6th International Forum on Long-Term Energy Scenarios (LTES) for the Clean Energy Transition

**Session 5. Addressing supply chain uncertainties in energy scenarios.**

Co-hosted with: JRC

*Thursday, 30 October 2025. Bonn, Germany. 09:30-11:30 (CET)*

1. **Context**

Global supply chains for critical energy technologies i.e. batteries, solar modules, electrolyzers, wind turbines, and other components, are increasingly exposed to geopolitical risks, trade disputes, and market concentration. Disruptions or bottlenecks in these supply chains can stall deployment, increase costs, and undermine transition strategies.

Scenario-based planning offers governments a way to anticipate such risks. By embedding supply chain assumptions into long-term energy scenarios, planners can stress-test pathways, identify vulnerabilities, and assess credible alternatives. These include diversifying import sources, developing regional manufacturing capacity, or maintaining strategic reserves. Research institutions have begun to design methodologies to capture these uncertainties, while some countries are experimenting with incorporating resilience considerations into national planning.

This session will bring together national and institutional perspectives to discuss how supply chain risk insights can be translated into policy choices that strengthen resilience without undermining affordability or ambition.

1. **Objective**

To examine how LTES frameworks can be used to stress-test supply chain assumptions and translate insights into strategies that strengthen resilience, industrial policy, and regional cooperation.

1. **Expected outcomes**

* Practical lessons on incorporating supply chain risks into scenario frameworks.
* Insights from countries on how LTES-informed analysis supports planning under uncertainty.
* Examples of methodological advances from research institutions to stress-test resilience options.
* Guidance on how policymakers can use scenario evidence to balance cost, resilience, and domestic capability.

1. **Proposed Agenda (90 min)**

**Moderator:** JRC (TBC)

**Start:** 09:30 (CET)

|  |  |
| --- | --- |
| **Duration** | **Details** |
| 05 min | **Welcome and introduction by moderator.**  *Overview of the session and context of the topic.* |
| 07 min | **Scene-setting presentation.**  *How scenarios can integrate supply chain risks and resilience strategies*  *Speaker: (TBC)* |
| 15 min | **Country presentations.**  *How to integrate supply chain uncertainties in national planning*  *Speakers:*   * *Matias Paredes. Planning and Climate Change Unit. Ministry of Energy. Chile* * *Brazil or Portugal or Netherlands. (TBC)* |
| 50 min | **Panel discussion.**  *This panel will examine how long-term energy scenarios (LTES) can incorporate supply chain risks into planning. Panelists will discuss how scenarios are used to stress-test assumptions on critical technologies and materials, and to assess resilience strategies such as diversification, regional manufacturing, and reserves. Country and research perspectives will highlight how supply chain analysis within LTES informs industrial policy, investment choices, and regional cooperation.*  *Panelist:*   * *Matias Paredes. Chile.* * *James Glynn. ESMA* * *Gustavo Naciff de Andrade. Brazil. (TBC)* * *Dr. Ricardo Aguiar. Portugal. (TBC)* * *Dr. Ozge Ozdemir. PBL. (TBC)* |
| 10 min | **Floor interventions/Q&A** |
| 03 min | **Wrap-up of the session** |

1. **Proposed guiding questions**

* How are supply chain risks currently being integrated into your national or institutional scenario frameworks?
* What resilience options (e.g. diversification, regional manufacturing, strategic reserves) can scenarios help evaluate, and how do these shape policy trade-offs?
* How can scenario evidence support industrial strategies and cooperation mechanisms that reduce vulnerabilities while maintaining affordability?