



GNAM GLOBAL NETWORK WEEK FOR EXECUTIVE MBA STUDENTS

MOSCOW SCHOOL OF MANAGEMENT SKOLKOVO

June 14-18, 2021

Syllabus

**Energy Transition Globally and in Resource-Rich Countries
(based on Russia's business context)**

Novaya ul. 100,
Skolkovo village,
Odintsovsky District,
Moscow Region, 143025, Russia
<https://school.skolkovo.ru/en/>

Overview

Throughout the history of humankind, there have been several significant changes in the structure of energy resources that humans used across the world to improve quality of their life. At the end of XIX century biomass has been actively replaced by coal, which then in turn was pressured by oil, while at the end of XX century natural gas started to play an active role in the global energy markets. During the second decade of XXI century, energy transition question has been raised again in a form of Energiewende with focus on environmentally sound, reliable and affordable energy supply. It was based on development of renewable energy resources, increase of energy efficiency as well as reduction in greenhouse gas emissions and low carbon sustainable development. Such fundamental changes create new challenges for existing system of economic relations between countries and market players. New wave of energy transition is not an exception – in the long term it can create threats, in particular for the traditional leaders of fossil fuel-based economies (such as Russia).

This course will provide an extensive deep-dive in both historical background and future development scenarios of the global energy sector in the context of energy transition trends, as well as specific reflection of these trends in hydrocarbon resource-rich countries like Russia.

The course is fit for those who wish:

1. to understand what Energy transition is about and how it affects the energy companies;
2. discuss specifics of energy transition process in various countries, including hydrocarbon resource-rich nations;
3. hear opinions about the future of energy sectors from company leaders and industry experts;
4. learn how Energy transition disrupts business models of industry incumbents and which transformations they have to implement in order to keep its competitive leadership positions.

Topics to be Addressed in the Course

- Definition and drivers of Energy transition
- Key technological innovations influencing the future of energy
- Climate change, decarbonization and sustainable development
- Development of renewable sector and its impact on the whole energy system
- Role of natural gas and consequences for coal-fired generation
- Potential of hydrogen and other emerging technologies
- Impact on business models of traditional energy companies and emergence of new players
- Global energy scenarios up to 2040

Course Format

The course will be delivered online through three key educational formats.

1. Synchronous online sessions
 - Seven sessions in total including opening and closing webinars and five sessions during the course.
 - Recordings of these sessions will be available for those who will not be able to join in-person.
2. Individual asynchronous work
 - Course materials including video lectures, cases, pre-recorded interviews with experts, individual tasks, etc.
 - Plan for 2-3 hours of work in this format per each of five days of the course.
 - Assigned materials shall be reviewed between Synchronous online sessions.
3. Work in mini-groups
 - Each participant will be assigned to one mini-group of 5-7 people.
 - Mini-group formation will be done taking into account time difference.
 - Mini-groups will work on the following group assignments:
 - Preparation for the COP country meeting on climate;
 - Preparation of recommendations for a particular company (mini-group's recommendations will be presented to peers from other mini-groups at the end of the course).

Total time required to complete this course (in all formats) is estimated between 22 and 25 hours.

Pre-Modular Assignment

A list of publications on the topic of energy transition will be suggested prior to joining the course.

Assessment

In order to complete this course and get a “Complete” mark a participant should:

- Participate in at least 4 out of 5 synchronous online sessions.
- Complete all of the assignments.

Faculty and Experts



IRINA GAYDA

DIRECTOR, ENERGY CENTER
MOSCOW SCHOOL OF BUSINESS SKOLKOVO

Irina was born in Saint-Petersburg and graduated from Economics Department of St. Petersburg State University in 1996, specializing in mathematical modelling in economics.

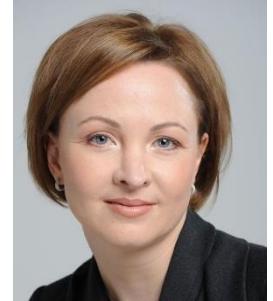
In 1999 she obtained ACCA certification and Russian auditing license certificate.

In 2003 she received MBA from Harvard Business School, Boston.

After joining SKOLKOVO in 2020, Irina is in charge of business development, research and educational activities of the Energy Center and leads research on “Decarbonisation in oil and gas industry”, “Modelling of climate and climate policy impacts on social-economic development on regional and national level”.

Prior to SKOLKOVO, for over 15 years Irina worked in strategy consulting in oil and gas, leading energy practice of The Boston Consulting Group and PwC Strategy& in Russia. Irina focused on strategy, innovations and corporate venture funds, operational efficiency, organizational and digital transformation and worked with CEO level counterparts in largest Russian and international oil and gas companies. Moreover, Irina was actively involved in research agenda of BCG and was in charge of recruitment for Moscow office.

Prior to Harvard MBA, Irina progressed from junior auditor to project manager in PricewaterhouseCoopers and United Technologies Corporation, working with industrial companies in over 15 countries.



TATIANA MITROVA

PROFESSOR / HEAD OF RESEARCH, ENERGY CENTRE
MOSCOW SCHOOL OF MANAGEMENT SKOLKOVO

Scientific advisor at the Energy Research Institute of the Russian Academy of Sciences (ERI RAS), Research Scholar at the Center on Global Energy Policy at Columbia University, Senior Visiting Research Fellow of the Oxford Institute for Energy Studies (OIES), Associate Research Fellow at Russia/NIS Center in Institut Francais des Relations Internationales (IFRI), Distinguished Research Fellow at Institute of Energy Economics, Japan (IEEJ).

More than twenty years of experience in the analyses of the Russian and global energy markets, including production, transportation, demand, energy policy, pricing and market restructuring.

Head of the annual “Global and Russian Energy Outlook up to 2040” project.

Board Member of «Schlumberger NV».

Dr. Mitrova is a graduate of Moscow State University's Economics Department. Visiting Professor at the Institut d'Etudes Politiques de Paris (Sciences Po) Paris School of International Affairs.

She has more than 120 publications in scientific and business journals and four books.



ALEXEY KHOKHLOV

HEAD OF POWER AND UTILITIES RESEARCH, ENERGY CENTRE
MOSCOW SCHOOL OF MANAGEMENT SKOLKOVO

For over 12 years Alexey consulted major Russian and international utility, nuclear and oil&gas companies. Specialized in strategy development, operating model design, and large-scale transformation programs. Between 2009 and 2016 worked in Booz&Co joining as a Principal and in 2013 was elected to Partner. From 2005 to 2009 worked in Accenture.

Alexey graduated from Saratov State University majoring in applied mathematics. Holds Master of Business Administration degree (Technology Track) from University of Wyoming.

At SKOLKOVO Energy Centre focuses on the following topics:

- Current state, barriers and future potential for renewable energy globally and in Russia
- Business model transformations for power&utility companies
- Utilities operational excellence

Regularly comments on the current energy issues in national business media and presents at various industry events. Co-authored several research publications and viewpoints including «Market liberalization and decarbonization of the Russian electricity industry: perpetuum pendulum», «Distributed Energy Resources in Russia: Development Potential», «Coal-fired generation: new challenges and opportunities», «Developing and Emerging Nuclear Countries: Expected Role in the Global Nuclear Marketplace Post-Fukushima» and others.



SERGEY VAKULENKO
HEAD OF THE STRATEGY AND INNOVATION DEPARTMENT
GAZPROM NEFT

Sergey has been the Head of the Strategy and Innovation Department of Gazprom Neft since December 2011. Sergey is in charge of strategy, long-term planning, development of long-term scenarios of the global economy and the energy industry, market and competitive environment analysis, development and implementation of the company's innovative development program.

Prior to joining Gazprom Neft, Sergey founded and developed the consulting practice of IHS CERA in Russia, advising Russian and international oil and gas companies and government agencies on strategy and energy policy issues.

Sergey began his career at Shell, where from 1998 to 2008 he worked as an economist, led planning and commercial activities on various projects in the Netherlands, Great Britain, Russia, Japan, Brazil and Kazakhstan.

Sergey graduated from the Moscow Institute of Physics and Technology, where he received a master's degree in applied mathematics, and also has a master's degree in law and diplomacy from the Fletcher School of Law and Diplomacy (a joint program of Tufts and Harvard Universities).

Learning facilitators



Yury Melnikov
Power and Utilities Senior Analyst, Energy Centre, Moscow School of Management SKOLKOVO



Ekaterina Grushevenko
Oil and Mobility Senior Analyst, Energy Centre, Moscow School of Management SKOLKOVO



Sergey Kapitonov
Gas Analyst, Energy Center, Moscow School of Management SKOLKOVO



Anastasia Perdereau
Internet of Energy Project Manager, Energy Centre, Moscow School of Management SKOLKOVO



Konstantin Merkulov
Senior Strategy Manager, Moscow School of Management SKOLKOVO

Irina Gaida, Tatiana Mitrova and Alexey Khokhlov also serve as Learning Facilitators

Expert Interviews

Sergey Chebotarev
Vice-President for Energy, NLMK

Anatoly Chubais
Chairman of the Executive Board, Rusnano

Vladimir Drebentsov
ex-Chief Economist for Russia and CIS, BP

Bassam Fattouh
Director, Oxford institute for energy studies

Roland Roesch
Deputy Director, IRENA Innovation and Technology Center

Anna Romanovskaya
Director, Institute for Global Climate and Environment

Adam Sieminski
President, KAPSARC

Jonathan Stern
Distinguished Research Fellow, Natural Gas Research Programme, Oxford institute for energy studies

Jürgen Trittin
German Green politician, served as Federal Minister for the Environment, Nature Conservation and Nuclear Safety

Vladimir Tuzov
Chief Strategy Officer, SUEK

Michael Yuklin
Director General, Environmental Investment Center

Kirsten Westphal
Head of Project „Geopolitics of Energy Transformation 2030 (GET 2030)“

Laszlo Varro
Chief Economist, IEA

Program Team and Contacts

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