



International Hybrid Conference “Energetika 21”

“Sustainable climate and sustainable Energy: the timing matters!”

10-11 November 2022

St. Petersburg

The Energetika 21 International Conference invites for an international event in St. Petersburg with parallel online participation on the topic of **“Sustainable climate and sustainable Energy: the timing matters!”** on 10-11 November 2022.

Background:

Energetika 21 is a scientific conference regularly held in November in St. Petersburg, addressing energy, environment and GHG issues by offering a platform to exchange information and ideas on these topics. In times of increasing global tensions Energetika 21 focuses on topics of common global interest such as the unanimously agreed targets of the Paris Agreement (PA).

It is obvious that energy efficiency and renewable energy have a major role to play to meet the climate targets of the PA (i.e. a sustainable climate). However, renewables (sustainable energy) come with specific challenges as they cannot always provide reliable energy supply. While in the long run an all-renewable energy supply based predominantly on harvesting present sun radiation is mandatory, this will not work within the time frame imposed by the need to stay within 1.5°C. Additional avenues are needed to meet the PA target: substantial and quick reduction of methane emissions, roll out of CCUS as well as development of Bioenergy with Carbon Capture Storage (BECCS) and Direct Air Capture (DAC) to compensate for hard to abate GHG emissions and for some limited overshoot in GHG emissions.

While this is acknowledged by the IPCC and the IEA, the relation between these two sustainability targets and its policy implications needs more discussion. The undifferentiated use of the terms “green” and “clean” for different contexts unfortunately blurs the differences between environmental protection and preventing climate change as well as between achieving the PA targets, more urgent than ever, and the longer-term target of a sustainable energy sector, which is inevitable, but has a much longer time horizon.

The conference will address the differences between the target of a sustainable atmosphere and sustainable energy, look at the instruments to achieve them and at the relation and interaction between the various instruments and targets within the different time frames.

Organizational issues:

The language of the workshop is English and Russian (simultaneous translation provided). It will take place in St. Petersburg 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.

Preliminary program (time St. Petersburg time = 2 hours to CET, 3 hours to UK time):

Day 1 (10.11.22) Energy transition to sustain the climate (target of Paris Agreement)

14:00 – 14:15 **Welcoming remarks**

14:15 – 16:15 **Presentations to address the following topics:**

What are the time horizons to look at? What can be contributions of the energy sector to stay within 1.5°C warming? What can be realistic contributions by renewables and by energy efficiency and of nuclear within the given time frame? Dependence on geography. Other instruments to look at: Reduce the methane emissions, to save on the CO2 budget left. The role of Carbon sequestration? Focus on high TRL technologies and technologies with high roll out speed.

16:15 – 16:45 **Coffee Break**

16:45 – 18:00 **Panel discussion to address:**

What is needed to complement renewables to meet the PA targets? How to best internalize the externalities of CO2 emissions in different circumstances (taxes and cap and trade vs direct support). Aiming at cooperation in an increasingly fragmented world. Supporting developing countries.

18:00 – 18:10 **Closing remarks**

18:15 **Reception**

Day 2 (11.11.22) Ways to sustainable energy

10:30 – 10:40 **Welcoming remarks**

10:40 – 12:40 **Presentations to address the following topics:**

What determines the timing to achieve a sustainable energy sector? Approaches to bio-energy, BECCS? What research is needed? How to overcome the shortcomings of renewable energy?

12:40-13:00 **Coffee Break**

13:00 – 14:00 **Panel discussion:**

How to combine policies for sustainable climate and for sustainable energy? What developments are needed to make renewables available on demand? How will unabated fossil fuel finally be phased out? What limits for fossil energy production with CO2 sequestration?

14:00 – 14:10 **Closing remarks**

14:15 **Lunch Reception**