



ENERGETIKA 21

International Hybrid Workshop

“Decarbonization and the Role of Hydrogen in Kazakhstan”

30 September 2022

Almaty, Kazakhstan

The Energetika 21 International Conference, the Kazakh-German University (DKU), Energy Aspects of Kazakhstan Analytical Centre (EAKZ) and Institute of Nuclear Physics (INP) invite for an international workshop in Almaty with parallel online participation on “Decarbonization and the Role of Hydrogen in Kazakhstan”.

Background:

Kazakhstan has ambitious goals to reduce its green house gas emissions to below 85% of their 1990 levels by 2030 and achieve carbon neutrality by 2060. This will require major change in the role of existing fuels like coal which provides 70% of electricity production and substantial investment into increasing efficiency of existing energies and into developing low carbon energy like renewables or fossil energy with CCUS.

Kazakhstan has an impressive geological basis of fossil fuels but also for CO₂ sequestration and a large potential for renewables mainly in its Western and Southern part. Kazakhstan successfully managed export of oil by several export routes (CPC, via the Russian Transneft system to export harbors of Russia and to China) and wants to export CO₂ free energies like green hydrogen in the future. As a large producer of Uranium it also looks into building an own nuclear plant.¹

As of May 2022 the Draft Doctrine (Strategy) of Achieving Carbon Neutrality of Kazakhstan until 2060 is undergoing a revision and discussion process. A new body under the Ministry of National Economy was created in 2021 to guide this process (“Project office for the transition to carbon neutrality and the organisation of the process of finalising the Strategy for achieving carbon neutrality of the Republic of Kazakhstan until 2060”).

The workshop will look at Kazakhstan’s challenges of decarbonization in the context of international experience and with regard to international context and access to international markets.

Organizational issues:

The language of the workshop is English and Russian (simultaneous translation provided). It will take place in Almaty with the option to participate online. Participation is free, subject to registration and available places. To register, please, contact the Organizing committee: e21conference@gmail.com.

¹ A comprehensive overview is given by the Energy Sector Review Kazakhstan 2022 of the IEA: <https://www.iea.org/reports/kazakhstan-2022>.



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Almaty, Kazakhstan

Venue: Hotel DoubleTree, 115 Dosmukhamedov Street, Almaty, Kazakhstan

Time: Almaty time zone (GMT+6)

12:00 – 12:15

Welcoming remarks

- **Dmitry Vasilenko**, Organizing Committee, Energetika 21 International Scientific Conference
- **Almaz Abildayev**, Energy Aspects of Kazakhstan Analytical Center
- **Dr. Wolrad Rommel**, Kazakh-German University (DKU)

12:15 – 14:30

Session 1: Energy transition to net zero globally and in Kazakhstan

Chair: **Almaz Abildayev**, Energy Aspects of Kazakhstan Analytical Center

- *The Decarbonization strategy of Kazakhstan: the key challenges and barriers for economy sectors*, **Dinmuhammed Kudaibergenov**, “Atameken” – the Kazakhstan National Chamber of Entrepreneurs
- *Nordic clean energy scenarios – solutions for carbon neutrality*, **Hans Jörgen Koch**, Independent senior adviser
- *Coal markets in the context of decarbonisation*, **Irina Mironova**, ENERPO Research Centre at European University
- *The avenues to net zero CO₂ emissions at the example of Germany*, **Ralf Dickel**, Independent Expert
- *Development of renewables and production of the green hydrogen in Kazakhstan*, **Ainur Tumysheva**, Svevind Energy GmbH

14:30 – 15:00

Coffee Break

15:00 – 16:45

Session 2: Hydrogen policy internationally and in Kazakhstan

Chair: **Alexey Kobzev**, Kazakh-German University (DKU)

- *Current trends of methane steam reforming technologies: hydrogen production by methane Beta steam reforming*, **Sayabek Sakhiyev**, The Institute of Nuclear Physics

- *The strategic position of Kazakhstan for Hydrogen Export*, **Julian Bowden**, Oxford Institute for Energy Studies
- *International and regional aspects of H₂ production and transport and the role of Kazakhstan*, **Batyrzhan Tergeussizov**, Linde Gas Kazakhstan
- *Hydrogen in the Energy Policy of Central Asia countries and Russia: opportunities and barriers for Kazakhstan*, **Yury Melnikov**, Independent Sustainable Energy Expert

16:45 – 17:00

Short coffee break

17:00 – 18:00

Panel discussion: Kazakhstan's position in global decarbonization

Chair: Ralf Dickel, Independent Expert

- **Sayabek Sakhiyev**, The Institute of Nuclear Physics
- **Yury Melnikov**, Independent Sustainable Energy Expert
- **Julian Bowden**, Oxford Institute for Energy Studies
- **Batyrzhan Tergeussizov**, Linde Gas Kazakhstan

18:00 – 18:15

Closing remarks

18.15

Reception