

# **Russian Electricity Reform: An IEA Perspective**

**International Association of Energy Economists**

**July 2004**

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# Context

## OECD REGULATORY REFORM REVIEW

- **Russia - 1st Non-OECD country to be reviewed**
- **Government regulatory capacity as well as 3 key sectors:**
  - Rail
  - Telecoms
  - **Electricity**
- **IEA has taken the lead on Electricity**
- **Timeframe – Publication**
  - IEA: late-2004
  - OECD: early-2005

# Proposed Reforms

## Goals & Objectives

- **Improving efficiency and transparency**
- **Promoting efficient investment**
- **Ensuring reliable electricity supplies**
- **The Russian Government has recognised that the achievement of these goals would be:**
  - “...impossible without changing the existing system of economic relations and immediate structural reform of the electric power industry...”

# Proposed Reforms

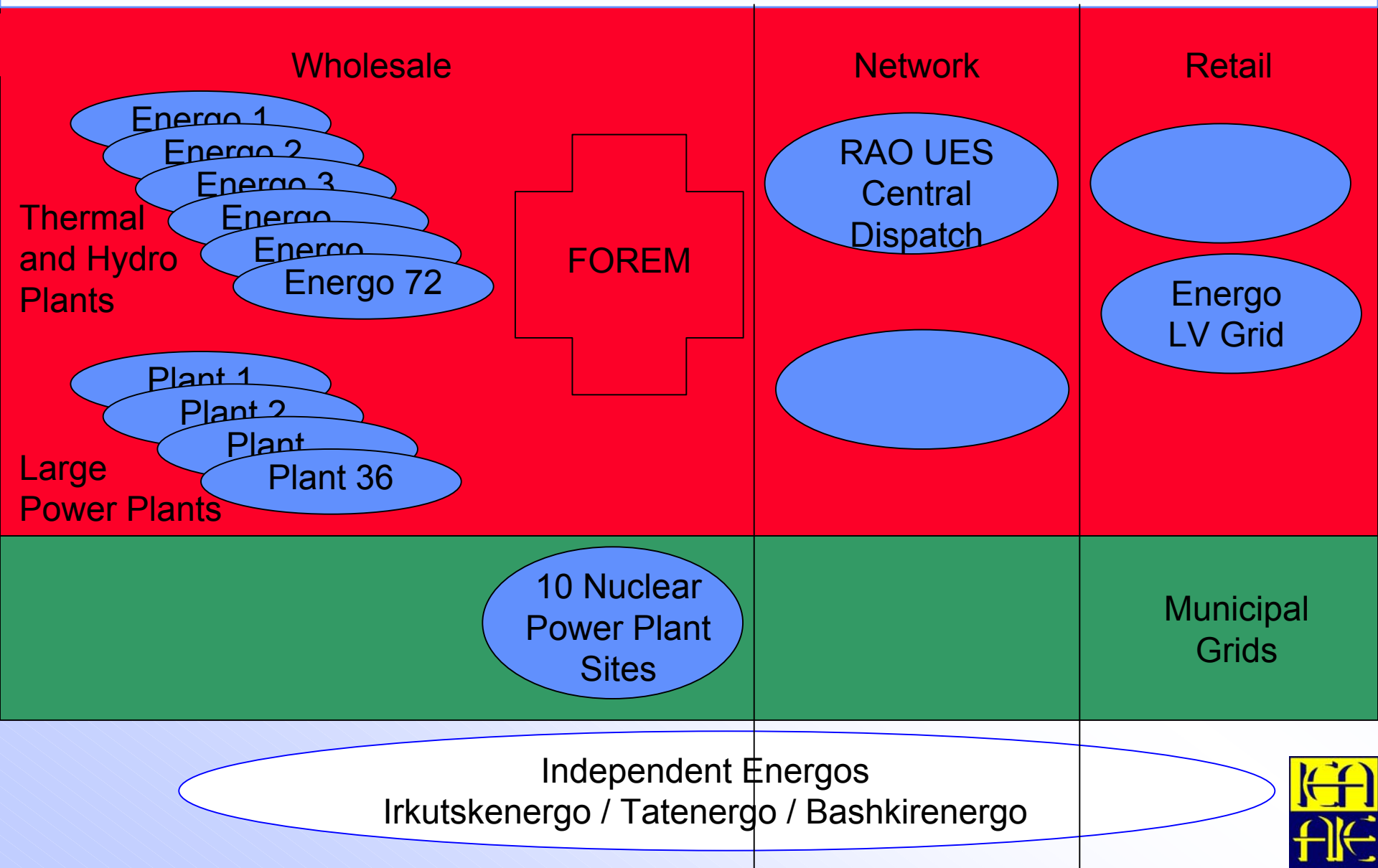
## Market Structure

- **Vertical unbundling of RAO UES and regional energos**
  - Generation
  - Transmission
  - Distribution
  - Retailing businesses
- **Horizontal unbundling**
  - Generation
  - Retail
- **Separation of network ownership and system operation**
- **Wholesale market administrator (ATS)**



# Proposed Reforms

## Current Market Structure



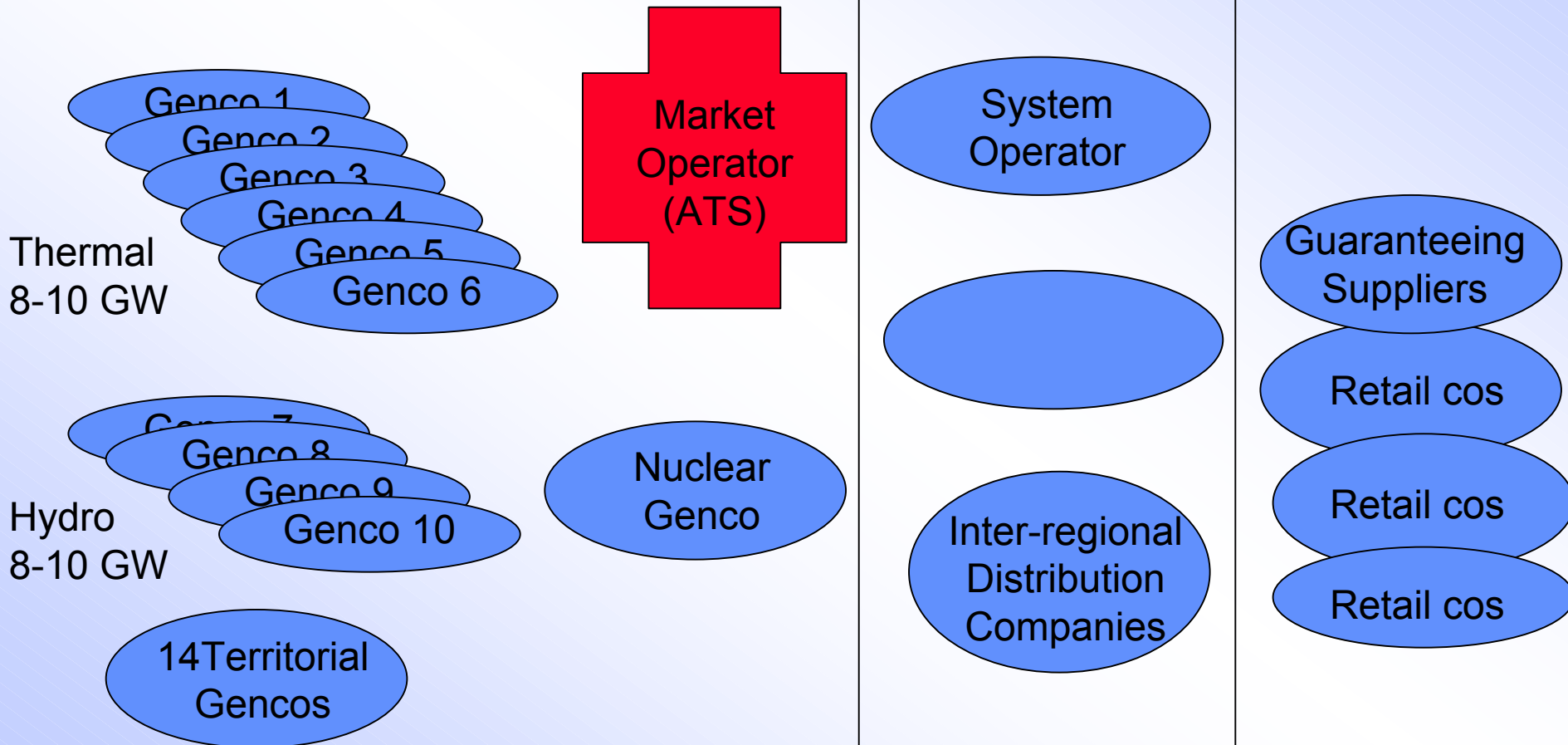
# Proposed Reforms

## Target Market Structure

Wholesale

Network

Retail



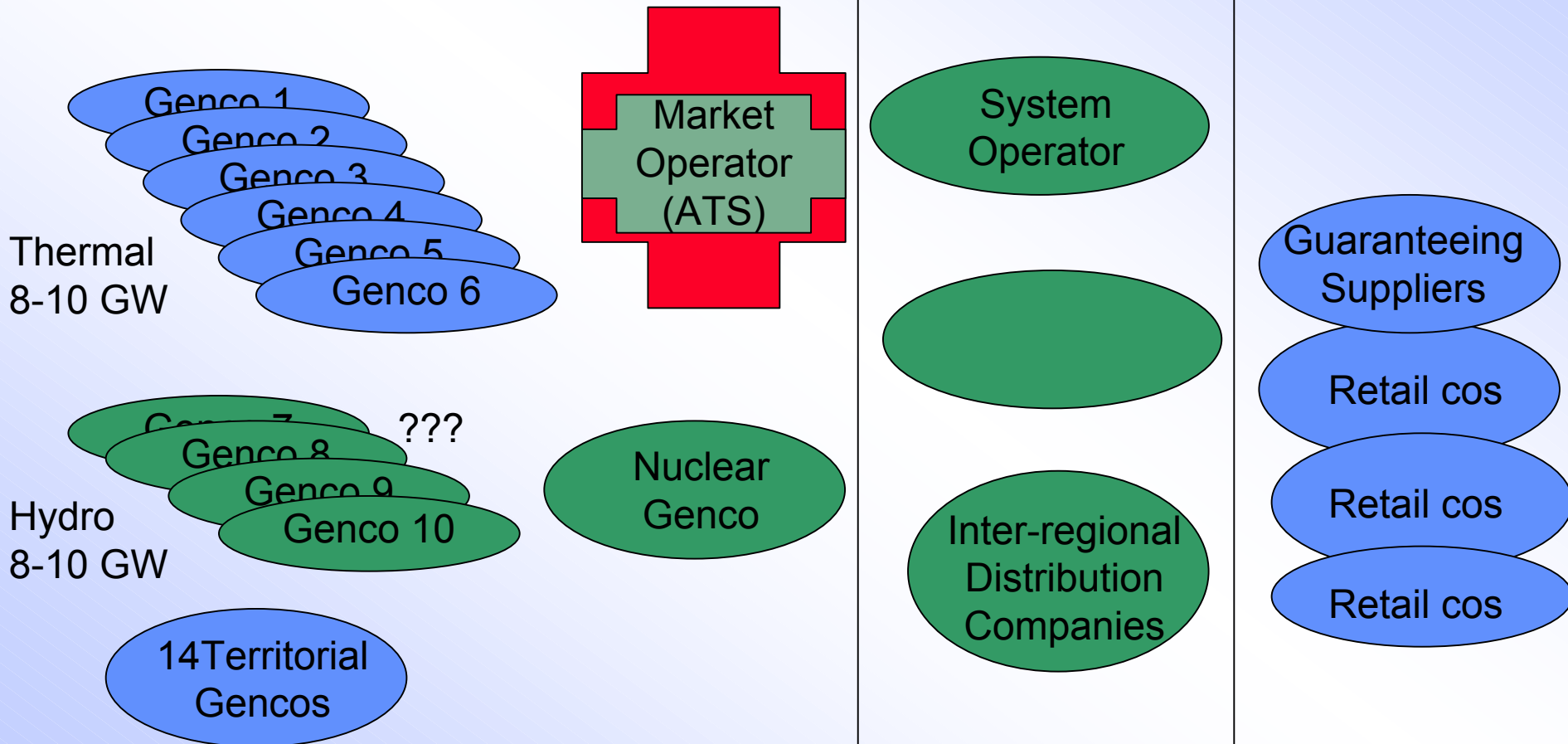
# Proposed Reforms

## Target Market Structure

Wholesale

Network

Retail



# Proposed Reforms

## Market Design

- **Legislative basis / foundation**
- **Key components of the Wholesale Market:**
  - Bilateral Contract market
  - Day-ahead Spot Market
  - Intra-day Balancing Market
- **Nodal Pricing**
  - Locational Marginal Pricing - 5500 nodes
  - Importance of Financial Transmission Rights (FTRs)



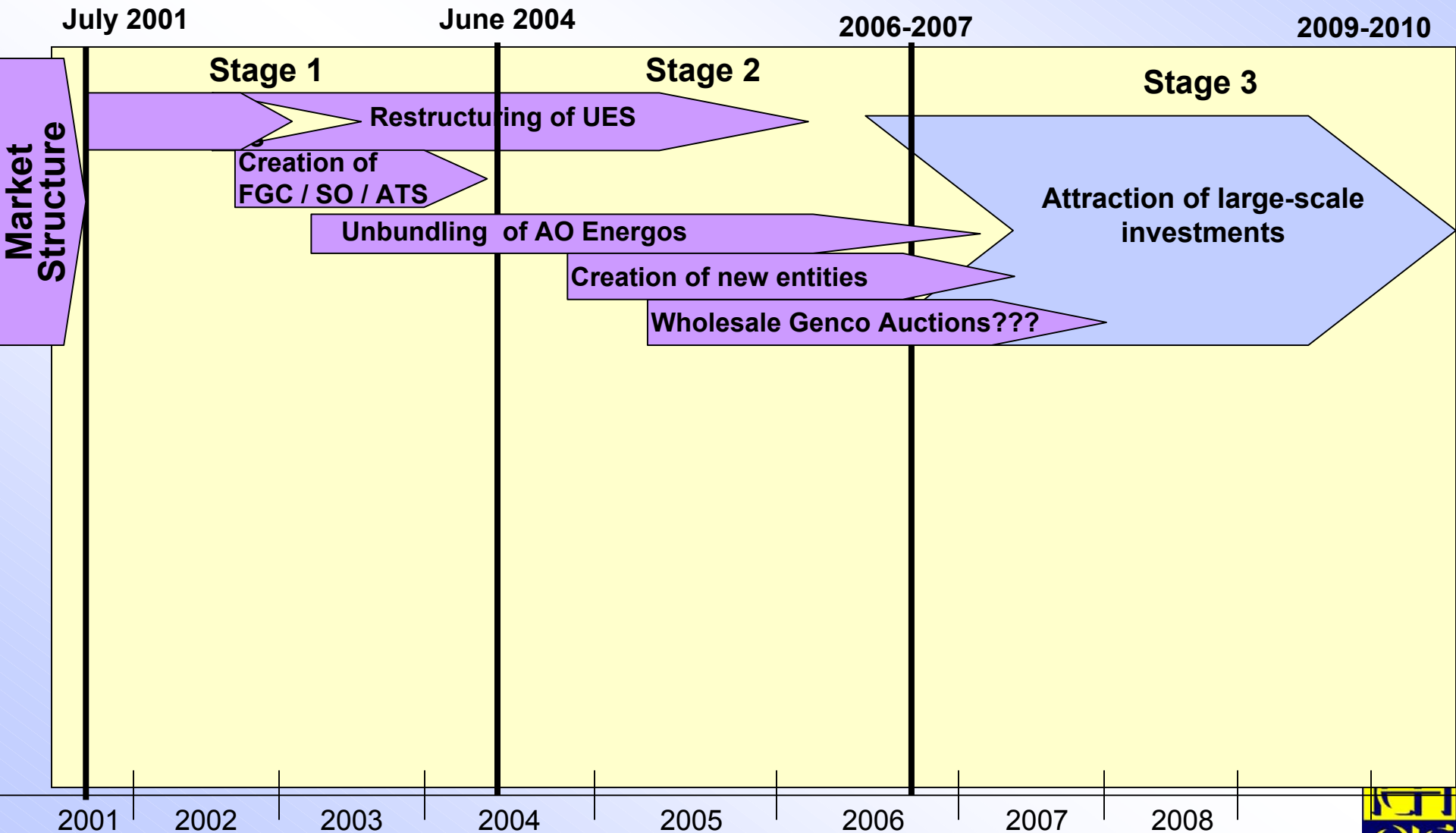
# Proposed Reforms

## Regulatory Framework

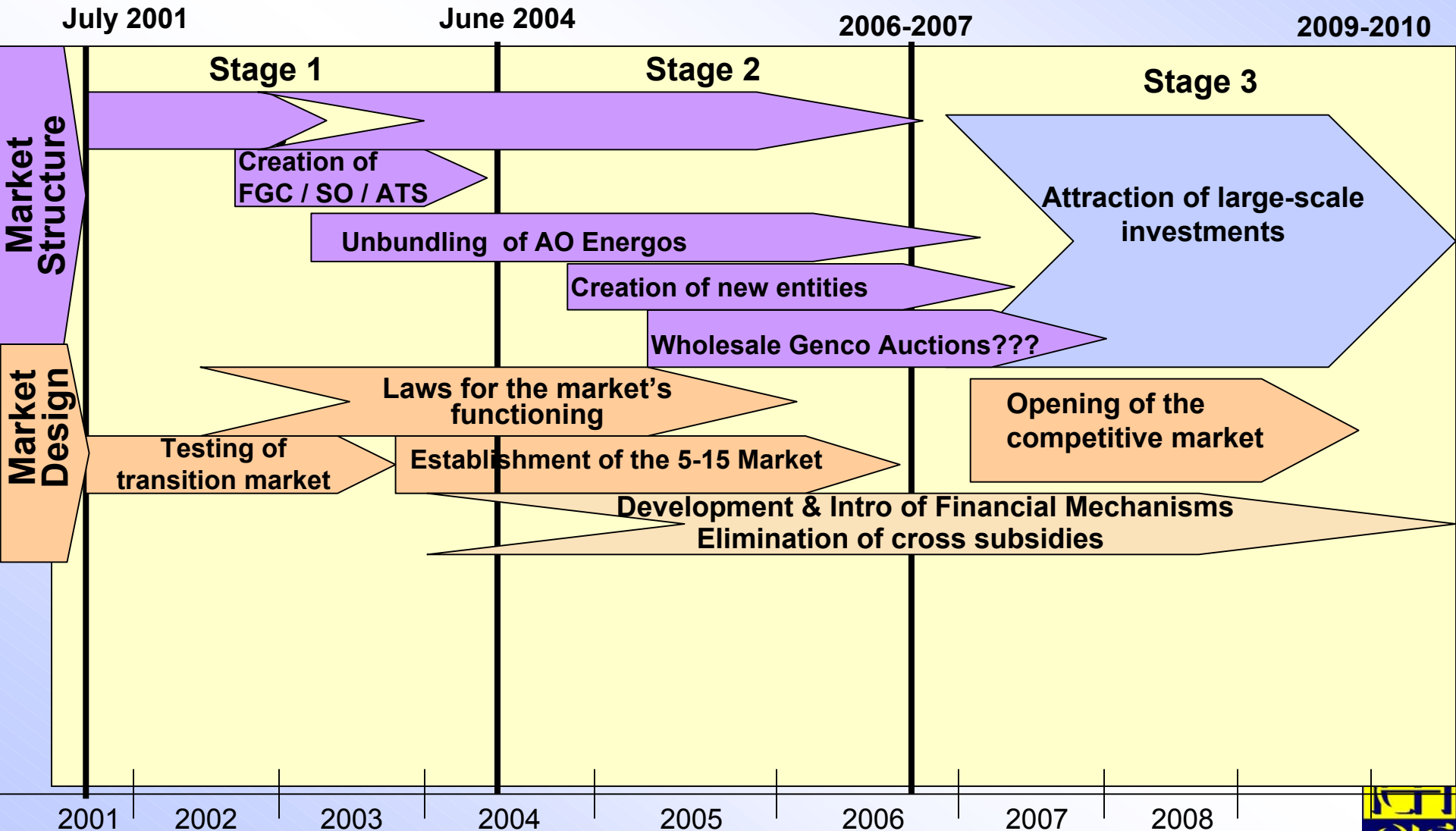
- **Comprehensive and integrated regulatory framework has been proposed (Government Decision 865-r, 06/03):**
- Regulation of entry (and exit in some cases) to wholesale and retail markets
- Regulation of market structure, market operation and conduct
- Regulation of prices and access to network services and to other regulated services
- Regulation of new investment
- Regulation to protect consumer interests.



# Proposed Reforms Implementation Strategy

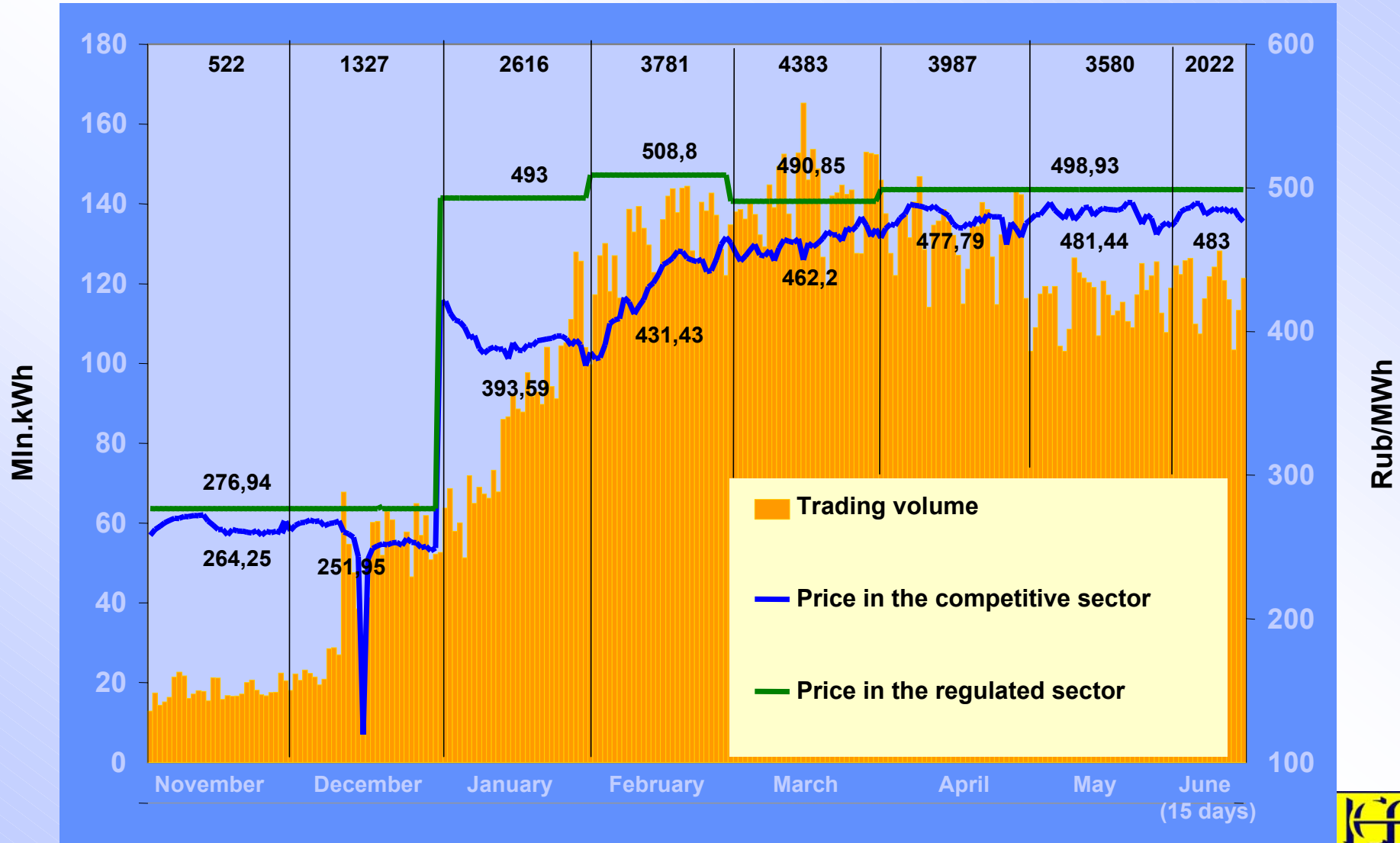


# Proposed Reforms Implementation Strategy



# 5-15 Market: Volume & Price Dynamics

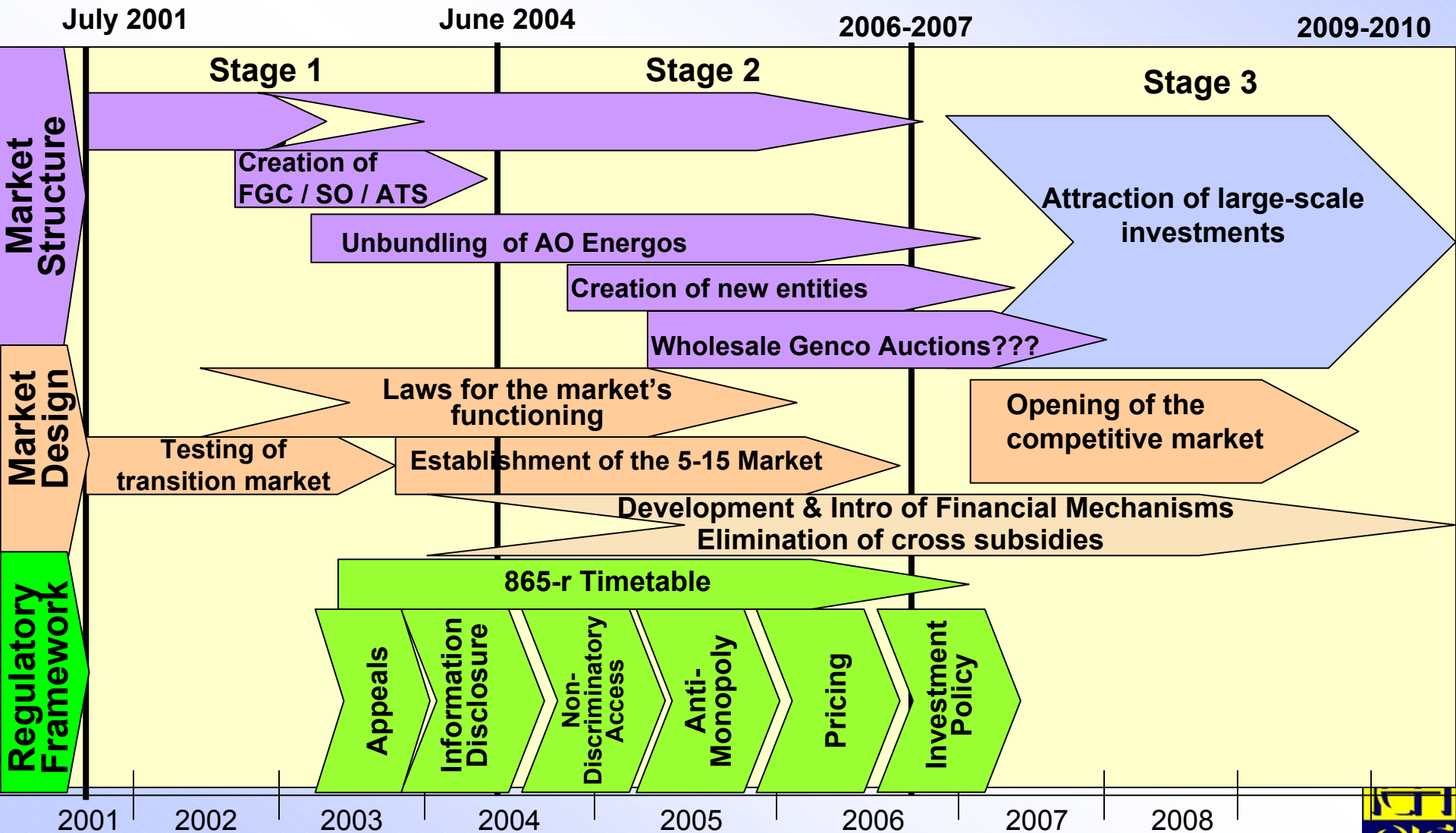
## Market Design



Source: NP ATS

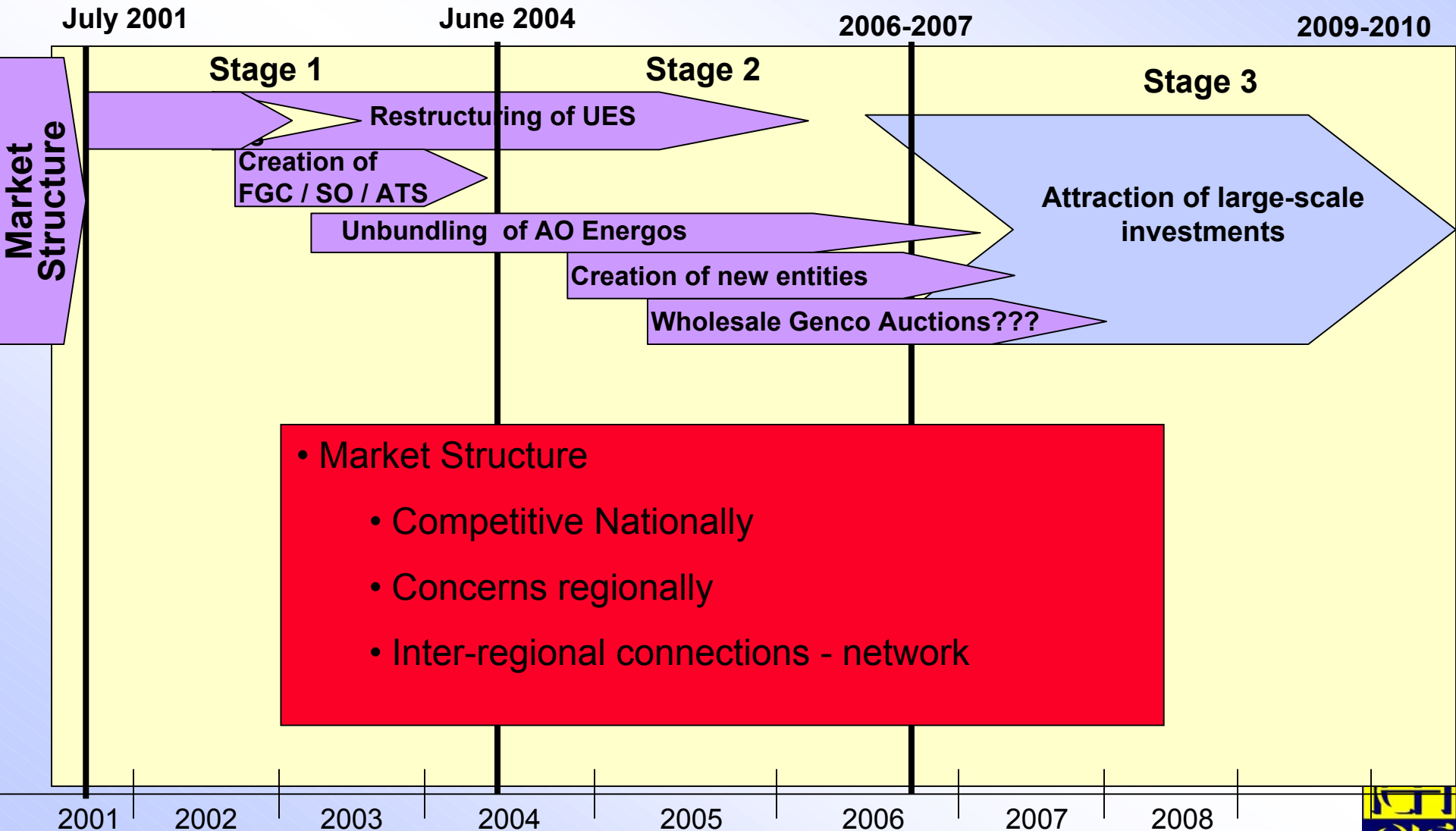


# Proposed Reforms Implementation Strategy



# Issues

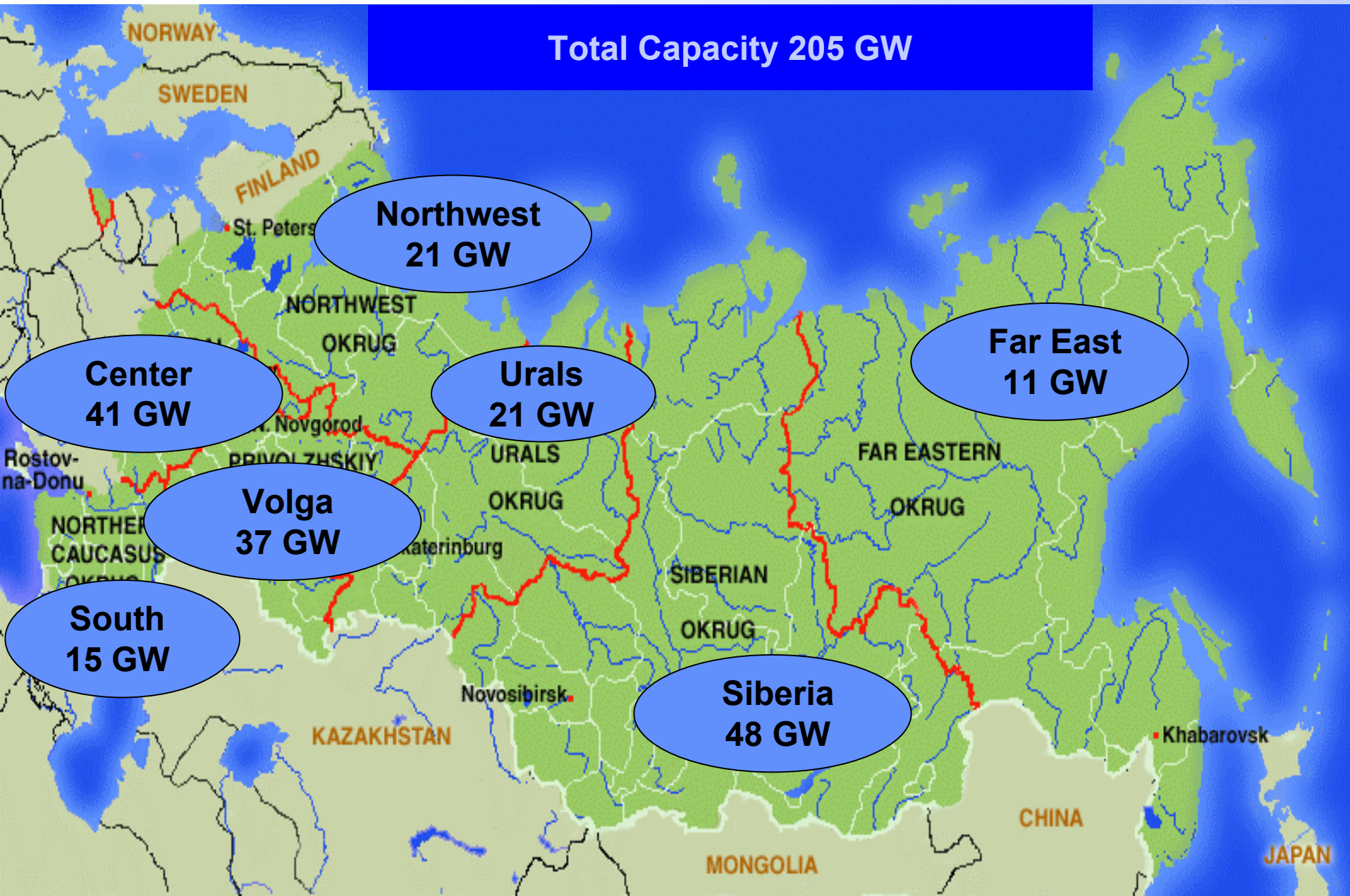
## Market Structure



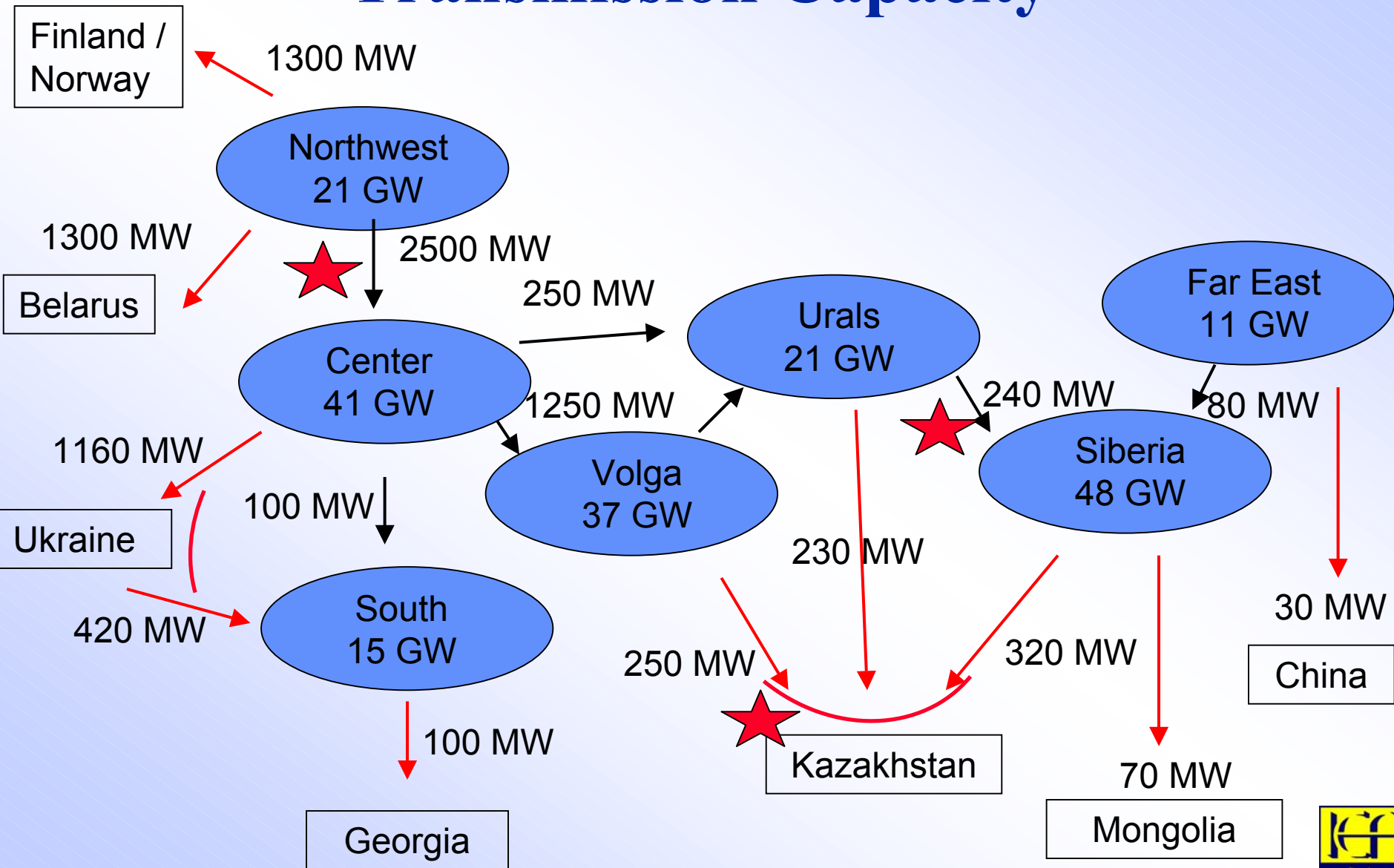


# Russian Electricity Capacity

Total Capacity 205 GW



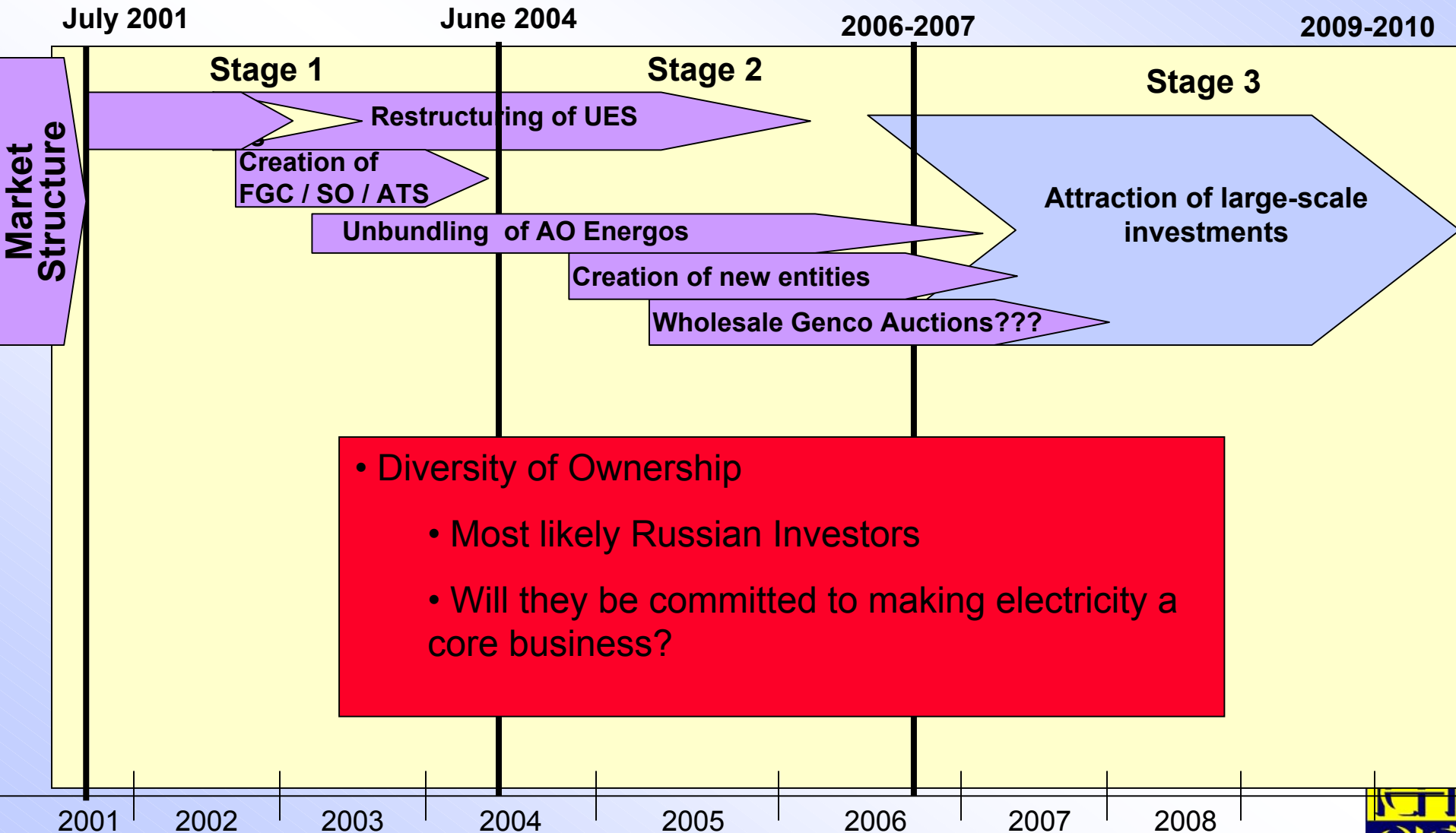
# Russian Electricity Generation & Transmission Capacity





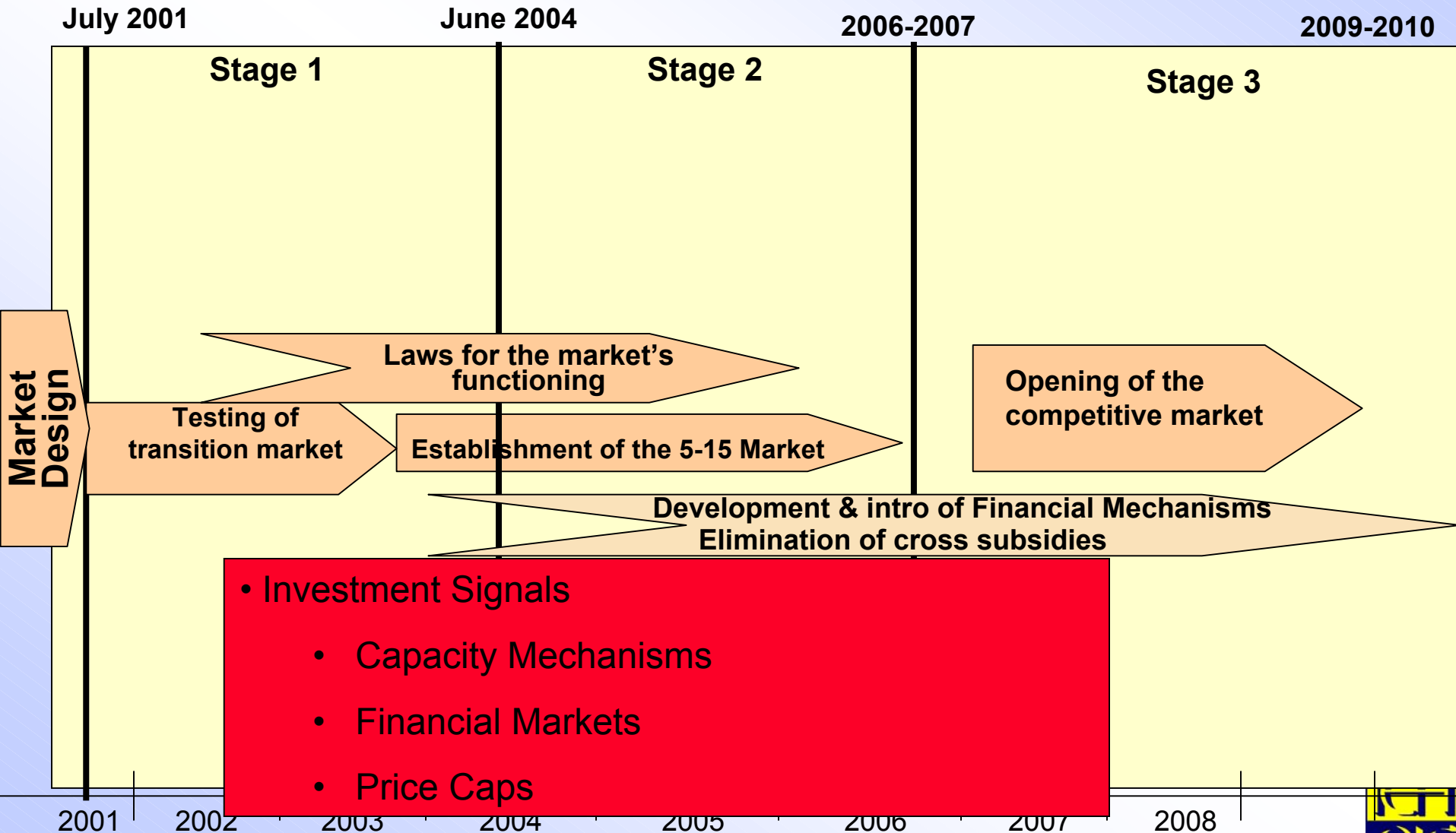
# Issues

## Market Structure



# Issues

## Market Design



# Issues

## Regulatory Framework

July 2001

June 2004

2006-2007

2009-2010

Stage 1

Stage 2

Stage 3

- Tariff Rebalancing
  - Need to get rid of cross-subsidies
- Competitive Neutrality Issues
  - Owner / Regulator / Participant
- Ensure enough resources to Antimonopoly Service

Regulatory Framework

865-r Timetable

Appeals

Information Disclosure

Non-Discriminatory Access

Anti-Monopoly

Pricing

Investment Policy

2001

2002

2003

2004

2005

2006

2007

2008

# Institutional Framework

- **Government Restructuring**
- **Effective Co-ordination between Policy, Regulatory and Institutional Bodies**
  - Market Operator and System Operator
  - Federal Tariff Service and regional bodies
  - Different government agencies
- **Institutional Arrangements**
  - Independence and integrity
  - Regulatory decisions should be – and be perceived to be:
    - Robust
    - Objective
    - Consistent
    - Transparent
  - Federal Tariff Service – responsibility for setting regulated tariffs
  - Federal Antimonopoly Service – responsibility for access and competition



# **Russian Electricity Sector Reform**

## **Some Observations**

- **Ambitious implementation timeframe**
- **Impressive progress to date**
- **Substantial challenges ahead**

**SPACIBA!**

**Questions / Comments**

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