



Navigating EU's energy policy landscape

Lappeenranta
10 syyskuuta 2024



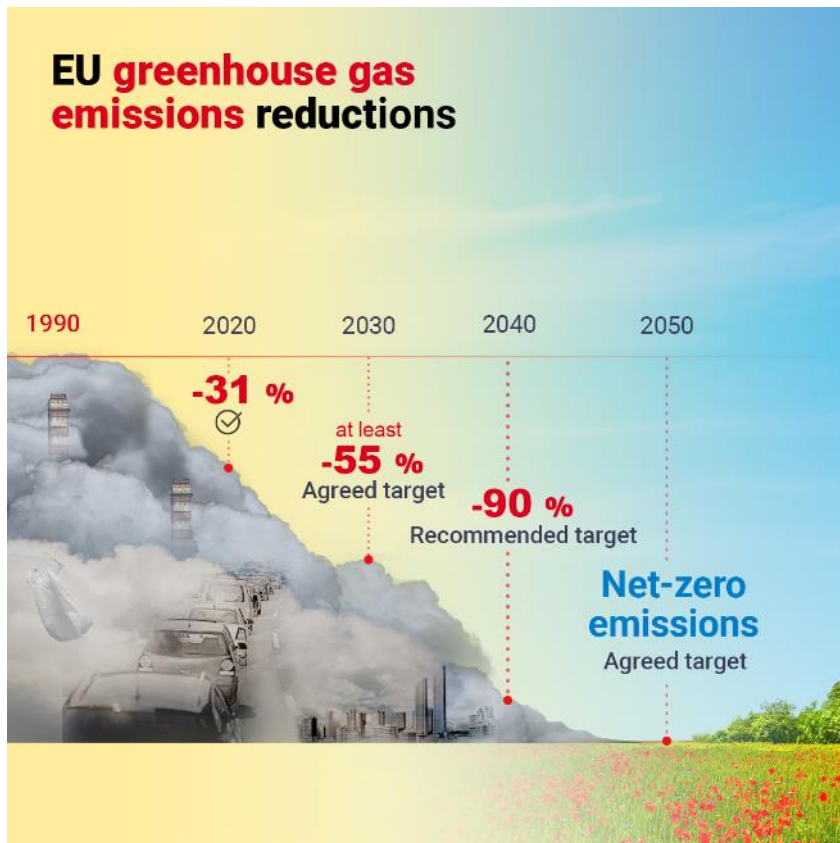
From science to vision: European Green Deal 2019

European Green Deal: a growth strategy that protects climate

- Right at the start of our mandate, we rallied Europe around a common goal: to develop a new growth model, the **European Green Deal**, based on a clean and circular economy.
- We set ourselves targets to **become climate neutral by 2050**.
- With this compass, we pushed forward a **clean transition that protects people and the planet**, is economically sound and socially fair.
- Now, more than 4 years into our journey, and despite two unprecedented global crises, the **majority of initiatives have been proposed and turned into law**, with major initiatives already taking shape.



European Green Deal: a growth strategy that protects the climate



European Green Deal: a growth strategy that protects the climate

- Innovative technologies to reduce emissions:
 - With the **Net-Zero Industry Act** to speed up permitting processes for clean tech manufacturing and to support European businesses.
- The **Carbon Border Adjustment Mechanism** - to make sure that emissions are reduced wherever they are produced and the EU's climate objectives are not undermined.



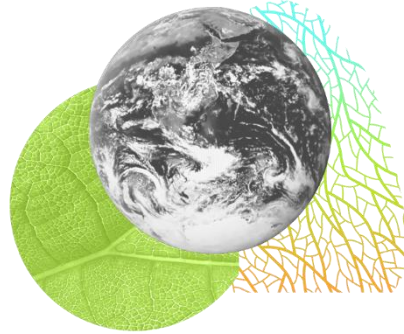
Battery manufacturing supported and **clean hydrogen** developed in the EU.

EV charging stations available every 60 km in the trans-European transport network.

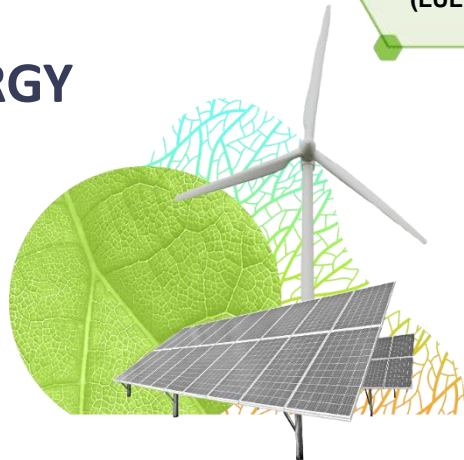
Making laws to match the vision:
Fit for 55 package (2021)

Delivering 55% emission reductions 2030

CLIMATE



ENERGY



TRANSPORT



TAXATION AND TRADE



Legislative Initiatives under Fit for 55 package

- Carbon Border Adjustment Mechanism (CBAM)
- Effort Sharing Regulation (ESR)
- **Amendment to the Renewable Energy Directive (RED)**
- **Amendment to the Energy Efficiency Directive (EED)**
- **Reducing Methane Emissions in the Energy Sector**
- **Revision of the Energy Performance of Buildings Directive (EPBD)**
- **Hydrogen and Decarbonised Gas Market Package**
- Revision of the Energy Taxation Directive
- Revision of the Directive on Deployment of Alternative Fuels Infrastructure
- Revision of the Regulation Setting CO2 Emission Performance Standards for New Passenger Cars and for New Light Commercial Vehicles
- Revision of the Regulation on the Inclusion of Greenhouse Gas Emissions and Removals from Land Use, Land Use Change and Forestry (LULUCF)



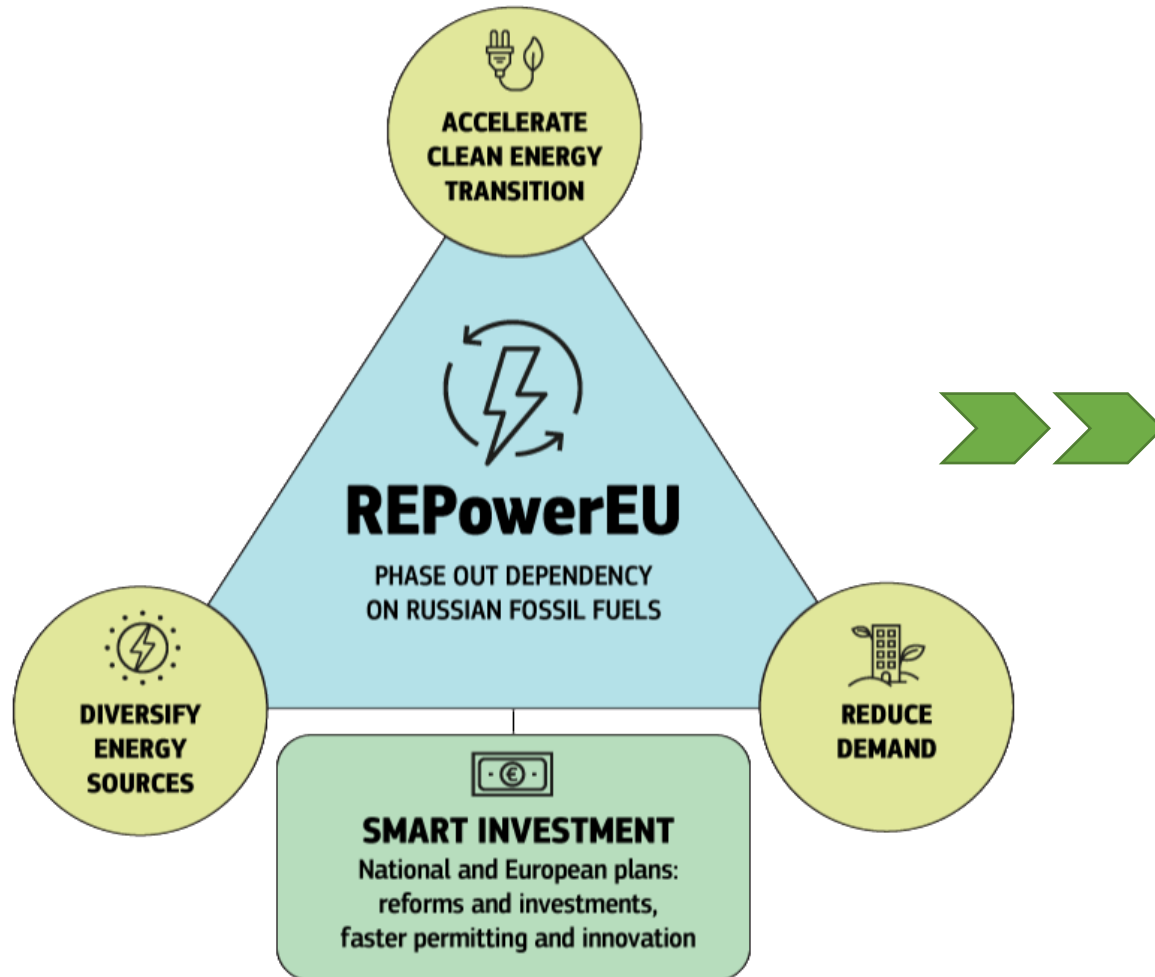
Hydrogen Bank

- Financing and coordination platform for renewable H₂
- Contribute to aim of **producing 10 Mt** and **importing 10 Mt** renewable hydrogen to the EU by **2030**.
- The Commission launched the **first pilot auction on renewable hydrogen production** under the Innovation Fund in November **2023**.
- 132 bids from 17 Member States
- 7 winners receiving 720M€, Nordic Ren-Gas Oy 1st



EU Crisis Response: Results and Alignment with EGD

REPowerEU: goals, actions and expected impact



Independence from Russian fossil fuels by 2030

- Increase imports of **liquefied natural gas** (LNG) by 50 bcm
- Diversification of **pipeline imports** by 10 bcm
- Increase of **biomass** in power generation (1 bcm)
- **Fuel switch** in the residential and service sectors (9 bcm)
- Increase **biomethane** production by 17 bcm
- Reduced energy **use in industry** (12 bcm)
- Renewable **hydrogen** production and imports to reduce gas demand by 27 bcm
- Promote **heat pumps and energy efficiency** to reduce gas demand by (37 bcm)

➔ **Reduction of gas imports from RU by 167 bcm by 2027 and 194 bcm by 2030**

(on top of the reduction, which will be achieved through the Fit for 55 package)

Increasing the RES target from 40% to **45%** by 2030

Increasing the energy efficiency target from 9% to **13%** by 2030

Common solutions to worst energy crisis in decades

REPowerEU

Aiming to mobilise close to €300 billion, to reduce dependence on Russian fossil fuels, and fast forward the clean transition

SAVING ENERGY

By coordinating our gas demand reduction



18 %

Drop in demand

between August 2022 and December 2023

99 %

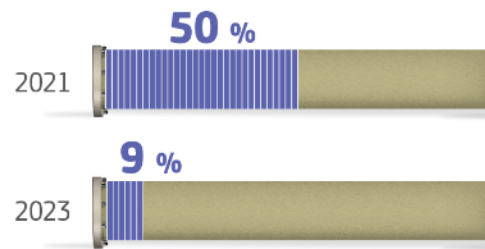
of **gas storage capacity was full** in November 2023

(overachieving our 90 % target by 1 November 2023)

DIVERSIFYING OUR SUPPLY

Through reliable new suppliers

PERCENTAGE OF RUSSIAN PIPELINE GAS IMPORTS OF TOTAL EU GAS



Current main supplier to the EU: **Norway (30 % of pipeline imports in 2023)**

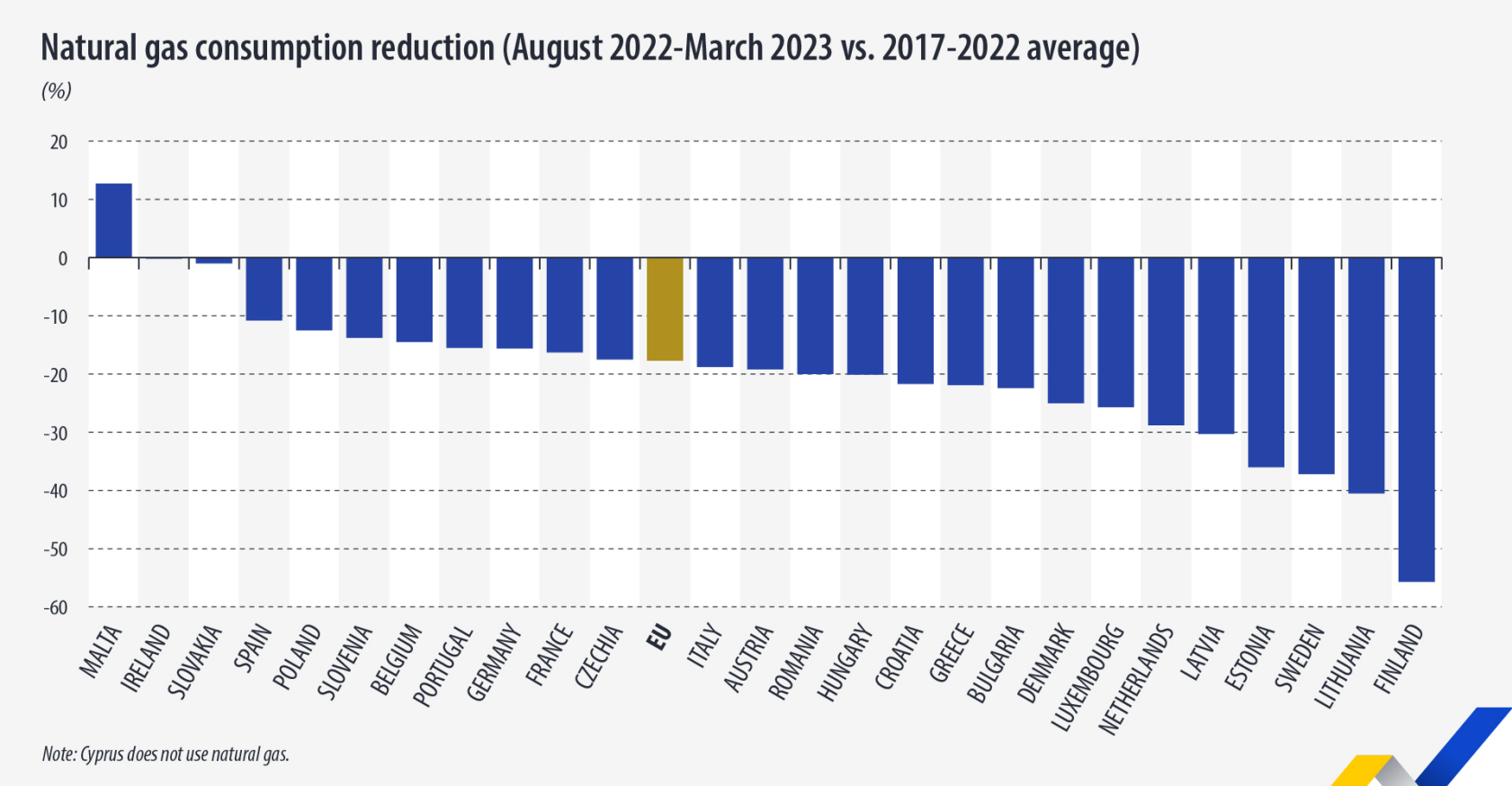
INVESTING IN RENEWABLES

Accelerating the transition to more sustainable and cheaper energy

RENEWABLES DEPLOYMENT (2023)

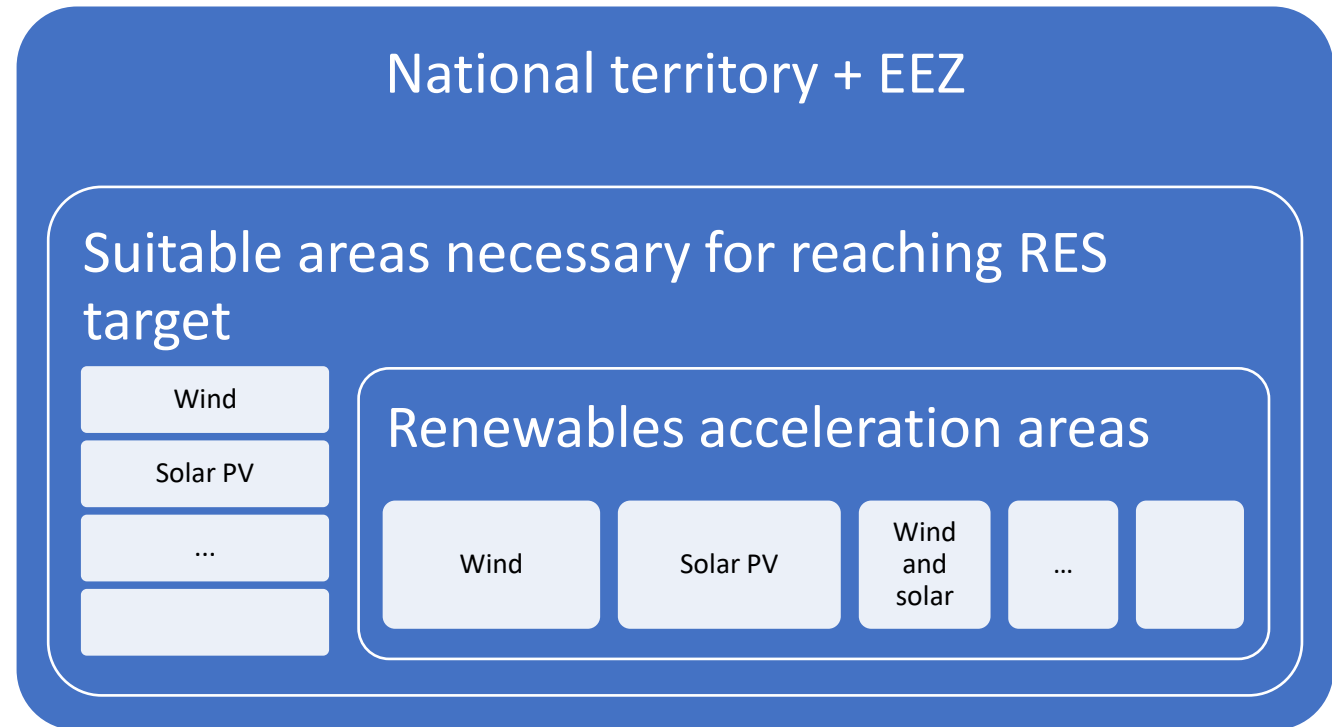


Demand Reduction



Renewables: spatial planning to accelerate deployment

- Sector targets for transport, heating & cooling, buildings and industry
- Mapping of **NECP areas** (focus on RES potential)
- Designation of sub-set of “**renewable acceleration areas**” (focus on low env. impacts)
- Option to designate **grid and storage infrastructure areas** to integrate RES into electricity system.



Renewables: strengthened horizontal measures

Permitting

Spatial planning
Shorter and simpler procedures
RES acceleration areas

Energy System Integration

Facilitate electrification, sector coupling flexibility of energy systems
Art. 20&20a

Power Purchase Agreements

Assess and remove barriers
Promote uptake

Guarantees of Origin

Ensure that they can be transferred to the buyer in the PPA

Cross-border cooperation

Framework for projects
Joint projects (including use of RES Financing Mechanism)

Strengthened sustainability criteria for bioenergy

Apply to smaller installations
New no-go areas to forest biomass
Cascading principle: limitations to direct financial support

Main elements of the EED revision

Binding and increased EU energy efficiency target & indicative national contributions

'Energy Efficiency First' Principle – making it an integral part of policy and investment decisions

Strengthened energy savings obligation in end-use

Stronger exemplary role of public sector

Increased focus on alleviating energy poverty and consumer empowerment

Focus areas of the recast EPBD

Renovation

- Minimum Energy Performance Standards
- National Building Renovation Plans

Enabling framework

- Energy Performance Certificates
- Renovation passports
- Sustainable finance & energy poverty
- One-stop-shops
- Deep renovation standard
- National energy performance databases

Decarbonisation

- Introduction of zero-emission buildings as standard for new buildings
- Solar deployment in buildings
- Calculation of whole life cycle carbon
- Phasing out incentives for fossil fuels and new legal basis for national bans

Modernisation & system integration

- Infrastructure for sustainable mobility
- Smart Readiness Indicator
- Indoor air quality: ventilation and other technical building systems

Electricity Market Design



Boost renewable energy investments

- More renewables-based energy system to lower energy bills
- Ensure a sustainable and independent energy supply from fossil fuels
- Consumer less dependent on volatile fossil fuels.



Better protect and empower EU consumers

- More stable prices: fixed-price contracts and hedging obligations for suppliers
- Power to choose multiple contracts, sharing renewable energy, better information
- Protection for vulnerable households: suppliers of last resort, regulated prices, disconnection protection, and more efficient and stable energy systems.



Enhance the competitiveness of EU industry

- More stable long-term contracts and markets:
- Promotion of Power Purchase Agreements
- Public support for renewables in the form of two-way Contracts-for-Difference

What's Next

Remaining challenges



Complete the legal and policy framework under the European Green Deal, and shift to effective implementation of legislation, including the Fit for 55 package, in the Member States



Boost competitiveness and industrial leadership, including through the Net-Zero Industry Act and the European Wind Power Package



Secure reliable supplies of critical raw materials, including through agreement on the Critical Raw Materials Act



Secure the needed investments for the clean energy transition, working with the private sector as well as the European Investment Bank and European Bank for Reconstruction and Development



Provide affordable energy prices and ensure strong consumer protection and empowerment, by implementing a revised Electricity Market Design



Strengthen and expand energy grids, and further integrate the energy systems



Address skills and labour shortages relevant for the energy sector



Address the impact of water scarcity on energy systems



Set a firm time frame for the phase out of fossil fuel subsidies which do not address energy poverty or just transition, in line with the decarbonisation objectives of the European Green Deal

Thank you!

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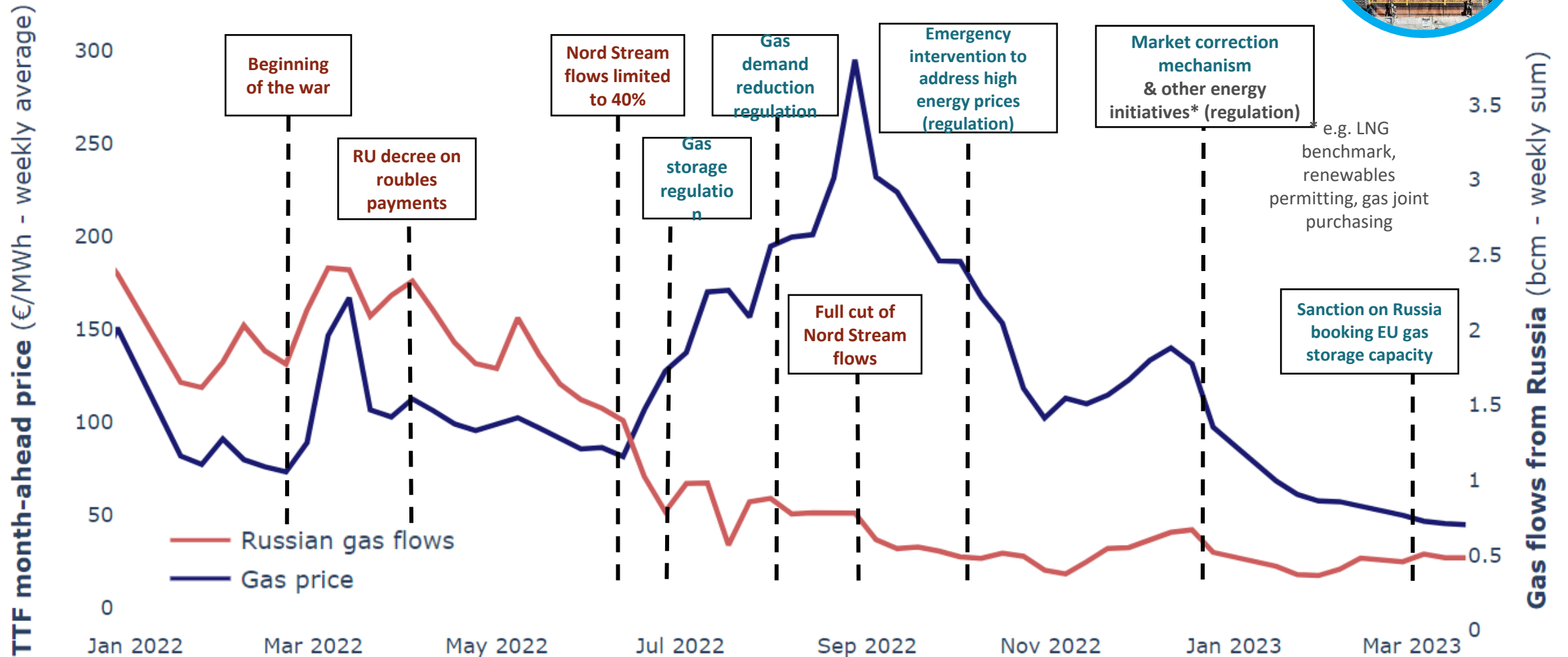




Faster RES permitting



Russian weaponisation of gas & REPowerEU policies



Source: European Commission based on S&P Global Platts and ENTSO-G Transparency Platform

Investment needs - REPOwerEU

€29 billion in the power grid (2030) for greater electricity use



€37 billion to increase biomethane production



€10 billion investments to import sufficient LNG and pipeline gas (2030)

€210 billion
by **2027**



€56 billion for energy efficiency and heat pumps (2030)



€1.5-2 billion for security of oil supply



€41 billion for adapting industry to use less fossil fuels by 2030

€113 billion for renewables (**€86bn**) and key H2 infrastructure (**€27bn**) by 2030

And getting it done

