



# Towards a green recovery

*Analysis of Recovery Plans in Bulgaria, Croatia, Greece and Romania*

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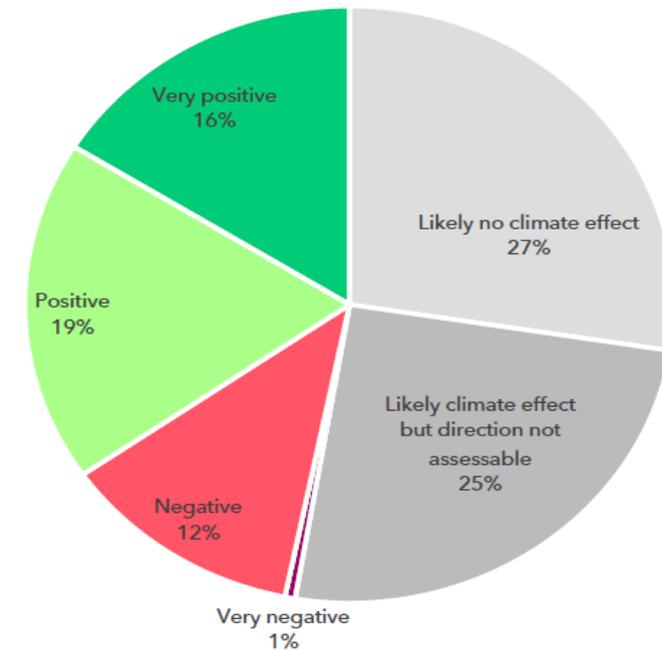
# Comparing SEE RRPs



## State of play of countries' RRP submissions

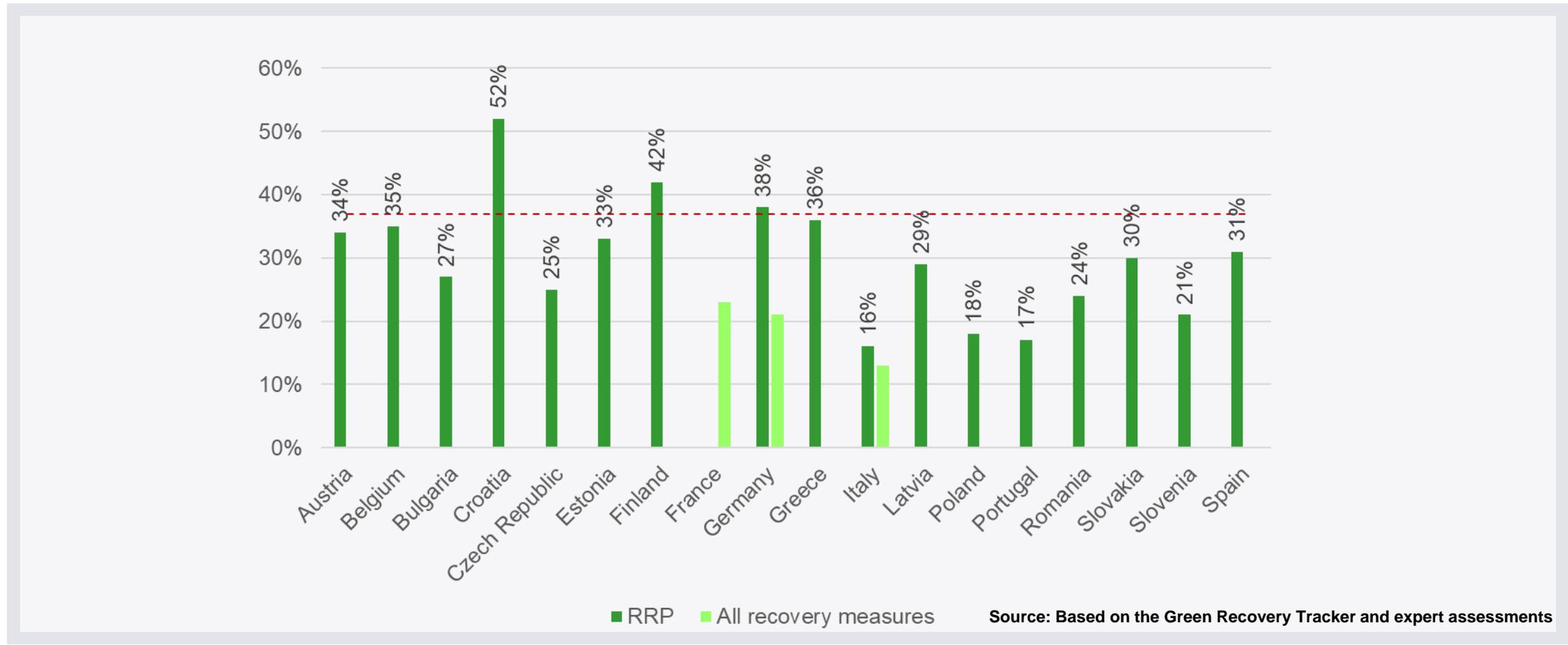
- 4 countries have not submitted their NRRPs yet (Bulgaria, Estonia, Malta and the Netherlands)
- 53% of all assessed recovery funding (€223bn) is allocated to measures that will likely have no climate effect or a climate effect which cannot yet be assessed
- Review of the RRP by the Commission within 2 months of receipt against 2 major criteria: 37% green spending and 20% share for digital transition
- Approval of the plans by the Council within one month on a case-by-case basis

Distribution of recovery spending by assessment category (total = €421.4bn)

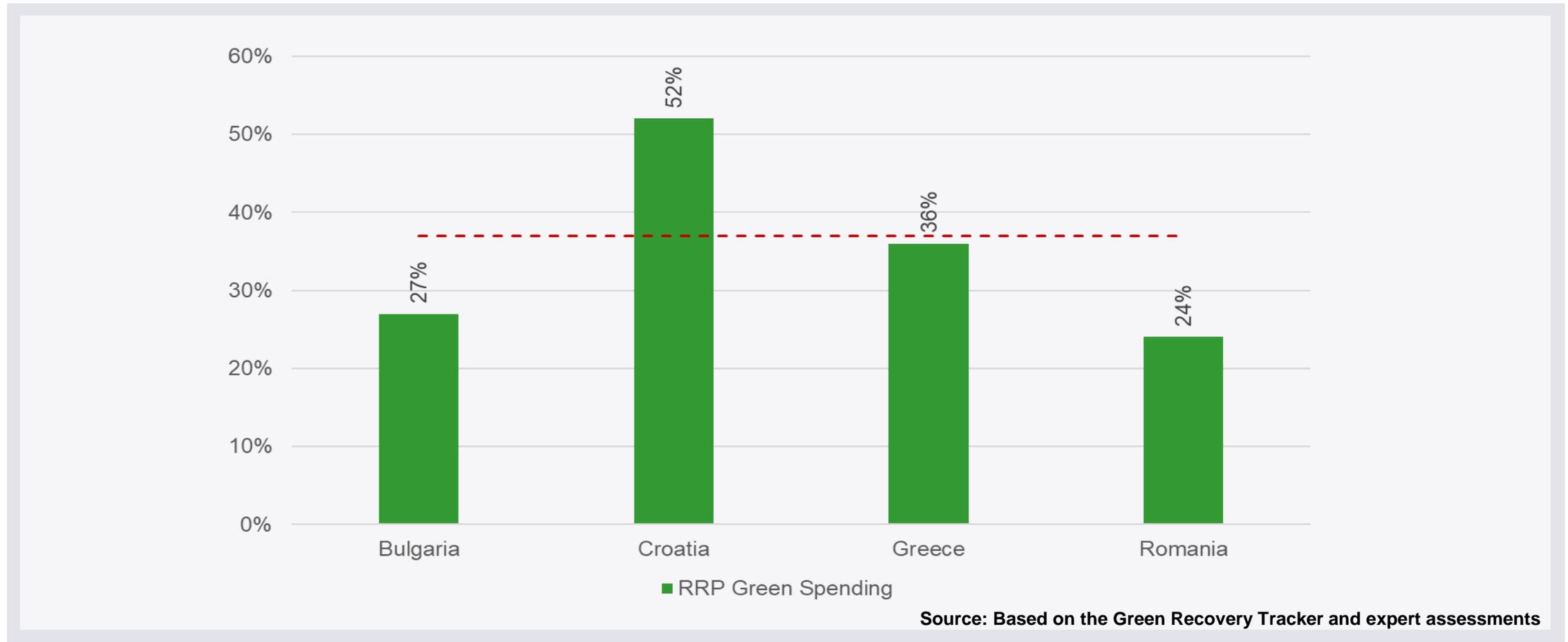


Source: Green Recovery Tracker

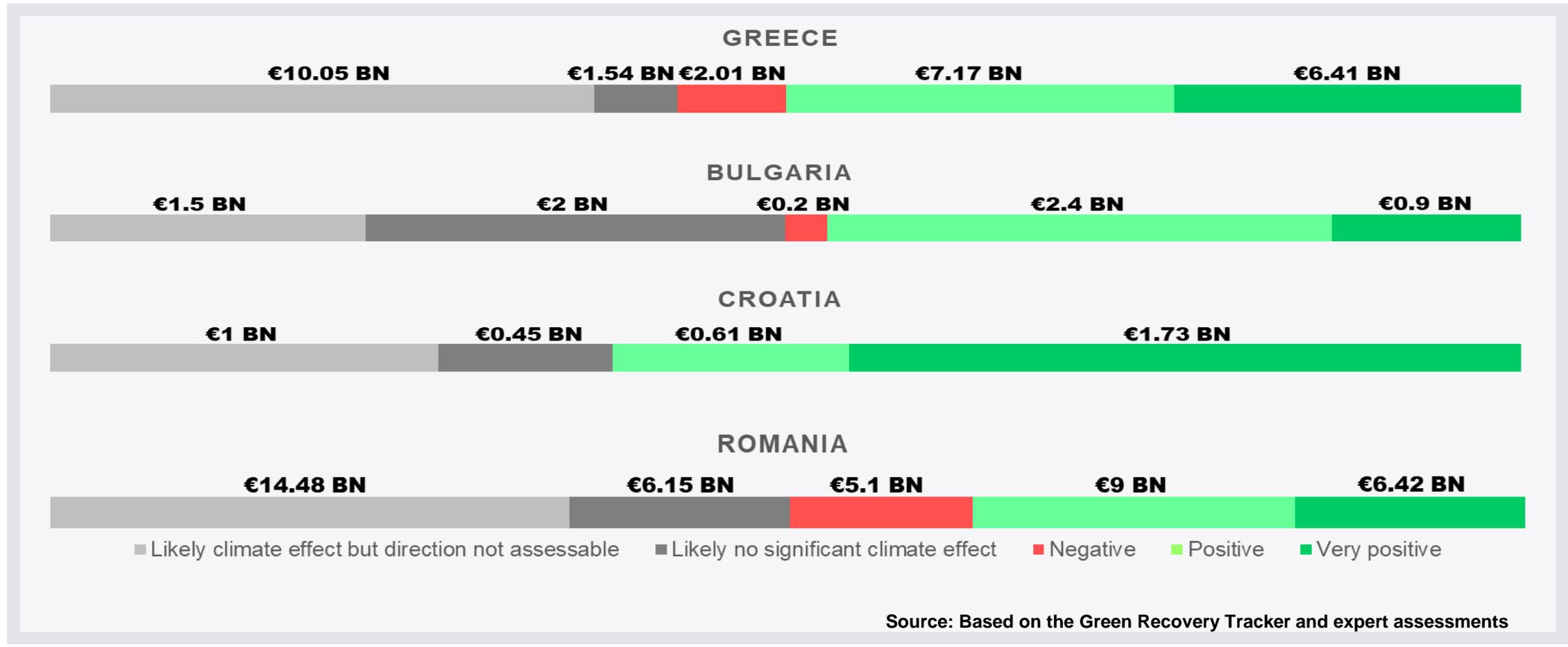
## Green spending in the RRP and the 37% target



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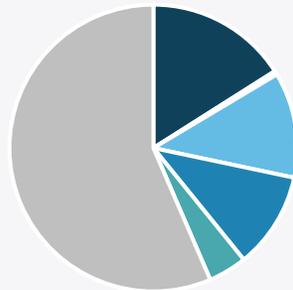


# How green are the recovery measures of SEE countries?



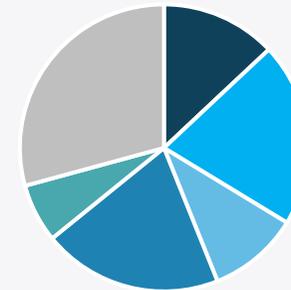
## Sectoral overview – BG, RO, GR, HR

### Greece



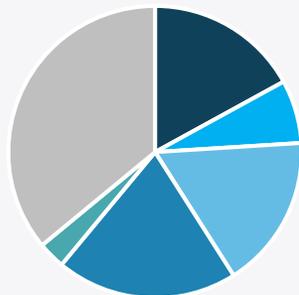
- Mobility 15.99%
- Industry & Manufacturing 0.43%
- Energy 11.90%
- Buildings 10.87%
- Agriculture, land use and forestry 4.34%
- Other / Cross-sectoral 56.47%

### Bulgaria



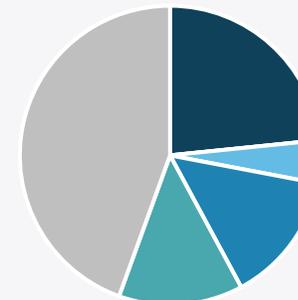
- Mobility 12.98%
- Industry & Manufacturing 20.74%
- Energy 10.22%
- Buildings 20.2%
- Agriculture, land use and forestry 6.61%
- Other / Cross-sectoral 29.25%

### Croatia



- Mobility 17%
- Industry & Manufacturing 7%
- Energy 17%
- Buildings 20%
- Agriculture, land use and forestry 3%
- Other / Cross-sectoral 36%

### Romania



- Mobility 23.38%
- Industry & Manufacturing 0%
- Energy 4.62%
- Buildings 14.15%
- Agriculture, land use and forestry 13.37%
- Other / Cross-sectoral 44.49%

Source: Based on the Green Recovery Tracker and expert assessments

## Country comparison

- RRP's not linked to the long-term decarbonisation strategies or a comprehensive energy strategy
- Weak complementarity between the energy projects in the RRP and OPs
- Strong focus on large-scale investments and insufficient measures to support decentralization
- The size and scope of certain key green transition measures are still unclear
- Different coal phase-out commitments and timelines in GR, RO and HR
- Investments with possible fossil fuel loopholes (hydrogen infrastructure, expanding the natural gas distribution system and CCS pilot projects)
- Investments into building or industry projects without clear sustainability standards
- No specific strategies/measures for hydrogen utilization in energy intensive industries and CCU
- Limited investments in the modernization and expansion of the grid

## Different approaches to green recovery

- The Greek RRP seems to be the most ambitious one in terms of increasing the power storage potential (€10.4 billion will be invested in upgrading the energy infrastructure, and the promotion of green innovation and technologies; 700 MW battery storage tender)
- The Bulgarian, Greek and Romanian RRPs put a strong emphasis on their buildings renovation programs, however, lack specific renewable energy and energy efficiency targets
- A strong focus on hydrogen utilization in the transport sector in the Croatian RRP
- Risks for lock-in in gas-based infrastructure in Croatia, Romania and Bulgaria
- Possible transformative shift in the Bulgarian RRP via the inclusion of an offshore Black Sea wind project and the launch of solar PV and battery storage projects

## Good practices

- The **“Renovation Wave”** programme in the Romanian RRP
- Significant support for the **storage sector (both battery and pumped)** with a total budget of €450 mil in the Greek RRP and a **700 MW battery storage tender** as well as an **energy storage regulatory framework** in preparation
- Construction of a **pilot offshore wind farm in the Black Sea** to be potentially included in the next version of the Bulgarian RRP
- Modernisation of the **power transmission and distribution systems**, as well as the **district heating system in the Croatian RRP**
- **Via Transilvanica project in Romania** (build 1,000 km of paths suitable for walking, cycling or horse-riding, crossing Transylvania)
- Integration of **30 MW electrolysers for the production of green hydrogen** and the **development of H2 charging stations** in Croatia

## Bad practices

- **Missing specific renewable energy and energy efficiency targets** in the Romanian and Bulgarian RRP
- Support for **natural gas pipelines** for future hydrogen transport in Bulgaria
- Boosting **the natural gas transportation system** with additional investments **in the Croatian RRP** and **the deployment of CCS for natural gas** that could lead to a fossil fuel lock-in
- Plans to **blend green hydrogen with natural gas** in the Romanian RRP and inject it into the gas grid
- The lack of a coherent plan for the design and implementation of the sustainable energy measures within the Greek OPs (ca. €40bn over the 2021-2027 period)
- No funding for **implementing energy poverty** measures in the Greek RRP



# Zooming into Bulgaria's RRP



## Bulgarian energy and climate targets 2030

- Bulgarian 2030 energy and climate targets reveal **limited progress on energy efficiency, renewable energy and regional power market integration** goals.
- Stranded assets in coal, gas and nuclear as part of Bulgaria's energy mix in 2030
- Unrealistic expectation for the **growing use of biomass** in heating and cooling
- No specific measures for **supporting prosumers, energy communities and vulnerable consumers**
- The long-term **decarbonisation strategy for 2050** still pending

## Key transformative investment opportunities as priorities for climate action

- A dedicated program to finance single-house energy efficiency measures and decentralized RES systems
- Support for the modernization and digitalization of the power transmission system operator
- A dedicated economic transformation programme including 3 major funds (technological modernization fund, green transition fund and digitalization fund)
- Construction of a pilot offshore wind farm in the Black Sea (suggestion)
- A sub-program for hydrogen research, including the funding of fuel cell applications in buildings and sustainable transport (suggestion)
- Research of the country's geo-thermal capacity with detailed regional mapping (suggestion)
- Kick-starting a sub-program on recycling raw materials to foster the industrial decarbonization (suggestion)

## Flagships Project Overview

- 100 MW Pilot Offshore Wind Park in the Bulgarian section of the Black Sea
  - 87 500 tons of CO<sub>2</sub>/yr or emissions saved
  - The cost is estimated at around EUR 222 million and the project will be implemented by end of 2025
  - The project may be supported by the Green Pillar of the National Recovery and Resilience Plan
- Reforms
  - The pilot project will serve to unlock the huge untapped Bulgarian offshore wind potential and pave the way for future investments on a market basis
  - It will lay the legislative, regulatory and infrastructural foundations for future private investments in offshore energy
- Finance
  - The project will be financed by the RRF and will be implemented by the state-owned National Electricity Company (NEC)
  - The estimated LCOE price is around EUR 68/MWh with the project's lifespan to be between 25 and 35 years

## Conclusions and recommendations

- The least costly way to decarbonize is electrification and fastest possible phase-out of lignite-fired power plants
- A moderately ambitious policy strategy will not deliver net-zero carbon emissions by 2050
- Transparent instruments for monitoring project implementation in real-time
- Weak complementarity between the energy projects in the RRP and OPs
- **Innovative financial instruments** for promoting **energy efficiency** and **RES co-ownership**
- **Industrial innovation and the uptake of hydrogen and synthetic fuels** in industrial processes,
- The need for **e-mobility plan**, support programmes for electro mobility and optimization/modernization of freight transport



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# Thank you for your attention

Questions or Comments?  
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