EUSAIR Pillar 2 Energy

The EUSAIR Master Plan on Energy for the Adriatic and Ionian Region

Key-note address

Davide Tabarelli, NE Nomisma Energia

10th EUSAIR Forum

Georgioupolis, Crete

6-7 May 2025

Objectives of the Master Plan on Energy

1. **Update and refine the Energy Master Plan** for the Adriatic-Ionian Region, offering a strategic tool for coordinated energy planning among EUSAIR countries.

2. Analyze the **current state and future developments** of energy systems (supply, production, distribution, and use) across all sectors: residential, industrial, transport, and services.

3. Address critical challenges including **climate change**, **energy security**, **market competitiveness**, and **universal access** to affordable, modern energy services.

4. Promote the **deployment of renewable energy sources**, energy efficiency, and smart technologies.

5. Define a **programmatic framework for investments** in energy networks and infrastructure in support of cross-border integration and sustainability.

Strategic Vision

- Develop an **integrated, flexible, and resilient energy system** that supports decarbonisation and cross-border cooperation.
- Transition towards **carbon neutrality by 2050** through electrification, digitalisation, hydrogen deployment, and renewable energy expansion.
- Strengthen regional energy **infrastructure, interconnectivity, and governance** aligned with EU and EUSAIR principles.
- Empower local stakeholders through **inclusive policies**, smart energy communities, and skills development.

Key Changes from the 2023 Master Plan

- **Updated scenario framework:**
  - Baseline scenario (2022/2023 or 2024, depending on data availability)
  - Trend scenario to 2035
  - Target (net-zero) scenario to 2050
- Enhanced focus on **hydrogen economy,** including green hydrogen corridors and Hydrogen Valleys.
- **Greater emphasis on digitalisation**: smart grids and cybersecurity.
- Updated **project pipeline and governance structure** to reflect new EU regulations (TEN-E) and regional strategies.
- Stronger linkage **to pilot projects and funding instruments** (e.g., InvestEU, CEF, Modernisation Fund).

Contribution to the EU and EUSAIR Goals

- **Enhances regional energy integration** by developing cross-border infrastructure and harmonising regulations across EUSAIR countries.
  (Supports EUSAIR Pillar 2: Connecting the Region)
- **Accelerates the green transition** by advancing renewable energy, energy efficiency, and low-carbon technologies in line with the EU's climate neutrality target for 2050.
  (Supports EUSAIR Pillar 3 and EU Green Deal, Fit for 55, RePowerEU)
- **Fosters social cohesion and inclusion** by improving access to clean energy, and promoting upskilling in green and digital jobs.
  (Supports EUSAIR Pillar 5 and the European Pillar of Social Rights)
- **Promotes EU integration** by guiding non-EU countries in aligning with the EU energy acquis, reinforcing governance, and supporting the enlargement process.
  (Contributes to EU Enlargement Strategy and Green Agenda for the Western Balkans)
- Functions as a **rolling strategic document**, adaptable to evolving EU and regional energy policy frameworks

Past and future challenges

PAST CHALLENGES

- Fragmented energy markets and regulatory barriers
- Overdependence on fossil fuels and climate sensitive hydropower
- Limited deployment of renewables
- Weak regulatory alignment and inefficient grid usage (subsidies, congestion, etc)
- Investment delays and overdependence on Russian energy.

FUTURE CHALLENGES

- ✓ Achieving net-zero while ensuring energy security
- ✓ Integrating hydrogen and renewable gases
- ✓ Modernising and digitalising energy grids
- ✓ Ensuring financing and project bankability
- ✓ Strengthening governance and public consensus
- ✓ Ensuring just transition with capacity building and industrial upscaling

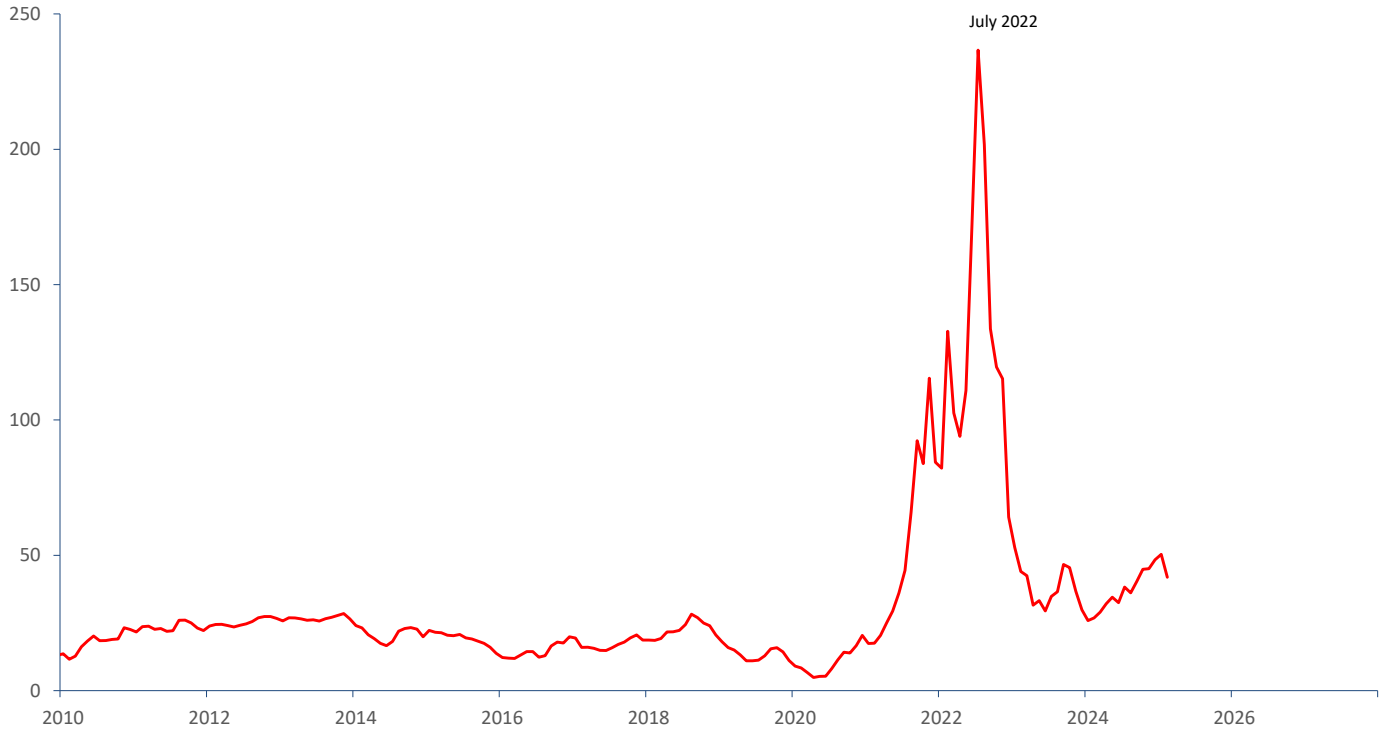
Category	Past Challenges	Future Challenges
Market Integration	Fragmentation, limited interconnections	Full coupling, regulatory harmonisation
Energy Mix	Hydro & coal dominance	High RES & hydrogen integration
Infrastructure	Underinvestment, procedural delays	Digitalisation, cross-border coordination
Security	Supply risks, import dependence	Grid stability, diversified routes
Governance	Policy fragmentation	Institutional capacity, consensus building
Workforce	Low awareness and limited skills	Upskilling for hydrogen & offshore sectors

Energy security and the urgency to unleash renewable sources

ENERGY SECURITY WEAKNESSES

- In 2022 Europe experienced a deep energy crisis
- Gas prices and power prices skyrocketed
- Inflation rose and bills are still high in 2025
- A sharp slowdown of the European economy followed
- Domestic energy production was the main pillar of the respons
- Renewable energy sources are both clean and domestic

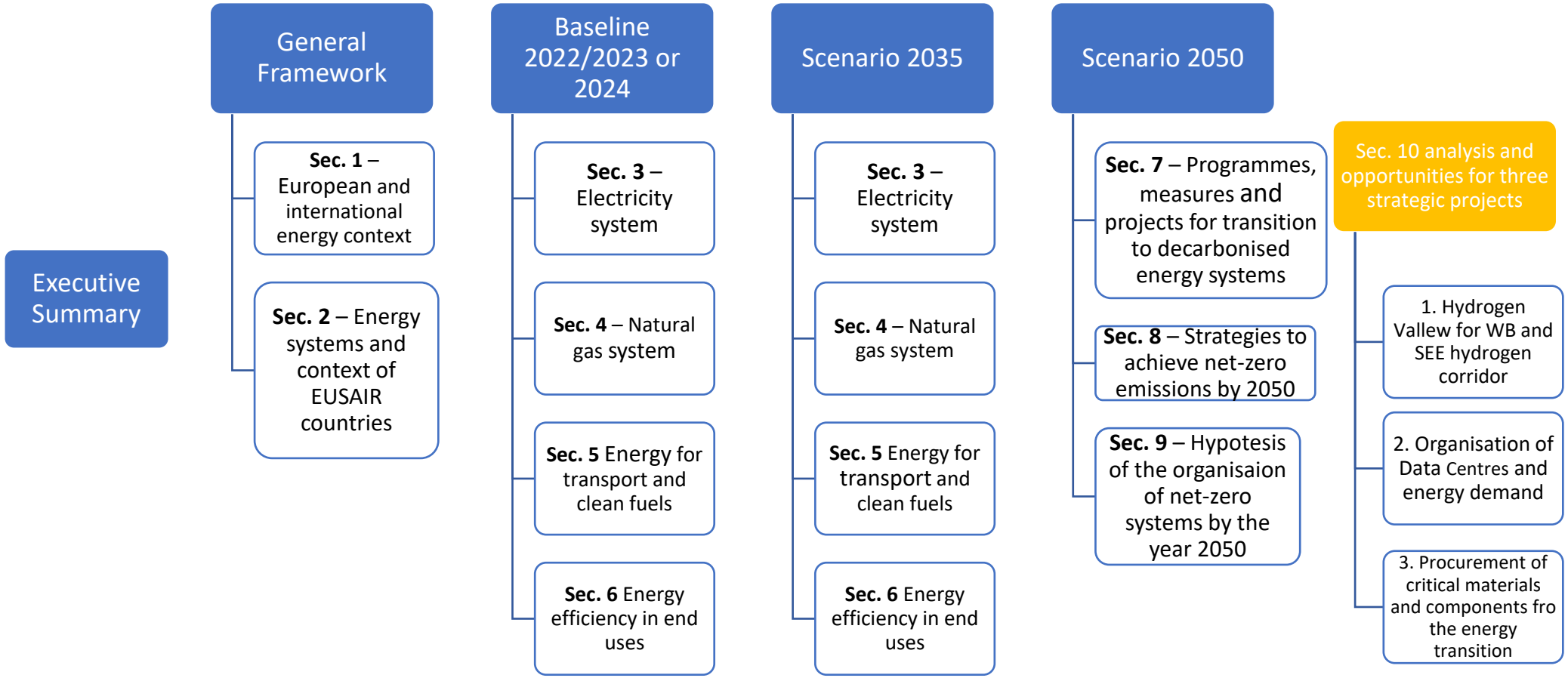
Gas prices in Europe TTF
(monthly average, €/megawattora)



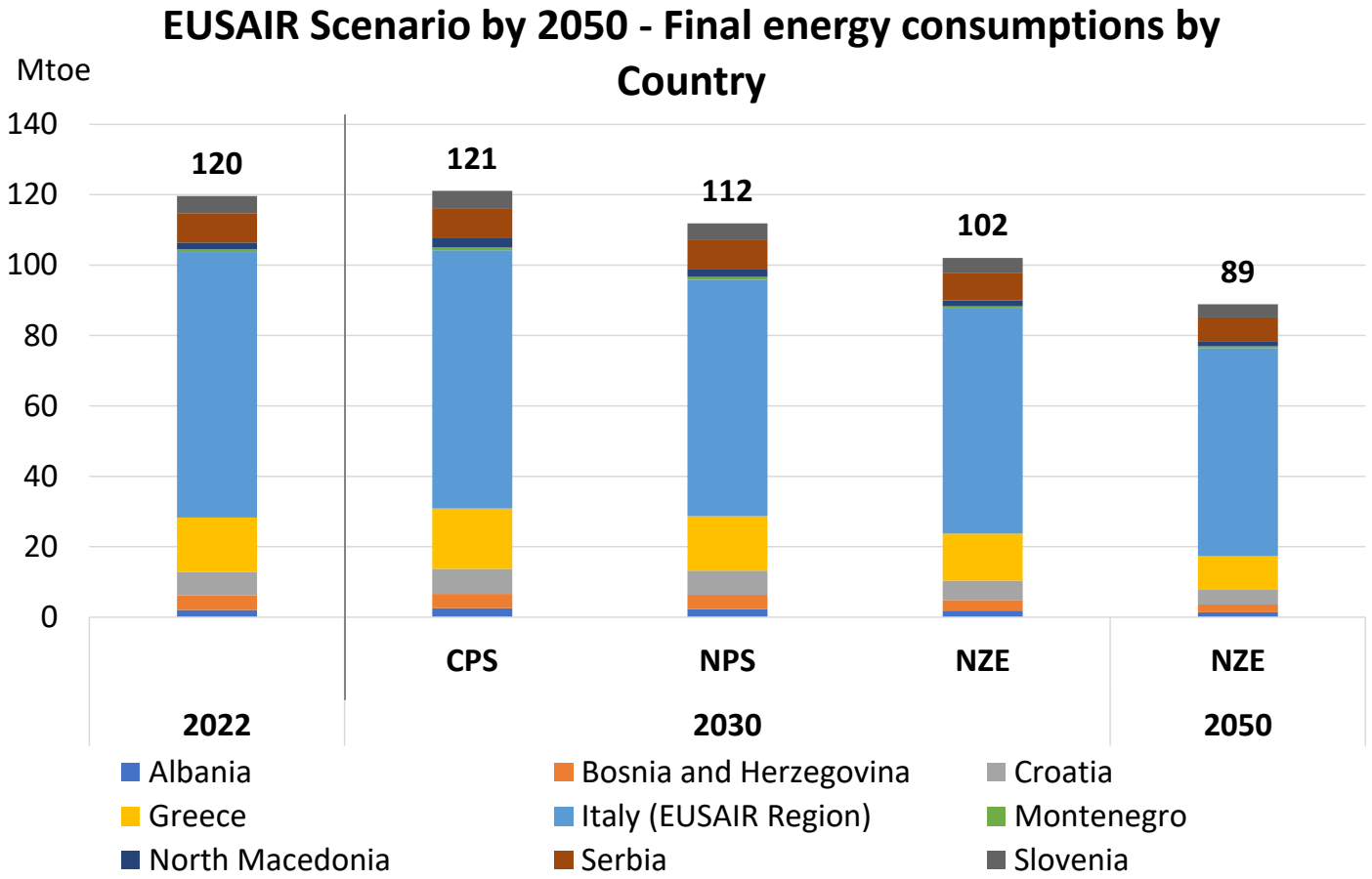
Sorce: elaboration by NE Nomisma Energia on statistics of DOE, ICE, Platts, Alba

Updated Master Plan Structure

Start April 2025 – End June 2027

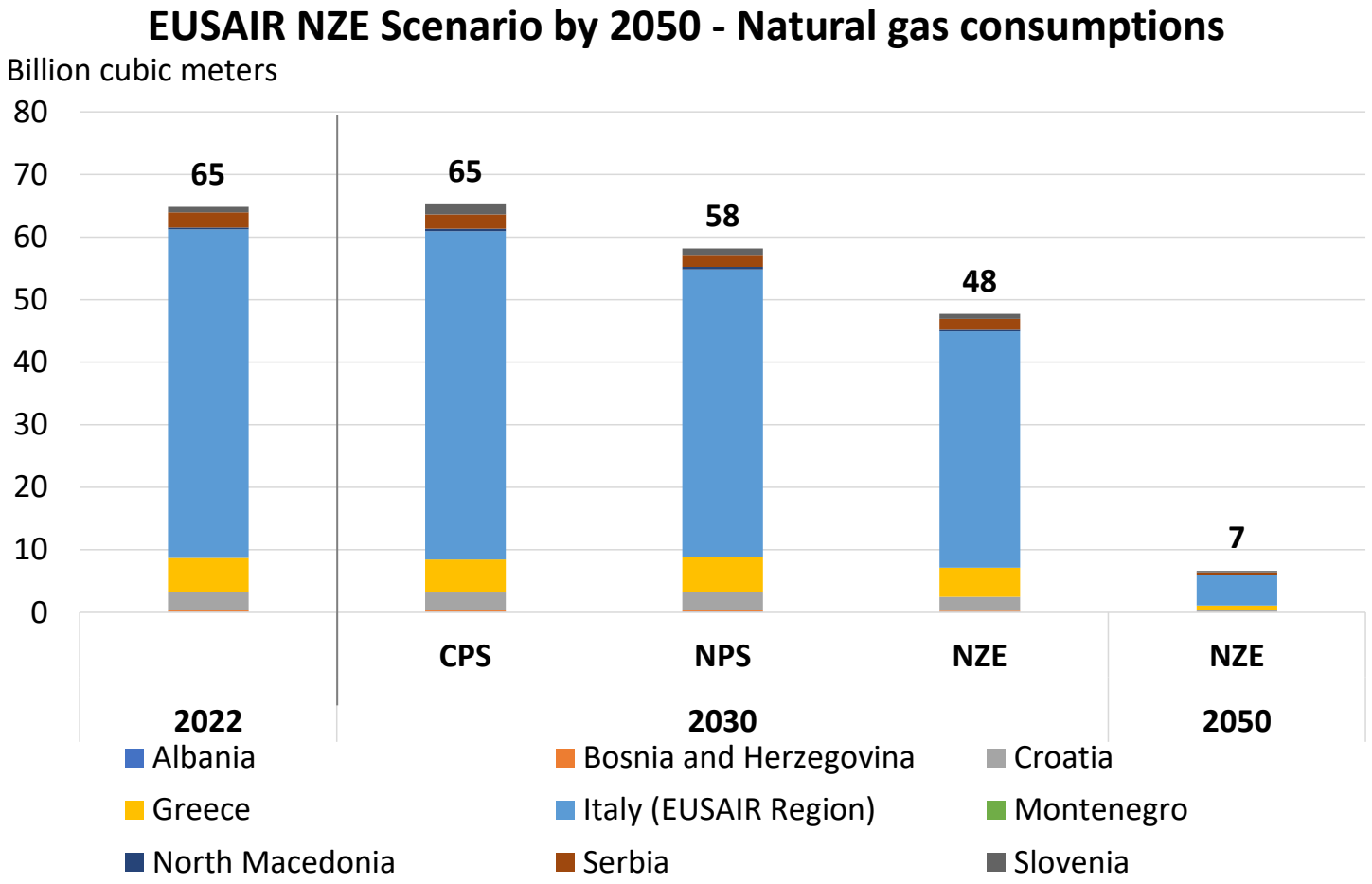


Reduction of final energy consumptions thanks mostly to efficiency

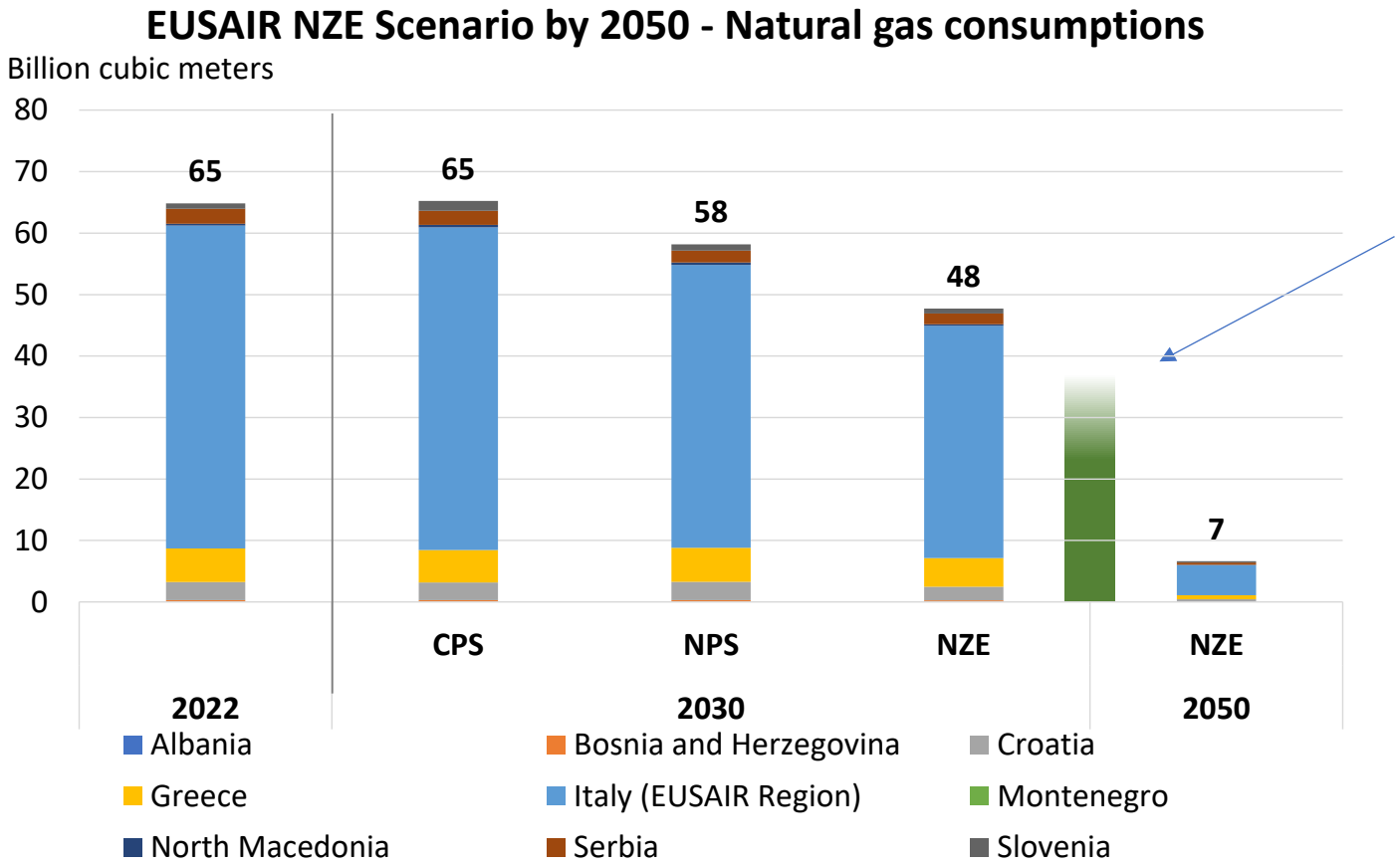


Important delays in the evolution of energy systems of each country

Natural gas replaced by RES



Natural gas replaced by RES

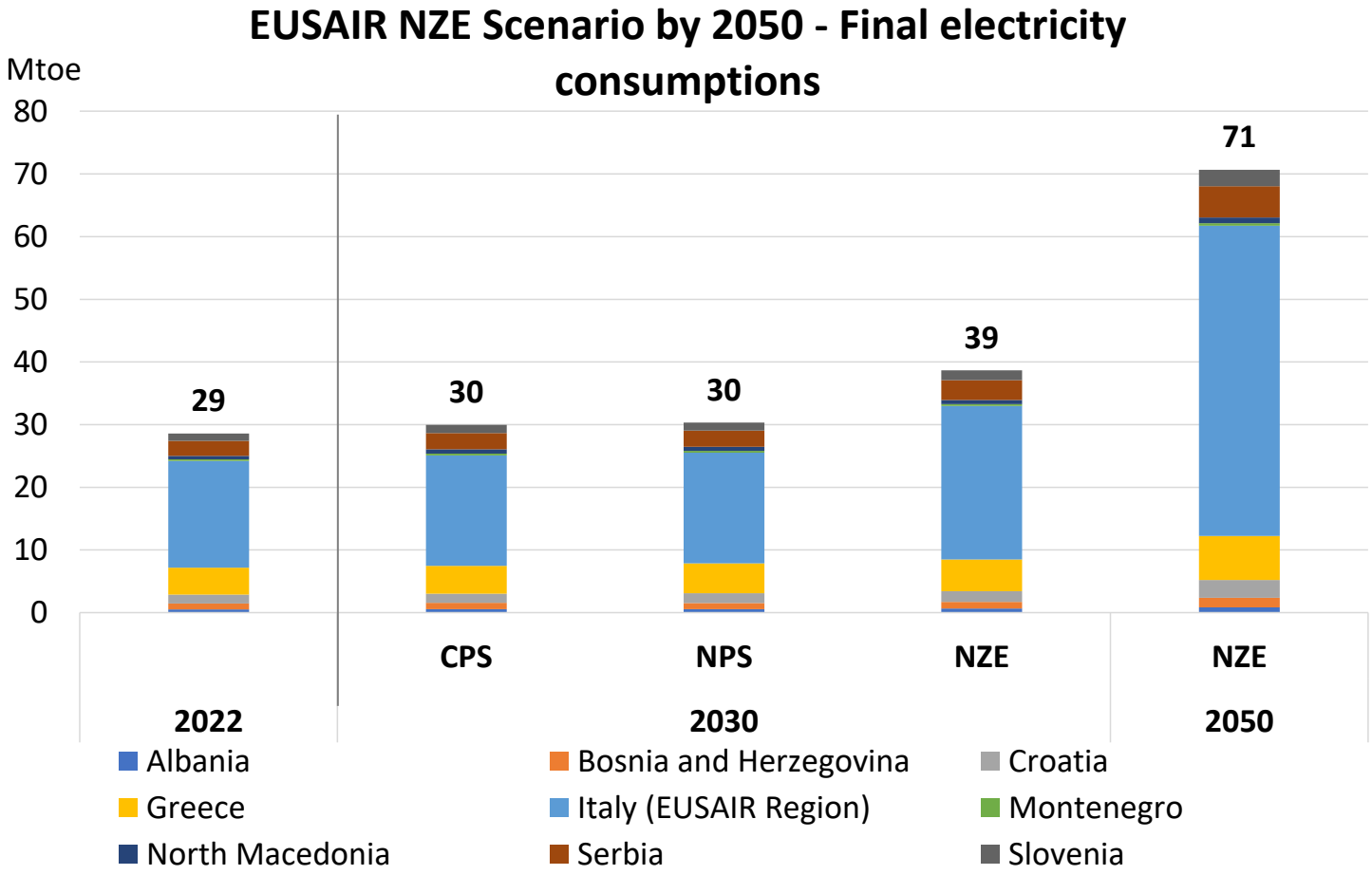


This is also a scenario to be considered, at qualitative level, in case decarbonisation policies are not fully successful.

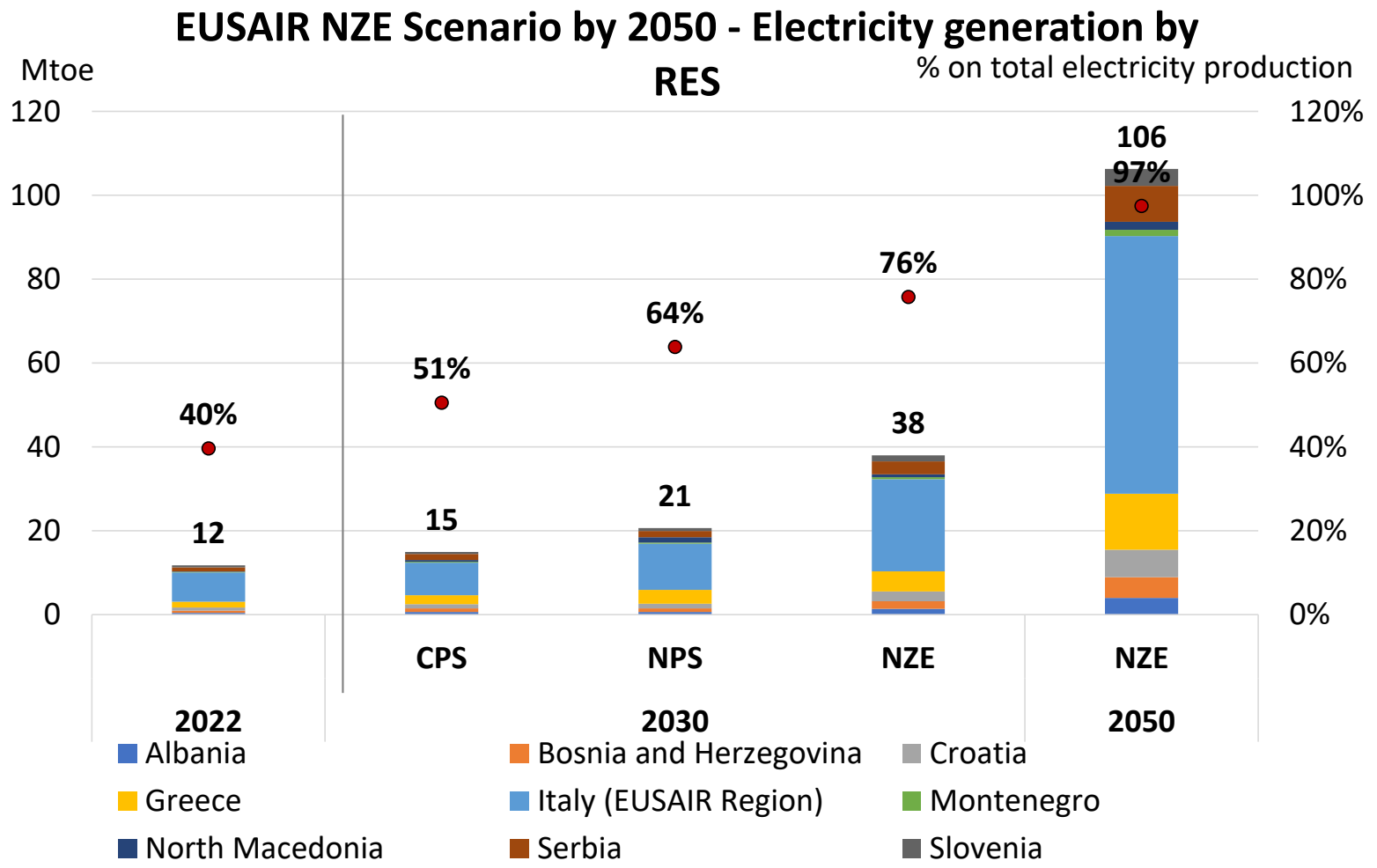
In 2030 there is the need to check whether the gas structures are still requested.

Hydrogen economy is a solution

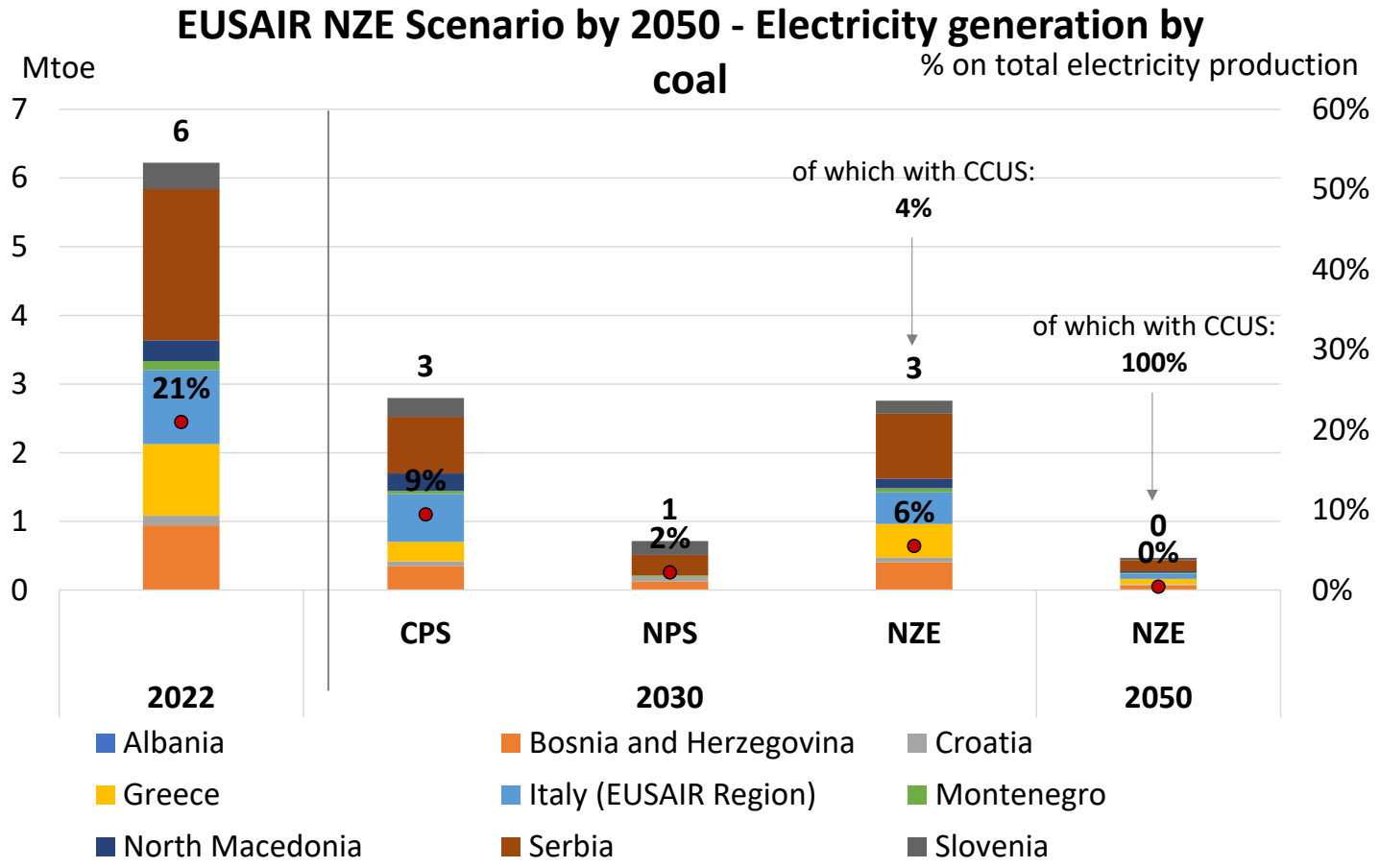
Strong electrification ahead



Fast rise of RES thanks to a long tradition and huge potentialities of the region

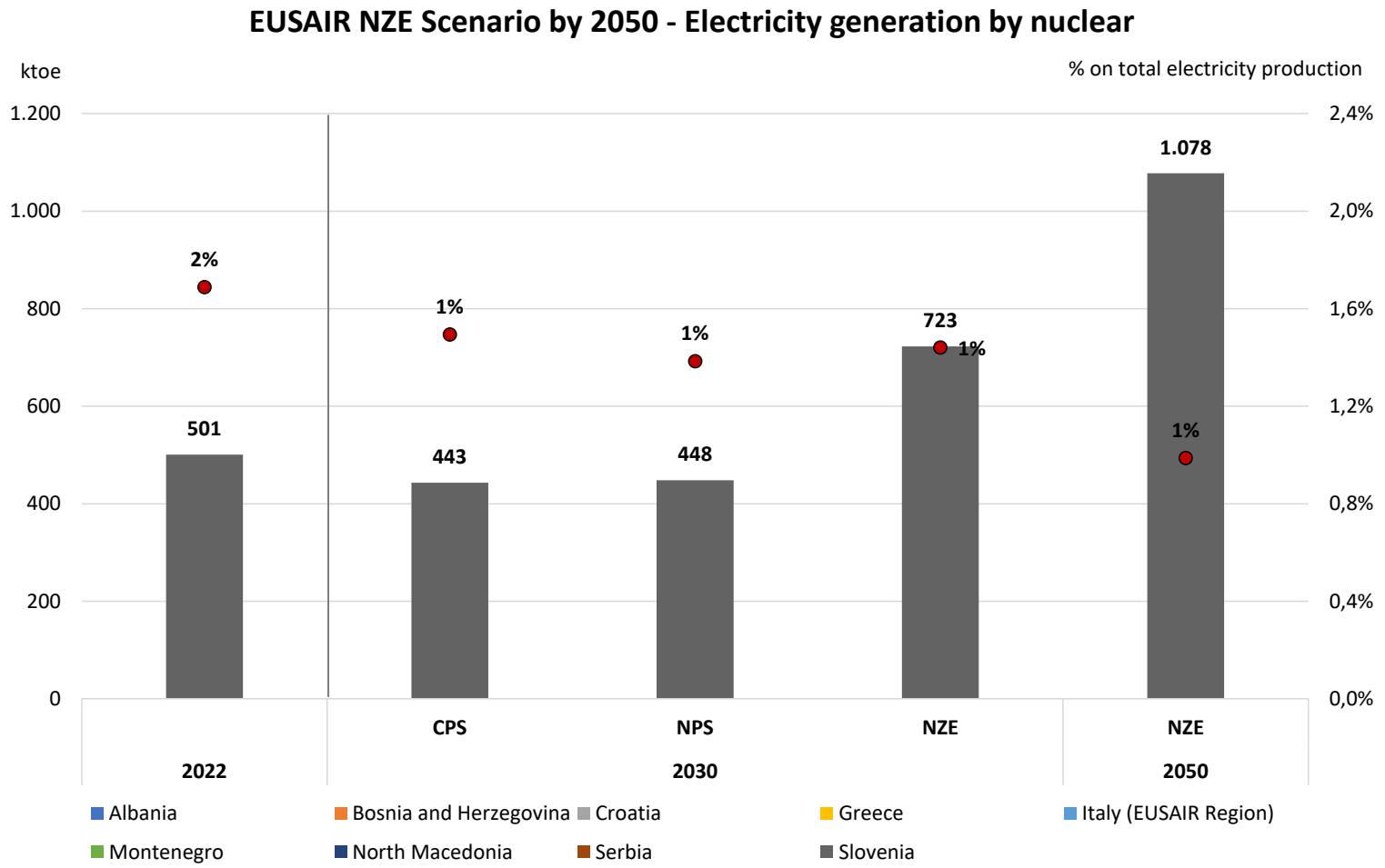


Coal power generation expected to fall



It is important to raise the question of who is going to pay for the stranded costs which may have negative impact on the economies

There is room for nuclear too, but marginal



Recommendations for Overcoming Obstacles

1. **Scenario Harmonization** – Use the Energy Master Plan to create aligned 2035 and 2050 pathways across EUSAIR, incorporating uncertainties through adaptive scenario planning. Considering the next PCI/PMI revision in 2025, national priorities must be aligned into a macro-regional master plan
2. **Skills and Workforce Planning** – Treat human capital as energy infrastructure. Develop national and macro-regional roadmaps for green skills and quality jobs.
3. **Technological Sovereignty and Resilience** – Diversify supply chains and support regional innovation ecosystems for clean energy technology. Resilience, renewable integration, and hydrogen development are guided by both ambition and pragmatism.
4. **Integrated Planning and Cross-Pillar Synergies** – Strengthen the coordination between energy, environment, and transport to unlock co-benefits and reduce policy fragmentation.
5. **Project Acceleration Support** – Create a joint technical assistance facility to help projects in the region reach financial and regulatory maturity. Enable bankability of storage projects via grants and regulatory support.
6. **Coordinate PCI/PMI infrastructure** priorities across EUSAIR with EC and CESEC input.