

Climate change and environmental protection: system approach of the Moscow Power Engineering Institute

Irina Putilova

**Centre for Science and Education “Ecology of Power Engineering“, National Research
University “Moscow Power Engineering Institute“, Russia**

Email: putilovaiv@mpei.ru

In my talk, I'm going to present about the long-term experience of the National Research University “Moscow Power Engineering Institute” in the field of climate change and environmental protection. It includes the results of research in this field carried out by different scientific teams for a 5-year period. In the course of the scientific activities of the teams, much attention is paid to the issues of changing natural and climatic conditions and the consequences of climatic changes, greenhouse gas emissions and models of the global carbon cycle, monitoring of emissions from energy facilities, etc. I'll briefly mention the international projects, universities and organizations with the representation of MPEI on climate and ecological issues. Teaching students in various disciplines of environmental orientation and ecological education of schoolchildren are also considered. One of the examples of the system approach realized in MPEI is based on the experience of the Centre for Science and Education “Ecology in Power Engineering”. For more than 20 years, the Centre has been working in research and additional professional education of employees of energy enterprises and industries. Much attention is paid to ecological issues and environmental technologies. The activities of the Centre include: R&D in the field of ecology and the best available nature protection technologies; training of employees of energy companies; development of educational, teaching, methodological and reference materials on this topic; creation and updating of information resources, as well as organization and holding of international conferences and seminars on ecological issues.



Bio: Associate Professor Irina Putilova joined the Moscow Power Engineering Institute (MPEI) in 1999; made Ph.D. in Engineering in 2004. For many years, Irina has been managing the Centre for Science and Education “Ecology of Power Engineering” of MPEI. Since 2018, she has been chairing the Board of the Housing Construction Cooperative for Scientific and Pedagogical Personnel of MPEI. This year, she became a member of the Public Council under the Federal Subsoil Resources Management Agency. Her research interests are: environmental protection legislation and technologies in power engineering, coal ash handling; information support of the nature protection activity of power utilities of the fuel and energy complex, housing and communal services and other branches of economy; professional development and retraining of employees of power utilities on Thermal Power Engineering and Electric Power Engineering. Irina is the winner of the competition for grants of the President of the Russian Federation for state support of young Russian scientists, 2005-2006; winner of the grant competition of the Russian Foundation for Basic Research, 2012. Since 2005, she has been a member of the World wide Coal Combustion Products Network (WWCCPN) and the European Coal Combustion Products Association (ECOBA). For many years, she has been administrating the Information System “The Best Available and Perspective Nature Protection Technologies in the Russian Power Industry” in Russian and English (<http://osi.ecopower.ru>). Irina was a Deputy Chair of the Organizing Committees of nine International Conferences and Workshops on Ecology of Power Engineering and Coal Ash handling in Russia and abroad. She has published more than 100 articles in the field of environmental problems of power engineering, ash and slag disposal systems at thermal power plants and training of personnel.