



RUSSIAN POWER REFORM: NEW BUSINESS FRONTIERS

RAO «UES of Russia»

2001

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CHAIRMAN'S FOREWORD

Russia is continuing its quest to establish a democratic society and a strong market economy. Through difficult and often painful processes of reforms over the last decade, Russia has already made significant progress in the liberalisation of its economy. For the first time since the beginning of the reform, the Russian economy is showing strong signs of recovery.

However, to maintain this positive momentum, it is essential for Russia to undertake wide-scale structural reforms, aiming to improve overall efficiency of the economy. Being one of the most energy intensive countries in the world, Russia needs to reform its utility sectors, power and gas industries, to fuel its economic recovery.

RAO "Unified Energy System of Russia" (RAO "UES of Russia") is leading the restructuring of the Russian energy sector. The management of the Company have always been the strongest advocate for reforms and proactive in developing the restructuring programme in partnership with the Government. The reforms will turn the Russian power sector into one of the most dynamic and attractive sectors in Russia, and the management and I personally, are committed to going through this exciting but difficult process.

We believe that the restructuring process will open up a broad spectrum of attractive strategic investment opportunities, and, indeed, participation of international strategic investors will be vital to the success of the Russian reforms. The success will be measured by how well they address the risks perceived by strategic investors and their consequent willingness to be a part of the Russian power sector. The Government of Russia and RAO "UES of Russia" are fully committed to working closely with interested parties to address their concerns.

This brochure outlines the RAO "UES of Russia" vision of the future reform process and provides a road map of the investment opportunities that may arise for international strategic investors. We believe that these opportunities are very exciting and will welcome further discussions with all interested parties.



A handwritten signature in blue ink, which appears to be "Анатолий Чубайс". The signature is stylized and fluid.

ANATOLY CHUBAIS
CEO RAO "UES of Russia"



EXECUTIVE SUMMARY



STRATEGIC PARTNERSHIP IN THE FUTURE OF RUSSIAN POWER

Russia continues on the path of reform and has made significant progress in establishing a democratic society and strong market economy. The reforms have been difficult and are incomplete. Nevertheless, for the first time since the beginning of the 1990s, the Russian economy is showing strong signs of recovery. Russia will now embark on far-reaching structural reforms to improve the overall efficiency of the economy. A particular area of focus will be the energy sector, including power and gas.

RAO "UES of Russia" is leading the process of reforming the energy sector. The reforms we are instituting will turn the Russian power sector into one of the most dynamic and attractive sectors for investment. Our management team is committed to ensuring the success of this exciting but difficult process. Participation of strategic investors is vital to reinvigorating the sector, and the commitment of such investors to Russia will be one measure of success of the reform program. The Government of Russia and RAO "UES of Russia" intend to work with strategic investors to ensure that the reform program is robust, profitable, and sustainable.

A staged reform process will progressively open the opportunity for strategic investors to take roles in upgrading and expanding existing generation facilities, initiating new Greenfield independent power generation projects, and ultimately acquiring controlling stakes in portfolio generation companies and regional energy supply companies.

Successful macroeconomic reform would underpin at least 3% per annum growth in electricity demand with growth in certain regions and market niches significantly higher. Also, existing available generation capacity will decline 3-4% per annum without substantial refurbishment. The combined effect will rapid-

ly tighten reserve margins, increase the value of security of supply for key industrial customers, and dictate unregulated prices needed to support investment in new capacity.

An environment of liberalised pricing, strong demand growth, and tight supply represents the fundamentals that have attracted and rewarded strategic investors in a number of liberalising and emerging markets worldwide. The ability to improve efficiency and reliability through application of internationally-refined best operating practices and through introduction of new technology in a marketplace dominated by older, less efficient production represents a powerful competitive advantage for new entrants.

The scale of the opportunities is virtually unparalleled. When the generation sector is restructured and privatised, the resulting sector will comprise a number of very large generating companies. Investors will have opportunities to acquire companies with installed capacity in excess of 10 GW and to become significant players in the largest power market in Europe. Acquisition of distribution and supply assets will secure access to a broad customer base with significant growth potential. That potential already exists today, albeit in specific market niches.

The liberalisation of the industry should resolve the problems of uncertainty in tariff regulation, allow access to quality customers, resolve the problems of enforceability of payments, address the new entry and licensing issues, and create financially transparent companies.



Although full privatisation of generating companies is scheduled for 2006 onwards, there are a number of earlier, less capital-intensive and potentially risk-contained investment opportunities in upgrading and expanding existing generation facilities and in implementing already-planned Greenfield projects. RAO "UES of Russia" has identified 10 such projects, each adding between 120 MW and 900 MW and with likely capital commitments ranging from \$30 million to \$450 million. Many of these projects will be structured under well-established Build, Own/Lease, Operate, Transfer (BOOT)-type contractual arrangements that should enable the investments to be financeable.

Involvement in these projects will provide hands-on experience in operating in the Russian power sector ahead of the major privatisations. Not only will this better position such early investors to make an informed decision as to how they might participate, but there are likely to be opportunities to leverage these early assets to provide advantages during the competitive process for privatisation of the large generating companies.

RAO "UES of Russia" is seeking multiple partners to bring the following contributions to this process:

- *Seed capital for investment*
- *Skills in operating in competitive markets*
- *Experience to help shape the path of reform and to add the details that are currently missing.*

Economic reality dictates that the active participation of strategic investors in the reshaping of Russian power sector will be a key ingredient of its successful reform. Similar to other emerging markets, Russia's access to equity and debt markets is limited. Under the current regulatory regime in the power industry, Russian power companies do not generate sufficient internal cash flow and cannot raise external finance to finance the large-scale construction. Participation of strategic investors in the construction of new capacity in Russia is therefore essential, and ensuring that the reforms address their concerns is a highest priority for RAO "UES of Russia" and for the Government of Russia.

REFORMING THE RUSSIAN POWER SECTOR

RAO "UES of Russia" is a vertically-integrated holding company that combines most non-nuclear generation, national transmission, and dispatch infrastructure and distribution. RAO "UES of Russia" is the largest power company in Russia, with 155.1 GW of installed capacity. The company underwent significant restructuring when a new management team, headed by Anatoly Chubais, joined in 1998. The management team undertook a number of initiatives to address key weaknesses of the company, including:

- *poor operating performance*
- *unsatisfactory payment collection*
- *weak financial control and discipline*
- *ineffective and rigid management systems*
- *inadequate investor relations*

Management has succeeded in improving the Company's performance in all of these areas. Measures to improve collection rates, negotiations of tariff revisions, and agreements with major fuel suppliers are reflected in the improved financial performance of RAO "UES of Russia", which has prepared its



financial reporting according to the International Accounting Standards (IAS) since 1998. In 2000, for the first time, RAO "UES of Russia" was able to report profits and significant growth in operating cash flow.

Major problems remain that cannot be resolved without fundamental changes in the ownership, structure, and regulation of the sector. The Russian power sector is increasingly inefficient in its existing form and there has been little development of new infrastructure over the past decade. Though the government retains a majority stake in RAO "UES of Russia" and its subsidiaries, it has been willing to provide only limited financing. Cash receipts have been constrained by low tariffs and poor collection rates, and RAO "UES of Russia" has had only limited access to financial markets. As a consequence, RAO "UES of Russia" was obliged to reduce annual capital expenditures to 25% of pre-1990 levels. Power consumption declined throughout the 1990s, however, and the existing infrastructure was broadly sufficient. RAO "UES of Russia" believes that the present economic recovery in Russia will oblige the replacement of existing capacity and development of new capacity - power consumption is growing strongly and older infrastructure is no longer up to the task. It is estimated that US\$20-35 bn of new investments in generation capacity alone will be required over the next decade to meet expected economic growth.

The Russian government has decided to reform Russian power sector because the incumbents cannot meet the investment challenge alone and the existing investment framework has been relatively unattractive for new investors. The government also determined that changing the ownership, structure, and regulation of the sector would have the added benefit of improving the efficiency of the sector.

Overall the restructuring process will build an electricity sector operating on principles that have been well established and proven robust in a number of liberalised markets around the world. The competitive market mechanisms should work particularly well in the Central European/Urals region where there are a large number of generation plants competing at every level of the capacity cost curve, reducing the likelihood for price manipulation.

Nevertheless the transition process to fully-liberalised pricing will only be brought about via an ongoing commitment to break the current business culture. This commitment, by RAO "UES of Russia", the Government and many industrial sectors, are clearly now on track, but it must be maintained.

The key principles of Russian restructuring programme are in line with international trends of deregulation of power sector. The programme envisages a break-up of vertically integrated structures into competitive generation and supply sectors and regulated transmission and distribution. Deregulation of generation and supply will create a competitive market environment, thereby incentivising efficient electricity generation, increasing price transparency, and improving the attractiveness of Russian generation and supply sectors to strategic investors. The reforms will be framed and implemented over the course of the next 5 to 10 years in three stages.



STAGE ONE

The first stage of the reforms will be completed by 2004. It involves setting up the legislative framework and creating a market infrastructure for the competitive market. The first stage will comprise the following actions:

- *Separation of the national grid company and the system operator*
- *Reorganisation of RAO "UES of Russia" generation into new generating companies*
- *Liberalisation of rules for new entry into generation*
- *Separation of the distribution and supply businesses of regional energy companies*
- *Transfer of transmission assets into the national grid company*
- *Liberalisation of prices for independent power producers*
- *Introduction of regulations and tariffs for non-discriminatory access to transmission, distribution and market infrastructures.*

Stage one will also involve significant reorganisation of the ownership structure of both RAO "UES of Russia" and the regional energy companies:

- *RAO "UES of Russia" will be split into an independent transmission grid company, a system operator, and several generation companies with direct shareholding by the government and minority shareholders*
- *RAO "UES of Russia" stakes in regional energy companies will be consolidated into a single "Regional Energo" holding company*
- *Some of the regional energo companies may be permitted to merge into supra-regional companies*
- *Larger generating plants will be hived off as stand-alone companies, but may evolve into independent generation companies*
- *Continuing improvement of wholesale market regulations and procedures.*

STAGE TWO

The second stage of the reforms will involve full liberalisation of the wholesale and retail markets and expansion of the competitive market. The details of this stage of reforms have not been finalised, and we expect strategic investors to be involved in these discussions. Measures under consideration include the following:

- *Consolidation of the national grid company and the system operator*
- *Agreement of the legislative framework for competitive wholesale and retail power markets*
- *Full liberalisation of the wholesale market*

The objective of the second stage of reforms is to complete deregulation of the sector, create competition in wholesale and retail markets, and establish favourable investment environment. This stage should be completed in the 2006/2007 timeframe.

STAGE THREE

The third stage of the reforms is expected to raise investment in the sector through privatisation of the generating companies and the regional energy companies. This step would extend for 3-4 years beyond the end of the second stage. Key steps in the third stage include:

- *Transformation of the national grid company into a fully state-owned company*
- *Sale of controlling stakes in the generating companies to competing, strategic investors*
- *Development of the national transmission grid to expand the competitive wholesale market.*



OBSTACLES ON THE PATH TO THE FUTURE

Restructuring the power sector is designed to address a number of potential investors' current concerns. Liberalisation of the industry would effectively resolve the problems of uncertainty in tariff regulation, allow free access to customers, improve enforceability of payments, address the new entry and licensing issues and create financially transparent companies.

The major uncertainty in generation sector stems from the ambiguity about fuel prices. Russia currently enjoys access to reliable and cheap gas resources. Given this access and modern combined cycle generating turbine (CCGT) plants with the most competitive technology, natural gas will remain a major type of fuel for thermal power stations in Russia. It is currently unclear when deregulation of Russian gas industry will be implemented, thus creating uncertainty about cost of fuel for gas-powered stations. We believe, however, that domestic gas will continue to be priced favourably compared to international prices due to transportation differentials and limited export capacity.

RAO "UES of Russia" has explicitly designed early-stage opportunities as small-scale investment projects with attractive returns and upside opportunity in a successful market liberalisation. During the second stage of reforms, it is expected that regulatory framework of sector will be developed. A potential investor will be taking some market price risk as well as typical risks of a transition. The third stage of reform represents an opportunity to make sizeable acquisitions in the Russian market, but this will not occur until all parties can benefit from the clarifications of the reform transition.

The Russian transmission grid will continue to expand to resolve bottlenecks in various transmission links. Given the government's intention to retain its ownership in transmission assets, the most likely external financing for the expan-

sion projects will be in the form of debt financing, which would become possible after 2002, when a regulatory framework is fully adopted.

The Russian retail sector will be fully liberalised by the end of second stage. It is likely that regulators will allow intra-regional consolidation of transmission and distribution assets thus enabling access to a broader customer base and economies of scale. RAO "UES of Russia" envisages sale of its controlling stakes in distribution and supply companies once regulations for third party access are fully developed and retail markets are liberalised.

Restructuring the Russian power sector presents a number of exciting opportunities to be a sizeable player in the largest power market in Europe. These opportunities vary in scale of financial commitment and risk. Investments on earlier stages of reforms will be limited in scale, will have provisions for additional contractual protection, attractive value upside and will give a first-mover advantage in the follow-up privatisation of larger assets. Opportunities in the long-term will have significant size to attract attention of the largest industry players in the world and limited regulatory risk.

Participation of strategic investors in the restructuring of the Russian power sector is essential. The Government of Russia and RAO "UES of Russia" are committed to addressing the issues concerning potential strategic investors. As detailed regulations and mechanisms of participation of strategic investors in the sector are being developed, there is a unique opportunity for strategic investors to be involved in shaping regulatory framework to make investment environment in Russia more attractive.



I. OVERVIEW OF THE RUSSIAN POWER SECTOR

BACKGROUND

The Russian power sector, with installed capacity over 200 GW, ranks by capacity as the largest in Europe and the fourth largest in the world, after the US, China and Japan. Scattered over the vast territory, the majority of Russia's 450 power plants are concentrated in proximity to the most densely populated and heavily industrialised areas of European Russia, Urals and Southern Siberia.

Most of the plants are connected to their 21 million customers through the 44,000 km of high-voltage transmission grid and 2.6 million km of low-voltage distribution network.

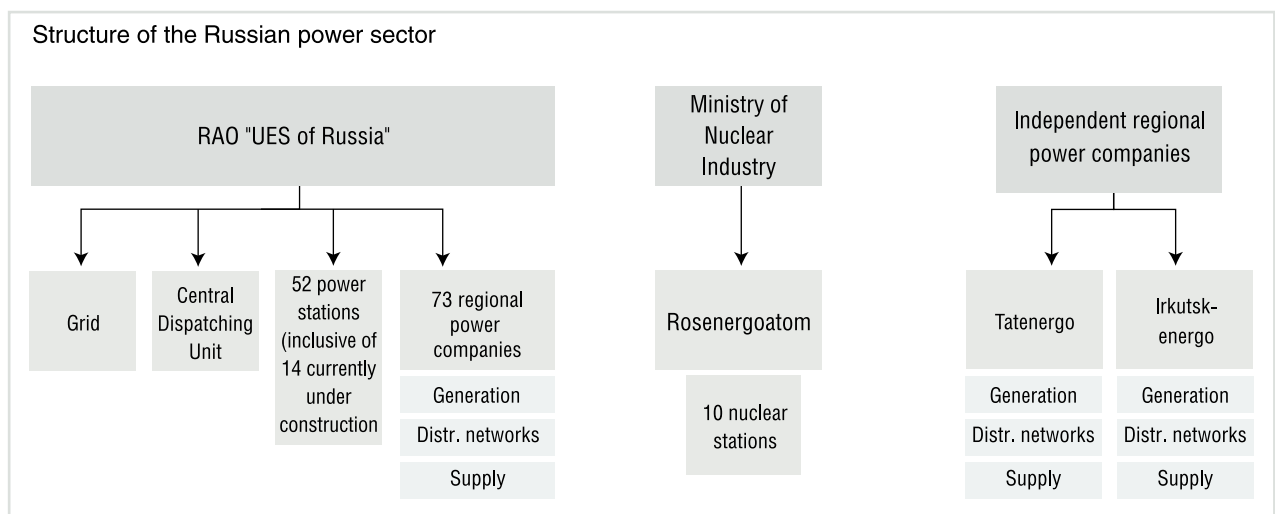
INDUSTRY STRUCTURE

Following privatisation of the power industry in 1992, all non-nuclear generation, transmission and distribution assets were divided between RAO "UES of Russia", a national holding company, and 75 regional power utilities ("energoes"). RAO "UES of Russia" retained: large thermal and hydro power plants with installed capacity of over 1,000 MW and 300 MW respectively, the national high-voltage transmission grid, Central

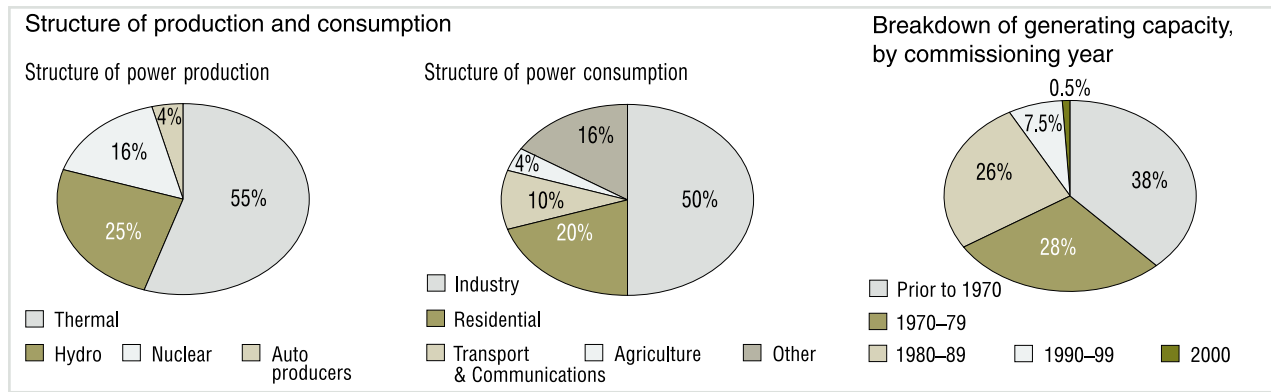
Dispatch Unit and significant equity stakes in 73 regional power utilities. Regional power utilities gained a regional distribution/supply monopoly and the majority of cogeneration assets in respective regions. Minority stakes in RAO "UES of Russia", large power plants directly controlled by RAO "UES of Russia" and regional power utilities were privatised. All of Russia's nuclear power plants remained under the state's control and are managed by the Ministry of Nuclear Industry (MinAtom).

Fifty five per cent of electricity is generated by traditional thermal plants and cogeneration plants, producing both electricity and heat. Hydro power stations and nuclear plants contribute 25% and 16% respectively.

A distinctive feature of the Russian power sector is the widespread use of cogeneration plants, which account for approximately a third of installed capacity. Unlike other countries, Russia and most FSU and Eastern Europe have developed extensive heat distribution systems.



I. OVERVIEW OF THE RUSSIAN POWER SECTOR



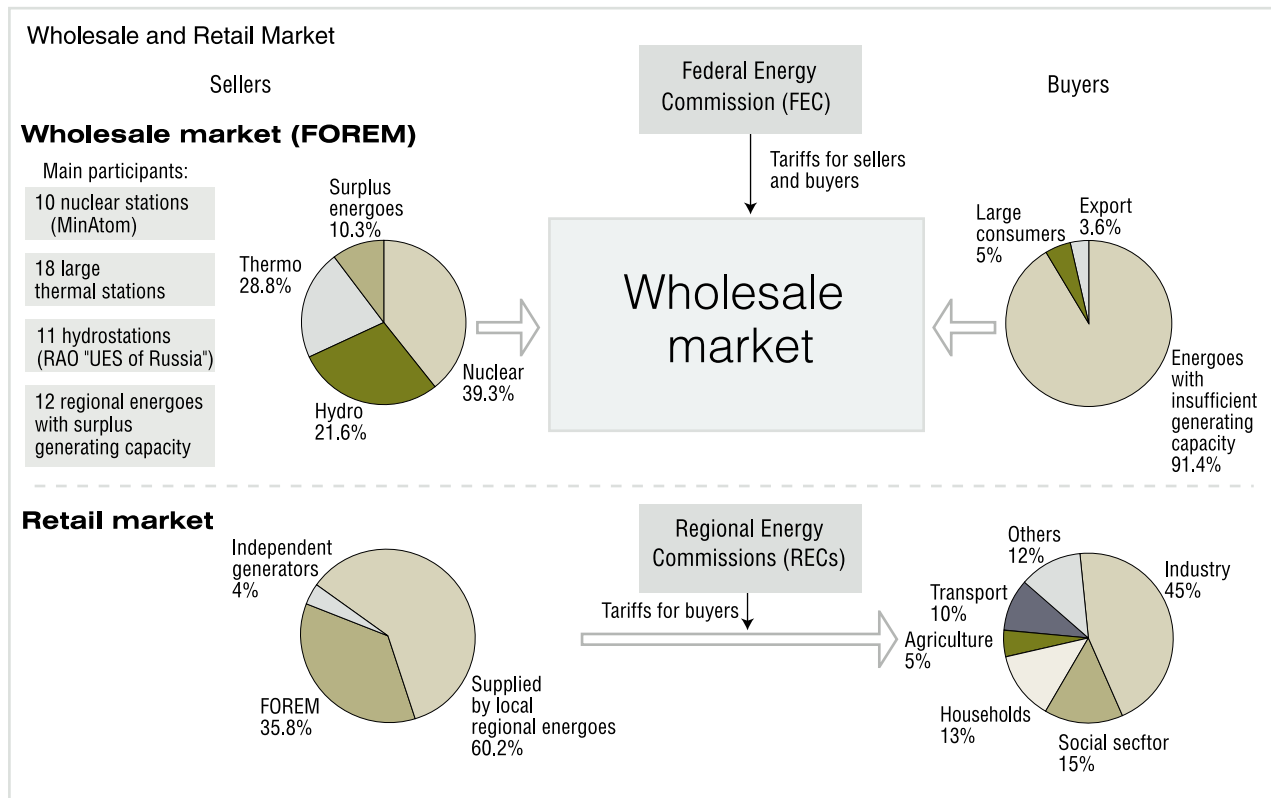
Industrial users consume 50% of the total electricity, with the energy and metals sectors accounting for 29% and residential customers accounting for approximately 20% of the total consumption.

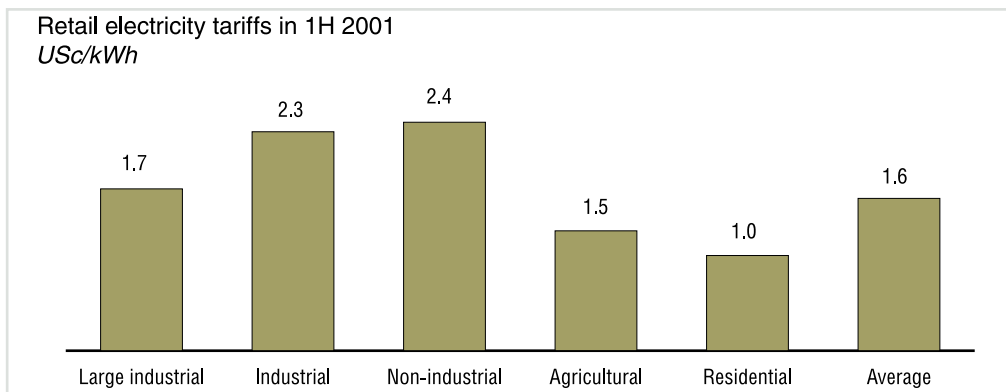
Prior to 1990, the age profile of Russian generating assets was generally similar to that of other European countries. However, due to non-payment problems and depressed tariffs, investments in construction of new capacity have fallen to 20-25% over the last decade. Underinvestment has resulted in accelerated ageing of the assets in the sector. Although this has not posed serious problems so far, due to the significant fall in electricity consumption in the past decade, the replacement of generating capacity is now becoming an

increasingly pressing issue as demand for electricity is expected to grow.

GOVERNMENT REGULATIONS

Electricity and heat tariffs are currently subject to government regulation. At the federal level, the regulation control is conducted by the Federal Energy Commission (FEC), which sets the tariffs for electricity in the wholesale power market and the usage of the national transmission grid on an annual basis. On the regional level, Regional Energy Commissions (RECs) set tariffs for electricity and heat for retail consumers.





The tariffs are calculated on the cost-plus basis and are finally determined as a result of negotiations between Federal and Regional Energy Commissions and power producing companies. Throughout the last decade the Government has used its control of electricity tariffs as one of the instruments to manage inflation and maintain competitiveness of the Russian economy. In practice, social and political aspects have had significant influence on setting the tariffs, and have resulted in significant delays and insufficient tariff increases. In the recent years growth in tariffs has failed to reflect increases in costs resulting from inflation or to cover certain items, such as the cost of capital. The protracted lag of electricity and heat energy tariffs behind price increases in industry has put significant pressure on the power companies, resulting in poor financial performance and underinvestment in the sector.

Administrative dispatching on the wholesale market and regional monopolies on the retail level, together with regulated tariffs, effectively ignore market signals and undermine incentives to improve efficiency.

Regional Energy Commissions continue the practice of cross-subsidising to finance residential consumers, state organisations and agricultural consumers, at the expense of industrial consumers.

COMPANY

RAO "Unified Energy System of Russia" is a vertically integrated holding company, which combines the majority of Russia's non-nuclear generation, national transmission and dispatch infrastructure and distribution.

RAO "UES of Russia" is by far Russia's largest electricity company, with 155.1 GW of installed capacity accounting for 72.5% of the total capacity. Thermal stations (121.3 GW) represent majority of its generating capacity,

with the remainder constituted of hydro power stations. RAO "UES of Russia" owns direct majority stakes in large generating plants, with capacities of over 1,000 MW and 300 MW for thermal and hydro plants respectively. Total installed capacity of such plants is 38.7 GW.

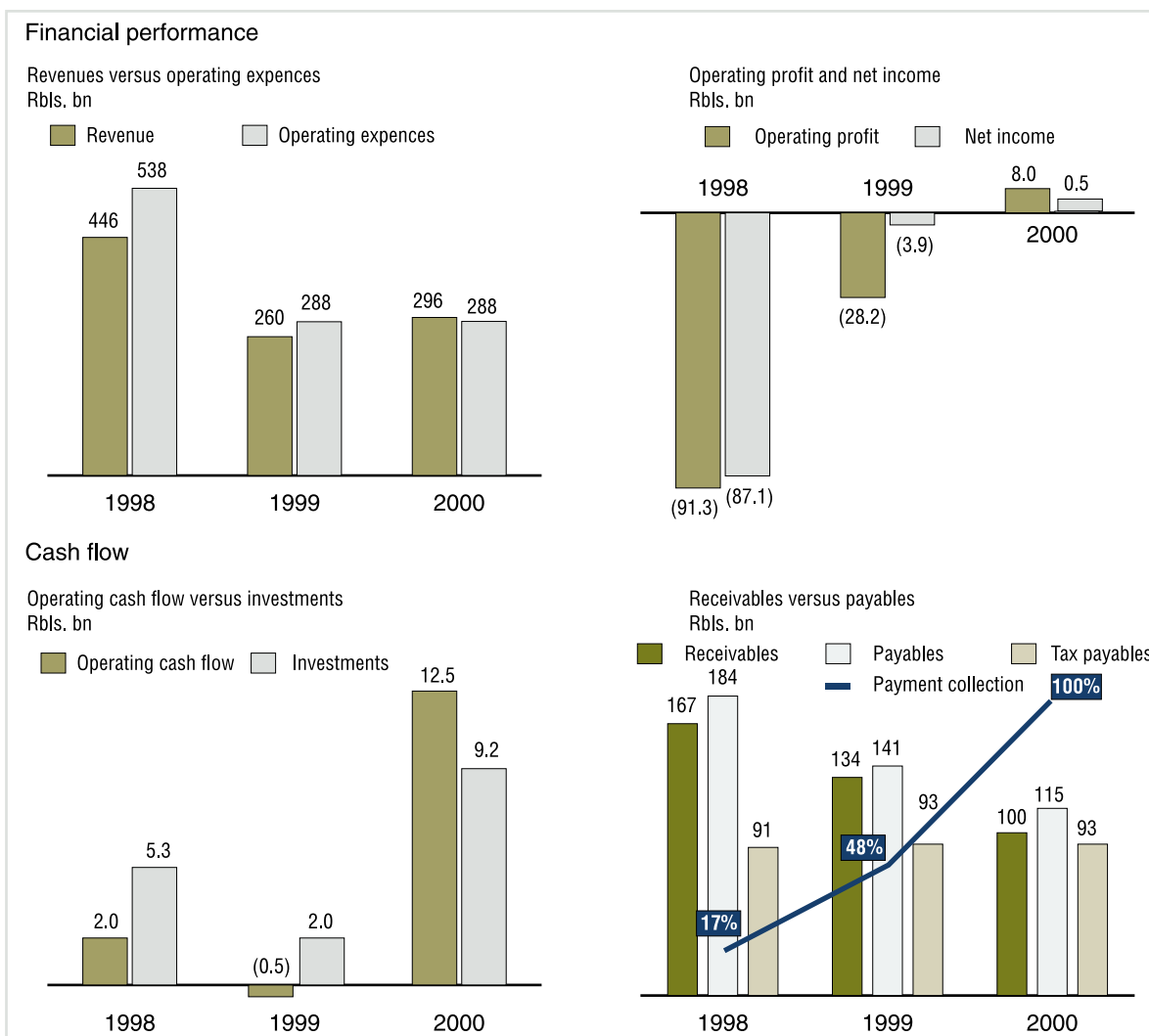
RAO "UES of Russia" is the largest producer of electricity and heat in Russia. For the first time in the last decade, RAO "UES of Russia" increased its electricity production achieving a 3.4% rise in 2000, strongly reflecting the wave of economic recovery in Russia.

Production in 1998-2000		
1998	1999	2000
Electricity production, TWh		
603.8	602.2	622.8
UES share of the total, %		
73.0	71.2	71.1
Heat production, mln GCal		
502.4	481.4	472.9
UES share of the total, %		
35.1	33.4	33.3

RAO "UES of Russia" owns 2.6 million km of transmission and distribution lines, which account for 96.3% of the total length of grid network in Russia. In 2000 the total length of high-voltage transmission grid was 143,300 km. RAO "UES of Russia" also owns the Central Dispatch Unit (CDU), which dispatches electricity in Russia and co-ordinates the federal wholesale market.



I. OVERVIEW OF THE RUSSIAN POWER SECTOR



RAO "UES OF RUSSIA" PERFORMANCE

RAO "UES of Russia" has undergone significant internal restructuring since the new management team, headed by Anatoly Chubais, joined the Company in 1998. The management has undertaken a number of initiatives to address key weaknesses of the Company. Among such weaknesses were poor operating performance, unsatisfactory payment collection, weak financial control and discipline, ineffective and rigid management systems and inadequate investor relations.

Management undertakings have already resulted in dramatic improvement in the Company's performance. Measures to improve collection rates, negotiations of tariff revisions and agreements with major fuel suppliers are reflected in the improved financial performance of RAO "UES of Russia", as demonstrated in its financial reporting according to the International Accounting Standards (IAS) since 1998.

In 2000, for the first time, RAO "UES of Russia" financials showed positive profit, driven by increased sales (up 14%) and flat operating expenses in 2000. Operating profit and net income were Rbls8.0 bn and Rbls493 mln respectively.

Improved performance has also been reflected in the Company's cash flow. Operating cash flow has increased to Rbls12.5 bn, allowing the company to increase its investments from Rbls2.0 bn* in 1999 to Rbls9.2 bn in 2000.

The RAO "UES of Russia" efforts to address poor payments discipline have resulted in a dramatic improvement in the payment collection from 17% in 1998 to 100% of the invoiced amount in 2000. These measures have allowed the company to reduce payables by 18% and keep tax payables flat.

* Figures in 1998 and 1999 are adjusted to purchasing power of Rouble as of the end of 2000.



II. REFORMING RUSSIAN POWER SECTOR

BACKGROUND

Despite many successful management efforts to improve the operating and financial performance of RAO "UES of Russia", there remain major problems which cannot be resolved without fundamental changes in the regulatory framework of the sector. As in many other countries, the Russian power sector has inherited a vertically integrated structure with an absence in practice of competition in the both retail and wholesale markets, together with a two tier system of government regulation of electricity tariffs. In addition, Russian power companies are under strong pressure from regional governments and legislation which currently prohibits disconnection of non-paying customers.

The Russian power sector has become increasingly inefficient due to the lack of market incentives to reduce production costs as well as progressive and now severe underinvestment in new capacity. While retaining a majority stake in RAO "UES of Russia" and its subsidiaries, the Government has effectively stopped financing of sector. Due to low tariffs, poor collection rates and very limited access to financial markets, RAO "UES of Russia" has been forced to reduce the level of new capacity construction to 25-30% compared to its pre-1990 levels.

The decline in power consumption in the 1990's allowed the Russian power sector to sustain lower investments in the past decade.

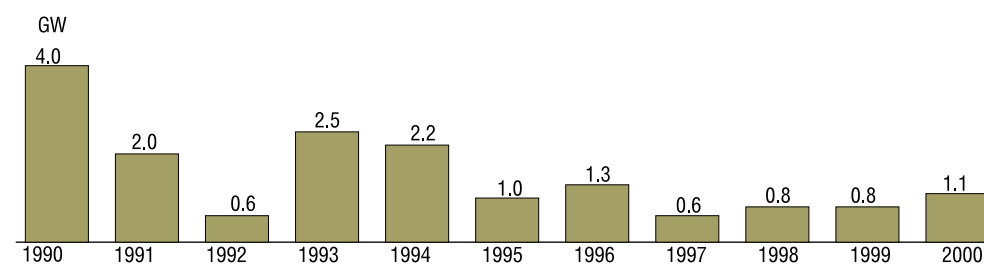
RAO "UES of Russia" believes, however, that the present economic recovery in Russia will highlight the need to replace and increase generating capacity due to the growth in power consumption and concerns over the inefficiency of older capacity.

It is estimated that over the next decade some \$ 20-35 bn of new investments in generation capacity alone will be required to meet expected economic growth. Comparing these estimates with the current market capitalisation of the entire Russian power sector, it is clear that under the current regulatory regime the financing of new construction on the required scale is not feasible for incumbent Russian power companies, and not attractive for new investors.

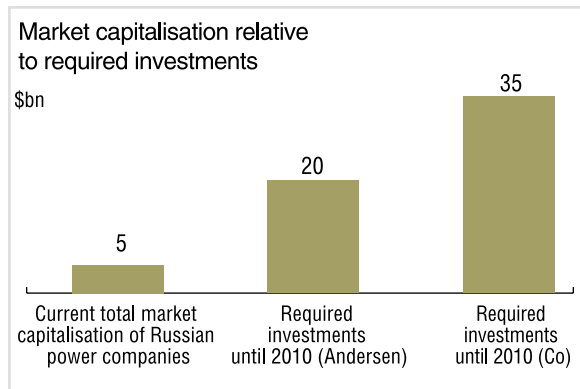
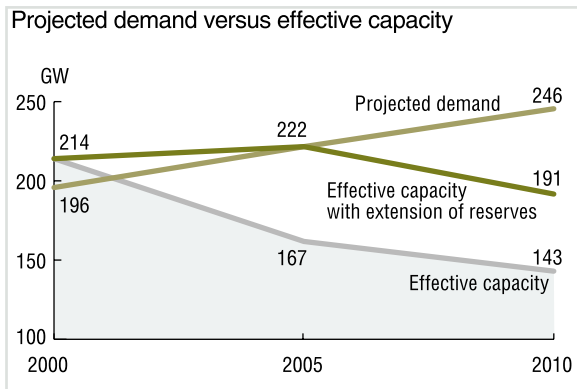
Realising the growing need to improve the investment appeal of the Russian power sector and improve overall efficiency through the introduction of competition, the Russian government has initiated development of a programme to reform the Russian power sector.

Following the decision of the Board of Directors of RAO "UES of Russia" in 1999, the Company's management developed an initial draft of the conceptual framework of the reforms. This framework initiated a number of meetings and discussions with government and legislative bodies throughout 2000 and was submitted for the consideration of the Russian Ministry for Economic Development by the end of 2000.

Construction of new capacity



II. REFORMING RUSSIAN POWER SECTOR



During the first half of 2001, the government and a special working group representing various stakeholders in the Russian power sector reviewed a broad range of alternatives for reforming the sector. Following an intensive debate, the government approved a pro-competitive restructuring plan developed by the Ministry of Economic Development in July 2001 thus making the start of the restructuring of the Russian electric power industry.

KEY PRINCIPLES OF THE REFORMS

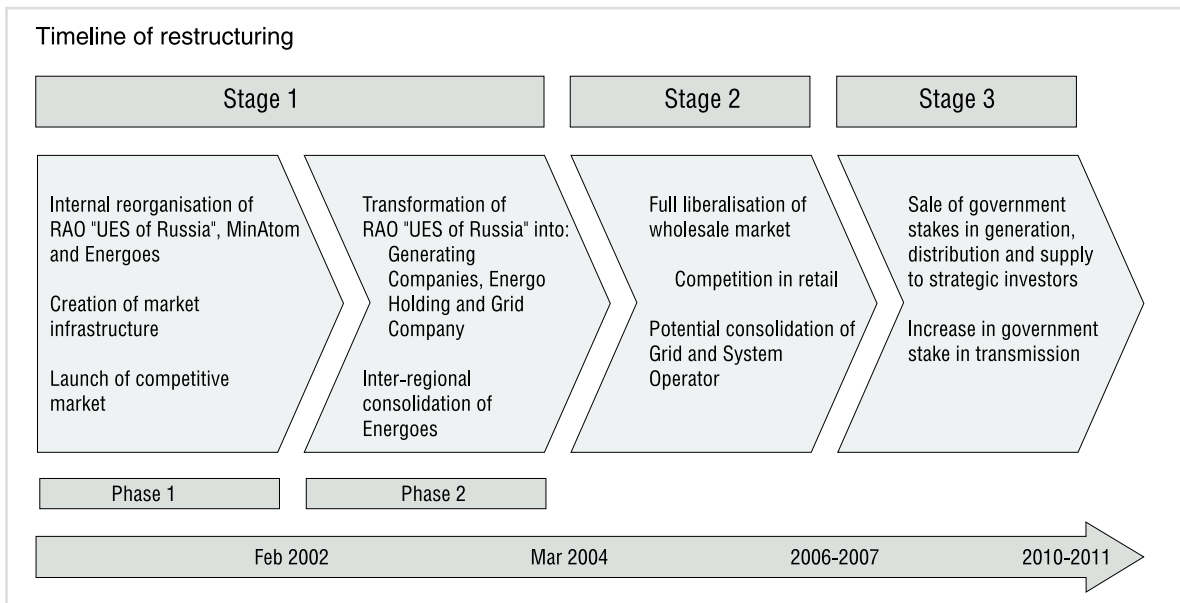
The key principles of the Russian restructuring programme are in line with international trends of deregulating power sectors. The programme envisages the breakup of vertically integrated structures into competitive generation and supply sectors and regulated transmission and distribution businesses. Deregulation of generation and supply is expected to create a competitive market environment, incentivise efficient production of electricity, reveal fair economic costs of pro-

duction and to improve the attractiveness of the Russian generation and supply sectors to strategic investors.

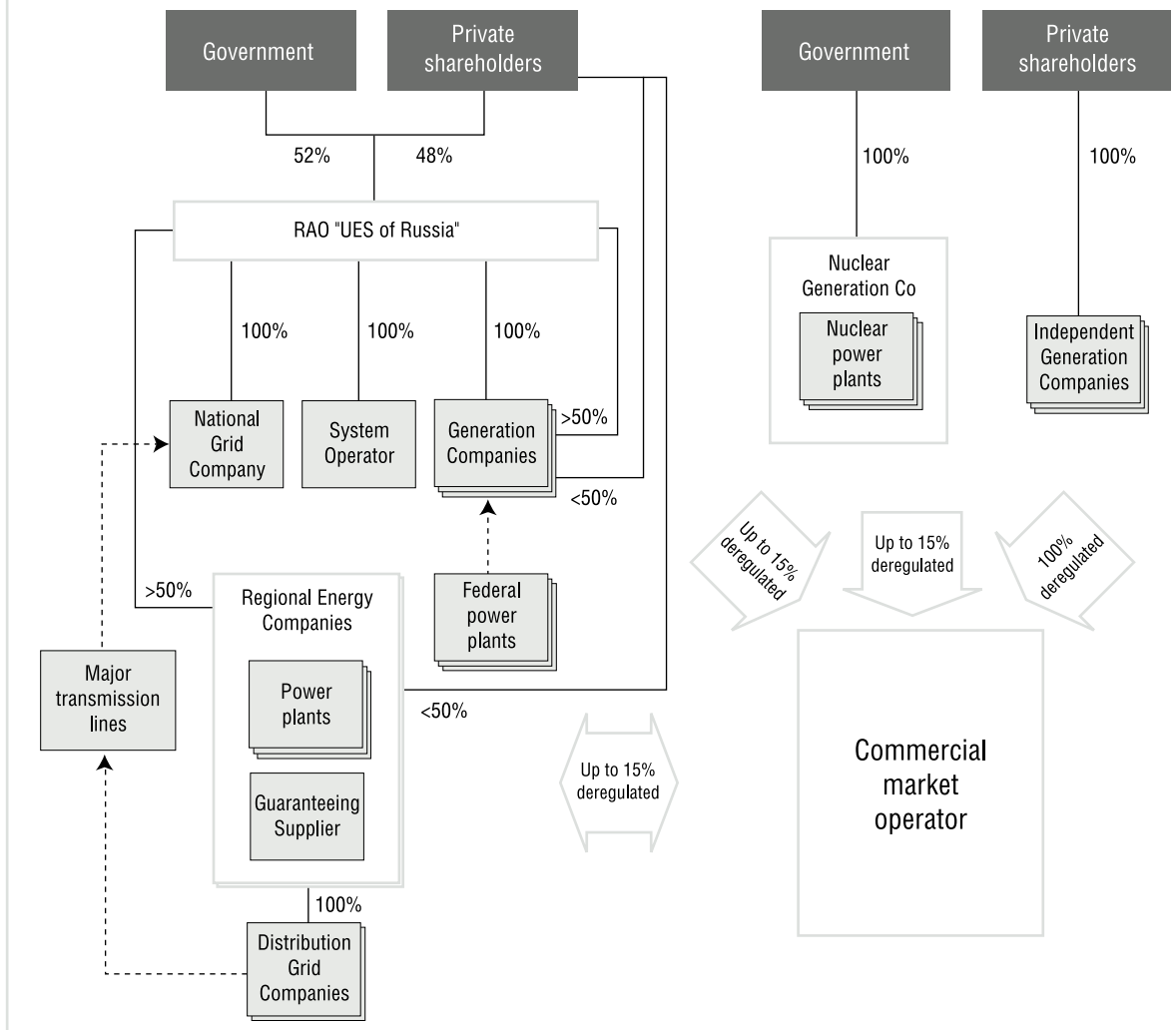
RAO "UES of Russia" generating assets will be reorganised into large independent generating companies, operating in a competitive market environment. These sizeable new generating companies will have competitive portfolios of assets, sound financial and operating performance and capacity to raise financing for large-scale new constructions. The sector will also be opened up to new, independent generation and supply companies.

Introduction of competition in generation and supply will be accompanied by the separation and further strengthening of the regulation of transmission and supply, to ensure non-discriminatory access to the infrastructure and to consumers and producers.

It is currently envisaged that the restructuring process will be implemented over the next nine to ten years, in three stages, as illustrated below.



Structural reorganisation:
Phase 1 of Stage 1



STAGE 1

The first stage of the reforms includes two phases and is expected to be accomplished within three years. This stage sets up the legislative framework and creates the infrastructure for the competitive market. The following tasks will be undertaken during the first stage:

- Development of the legislative base for the competitive market to be completed and submitted for the consideration of the Russian Parliament by the end of 2001
- Internal reorganisation of RAO "UES of Russia"
- Developing and testing the competitive market infrastructure

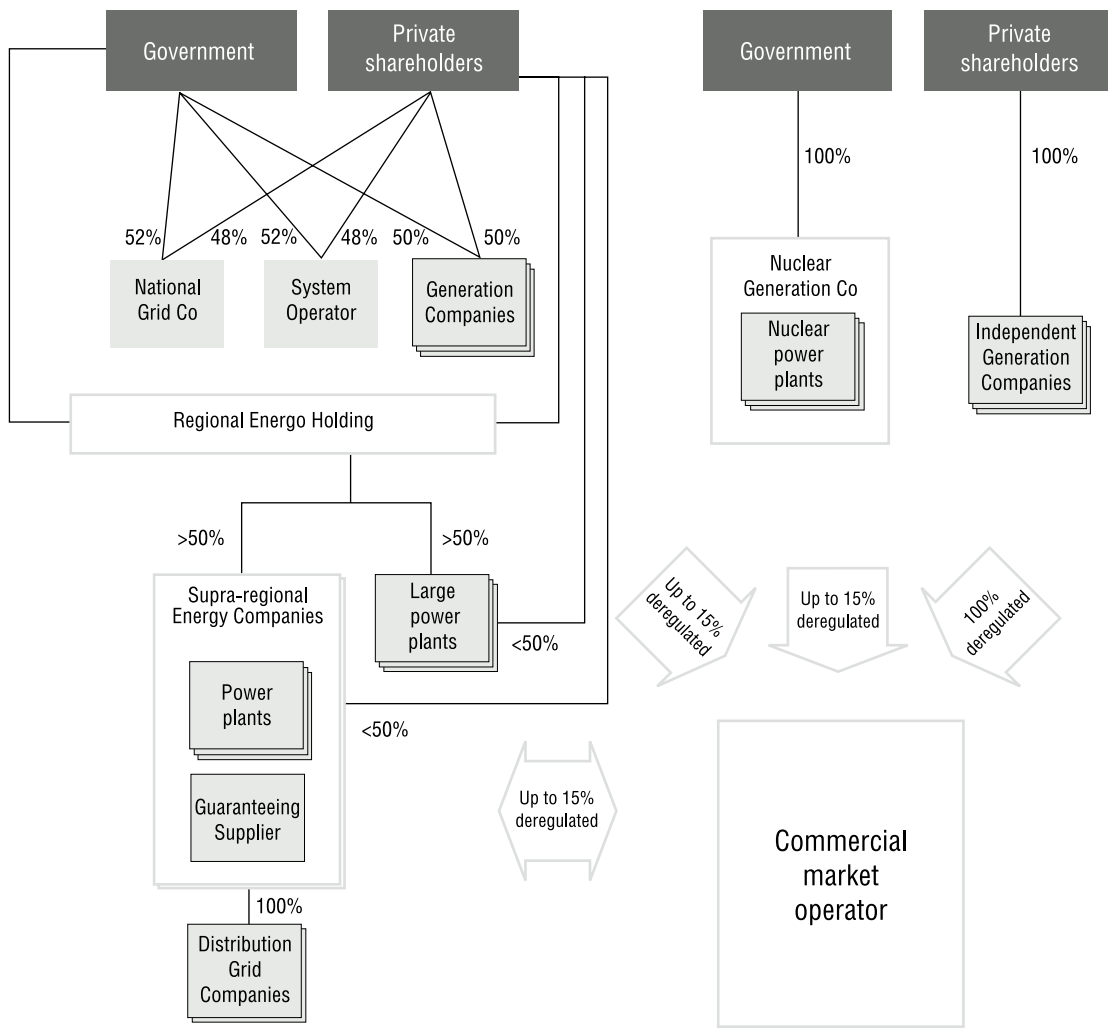
The objective of phase one is to undertake the measures which do not involve the interests of shareholders other than RAO "UES of Russia", while setting up the basis for the development of the sector's structure in the next phase and stage 2.

Phase 1 of the first stage includes:

- Separation of the national grid company and system operator
- Reorganisation into new generating companies of the power plants 100% owned by RAO "UES of Russia"
- Liberalisation of regulations for new entrants into generation (independent power producers)

II. REFORMING RUSSIAN POWER SECTOR

Structural reorganisation.
Phase 2 of Stage1



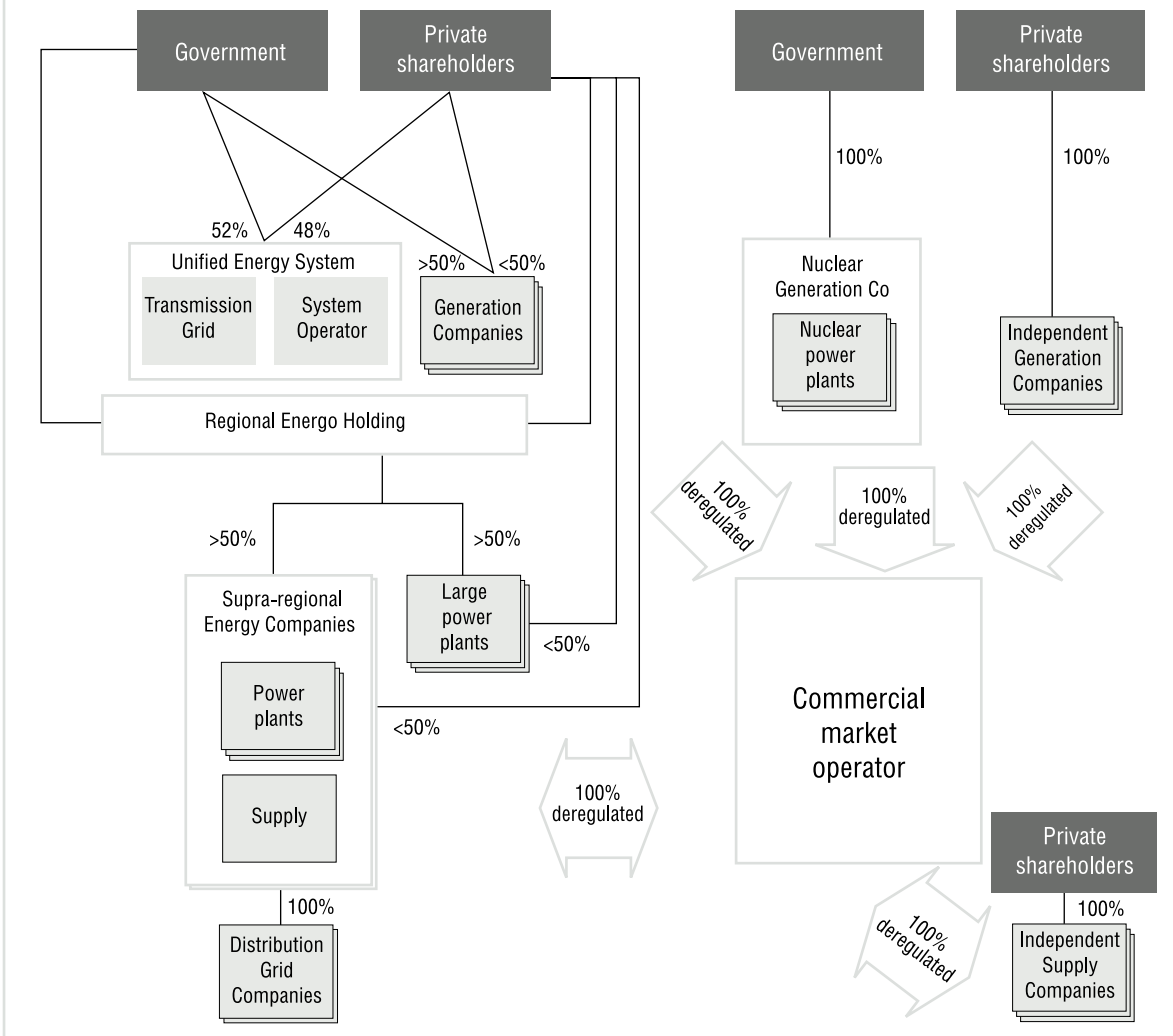
- Separation of regional energy companies' distribution and supply businesses
- Transfer of transmission assets to the national grid company
- Partial deregulation of tariffs on the wholesale market, to cover 5-15% of the total electricity traded in the market
- Complete price liberalisation for independent power producers
- Introduction of regulations to grant access to transmission, distribution and market infrastructures
- Introduction of non-discriminatory tariffs for access to infrastructure

The second phase of stage one will involve significant reorganisation of the ownership structure of RAO "UES of Russia" and regional energy companies.

These reforms include:

- Reorganisation of RAO "UES of Russia" into: independent transmission grid company, system operator, and generation companies with direct shareholding by the government and minority shareholders
- Consolidation of RAO "UES of Russia" stakes in regional energy companies into the Regional Energy Holding
- Consolidation of some regional energy companies into supra-regional companies may be allowed
- Separation into stand-alone companies of large generating plants which had been intended to be included into generation companies
- Continuing improvement of wholesale market regulations and procedures

Structural reorganisation:
Stage 2



STAGE 2

The principal objective of the second stage of the reforms, which is expected to be accomplished by 2006-2007, is the full liberalisation of wholesale and retail markets and the expansion of the competitive market from European Russia to the Urals and Siberia.

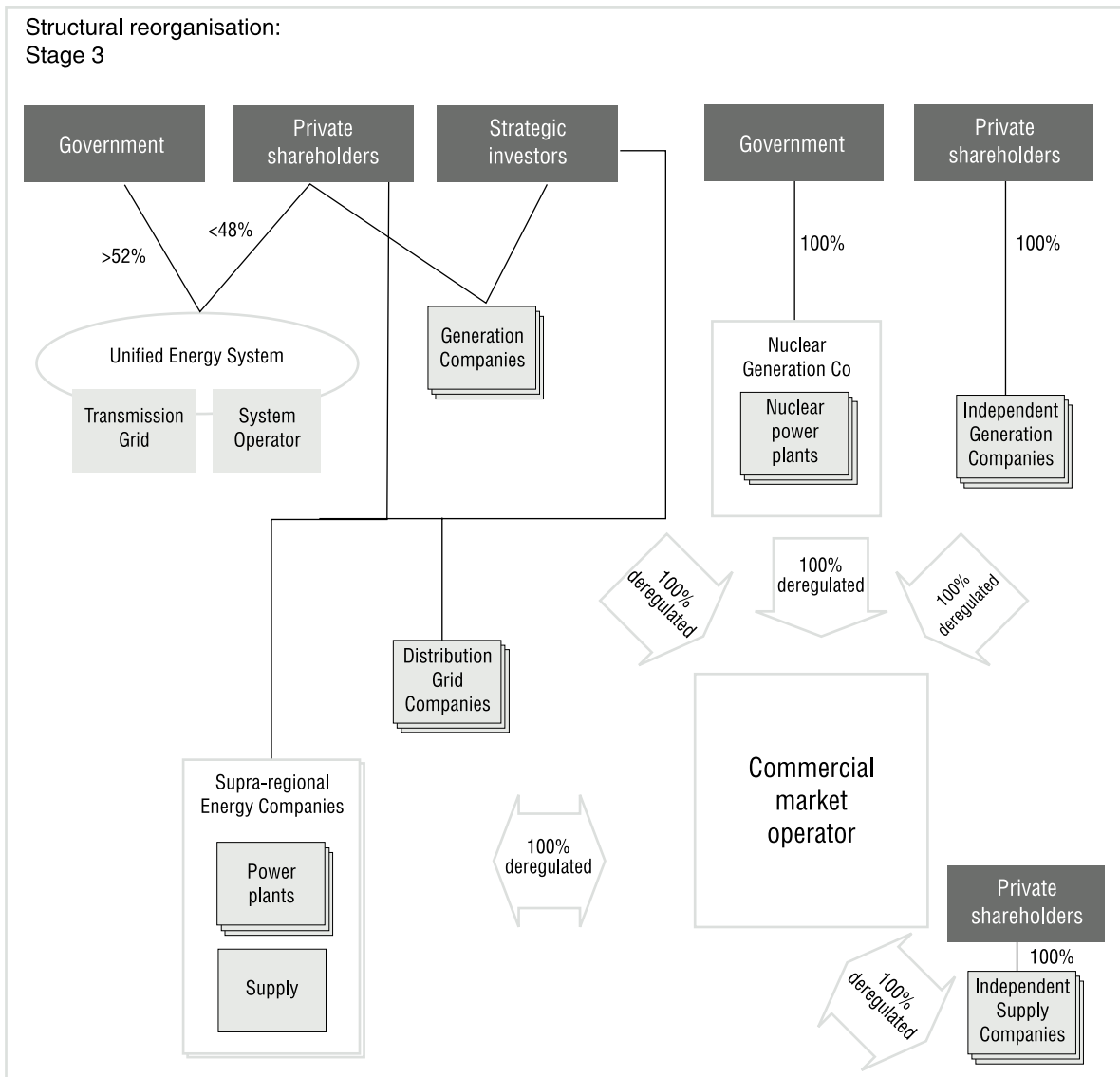
Measures to be undertaken during the second stage of reforms are:

- Consolidation of the national grid company and system operator to be considered
- Completion of legislative framework for competitive wholesale and retail power markets

- Complete deregulation of wholesale markets
- Deregulation of retail markets and liberalisation of new entry in supply

The objective of the second stage of reforms is to complete deregulation of the sector, create competition in wholesale and retail markets, and establish a favourable investment environment.

II. REFORMING RUSSIAN POWER SECTOR



STAGE 3

The objective of the third stage of the reforms is to increase investments into the sector, through privatisation of generating and regional energy companies. It is expected that the accomplishment of the third stage of reforms will require three to four years.

The key steps of the third stage include

- Increase of government stake in the national grid company
- Sale of controlling stakes in generating companies to strategic investors
- Development of the national transmission grid to further expand competitive wholesale market

Overall the restructuring process will build an electricity sector operating on principles that have been well-established and proven robust in a number of liberalised markets around the world. The competitive market mechanisms should work particularly well in the Central European/Urals region where there are a large number of generation plants competing at every level of the capacity cost curve, reducing the likelihood for price manipulation.

Nevertheless the transition process to fully liberalised pricing will only be brought about via an ongoing commitment to break the current business culture. This commitment, by RAO "UES of Russia", the Government and many industrial sectors is clearly now on track, but it must be maintained.

III. OVERVIEW OF INVESTMENT OPPORTUNITIES

A RANGE OF ATTRACTIVE NEW INVESTMENT OPPORTUNITIES WILL BE CREATED BY THE REFORM PROCESS

The stages of the reform process will open up the ability for strategic investors to progressively take roles in upgrading and expansion of existing generation facilities, initiate new Greenfield independent power generation projects, and ultimately acquire controlling stakes in portfolio generation companies and regional energy supply companies.

Healthy growth projections for the Russian economy, fired by the successes of general reform, should underpin at least 3% p.a. overall growth in electricity demand with niche selective regional growth significantly higher. At the same time the rate of decline of existing generation capacity will continue at 3-4% p.a. without substantial refurbishment investment. The combined effect should rapidly tighten reserve margins, increase the value of security of supply for key industrial customers, and dictate unregulated prices which will support the necessary investments in new capacity for several years to come.

This environment of liberalised pricing, good growth and tight supply represents the fundamentals which have attracted and rewarded strategic investors in a number of liberalising and emerging markets worldwide. The ability to raise efficiency and reliability through internationally-refined best operating practice as well as introducing the benefits of new technology in a marketplace dominated by older, less efficient production should prove a powerful competitive advantage for the new entrants.

The scale of the opportunities are virtually unparalleled: through the proposed privatisation of large generating companies, investors will have opportunities to become significant players in the largest power market in Europe and acquire companies with installed capacity

in excess of 10 GW. Acquisitions of distribution and supply assets will secure access to a broad customer base with growth potential.

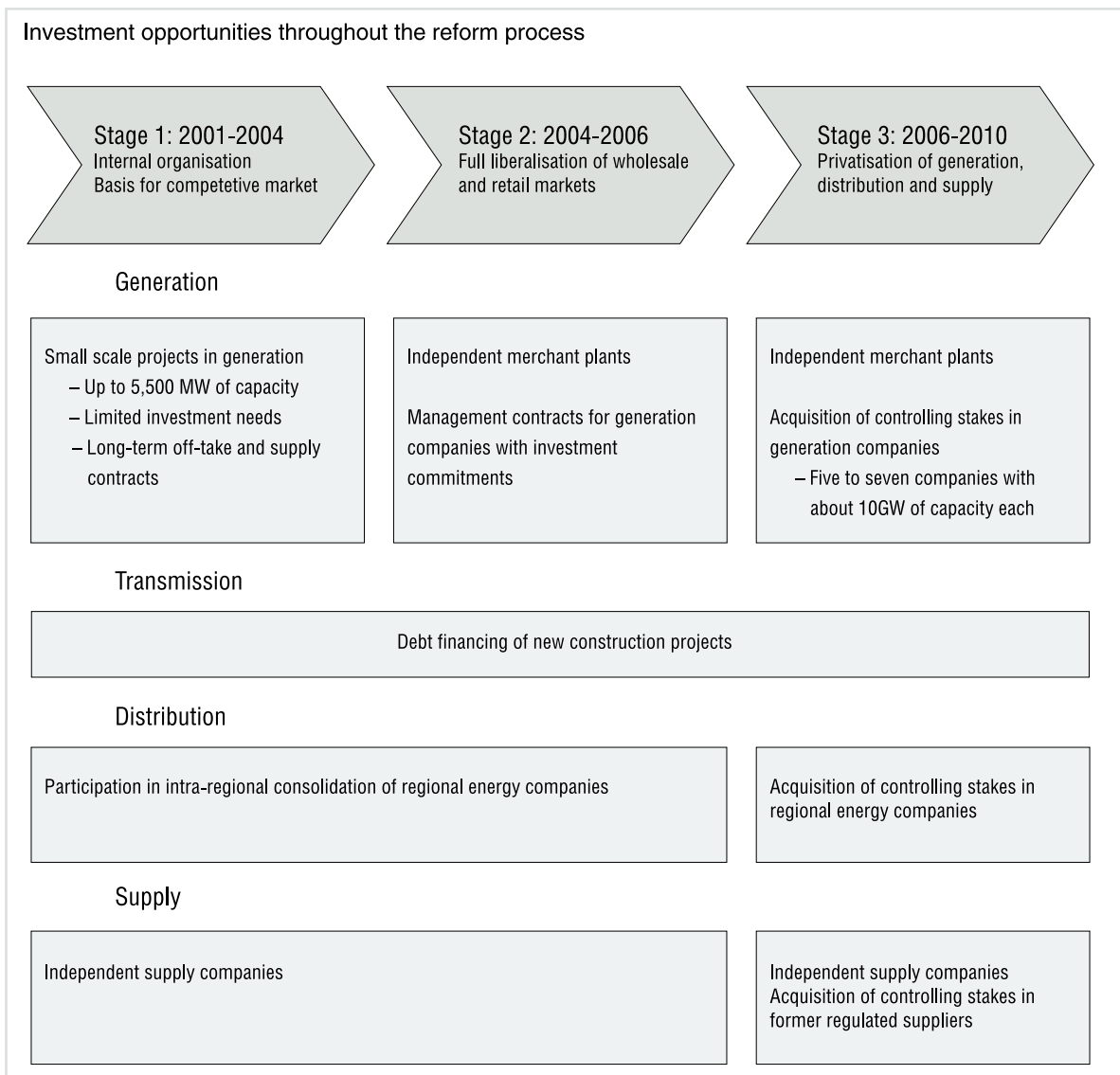
PARTICIPATION OF FOREIGN STRATEGIC INVESTORS IS VITAL FOR THE SUCCESS OF THE REFORMS

The economic realities dictate that the active participation of strategic investors in the reshaping of the Russian power sector will be a key ingredient of its successful reform. Similarly to other emerging markets, Russia's access to equity and debt markets is very limited. Under the current regulatory regime in the power industry, Russian companies do not generate sufficient internal cash flow to finance the large-scale construction and cannot raise financing externally. Therefore, participation of strategic investors in the construction of new capacity in Russia is essential, and ensuring that the reforms address their concerns is a highest priority.

The liberalisation of the industry should effectively resolve the problems of uncertainty in tariff regulation, allow free access to customers, resolve problem of enforceability of payments, address the new entry and licensing issues and create financially transparent companies.



III. OVERVIEW OF INVESTMENT OPPORTUNITIES



INVESTMENT OPPORTUNITIES THROUGHOUT THE REFORM PROCESS

Although full privatisation of generating companies is scheduled for 2006 onwards, there are a number of earlier, less capital-intensive and potentially risk-contained investment opportunities in upgrading and expansion of existing generation facilities as well as implementing already planned new Greenfield generation projects. Involvement in these projects will provide hands-on experience in operating in the Russian power sector ahead of the major privatisations. Not only will this better position such early investors to make an informed decision as to how they may participate, but there are likely to be opportunities to leverage these early assets to provide advantages during the competitive process for privatisation of the large generating companies.

GENERATION

As noted above, economic growth and underinvestment in generating capacity in Russia over the past decade are expected to rapidly reduce the capacity reserve margin below the critical level of 12-15% in the next three to five years. Therefore, we believe that once liberalised, electricity prices will be at or above the cost of new entry level, given the expected medium term deficit of generating capacity. In the long term we do not expect overcapacity in the market, and investments in the generation sector are expected to enjoy respectable returns.



The most efficient nuclear and hydro generation represents only approximately 40% of the installed capacity, with most of hydrocapacity located in Eastern Siberia, an area remote from the major consumption centres in European Russia. Relatively efficient large generating plants and old, inefficient cogeneration facilities represent the remainder. Hence, newer and more efficient generation should be robustly competitive baseload capacity in such environment.

A major uncertainty in the generation sector stems from the uncertainty about future fuel availability and prices. Russia currently enjoys access to reliable and cheap gas resources. Given this access, and modern CCGT plants, with the most competitive technology, natural gas will remain a major source of fuel for thermal power stations in Russia. However, it is currently unclear when deregulation of the Russian gas industry will be implemented, and this has caused uncertainty about the cost of fuel for gas-powered stations. We believe, however, that domestic gas will continue to be priced favourably, compared to international prices, due to the low cost of exploiting new reserves and the transportation differentials versus exported gas.

RAO "UES of Russia" has identified the following investment opportunities with different risk profiles for strategic investors, throughout the reform process:

INVESTING IN SMALL-SCALE INVESTMENT PROJECTS DURING THE FIRST STAGE OF REFORMS, WITH GUARANTEED RETURNS AND UPSIDES FROM MARKET LIBERALISATION. Ten projects have been identified, each adding between 120 MW and 900 MW with likely capital commitments ranging from \$30 million to \$450 million. Many of these projects will be structured under well-established Build, Own/Lease, Operate, Transfer-type contractual arrangements which should enable the

investments to be financeable. Such investments will give an opportunity to test the Russian market with limited capital commitment and guaranteed return at the initial stages, complemented by potential upside from deregulation of the wholesale market.

DURING THE SECOND STAGE OF REFORMS, POSITIONING IN THE MARKET THROUGH MANAGEMENT CONTRACTS WITH LARGE GENERATING COMPANIES, AND LIMITED INVESTMENT COMMITMENTS IN MAINTENANCE AND UPGRADES. It is expected that the regulatory framework of the sector will be developed by this stage and, therefore a potential investor will be taking on some market price risk as well as the risks of the transition period. By an early entry in the transition period, a strategic investor will have an opportunity to secure a sizeable market share and gain vital first mover advantage in positioning for the future sale of controlling stakes in new generating companies.

LARGER SCALE INVESTMENTS IN THE GENERATING COMPANIES DURING THE THIRD STAGE OF REFORMS. There will be an opportunity to make sizeable acquisitions in the Russian market by buying into one of the six to eight large generating companies with installed capacity 10-15 GW each.





TRANSMISSION

As a result of the reforms, the Russian government will retain, or increase its ownership of the national transmission grid. The reforms will provide for regulation of transmission fees, based on return on capital. Payment collection problems will be resolved once the market infrastructure becomes fully developed. Therefore, we believe that the national transmission grid will generate a steady cash flow with a quasi-sovereign risk profile.

The Russian transmission grid will continue to expand, to resolve the bottlenecks in transmission links between Central Russia and Northern and Southern European regions and Siberia. Given the government intention to retain its ownership in transmission assets, the most likely external financing for the expansion projects will be in the form of debt financing. Hence, **PARTICIPATION IN DEBT FINANCING WILL BECOME POSSIBLE AFTER 2002, WHEN THE REGULATORY FRAMEWORK FOR THE TRANSMISSION BUSINESS IS FULLY ADOPTED.**

DISTRIBUTION AND SUPPLY

The Russian electricity sector provides electricity and heat to a population of upto 140 million through 75 regional energy companies. Through restructuring, the distribution and supply businesses will be eventually separated and the retail sector will be fully liberalised by the end of the second stage. It is likely that the regulators will allow intra-regional consolidation of Russian distribution assets, thus enabling access to a broader customer base and realising economies of scale. **THE SALE OF CONTROLLING STAKES IN THE DISTRIBUTION AND SUPPLY COMPANIES SHOULD TAKE PLACE ONCE REGULATION FOR THIRD PARTY ACCESS IS FULLY DEVELOPED AND RETAIL MARKETS ARE LIBERALISED.** Expeditious decisions to enter the Russian supply market will give a first mover critical advantages and secure access to customers in the most attractive regions of Russia.



CONCLUSION

Restructuring of the Russian power sector presents a number of unparalleled opportunities to become a sizeable player in the largest power market in Europe. These opportunities vary in the scale of their financial commitment and risk. Investments in the earlier stages of reforms will be limited in scale, will have provisions for additional contractual risk protection, attractive value upsides and will give leverage and first-mover advantages in the follow-up privatisation of the larger assets. Opportunities in the long term will have significant size and scope, and will be designed to attract the attention of the largest industry players in the world while limiting regulatory risk.

The participation of strategic investors in the restructuring of the Russian power sector is essential. The Russian Government and RAO "UES of Russia" are committed to addressing the issues that might presently concern potential strategic investors. As detailed regulations and mechanisms of participation of strategic investors in the sector are being developed, there is a unique opportunity for strategic investors to be involved in shaping the regulatory framework to make investment environment in Russia much more attractive.





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