

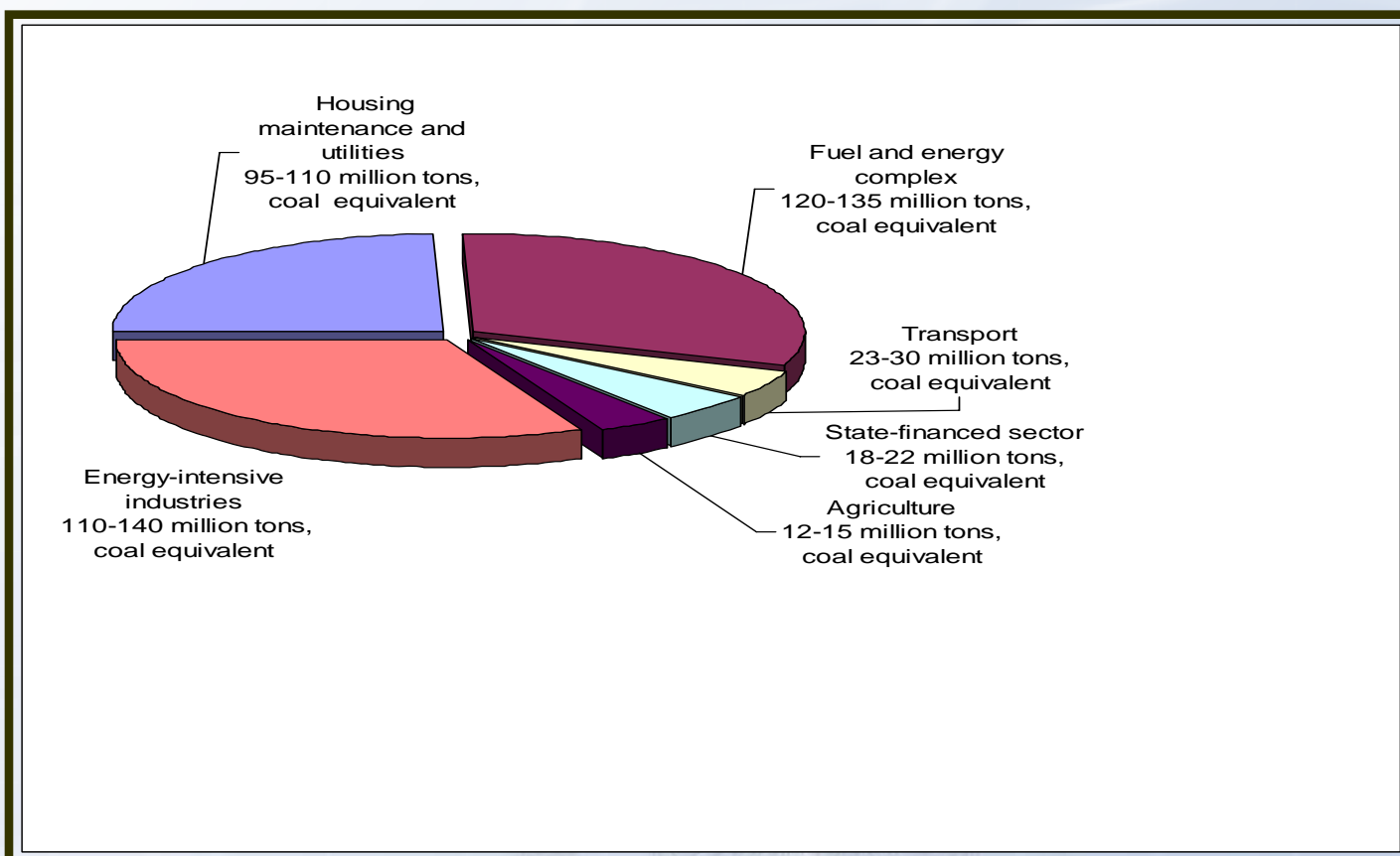


Energy efficiency, renewables and climate change in Russia

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Energy saving potential in Russia



Energy saving potential is 360-430 million tons, coal equivalent

or 39- 47 % current energy consumption, including:

- **33 % in Fuel and Energy complex (third in electric-power industry and in heating);**
- **32 % in industry;**
- **26 % in housing maintenance and utilities.**

Russia's Energy Strategy till 2020



Key objective is a most efficient use of the resources and industrial potential of the energy sector to ensure economic growth and improve the quality of life of the population.

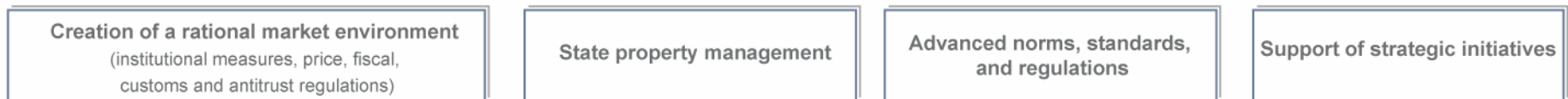
Strategic goals



Main components of the National Energy Strategy



Main tools of state regulatory policy



Perspectives of the energy sectors development



Inter-sectorial instruments and measures

Instruments type	Program description and goals	Realization Status	Expected results
The Civil Code of Russian Federation	Forms the rules for efficient resource use by legal and physical entities	Legislative	Double reduction of specific energy intensity of Russian economy (GDP) by 2020 in comparison to 2000
The Tax Code of Russian Federation	Forms price frames on energy carriers, which limit their expending	Legislative and finance	
The Custom Code of Russian Federation	Encourage the energy saving equipment use	Legislative and economic	
The Forest Code of Russian Federation	Forms the rules of the bio-resources use	Legislative	
The Town-planning Code of Russian Federation	Forms the basis for energy efficiency use in housing maintenance and utilities	Legislative	
Federal Law for Kyoto Protocol ratification	Forms the basis for greenhouse gas emissions limitations	Legislative	
Federal Law for Energy saving (previews financial support of energy saving programs)) Inter-sectorial approach (universal instruments)	Legislative	

Inter-sectorial instruments and measures

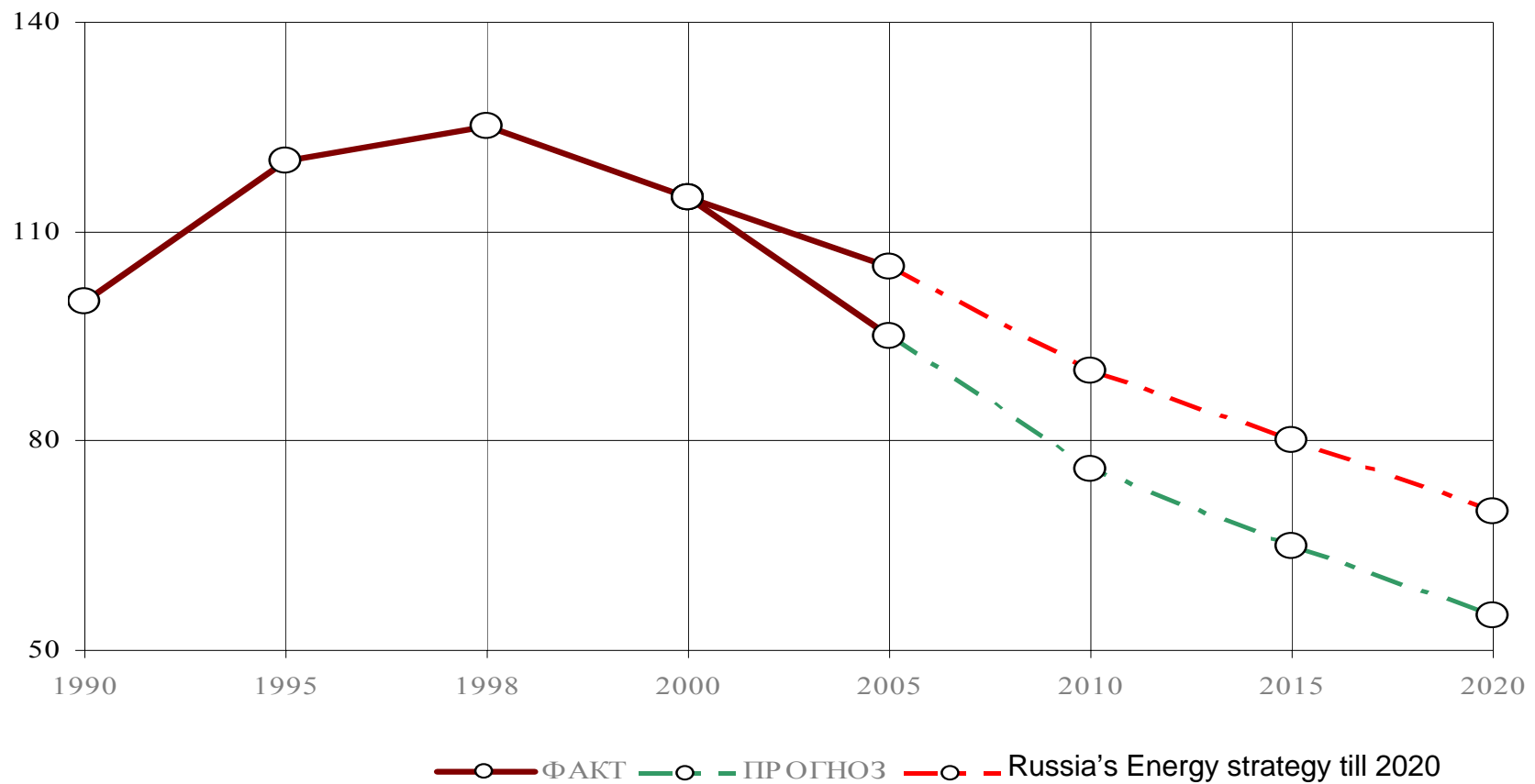
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The Federal target program “Energy Efficient Economy ” (determines main actions in energy saving and their federal budget support)	Inter-sectorial approach (universal instruments)Period: 2002-2006	Target	Double reduction of specific energy intensity of Russian economy (GDP) by 2020 in comparison to 2000
The Federal target program “Efficiency increase of energy consumption in the Russian Federation up to 2015” (project)	Contains measures of energy saving up to 2015	Target	
The Federal target program “Research and Developments within the Russia’s scientific and technological complex development priorities for 2007-2012”	Contains the tasks for energy saving applications	Target	
Regional energy saving programs (determine main actions in energy saving and their regional budget support)	Inter-sectorial approach (universal instruments)	Target	
State price policy (regulates price levels on the main energy carriers - electricity, heat energy and natural gas produced by monopoly companies)	Inter-sectorial approach (universal instruments)	Economic	
Normative measures (regulate energy consumption - construction norms and rules, of design norms, exploitation norms, etc)	Inter-sectorial approach (universal instruments)	Economic	
Market techniques (encourage energy saving and economy structural transformations).	Inter-sectorial approach (universal instruments)	Economic	

Energy Efficiency: Obtained and Forecasting Results

Dynamics of GDP's specific energy intensity of Russia %



As a result of present policy GDP's specific energy intensity- decline rate exceeds the guidelines of Russia's energy strategy of 2000-2006 (GDP's energy intensity has gone down by 23,5 %).

Renewables potential in Russia

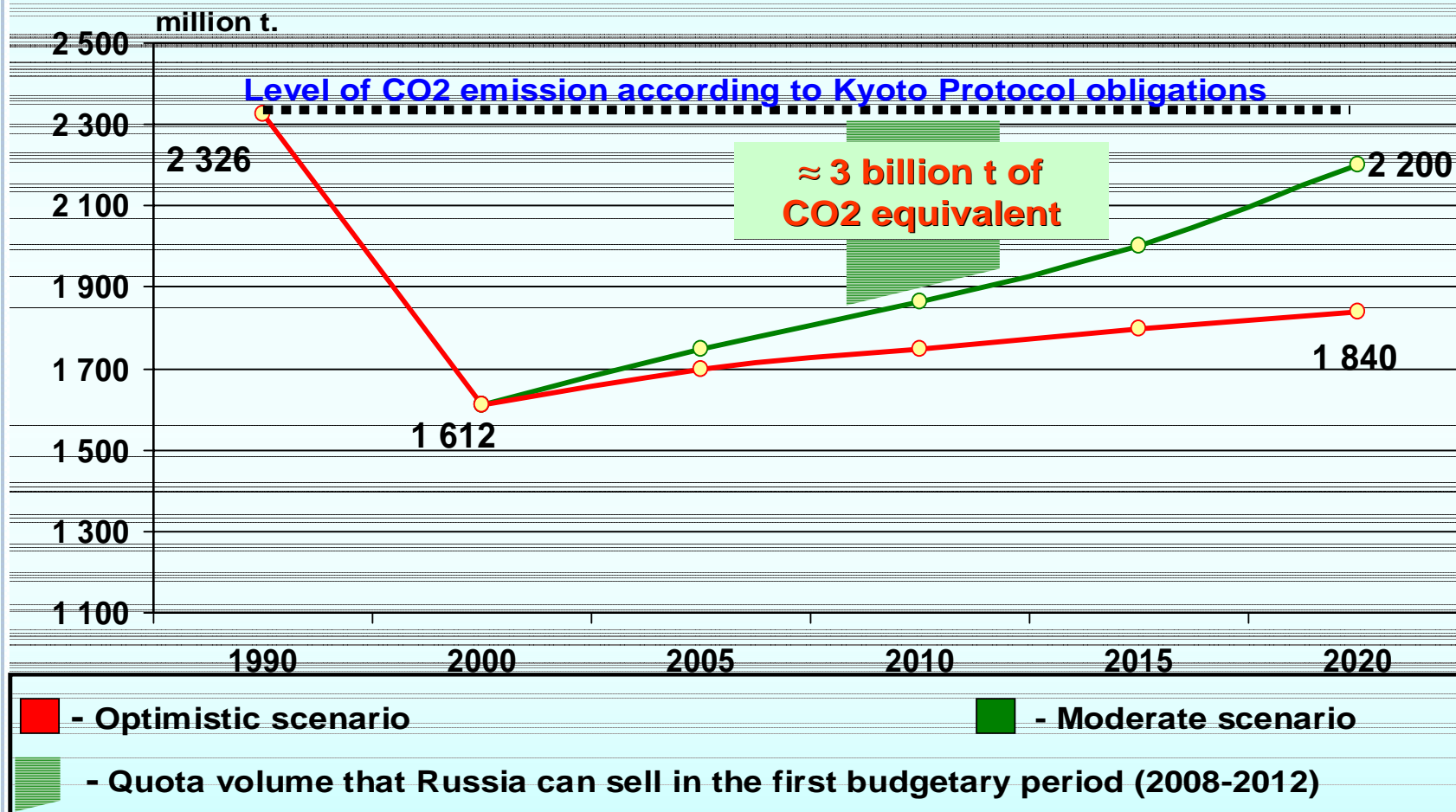
Type of renewable resource	Technical potential million toe per year	Economic potential million toe per year
Small hydro energy	88	49
Geothermal energy of initial development	—	80
Wind energy	1400	8
Biomass energy	37	5
Solar energy	1610	2
Low-grade heat	136	37
Total	3271	181

Share of renewables in Russia's internal energy consumption

	2000 report	2001 report	2002 report	2005 report	2010 forecast	2015 forecast	2020 forecast
Total final internal consumption (million toe*)	634,6	643	643,8	677,3	735	770	812
Electricity generation from renewables billion kilowatt-hour	4,3	4,7	5,0	6,5	10,0	15,0	24
Thermal energy delivery from renewables million Gkal	57,2	58,7	60,9	70	100	150	250
Fossil fuel replacement by renewables million toe	7,4	7,8	8,1	9,6	13,9	20,8	34,3
Share of renewables in primary energy resources consumption %	1,1	1,2	1,3	1,4	1,9	2,7	4,2

*- without firewood

Greenhouse gas emission dynamics





Thanks for your attention

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