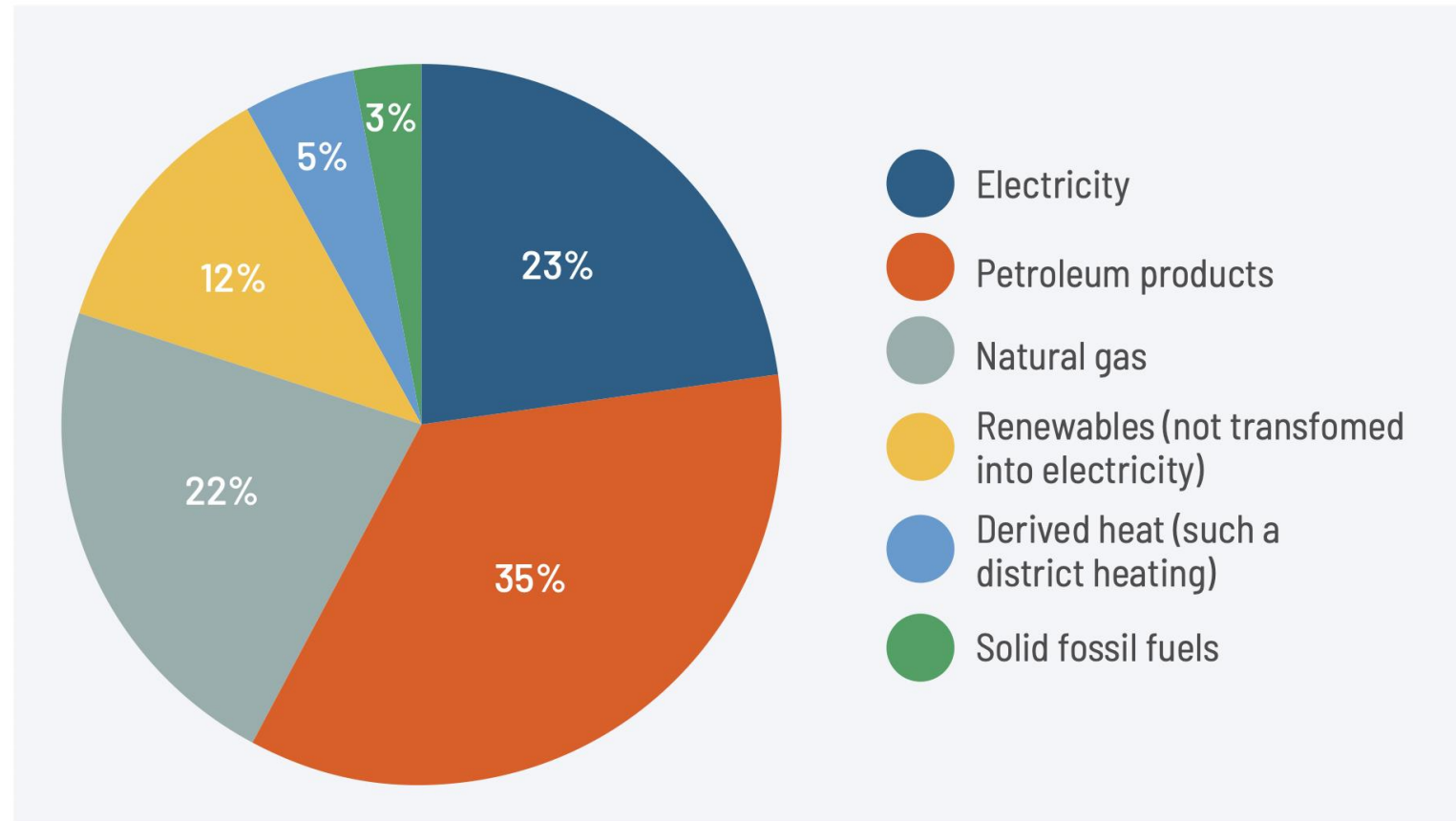
Source: IEA: Net Zero by 2050





# A holistic approach to the challenge

**Final energy  
consumption in  
EU-27, 2020<sup>10</sup>.**



# Detailed technology-related recommendations



► **Reduction of Energy Demand**



► **Heating & Cooling**



► **Electricity**



► **Storage**



► **Natural gas, Hydrogen & other chemicals**

# High Level Policy Recommendations

## SOCIO-ECONOMIC PERSPECTIVE & COOPERATION

1. **Communicating comprehensively with EU citizens** on the energy and inflation crises
2. **Reassessing our current economic paradigm**, recognising the shifts in fundamentals
3. Fostering a structural, sustainable and fair **reduction in energy demand**
4. Strengthening the **Energy Union**
5. Boosting cooperation with strategic **neighbouring countries and energy trading partners**

### Panel discussion 1:

Creating the conditions for REPowerEU societal change

## ENERGY SYSTEM PERSPECTIVE

6. **Embracing all energy uses** beyond power only
7. Empowering the research community to be part of **accelerated technology deployment**
8. Operationalising R&I recommendations on **REPowerEU into the SET Plan**
9. Matching the deployment of clean energy technologies with **value chain constraints**
10. Integrating **climate adaptation** within energy system planning
11. Aligning immediate energy needs with **longer-term environmental objectives**
12. Assessing REPowerEU against the **EU's strategic autonomy** objectives

### Panel discussion 2:

Knowledge implementation  
Facilitating implementation of REPowerEU

**EERA High-Level  
Policy  
Conference:  
tell us your  
impressions!**



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# **EU & International Policy Updates**

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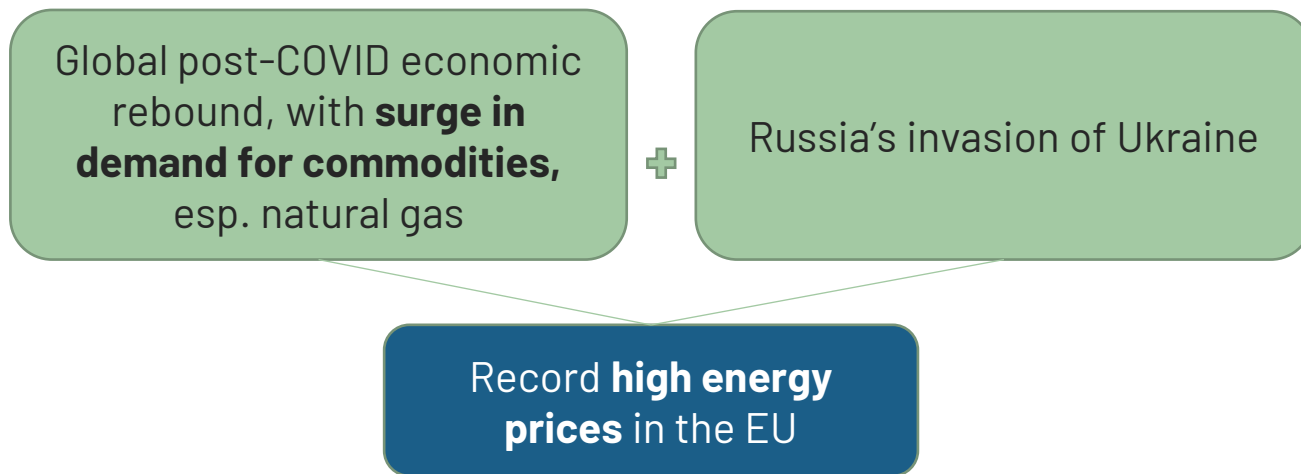
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# **The European Energy Crisis**



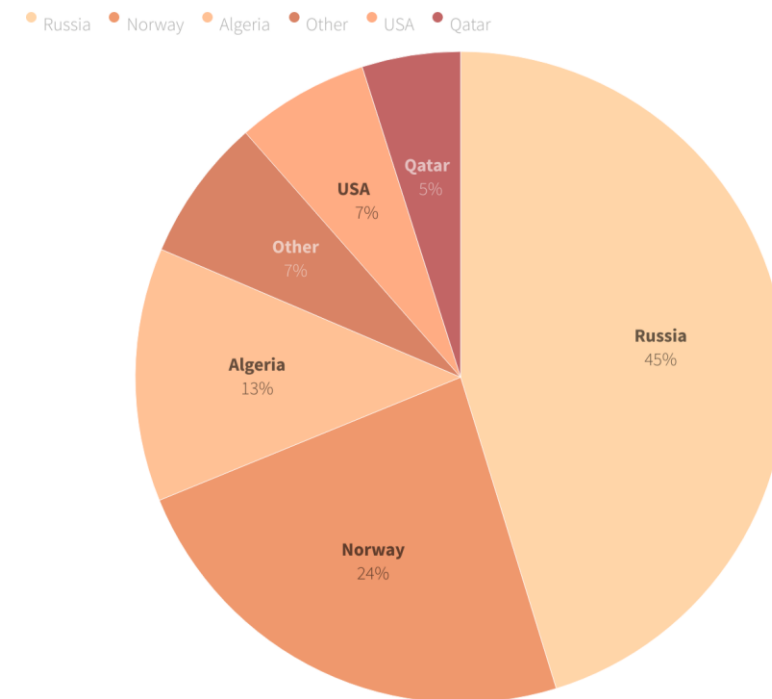


**Context**



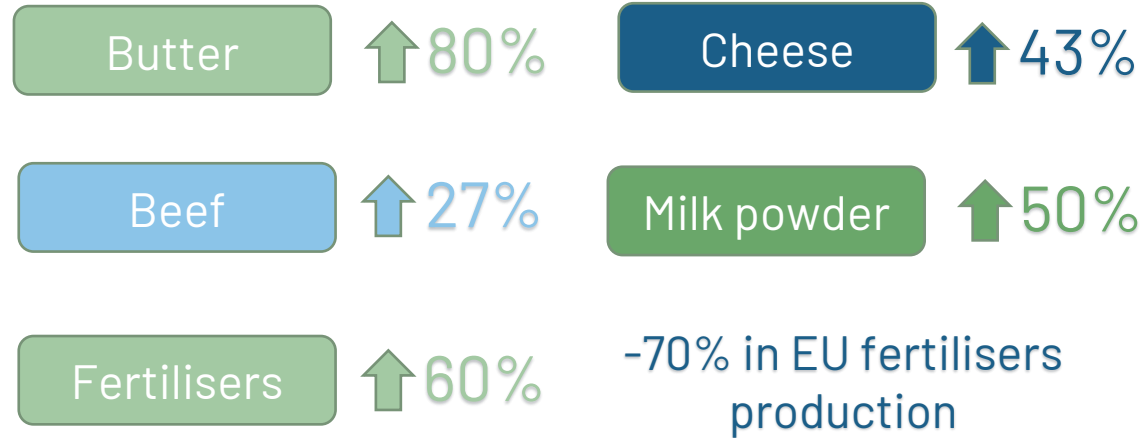
- ▶ Russia supplied about **40% of the EU's gas consumption by pipeline**, exports now **cut by 75%**
  - ▶ The country still sends gas **through Ukraine and via Turkey and the Black Sea** (TurkStream pipeline), but with serious prospects of a complete halt
  - ▶ Russia claims this is the natural consequence of **economic sanctions** imposed on Moscow by the West
- ▶ **The EU imports about 80% of its total gas needs**, with **domestic production having halved in the past 10 years**. Germany, which has gas deposits, banned fracking, as did France and other EU countries

**Share of EU natural gas imports, 2021**



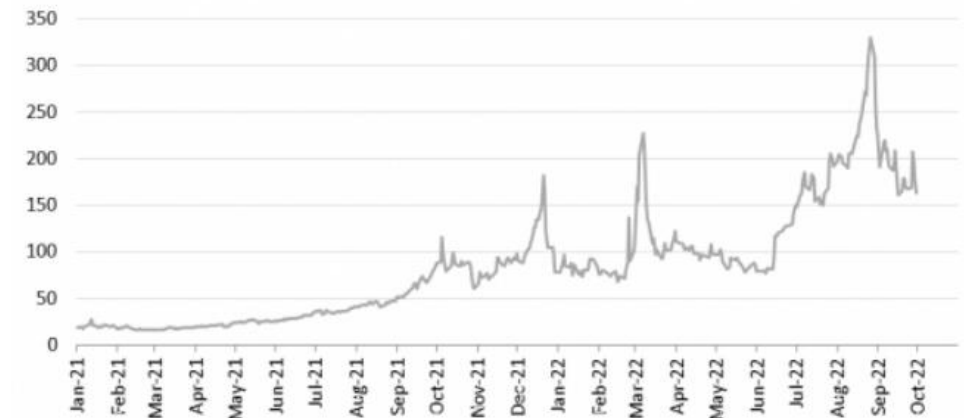
Source: European Commission

- **Energy-intensive activities most hardly hit**, daily life telling examples include (Aug 21 to Aug 22):



- As gas and electricity prices surge, millions in Europe are spending record amounts of their income on energy, causing increasing levels of “**fuel poverty**”, i.e. basically the inability of people to keep their homes warm

- Despite recent drops, European natural gas prices are likely to remain at historically high levels



Source: Refinitiv Datastream

- According to the International Energy Agency (IEA), in the European Union, **Italian** and **German** families are among the worst hit by surging gas prices



# **3.1.2**

**EU reaction – latest  
developments post  
REPowerEU**

# After REPowerEU - Three main EU legislative pieces put forward

26.07.22

**"Save Gas for a Safe Winter Plan"**

☒ Already approved



30.09.22

**"Emergency intervention to address high energy prices in Europe"**

☒ Already approved

18.10.22

**"Energy Emergency – preparing, purchasing and protecting the EU together"**

☒ Discussed by European Council on 20 and 21.10.22

# «Save Gas for a Safe Winter Plan»- Main elements



## Avoid emergency energy curtailments in the event of further gas delivery disruptions from Russia

- ▶ Put forward by the [European Commission on 20th July](#), amended and passed by the [European Council on 26th July](#)
- ▶ Among the long string of legislative and strategic actions to combat the ongoing energy crisis in Europe (REPowerEU & others)
- ▶ Explicit **focus on avoided consumption**, suggesting that alternative supply options are nearing exhaustion and the only lever remained for action is through **actions on the demand side**

### KEY PROVISIONS

A full disconnection from Russian gas imports could result in a **deficit of 30 billion cubic metres (BCM)** of gas by March 2023 (average demand levels) → the measures proposed are aimed at **saving 45BCM** (tiny **15BCM buffer**)

**At the heart of the proposal → 15% demand reduction target for the MS between 01.08.22 to 31.03.23**, compared to their previous five-year average consumption for the same period

This target is **currently voluntary** and to be pursued by all MS to their best efforts (pre-alert level). In case of an **'EU alert level'**, the target becomes **mandatory**



# «Save Gas for a Safe Winter Plan» - The EU Alert level

For reference

In this instance, a substantial **risk of a severe gas shortage** and therefore **significant deterioration of gas supply in the Union** is identified, and **at least five Member States have declared an alert** at national level.

## Measures to be taken at EU level

- ▶ **Mandatory reduction of 15% of demand, notwithstanding partial or total derogations** (e.g. countries that are not physically connected to the European gas grid)
- ▶ Reinforced **monitoring and mutual exchange of information** to protect the Single Market.
- ▶ Increase of the daily monitoring and information from the MS to the EC.
- ▶ If necessary, convene a crisis management group composed of crisis managers appointed by the MS concerned.

## Measures to be taken at Member State level:

- ▶ **Voluntary auctions or tenders** calling for offers to **reduce consumption**.
- ▶ Update of the national gas security of supply emergency plans.
- ▶ **Promote** and if necessary **activate interruptible contracts**.
- ▶ Implement **fuel switching** for industry and electricity.
- ▶ Obligation for **public buildings to limit heating and cooling** temperatures unless technically infeasible.
- ▶ Activation of **other demand-side measures** provided in the alert level in national gas security of supply emergency plans.
- ▶ Measures to **reduce gas consumption** by non-critical gas fire power plants.
- ▶ Monitoring the **impact of demand reduction on critical sectors** across the EU, exchange of information between the MS
- ▶ National gas security of supply [emergency plans](#) specify in more detail the measures planned by the MS for each crisis level.

# EU Emergency Intervention to address High Energy Prices – Key elements

- ▶ 14.09.22 → Commission proposal based on indications of the Extraordinary Energy Council of 09.09.22
- ▶ 30.09.22 → Proposal discussed, modified and agreed upon by the EU Energy Council. Final text [here](#)
- ▶ Proposal's **main objectives**:
  - ▶ Keep energy affordable
  - ▶ Ensure EU energy security of supply
  - ▶ Create an EU energy platform
  - ▶ Diversify supply sources
- ▶ Proposal's **main tenets**:
  - ▶ Electricity demand reduction
  - ▶ Cap on market revenues for inframarginal techs
  - ▶ Solidarity levy for fossil fuels sector
  - ▶ Retail measures for SMEs



# EU Emergency Intervention to address High Energy Prices – Specific measures (1/2)

## Electricity demand reduction



**voluntary** overall reduction target of 10% of gross electricity consumption



**mandatory** reduction target of 5% of the electricity consumption in peak hours



MS to **identify 10% of their peak hours between 01.12.22 and 31.03.23** during which they will reduce the demand



**MS free to choose the appropriate measures** to reduce consumption for both targets in this period.

## Cap on market revenues for inframarginals



Market revenues capped at **180 euros/MWh** for electricity generators, that use **inframarginal technologies** to produce electricity, e.g. renewables, nuclear and lignite.



MS to use **measures of their choice to collect and redirect the surplus revenues** towards supporting and protecting final electricity customers



MS can also:

- set a higher revenue cap
- use measures that further limit market revenues
- differentiate between technologies
- apply limits to market revenues of other actors, e.g., traders

# EU Emergency Intervention to address High Energy Prices – Specific measures (2/2)

## Solidarity levy for fossil fuel sector



MS to set up a **mandatory temporary solidarity contribution** on the profits of businesses active in the crude petroleum, natural **gas, coal**, and **refinery** sectors



**Calculated on taxable profits**, as determined under national tax rules in the fiscal year starting in 2022 and/or in 2023, which are **above a 20% increase** of the **average yearly taxable profits** since 2018



MS to use proceeds from the solidarity contribution to **provide financial support to households and companies** and to mitigate the effects of high retail electricity prices

## Retail measures for SMEs



MS may temporarily set a **price for the supply of electricity to SMEs** to further support SMEs struggling. Exceptionally and temporarily, this price for the supply of electricity can be **below cost**.



## Overall Timeframe

- All measures **temporary** and **extraordinary**
- Applied from 01.12.22 to 31.12.23
- Reduction targets of energy consumption apply until 31.03.23
- Mandatory cap on market revenues applied until 30.06.2023.
- Specific exemptions for Cyprus and Malta.

# “Energy Emergency – preparing, purchasing and protecting the EU together” + EU Council

- Regulation proposal [published](#) on **18.10.22** – Followed up by Member States in the **EU Council of 20-21 October (conclusions [here](#))**

## Joint Purchasing

- A voluntary joint purchasing of gas, except for binding demand aggregation for a volume equivalent to 15% of storage filling needs

## Solidarity

- Energy solidarity measures in case of gas supply disruptions at national, regional or Union level, in the absence of bilateral solidarity agreements

## Addressing high gas exchange prices

- A new benchmark complementary to the Dutch Title Transfer Facility (TTF) to be elaborated by early 2023 that more accurately reflects conditions on the gas market;
- A temporary dynamic price corridor on natural gas transactions to immediately limit episodes of excessive gas prices;
- A temporary EU framework to cap the price of gas in electricity generation;

- Additional highlights:

- **Divisions remain over one of the centerpiece proposals for an emergency cap on the price of gas.** Nonetheless, a clear mandate was given to the EC to start working on a gas price cap, although Germany is openly skeptic, on the grounds that such measures risk pushing up consumption and endangering supply
- Call for the EC and MS to start considering a **reform of the electricity market**

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## **Other key EU climate & energy policy developments**



# State of the Energy Union 2022

► Published on 18.10.22 → link to full report [here](#)



The EU has already **surpassed 91% of gas in storage**

**LNG** → key source of supply, accounting for **32% of the EU's total net gas imports**

% **Russian pipeline gas** in EU imports → **from 41% in 2021 to 9% in Sept 2022**

Record **12% of EU electricity from solar** from May to Aug 2022, **13% from wind**

## General Takeaways

**2022 will be a record year for the European solar PV market**, (peaks of annual deployment growth of 17-26%)

% of renewables in electricity mix expected to **grow from 37% in 2021 to 69% in 2030**

Electrolyser manufacturers in Europe have committed to **increase their capacity** to manufacture electrolyzers **tenfold**, to **17.5 GW by 2025**

In 2020:  
- Emissions reduction: **32%**  
- Energy efficiency: **5 to 6% lower** than the **20% target**  
- Renewables deployment: **22.1%**

\*Compared to 1990 levels

After falling by more than 5% in 2020 due to COVID restrictions, **fossil fuel subsidies in the EU remained fairly stable in 2021**

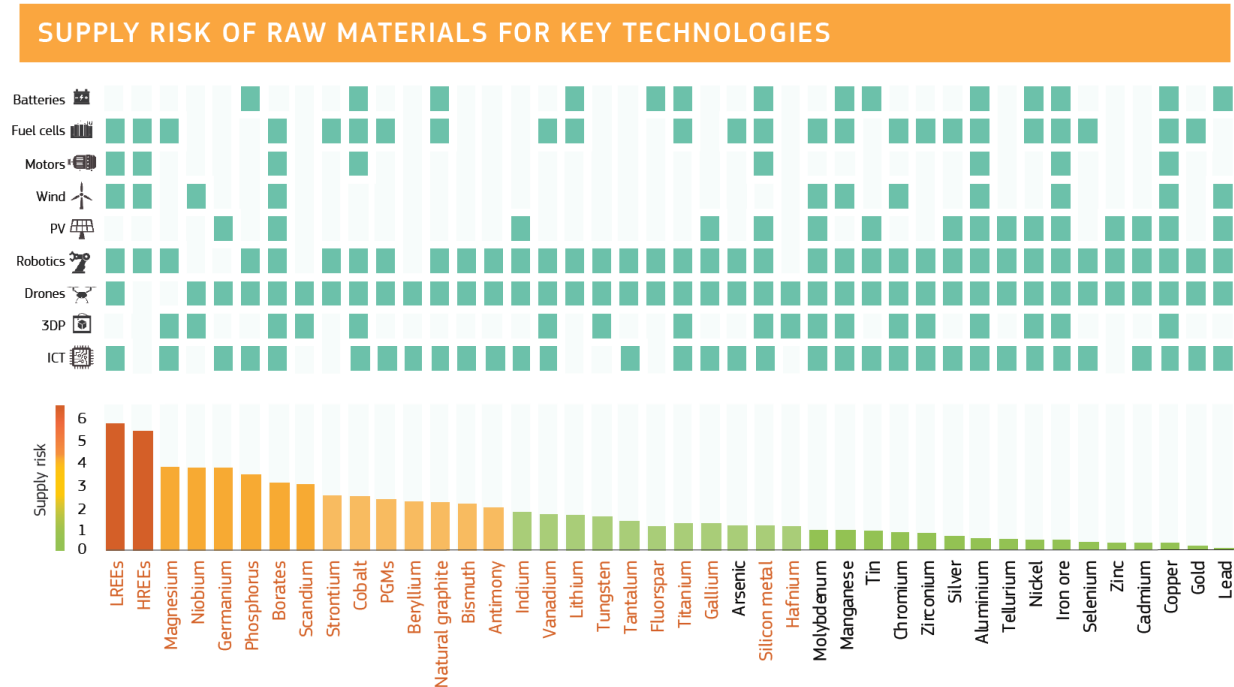
# Hydrogen

- ▶ In the State of the Union address of last 14.09, President Von der Leyen announced a strong **step-up of efforts on H2**, for it to the exit niche and become massive:
  - ▶ Establishment of a **European Hydrogen Bank**. The bank will:
    - ▶ Fill the investment gap and connect future demand and offer
    - ▶ Be financed using resources from the Innovation Fund
    - ▶ Be in a position to invest 3 billion € to support the creation of a future market for H2
  - ▶ EERA has recently produced a **brief of the latest EU policy developments concerning H2**, available [here](#)
- ▶ On 22.09 the EC approved a second **Important Project of Common European Interest (IPCEI)** focused on supporting **research, innovation, industrial deployment, and construction of relevant infrastructure in the hydrogen value chain**:
  - ▶ Prepared by 13 MS
  - ▶ It will provide up to €5.2 billion in public funding
  - ▶ Expected to unlock additional €7 billion in private investments.



# Critical raw materials (1/2)

- ▶ To tackle the EU [dangerous shortage](#) in critical raw materials, the EC announced the launch of a **Critical Raw Materials Act**, the centerpiece of a strategy that should aim to create a solid EU value chain
- ▶ The announcement was followed by the publication of a [call for evidence](#) open until the 25 of November 2022, open to all stakeholders
- ▶ The EC expects to publish the Critical Raw Materials Act by the first quarter of 2023

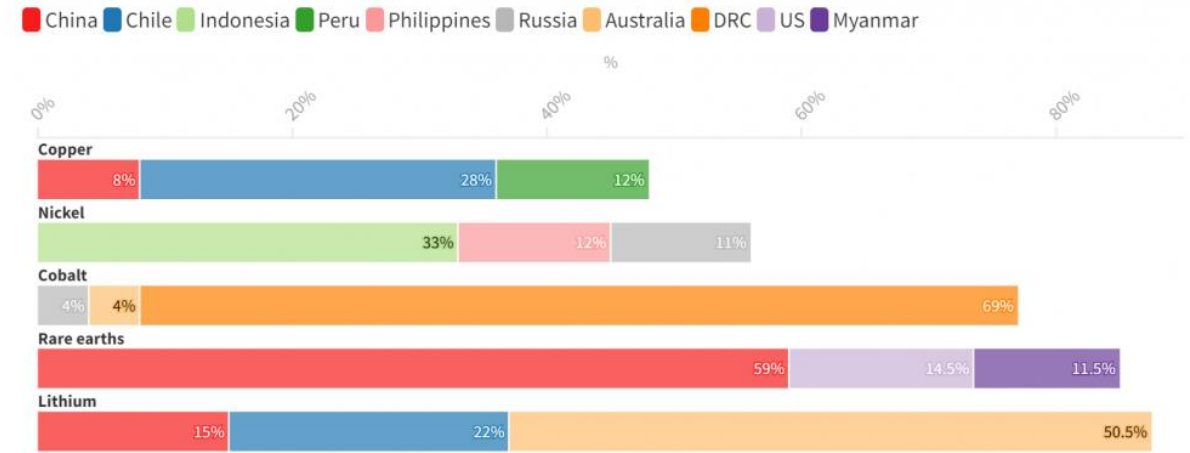


# Critical raw materials (2/2)

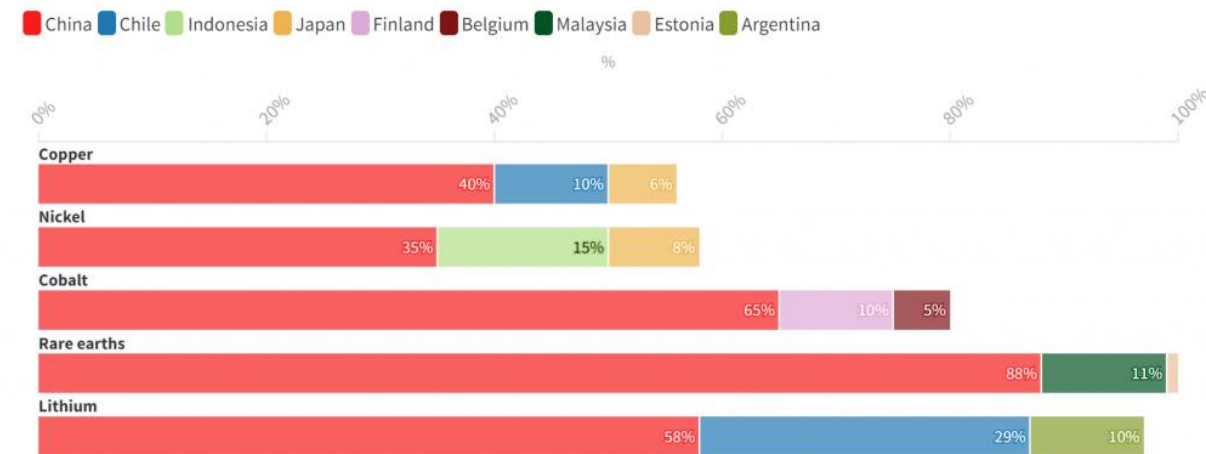
## ► Key areas for intervention:

- **Tackle existing dependencies** and ensuring **diversification** of supply chains
- Ease state aid rules for the Important Projects of Common European Interests (IPCEI) to **increase investment in the mining sector**
- Increase the financial participation of the IPCEI and creation of a new **European Sovereignty Fund**
- **Lessen the dependency on China** when it comes to refining raw materials
- Secure supply chains through means of **trade with like-minded democracies** like Chile, Mexico, New Zealand, Australia and India

## Where critical minerals are mined



## Where critical minerals are processed



Source: IRENA, IEA

## EC Work Programme for 2023

- ▶ 18.10.22 → overview of the most important new initiatives to be expected next year
- ▶ Main **energy & climate announcements**: 1) **Reform of the European electricity market** for early 2023; 2) creation of **European Hydrogen Bank**; 3) new Greening Freight Package to reduce emissions in freight transport; 4) proposals to improve ambient air and water quality and soil pollution

## New Solar PV Alliance

- ▶ To be launched **by end of 2022**. Main goal → contributing to the **acceleration of solar power deployment** across the EU
- ▶ One of the concrete initiatives announced **in REPowerEU**
- ▶ Targets the installation of **newly solar PV capacity of 320 GW by 2025 and 600 GW by 2030**

## Plan to digitalise the energy sector

- ▶ Launched on 18.10.22, link [here](#)
  - ▶ Outlines how new technologies can improve the efficient use of resources, facilitate the integration of renewables into the grid, and save costs for consumers and companies.
- 

## Launch of the new Biomethane Industrial Partnership (BIP)

- ▶ Officially [launched](#) on 28.09.22
- ▶ Aimed at ramping up production as quickly as possible in line w/ the REPowerEU target to boost domestic production of biomethane to 35 billion cubic meters by 2030, up from around 3 bcm today.



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# **International updates**



## The road to COP27



6 November – 18 November

### EU position:

- Pledge to deliver on a 2009 commitment by rich nations to provide **\$100 billion per year** in support of developing countries suffering the most from the consequences of climate change, a target which so far has never been met. The goal is expected to be met in 2023.
- **No commitment on “loss and damage”** → Whilst the EU recognizes the need to strengthen action on ‘loss and damage’ related to the negative impacts of climate change in the most vulnerable regions, no concrete financial commitments are put forward → **contentious point w/ developing countries**

### Kinshasa pre-COP27 climate talks – 3, 4 October 2022

- Attended by some **50 state representatives**, Executive Vice-President Timmermans from the EU side
- Highlighted **geopolitical tensions and fragile multilateralism** on the background of the Russian-Ukrainian conflict and energy crisis
- Nevertheless, joint call to continue **active collaboration on solving the climate crisis**
- Topics discussed: decommissioning of fossil fuels, protection of biodiversity, a “bridge between climate change and finance”, “loss and damage” funding

## EU and Morocco announce first green partnership on energy, climate and the environment



Considering the upcoming COP27, EU Commissioner for the Green Deal Frans Timmermans signed the first EU-Morocco Green Partnership during his last visit to the country.

- ▶ This agreement is the **first such EU deal** with a partner country as part of the external dimension of the European Green Deal. It will become a model for other future partnerships, as Timmermans called Morocco a leader in Africa in the fight against the climate crisis.
- ▶ This Green Partnership will allow the EU and Morocco to:
  - ▶ progress towards their common climate and green economy goals;
  - ▶ strengthen policy dialogue and coordination at bilateral, regional and multilateral levels;
  - ▶ foster innovative, sustainable, job-creating and environmentally friendly projects;
  - ▶ develop triangular cooperation with other international actors to achieve the goals of the Paris Agreement.

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## **Recent IEA reports and initiatives**

## Global Hydrogen Review

- **Use of low-emissions H2 set to grow sharply** in the coming years
- Scenario w/ all projects currently in the pipeline finalized → production of low-emissions H2 globally to reach somewhere in the range of 16 million to 24 million tons per year by 2030 – up from just 1 million tons in 2021.
- Need for **greater policy support** to help pilot projects grow.

## Skills Development and Inclusivity for Clean Energy Transitions

### Report on skills development and inclusivity for clean energy transitions

- **Expanded education, training and certification** needed to develop the skilled workforce to support the new energy economy and to help ensure transitions are fair and people-centred
- Importance of **comprehensive workforce mapping**:
- Need to develop **completely new programmes for education, certification and vocational training** combined w/ **upskilling** or **reskilling** of the existing workforce.

# Launch of first Breakthrough Agenda report in collaboration w/ IRENA

- ▶ Tracks the progress of achieving the **goals of the Breakthrough Agenda** launched by 45 world leaders at COP26, i.e. a commitment to work together this decade to **accelerate innovation and deployment of clean technologies**, making them **accessible and affordable for all**.
- ▶ Highlights the importance of:
  - ▶ Strengthening international collaboration for decreasing CO2 emissions and reducing the cost of clean energy technologies
  - ▶ Deliberate alignment of action in contrast to just sharing best practices
  - ▶ Including and supporting developing countries in the global energy transition process
  - ▶ Acknowledging and acting upon the five key sectors that enable transition: power, hydrogen, road transport, steel and agriculture
  - ▶ Strengthening collaboration between governments, businesses and civil society





## **Other key recent international developments**



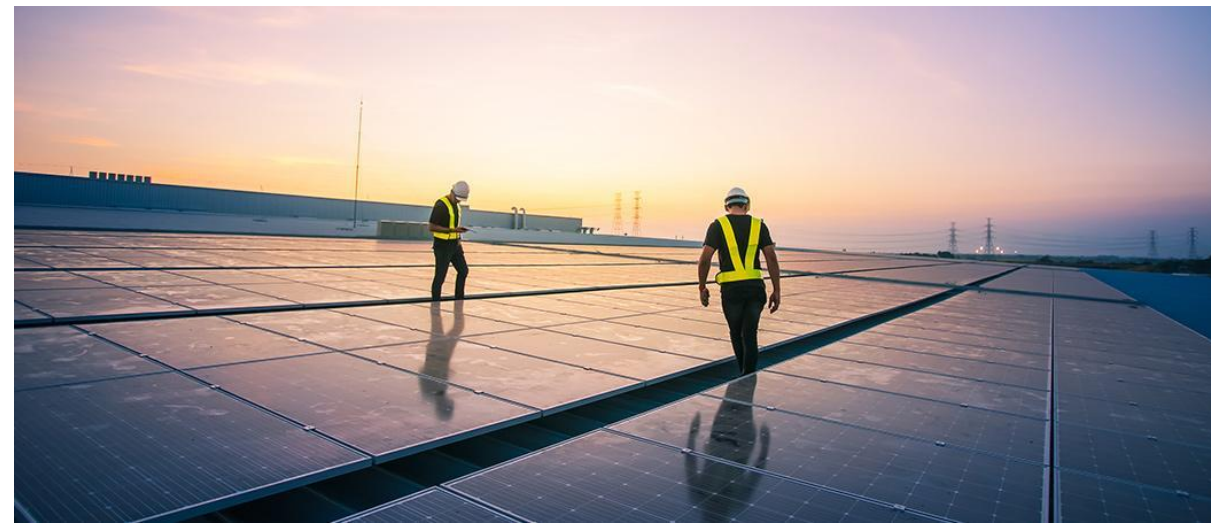
# The US “Inflation Reduction Act”

- ▶ Signed into law on **16.08.22**
- ▶ **Largest investment in combating climate change in US history**, lowers the cost of prescription drugs and raises taxes on corporations
- ▶ Climate & Energy specific provisions:
  - ▶ Aimed at **reducing GHG emissions by about a billion metric tons** (= a gigaton) **by 2030** → 50-52 % reduction target from 2005 levels in economy-wide net GHG pollution by 2030 within reach + substantial progress toward President Biden’s goal of 100% carbon pollution-free electricity by 2035.
  - ▶ **Over US\$360** billion allocated to **clean energy incentives**
- ▶ The alignment with the EU’s FF55 decarbonisation strategy and net-zero ambitions opens up for **several EU-US collaboration opportunities** e.g. for transatlantic private-sector engagement and investment in emerging clean technologies. The IRA also foresees **significant tax breaks for the nuclear industry** → Crucial for US/EU collaboration given the inclusion of nuclear energy in the EU taxonomy



► **EU allocates €28 billion for the US-led Clean Energy demonstration challenge**

- Aimed at speeding up the deployment and commercialisation of new CET technologies
- The public money (from HEU, Innovation Fund, InvestEU) is **expected to pull in private investment** to accelerate the deployment of large-scale CET demonstration projects



► **OPEC+ agrees to reduce oil production**

- OPEC+ (members and affiliated countries, notably Russia) agreed on 5 October to the largest reduction of oil production since 2020
- The objective: increase the international oil prices, which dropped the past months as a result of fears for a global economic recession
- Potential complications for the European energy crisis

► **China puts its path to carbon neutrality at risk**

- The country has approved **15 GW of new coal-fired power capacity** and another **30 m tons of coal-based iron-making capacity** in the first half of 2022
- The move **hampers China's commitments** to achieving peak emissions by 2030 and **nationwide net-zero carbon emissions by 2060.**

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# **SET Plan revamp**

# State-of-play

- ▶ EERA intensively working on this topic since the beginning of the year
- ▶ Several meetings held with EC officials and SET Plan stakeholders
- ▶ Two formal contributions submitted to the European Commission
- ▶ Central topic of the Annual Strategy Meeting → Summary of the discussions available [here](#)
- ▶ EERA to attend the [SET Plan Conference in Prague](#) on 9 and 10 November. Two slots secured:
  - ▶ Nils Røkke to speak at High-Level opening panel (from COP 27)
  - ▶ 1 Speaker/moderator slot on Skills agenda
  - ▶ In addition, EERA will be represented with a booth at the official event
- ▶ [Public consultation](#) on the revamping of the SET Plan → Launched on last 5 October. EERA has put forward an official reply, circulated yesterday to the JPs with the view of providing coherent input from the community on the process

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**SUPEERA**

# State-of-play from the policy side (Task 3.2)



## ► Objectives for end of the year 2022

- 1 Webinar
- 2 Policy Briefs to be published

## ► Webinars

- *"Paving the way for strategic autonomy: The role of R&I on materials for the energy transition"*
- Thursday 01 December – 10:00 to 11:30 CET – Online – **Mark your diaries!**
- Concept note for reference

## ► Policy Briefs

- **3<sup>rd</sup>: European Biodiversity Strategy** → In finalization stage, link to the document here
- **4<sup>th</sup>: By end of November/early December 2022: Sustainable Carbon Cycles**

## Previously published in 2022:

**PB on the Energy Efficiency Directive (recast)**

**PB on REPowerEU**

## Previously held in 2022:

**Webinar on Green Hydrogen**

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# **Open consultations**

# EC Public Consultations

Policy Topic	Stage	Close by	
Eu forests – new EU Framework for Forest Monitoring and Strategic Plans	Open	17 November 2022	<a href="#">Submit feedback</a>
Soil health – Protecting, sustainably managing and restoring EU soils	Open	24 October 2022	<a href="#">Submit feedback</a>
EU energy policy – revamping the Strategic Energy Technology Plan	Open	02 November 2022	<a href="#">Submit feedback</a>
European Critical Raw Materials Act	Open	25 November 2022	<a href="#">Submit feedback</a>



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**7**





**For your agendas**

# For your agendas

## EERA Events

- ▶ **24 November** – EERA Policy Working Group
- ▶ **1st December** – SUPEERA webinar: *“Paving the way for strategic autonomy: The role of R&I on materials for the clean energy transition”*

## External events

- |   |   |
|---|---|
|  EU Commission |  Think Tank    |
|  EU Presidency |  Media Outlets |

- ▶ **25 October** – [CETP 2nd Info Day](#)
- ▶ **7-18 November** – [UN Climate Change Conference 2022 \(UNFCCC COP 27\)](#)
- ▶ **9-10 November 2022** – [SET Plan conference in Prague](#)
- ▶ **15-16 December 2022** – [European Commission info day on Climate, Energy and Mobility](#)

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**AOB**



# Thank you

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