

TYNDP 2024

Scenario Building

TYNDP 2024 Scenarios Process Update

ENTSO-E & ENTSOG Webinar

20 February 2023 15:00 – 16:45 CET



Agenda

No	Subject	TIME	WHO
1.	Introduction	15.00-15.05 5 min	Alan Croes, TenneT, Steering Group
2.	TYNDP 2024 Scenarios Timeline	15.05-15.10 5 min	Nalan Buyuk, ENTSO-E
3.	TYNDP 2024 Scenarios Strategy	15.10-15.20 10 min	Nalan Buyuk, ENTSO-E
4.	TYNDP 2024 Stakeholder Roadmap	15.20-15.35 15 min	Gideon Saunders, ENTSOG
	Q&A Session	15.35-15.45 10 min	All
5.	Scenarios Framework Guideline	15.45-16.00 15 min	Alexander Kättlitz, ENTSOG
6.	Compliance with the EU Targets	16.00-16.10 10 min	David Radu, ENTSO-E
7.	Innovations in 2024 cycle	16.10-16.30 20 min	Dante Powell, ENTSOG
	Q&A Session	16.30-16.40 10 min	All
8.	Next Steps & Closing Remarks	16.40-16.45 5 min	Thilo von der Grün, ENTSOG, Steering Group
	End of the workshop	16.45	

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What would you like to discuss today?

Project status	44%
New website	51%
Team offsite	5%

Throughout the workshop you can ask questions and leave comments.

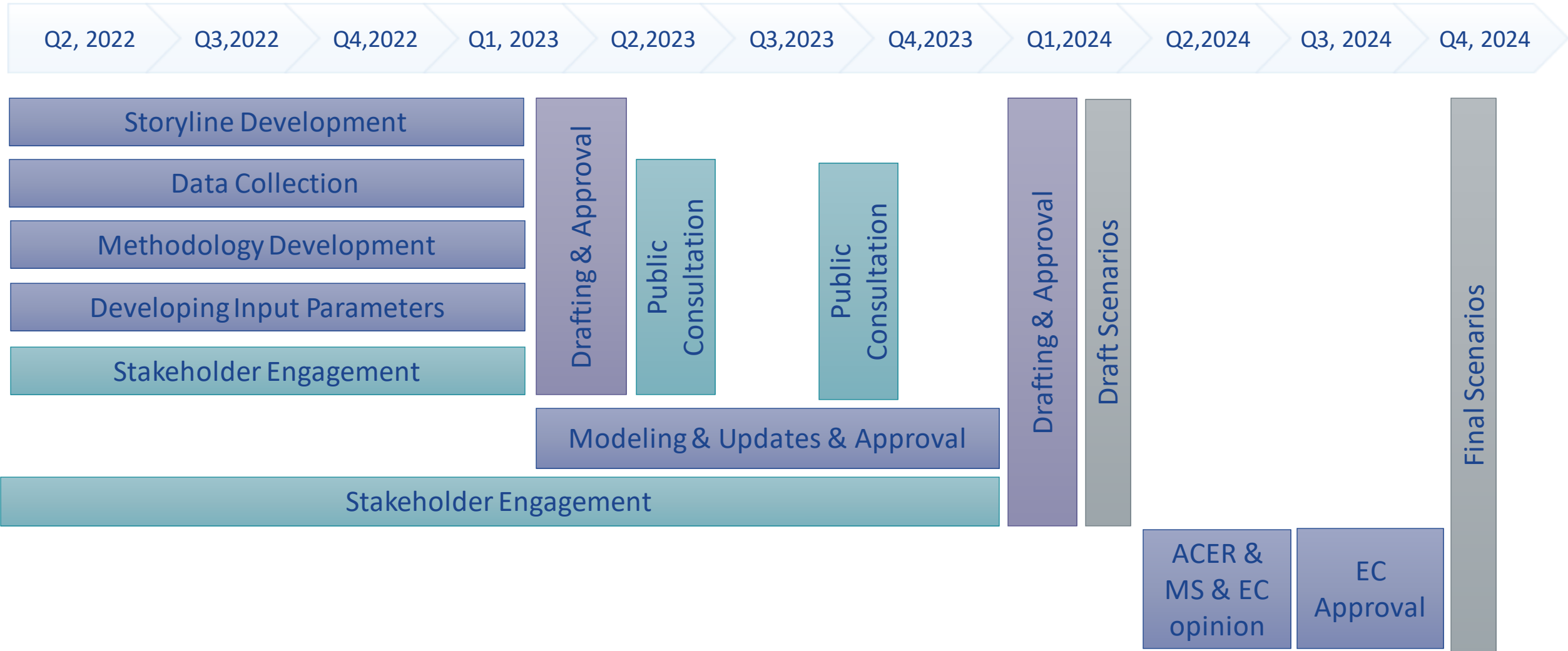
What to do:

1. Go to <https://www.sli.do> or scan the QR code
2. Enter the event code “#4080685” and Passcode “Scenarios”
3. Enter your name
4. Start asking questions

Please note that anonymous questions will not be answered.

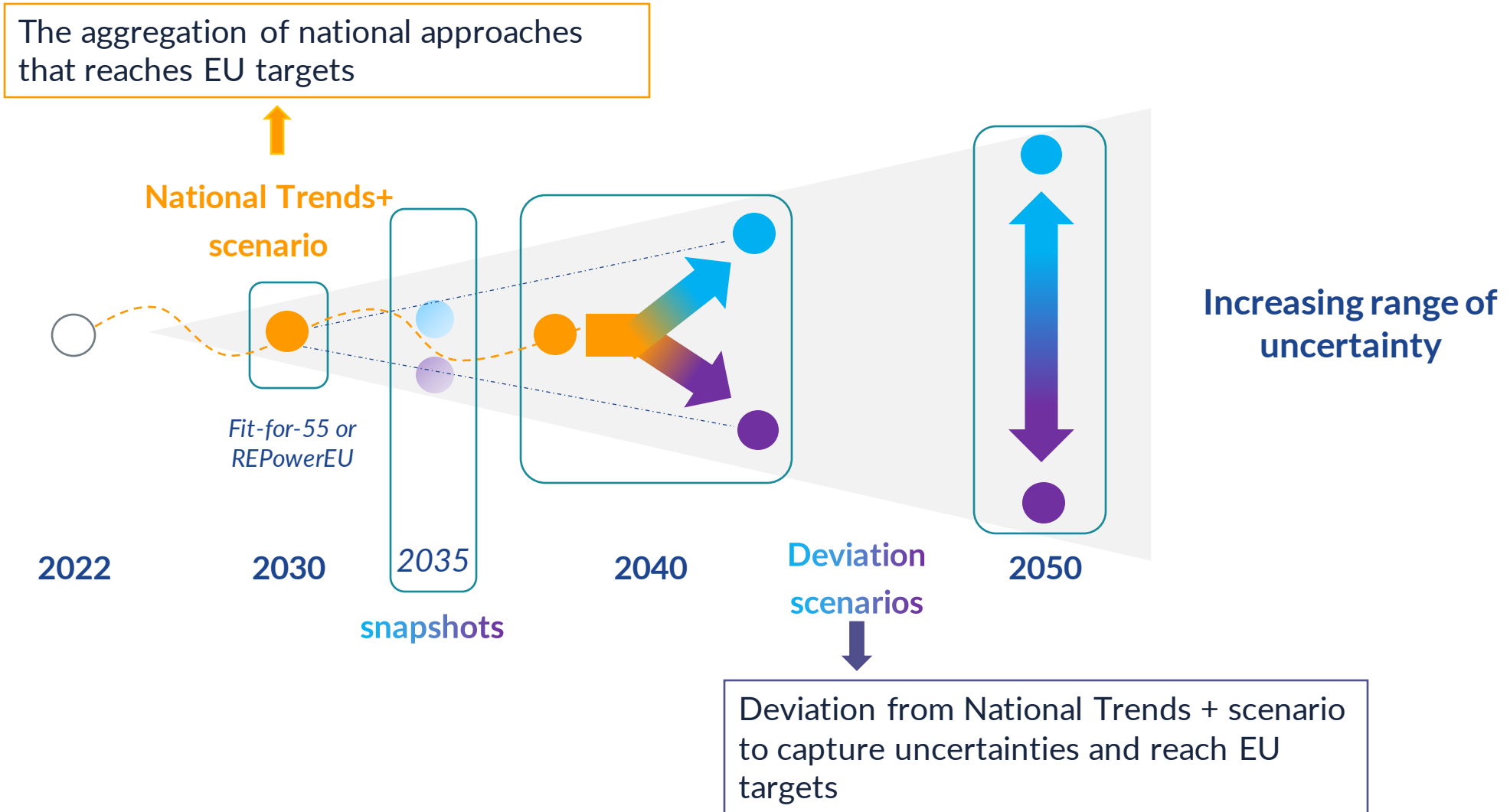
TYNDP 2024 Scenarios Timeline

TYNDP 2024 Scenarios Timeline



TYNDP 2024 Scenarios Strategy

TYNDP 2024 Scenarios Strategy



TYNDP 2024 Stakeholder Roadmap

What are our goals for stakeholder engagement?

Ensure fulfillment of regulatory obligations

Promote confidence in the scenario building process

Utilise and maximise expertise of external stakeholders

Timely and successful completion of the TYNDP Scenarios

Investigate how low- and high scenarios could be used in 2026 cycle

Transparency in the Scenario Development Process

- New dedicated 2024 Scenarios website **coming soon!**
 - Previous websites will not be de-activated – for historical reference and transparency – but will clearly be marked as no longer the latest scenario data.
- The new website will include:
 - Storyline Report
 - (Draft) Scenario Report
 - Methodologies for scenario quantification, Scenario Building Guideline and Innovation Roadmap
 - List of bilateral meetings and consultation and workshop responses
 - Datasets and assumptions published in both aggregated and disaggregated format (in line with confidentiality requirements of data providers)
 - Data Visualisation Platform

How will we engage with stakeholders? Events

Date	Event
July 2022	Kickoff & Storyline Review Workshop
February 2023	Process Update Webinar
May-June 2023	1st Public Consultation on Input Parameters
May 2023	Public Consultation Workshop
June 2023	Stakeholder Roundtables
Q3 2023	Extra-EU Supply Workshop
Q3-Q4 2023	2nd Public Consultation on the Draft Scenario Report
Q3 2023	Public Consultation Workshop

How can stakeholders contact us?

All stakeholders are invited at all times to provide written feedback to our activities.

Where specific information is required, the WGSB may reach out to specific stakeholders.

All correspondence and all bilateral interactions will be documented on the Scenarios website.

Stakeholder Reference Group

Tasks and Format:

- Proposal developed from TEN-E Regulation EU 2022/869 Art. 12.3 and ACER's Scenario Framework Guidelines with the aim of formally enhancing stakeholder inclusion in the scenario development process.
- Participate in the scenarios development process, in particular on key elements such as development of assumptions and how they are reflected in the scenarios data.
- Organise itself to act independently from the ENTSOs, with the aim of providing timely, expert input to the development of scenarios by the ENTSOs in accordance with the scenario development timeline.

Stakeholder Reference Group

Membership based on the requirements set out in EU 2022/869 and ACER's Scenario Framework Guidelines
Call for interested candidates planned to be announced in March

- EU DSO entity
- Organisations representing associations involved in:
 - Electricity; Gas; Hydrogen; heating and cooling; carbon capture and storage and carbon capture and utilization
- Independent aggregators
- Demand-response operators
- Organisations involved in energy efficiency solutions
- Energy consumer associations
- Civil society representatives
- Commission (observer)
- ACER (observer)
- EU Member States (observer)
- ESABCC (observer)
- ENTSO for Electricity (observer and facilitator)
- ENTSO for Gas (observer and facilitator)
- Convenor to be determined by the SRG
- New members thereafter to be proposed by the SRG (maintaining balance in membership would be defined in SRG ToR).

Stakeholder Roundtables

Goals:

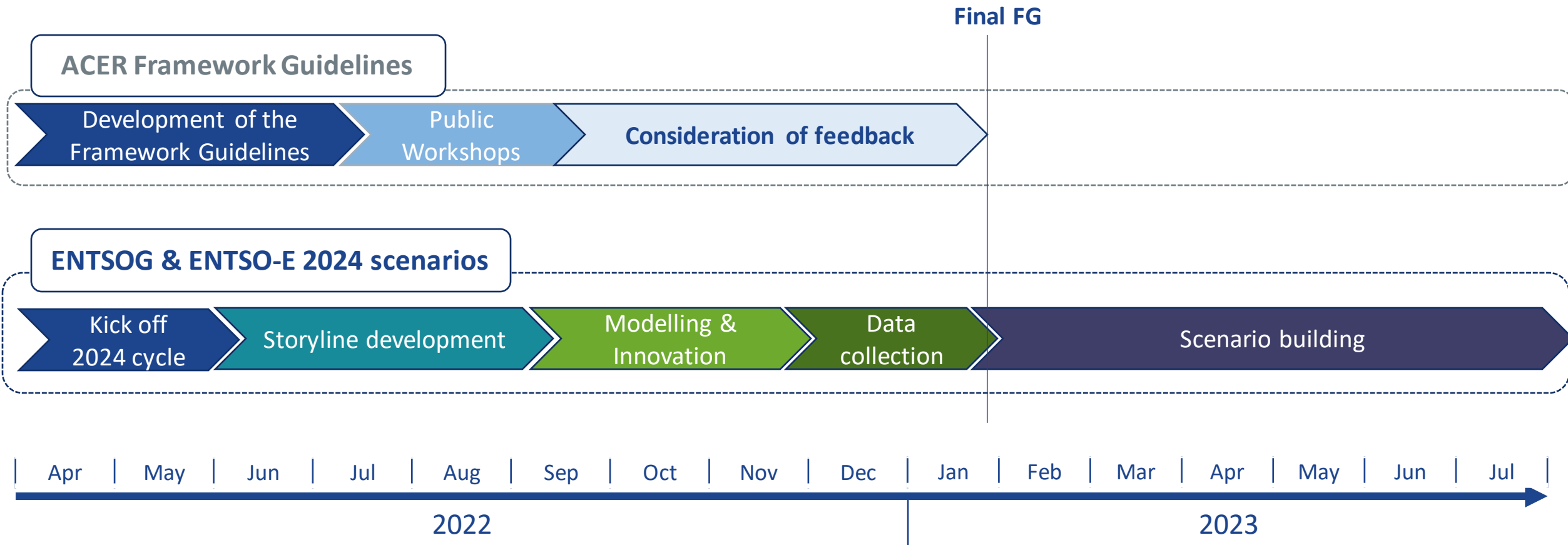
- Deeper and more specific insight on key elements relating to the scenario building
- Complement the feedback received during the public consultation.

Timeline and Format:

- Participants in the Stakeholder Roundtables will reflect the categories determined in TEN-E Regulation Art. 12.3, with the possibility to invite additional stakeholders as deemed necessary.
- Summary of each roundtable will be made publicly available on Scenarios website.

Scenarios Framework Guideline

Framework Guidelines and TYNDP 2024 Scenario cycle



What is possible for 2024 scenarios and what needs to wait for 2026 scenarios?

Criteria for a timely scenario preparation process

	2024 scenario cycle	2026 scenario cycle
Adoption of policies	National Energy and Climate Plans (NECPs), which are due by 30 June 2023, are considered in the scenario preparation to the extent possible.	Agreement on a cut-off date for adoption of new policies at the start of the scenario cycle (ENTSOs / SRG / ACER / EC)
Storylines	Review of the storylines has started	Storylines process is carried out at the beginning of the scenario preparation process
Roadmap	First drafting of the living roadmap	Prepare a living roadmap document detailing planned changes and larger innovations to be implemented for future scenarios cycles
Communication on innovations	Intermediate update to all parties involved about the innovations to be implemented in the 2024 cycle	At the start of each scenario cycle, the ENTSOs will clearly communicate on the innovations to be implemented in that cycle.

What is possible for 2024 scenarios and what needs to wait for 2026 scenarios?

Criteria for robust 'objective driven' scenarios

	2024 scenario cycle	2026 scenario cycle
2035 time horizon	Snapshot of 2035 scenario time-horizon	
High/Low-economic variant	Engage with SRG how to take into account "low"-economy and "high"-economy given that it has never been selected as a primary driver before.	How to implement "low"-economy and "high"-economy variants that serve as stress-tests of the central scenario
Scenario and ERAA	Major differences on the inputs used in ERAA shall be appropriately explained.	
Risk assessment	Qualitative risk assessment, highlighting the drivers of uncertainty and the main risk factors that could seriously alter the envisaged scenario.	

What is possible for 2024 scenarios and what needs to wait for 2026 scenarios?

Criteria for robust 'objective driven' scenarios

	2024 scenario cycle	2026 scenario cycle
Regional differences		How regional differences are taken into account (e.g., in technology cost-efficiency of wind and solar between North and South (due to different productivity potentials) of Europe or in commodity prices).

Criteria for a transparent, inclusive and streamlined development process

	2024 scenario cycle	2026 scenario cycle
Start SRG	Creating a Stakeholder Reference Group ('SRG') within 3 months after the adoption of these Guidelines	Stakeholder Reference Group is fully operational
Stakeholder engagement plan	Intermediate stakeholder workshops to ensure stakeholder engagement and inclusiveness of stakeholder in the process	Before starting the scenarios-building cycle, the ENTSOs shall publish a process timeline and stakeholder engagement plan

Compliance with the EU Targets

EU-27 Targets

All scenarios will be aligned with the Union's 2030 targets for energy and climate and its 2050 climate neutrality objective and will include a carbon budget assessment.



Energy Efficiency First Principle

All scenarios will be aligned with the energy efficiency first principle.



National Trends +

Relies on TSO data (incl. demand & DSR):

- EED should be considered by MSs
- WGSB will check compliance of:
 - EU final energy demand
 - EU primary energy demand

DE & GA

Energy efficiency measures embedded in models via

- Demand side *e.g.*:
 - Renovation rates
 - EV demand development
- Supply side *e.g.*:
 - P2G
 - (Hybrid) heat pumps
 - District Heating

Innovations in 2024 cycle

Overview of 2024 Innovations

1

Hydrogen Modelling

Hydrogen zones will be modelled considering a hydrogen market and production outside the market. Domestic production of synthetic fuels.



2

EV Modelling

Improvement of 2020 scenarios. Transport modelling will include demand side shifting and Vehicle to grid.

Heat Modelling

Interlinked heating, modelling Hybrid heat pumps and District heating. The purpose of the heat modelling is to model flexible heating in the energy system.

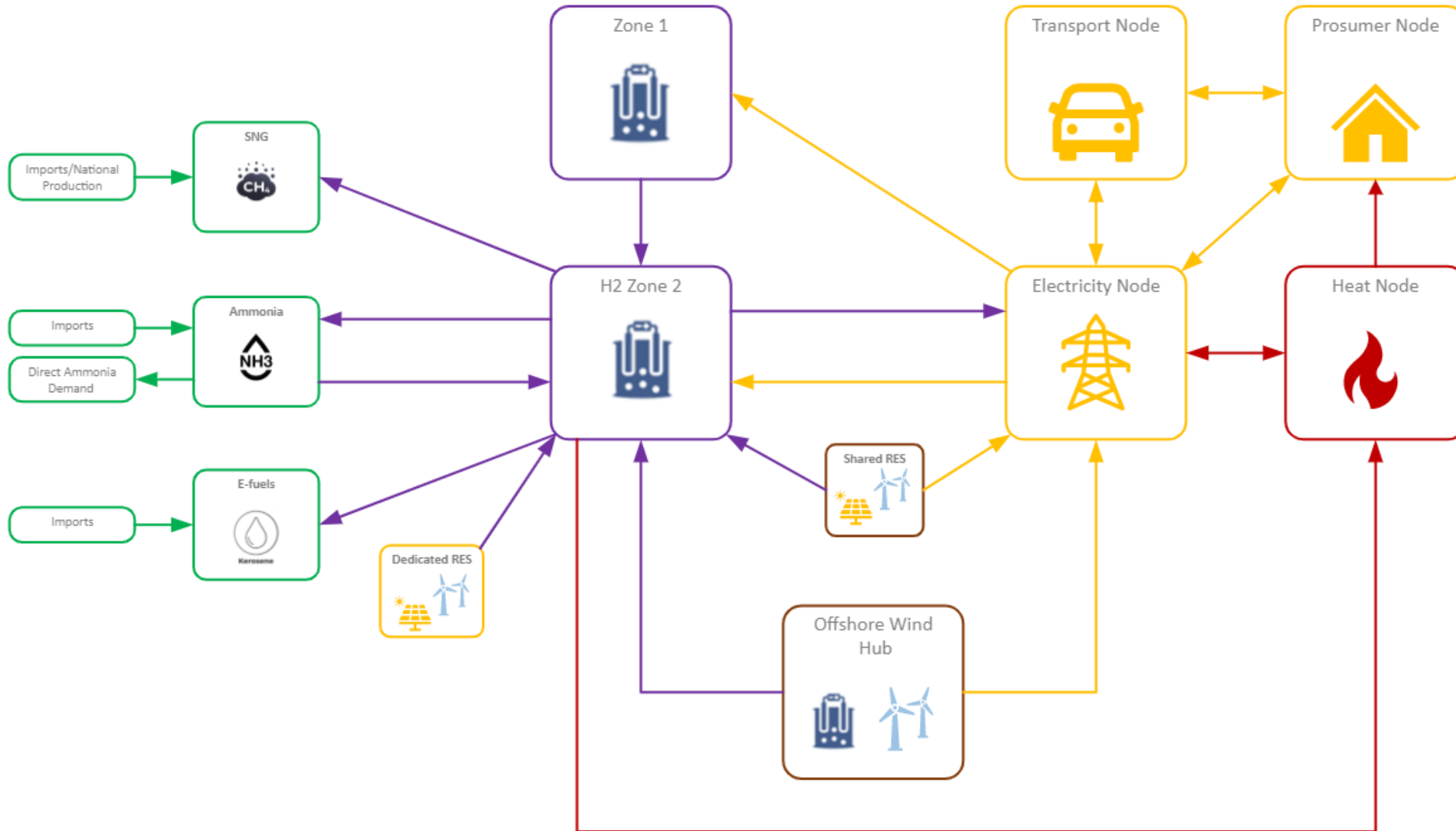
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3

Offshore Modelling

Modelling of offshore wind hubs. Hubs include wind farms, electricity grid, hydrogen pipelines and electrolysers. Hub will interconnect with each other and mainland Europe.

Innovations in 2024 cycle



Next Steps & Closing Remarks

Next Steps

Date	Event
May-June 2023	1st Public Consultation on Input Parameters
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Thank you for your attention

Contact information:

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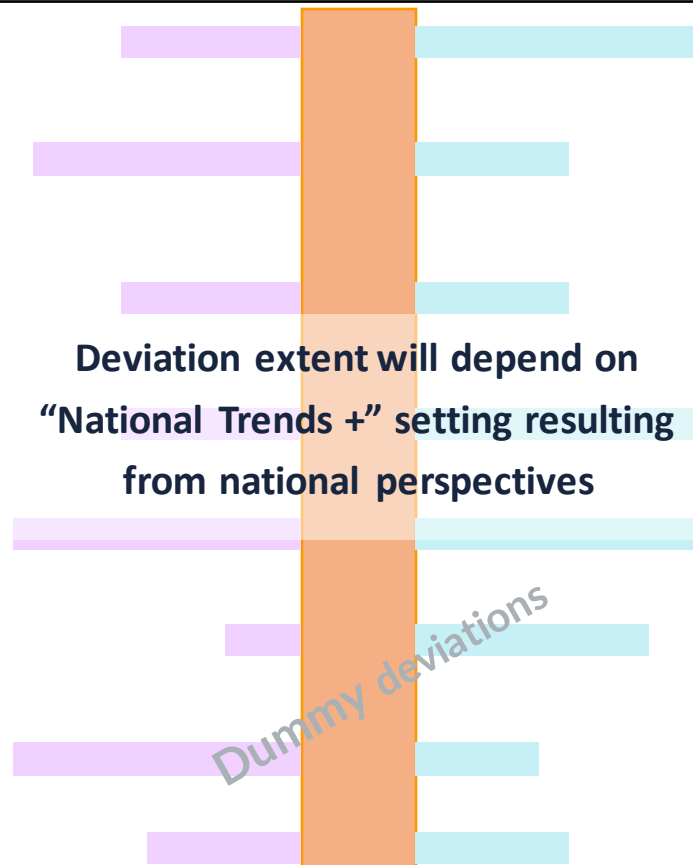
Gideon Saunders gideon.saunders@entsog.eu

Location: online

Date: 20.02.2023



Back-up Slide: 2024 Storyline Matrix

	Distributed Energy	National Trends +	Global Ambition
	Higher European autonomy with renewable and decentralised focus	The aggregation of national pathways to reach EU targets	Global economy with centralised low carbon and RES options
Green Transition	Fully in line with the energy efficiency first principle and with the Union's 2030 targets for energy and climate and its 2050 climate neutrality objective		
Driving force of the energy transition	Transition initiated at a local/national level (prosumers)	 <p style="text-align: center; font-weight: bold;">Deviation extent will depend on “National Trends +” setting resulting from national perspectives</p>	Transition initiated at a European/international level
	Aims for EU energy-independence and strategic independence through maximisation of RES and smart sector integration (P2G/P2L/P2M)		High EU RES development supplemented with low carbon energy and diversified Imports
Energy efficiency	Reduced energy demand through circularity and better energy consumption behaviour		Reduced energy demand with priority is given to decarbonisation and diversification of energy supply.
	Digitalisation driven by prosumer and variable RES management		Digitalisation and automation reinforce competitiveness of EU business.
Technologies	Focus of decentralised technologies (PV, batteries, etc.) and smart charging		Focus on large scale technologies (offshore wind, large storage)
	Focus on electric heat pumps and district heating		Focus on a wide range of heating technologies e.g. hybrid heating technology
	Higher share of EV, with e-liquids and biofuels supplementing for heavy transport		Wide range of technologies and energy carriers across mobility sectors (electricity, hydrogen, e-liquids and biofuels)
	Minimal CCS and nuclear		Integration of nuclear and CCS