Q&A Sessions from the 2028 TYNDP Scenario Cycle Kick-off Workshop

Q&A Session 1

Q1. What does a "common scenario foundation" mean? Will infrastructure costs be the same across electricity, methane and hydrogen?

Question (Anonymous): Clarification was sought on what is meant by a common scenario foundation and whether this implies common infrastructure assessments or costs.

Response (ENTSOs):

- All three associations start from the same underlying assumptions and joint TYNDP Scenario.
- Common assumptions include demand, generation, hydrogen development, policy targets, macroeconomic conditions and cross-sector interactions.
- However, later infrastructure assessments remain separate.
- ENTSO-E, ENTSOG and ENNOH each conduct their own TYNDP assessments using their own methodologies and infrastructure perspectives.

Q2. Current-state or today's-system reference scenario?

Question: Beyond the national policy baseline derived from NECPs, will there be a "current state" or "today's system" reference scenario based on observed country-level data?

Response (ENTSOs):

- The response clarified that the scenario process starts from policy-based national data collection, previously called the National Trends dataset.
- This is then made target compliant and used to develop the central scenario and economic variants. The team noted that the published report presents results at EU level, while country-level figures are delivered and reviewed during scenario development.
- When the question was clarified as asking for a reference view of today's situation, including existing infrastructure and currently planned investments, the response was that the report already provides reference values where possible, such as 2019 and 2023 values, allowing comparison against future target years.

- **(ENTSOs)** added that while such a reference view could be useful, it is not the purpose of the scenario exercise, which is driven by policy ambitions and ACER framework guidelines rather than an assessment of current trends.

Q3. Will the Scenario results be at country or EU level?

Response (ENTSOs):

- The response stated that in the 2026 cycle, results were presented at EU level in the report, while the underlying data was available at country level.
- During scenario development, country-level figures are shared with and reviewed by members/TSOs.

Q4 Beyond the NECP-based national policy baseline, will there be a "current-state" reference scenario based on observed data?

Question (Snam): Could there be a scenario showing today's reality based on existing infrastructure, investments and observed country-level data?

Response (ENTSOs):

- The scenario process starts from national policy-based datasets (National Trends).
- These are subsequently adjusted to become EU-target compliant and then used to build economic variants.
- The process is therefore policy-driven rather than a current-state assessment.
- Previous reports already included historical reference values (2019 and 2023) to provide comparison points.

Additional Response (ENTSOs):

- Such a reference view could be useful.
- However, the purpose of TYNDP scenarios is not to assess current trends or today's reality.
- The scenarios are intended to support policy ambition and infrastructure planning in line with legislation and ACER Framework Guidelines.
- A "reality-check" exercise would be outside the intended purpose of the scenario-building process.

Q5. How will coherence with 2030 targets be ensured if 2030 is no longer a modelled target year?

Question (Eurelectric/SRG): How will compliance with 2030 targets be ensured if the modelling focuses on 2035, 2040 and 2050?

Response (ENTSOs):

- 2030 remains an important checkpoint.
- Although it will not be a formal modelled year, trajectories towards 2035 and beyond must remain coherent with 2030 objectives.
- For example:
    - Renewable shares cannot fall below 2030 target levels in 2035.
    - Trends must logically progress towards 2040 and 2050.
- 2030 data will still be collected from TSOs to verify consistency of pathways.

Q6. Why move away from the previous gap-filling methodology and what will replace it?

Question (DG ENER): The issue with previous gap-filling was not transparency but the methodology itself. What will replace demand destruction?

Response (ENTSOs):

- The previous approach was not ideal but reflected the constraints and governance framework available at the time.
- One possible improvement is energy-vector substitution:
    - Replacing fossil demand with electricity and/or hydrogen.
- TSOs will need to be involved because national data ownership remains important.
- Any adjustments must be transparent and well justified.

Additional Response (ENTSOs):

- The intention is no longer to simply destroy demand.
- Future approaches may be:
    - improve efficiency assumptions,

- electrify demand,
- substitute fuels using hydrogen and other vectors.

- Country-specific realities must be respected.
- The methodology is still under development and consultation.

Q7. Have you considered optimisation-based gap filling?

Question (DG ENER): Could optimisation techniques be used to close gaps?

Response (ENTSOs):

- Optimisation is one of the options under consideration.
- It could be particularly useful on the supply side.
- Grid expansion and supply optimisation may form part of future approaches.
- Feasibility depends on resources, timing and practical implementation constraints.
- Discussions are ongoing.

Q&A Session 2

Q8. To what extent does TYNDP use carbon-budget considerations and are carbon budgets applied to each assessment year?

Question (EU DSO Entity):

Response (ENTSOs):

- In the previous cycle the approach was largely a carbon-accounting exercise.
- For the 2028 cycle the team is considering options to incorporate carbon budgeting into optimisation processes.
- Work is still ongoing and no final methodology was presented.

Q9. Why not have both a target-oriented scenario and a realistic/current-state scenario?

Question (Snam): The 2026 scenarios lacked credibility; would it be useful to have both target-oriented and realistic scenarios?

Response (ENTSOs):

- The scenario-building process must comply with ACER Framework Guidelines and TEN-E requirements.
- Those requirements currently focus on target-compliant scenarios.
- A separate realism-based scenario would require changes to the regulatory framework and lies outside the current mandate.
- ENTSOG must work within the approved framework.

Additional intervention (ACER):

- ACER Framework Guidelines require target-compliant scenarios.
- However, realism remains important.
- Being target-compliant does not justify unrealistic demand or supply assumptions.
- The 2028 process should strive for both compliance and credibility.

Q10. How will local biomethane and hydrogen developments at distribution level be represented?

Question (Ready4H2): Since many biomethane and hydrogen projects are connected at distribution level:

1. How will bottom-up DSO dynamics be captured?

(Responded Post Workshop)

On the representation of local biomethane and hydrogen developments at distribution level, the scenario-building process relies on inputs provided through the participating TSOs and the broader stakeholder consultation process.

The TYNDP scenarios are developed using nationally validated datasets that aim to capture expected energy demand, supply and infrastructure developments across all relevant sectors. This includes developments that originate at distribution level, such as biomethane production facilities, local hydrogen projects, decentralised renewable generation and associated demand.

While the modelling and data collection process is coordinated through TSOs, national submissions are expected to reflect relevant developments across the whole energy system, including distribution-connected assets where these are material to future energy balances and infrastructure needs. TSOs regularly engage with national stakeholders, including DSOs, project developers and public authorities, when preparing their inputs.

In addition, stakeholder consultations during the scenario-building process provide opportunities for organisations representing distribution-level interests to review assumptions, identify missing developments and provide feedback. This helps ensure that emerging biomethane and hydrogen projects at local level can be appropriately considered in the development of the scenarios.

The objective is therefore not to model only transmission-level developments, but to capture the energy-system evolution as a whole, while using nationally coordinated datasets and governance arrangements that ensure consistency across countries and sectors.

2. Will DSOs have a structural role in the SRG?

(Proposal) SRG represents different types of organisations. Concerning the distribution level, EU DSO Entity is currently a member of the SRG. List of all current members is available online at: https://www.entsos-tyndp-scenarios.eu/stakeholder-reference-group/

Response (SRG/Renewables Grid Initiative):

- The revised TEN-E framework already provides a structural role for distribution-level representation.
- EUDSO and gas distribution interests are represented within the Stakeholder Reference Group.
- This representation is intended to ensure distribution-level insights are considered during scenario development.

Additional Questions Raised in Chat

Although not separately discussed in depth during the meeting, the following chat questions/comments were captured:

A. Current-state reference scenario

Raised several times by Snam:

- Request for a reality-check scenario based on existing infrastructure, investments under construction and committed projects.
- Concern that NECP assumptions may differ from actual progress by 2028.
- Response: acknowledged as potentially useful but outside the purpose of the current TYNDP framework and not required by ACER guidelines.

B. Country vs EU-Level Results

Raised by Hiba Adeel in chat.

- Response: EU-level reporting with country-level datasets produced during scenario development.