

International Hybrid Workshop

“Decarbonization in Kazakhstan in a Central Asian Context”

16 February 2023

Almaty, Kazakhstan

The Energetika 21 International Conference, the Kazakh - German University (DKU) and Energy Aspects of Kazakhstan Analytical Centre (EAKZ) invite for an international workshop in Almaty with parallel online participation on **“Decarbonization in Kazakhstan in a Central Asian context”**

Background:

The workshop on 30 September 2022 was addressing the ambitious goals to reduce the greenhouse gas emissions of Kazakhstan to below 85% of their 1990 levels by 2030 and achieve carbon neutrality by 2060. The first session of the workshop on 16 February 2023 will follow up on the previous workshop to deepen the discussion on the reduction of GHG emissions and the use of hydrogen in Kazakhstan while the second session will look at the potential for cooperation with other countries in Central Asia.

The countries in Central Asia have complementarities in the energy sector and for renewable energy like the potential combination between hydropower and renewable power from PV and wind. On the other hand, there are conflicting interests regarding the use of water for power vs. irrigation. Contrary to many other regions, Central Asia does not have a river basin agreement with mechanisms to conciliate such conflicts.

Kazakhstan and the other Central Asian countries as a joint historic heritage have the same standards of their electricity system but face a power line system, which was built based on physical geography regardless of borders. This shared heritage applies also for other infrastructure like rails but also urban structures.

While having different endowments with different forms of energy and at the same time being in competing situations they could benefit from sharing experience and from cooperation. These elements will be addressed in the second session followed by a panel discussion.

Organizational issues:

The language of the workshop is English and Russian (simultaneous translation provided). It will take place at the facilities of the Kazakh - German University (DKU) in Almaty with the option to participate online.

Program

Time: Almaty time zone (GMT+6)

Venue: Kazakh - German University (DKU), Nazarbayev Avenue 173, Almaty

11:30 – 11:45 **Welcoming remarks**

- **Dmitry Vasilenko**, Vice-chairman, Organizing Committee, Energetika 21 International Scientific Conference
- **Dr. Wolrad Rommel**, President, Kazakh-German University (DKU)
- **Zhandos Nurmaganbetov**, Vice-Minister of Energy, Ministry of Energy of the Republic of Kazakhstan
- **Almaz Abildayev**, Director, Energy Aspects of Kazakhstan Analytical Center

11:45 – 13:30 **Session 1: Energy Transition in Kazakhstan**

Chair: Alexey Kobzev, Head of Green Energy and Climate Change Department, Kazakh-German University (DKU)

Issues addressed will deepen the discussion on various avenues for Kazakhstan for decarbonization based on most recent insights, e.g. what are the comparable advantages for building a nuclear plant in Kazakhstan; what potential and economic instruments for CCS, the necessary elements for a large scale Hydrogen production; ways to avoid GHG emissions from landfills by recycling and waste incineration and how to decarbonize the heating sector.

- *Insights from the WB on Kazakhstan Country and Climate Development Report*, **Sandeep Kohli**, Senior Energy Specialist, The World Bank
- *Future of the Nuclear Energy in Kazakhstan*, **Zhaslan Kasenov**, Director, Department of Nuclear Energy and Industry, Ministry of Energy of the Republic of Kazakhstan
- *Government - Industry Cooperation in the US: Studies by the National Petroleum Council and Tax Credits under IRS 45Q in the IRA*, **Michael Sipos**, Independent Expert
- *Using CO₂ for EOR in North America*, **Ralf Dickel**, Independent Expert
- *Long-term Energy Storage is the Way to Carbon-Free Energy in Central Asia*, **Dr. German Trofimov**, Vice-President for Energy, Israeli Independent Academy for Development of Sciences

13:30 – 13:45 **Break**

13:45 – 15:15

Session 1: Energy Transition in Kazakhstan (continued)

Chair: Dmitry Vasilenko, Vice-chairman, Organizing Committee, Energetika 21 International Scientific Conference

- *Decarbonizing the Cement Industry*, **Ali Abdelshafy**, Head of Research Group “Climate-Neutral Industries”, Chair of Operations Management, RWTH Aachen University
- *Energy Efficiency, Pricing and Municipal Heat Supply in the Context of the Energy Market*, **Dr. Alexander Belyi**, Expert in Low-Carbon Development and Energy Efficiency, Kazakh- German University, Kazakhstan Green Building Council
- *Decarbonizing the Heating Sector, approaches in Germany*, **Jens Völler**, Project Manager, Team Consult, Berlin
- *Energy Intensity and RE Development: Positive and Negative Aspects of Electrification in the Transportation Sector*, **Dr. Hamid Mostofi Darbani**, Senior Researcher, TU Berlin

15:15 – 15:45

Break

15:45 – 17:15

Session 2: Potential for Cooperation in Energy and Decarbonization with Neighbours of Kazakhstan

Chair: James Ball, Independent Adviser

The potential for combining renewable power from PV and wind with hydropower across borders; the challenges of water management for power generation; issues of grid management. Challenges of a joint power market. Examples of cross border cooperation in decarbonizing the energy sector.

- *National Hydrogen Strategies: Status and the Role in Long-term Strategy Making Process*, **Yury Melnikov**, Independent Hydrogen Policy Consultant
- *Kazakhstan’s Emission Trading Scheme and Regional Cooperation*, **Dina Azhgalieva**, Research Fellow, Asian Development Bank Institute
- *Regional Aspects of the Energy Market in Central Asia*, **Dr. Arsen Tleppaev**, Associate Professor, Kazakh-German University (DKU)
- *USAID on Decarbonization in Kazakhstan and Regional Connectivity*, **Sergey Yelkin**, Energy Specialist in Central Asia, USAID

17:15 – 17:30

Break

17:30 – 18:30

Panel discussion: How to Realize the Potential for Cooperation of Kazakhstan with other Central Asian Countries

Chair: James Ball, Independent Adviser

What initiatives can Kazakhstan take for cooperation with neighbouring countries. How to use the shared historic heritage in the context of energy transition? How can opposing interests be mitigated? Steps for the power grid? Social consequences?

- **Almaz Abildayev**, Director, Energy Aspects of Kazakhstan Analytical Center
- **Kamilia Irgebaeva**, Head of the Research Center for Governmental Projects, National Institute of Strategic Analysis, Kyrgyzstan
- **Irina Mironova**, Scientific Research, ENERPO Research Centre, European University at St. Petersburg
- **Manuel Berlingiero**, Lead Energy Specialist, Program Coordinator for Central Asia, The World Bank

18:30 – 18:35

Closing remarks