ЭНЕРГОЭФФЕКТИВНОСТЬ И РАЗВИТИЕ ВОЗОБНОВЛЯЕМЫХ ИСТОЧНИКОВ ЭНЕРГИИ В ЭНЕРГЕТИЧЕСКОЙ ПОЛИТИКЕ РОССИИ.

ENERGY EFFICIENCY AND RENEWABLE ENERGY DEVELOPMENT IN RUSSIAN ENERGY POLICY

Dr. Vladimir Likhachev

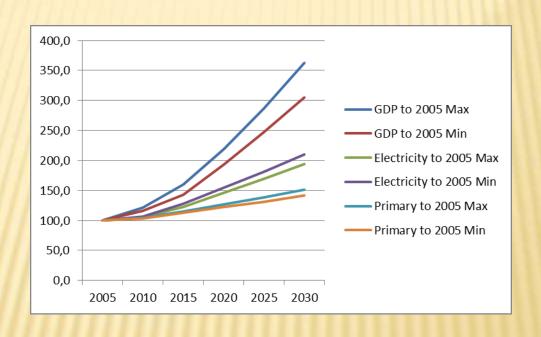
The Energy Research Institute of RAS (ERI RAS)



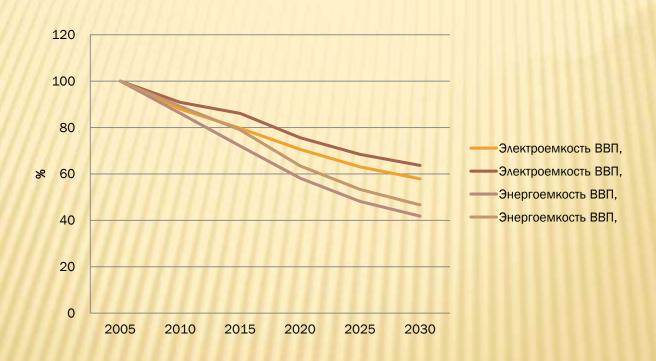
СОДЕРЖАНИЕ. AGENDA

- Prospects of Russia' energy consumption
- Role of energy efficiency for Russia' development
- Russia energy mix and a role of renewables
- Barriers for renewable energy development
- EC/Germany/Russia cooperation for renewable energy development

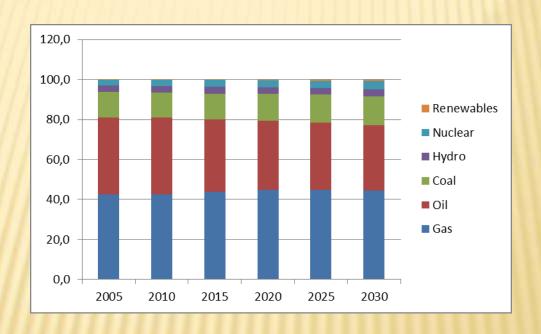
GROWTH OF GDP, ELECTRICITY AND PRIMARY DEMAND COMPARE TO 2005, %%



GDP ENERGY & ELECTRICITY INTENCITIES, % TO 2005



ENERGY MIX UP TO 2030, %



ELECTRICITY PRODUCTION BY RENEWABLES, MLN. KWT.H

	2000	2005	2006	2007	2008	2009	2010
Wind	2,9	9,6	8,4	6,6	5,2	3,9	4,2
Geothermal	58,2	396,4	462,6	484,7	464,6	464	474,9
Small Hydro	2672,7	2777,1	2548,4	2715,5	2867,7	3318,3	2846,0
Thermal Biomass	1816,9	2709,1	2910	2820	3122	2964,7	2995,0
Total Renewable Electricity	4550,7	5892,2	5929,4	6027,5	6460,2	6750,9	6320,1
Share in Total Electricity Production,%	0,52	062	0,64	0,6	0,62	0,68	0,62

GOVERNMENT DECREE

* Coals:

- + Share of Renewables in Electricity Production:
 - × 2010 1,5%
 - × 2015 2,5%
 - × 2020 4,5%

MAIN PROBLEMS/BARRIERS REGARDING RENEWABLES DEVELOPMENT

- Administrative institutional
- Legislative
- Economical
- * Technical
- × Informative

<u>But most important for investors – unstable</u> <u>legislative regime</u>

EC/GERMANY/RUSSIA POTENTIAL FOR COOPERATION

- Joint Implementation Projects for Renewables in Russia
- *** WINDTEC-BIONEC Projects etc.**
- × REA/FESCO and FNR/companies/centers relations

ERI RAS - RUSSIAN CENTER OF FUNDAMENTAL ENERGY RESEARCH

The Institute sees its mission in scientific substantiation of solutions to wide range of problems related to analysis and forecast of development of the Global energy sector and national energy policy of Russia;

- -development of industrial component of the energy sector, including electrical, gas, oil, and coal industry, alternative and renewable energy,
- increasing effectiveness of energy resources,
- -optimization of energy market,
- -developing methodology of pricing mechanisms in national energy complex,
- -optimization of taxation in energy related sphere,
- -interoperations between energy sector, economy and environment

ERI RAS RESEARCH IN ENERGY EFFICIENCY AND RENEWABLE ENERGY

- Energy demand forecasts
- R&D for energy production and consumption on global, national and regional levels
- Energy modeling
- Risk analysis
- Economy, energy, market, technologies data bases

THANK YOU FOR YOUR ATTENTION!

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