

GNAM GLOBAL NETWORK WEEK FOR EXECUTIVE MBA STUDENTS

MOSCOW SCHOOL OF MANAGEMENT SKOLKOVO

June 8-12, 2020

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. Students will receive a view on macroeconomic background, geopolitics and sanctions shaping current environment. They will also understand formal structure and governance of the Russian oil and gas industry, as well as informal balance of power between main actors. The course will address the topics of Russian energy exports and intricate interplay with other regional stakeholders - such as Ukraine and Central Asian countries.

Topics to be Addressed in the Module

- 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
- Global energy scenarios up to 2040
- Challenges and opportunities for green energy technologies in the resource-rich countries (based on Russia`s example).
- Fundamentals of Russian and FSU energy markets (including oil&gas as well as new energy)
- Impact on business models of traditional energy companies and emergence of new players

Module Format

The module will include classroom-based interactive sessions and cases discussion, simulations, subject matter expert presentations, company site visits and project work. In addition, participants will have plenty of networking opportunities and a chance to experience Russian rich cultural and historical heritage.

Project Work

Participants will be split into several groups. Each of the groups will be given a task to recommend certain policies and actions for one of resource rich countries in order to diversify its energy sector and transition to low-carbon economy. Results will be presented to SKOLKOVO panel of experts on the last day of the program. Program will have dedicated time slots for the groups to work on their project assignments and moderators supporting the groups in their work.

Pre-Modular Assignment

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

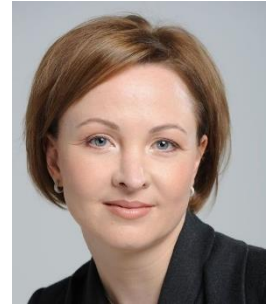
Assessment

Participants will be assessed at the end of the module based on project work results by the SKOLKOVO panel of experts. Projects teams will deliver a 15-minute presentation followed by 7-minute Q&A session from the panel members.

The following criteria system will be used to assess project presentations:

1. Completeness of analysis (20%) – all key aspects of the problem being addressed are adequately covered.
2. Soundness of arguments (20%) – all proposals are justified and supported by evidence.
3. Feasibility of implementation (20%) – suggested policies and actions are possible to implement, risks and barriers are covered and mitigations are described.
4. Teamwork and contribution (20%) – each other team members having a role in the project work and presentation of results.
5. Presentation effectiveness (20%) – storyline is logical, slides are easy to understand and timing limits are fulfilled.

Faculty and Experts



TATIANA MITROVA

CENTRE DIRECTOR/PROFESSOR, 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

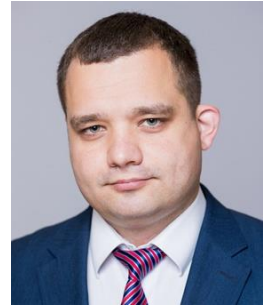
For over 12 years Alexey consulted major Russian and international utility, nuclear and oil&gas companies. Specialized in strategy development, operating model design, and large-scale transformation programs. Between 2009 and 2016 worked in Booz&Co joining as a Principal and in 2013 was elected to Partner.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



YURIY MELNIKOV

SENIOR ANALYST ON POWER AND UTILITIES, ENERGY CENTRE MOSCOW SCHOOL OF MANAGEMENT SKOLKOVO

For over 12 years Yuriy was involved in engineering and consulting services in Russian electricity and industry sector. Specialized in energy efficiency, power generation, technical due diligence, technical supervision under investment projects, marketing and business development. Between 2010 and 2017 worked in Russian branch of international company FICHTNER GmbH & Co KG (headquarter in Stuttgart, Germany) and EF-TEK LLC (headquarter in Moscow, Russia) as Deputy CEO on Business Development.

Yuriy graduated from Ivanovo State Power University majoring in Mechanical engineering & Power generation (2006, Dipl.Eng. with Honors) and Economics (2005, Bachelor). Holds PhD degree (Fossil-Fueled Power Generation track) from Ivanovo State Power University (2009).

At SKOLKOVO Energy Centre focuses on the following topics:

- Technological efficiency in fossil fueled power generation
- Energy Transition in Russian energy sector
- Engineering business development in the electric power industry
- Hydrogen Economy

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 «Distributed Energy Resources in Russia: Development Potential», «Coal-fired generation: new challenges and opportunities», «Hydrogen Economy: a path towards low-carbon development», «Energy transition in Russia» 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).



VLADIMIR TUZOV
CHIEF STRATEGY OFFICER
SUEK

Vladimir Tuzov has been SUEK's Chief Strategy Officer since August 2015. Vladimir began his career in 2001 as a production planning engineer for Pechiney, an aluminum company in France. Over the next five years he held various managerial roles in production, marketing, and supply-chain management for non-ferrous and ferrous metallurgical companies in France, Russia, Guinea and Ukraine.

Between 2007 and 2013, Vladimir worked for The Boston Consulting Group (BCG) in Russia and the US. At BCG, he provided consultancy services to financial institutions, heavy industry, mining, automotive and processing companies.

From 2013 until 2015, Vladimir worked at pulp and paper company Ilim Group as Deputy CEO for Strategy and Product Management, and served on the Board of Directors of Ilim Gofra.

Vladimir graduated from Bauman Moscow State Technical University, majoring in Biomedical Engineering. He holds a Master's degree in Industrial Management from Ecole Centrale Paris and an MBA from Wharton Business School (University of Pennsylvania).



VLADIMIR DREBENTSOV
CHIEF ECONOMIST FOR RUSSIA AND CIS
BP

Vladimir's core responsibilities at BP comprise economic and energy research, and policy advice in the countries of the former Soviet Union.

Mr. Drebensov also covers European gas markets, global oil and gas reserves and gas trade for BP Statistical Review of World Energy and BP Energy Outlook.

Since 2010, Vladimir has assumed Vice-President role at BP Russia. Mr. Drebensov is a member of the Expert Council of the Government of Russia.

Prior to joining BP in 2006, Mr. Drebensov had worked as Senior Economist at the World Bank (1993-2006) and as Senior Research Fellow at the Institute for US and Canadian Studies, Russian Academy of Sciences (1982-1993).



IGOR BASHMAKOV
EXECUTIVE DIRECTOR
RUSSIAN CENTRE FOR ENERGY EFFICIENCY

Igor is one of the leading Russian experts in the development and implementation of energy efficiency policies. He has significant experience implementing energy-related projects as part of Center for Energy Efficiency (CEE) team across various regions of Russia.

Igor also has 15-year experience in reforming housing and public utilities, intergovernmental relations and municipal policy, and in forecasting energy consumption in the regions of the Russian Federation.

He is engaged in the development of the federal and regional legislation, programs and policy on energy saving, reforming of housing and public utilities and inter-budgetary relations.

From 1973 to 1978, Igor studied at the Department of Economic Cybernetics, the Faculty of Economics of the Lomonosov Moscow State University (qualification Economist-Mathematician). Igor holds a PhD in Economics degree.

Author or co-author of 18 books, including “Heat, Money and Housing Reform”.

In 2000, for the work on the development of the institutional framework for energy efficiency policy in Russia, he received the international Climate Technology Leadership Award. Igor is a Nobel Peace Prize winner as a member of the Intergovernmental Panel on Climate Change (IPCC).



MIHAIL YULKIN
DIRECTOR GENERAL
ENVIRONMENTAL INVESTMENT CENTER

Mikhail is a Founder and a permanent Head of the Environmental Investments Center since 1999. Since 2009 he leads the climate change and greenhouse gas emissions management working group of the Committee on Ecology and Environmental Management of RSPP.

Mikhail is a permanent member of the Interdepartmental Working Group at Administration of the President of the Russian Federation on issues related to climate change and sustainable development. Since 2014 Mikhail is acting as the Deputy Chairman, Head of Expert (Advisory) Council of the Interregional Climate Development Working Group that develops strategies for the Russian segment of the Barents Euro-Arctic region.

Mikhail is a member of the Interdepartmental Working Group on Economic aspects of environmental protection and the regulation of greenhouse gas emissions under the Ministry of Economic Development of Russia. He is also a member of the Working Group on the pilot project implementation to reduce greenhouse gases emissions in Moscow.

Mikhail graduated from Moscow State University, specializing in Economic Cybernetics in 1983. In 1992-1993 he took a course of project preparation and analysis at the World Bank Institute in Washington (USA).

Mikhail is the author of numerous articles and other publications on greenhouse gas emissions management issues. He participated in preparation of the national Russian strategies in the field of climate change.

Program Team and Contacts

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