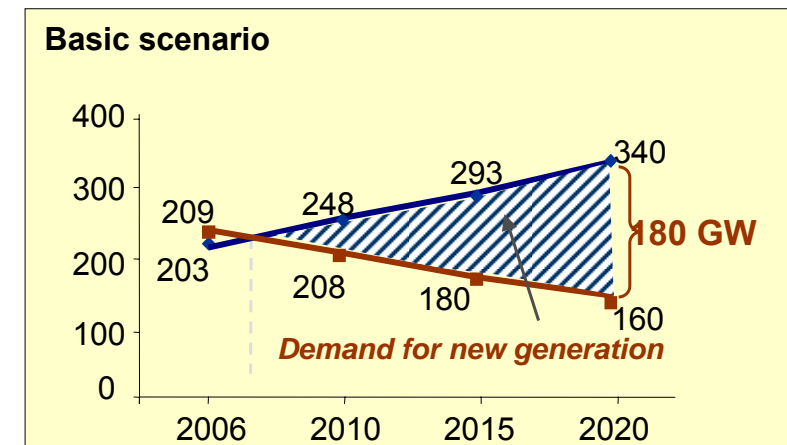
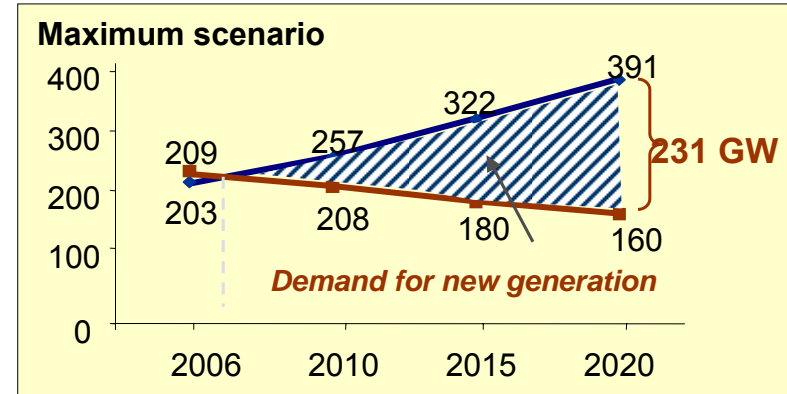
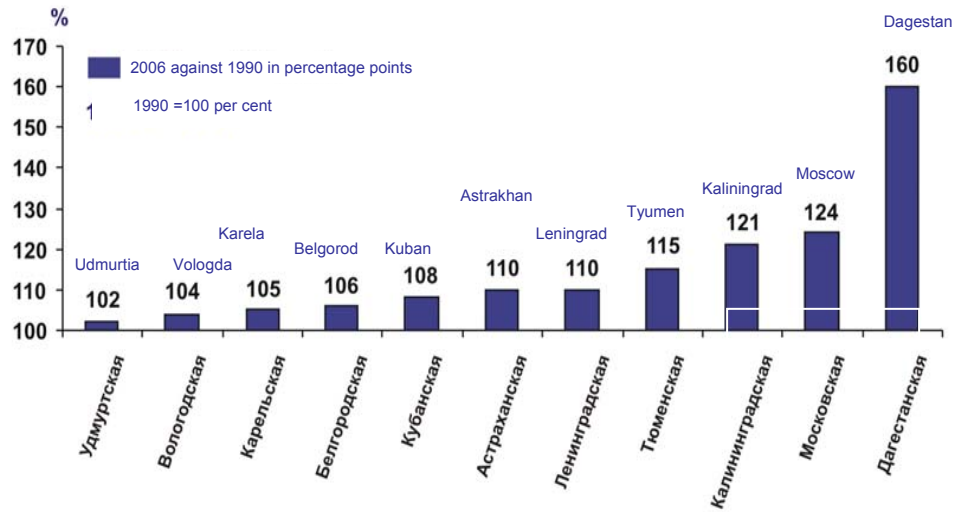


# PARTNERSHIP STRATEGY IN ANTICIPATION OF RENAISSANCE CHALLENGES

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*Petr Shchedrovitsky, Deputy Director, ATOMENERGOPROM  
6 September 2007, London*

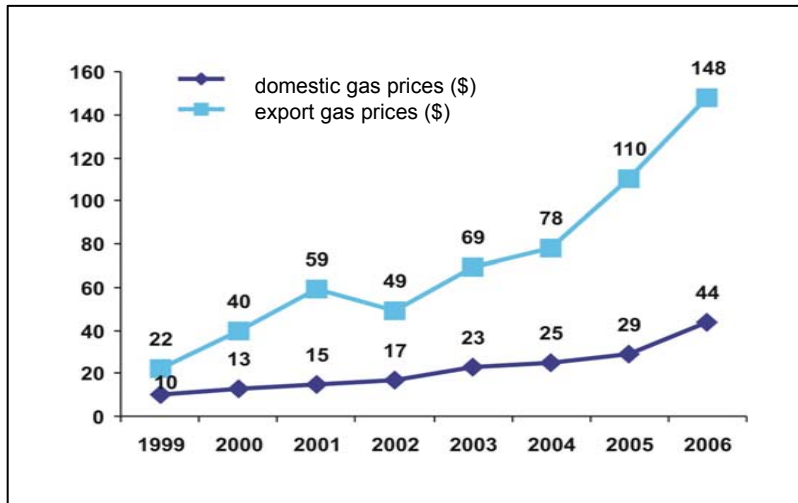
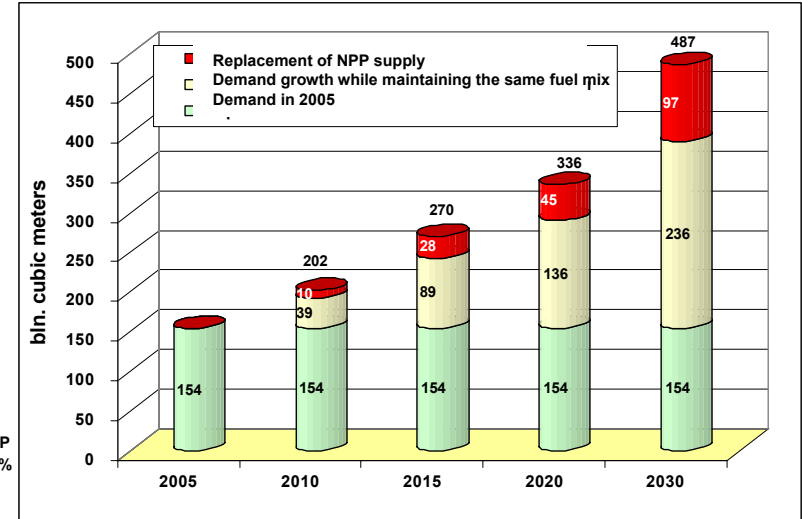
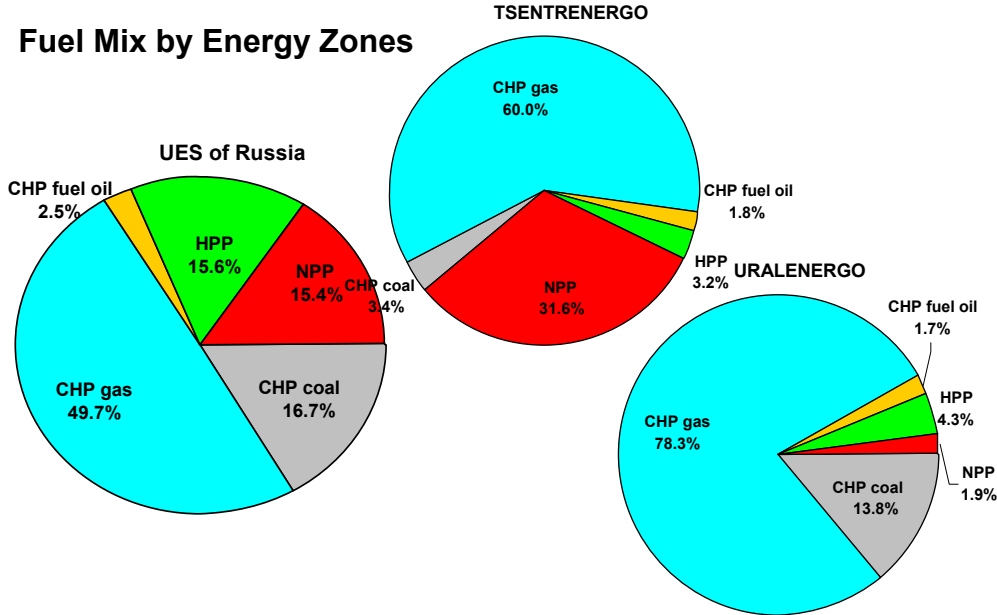
# RUSSIA: A NEED FOR POWER



Ongoing economic growth calls for an adequate development of energy sector infrastructure, while the fastest-growing regions suffer the most

# FUEL MIX MISMATCH

Fuel Mix by Energy Zones

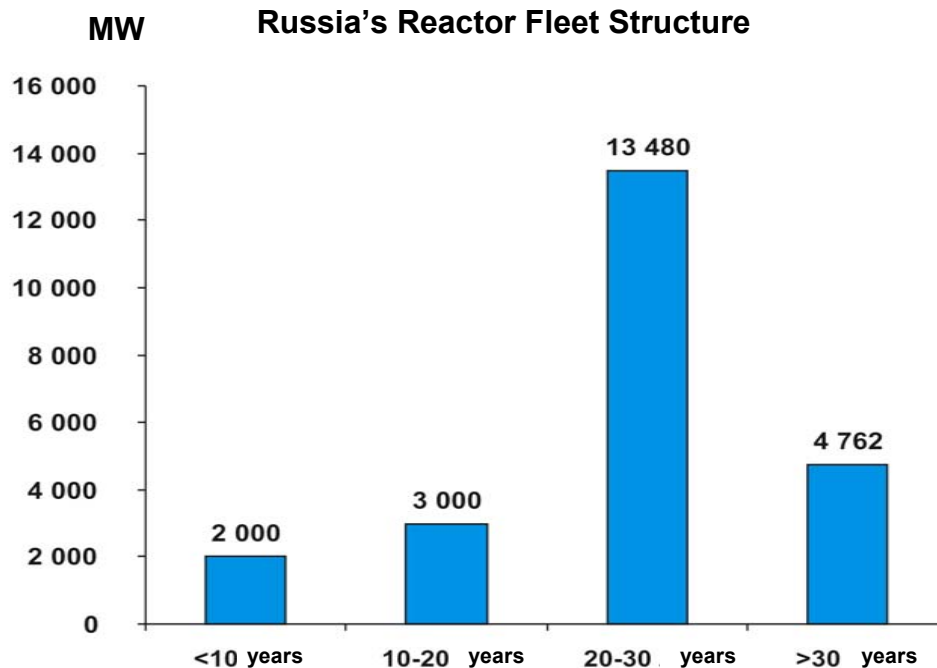


**Commissioning of new power plants, while keeping the same fuel mix, will result in a dramatic increase in the gas consumption. Higher generation efficiency may give certain effect, however it can not change values by a factor. Competitive balance among different types of generation would remain disturbed without the market-based gas pricing system.**

# DECISION ON NUCLEAR POWER

**October, 2006:**

The President and the Government of the Russian Federation made a decision on the generation development strategy for 2020, where provisions have been made to cut down natural gas share in the fuel mix by means of increasing respective roles of nuclear, hydro- and coal generation.

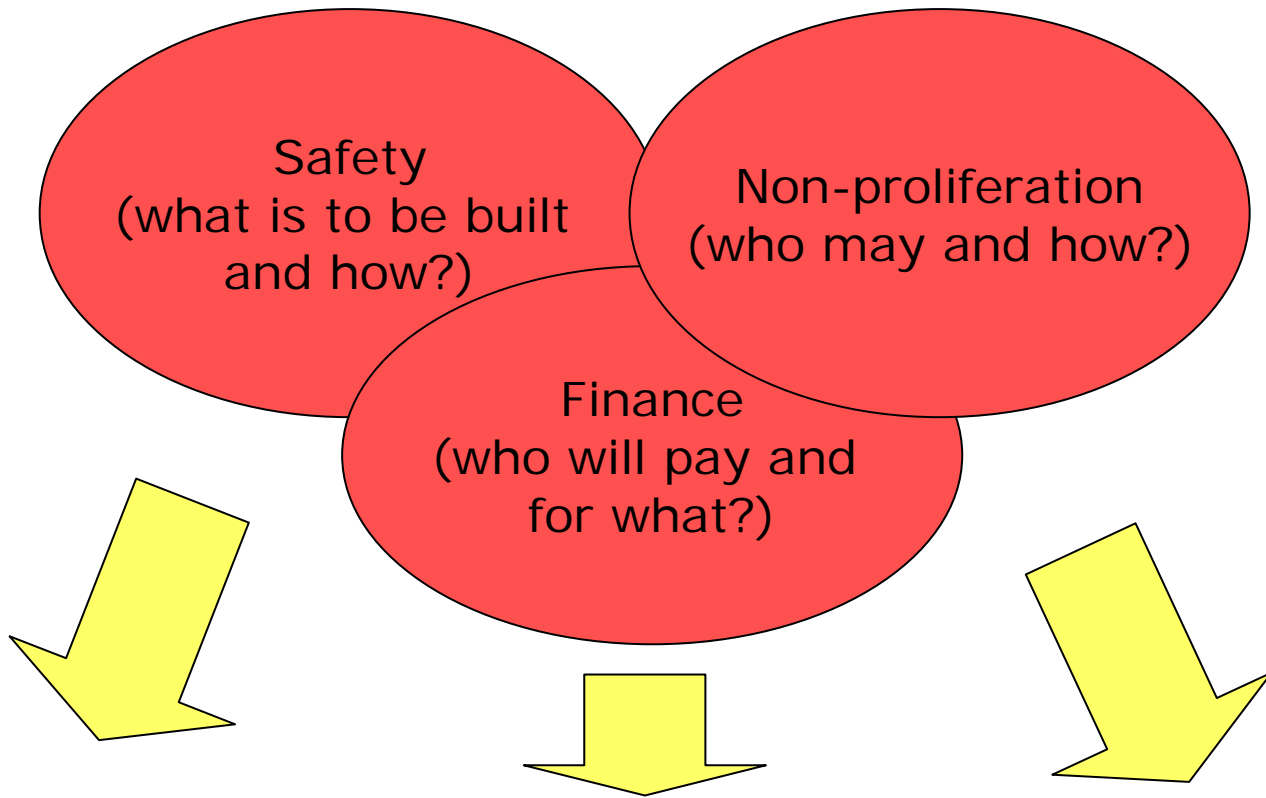


	Nuclear electric power generation, TWh	Share of electricity production, %
France	426.8	78
Germany	158.4	32
Japan	273.8	29
Spain	60.9	23
USA	788.6	20

**On average NPPs account for 38 per cent of electricity production in the developed countries**

# TURNING RENAISSANCE INTO REALITY

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# LEGISLATION

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**A federal law has been passed “On Specific Approach to Asset Management and Disposition of Shares for Companies in Nuclear Power Generation Complex” that covers the following:**

**Logic and sequence of the reform process in the civilian sector of the industry**

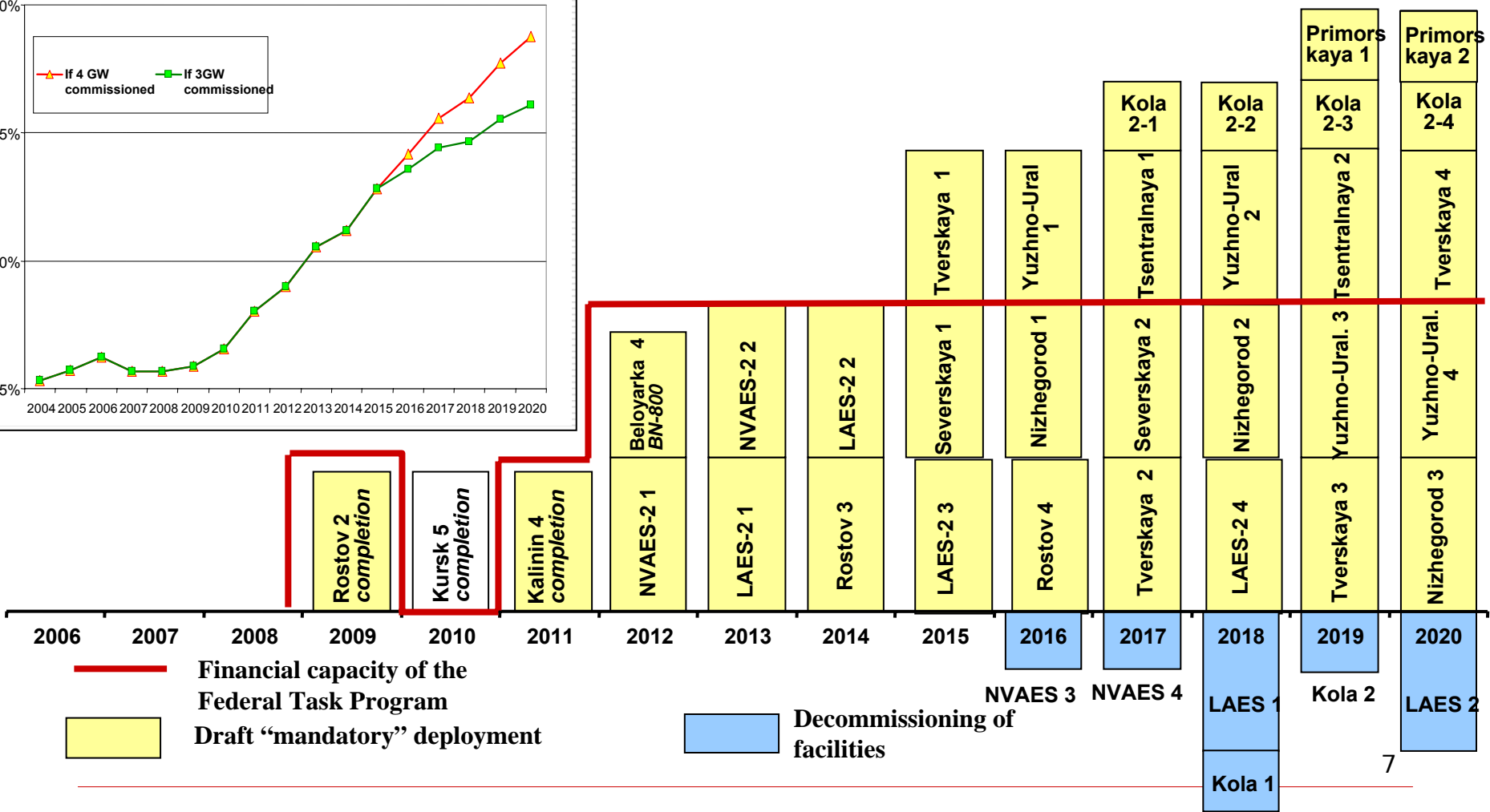
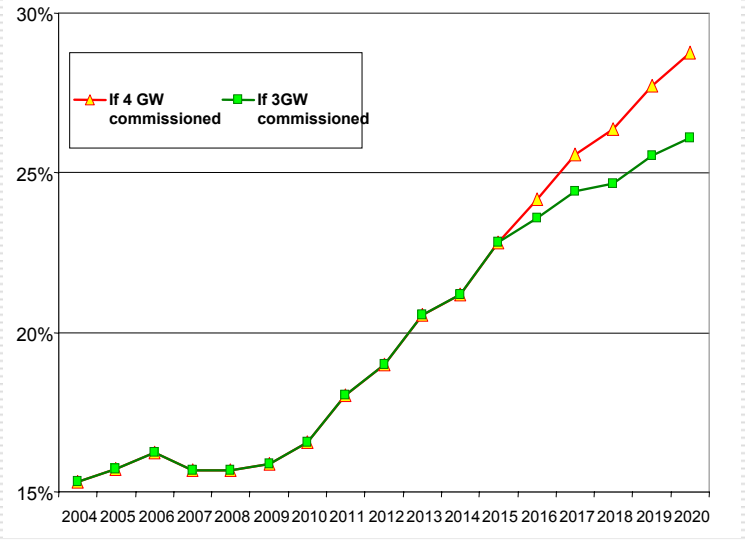
**Simplified incorporation of state-owned joint stock companies as well as federal state unitary enterprises, with subsequent integration of all civilian assets.**

**Establishment of the right for legal entities to own civilian nuclear materials, nuclear installations and nuclear material storage facilities.**

**Binding obligation on any legal entity, irrespective of the type of property or business, to comply with all requirements related to physical protection and safety, record-keeping and control, meeting international obligations, keeping state secrets; imposition of additional limitations on asset and property management.**

# GENERATION DEPLOYMENT SCHEME

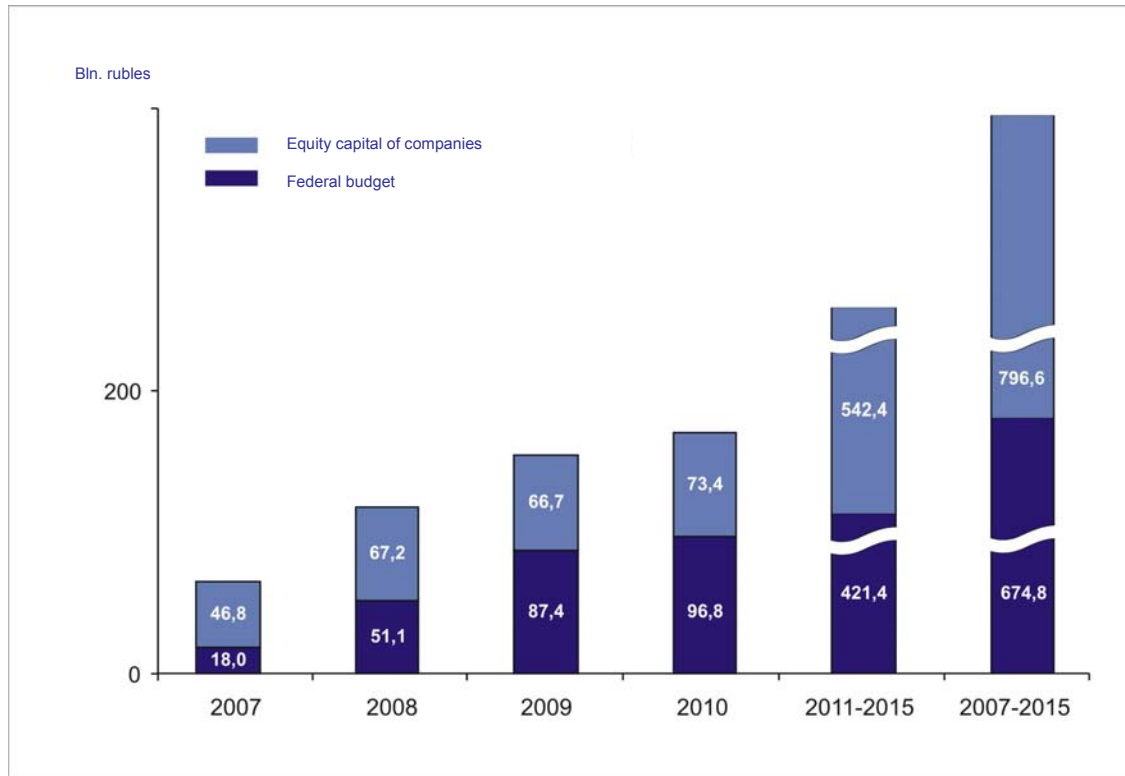
Nuclear generating supply contribution in Russia for different nuclear industry development scenarios



— Financial capacity of the Federal Task Program  
 Draft "mandatory" deployment

Decommissioning of facilities

# FEDERAL TASK PROGRAM ON NUCLEAR POWER DEVELOPMENT



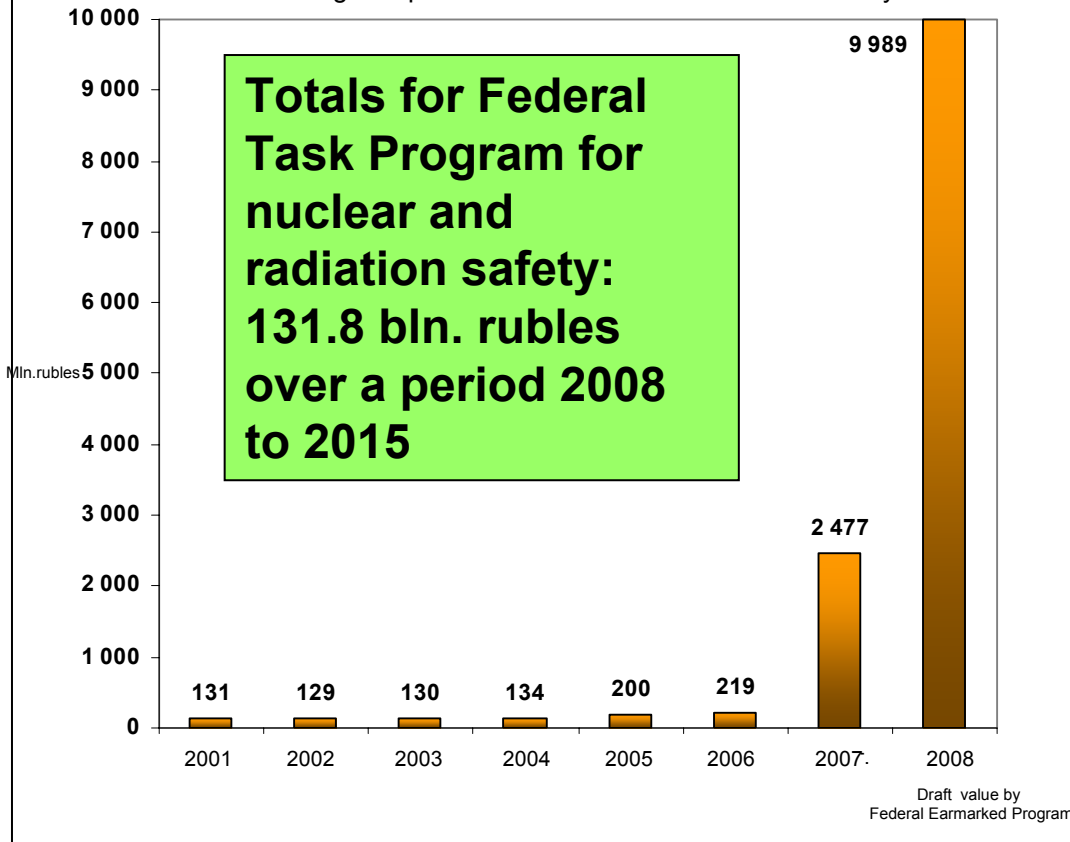
## *The program's objectives:*

- ✓ 10 power units with general installed capacity of over 11 GW
- ✓ Completion of Volgodonsk 2 and Kalinin-4
- ✓ Power unit with BN-800 reactor installation, with elements of closed nuclear fuel cycle
- ✓ Floating (mobile) nuclear power plant of small and average capacity (Floating Nuclear CHP)
- ✓ New mining facilities in Khiagda, Dolmatov, and Khokhlov natural uranium deposits
- ✓ Construction of new radioactive waste management facilities and SNF management facilities at operating nuclear power plants as well as construction of centralized dry storage facility at mining and chemical integrated works
- ✓ Operating life extensions for the first-generation power units

**Projected outcome: Provision for further development of nuclear power generation complex after 2015 with an ability to build not less than 2 power units per year without budget co-funding**

# NUCLEAR AND RADIATION SAFETY (NRS)

Federal Budget Expenditures for Nuclear & Radiation Safety



**Federal Task Program “Nuclear, Radiation, and Environmental Safety for 2008-2011 with Projections until 2015“ has been developed and approved by the Government.**

**2008-2010: 1 stage of activities in Federal Earmarked Program for Nuclear and Radiation Safety**

**Programs and Projects of Works for nuclear installations, updating of flow charts**

**National storage facility for SNF**

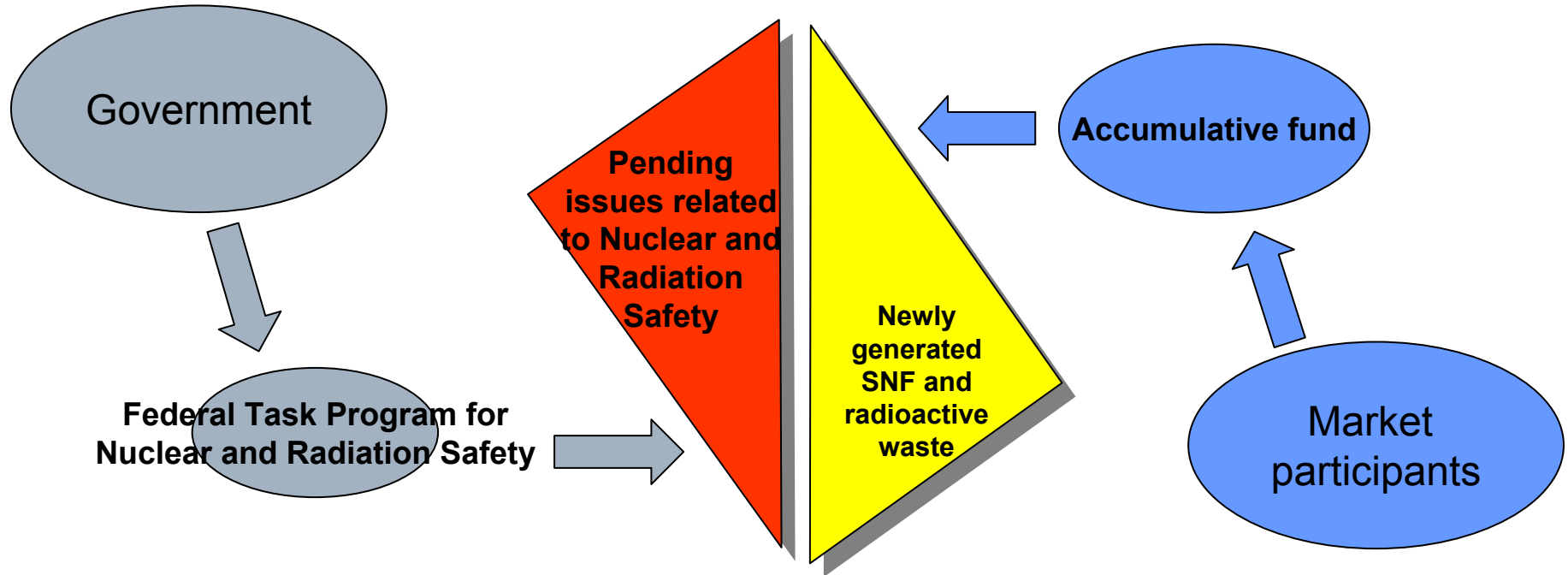
**Activities on priority projects (Mayak, GKKh mining and chemical integrated works, SCIP Siberian chemical integrated works)**

**Pilot demonstration installation for SNF reprocessing**

**Improvement of national systems for control, monitoring, transportation safety, and response to emergencies**

# TACKLING THE “LEGACY” AND NEW ISSUES

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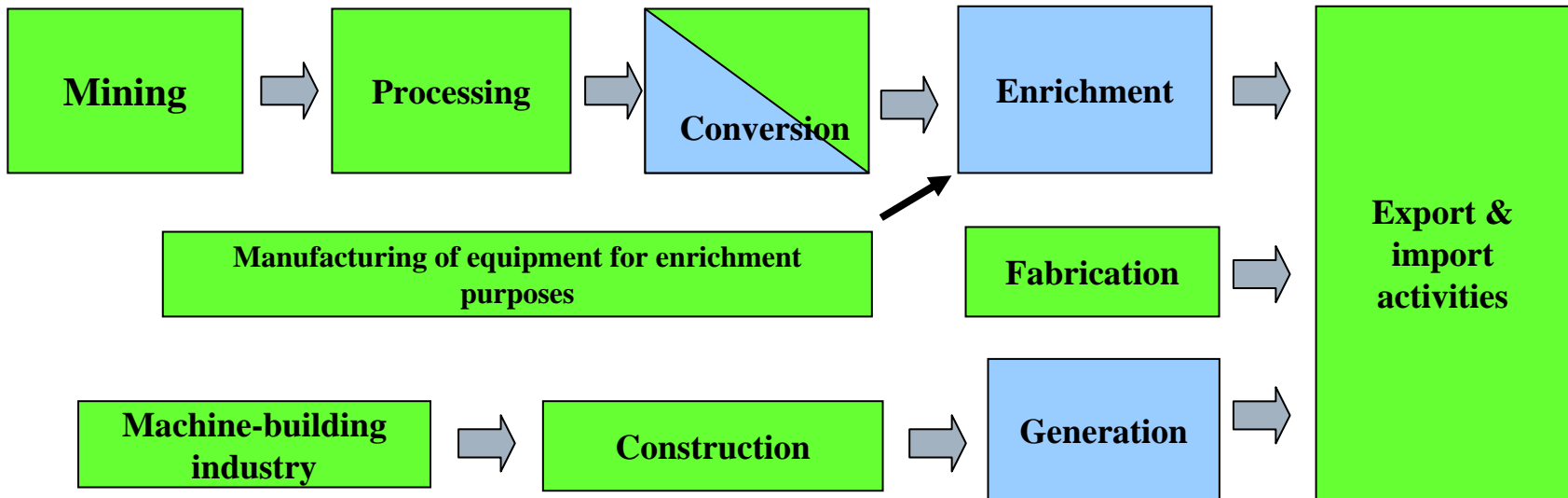
**Key objective: Shaping up nuclear and radiation safety management system:**

- concept in the full life cycle logic
- institutional model (sharing of responsibility between the government and market participants)
- financing vehicle (including the accumulative fund)
- national engineering infrastructure used for SNF management, radioactive waste management and decommissioning

# ASSETS INTEGRATION

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**Objective: In-line integration in the industry**



 - OAO (PLC)

 - FSUE (Federal State Unitary Enterprise)

# ATOMENERGOPROM

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