



UNECE – UNESCAP Programme on Energy Connectivity in Central Asia and the Caucasus



AGENDA

- | | |
|----------------------|--------------------------------------|
| 9.00 – 9.05 | Welcome |
| 9.05 – 9.20 | Opening remarks |
| 9.20 – 9.45 | Context and projects overview |
| 9.45 – 10.50 | Moderated discussion |
| 10.50 – 11.00 | Closing remarks |



Team

Matthew Wittenstein, Chief of Section Energy Connectivity, UN ESCAP

Anna Lobanova, Sustainable Energy Specialist & Energy Connectivity Project Lead, UN ESCAP

Iva Brkic, Secretary of the Committee on Sustainable Energy & Central Asia Lead, UNECE

Nadejda Khamrakulova, Secretary of the Group of Experts on Cleaner Electricity Systems & Water-Energy Nexus Lead, UNECE



Opening remarks

Mr. Hongpeng Liu, Director of Energy Division, UN ESCAP

Mr. Dario Liguti, Director, Sustainable Energy Division, UNECE

Amb. Huseyin Avni Bicakli, Deputy Secretary General of ECO

Dr. Omer Kocaman, Deputy Secretary General of OTS

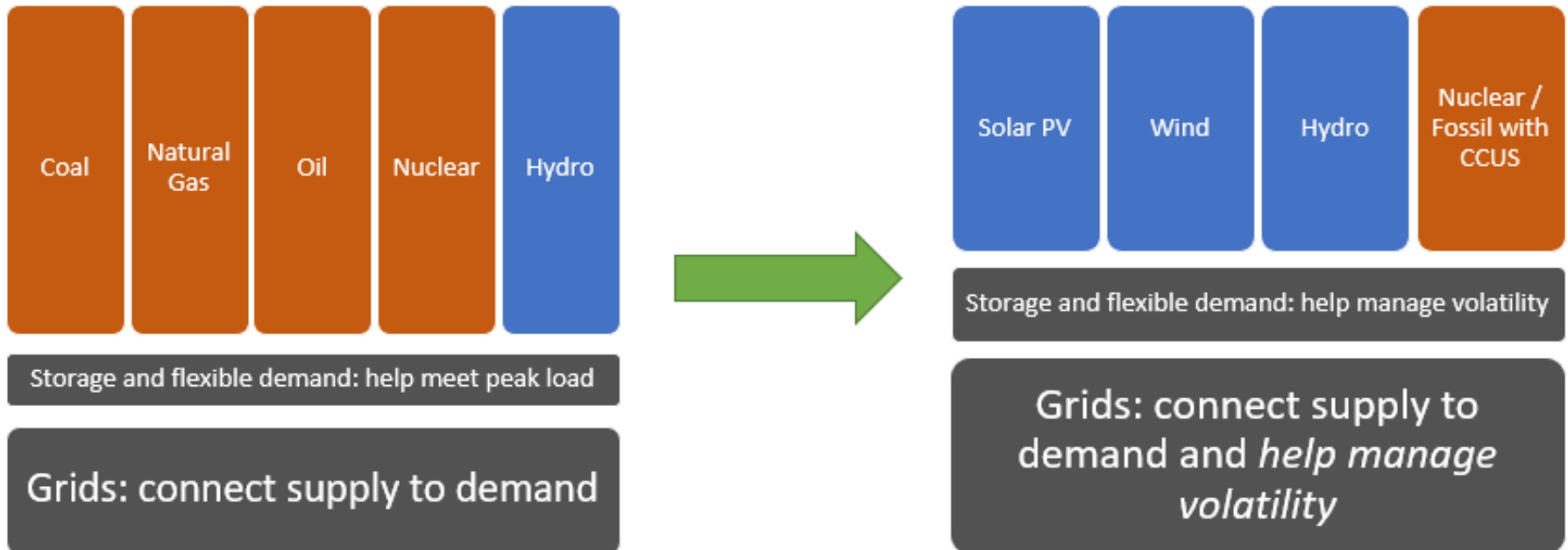


Context and projects overview

Matthew Wittenstein, Chief of Section Energy Connectivity, UN ESCAP

Iva Brkic, Secretary of the Committee on Sustainable Energy & Central Asia Lead, UNECE

Energy transition implies a shift from *fuel-* to *weather-dependent* power systems





Growing Loads and Performance Expectations as Economy is Electricified



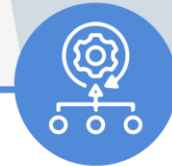
NO/LOW CARBON ENERGY RESOURCES

Ensure sufficient amounts of no/low carbon energy to achieve decarbonization goals



TRANSMISSION

Develop adequate transmission to integrate renewables and transmit/distribute energy



BALANCING RESOURCES

Maintain a robust fleet of balancing resources needed to serve energy along with integrated renewables



ENERGY SUPPLY CHAIN

Ensure healthy energy supply chains for balancing resources, with sufficient access to stored energy to withstand long-duration, widespread extreme weather events

Carbon Neutral Energy System of the Future





Technical Considerations and Actions for Achieving Energy Security, Affordability, and Sustainability Net-Zero for Europe, North American and Central Asia


What is a resilient energy system?



UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

Building Resilient Energy Systems: Actions for Achieving Greater Energy Security, Affordability and Net-zero in the UNECE Region

 UNECE

Power system connectivity - the need for larger, more integrated power systems



Economics

- Access to lower-cost resources
- Potential for export revenues
- Increased economies of scale

Security

- Lower reserve margin requirements
- Increase resource diversity

Sustainability:

- Access to regions with high RE potential
- Enables integration of variable RE (resource smoothing)

ESCAP's Regional Roadmap on Power System Connectivity

Planning

- Develop a regional master plan (Strategy 2)
- Coordinate cross-border transmission planning (Strategy 6)

Financing and development

- Mobilize investment in cross-border infrastructure (Strategy 7)

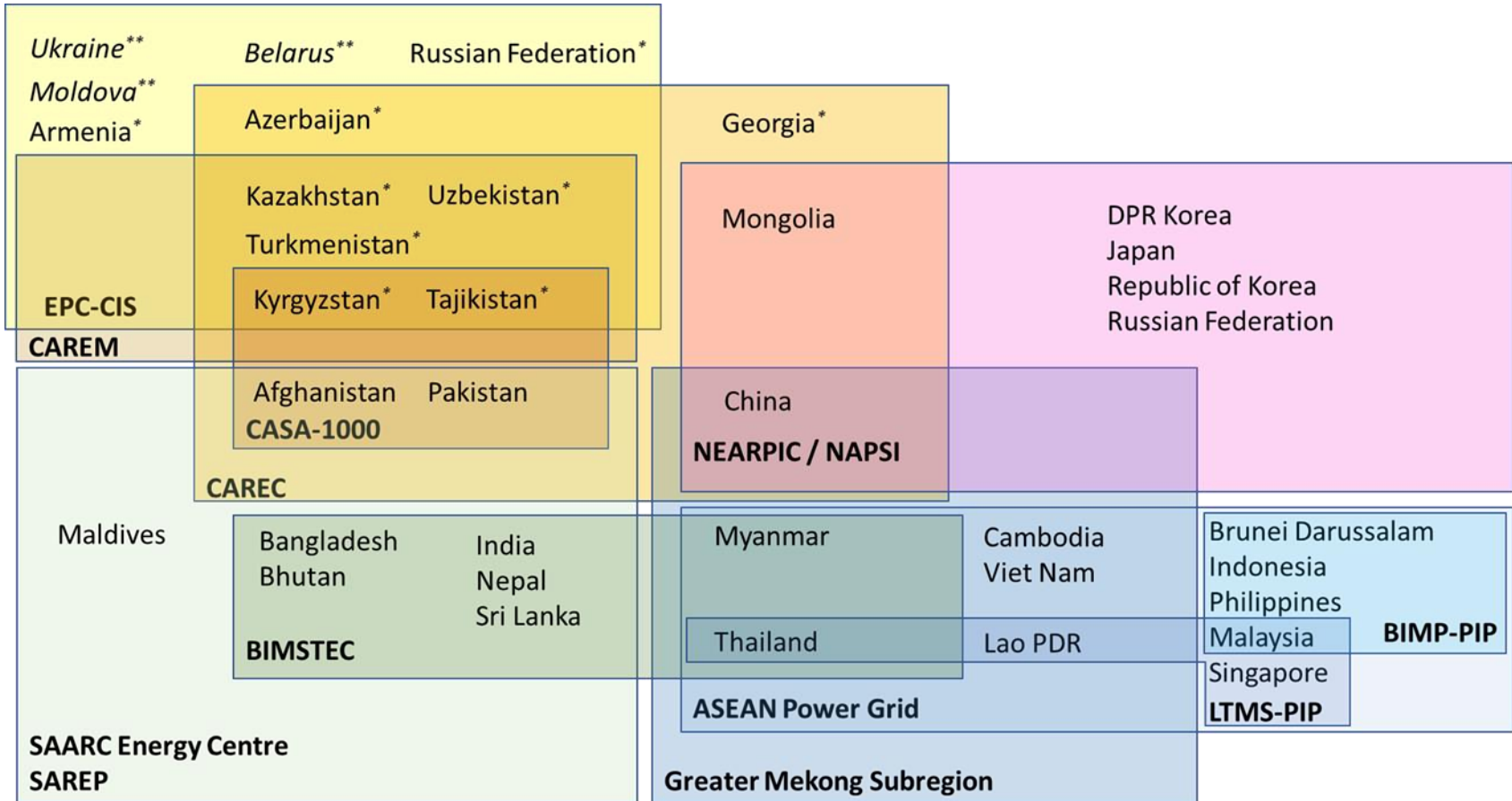
Operations

- Move toward multilateral trading and competitive markets (Strategy 5)
- Co-ordinate cross-border system operations (Strategy 6)

Cross-cutting

- Build trust and political consensus (Strategy 1)
- Develop intergovernmental agreements (Strategy 3)
- Coordinate, harmonize, and institutionalize policy and reg frameworks (Strategy 4)
- Build capacity and share information, data, best practices (strategy 8)
- Ensure coherence of connectivity with the SDGs (Strategy 9)

Multilateral connectivity initiatives in the region

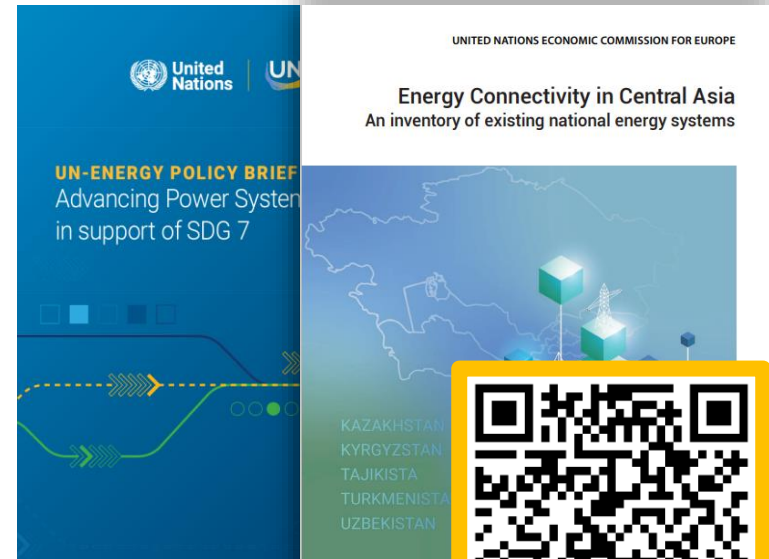


* Member of UN ESCAP and UN ECE

** Member of UN ECE only

Strategic collaboration between ESCAP and UNECE on Energy Connectivity in Central Asia

- **Recent joint UNECE and ESCAP activities on Energy Connectivity**
 - Brief on Power System Connectivity at HLPF 2023
 - Project on Energy Connectivity in Central Asia
 - Stocktaking analysis on energy infrastructure in Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan
 - Joint regional workshops with regional energy experts, energy regulators and policymakers at 3rd Almaty Energy Forum



UNECE – UNESCAP Programme on Energy Connectivity in Central Asia and the Caucasus



- **Project 1:**

Energy connectivity for sustainable development – Enabling renewable energy resource sharing across borders (ECO-REM)

- Key activity: development of a subregional roadmap to inform multilateral power trading linked to sustainable cross-border trade of renewable energy resources.
- Timeline:
 - **Policy brief summarizing gaps/challenges** to developing multilateral power trade by April 2024
 - **Roundtable discussion** to inform the development of subregional road map - April 2024 (TBC)
 - **Stakeholder workshop** to discuss key findings from the roadmap development – June 2024 (TBC)
 - **Roadmap for establishing multilateral power trade** and developing renewable energy resources by October 2024
 - **Stakeholder workshops** to disseminate road map and develop capacity to implement road map recommendations by December 2024

UNECE – UNESCAP Programme on Energy Connectivity in Central Asia and the Caucasus

- **Project 2: Energy Connectivity in Central Asia**

- Objective: to improve resiliency of the energy systems in Central Asia through enhanced regional energy connectivity
- Key activity: development of scenarios and a roadmap for a regionally interconnected energy system in Central Asia
- Timeline:
 - **Launch of the modelling activity**, by 20 February
 - **Online workshop on modelling** – verification of assumptions, by 30 March
 - **Regional workshop in Central Asia**, discussion of the roadmap preliminary results, by 15 June
 - **Finalization of the Roadmap** on Energy Connectivity in Central Asia by 30 August
 - **Policy dialogues**, September and November

UNECE – UNESCAP Programme on Energy Connectivity in Central Asia and the Caucasus

- **Project 3: Supporting increased energy security and resilience through energy transition**
 - Objective: to help member States increase their policy design capacity to enhance energy security and energy system resilience through energy connectivity
 - Key activity: development of tools and fostering multi-stakeholder partnerships for a resilient and interconnected power systems
 - Timeline:
 - **Toolkit for a cost-benefit analysis of interconnected power systems** by September 2024
 - **Report on cross-border power trade** by December 2025
 - **National workshops and focused reports** periodical by 30 December 2024
 - **Cross-regional multistakeholder dialogues** annually by 2026



Moderated discussion

**Anna Lobanova, Sustainable Energy Specialist & Energy Connectivity
Project Lead, UN ESCAP**

**Nadejda Khamrakulova, Secretary of the Group of Experts on Cleaner
Electricity Systems & Water-Energy Nexus Lead, UNECE**



Guiding questions:

- 1. What are the key priorities for national power system development?**
- 2. What are the priority areas for power sector connectivity development?**
- 3. What are the key challenges/ concerns for energy connectivity development?**
- 4. What are your expectations from the projects and how are you planning to be engaged?**
- 5. How projects activities can be tailored to meet your country's needs?**
- 6. Are there any national or subregional initiatives that we should be aware of?**



Interventions by Experts

- **Ms. Margalita Arabidze, Head of Energy Efficiency and Renewable Energy Policy and Sustainable Development Department, Ministry of Economy and Sustainable Development of Georgia**
- **Ms. Tatiana Vedeneva, President, Center for Renewable Energy and Energy Efficiency Development, Kyrgyzstan**
- **Ms. Teona Elizarashvili, Energy Consultant, Energy & Extractives Global Practice, Europe and Central Asia Region, The World Bank**
- **Mr. Sergey Katyshev, Independent Consultant and author of the UNECE study on Energy Connectivity in Central Asia - an inventory of existing national energy systems**

UNECE – UNESCAP Programme on Energy Connectivity in Central Asia and the Caucasus



Thank you!

**Iva Brkic, Economic Affairs
Officer
Sustainable Energy Division,
UNECE**

Iva.Brkic@un.org

**Anna Lobanova, Sustainable
Energy Specialist, Energy
Division, ESCAP**

Anna.Lobanova@un.org