

Session II

Key Stakeholder and Industry views on short-, medium-, and long-term energy outlooks

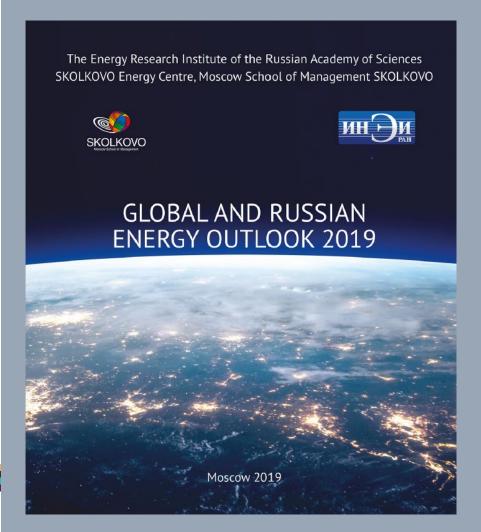
GLOBAL AND RUSSIAN ENERGY OUTLOOK 2019

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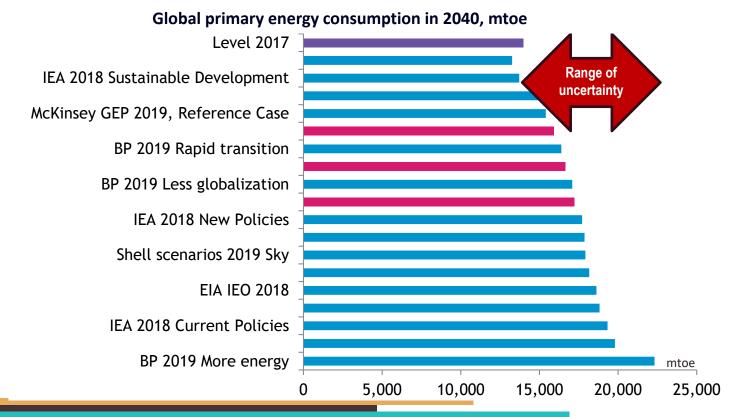
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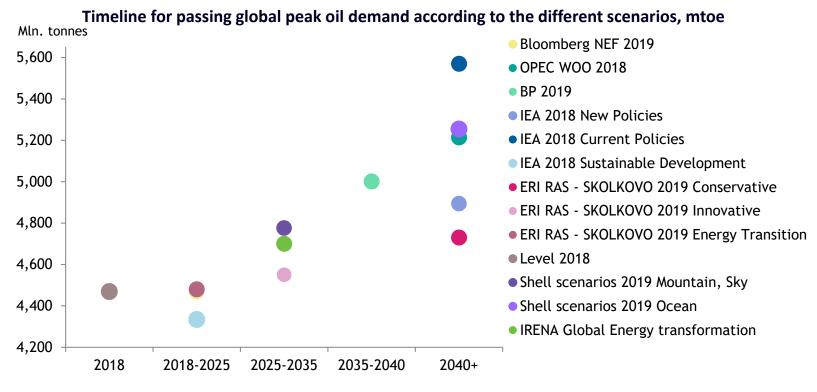




By 2040, energy demand uncertainty is huge: it may decrease due to Energy Transition, or increase by 40-60% depending on scenario...



Many energy scenarios predict peak demand for oil, only few - peak gas demand



Outlook-2019 scenario assumptions

Indicator	Conservative	Innovative	Energy Transition
World population by 20140, bln		9.2	
Average annual GDP growth, 2015-2040, %		2.8%	
State energy policy	The current state policy remains unchanged.	The already adopted national priorities in the promotion of RES, electric transport and energy efficiency. Only the developed countries and China pursue decarbonization policy.	All national energy policies focus on decarbonisation.
Technological development	Technology development and transfer continues at the same rate.	Accelerated technological development and localisation, limitations on technology transfer remain.	Global technological competition leads to accelerated technological development in several world hubs and ensures technological transfer available to all countries.

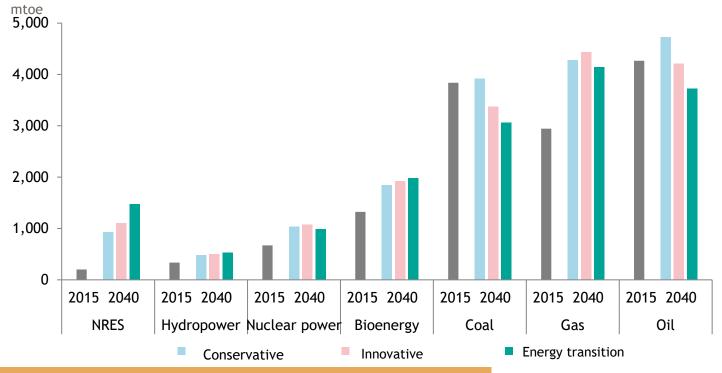
Source: Global and Russian Energy Outlook 2019. ERI RAS-SKOLKOVO.

Our scenarios are driven by the national energy policies, technological development and the speed of technology transfer

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Hydrocarbons will still play an important role in the global energy mix, though their share will bee strongly affected by the energy transition

Primary energy consumption by fuel (2015 and growth up to 2040) by scenario



The future of the global energy system is highly uncertain, which creates huge risks for the major producers of hydrocarbons

World primary energy consumption and changes in the energy mix from 1940 to 2040 under the three scenarios

