

4th Session - Water-Energy Innovations in Southeastern Europe and Central Asia



UNECE Sustainable Energy Division (SED)



Cross-sectoral and transbordering “Nexus” Cooperation within UNECE

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- Increasing recognition that energy-related objectives can be achieved more effectively through integrated and consultative planning, in synergy with environmental and other sectoral objectives, notably those of the water and agricultural sectors
- Cooperation within the UNECE between the Environment Division/ the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) and the Sustainable Energy Division/ Group of Experts on Renewable Energy (GERE)
- Intersectoral “nexus” assessments and toolkit: synergies and trade-offs brought by the deployment of renewable energy
- Multi-stakeholder Hard Talks with focus on how to make RE investments more sustainable using the nexus approach

Towards sustainable renewable energy investment and deployment

Trade-offs and opportunities with water resources and the environment

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This report suggests a **non-comprehensive “tool-kit”** for policy makers to **identify, evaluate, and act upon the synergies and trade-offs** brought by the deployment of renewable energy.



- **Aim** is to upscale renewable energy while at the same time facilitate progress in the other sectors (**water, agriculture, and environment**).
- It uses the **nexus approaches** to achieve economic, social and environmental sustainability while improving quality of life.
- A key factor is the **capacity of energy policy makers to engage with other sectors and to convene these multi-stakeholder dialogues** to successfully exploit synergies and effectively address trade-offs.



Hard Talks: An Innovative Policy Dialogue Tool For Unblocking Renewable Energy Barriers to Investment

- A uniquely formatted **multi-stakeholder** dialogue among key national and international actors
- **Demand-driven**: adapted to the specifications and requirements of the host country;
- Discussion guided by a **practical “problem/solution” Discussion Paper**;
- **Neutral international facilitators** for the dialogue
- Involves a one or two-day format to **deliver key messages** from experts and main stakeholders through specific
- **Recommendations, prioritizing next steps**, that are sent to all participants and high-level decision-makers for further action





UNECE Group of Experts on Renewable Energy

Hard Talks – Belgrade, Serbia on 03.21-22.2019

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UNECE Hard Talk – Serbia 2019



A. Overarching Priorities

- On policy;
- Long-term planning,
- Stakeholder consultations,
- Interdepartmental cooperation and sourcing of expert advice,

the priorities show that strong policies and commitments on RE are a cornerstone of successful renewables uptake

B. Draft Recommendations by Risk Category

C. Maximising synergies: opportunities for investing in RE while achieving cross-sectoral benefits

A nexus approach helps reducing two of the major risks identified, social risk and political risk, including through attention to participation and empowerment of different actors, and achievement of clearer long-term targets and greater coherence among sectoral plans.



UNECE Group of Experts on Renewable Energy

Hard Talks – Sarajevo, Bosnia and Herzegovina on 12.04-05.2018

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UNECE Hard Talks – BiH 2018



**Proposed Nexus criteria to be applied for
the assessment for sustainable RE deployment**

Adopting a “**nexus criteria**” to RE deployment means **maximizing the positive synergies that exist across sectors and countries** by opening up new financing opportunities while minimizing environmental problems and/or risks to human health.

- A. Maximizing synergies: opportunities for investing in RE while achieving cross-sectoral benefits**
- B. Addressing trade-offs: a checklist for addressing negative impacts of RE**

At that time, BiH’s regional coordination on integrated nexus policies (e.g. sustainable development) was low – only exchange of experience, in UNECE.

Almaty Energy Forum – Building resilient energy systems in Central Asia

*Organized in 2022 at the Kazakh-British Technical University,
Almaty, Kazakhstan*



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The key themes talked:

- **Designing resilient energy systems** through low- and zero-carbon technology interplay
- **Innovating & modernizing energy systems in Central Asia** through private and public financing
- **Examining the opportunities and threats associated with energy-water-land nexus** approach in Central Asia
- **Strengthening regional cooperation & building cross-regional technical and institutional capacity**

Goal is to **unite and build a platform for a continuous inclusive multistakeholder dialogue to facilitate regional cooperation, provide technical capacity support and help countries in Central Asia** innovate and modernize their regional infrastructure and build resilient energy systems that are secure, affordable and deliver on net-zero targets.

United Nations Special Programme for the Economies of Central Asia (SPECA) 25th Session of the Working Group on Water, Energy and Environment

November 2022

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This meeting has been **hosted by the Government of Kazakhstan** and a few **concerns** have been relieved:

- The **planned water use**, of flows of the main Central Asia rivers, is **unproportionally higher than the water availability**, particularly under conditions of climate change.
- Despite various risks and challenges in the region, the countries may still **maintain water, food and energy security, under condition of well-coordinated intersectoral cooperation.**

United Nations Special Programme for the Economies of Central Asia (SPECA)

25th Session of the Working Group on Water, Energy and Environment



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A few **recommandations** for SPECA participating State have been presented:

1. To **consider more studies' findings, apply new frameworks and use the tools for prioritization of "green" projects** to promote professional understanding of the relationship between trade, circular economy and sustainable development
2. Have a **regular follow-up assessments by the national authorities on the progress in the development of water, energy and environmental policies and measures and strengthen collaboration** with partner institutions.
3. Have a follow-up of the inception phase of the **IKI-funded project "Regional mechanisms for the low-carbon, climate-resilient transformation of the energy-water-land nexus in Central Asia.**

The water community needs to work closely with the energy community



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SED can support a cross-sector approach to design effective policies, taking into account (WMO and IEA global data):

- Today 87% of the global electricity is generated from thermal, nuclear and hydro systems that directly depend on water availability
- 33% of the thermal plants rely on freshwater availability for cooling in high water stress areas
- 15% of existing nuclear power plants are in the water stress areas; by 2040 there will be 24% of the total nuclear power plant fleet
- 11% of hydropower capacity is in high water stress areas; 26% of the existing water dams and 23% of the planned dams are in the high risk water scarcity areas

For this, SED is inviting your constituency, water experts, to continue the cooperation with GERE and to join our Task Force on Energy Transition on Central Asia and to organize Renewable Energy Hard Talks in Central Asia focused on “nexus” related topics



<https://unece.org/sustainable-energy>
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Thank you!