

Energy System Integration and interlinkages

Energy Infrastructure Forum

Energy System Integration in electricity and gas infrastructure planning



25 November 2021



Sector integration in practice

Electricity and gas systems integration embedded in joint TYNDP processes

- 80 electricity and gas TSOs from all over Europe
- 30 regional teams working together to achieve common EU targets

Sector integration has increased the need to engage with partners to adapt methodologies and collect data

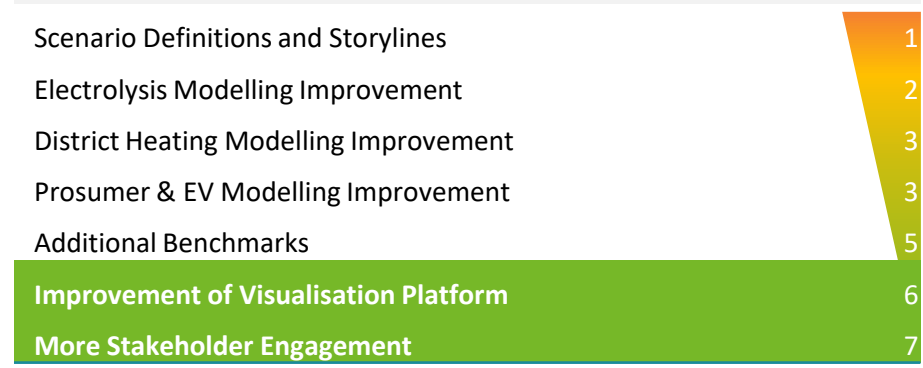
- Energy carriers (Eurelectric, Eurogas, GIE)
- Local network operators (E.DSO, EuroHeat & Power, gas DSOs)
- Generation technologies (WindEurope & SolarPower Europe)
- Industry (Hydrogen Europe, EHI)
- We invite all parties to join this technical partnership approach

Discussions have always shown a shared dedication to picture proactive path to carbon neutrality and to knowledge sharing

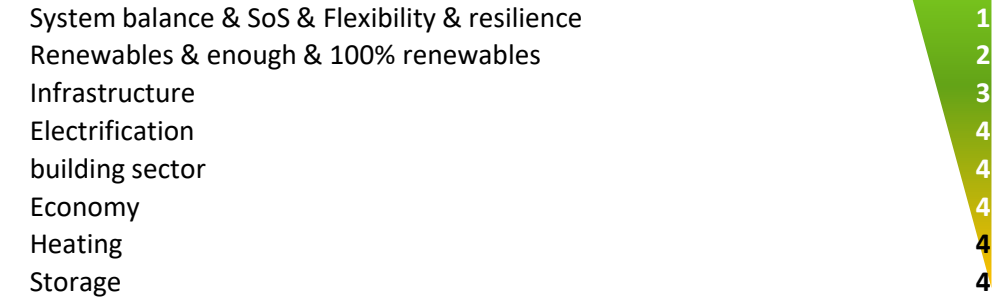
TYNDP 2022 scenarios - Stakeholder feedback

Transparency and inclusiveness is appreciated by stakeholders actively participating in the joint ENTSOs processes

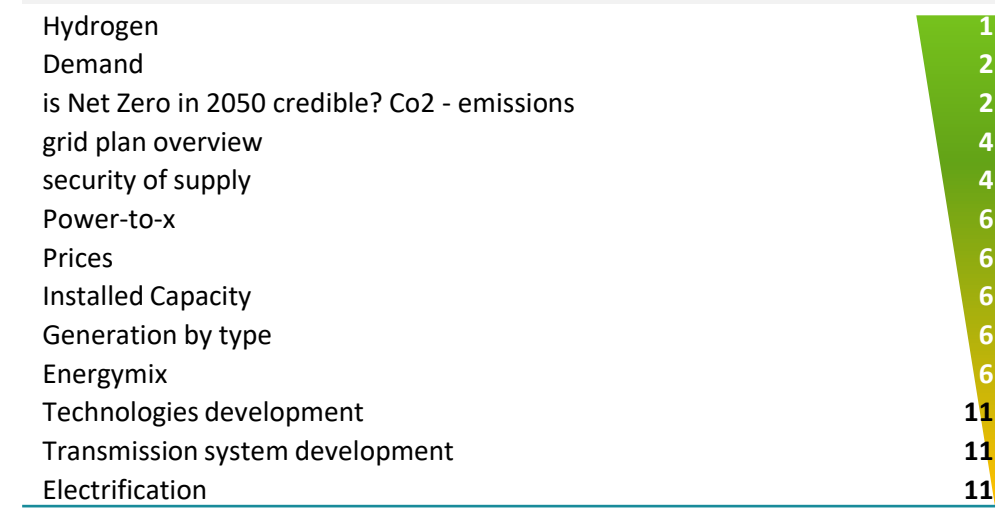
Which improvement do you see as a priority?



What do you think is the biggest challenge towards a carbon-neutral EU-27 economy by 2050?



Which results from the scenarios are you most interested in?



Integrated infrastructure modelling

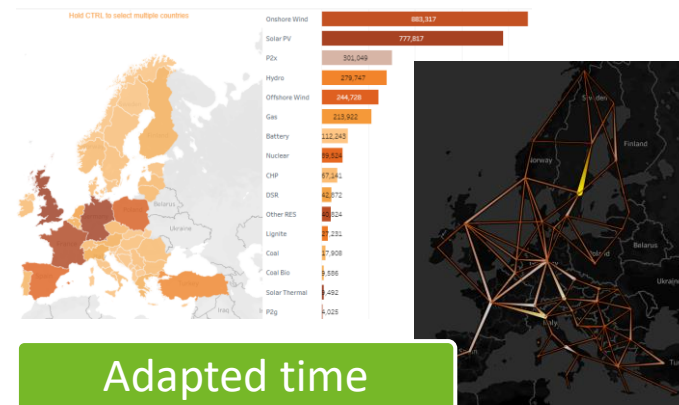
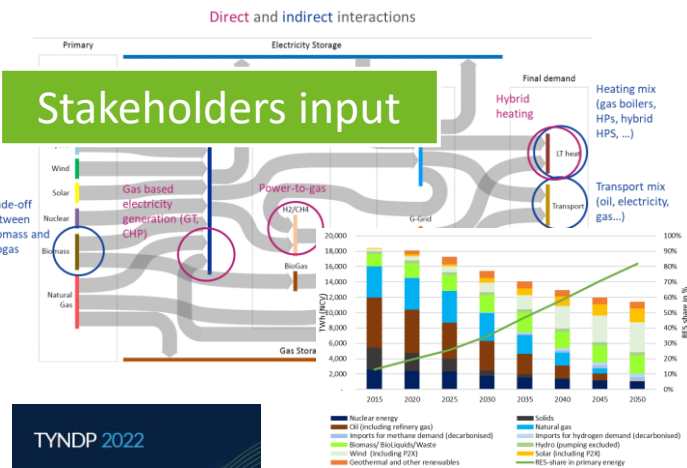
TYNDP scenarios for supply and demand

Comprehensive and consistent consideration of all sectors

Integrated G4P and P2G configurations

TYNDP system needs and project assessment

Consistent assessment of infra needs and projects



e-Infra needs

g-Infra needs

Project e-CBA

Project g-CBA

Electricity & gas project dual CBA, incl. hydrogen

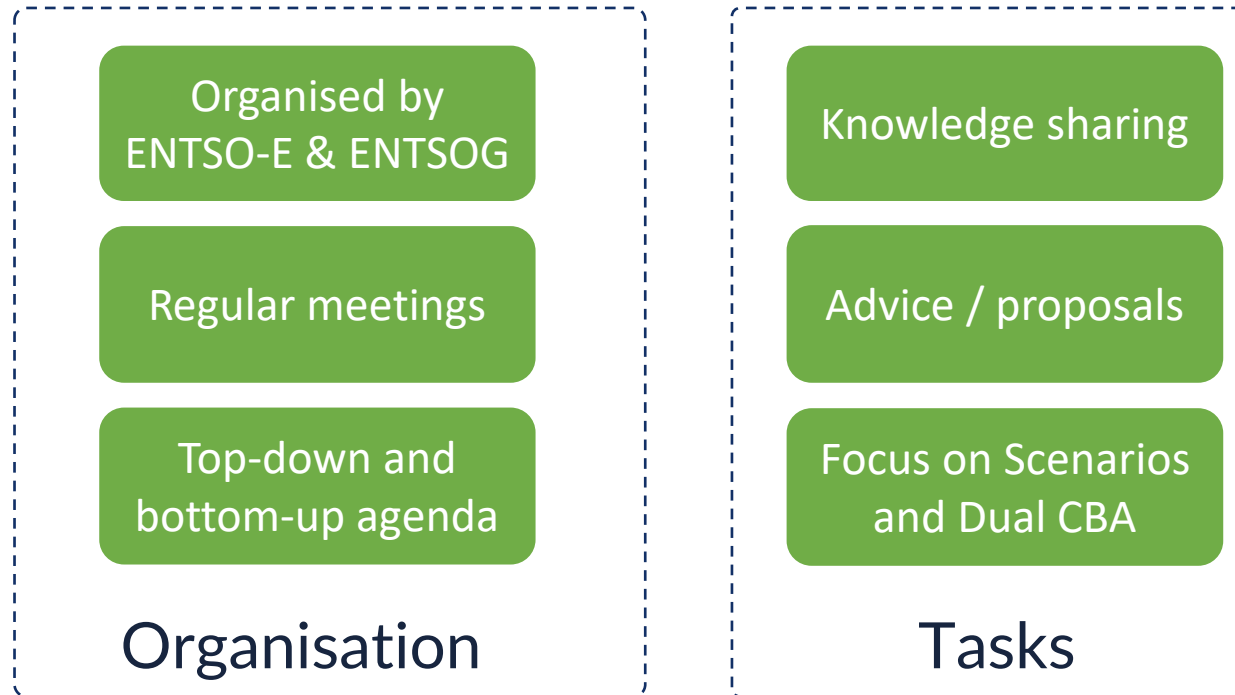
2 common modelling tools (Simulation software + Ambition Tool)

ILM 2.0

1 common simulation tool
2 fit-for-purpose TYNDPs
2 dedicated CBAs + 1 dual CBA

Joint Stakeholder Forum proposal

Chair and governance system to be determined following TEN-E orientations



Transparency: publication of minutes

Thank you for your attention

Alan Croes, convenor of WG System Design and Strategy and joint convenor of the ENTSOs Scenario Steering Group

Louis Watine, Director of System Development - ENTSOG

Location: online

Date: 25/11/2021

