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# Unburnable carbon issue within EU policies

## EU infrastructure planning for the energy transition

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# Outline

1. EU policies to phase out fossil fuels
2. Infrastructure for the energy transition
3. Effects of the Ukraine war

# European Green Deal

- Transformation to EU economy to achieve
  - climate neutrality
  - zero pollution
  - circular economy
  - sustainable food system
  - social justice and fairness
  - growth and prosperity



# EU-level targets

- Emissions
  - 55% cut of net emissions by 2030
  - climate neutrality (net-zero) by 2050
  - implicit carbon budget (ETS + ESR + LULUCF)
- Energy efficiency – reduction of demand
- Renewable energy sources

# Key role of EU Member States

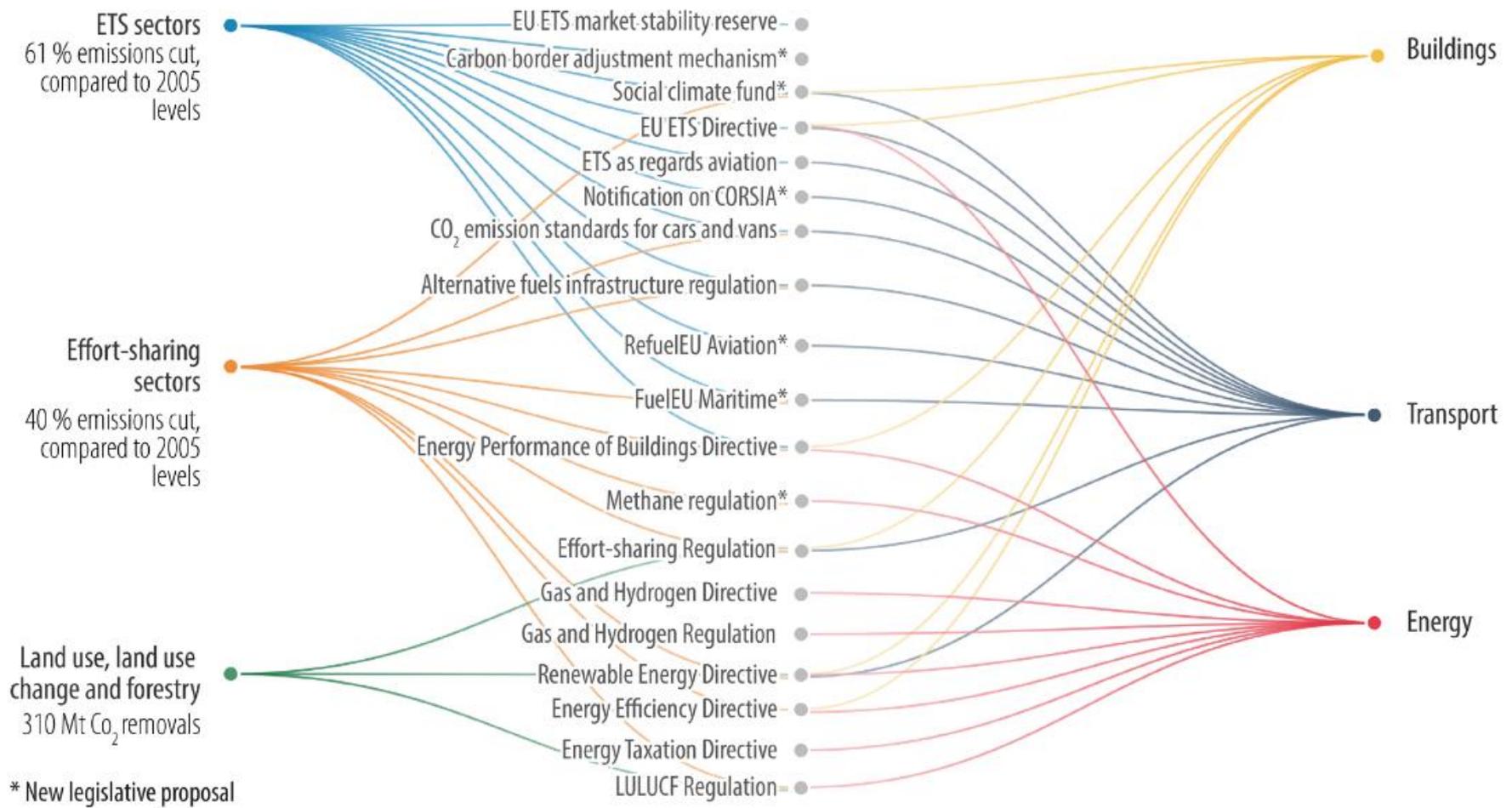
- TFEU requires unanimity for “measures significantly affecting a Member State's choice between different energy sources and the general structure of its energy supply”
- Member States develop National Energy and Climate Plans (NECP)

# European Climate Law

- In force since July 2021
- Legally binding targets for 2030, 2050 and beyond
- Reporting and monitoring framework
- Enshrines the EU's Nationally Determined Contribution to the Paris Agreement in EU law

# Fit for 55 package

- presented in June/December 2021
- update of EU energy&climate legislation to meet 2030 target
  - 6 proposals for new legislation
  - 13 proposals to revise existing legislation
- ordinary legislative procedure



# Financing the transition

- EU budget
  - mainstreaming
- Next Generation EU / Recovery and Resilience Facility
- European Investment Bank
- EU Sustainable Finance Strategy
  - EU taxonomy

# Infrastructure for the energy transition

- Electricity grids
- Charging stations for electric vehicles
- Energy storage (electricity, gas, hydrogen)
- Hydrogen networks
- Carbon capture, utilisation and storage
  - CO<sub>2</sub> networks
- Low-carbon electricity generation

# Policy instruments for infrastructure

- Ten-year network development plan (ENTSO-G & ENTSO-E)
- Connecting Europe Facility – TEN-E, PCI
- Innovation Fund, Modernisation Fund
- European Clean Hydrogen Alliance
- CCS Directive
- Energy markets

# Effects of the Ukraine war

- EU sanctions: cut imports of Russian energy
  - crude oil and refined petroleum products, with limited exceptions (with phase out of 6 to 8 months)
  - coal and other solid fossil fuels (as there is a wind-down period for existing contracts, this sanction will apply as from August 2022)
- Filling up of EU gas storage before the winter

# Short and medium-term reaction

- Short-term
  - Alternative supplies of fossil fuels (including domestic production)
  - Demand reduction
  - Measures to curb consumer energy prices
- Medium-term
  - Accelerate transition to RES (“freedom energies”)

# Infrastructure impacts

- Long-lived fossil fuel infrastructure to meet short-term energy security needs
  - LNG terminals (and long-term contracts)
  - gas interconnection (Spain-France)
- Possible conversion of gas infrastructure for green hydrogen