



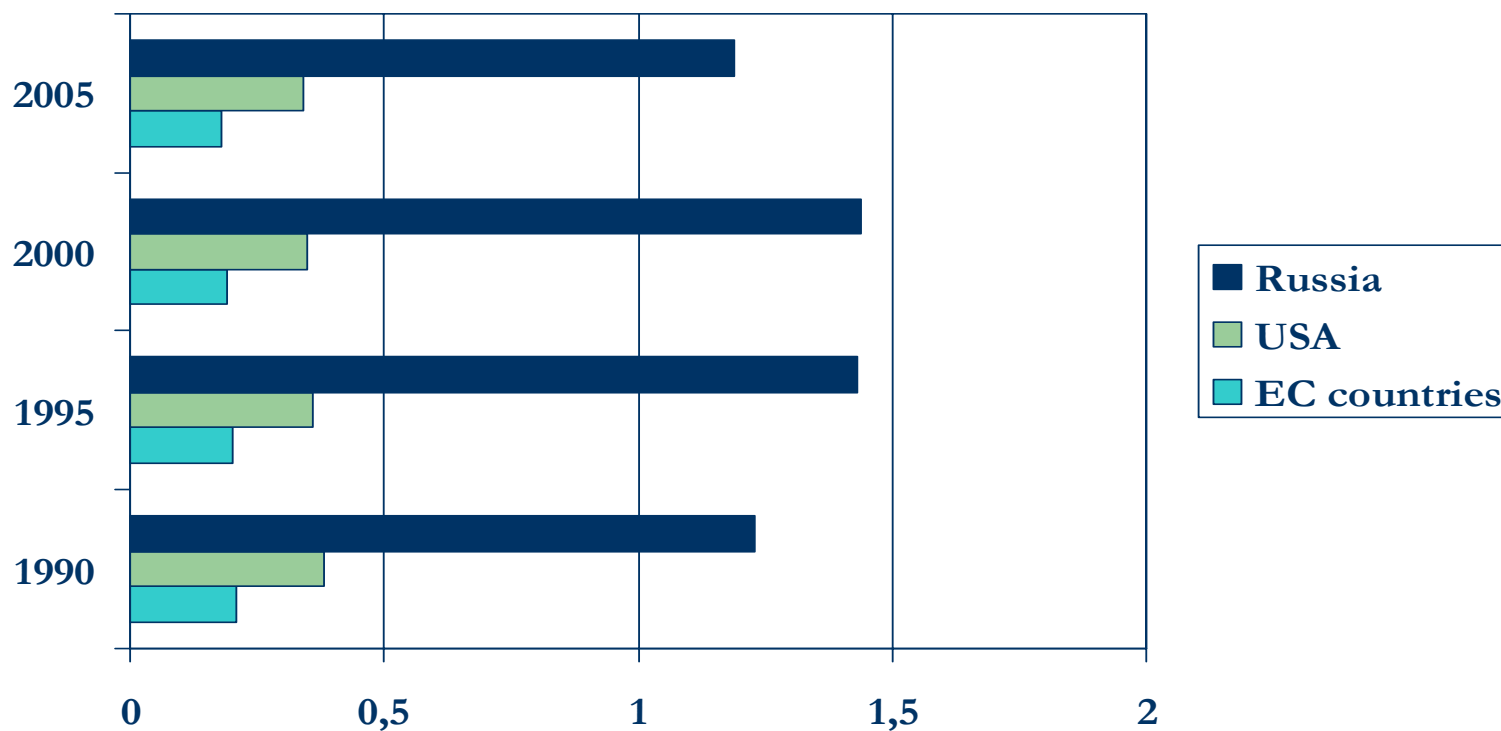
**ENERGY EFFICIENCY - 21 PROJECT
STEERING COMMITTEE MEETING, UNECE
Geneva, 30-31 May 2007**

**IMPLEMENTATION
OF ENERGY EFFICIENCY PROJECTS
IN RUSSIA
WITHIN THE FRAMEWORK
OF PUBLIC-PRIVATE PARTNERSHIP**

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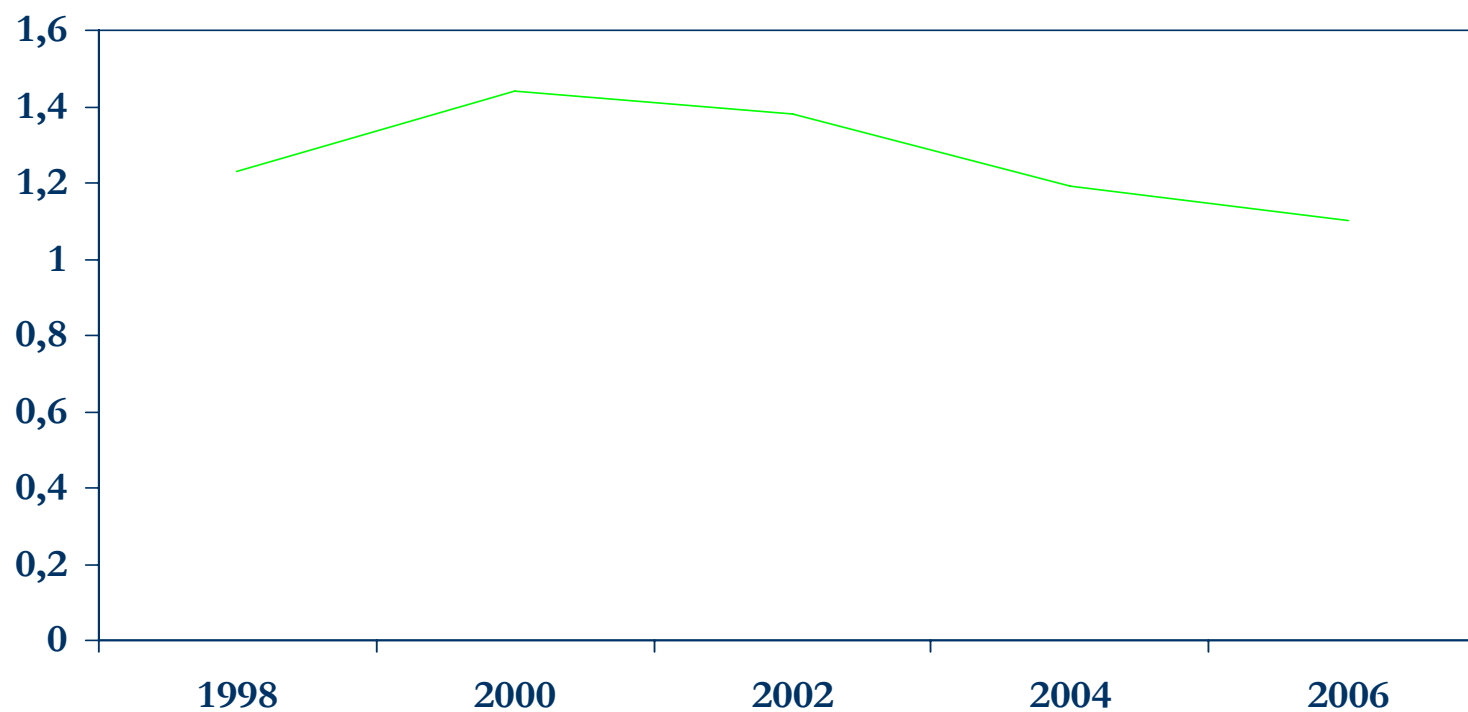


GDP Energy Intensity: the main world trends



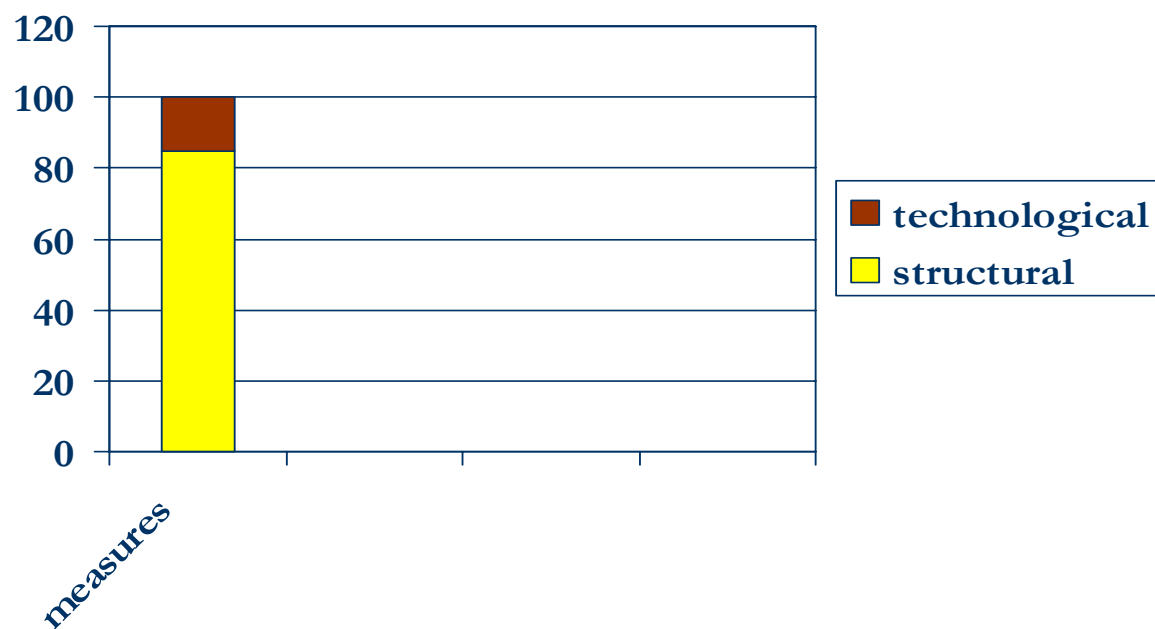


GDP Energy Intensity in Russia: the main trends





Ways of Energy Intensity Reduction





Energy Efficiency Policy – Levels of Implementation

- **Federal level** – Ministry of Industry & Energy and other governmental agencies
- **Regional level** – regional authorities
- **Industry Sector level** – businesses
- **International level** – bilateral and multilateral cooperation, cooperative programs and projects (GEF, WB, UNECE & others)



Instruments:

- **Special Federal R&D programmes:**
 - Energy & Energy Saving
 - Rational Environmental Management
- **International cooperation the field of science and technology**



National R&D programs

- R&D in Priority Areas of Science and Technologies for 2002-2006
- R&D in Priority Areas of the Russian scientific and technological complex for 2007-2012
- National technological basis for 2007-2011



Special R&D Programme for 2007-2012

- Knowledge generation
- Development of technologies
- Commercialization of technologies
- Institutional basis of R&D
- Infrastructure of innovative system



TYPES OF GOVERNMENTAL SUPPORT

- BUSINESS - R&D
- BUSINESS - COMMERCIALIZATION
- VIP-PROJECTS
- BUSINESS – INTERNATIONAL COOPERATION



Energy Efficiency:

- More efficient technologies for traditional sources of energy
- New types of energy & renewable energy
- Energy efficiency in the field of production, transport and use of energy



More Efficient Technologies For Traditional Energy Sources

- **EXTRACTION & PROCESSING:**
 - Enhancement of oil & gas field recovery (Slavneft)
 - Extraction of non-traditional resources (deep wells, bitumen sands, Arctic shelf)
 - Processing of associated gas (Tatneft)
 - LNG (Gazprom)

2007-2009, 150 mln. Rub per year (6 USD per year)



More Efficient Technologies For Traditional Energy Sources

- **ENERGY PRODUCTION:**
 - Use of coal combined with sequestration and CO₂ storage (SUEK, RAO UES)
 - Small-scale energy production (co-generation) (businesses)

2007-2009, 200 million roubles per year
(8 million USD per year)



New & renewable energy

- **BIOFUELS:**
 - fuels with ethanol additives
 - biodiesel fuels
- **BIOMASS:**
 - peletization
 - combustion for heat & electricity production

to be continued

2007-2009, 250 million roubles per year
(10 million USD per year)



New kinds of energy

- HYDROGEN ENERGY and FUEL CELLS:
 - H₂ production
 - H₂ storage
 - Fuel Cells
 - Hydrogen energy technologies
 - H₂-powered transport vehicles

2007-2009, 400 million roubles per year
(16 million USD per year)



Energy Efficiency

- Use of energy:
 - systems managing energy consumption (in regions)
 - efficient lightning systems

2007-2009, 450 million roubles per year
(18 million USD per year)



International Cooperation:

- International partnerships & multilateral international initiatives
- Bilateral cooperation
- Cooperation with International Organizations & Institutions



International Partnerships:

- Carbon Sequestration Leadership Forum (CSLF)
- International Partnership for Hydrogen Economy (IPHE)
- Methane to Markets Partnership (M2M)
- Global Bioenergy Partnership (GBEP)
- Renewable and Energy Efficient Projects (REEEP)



Multilateral International Initiatives:

- 3R initiative
- REN 21



Cooperation with International Organizations & Institutions:

- Global Environmental Facility
- World Bank
- UNECE



ENERGY EFFICIENCY PROJECTS IN RUSSIA:

- **GEF/UNDP PROJECT:**
«Capacity Building to Reduce Key Barriers to Energy Efficiency in the Russian Residential Building and Heat Supply Sectors»
- **GEF/UNDP PROJECT:** *«Standards and labeling to promote energy efficiency in Russia»*



ENERGY EFFICIENCY PROJECTS IN RUSSIA:

- **GEF/WB PROJECT:**
«Russian program for development of renewable energy sources»
- **UNF/UNFIP PROJECT:** *«Energy Efficiency Project Development for Climate Change Mitigation»*



ENERGY EFFICIENCY PROJECTS IN RUSSIA:

Regional Projects:

- **GEF/WB PROJECT:** *«Modernization of energy supply system at health-care facilities»*
- **GEF/UNDP PROJECT:** *«Energy Saving Measures in the Educational sector»*